GEOENVIRONMENTAL ASSESSMENT
GLEBE FARM
STEYNING, WEST SUSSEX
VISTRY
GEA-21949AH-25-544
MARCH 2026

MEREBROOK
CONSULTING



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EXECUTIVE SUMMARY

A Land Contamination Assessment was requested by Vistry. The purpose of the assessment was to identify any contaminative issues associated with former land use at *Glebe Farm, Steyning, West Sussex* which might impact on the sites redevelopment.

SITE DETAILS				
Approximate Area (ha)	**Centred on OSGB Eastings, Northings**	**Previous Use(s)**	**Current Use**	**Proposed Use**
13.94	1518450, 111560	Agricultural	Agricultural	Residential

PHASE 1 NON-INTRUSIVE INVESTIGATION							
Geology			**Groundwater Aquifer**		**Surface Water**	**Radon**	**Flood Risk**
Made Ground	**Superficial**	**Solid**	**Superficial**	**Solid**			
Localised made ground expected	Head and River Terrace Deposits	Gault Formation Upper Greensand Formation	None within 1km	None within 1km	Unnamed stream directly to the NW flows into Black Sewer 110m N	RnC1 – no protection required	Rivers and sea: Low Surface water: Low - Medium Groundwater: Potential

PHASE 2 INTRUSIVE INVESTIGATION					
Geology			**Contamination**		**Waste Classification**
Made Ground	**Superficial**	**Solid**	**Source ► Pathway ► Receptor**	**Risk Rating**	
Localised pockets 0.40 to 0.70m thick	Head River Terrace Deposits	Gault Formation	Asbestos fragments located at surface of MHP03, within animal shelter	MODERATE / LOW	Non hazardous with the exception of the asbestos affected area

Geotechnical				
Foundations	**Buried Concrete**	**Roads and Pavement**	**Earthworks**	**Soakaway**
Traditional strip/trench fill footings at 1.0 m depth recommended outside the zone of influence of trees. Localised deepening due to engineered fill or tree influence. Bored piles may be required where deep traditional footings are uneconomic in close proximity to trees or for flat blocks.	DS-2, AC-2; Where engineered fill is site won from within Gault Clay Formation or disturbed pile arisings are reused, higher DS-4 and AC-4 will apply.	A CBR of 5% is recommended at the east of the site in Head Deposits or River Terrace Deposits. A CBR of 2% is recommended where Gault Clay is present near surface.	Preliminary cut and fill plan shows up to 2.0m of cut and fill required across the site. Earthworks Specification and Geotechnical Design Statement/Report should be produced	May not be feasible due to cohesive nature of the underlying soils. Infiltration tests in accordance with BRE365 shall be carried to assess suitability if soakaways are proposed.

RECOMMENDATIONS			
Remediation	**Waste / Re-use**	**Geotechnical**	**Other**
Hand picking of asbestos in affected area around MHP03 with verification of successful removal.	Materials Management Plan recommended to ensure suitable re-use of soils. WAC tests for wastes destined for landfill	High volume change potential to be adopted for the whole site.	

SECTION 1 INTRODUCTION

1.1 Vistry proposes to develop an area of land located at Glebe Farm, Steyning, West Sussex for residential development purposes. The proposed development comprises mixed low-rise residential properties with associated infrastructure, private gardens and parking areas.

1.2 This report has been prepared in support of the discharge of Condition 4 of planning consent reference: DC/21/2233 which is worded as follows:

"*Pre-commencement Condition: The development hereby permitted shall not commence until the following components of a scheme to deal with the risks associated with contamination, (including asbestos contamination), of the site be submitted to and approved, in writing, by the Local Planning Authority:*

(a) An intrusive site investigation, based on the findings and recommendations of the ASL Desk Study Report, to provide information for a detailed risk assessment to the degree and nature of the risk posed by any contamination to all receptors that may be affected, including those off site.

(b) Full details of the remediation measures required and how they are to be undertaken based on the results of the intrusive site investigation (b) and a verification plan providing details of what data will be collected in order to demonstrate that the remedial works are complete. The scheme shall be implemented as approved. Any changes to these components require the consent of the Local Planning Authority".

1.3 A site location plan and proposed development plan are presented in Appendix 1.

1.4 Merebrook Consulting Limited (Merebrook) has been commissioned by Vistry to undertake supplementary site investigation works and to advise on the geo-environmental implications of the redevelopment of the site for the proposed end use.

1.5 The objectives of the investigation are to:

i. Assess surface and sub-surface ground conditions present at the site;

ii. Identify hazards associated with ground contamination which may place constraints on the site and the proposed development;

iii. Evaluate the risks associated with any identified hazards; and

iv. Provide preliminary recommendations for the mitigation of any significant risks identified.

1.6 The following Tier 1 Preliminary Risk Assessment (Non-intrusive Investigation) has been undertaken for the site and is summarised in Section 2 of this report:

i. ASL – Desk Study Report, Land off Kings Barn Lane, Steyning (288-20-087-10R1), dated September 2021

1.7 A Tier 2 Generic Quantitative Risk Assessment (Preliminary Exploratory Investigation) has been undertaken for the subject site by Merebrook , also taking into consideration the following reports:

i. ASL – Ground Investigation Report, Land off Kings Barn Lane, Steyning (288-20-087-10R1), dated September 2021.

1.8 This report presents the findings of the investigations and provides an interpretation of the geo-environmental conditions that exist at the site. The contaminative status of the site and the implications with respect to development have been interpreted in accordance with the current government guidance on source-pathway-receptor risk assessment. This report follows LCRM (Land Contamination Risk Management) guidance to appraise land contamination hazards associated with the site.

1.9 This report has been prepared for Vistry for the sole purpose described above and no extended duty of care to any third party is implied or offered. Third parties making reference to the report should consult Vistry and Merebrook as to the extent to which the findings may be appropriate for their use.

SECTION 2 ASL TIER 1 (NON-INTRUSIVE INVESTIGATION)

2.1 INTRODUCTION

2.1.1 The non-intrusive investigation has been conducted by ASL (288-20-087-11R1), dated 2021 and is summarised in the following section.

2.1.2 The sources used are all authoritative and it is believed that they are reasonably reliable. However, independent verification of the information supplied has not necessarily been carried out and Merebrook cannot be held liable for inaccuracies or deficiencies in the information.

2.2 SITE LOCATION AND SETTING

2.2.1 The site is located between Kings Barn Lane and the Steyning Bypass (A283) and is known as *land associated with Glebe Farm, Steyning, West Sussex*.

2.2.2 The site occupies an area of approximately 13.94 hectares located at National Grid Reference ^{1}518450, ^{1}11560 and indicated on drawing 21949ah-304-001, presented in Appendix 1 of this report.

2.2.3 The site is described in detail within the ASL report but in summary the site is bounded in the north by a public footpath, stream, water pumping station and gravel track, with open fields and an electricity substation beyond. In the east, the site is bounded by Kings Barn Lane with a battery storage facility and farm beyond. To the south, are residential properties and in the southwest is land associated with Glebe Farm, but excluded from the site boundary. In the west, the site is bounded by the

Steyning Bypass (A283), with residential areas beyond. The majority of the site surface is grassed with the exception of four small disused animal shelters. The animal shelters are of wood and metal construction. One animal shelter in the west of the site has a concrete floor.

2.3 SITE HISTORY

2.3.1 The site history is well described within the ASL report but in summary, the site history - dating back to 1876 - has generally comprised undeveloped land initially separated into two fields. A stream appears to have run along the field boundary in the east between approximately 1911 and 1932 when it was filled. The site was subdivided into smaller fields a number of times between approximately 1911 and 2020. Small (assumed agricultural) structures have been located centrally in the west since approximately 1932 and a residential dwelling has been located in the south since approximately 1932. The westernmost extent of the site was occupied by a railway line until approximately 1971. A roadway was constructed through this portion of the site by approximately 1981.

2.3.2 The surrounding area has generally comprised agricultural land and residential dwellings. A railway line was located directly to the west until it was dismantled by approximately 1971. A flour mill was located to the west until approximately 1897. A cattle market was located to the west between approximately 1897 and 1981. A sewage works has been located approximately 300m to the north since approximately 1961. A refuse tip has been located directly to the north-west since at least 1971 and a pump house and electricity substations have been located directly to the north since approximately 1971. A laundry was located approximately 130m to the south between approximately 1932 and 1971. Further from the site a tannery, sawmill, gas works and a disused chalk pit have been located at distances greater than approximately 560m from the site.

2.3.3 Given the nature of the historical mapping process (scale, representation of conditions at discrete time intervals frequency *etc*.), any such maps and plans may not provide a comprehensive account of a site's history. Identification of pertinent land uses and associated potentially contaminative activities, may therefore be absent from mapping records.

2.4 GEOLOGY

2.4.1 Table 1 summarises British Geological Survey (BGS) mapping for the site and Figure 1 shows the BGS map:

Table 1: Summary of published geology

Geological Unit	Type	Description
Superficial	Head	Clay, silt, sand and gravel

Geological Unit	Type	Description
Superficial	River Terrace Deposits	Sand and gravel
Bedrock	Upper Greensand Formation	Siltstone and Sandstone
Bedrock	Gault Formation	Mudstone

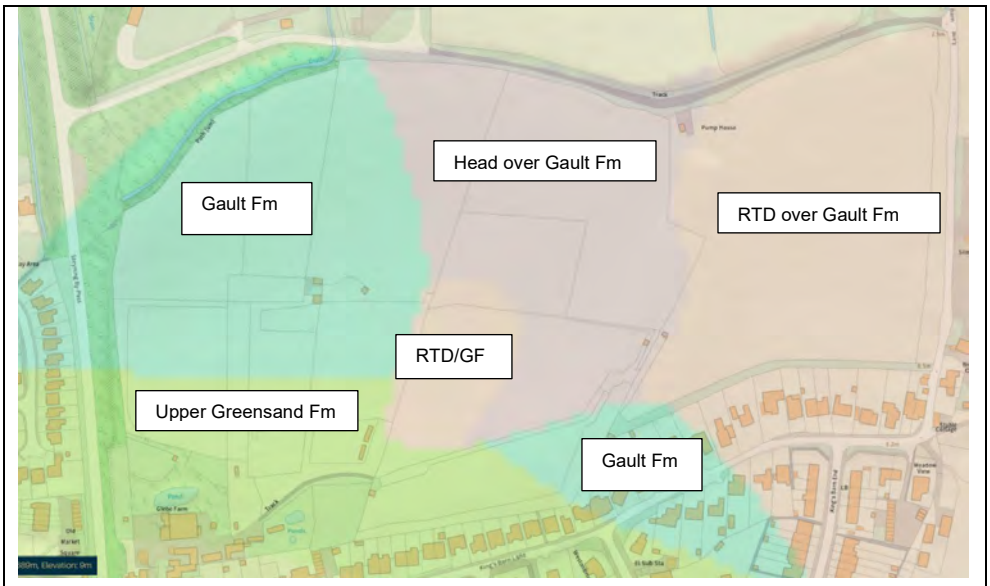


Figure 1: Expected geology of the site (RTD = River Terrace Deposits, Fm = Formation, GF = Gault Formation)

2.5 BACKGROUND SOIL CHEMISTRY

2.5.1 Data published by the BGS of estimated soil chemistry shows no naturally elevated heavy metals.

2.6 HYDROGEOLOGY

2.6.1 The aquifer status of groundwater held within the geological units, the presence Source Protection Zones and related potable abstractions are summarised in Table 2 below.

Table 2: Summary of published hydrogeology

Geological Unit	Aquifer Designation	Source Protection Zone	Location of Potable Abstraction
Head	Secondary A	No SPZ	None Within 1km of site
River Terrace Deposits	Secondary		
Gault Formation	Unproductive		
Upper Greensand Formation	Principal		

2.7 HYDROLOGY

2.7.1 The nearest surface water feature is an unnamed stream located on the northwestern boundary. It is understood that this stream flows north into the Black Sewer located approximately 110m to the north. The unnamed stream is not classified chemically or biologically by the EA in the vicinity of the site. Black Sewer is classified by the EA as a category B – good watercourse in the vicinity of the site.

2.7.2 Numerous further unnamed streams or drains are located within the vicinity of the site and typically to the north and east. These surface water features appear to generally discharge to the River Adur, which is located approximately 305m to the east. These surface water features are not classified chemically or biologically by the Environment Agency (EA).

2.7.3 There are no abstractions of surface water within 1.0km of the site.

2.8 FLOODING

2.8.1 The central southern portion of the site is locally indicated to have limited potential for groundwater flooding to occur. The majority of the eastern and central portions of the site are indicated to have the potential for groundwater flooding of property situated below ground level to occur. The south-west, north-east and central northern portions of the site are indicated to have the potential for groundwater flooding to occur at the surface.

2.8.2 The south of the site is locally indicated to be at low risk of flooding from surface water. The north-west and north-east sections of the site are locally indicated to be at low to medium risk of flooding from surface water and the west of the site is locally indicated to be at low to high risk of flooding from surface water.

2.8.3 The site is not indicated to be susceptible to extreme flooding from rivers or seas without defences. However, areas at risk from extreme flooding are located directly to the north and north-east.

2.9 CURRENT SITE ISSUES

2.9.1 Potentially significant environmental issues have been investigated within relevant distances of the site, based on the database of records supplied by Landmark. These relate to the following searches:

i. Water discharge or pollution incidents within 250 m of the site;

ii. Waste management sites within 250 m of the site;

iii. Statutory authorisations within 50 m of the site;

iv. Trades of possible contaminative use within 50 m of the site;

v. Special protection or conservation areas within 50 m of the site; and

vi. Any other relevant issues.

2.9.2 Potentially significant environmental issues identified by the above searches are summarised in Table 3.

Table 3: Potentially significant environmental issues

Environmental Category	Description
Water discharge or pollution incidents within 250 m	8 Pollution Incidents to Controlled Waters: Crude sewage into an unspecified water body located approximately 20m to the north-east in February 1995. The cause of the incident is detailed as 'plc sewage other'. Sewage into an unspecified water body located approximately 30m to the north in February 1998. Crude sewage into an unspecified water body located approximately 130m to the north-west in June 1994. The cause of the incident is detailed as 'plc sewage other'. The remaining five listings relate to the release of crude sewage, 'miscellaneous – natural', 'miscellaneous – urban runoff', 'grey water' and algae foam at distances greater than approximately 195m from the site.
Waste management sites within 250 m	There is one historical landfill located within 0.5km of the site. This listing relates to a facility that was operational between December 1960 and December 1977 located directly to the north-west. The specified waste for this listing is detailed as 'inert, industrial, commercial and household waste'. There are two Local Authority recorded landfill sites located within 0.5km of the site. Both listings relate to facilities located approximately 5m to the north-west. The type of waste and

Environmental Category	Description
	status are not detailed for the first listing. The type of waste is detailed as household waste for the second listing however the status of the listing is not detailed.
Statutory authorisations within 50 m	None.
Trades of possible contaminative use within 50 m	Tyre dealer 5m to the south, not likely to be a risk of contamination to the site.
Special protection or conservation areas within 50 m	None.

2.10 INDICATIVE GROUND STABILITY HAZARDS

2.10.1 There is either a very low risk or no hazard from collapsible ground stability, ground dissolution stability or landslide ground stability at the site.

2.10.2 There is no hazard to a low hazard associated with the potential for running sand ground stability hazards at the site.

2.10.3 There is no hazard and a moderate hazard associated with the potential for shrinking or swelling of the ground stability hazards at the site.

2.10.4 There is no hazard and a moderate to high hazard associated with the potential for compressible land stability hazards at the site.

2.10.5 The site is located in an area indicated to have a significant soluble rock risk however problems are deemed unlikely.

2.11 MINING, GROUND WORKINGS AND NATURAL CAVITIES

2.11.1 The site is not located in an area that may be affected by coal mining activities

2.11.2 There are no BGS recorded mineral sites located within 0.5km of the site.

2.12 RADON GAS

2.12.1 The licensed Radon Potential Dataset for the site has been consulted. The Radon Potential is shown in six discrete Radon Classes (RnC1 to RnC6) as set out in Table 4. The Radon Class is defined as a percentage probability range of dwellings exceeding the Radon Action Level

Table 4: Radon classes, risk and mitigation

Radon Class (probability range)	General Risk	Affected Area ?	Building Control Regulations (England and Wales)
1 (0 to <1%)	low	No	No *

Radon Class (probability range)	General Risk	Affected Area ?	Building Control Regulations (England and Wales)
2 (1 to <3%)	medium	Yes	No *
3 (3 to <5%)		Yes	Yes - Basic
4 (5 to <10%)		Yes	Yes - Basic
5 (10 to <30%)	high	Yes	Yes - Full
6 (30 to 100%)		Yes	Yes - Full

* Fitting radon protection in new buildings might be considered if there is a high risk location such as a routinely occupied basement

2.12.2 The licensed and most up to date Radon Potential Dataset (2025) has been obtained from Groundsure by Merebrook which illustrates the 25 m tiled mapping and is provided in Appendix 2. This data is the highest resolution radon dataset available for the UK, produced to a 50 m accuracy. This data has been pre-buffered to account for the relative accuracy and other uncertainties, so no additional buffering on site is required.

2.12.3 The site-specific Radon Potential Dataset and Guidance issued by the Buildings Research Establishment (BRE-211) indicates that the site lies within an area designated RnC1 and no radon protection measures are required under the Building Control Regulations.

2.13 **UXO**

2.13.1 Regional Unexploded Bomb Risk Maps published by Zetica have been consulted which show the site to be a low risk.

SECTION 3 PRELIMINARY CONCEPTUAL SITE MODEL AND RISK ASSESSMENT

3.1 The potential sources, pathways and receptors have been assessed to derive a list of potential pollutant linkages. A generalised conceptual site model has is shown in Figure 2.

3.2 The ASL desk study has generally not identified any significant potential sources of contamination at the site with the exception of the potential for Made Ground to be present locally and potentially marginally elevated concentrations of lead.

3.3 Additionally, there is the potential for contamination and Made Ground to be present at the location of the former railway line. However, it is noted that this portion of the site will comprise new roadway infrastructure to the proposed development. The potential risk posed to human health is therefore considered to be very low if not negligible in this portion of the site. The potential risk to risk to human health across the remainder of the site is considered to be low to very low. It is considered that any residual risks are likely to be mitigated by the use of physical barriers including cover systems.

3.4 A minor potential source of hazardous ground gas has been identified at the site associated with the presence of Made Ground locally. More significant potential sources of hazardous ground gas have been identified in the surrounding area including the former landfill located directly to the north-west and alluvial materials that may be present to the north. The potential risk to human health in the north is therefore considered to be high. The potential risk across the remainder of the site is considered to be low. It is considered likely that the risk may be mitigated by the use of physical barriers comprising gas resistant membranes.

3.5 The desk study has identified potentially significant sources of contamination in the surrounding area namely the industrial activities that have historically taken place to the west and north of the site. However, it is noted that the electrical substation to the north is located topographically lower than the site and is present beyond a surface water feature. Further to this, a number of the potential sources of contamination have subsequently been redeveloped with residential dwellings. The potential risk at the site from off-site sources of contamination is therefore considered to be typically low and locally moderate in the vicinity of the sewage pumping station, electrical substation to the north-east and railway land to the west.

3.6 The potential contamination risks to neighbouring site users are from historical activities completed at the site. The desk study has not identified any significant potential sources of contamination at the site. The potential risk posed to neighbouring site users from any residual contamination at this site is therefore considered to be very low to negligible.

3.7 There is the potential for asbestos to be present within the existing building fabric of the residential dwelling located centrally in the south that may pose a risk to human health during the site clearance works. It is recommended that an asbestos survey is completed ahead of the demolition and site clearance works. If asbestos is identified, these materials should be removed by a suitably licensed contractor ahead of the demolition and site clearance works.

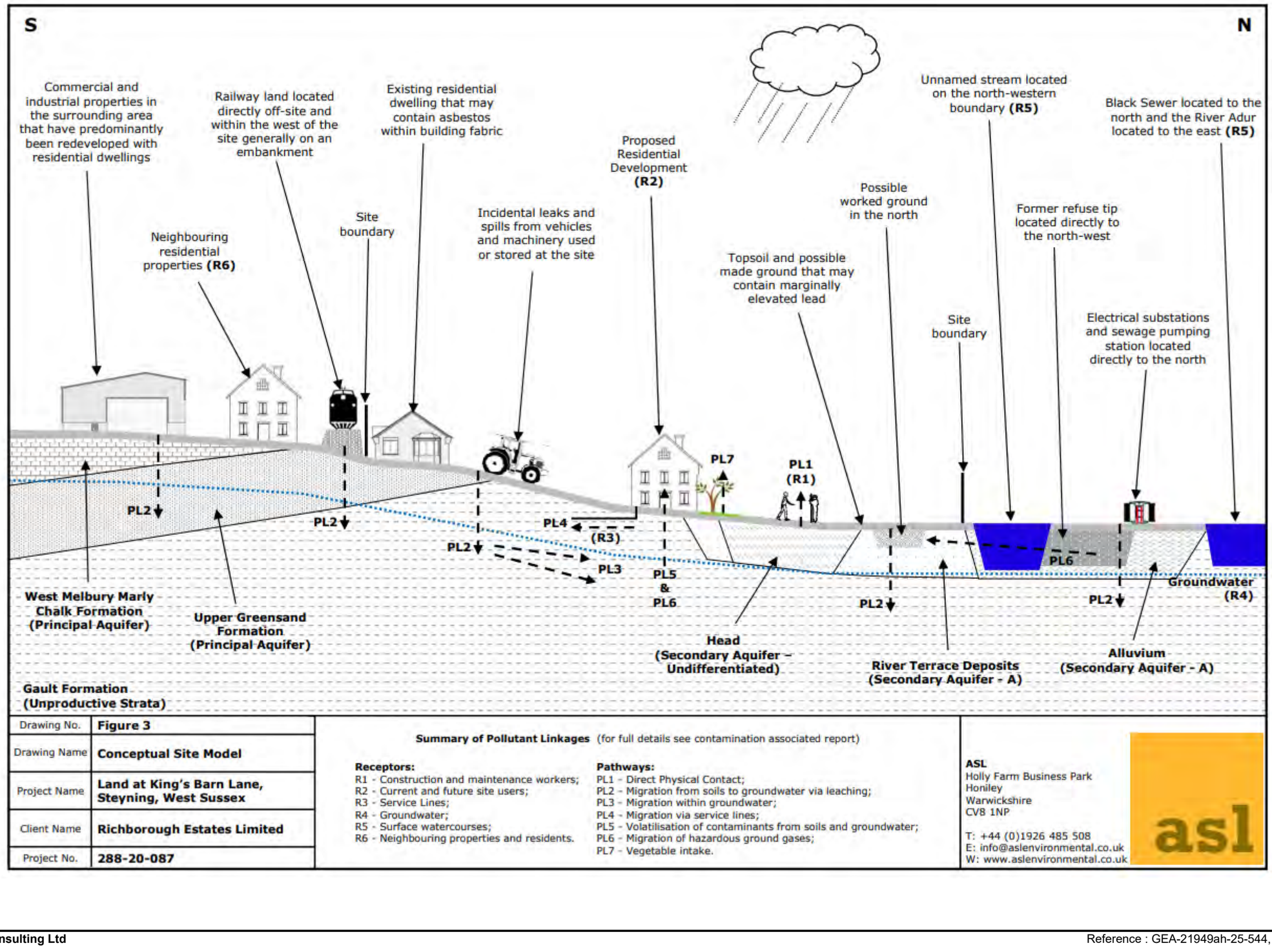
3.8 Minor potential sources of contamination have been identified at the site by the desk study and therefore the potential risk to service lines is considered to be very low. It is considered likely that the use of contaminant resistant water supply pipes will mitigate any potential residual risk to service lines.

3.9 The River Terrace Deposits and Alluvium are classified by the EA as ‘Secondary Aquifers – A’. The Head is classified by the EA as a ‘Secondary Aquifer – Undifferentiated’. The Upper Greensand Formation and the West Melbury Marly Chalk Formation are classified by the EA as ‘Principal Aquifers’ and the Gault Formation is classified by the EA as an ‘Unproductive Strata’. There are no abstractions from groundwater located within 1.0km of the site. The site is not indicated to be located in a SPZ. It is noted that the Principal Aquifers at and in the vicinity of the site are located in the south-west. Due to the topography of the site, it is anticipated that groundwater flow is likely to the be the north and east. Due to the lack of significant potential sources of contamination identified at the site and the

environmental setting of the site, it is considered that the potential risk posed by contamination from the site is very low.

3.10 The nearest surface water feature is an unnamed stream located on the north-western boundary. Black Sewer is located approximately 110m to the north and the River Adur is located approximately 315m to the east. Due to the lack of significant potential sources of contamination identified at the site, it is considered that the potential risk posed by contamination from the site is low.

Figure 2: ASL Preliminary Conceptual Site Model (2021)



Drawing No.	**Figure 3**
Drawing Name	**Conceptual Site Model**
Project Name	**Land at King's Barn Lane, Steyning, West Sussex**
Client Name	**Richborough Estates Limited**
Project No.	**288-20-087**

Summary of Pollutant Linkages (for full details see contamination associated report)

Receptors:
R1 - Construction and maintenance workers;
R2 - Current and future site users;
R3 - Service Lines;
R4 - Groundwater;
R5 - Surface watercourses;
R6 - Neighbouring properties and residents.

Pathways:
PL1 - Direct Physical Contact;
PL2 - Migration from soils to groundwater via leaching;
PL3 - Migration within groundwater;
PL4 - Migration via service lines;
PL5 - Volatilisation of contaminants from soils and groundwater;
PL6 - Migration of hazardous ground gases;
PL7 - Vegetable intake.

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SECTION 4 2021 ASL INVESTIGATION

4.1 INTRODUCTION

4.1.1 The 2021 ASL investigation is reported in ASL report 288-20-087-10R1, dated September 2021, the investigation included:

i. 30 No. windowless sample boreholes (WS) to a maximum depth of approximately 8.45m bgl;

ii. 1 No. hand excavated trial pit (HP01) to a depth of approximately 1 m bgl targeting an area of historical worked ground described by the desk study as "northwest of area 5";

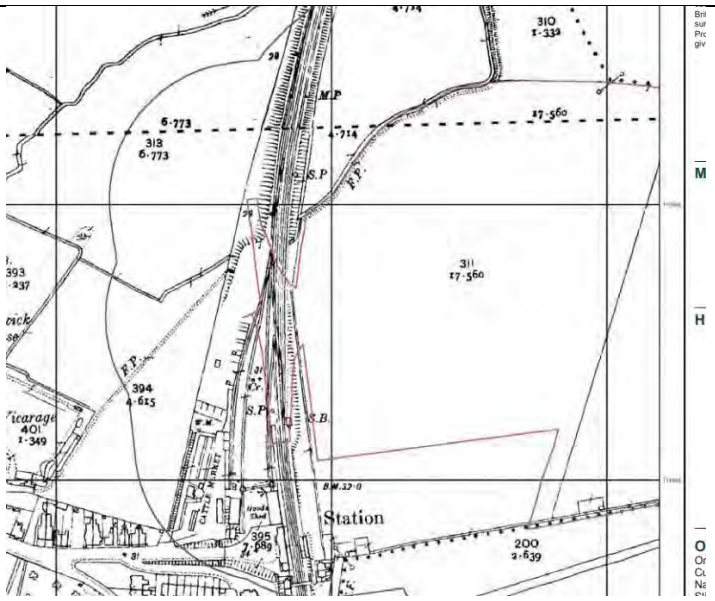
iii. Installation of combined gas and groundwater monitoring standpipes in selected window sample boreholes;

iv. 8 No. *in situ* CBR tests completed by Dynamic Cone Penetration (DCP);

v. Chemical and geotechnical laboratory testing; and

vi. Gas and groundwater monitoring programme.

4.1.2 The area in the ASL desk study mentioned as "*The westernmost extent of the site was occupied by a railway line until approximately 1971. A roadway was constructed through this portion of the site by approximately 1981*" is currently off site and now the A283 Steyning Bypass so could not be investigated as part of this investigation however four window samples (WS26, WS27, WS28 and WS25) were drilled in close proximity to the western boundary of the site.





Comparison of 1911 historic map (1:2,500) showing location of historic railway and embankment compared to ASL site investigation locations

4.2 GROUND CONDITIONS

4.2.1 Soils interpreted as Head deposits were encountered to depths between approximately 1m and 3.45m bgl.

4.2.2 The Head deposits and the remainder of the site were found to be underlain by cohesive materials considered representative of solid geology of the Gault

Formation, with these materials present to the termination depth of the investigation at 8.45m bgl.

4.2.3 Materials considered representing solid geology of the Upper Greensand Formation were not encountered during the intrusive investigations.

4.2.4 In addition to the published geology, the current and previous intrusive investigations identified a limited thickness of Topsoil and Made Ground (Topsoil) at the surface across the site locally overlying subsoil type materials.

4.3 CHEMICAL TESTING

4.3.1 Fifteen soil samples were tested across site for a range of contaminants. None of the contaminants were detected above the relevant residential screening levels.

4.4 GAS MONITORING

4.4.1 As part of the monitoring programme below, ground gas levels within monitoring standpipes were measured during three events completed between 8 and 23 March 2021.

4.4.2 Carbon dioxide was recorded at concentrations between 0.1% and 5.2% v/v. Concentrations in excess of 5% were recorded at WS1 only during the second and third monitoring events. Oxygen was recorded at concentrations between 2.6% and 20.4% v/v at WS17 and WS20, respectively. Average downhole pressures and average flow rates were recorded as zero during the monitoring programme. Positive flow was recorded in WS2 at 2.1 l/hr and WS15 at 1.1l /hr. The monitoring events were completed during periods of higher atmospheric pressure of between 1022mb and 1033mb.

4.4.3 The gas monitoring results indicated gas conditions corresponding to a Hazardous Gas Flow (HGF) of <0.07l/hr indicating Characteristic Situation 1 (CS1) characterised as very low potential hazard. However, carbon dioxide was recorded in excess of 5% at WS1 during the second and third monitoring events with a maximum recorded concentration of 5.2%.

4.4.4 Therefore, based on the results of the ground gas monitoring and the nature of the ground conditions encountered at the site, gas protection measures were assessed to be generally not required for the proposed development to be protective of carbon dioxide and methane.

4.4.5 However, based on the results of the ground gas monitoring, it was recommended that gas protection measures to CS2 (characterised low potential hazard) were incorporated into the proposed development in the vicinity of WS1, located centrally in the west of the site.

SECTION 5 MEREBROOK INVESTIGATION

5.1 INTRODUCTION

5.1.1 Intrusive sampling locations were chosen on the basis of providing broad spatial coverage of the site. In addition, targeted hand pits (MHP01 to MHP04) were carried out for the current animal shelters and locations of historic buildings mentioned by the ASL desk study as "*Small assumed agricultural structures have been located centrally in the west since approximately 1932*".

5.1.2 Targeted window sample boreholes and gas monitoring in the area of elevated carbon dioxide from the ASL investigation has been carried out. In addition to monitoring of boreholes along the northern site boundary, from a previous investigation by Merebrook in 2023.

5.1.3 Merebrook sees no evidence, on the provided historical maps, of areas described in the ASL desk study as "a residential dwelling has been located in the south since approximately 1932" and "A stream appears to have run along the field boundary in the east between approximately 1911 and 1932 when it was filled" however extensive in investigation of the southern and eastern areas of the site has been carried out over the ASL and Merebrook investigations.

5.2 SITE INVESTIGATION METHODS

5.2.1 An intrusive investigation was carried out by Merebrook between 30 September and 3 October 2025 comprised the following scope of work:

i. Six cable percussion boreholes (BH06) to 15 to 20 metres below ground level (m bgl);

ii. Three shallow windowless sample probe holes (MWS201 to MWS203) to a depth of 2.0 to 5.0 m bgl; and

iii. Thirty-one machine-dug trial holes (MTP101 to MTP115 and CBR1 to CBR16) to a depth of 0.4 to 3.6 m bgl.

iv. Four hand excavated trial pits to 0.3 to 0.8 m bgl.

5.2.2 Exploratory hole locations are indicated on drawing 21949ah-304-001 in Appendix 4. Logging of exploratory holes was undertaken by a Merebrook Officer. Exploratory hole logs are contained in Appendix 5. Historic boreholes MWS102, MWS103 and MWS105 were used for gas and groundwater monitoring, their locations are shown on 22635-304-001.

5.2.3 Light cable percussion equipment was used to advance borehole BH01 to BH06. Standard Penetration Tests (SPTs) were performed at approximate 1 metre intervals. The tests involved driving a steel cone tipped series of rods into the ground over a distance of 450 mm using the repeated blows of a 63.5 kg weight allowed to

free fall over a distance of 760 mm. The total number of blows required for the final 300 mm penetration (the 'N' value) is recorded on the window sample logs.

5.2.4 A tracked windowless sampling rig was used to advance MWS201 to MWS203. This comprised a rig-mounted drop hammer to drive a hollow steel barrel into the ground. The barrel is recovered along with a removable plastic sleeve, which lines the barrel and holds a core of soil which is retracted for logging and sampling. SPTs were performed at approximate 1 m intervals in all windowless sample holes.

5.2.5 Details of monitoring installations in boreholes are summarised in Table 5.

Table 5: Summary of gas and groundwater monitoring installations

Location Ref	Depth To Top of Response Zone (m bgl)	Depth To Base Of Response Zone (m bgl)	Strata
MWS102	1.0	4.0	Gault Formation
MWS103	1.0	3.0	Gault Formation
MWS105	1.0	4.0	Gault Formation
MWS201	1.0	3.0	Gault Formation
MWS202	1.0	3.0	Gault Formation
MWS203	1.0	2.0	Gault Formation

5.2.6 Representative soil samples were taken from various depths and strata to assess the contaminative status of the site. Soil samples were submitted to an MCERTS/ UKAS accredited laboratory for chemical analysis of a broad suite of potential contaminants. The results are provided in Appendix 6.

SECTION 6 GROUND CONDITIONS

6.1 SUMMARY

6.1.1 The ground conditions encountered during the investigation were consistent with the expected geology. A summary of the ground conditions encountered is presented in Table 6, whilst a more detailed assessment of the strata is contained in the following sections of the report.

Table 6: Summary of sub-surface ground conditions

Strata	Depth to Top of Range (m bgl)	Thickness Range (m)
Topsoil	0.0	0.20 – 0.40
Made Ground	0.0 – 0.40	0.40 – 0.70
Head Deposits	0.25 – 0.40	0.30 – 1.95

Strata	Depth to Top of Range (m bgl)	Thickness Range (m)
River Terrace Deposits	0.30 – 0.90	0.40 – 0.80
Gault Formation	0.30 – 2.20	>17.50 (Base not proven)

6.2 **TOPSOIL**

6.2.1 The topsoil consisted of a dark brown slightly sandy slightly gravelly clay. Gravels consisted of flint and occasional brick.

6.2.2 Topsoil was present across every exploratory hole with the exception of MHP03 which was surfaced with concrete.

6.3 **MADE GROUND**

6.3.1 Made ground was encountered within MHP01, MHP03, MTP109 and MTP112 as a brown slightly sandy slightly gravelly clay. Gravels were of brick, charcoal and flint. MHP01 and MHP03 were excavated at the base of animal shelters. Made ground in MHP01 was beneath a concrete floor (0.10m thick) and consisted of a dark brown sandy gravelly clay with gravels of metal, pottery, brick and concrete with cobbles of bricks.

6.3.2 Asbestos cement sheet fragments were found at the surface of MHP03. No other visual or olfactory evidence of contamination was encountered within the made ground.

6.3.3 No ground water was encountered in this stratum.

6.3.4 No SPTs were undertaken in the Made Ground.

6.4 **HEAD DEPOSITS**

6.4.1 The Head Deposits were encountered in the east of the site within BH04 – BH06, CBR6, CBR7, CBR15 – CBR16, MHP02, MHP03, MTP101 – MTP104, MTP111 and MTP114. The deposits generally consisted of a stiff brown slightly sandy slightly gravelly clay. Gravels consisted of flint.

6.4.2 No visual or olfactory evidence of contamination was encountered

6.4.3 No groundwater was encountered during the drilling or excavation

6.4.4 The SPT ‘N’ values within the head deposits ranged from 12 – 16. Hand shear vanes ranged from 48 – 115 kPa. Both SPTs and hand shear vane results indicate the clay to be stiff to very stiff in consistency.

6.4.5 Atterberg limit classification testing has been carried out on 6 samples of the Head Deposits at depths ranging between 0.50 and 1.90 m bgl. The liquid limit ranges between 41 and 71% indicating soils are medium to very high plasticity. The

corresponding modified plasticity index ranges between 19.2 and 37.2% with a mean value of 31.3%. Conservatively, this stratum is classified as medium volume change potential in accordance with NHBC Standards.

6.4.6 Compaction testing was performed on one sample of Head Deposits at a depth of 0.90 m bgl. The maximum dry density was determined to be 1.81 Mg/m^3 whilst the optimum moisture content was determined to be 16% for this material. At these depth natural moisture content ranges between 29 and 41% although is typically around 29% indicating the soil in its natural condition is typically above optimum moisture content.

6.4.7 Unsoaked and soaked remoulded CBR testing was carried out on 4 samples at 0.30 to 0.40 m bgl in the Head Deposits. CBR values range between 5.0 and 8.4% and there was no discernible marked change when the soil samples were soaked; a slight increase to the CBR value was noted to between 5.5 and 8.6%.

6.5 RIVER TERRACE DEPOSITS

6.5.1 The River Terrace Deposits were encountered in the east of the site in exploratory holes BH01, BH03, CBR14, MTP112, MTP113 and MTP115. The deposits generally consisted of a firm to stiff slightly sandy to very sandy, slightly gravelly to gravelly clay with gravels of flint and chalk. In MTP112, MTP113, MTP115, the River Terrace Deposits consisted of a sandy gravel.

6.5.2 No visual or olfactory evidence of contamination was encountered.

6.5.3 No groundwater was encountered during the excavation or drilling of the exploratory holes.

6.5.4 SPT ‘N’ values ranged from 9 - 12 indicating clay of stiff consistency. A hand shear vane result in MTP114 was 60 kPa, also indicating stiff consistency. No SPTs were carried out within the sand and gravel.

6.5.5 Atterberg limit classification testing has been carried out on 5 samples of the River Terrace Deposits at depths ranging between 0.50 and 1.00 m bgl. The liquid limit ranges between 29 and 68% indicating soils are low to high plasticity. The corresponding modified plasticity index ranges between 5.0 and 23.3% with a mean value of 14.3%. Conservatively, this stratum is classified as medium volume change potential in accordance with NHBC Standards.

6.5.6 Particle size distribution analysis was carried out on 1 sample at a depth of 2.00 m bgl; the following range in particle sizes were determined:

i. Very Coarse: 0%

ii. Gravel: 3%

iii. Sand: 2%

iv. Fines (<63µm): 95%

6.5.7 Unsoaked and soaked remoulded CBR testing was carried out on 1 sample at 0.40 bgl in the River Terrace Deposits. The CBR value was determined to be 4.7% and when soaked, this increased slightly to 5.4%.

6.6 GAULT FORMATION

6.6.1 The Gault Formation was encountered site wide below the surficial deposits or topsoil. The Gault Formation generally consisted of a stiff to very stiff grey silty clay with varying degrees of mudstone and siltstone gravels. At greater depths, the clay became mixed with weak mudstone, which then dominated.

6.6.2 No visual or olfactory evidence of contamination was encountered

6.6.3 Groundwater was encountered at depths ranging from 7 – 8 m and 11 – 14.5m bgl during drilling.

6.6.4 SPT 'N' values ranged from 6 – 50 and hand shear vanes from 55 – 110 kPa, indicating stiff to very stiff clay consistency.

6.6.5 Atterberg limit classification testing has been carried out on 57 samples of the Gault Formation River Terrace Deposits at depths ranging between 0.50 and 7.20 m bgl. The liquid limit ranges between 48 and 68% indicating soils are high to very high plasticity. The corresponding modified plasticity index ranges between 17.4 and 53.0% with a mean value of 39.2%. Conservatively, this stratum is classified as high volume change potential in accordance with NHBC Standards.

6.6.6 Quick undrained triaxial testing was carried out on 8 samples at depths ranging between 2.0 and 7.0 m bgl in the Gault Formation. Undrained shear strengths ranged between 44 and 124 kPa indicating soils are typically medium to high strength.

6.6.7 Consolidated drained triaxial testing was carried out on 2 samples at depths ranging between 2.50 and 4.50 m bgl in the Gault Formation. Effective cohesion ranged between 14.4 and 18.2 kPa whilst the effective peak friction angle ranged between 29.9 and 32.2°.

6.6.8 Consolidated drained shear box testing was carried out on 3 samples at depths ranging between 1 and 3.10 m bgl within the Gault Formation. Effective cohesion ranged between 13 and 21 kPa whilst the effective peak friction angle ranged between 20.5 and 29.5°.

6.6.9 Particle density testing was carried out on one sample of the Gault Formation at a depth of 2.0 m bgl. Particle density was determined to be 2.64 Mg/m^3. Compaction testing was also performed on two samples at depths ranging between 1.0 and 2.30 m bgl. The maximum dry density ranges between 1.33 and 1.41 Mg/m^3 whilst the optimum moisture content ranges between 26 and 32% for this material. At these depth natural moisture content ranges between 17.6 and 42% although is typically

around 32% indicating the soil in its natural condition is typically at, or slightly above, optimum moisture content.

6.6.10 Unsoaked and soaked remoulded CBR testing was carried out on 10 samples at 0.30 to 0.50 m bgl in the Gault Formation. CBR values range between 1.7 and 8.1%. Soaked CBR values were less variable, ranging between 2.2 and 6.5 %

SECTION 7 PRELIMINARY GEOTECHNICAL RECOMMENDATIONS

7.1 GROUND MODEL

7.1.1 The ground conditions presented in section 6 have been used to devise a ground model across the site. Characteristic levels and the predominant soil types are summarised in Table 7 alongside geotechnical design parameters.

7.1.2 Made ground was encountered in 4no. exploratory hole positions across the site, typically between 0.15 and 0.75 m bgl comprising brown slightly sandy slightly gravelly clay. The superficial geology of Head Deposits and River Terrace Deposits were encountered in the east of the site. Head generally consisted of a stiff brown slightly sandy slightly gravelly clay. The River Terrace Deposits generally consisted of a firm to stiff slightly sandy to very sandy, slightly gravelly to gravelly clay, in MTP112, MTP113, MTP115 the River Terrace Deposits consisted of a sandy gravel. Solid geology of the Gault Clay Formation was encountered beneath the topsoil or superficial soil at depths of between 0.10 and 19.50 m bgl comprising stiff to very stiff clay, becoming interbedded with an extremely weak to weak mudstone at depth, with mudstone becoming more predominant than clay with increasing depth.

7.1.3 Groundwater was not typically encountered; only minor perched volumes of groundwater were observed during the progression of the deeper boreholes between 7 - 8 mbgl in the Gault Clay Formation. Although the volume was limited, a second water strike was observed in the Gault Clay Formation.

7.2 CHARACTERISTIC GEOTECHNICAL PARAMETERS

7.2.1 The *in-situ* and geotechnical laboratory testing results discussed and interpreted have been used to derive geotechnical design parameters for the individual soils at the site. These are also summarised in Table 7.

7.2.2 Bulk density is derived from laboratory tests and from Figure 1 and 2 of BS8004:2015 using the consistency/density descriptors.

7.2.3 A plot of SPT N-values versus depth is presented in Figure 4. Undrained shear strength is determined for the cohesive soils only, based on SPT N-values and laboratory QUTs. SPT N-values are correlated with undrained shear strength (c_u) using Stroud and Butler's 1975 equation:

$$c_u = f_1 \times N \qquad Eq.1$$

7.2.4 The factor (f_1) is conservatively assessed as 4.5 based on the empirical relationship with plasticity and widely accepted values in the Gault Clay Formation. A profile of undrained shear strength versus depth is presented in Figure 4 alongside laboratory measured QUT values.

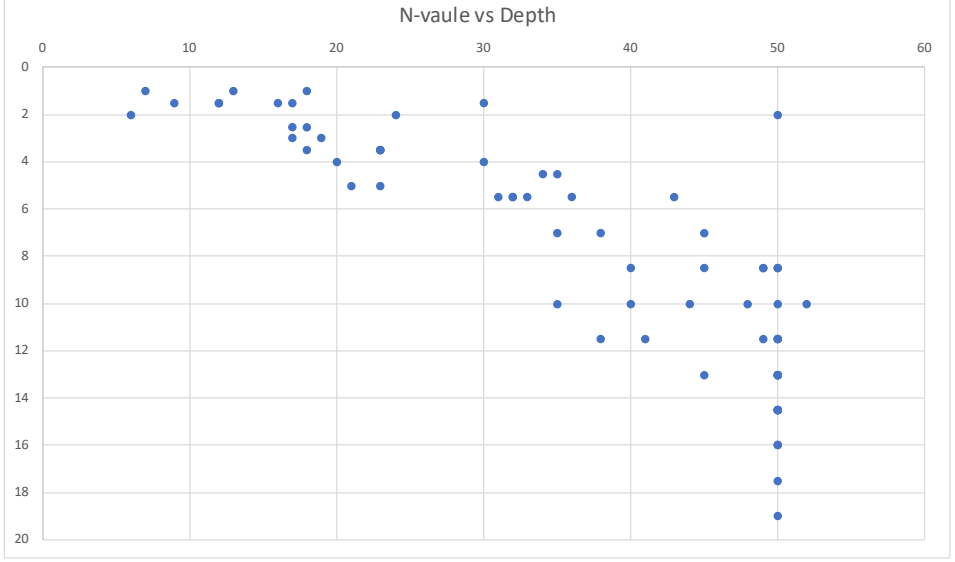


Figure 3: SPT N-value versus depth profile.

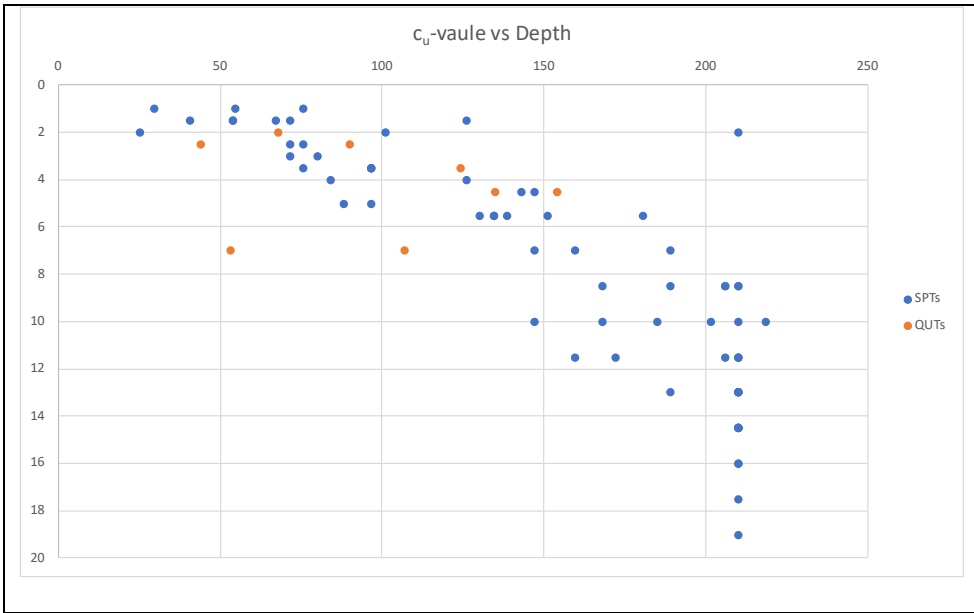


Figure 4: SPT N-value versus depth profile.

7.2.5 The design line plotted in Figure 2 is calculated by Equation 2, where z is determined as meters below the top interface of the stratum.

i. Gault Clay Formation:

$$c_u = 50 + 15.9z \quad between\ 1 - 19.5\ m\ bgl \qquad Eq.2$$

7.2.6 Effective cohesion is characterised as a conservative estimate considering that apparent cohesion in soils quickly tends to zero even at very small strains. This is a widely accepted approach for the design of geotechnical structures and in line with industry standard practice.

7.2.7 Effective angle of shearing resistance at critical state/volume and peak angle of shearing resistance is determined in accordance with Clause 4.3.1.3.5 of BS 8004:2015 for granular soils. In cohesive soils this parameter was calculated based on Clause 4.3.1.4.8 of BS 8004:2015 and plasticity. Although the drained triaxial tests undertaken in the Gault Clay Formation show rffective cohesion between 14.4 and 18.2 kPa and effective peak friction angle between 29.9 and 32.2°, a cautious estimate of peak friction angle is taken based on the above recommendations in BS 8004:2015.

Table 7: Summary of ground model and geotechnical design parameters.

Ground model / Parameter	Unit	Formation		
		Head Deposits	River Terrace Deposits	Gault Clay Formation
Depth to base	m bgl	0.50 – 2.00	0.50 – 2.00	>19.5
Thickness	m	0.10 – 2.10	0.25 – 2.00	>17.5
Groundwater level	m bgl	N/A	N/A	7.00
Bulk Density, γ_k	kN/m³	18	19	20
Undrained Shear Strength, c_u	kPa	-	-	100+15.9z
Effective Cohesion, c'	kPa	0	0	0
Constant volume angle of shearing resistance, $\phi'_{cv,k}$	°	22	24	22
Peak angle of shearing resistance, $\phi'_{pk,k}$	°	24	26	25*

* based on average value from the shear box test results.

7.3 FOUNDATIONS

7.3.1 The proposed development comprises residential properties which are assumed to comprise typically 1 to 3-storey structures. A preliminary cut and fill plan has been provided and up to 1.5m of cut and up to 2m of fill is proposed for the site.

7.3.2 The soils at anticipated foundation depth are typically characterised as high-volume change potential (Gault Clay Formation), therefore a minimum depth of 1.0 m will apply to all new foundations outside the zone of influence of trees and 1.5 m will apply to allow for restricted new planting in accordance with NHBC standards.

7.3.3 At 1.0 m depth, outside the zone of influence of trees, a presumed bearing resistance of 100 kN/m² has been calculated based on a design undrained shear strength of 50

kPa. For traditional strip/trench fill footings up to 1.0 m wide, total settlements are estimated to be less than 25 mm. The site is thus considered suitable for traditional strip/trench fill footings for the majority of the development with minimal localised deepening due to engineered fill placement. At 1.5 m depth, outside the zone of influence of trees, a presumed bearing resistance of 125 kN/m^2 has been calculated.

7.3.4 Additional deepening of footings will be required where plots are located in proximity to trees due to high volume change cohesive soils. The exact depth must be determined in accordance with NHBC Standards. It is recommended that an Arboricultural survey is carried out to identify the species, height and maturity of existing trees. Once proposed finished floor levels are known, a foundation zoning plan can be drawn with minimum depths due to trees. Deepening due to trees may require a few plots and flat blocks to be piled.

7.3.5 It is thus considered that the most appropriate foundation solution will be bored / CFA piles to achieve suitable embedment depth. Further, bored / CFA piles offer a lower noise/vibration solution, which is likely to be preferred in the urban environment. Driven piles may be considered; however, specialist advice should be sought from a piling contractor.

7.3.6 Preliminary pile resistances are calculated in accordance with BS EN 1997-1 Design Approach 1: Combination 2 for a single pile, assuming that the method to be adopted is either bored or CFA. Piles should ultimately be designed by the Contractor in accordance with BS-EN-1997-1, which requires knowledge of pile loads (actions). The preliminary DA1-C2 resistances of piles of varying length and diameter are provided based on a permanent (dead load): variable (live load) split of 60:40. The design assumes that working pile tests will be carried out; if preliminary pile testing is carried out, then the model factors can be reduced.

7.3.7 Preliminary safe pile capacities resistances are presented in Table 8. This shall be compared with representative action, F_{rep} (1.0DL +1.0LL).

Table 8: Preliminary pile resistances – DA1-C2.

Depth (m bgl) /	Design Resistance, R_d (kN)			
Pile Diameter (mm)	300	450	600	750
10	334	538	767	1020
12.5	461	733	1033	1361
15	600	947	1326	1735
17.5	741	1164	1621	2113

7.3.8 It is considered unlikely that a Piling Works Risk Assessment will be required for the site.

7.4 EXCAVATIONS AND GROUNDWATER

7.4.1 Shallow excavations made within Galut Clay to form foundation trenches may be stable in the short-term but likely to become unstable in the medium to long-term. The duration for which trench foundations are open shall be minimised. Entry into excavations should be avoided; where the need to enter excavations cannot be avoided, sidewalls must be suitably supported or battered back to a safe angle.

7.4.2 The recommended safe slope gradient for side slopes is 1:3, a safe angle of 18.5° for medium to long-term stability.

7.4.3 Shallow groundwater strikes were not observed during the intrusive investigation. However, simple dewatering techniques such as sump pumping may be required to manage localised ingress from perched volumes or surface water ingress.

7.5 FLOOR SLABS

7.5.1 The underlying soils are typically high-volume change potential. At this stage an allowance should be made for suspended ground floor slabs with void formers in accordance with NHBC standards.

7.6 ROADS AND PAVED AREAS

7.6.1 A CBR of 5% is recommended at the east of the site in Head Deposits or River Terrace Deposits. A CBR of 2% is recommended where Gault Clay is present near surface. The above is based on lab testing and general description of the material and assumes good construction conditions. It is recommended that additional *in-situ* testing is carried out post cut and fill works.

7.7 SOAKAWAYS

7.7.1 Soakaway testing has not been performed as part of this investigation; soakaways may not be feasible due to cohesive nature of the underlying soils at most parts of the site, soakaways at the lower level of the River Terrace Deposits may be feasible. It is recommended that if a soakaway drainage system is proposed that soakaway testing is carried out onsite at the proposed soakaway locations in accordance with BRE365.

7.8 BURIED CONCRETE

7.8.1 Recommendations given in BRE Special Digest 1:2005 *"Concrete in aggressive ground"* have been followed in order to give recommendations with respect to buried concrete.

7.8.2 Water soluble sulphate analysis was carried out on 25 soil samples obtained from depths of between 1.5 – 19.0 m bgl with soil pH determination also carried out on these samples. Water soluble sulphate contents ranged between 5.56 and 1,520 $mg.l^{-1}$. In accordance with BRE guidelines the characteristic value is calculated by determining the mean of the highest 20% of results. In this case the characteristic value is 1,056 $mg.l^{-1}$. On this basis the Design Sulphate Class is DS-2.

7.8.3 A significant number of samples contained oxidisable sulphate greater than 0.3% therefore sulphate bearing minerals are likely to be present which may oxidise if the ground is disturbed. Therefore, Total Potential Sulphate must also be considered. The characteristics TPS value is 1.38%; this corresponds to a Design Sulphate Class of DS-4. However, for bored / CFA piles, in accordance with BRE SD1 the concrete class does not need to be designed to withstand a high potential sulphate as it is initially low in water soluble sulphate and the amount of ground disturbance beyond the pile bore is minimal. As such, piles may be design to the lower DS-2 class, provided that disturbed soils, such as pile arisings, are not placed in contact with the piles or other shallower concrete elements.

7.8.4 The pH values in the soil samples varied between 7.8 and 8.4. The mean of the lowest 20% of values is 7.82 which represents the characteristic value. Mobile groundwater conditions have been assumed and, on this basis, the Aggressive Chemical Environment for Concrete (ACEC) class for the site is AC-2, provided that disturbed pile arisings are not placed in contact with buried concrete. Where disturbed pile arisings are reused, or engineered fill is site won from within Gault Clay Formation, higher DS-4 and AC-4 will apply.

SECTION 8 ENVIRONMENTAL ASSESSMENT – SOIL QUALITY

8.1 RESULTS

8.1.1 A total of 32 soil samples were submitted to the laboratory for chemical analysis, including 19 samples from topsoil, 8 samples from made ground and 5 samples from natural ground (2 Head deposits, 2 Gault Formation and 1 River Terrace Deposits). The laboratory chemical analysis certificates are contained in Appendix 6. The results of the analysis are summarised in Table 9.

8.1.2 An initial screening exercise has been undertaken whereby contaminant concentrations recorded in soils have been assessed against *Suitable for Use Levels* (S4ULs) published in 2015 by LQM/CIEH[1]. These precautionary screening levels are designed to be representative of minimal risk to human health in a number of land use scenarios. In this report S4ULs have been selected for a residential land use where the possibility of consumption of homegrown produce exists and using a soil organic matter of 2.5 %. For lead the DEFRA Category 4 Screening Level[2] has been used as this is based on updated toxicological data and a low risk to human health.

8.1.3 An additional set of phytotoxin screening levels have been adopted from 'The Code of Agricultural Practice for the Protection of Soil' Ministry of Agriculture, Fisheries and Food (MAFF), 1993, which are protective of healthy plant growth.

Table 9: Summary of soils chemical analysis results

CONTAMINANT	N	LOD	MIN	MAX	MEAN	SCREENING LEVEL (SL)	No. > SL
		(mg.kg^{-1} unless stated)					
HUMAN HEALTH RISK ASSESSMENT							
Asbestos in soil (% w/w)	20	0.0001	nd	nd	nd	Detected	0
pH (pH units)	31	N/A	5.7	8.9	6.7	5 – 9	0
Arsenic	27	1	5.5	18.0	9.9	37	0
Barium	27	1	40.0	120.0	76.1	1300	0
Cadmium	27	0.2	0.2	0.4	0.3	11	0
Chromium (III)	26	1	11.0	45.0	24.2	910	0
Hexavalent Chromium	26	1.8	1.8	1.8	1.8	6	0
Lead	26	1	8.7	170.0	38.1	200	0
Mercury	26	0.3	0.3	0.3	0.3	40	0
Nickel	26	1	16.0	36.0	23.7	130	0

[1] Nathanail, C. P., McCaffrey, C., Gillett, A. G., Ogden, R. C. and Nathanail, J. F. 2015. *The LQM/CIEH S4ULs for Human Health Risk Assessment*. Land Quality Press, Nottingham. Copyright Land Quality Management Limited reproduced with permission; Publication Number S4UL3100. All rights reserved. Including August 2015 nickel update.
[2] SP1010 *Development of Category 4 Screening Levels Main Report* (Dec 2013) and SP1010 *Policy Companion Document* (Mar 2014).

CONTAMINANT	N	LOD	MIN	MAX	MEAN	SCREENING LEVEL (SL)	No. > SL
		(mg.kg^{-1} unless stated)					
Selenium	26	1	1.0	1.4	1.0	250	0
Vanadium	26	1	16.0	49.0	33.9	410	0
TPH Aliphatic >EC_5 - EC_6	26	0.01	0.010	0.010	0.010	78	0
TPH Aliphatic >EC_6 - EC_8	26	0.01	0.010	0.010	0.010	230	0
TPH Aliphatic >EC_8 - EC_{10}	26	0.01	0.010	0.010	0.010	65	0
TPH Aliphatic >EC_{10} - EC_{12}	26	1	1.00	2.40	1.05	330	0
TPH Aliphatic >EC_{12} - EC_{16}	26	2	2.00	5.50	2.13	2400	0
TPH Aliphatic >EC_{16} - EC_{21}	26	8	8.00	8.00	8.00	92000	0
TPH Aliphatic >EC_{21} - EC_{35}	26	8	8.00	28.00	8.77	92000	0
TPH Aromatic >EC_5 - EC_7	26	0.01	0.010	0.020	0.013	140	0
TPH Aromatic >EC_7 - EC_8	26	0.01	0.010	0.020	0.013	290	0
TPH Aromatic >EC_8 - EC_{10}	26	0.02	0.020	0.020	0.020	83	0
TPH Aromatic >EC_{10} - EC_{12}	26	1	1.00	1.00	1.00	180	0
TPH Aromatic >EC_{12} - EC_{16}	26	2	2.00	2.00	2.00	330	0
TPH Aromatic >EC_{16} - EC_{21}	26	10	10.00	10.00	10.00	540	0
TPH Aromatic >EC_{21} - EC_{35}	26	10	10.00	18.00	10.58	1500	0
Benzene	32	0.005	0.005	0.005	0.005	0.17	0
Toluene	32	0.005	0.005	0.005	0.005	290	0
Ethylbenzene	32	0.005	0.005	0.005	0.005	110	0
Xylene (total p,m and o)	32	0.013	0.013	0.013	0.013	130	0
Naphthalene	32	0.05	0.05	0.41	0.07	5.6	0
Acenaphthylene	32	0.05	0.05	0.08	0.05	420	0
Acenaphthene	32	0.05	0.05	0.06	0.05	510	0
Fluorene	32	0.05	0.05	0.06	0.05	400	0
Phenanthrene	32	0.05	0.05	0.67	0.12	220	0
Anthracene	32	0.05	0.05	0.20	0.06	5400	0
Fluoranthene	32	0.05	0.05	1.60	0.27	560	0
Pyrene	32	0.05	0.05	1.50	0.25	1200	0
Benzo(a)anthracene	32	0.05	0.05	0.85	0.15	11	0
Chrysene	32	0.05	0.05	0.89	0.16	22	0
Benzo(b)fluoranthene	32	0.05	0.05	1.40	0.21	3.3	0
Benzo(k)fluoranthene	32	0.05	0.05	0.46	0.10	93	0
Benzo(a)pyrene	32	0.05	0.05	1.00	0.16	2.7	0
Indeno(1,2,3-c,d)pyrene	32	0.05	0.05	0.52	0.10	36	0
Dibenzo(a,h)anthracene	32	0.05	0.05	0.11	0.05	0.28	0
Benzo(g,h,i)perylene	32	0.05	0.05	0.61	0.11	340	0

CONTAMINANT	N	LOD	MIN	MAX	MEAN	SCREENING LEVEL (SL)	No. > SL
		(mg.kg^{-1} unless stated)					
Phenol	27	1	1.0	1.0	1.0	200	0
PHYTOTOXICITY RISK ASSESSMENT							
Copper	26	1	8.9	34.0	21.7	200	0
Nickel	26	1	16.0	36.0	23.7	110	0
Zinc	26	1	28.0	340.0	73.5	300	1

Notes

nd - not detected

below laboratory limit of detection
LOD used as surrogate for analysis and risk assessment

8.2 SUMMARY

8.2.1 No contamination was encountered above residential screening levels in the topsoil, made ground or natural soils. Visible fragments of asbestos-containing roof tile were encountered at the surface around MHP03, within an animal shelter. Laboratory testing of the fragments indicated they were chrysotile asbestos cement sheets.

8.2.2 The ASL report (288-20-087-10R1) also indicated no contamination above residential screening levels and no asbestos was found within this investigation

SECTION 9 ENVIRONMENTAL ASSESSMENT – GROUNDWATER QUALITY

9.1 RESULTS

9.1.1 Groundwater level monitoring was undertaken on three occasions between on 24 October and 18 December 2025. Resting waters levels were recorded at 1.30 to 3.10 m bgl. No groundwater sampling was undertaken.

SECTION 10 ENVIRONMENTAL ASSESSMENT - HAZARDOUS GAS

10.1 RESULTS

10.1.1 Gas monitoring was undertaken on three occasions between 24 October and 18 December 2025. The maximum and steady state levels of methane, carbon dioxide, oxygen, carbon monoxide and hydrogen sulphide were recorded in each standpipe, together with associated parameters including borehole flow and ambient air pressure. The time taken to reach steady state was also recorded.

10.1.2 The Merebrook gas monitoring is supplementary to the ASL 2021 monitoring programme (3 rounds) which indicated elevated carbon dioxide concentrations at 5.2% v/v in WS1. The Merebrook gas monitoring targeted the area around ASL

borehole WS1 to aid in further assessment of the ground gas conditions. Historic boreholes (MWS102, MWS103 and MWS105) installed by Merebrook for a historic groundwater monitoring programme were also included within this monitoring programme as the boreholes were still serviceable.

10.1.3 The full results are presented in Appendix 8 and a summary of key readings for each strata monitored are presented in Table 10.

Table 10: Summary of hazardous gas monitoring data

Monitoring Well Reference				MWS102		
Top of Response Zone (m bgl)				1.00		
Bottom of Response Zone (m bgl)				4.00		
Response Zone Stratum				Gault Formation		
Round	AP (mb)	Flow Max ($l.hr^{-1}$)	Flow Steady ($l.hr^{-1}$)	Methane Max (% v/v)	Carbon Dioxide Max (% v/v)	Dip to water (m bgl)
1	998	0.0	0.0	0.0	1.5	2.20
2	1002	0.0	0.0	0.0	1.4	2.40
3	1003	0.0	0.0	0.0	0.9	DRY

Monitoring Well Reference				MWS103		
Top of Response Zone (m bgl)				1.00		
Bottom of Response Zone (m bgl)				3.00		
Response Zone Stratum				Gault Formation		
Round	AP (mb)	Flow Max ($l.hr^{-1}$)	Flow Steady ($l.hr^{-1}$)	Methane Max (% v/v)	Carbon Dioxide Max (% v/v)	Dip to water (m bgl)
1	998	0.0	0.0	0.0	0.9	2.45
2	1002	0.0	0.0	0.0	0.8	2.96
3	1003	0.0	0.0	0.0	0.9	DRY

Monitoring Well Reference				MWS105		
Top of Response Zone (m bgl)				1.00		
Bottom of Response Zone (m bgl)				4.00		
Response Zone Stratum				Gault Formation		
Round	AP (mb)	Flow Max ($l.hr^{-1}$)	Flow Steady ($l.hr^{-1}$)	Methane Max (% v/v)	Carbon Dioxide Max (% v/v)	Dip to water (m bgl)
1	-	-	-	-	-	1.30

2	1002	0.0	0.0	0.0	0.8	1.95
3	1003	0.0	0.0	0.0	1.3	1.40

Monitoring Well Reference				MWS201		
Top of Response Zone (m bgl)				1.00		
Bottom of Response Zone (m bgl)				3.00		
Response Zone Stratum				Gault Formation		
Round	**AP (mb)**	**Flow Max ($l.hr^{-1}$)**	**Flow Steady ($l.hr^{-1}$)**	**Methane Max (% v/v)**	**Carbon Dioxide Max (% v/v)**	**Dip to water (m bgl)**
1	998	0.0	0.0	0.0	0.8	2.30
2	1001	0.0	0.0	0.0	1.2	2.96
3	1002	0.0	0.0	0.0	1.9	2.60

Monitoring Well Reference				MWS202		
Top of Response Zone (m bgl)				1.00		
Bottom of Response Zone (m bgl)				3.00		
Response Zone Stratum				Gault Formation		
Round	**AP (mb)**	**Flow Max ($l.hr^{-1}$)**	**Flow Steady ($l.hr^{-1}$)**	**Methane Max (% v/v)**	**Carbon Dioxide Max (% v/v)**	**Dip to water (m bgl)**
1	997	0.0	0.0	0.0	1.7	3.00
2	1000	0.0	0.0	0.0	2.0	2.97
3	1002	0.0	0.0	0.0	2.2	3.10

Monitoring Well Reference				MWS203		
Top of Response Zone (m bgl)				1.00		
Bottom of Response Zone (m bgl)				2.00		
Response Zone Stratum				Gault Formation		
Round	**AP (mb)**	**Flow Max ($l.hr^{-1}$)**	**Flow Steady ($l.hr^{-1}$)**	**Methane Max (% v/v)**	**Carbon Dioxide Max (% v/v)**	**Dip to water (m bgl)**
1	998	0.0	0.0	0.0	0.7	1.50
2	1001	0.0	0.0	0.0	1.6	1.96
3	1003	0.0	0.0	0.0	1.8	1.60

10.1.4 The majority of the response zone in MWS105 was flooded in round 1, so results have been discounted from risk assessments due to not reflecting the true ground gas conditions.

10.1.5 The recent monitoring rounds were undertaken at low and falling barometric pressures ranging from 997 to 1002 mb. Positive flow was not recorded. Over the two monitoring rounds, methane (CH_4) was not detected, carbon dioxide (CO_2) was detected to a maximum of 2.0 % v/v with a corresponding depleted oxygen concentration of 17.1 % v/v.

SECTION 11 ENVIRONMENTAL ASSESSMENT - VAPOUR

11.1 RESULTS

11.1.1 Vapour monitoring has been undertaken on one occasion – 24 October 2025. The maximum and steady state levels of VOCs were recorded using a PID (photo-ionization device) in each standpipe. The time taken to reach steady state was also recorded. The PID readings ranged from 0.0 to 1.3 ppm which is not indicative of significant contamination.

SECTION 12 WASTE CLASSIFICATION, OFF-SITE DISPOSAL OR RE-USE

12.1 WASTE CLASSIFICATION

12.1.1 Waste soils are classified into two main categories: Hazardous and Non-hazardous, based on Technical Guidance WM3: *Guidance on the classification and assessment of waste* (1st Edition v1.2.GB) published by Natural Resources Wales, Scottish Environment Protection Agency and the Environment Agency.

12.1.2 Waste soil classification has been undertaken to characterise and categorise soils to inform decision making.

12.1.3 Soil that contains identifiable pieces of asbestos containing material (i.e. any particle of a size that can be identified as potentially being asbestos by a competent person if examined by the naked eye), then the soil is regarded as hazardous waste. Asbestos fragments were found at the surface of MHP03 within the animal shelter.

12.1.4 Soil with an asbestos content in excess of 0.1% by weight is classified as hazardous waste. No soils with elevated concentrations of asbestos fibres were identified.

12.1.5 Natural as-dug arisings (excluding topsoil) could be classed as inert waste without the requirement for WAC testing.

12.1.6 Waste Acceptance Criteria (WAC) tests are a supplementary set of tests that determine the acceptability of waste soils into the determined category of landfill based on the waste classification. For non-hazardous waste, WAC testing can determine whether soils could be accepted at inert landfill. For hazardous waste, WAC testing provides information whether soils can be disposed of a hazardous landfill or as Stable Non-reactive hazardous waste (SNRHW). Where hazardous soils fail these criteria, pre-treatment may be necessary.

12.1.7 Preliminary results show made ground and topsoil on site to be non-hazardous if they were to become a waste.

12.1.8 Materials, including waste soils which are not to be retained on site, should be removed and disposed of in accordance with all relevant statutes.

12.1.9 It is a requirement that waste sent to landfill should have been subject to measures to reduce the amount of waste, reduce harmful or hazardous properties and facilitate recycling. These requirements may be satisfied by measures such as segregation and screening of wastes to recover suitable fill and material for crushing, segregation of inert materials and putrescible wastes.

12.2 RE-USE CONSIDERATIONS

12.2.1 As a sustainable alternative to off-site disposal, it may be possible to re-use site-won soils provided the following criteria are met:

i. Use of the material will not create an unacceptable risk of pollution to the environment or harm to human health;

ii. The material must be chemically and geotechnically suitable without further treatment;

iii. There must be certainty of use within the scheme;

iv. Material should only be used in the quantity necessary for that use.

12.2.2 Provided these criteria are met, the re-use of site-won materials is unlikely to be deemed a waste activity. Production of a *Materials Management Plan* under the industry *CL:AIRE Code of Practice on the Definition of Waste* represents a robust method of demonstrating that the proposed re-use of material meets the criteria and is not liable for landfill tax.

12.2.3 During excavation and re-use of "*uncontaminated soil and other naturally occurring material*", an exclusion to waste legislation can apply under the Waste Framework Directive. To qualify for the exclusion, soils must be:

i. Uncontaminated;

ii. Excavated during the construction activities; and

iii. Certain to be used in its natural state for construction purposes on the same site.

12.2.4 Under this exclusion, the definition of uncontaminated soil and other naturally occurring material is as follows:

virgin soil or soil that is equivalent to virgin soil. Other naturally occurring material means soil, stones, gravel, rock, etc.

12.3 TOPSOIL QUALITY

12.3.1 Fifteen BS 3882: 2015 tests were taken from topsoil across the site. Out of the fifteen tests, three passed the criteria for multipurpose topsoil (one of the three had insufficient sample to carry out the texture analysis). Twelve of the samples failed the specification for multipurpose topsoil due to being deficient in extractable potassium and/or phosphate and/or having a too high clay content. Although CBR8, CBR15, MTP111, MTP112 and MTP108 failed the criteria for multipurpose topsoil, they passed the low fertility topsoil specification. MTP112 also passed as low fertility calcareous topsoil. The results are summarised in Table 9 below.

12.3.2 Although the results indicate the majority of topsoil is not of sufficient quality for use as multipurpose topsoil, the final decision on topsoil quality should be for the landscape architect in the context of the proposed planting schemes. Vegetation growth was observed as healthy across the site, so this is evidence in support of the topsoil being capable of supporting vegetation growth.

Table 11: Summary of BS 3882:2015 tests

Sample ID	Soil Texture	Soil Texture Pass / Fail	Multipurpose Soil Pass / Fail	Failure Reason	Specification passes
CBR2	Clay	Fail	Fail	Extractable Phosphate & Texture	
CBR4	Clay	Fail	Fail	Extractable Phosphate	
CBR8	Clay loam	Pass	Fail	Extractable Phosphate and potassium	Low fertility
CBR7	-	-	Fail	Extractable Phosphate and potassium	
CBR10	Clay	Fail	Fail	Texture	
CBR11	Clay	Fail	Fail	Texture	
CBR12	Silty clay	Fail	Fail	Texture	
CBR13	-	-	Pass	Insufficient sample for texture analysis	
CBR14	Clay loam	Pass	Pass		
CBR15	Sandy loam	Pass	Fail	Extractable Phosphate	Low fertility
MTP106	Clay	Fail	Fail	Extractable Phosphate	
MTP108	Clay loam	Pass	Pass		
MTP111	Sandy silt loam	Pass	Fail	Extractable Phosphate	Low fertility
MTP112	Clay loam	Pass	Fail	Extractable Phosphate and potassium	Low fertility and low fertility calcareous
MTP114	Sandy silt loam	Pass	Fail	Extractable Phosphate and potassium	Low fertility

SECTION 13 GENERIC QUANTITATIVE RISK ASSESSMENT (TIER 2)

13.1 INTRODUCTION

13.1.1 The site investigation has identified fragments of asbestos roof tile at the surface within an animal shelter (MHP03). With the exception of the asbestos fragments at the surface of MHP03, the made ground encountered was not found to be contaminated. Ground gas was not identified at hazardous concentrations during the recent monitoring.

13.1.2 The potential impacts of contamination sources have been considered with respect to the following receptors:

i. Present site users;

ii. Future residents;

iii. Construction workers;

iv. Plants used in landscaping;

v. Potable water supply pipework;

vi. The general public and adjacent site users;

vii. Controlled waters;

13.1.3 The potential sources of contamination at the site and the implications with respect to development have been interpreted in accordance with the current government guidance on source-pathway-receptor risk assessment.

13.1.4 In each case the existence of a pollutant linkage requires a pathway by which the receptor could be exposed to the source. A qualitative assessment of risk is thus considered in the first instance with respect to the site in its current condition and is summarised in the sections below.

13.1.5 The level of risk considers the likelihood of the risk occurring and the severity of the potential consequence of that risk using the approach outlined in Appendix 3. As illustrated in Table 12, this Tier 2 risk assessment combines the likelihood and severity of the risk using a Risk Assessment Matrix approach as recommended by CIRIA C552, 2001 and updated in *Guidance for the Safe Development of Housing on Land Affected by Contamination R&D66* published by NHBC, EA and CIEH (2008).

Table 12: Risk assessment matrix (after CIRIA C552 and R&D66)

		MAGNITUDE OF POTENTIAL CONSEQUENCE (SEVERITY) OF RISK			
		SEVERE	**MEDIUM**	**MILD**	**MINOR**
LIKELIHOOD OF RISK	**HIGH LIKELIHOOD**	Very High Risk	High Risk	Moderate Risk	Low Risk
	LIKELY	High Risk	Moderate Risk	Moderate / Low Risk	Low Risk
	LOW LIKELIHOOD	Moderate Risk	Moderate / Low Risk	Low Risk	Very Low Risk
	UNLIKELY	Moderate / Low Risk	Low Risk	Very Low Risk	Very Low Risk

13.2 SOIL CONTAMINATION (HEAVY METALS AND HYDROCARBONS)

13.2.1 No soil contamination was encountered above residential screening levels.

13.3 SOIL CONTAMINATION (ASBESTOS)

13.3.1 Asbestos fragments were encountered at the surface of MHP03 within the animal shelter, but no asbestos fibres were identified in site soils. Asbestos risk is considered to be limited and localised to the area of the shelter and would be dealt with as part of site clearance activities.

13.3.2 Table 13 below summarises the level of risk assigned to each receptor from asbestos contamination:

Table 13: Risks from soil contamination (asbestos)

Receptor	Pathway / Exposure	Likelihood of Risk	Severity of Risk	Overall Risk Rating
The general public and present site users	inhalation of airborne fibres generated from dry soils	unlikely	minor	VERY LOW
Residents of future development in the area of the shelter in the absence of clearance of surface fragments		unlikely	medium	LOW
Construction workers in the area of the shelter		low likelihood	medium	MODERATE / LOW
Adjacent site users		unlikely	mild	VERY LOW

13.4 HAZARDOUS GAS

13.4.1 The presence of potentially significant concentrations of carbon dioxide and methane were identified by ASL in the form of carbon dioxide which was marginally elevated above the typical 5 % threshold for a Characteristic Situation 1 risk rating. Further monitoring was carried out by Merebrook in the area of WS1, where carbon dioxide was measured at 5.2% (v/v) in two monitoring rounds by ASL to increase the dataset and provide a more robust basis for risk assessment.

13.4.2 It is proposed to develop the site for residential use. The primary cause of soil gas entering a building is the pressure difference that exists between inside and outside the building: this tends to draw soil gas into the building from the ground below. Typically, soil gases can enter buildings through:

i. gaps around service pipes;

ii. cracks in walls below ground and floor slabs;

iii. construction joints; and

iv. wall cavities.

13.4.3 A potential source and pathway have been identified and therefore the soil gas regime at the site should be established through risk assessment in accordance with BS 8485:2015+A1:2019.

13.4.4 Borehole hazardous gas flow rates (Q_{hg}) for carbon dioxide and methane were calculated using the maximum concentration recorded during each monitoring event together with steady state values of gas flow.

13.4.5 Where no gas borehole flow was detected, the detection limit of the instrumentation was used for the purposes of calculating the Q_{hg}.

13.4.6 Gas Screening Values (GSV) for methane and carbon dioxide have been derived from:

i. The maximum Q_{hg} calculated for methane and carbon dioxide for all monitoring events; and

ii. The maximum Q_{hg} calculated for methane and carbon dioxide across all standpipes and all monitoring rounds.

13.4.7 The Q_{hg} values for methane and carbon dioxide across all monitoring events are presented in Table 14 and the implied Characteristic Situation for the maximum Q_{hg} values are presented in Table 15.

13.4.8 Using maximum steady state data combined from more than one monitoring standpipe location and different monitoring rounds, Q_{hg} values for methane and carbon dioxide have been calculated. The data is presented in Table 16.

13.4.9 A worst-case check has been carried out using the maximum peak gas flow and maximum peak gas concentrations for carbon dioxide and methane. The data is presented in Table 17.

13.4.10 The worst-case check involving data from the 2022 ASL investigation suggests a GSV of 0.1092 $L.h^{-1}$ due to carbon dioxide concentrations of 5.2 % v/v over two rounds and positive flow recorded in other locations, this would indicate CS2. However, no flow was recorded within WS1 and subsequent monitoring of the WS1 area by Merebrook has indicated carbon dioxide concentrations at a maximum of 2.0 % v/v, with no flow. The dataset is considered to be reasonably robust with rounds from periods of low and falling atmospheric pressure. These factors in combination with the lack of credible source of gas within the area means the site GSV is taken to be 0.0052 $L.h^{-1}$. As presented in Appendix 9, a GSV of 0.0052 $L.h^{-1}$ lies within the range of GSV values for CS1. Therefore, CS1 is taken as the design gas regime for the site.

13.4.11 The following information is presented in Appendix 9:

i. Wilson and Card Classifications;

ii. gas protection scores required for each Building Types and Characteristic Situation to achieve the appropriate level of protection; and

iii. gas protection elements that can be incorporated into building design with their associated assigned score.

Table 14: Borehole hazardous gas flow rates for all monitoring events.

Merebrook 2025 Monitoring				
Monitoring Standpipe Reference	Gas	Round 1 Q_{hg}	Round 2 Q_{hg}	Round 3 Q_{hg}
MWS102	methane	0	0	0
	carbon dioxide	0.0015	0.0014	0.0009
MWS103	methane	0	0	0
	carbon dioxide	0.0009	0.0008	0.0009
MWS105	methane	-	0	0
	carbon dioxide	-	0.0008	0.0013
MWS201	methane	0	0	0
	carbon dioxide	0.0008	0.0012	0.0019
MWS202	methane	0	0	0
	carbon dioxide	**0.0017**	0.002	0.0022
MWS203	methane	0	0	0
	carbon dioxide	0.0007	0.0016	0.0018
ASL 2022 Monitoring				
Monitoring Standpipe Reference	Gas	Round 1 Q_{hg}	Round 2 Q_{hg}	Round 3 Q_{hg}
WS1	methane	0	0	0
	carbon dioxide	0.0045	**0.0052⁺**	**0.0052⁺**
WS2	methane	0	0	0
	carbon dioxide	0.0015	0.0015	0.0015
WS4	methane	0	0	0
	carbon dioxide	0.0028	0.0029	0.0029
WS7	methane	0	0	0
	carbon dioxide	0.0015	0.0016	0.0016
WS8	methane	0	0	0
	carbon dioxide	0.0018	0.0013	0.0016
WS10	methane	0	0	0
	carbon dioxide	0.0023	0.002	0.0023

WS13	methane	0	0	0
	carbon dioxide	0.0014	0.0015	0.0015
WS15	methane	0	0	0
	carbon dioxide	0.0027	0.0029	0.003
WS17	methane	0	0	0
	carbon dioxide	0.0043	0.0044	0.0045
WS20	methane	0	0	0
	carbon dioxide	0.0004	0.0006	0.0001
WS21	methane	0	0	0
	carbon dioxide	0.0023	0.0024	0.0025
WS25	methane	0	0	0
	carbon dioxide	0.0021	0.002	0.0021

Table 15: Maximum Q_{hg} for all individual events

Gas	Max Q_{hg} across individual events	Implied CS
methane	0.0000	1
carbon dioxide	0.0052	1

Table 16: Maximum Q_{hg} for all events combined

Gas	Max Q_{hg} events combined	Implied CS
methane	0.0000	1
carbon dioxide	0.0052	1

Table 17: Worst case check maximum Q_{hg} using maximum flow and maximum peak gas concentration

Gas	Max Q_{hg} using Max Flow events combined	Implied CS
methane	0.0000	1
carbon dioxide	0.1092	2

13.4.12 Table 18 below presents the Modified Wilson and Card Classifications and their corresponding hazard potentials as defined in BS 8485. The Modified Wilson and Card classification as presented in CIRIA C665 *Assessing risks posed by hazardous ground gases to buildings* instead defines this as the risk classification. The higher the classification the greater the risk posed by the presence of gas.

Table 18: Characteristic Situation and Risk

Characteristic Situation	Modified Wilson and Card Risk Classification
CS1	Very Low
CS2	Low
CS3	Moderate
CS4	Moderate to High
CS5	High
CS6	Very High

13.4.13 The risk classification for the site has been used to develop overall risk ratings for each identified receptor.

13.4.14 Table 19 below summarises the level of risk to each receptor from hazardous gas generation:

Table 19: Risks from hazardous gas

Receptor	Pathway / Exposure	Likelihood of Risk	Severity of Risk	Overall Risk Rating
The general public and present site users	decomposition of putrescible made ground generating hazardous gas that can migrate by diffusion or advection via cracks in foundations / utility trenches / service penetrations. Outdoor inhalation in confined excavations.	unlikely	minor	VERY LOW
Residents of future development		unlikely	minor	VERY LOW
Construction workers		unlikely	minor	VERY LOW
Adjacent site users		unlikely	minor	VERY LOW

SECTION 14 UPDATED COMBINED CONCEPTUAL SITE MODEL AND RISK ASSESSMENT

14.1 Following completion of the Tier 2 generic quantitative risk assessment, the preliminary combined conceptual site model and risk assessment has been updated and is presented in Table 20.

Table 20: Combined Conceptual Site Model and Tier 2 Risk Assessment

POTENTIAL CONTAMINANT SOURCE	RELEASE MECHANISM	PATHWAY	EXPOSURE ROUTE	RECEPTOR							
				Present Site Users / General Public	Future Residents / Site Users	Construction Workers	On-Site Planting	Water Supply Pipes	Adjacent Site Users / General Public	Controlled Waters	
										Surface Water	Aquifer
SOIL (HEAVY METALS AND HYDROCARBONS)	DUST	AIR	INHALATION	X	X	X			X		
	DIRECT	DIRECT	INGESTION	X	X	X					
	DIRECT	DIRECT	DERMAL EXPOSURE	X	X	X					
	DIRECT	DIRECT	DIRECT CONTACT / UPTAKE				X	X			
	PLANT UPTAKE	GARDEN FRUIT AND VEGETABLES	INGESTION	X	X						
	INFILTRATION / LEACHING	GROUNDWATER FLOW	DIRECT								X
	RUNOFF	SURFACE WATER FLOW	DIRECT							X	
MADE GROUND AROUND SHELTER (ASBESTOS)	FIBRE RELEASE	AIR	INHALATION	VERY LOW	LOW	MODERATE / LOW			VERY LOW		
MADE GROUND ELSEWHERE (ASBESTOS)	FIBRE RELEASE	AIR	INHALATION	X	X	X			X		
SOIL (PUTRESCIBLE MADE GROUND)	GAS FROM DECOMPOSITION	AIR	INHALATION	VERY LOW	VERY LOW	VERY LOW			VERY LOW		
GROUNDWATER (DISSOLVED CONTAMINANTS)	DIRECT	BASEFLOW TO SURFACE WATER	DIRECT							X	
URANIUM IN UNDERLYING STRATA	RADON FROM RADIOACTIVE DECAY	AIR	INHALATION	X	X	X					

X SOURCE►PATHWAY►RECEPTOR NOT COMPLETE AND NO FURTHER ACTION REQUIRED

SECTION 15 DETAILED QUANTITATIVE RISK ASSESSMENT (TIER 3)

15.1 No contaminant linkages requiring further supplementary site investigation and detailed quantitative risk assessment have been identified and there is sufficient information to design a preliminary remediation strategy.

SECTION 16 PRELIMINARY REMEDIATION STRATEGY AND RECOMMENDATIONS

16.1 INTRODUCTION

16.1.1 Unacceptable risks have been identified in a localised areas and remedial action will be required to prevent, minimise, remedy or mitigate the effects of these risks. The relevant contaminant linkages are:

i. Asbestos fragments on the ground surface of an animal shelter in the south of the site (MHP03)

16.1.2 Following guidance given on Land Contamination Risk Management (LCRM) available on www.gov.uk and last updated in July 2023, the following three procedures should be followed:

i. Identify feasible remediation options;

ii. Undertake a detailed evaluation of the options; and

iii. Select the final remediation option.

16.1.3 This report provides an initial high-level overview and recommends a remedial option considered to be appropriate for each relevant contamination linkage. A detailed remediation method statement, compliant with LCRM guidance will be required.

16.2 MADE GROUND

16.2.1 Made ground has been encountered at limited locations and generally comprised topsoil with minimal anthropogenic content. It was noted that no exceedances of applicable residential criteria were encountered by Merebrook or ASL. It is proposed that during enabling works, made ground will be excavated and stored in carefully managed stockpiles. Merebrook will visually inspect and sample the stockpiles to determine the suitability of the soils for retention on site. Excavated made ground will be sampled at a nominal rate of one sample per 500 m^3.

16.2.2 The reuse of site-won soils shall be carried out in accordance with the Definition of Waste: Development of industry Code of Practice. A Material Management Plan (MMP) shall be prepared and declared prior to the commencement of the earthworks.

16.2.3 Made ground soils may be reused as general fill beneath areas of hardstanding (i.e. buildings, roads etc.) provided that they are deemed suitable for use under the Material Management Plan (MMP).

16.3 **GAS / VAPOUR PROTECTION**

16.3.1 No gas or vapour protection measures are required.

16.4 **ASBESTOS**

16.4.1 Asbestos (chrysotile) cement roof tiles and broken fragments were present at the ground surface of MHP03. Following the demolition of the shelter, it is recommended that the ground surface is handpicked to be free of asbestos containing materials, followed by a surface scrape of topsoil from the affected area, to be disposed of offsite, likely as hazardous waste. Alternatively, soil inspection, sampling and asbestos fibre testing could be undertaken following the picking exercise to demonstrate the effectiveness of the action.

16.5 **PROTECTION OF CONSTRUCTION WORKERS**

16.5.1 Other than the localised surface asbestos, no specific contamination risks to construction workers have been identified. The adoption of standard Health and Safety procedures on the wider will ensure that risks to operatives at the site are minimised. Operatives should not be allowed to eat, drink or smoke on site except in designated areas and should be required to wash all exposed skin at the end of each shift. Operatives should be informed of the potential hazards at the site and should be required to report any observations of suspect material. A specific contractor risk assessment and method statement will be required for the surface clearance works in the asbestos-affected area.

16.6 **WATER SUPPLY PIPES**

16.6.1 No contamination with the potential to permeate polymeric services has been identified by this investigation, however it is recommended that the utility provider is consulted with respect to their requirements for water supply pipes. Utility companies apply strict guideline levels on use of polymeric pipes and may consider all made ground unsuitable for typical plastic pipe materials to be used.

16.7 **WASTE**

16.7.1 Materials, including waste soils which are not to be retained on site, should be removed and disposed of in accordance with all relevant statutes.

16.8 **OTHER RECOMMENDATIONS**

16.8.1 The site has considerable topsoil resource, however the topsoil does not consistently comply with standards for multipurpose topsoil due to a clayey texture and deficient nutrients. Documented soil management procedures are recommended to ensure appropriate re-use of soils. This should also ensure that the localised (uncontaminated) made ground soils around the animal shelters are excluded from re-use in proposed garden and soft landscaped areas. Liaison with the landscape architect will also be required to determine the suitability for re-use of site-won topsoils given their typically clayey texture and nutrient deficiency compared to the

British Standard multipurpose grade. This should be documented in a Materials Management Plan under the CL:AIRE *Definition of Waste: Development Industry Code of Practice*.

16.8.2 It is recommended that this report is submitted to the regulators (Local Authority EHO and Planners, Environment Agency Planning Liaison and NHBC) for approval prior to commencement of the works.

16.8.3 Any observations of ground conditions atypical of those already described should be reported to Merebrook immediately so that an assessment of appropriate action can be made.

SECTION 17 CONCLUSIONS

17.1 Topsoil was encountered site-wide and consisted of a dark brown slightly sandy slightly gravelly clay with gravels of flint and rare brick.

17.2 Made ground was encountered locally associated with animal shelters where it included a component of brick, charcoal, metal, pottery and concrete. Asbestos cement sheet fragments were found at the surface of MHP03.

17.3 Head Deposits (gravelly clay) and River Terrace Deposits were encountered in the east of the site. The Gault Formation (stiff to very stiff grey silty clay) was encountered site wide below the superficial deposits or topsoil.

17.4 No significant contamination has been identified within soils at the site.

17.5 Asbestos fragments have been identified at the surface in one location and will require picking as part of planned clearance activities under an appropriate contractor risk assessment and method statement. Verification of the removal of asbestos will be required.

17.6 No gas protection measures are required in structures.

17.7 Documented soil management procedures will be required to ensure appropriate re-use of site-won soils.

17.8 Traditional strip/trench fill footings at 1.0 m depth recommended outside the zone of influence of trees. Localised deepening due to engineered fill or tree influence. Bored piles may be required where deep traditional footings are not viable in close proximity to trees or for flat blocks. Preliminary pile resistances are provided in Table 8.

17.9 The Design Sulphate Class and Aggressive Chemical Environment for Concrete class for site in general is DS-2 and AC-2, respectively; Where engineered fill is site won from within Gault Clay Formation or disturbed pile arisings are reused, higher DS-4 and AC-4 class will apply.

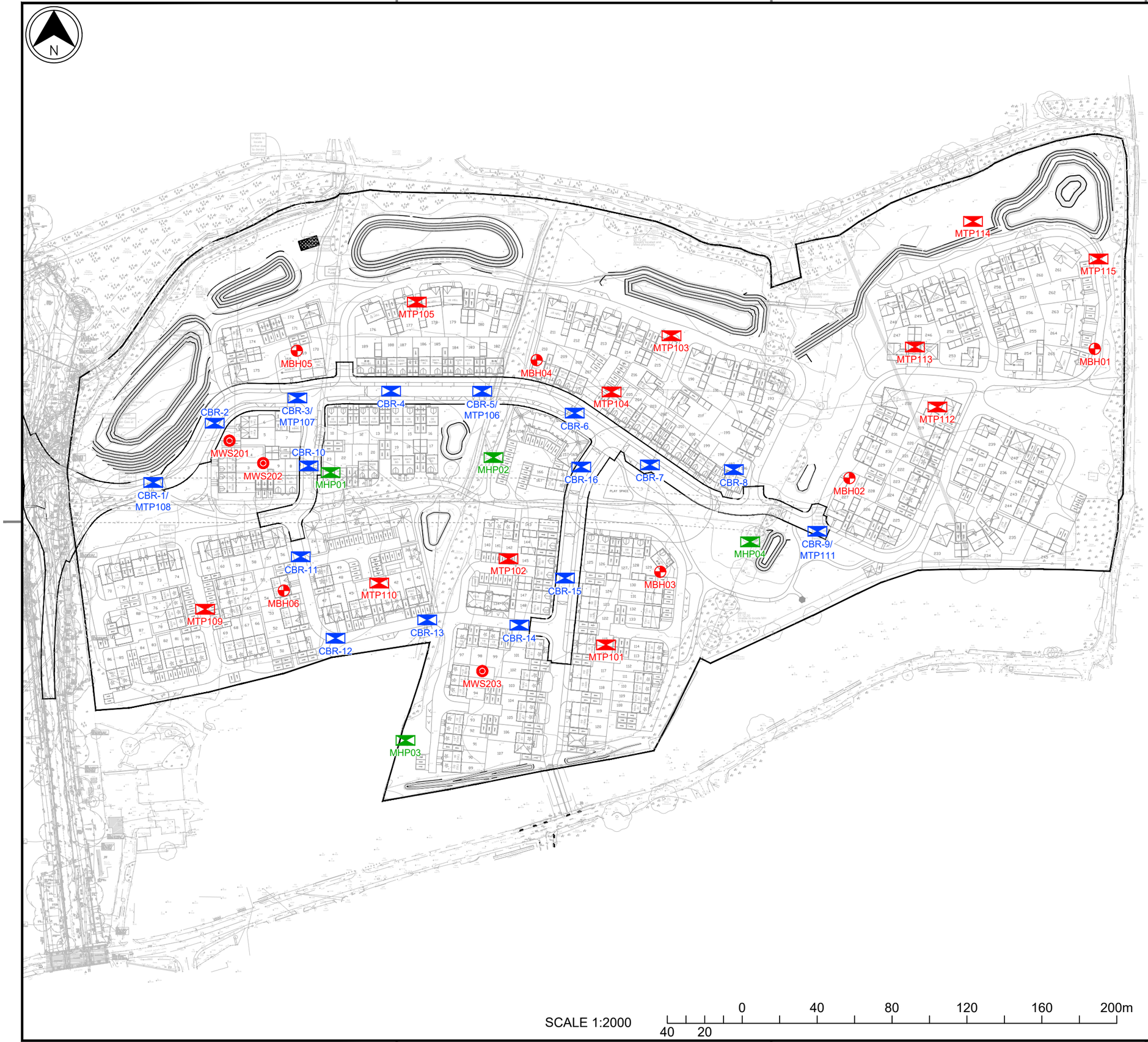
17.10 A CBR of 5% is recommended at the east of the site in Head Deposits or River Terrace Deposits. A CBR of 2% is recommended where Gault Clay is present near surface.

17.11 Preliminary cut and fill plan shows up to 2.0m of cut and fill required across the site. Earthworks Specification and Geotechnical Design Statement/Report should be produced. Safe slope gradient in Gault Clay for medium to long term stability of slopes is 1:3.

17.12 Soakaways may not be feasible due to cohesive nature of the underlying soils. Infiltration tests in accordance with BRE365 should be carried to assess suitability if soakaways are proposed.

APPENDIX 1

- Site Location Plan
- Proposed Development Plan



NOTES

1. Do not scale from this drawing.
2. Levels are in metres AOD, unless stated otherwise.
3. Dimensions are in metres, unless stated otherwise.
4. This drawing should only be used for the purpose intended. Merebrook Consulting Limited are not accountable for use outside of intended purpose.

LEGEND

- Site boundary
- MBHref — Merebrook borehole with location reference
- MTPref — Merebrook trial pit with location reference
- MWSref — Merebrook window sample with location reference
- MHPref — Merebrook hand pit with location reference
- CBRref — Vistry specified trial pit location for lab CBR testing with location reference

DESCRIPTION	DATE	DWN	CHD	APP'D	REV
First Issue	14/11/25	FO	BA	BA	-

ISSUE PURPOSE: PRELIMINARY

CLIENT: Vistry South East

PROJECT: Glebe Farm, Steyning

DWG TITLE: Undertaken Site Investigation Locations Plan

DWG NO.: 21949ah-304-001

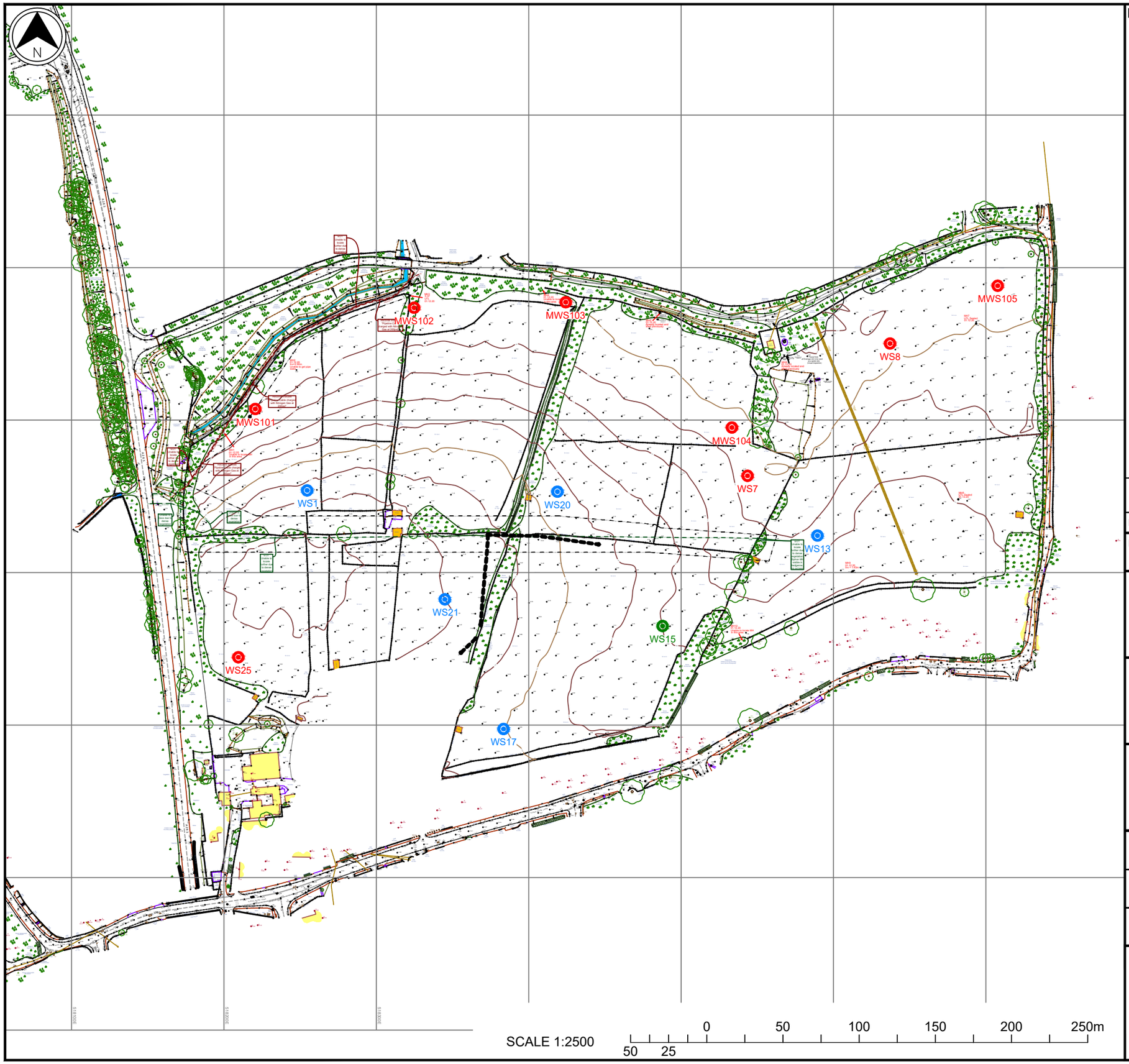
SCALE	DATE	FRAME DIMS (mm)
1:2000	November 2025	(A3) 420 x 297

DRAWN	CHECKED	APPROVED
FO	BA	BA

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C:\Users\CharlieOliveira\Merebrook Consulting Limited\Merebrook - 21949ah Glebe Farm, Steyning\4.0 Project Documents\4.1 Drawings\4.1.1 Merebrook\CAD\21949ah-304-001.dwg



LEGEND

MWSref — Merebrook diver install window sample with location reference

WSref — Previous window sample unable to locate

WSref — Previous window sample located but with too little groundwater to install diver

First Issue	01/12/2023		-
	FO	FL	FL
ISSUE DETAILS	DWN	CHD	APP'D

ISSUE PURPOSE: PRELIMINARY

CLIENT: Vistry

PROJECT: Glebe Farm, Steyning

DWG TITLE: Diver Installed Locations Plan

DWG NO.: 22635-304-001

SCALE	DATE	FRAME DIMS (mm)
1:2500	December 2023	(A3) 400 x 280
DRAWN	CHECKED	APPROVED
FO	FL	FL

IDOM

Registered Office: Cromford Mills, Mill Lane, Matlock, Derbyshire, DE4 3RQ
Website: www.merebrook.co.uk **t**: +44(0)1773 829 988 **e**: info.derbyshire@idom.com

CBR Testing Points				
Location Reference	Eastings	Northings	EGL (m)	Road Formation Level (m)
CBR-1	518220.339	111534.687	11.966	10.218
CBR-2	518253.161	111566.334	10.525	9.305
CBR-3	518297.298	111579.788	10.289	9.623
CBR-4	518347.322	111583.478	9.934	9.109
CBR-5	518395.944	111583.390	9.224	8.589
CBR-6	518445.344	111571.709	7.962	7.462
CBR-7	518485.508	111544.047	7.798	7.298
CBR-8	518530.376	111541.547	6.413	6.599
CBR-9	518574.927	111508.617	6.540	6.596
CBR-10	518303.273	111543.561	12.058	11.098
CBR-11	518299.062	111495.040	12.827	11.912
CBR-12	518317.612	111451.515	12.146	11.209
CBR-13	518366.586	111461.357	11.580	10.611
CBR-14	518415.829	111458.569	10.060	8.834
CBR-15	518440.136	111483.656	9.617	8.439
CBR-16	518448.856	111542.961	8.753	8.227

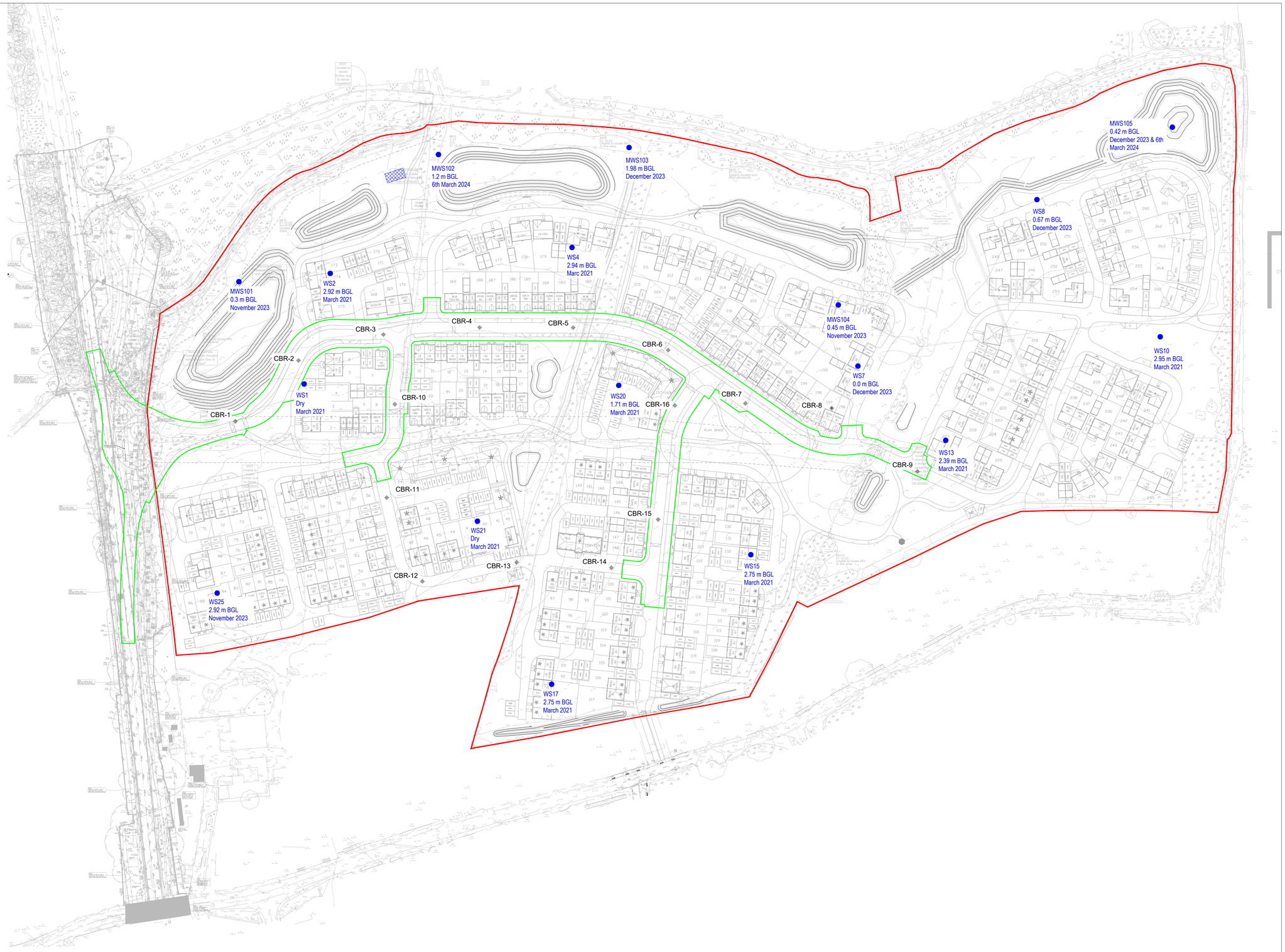
CBR Notes:

1. During construction the contractor must demonstrate that the CBR value of the subgrade is equal to or greater than the design CBR value. It should be noted that the construction thickness may need to be increased if in-situ CBR values at the time of construction are less than the design CBR value (contractor to consult engineer prior to laying of capping / sub-base if this is the case). However a reduction in the construction thickness will not be considered if the in-situ CBR values at the time of construction are greater than the design CBR value.
2. In-situ CBR testing shall be carried out at no greater than 50m centres, staggered across the width of the road corridor. Acceptable in-situ CBR test methods include TRL Dynamic Cone Penetrometer Testing, California Bearing Ratio (BS1377, part 9), or alternatively the CBR value may be derived from Plate Bearing test data.
3. In addition to the sub-grade confirmation CBR test, during construction, the contractor shall also carry out in-situ CBR test at the top of capping (demonstrating that a minimum 15% CBR is being achieved) and at the top of the sub-base (demonstration that a minimum 30% CBR is being achieved).
4. The contractor shall provide a plan showing in-situ confirmation CBR test locations, numbered accordingly and test results corresponding with the numbering indicated on said plan.
5. Contractor to provide delivery tickets and grading certificates for all capping and sub-base material delivered to site which is to be used under adoptable roads.
6. All levels to be confirmed following detailed design.
7. Anticipated road formation is based on the lower of either 715mm below Finished Ground Level or 500mm below Existing Ground Level.

Key

- CBR Testing point
- Groundwater monitoring point. Shallowest Groundwater Level recorded below existing ground Date recorded Taken from IDOM report L-22635-2.4.2-24-299-FL Rev A
- S38 adoption boundary

NOTE: Some groundwater peak levels shown may be caused by surface water inundation. IDOM to review and advise.



General Notes

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2. All dimensions are millimetres (mm), and levels are in metres (m) unless noted otherwise and should be checked on site prior to construction/fabrication.
3. Do not scale from this drawing. Only figured dimensions are to be relied upon. Don't hesitate to get in touch with JNP Group if additional information is required.
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Health & Safety Note

The details on this drawing have been prepared on the assumption that a competent contractor will be carrying out the works. If the contractor(s) considers that there is insufficient Health and Safety information on this drawing, this should immediately be brought to the attention of the designer.

HAZARD IDENTIFICATION BOX

This table is provided to assist the Principal Contractor to fulfil their obligations under the CDM Regulations 2015

Hazard Ref	Hazard Type (Construction/Maintenance/ Cleaning/Demolition/Adaptation)	Hazard Description	Mitigation Measures/ Residual Risk
1			

Rev.	Date	Description	Drn / Chk'd / App'd
P02	29/09/2025	Updated CBR positions	JW / SH
P01	23/07/2025	First Issue	JM / SH

Suitability: S3 - Suitable for Review & Comment

Client: Vistry South East

Job: Glebe Farm, Steyning

Title: CBR Design and Road Construction Plan

Classification: FI_60_20

Scale @ A1: 1:1000

JNP GROUP
CONSULTING ENGINEERS
Amersham ● Belfast ● Brighouse ● Bristol
Hartlepool ● Sheffield ● Warwick
www.jnpgroup.co.uk

Project - Originator - Volume/System - Level/Location - Type - Discipline - Number: BR31285- JNP -XX-XX- DR -C- 2023

Document/Drawing Number

Revision: P02

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JNP Group Internal Project Number: BR31285

APPENDIX 2 ▪ Radon Potential Dataset Mapping

Radon Check

GLEBE FARM, KINGS BARN LANE,
STEYNING, WEST SUSSEX

Reference:
HMD-155-VBL-7LB-LAG-B8D

Grid reference:
518456 111556

Your reference:
25-1189-BA-21949AH

Date:
19 November 2025

Consultant's guidance and recommendations inside.

Customer Support
info@groundsure.com

Report overview

Radon

Identified Page 2 →

In a radon affected area

The property is in a radon affected area. This could mean that inhabitants are at risk from the harmful effects of radon.

The percentage of homes estimated to be affected by radon in your local area is between 1% and 3%.



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Useful contacts

UK Health Security Agency (UKHSA) / UKRadon

Radon Survey
Chemical, Radiation and Environmental Hazards
Chilton, Didcot
Oxon
OX11 0RQ
https://www.ukradon.org/

UK Radon Association

http://www.radonassociation.co.uk/

Designed for residential properties.

At Groundsure, we tailor our reports to ensure they align with the intended end use of the site.



Your radon search is covered!

Need answers on other potential risks to the property?

Groundsure Avista brings all our assessments together into a single, expert-led report.
Learn more about Avista

Have questions? Our experts are on hand to help you interpret the findings. Contact us

Radon

Identified

The property is in a radon affected area. This could mean that inhabitants are at risk from the harmful effects of radon. The percentage of homes estimated to be affected by radon in your local area is between 1% and 3%.

Section links

Radon →

Next steps

Radon

The property is in an area where elevated radon levels are expected to be found in 1-3% of properties.

- Enquire with the seller if they have completed a 3 month radon test and what the results were. If they have not had one completed, carry out a radon test at the property. The most accurate testing kits run for 3 months and can be obtained from UK Radon https://www.ukradon.org/services/orderdomestic;
- Further information is available here https://knowledge.groundsure.com/searches-radon.

Radon Check

Go to front page

Radon

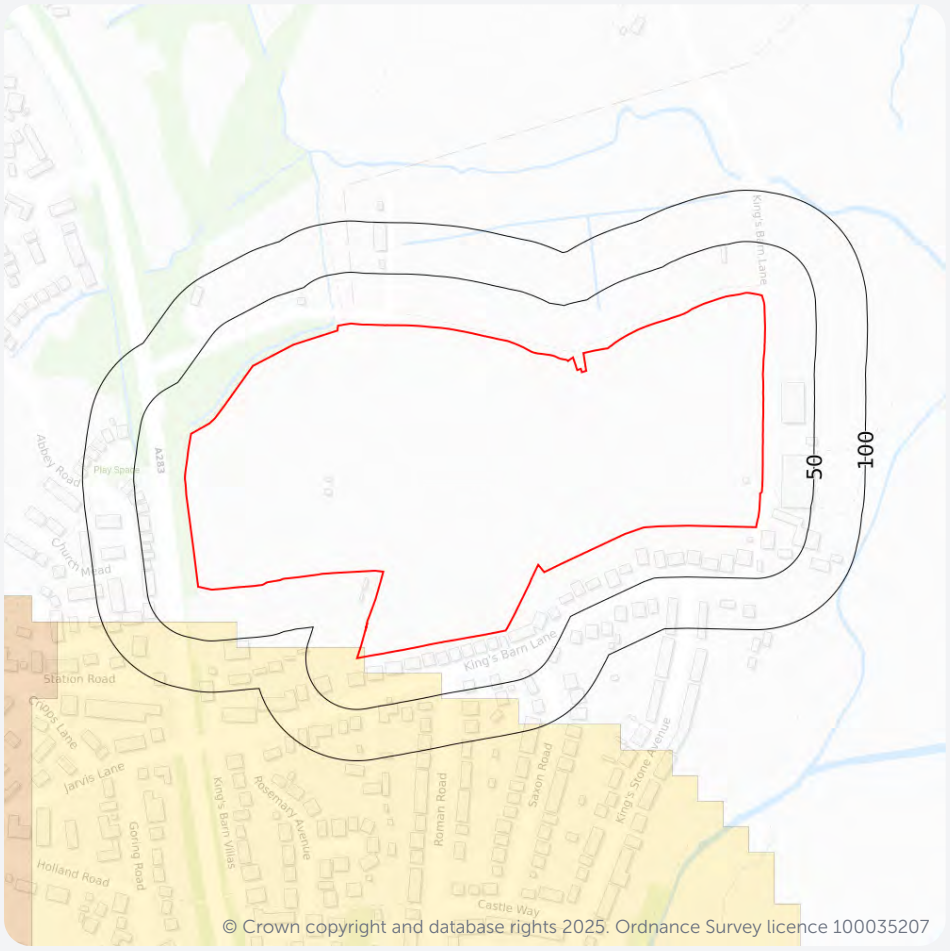
Identified

The property lies within a radon affected area.

Section links

Back to section summary →

Radon →



The property is in a radon affected area, meaning there is an increased risk that properties will contain elevated levels of radon.

In order to determine if there is a problem at your property, a radon measurement in the building must be taken. Access to a testing service and further information on radon is available from UK Health Security Agency (UKHSA) or www.ukradon.org.

Radon is a colourless, odourless radioactive gas present in all areas of the United Kingdom, usually at levels that pose a negligible risk. However, the property is situated in an area where levels of radon can be much higher and pose a health risk. High levels of radon can cause lung cancer, particularly for smokers and ex-smokers. The higher the level and the longer the period of exposure, the greater the risk.

This data is sourced from the British Geological Survey/UK Health Security Agency.

Methodologies and limitations

Groundsure's methodologies and limitations are available here: knowledge.groundsure.com/methodologies-and-limitations.

Data providers

Groundsure works with respected data providers to bring you the most relevant and accurate information in your Radon Check report. To find out who they are and their areas of expertise see www.groundsure.com/sources-reference.

Conveyancing Information Executive and our terms & conditions

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This search has been produced by Groundsure Ltd. Groundsure adheres to the Conveyancing Information Executive Standards.

In addition to The Property Ombudsman (TPO) redress scheme covering consumers, TPO will also provide redress to small businesses (including Charities and Trusts) and where the customer meets the following criteria:

- a small business (or group of companies) with an annual turnover of less than £3 million;
- a charity with an annual income of less than £3 million;
- a Trust with a net asset value of less than £3 million.

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If you have a query or complaint about your search, you should raise it directly with the search firm, and if appropriate ask for any complaint to be considered under their formal internal complaints procedure.

If you remain dissatisfied with the firm's final response, after your complaint has been formally considered, or if the firm has exceeded the response timescales, you may refer your complaint for consideration under The Property Ombudsman scheme (TPOs). The Ombudsman can award up to £5,000 to you if the Ombudsman finds that you have suffered actual financial loss and/or aggravation, distress or inconvenience as a result of your search provider failing to keep to the Standards.

Please note that all queries or complaints regarding your search should be directed to your search provider in the first instance, not to TPOs.

COMPLAINTS PROCEDURE: If you want to make a complaint, we will:

- acknowledge it within 5 working days of receipt
- normally deal with it fully and provide a final response, in writing, within 20 working days of receipt
- liaise, at your request, with anyone acting formally on your behalf

Complaints should be sent to:
Operations Director, Groundsure Ltd, Nile House, Nile Street, Brighton, BN1 1HW. Tel: 01273 257 755.
Email: info@groundsure.com

If you are not satisfied with our final response, or if we exceed the response timescales, you may refer the complaint to The Property Ombudsman scheme (TPOs): Tel: 01722 333306, E-mail: admin@tpos.co.uk
We will co-operate fully with the Ombudsman during an investigation and comply with their final decision.

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APPENDIX 3 ▪ Risk Assessment Methodology

RISK ASSESSMENT METHODOLOGY (FOLLOWING CIRIA C552, 2001)

The potential sources of contamination at the site and the implications with respect to development have been interpreted in accordance with the current government guidance on source-pathway-receptor risk assessment.

The existence of a pollutant linkage requires a pathway by which the receptor could be exposed to the source.

Where a complete pollutant linkage is deemed to be present, the level of *risk* is then determined taking into account the *likelihood* of significant impact and the *severity* of potential impact using the following classification tables which broadly follow the method set out in CIRIA C552.

Table A1: Classification of Severity (or Consequence)

CLASSIFICATION	DEFINITION
Severe	Short term (acute) risk to human health likely to result in "significant harm" as defined by the Environment Protection Act 1990, Part IIA. Short term risk of sensitive water resource. Catastrophic damage to buildings/property. A short term risk to a particular ecosystem or organism forming part of such ecosystem (note: the definitions of ecological systems within the Draft Circular on Contaminated Land, DETR, 2000).
Medium	Chronic damage to Human Health ("significant harm" as defined in DETR, 2000). Pollution of sensitive water resources, significant change in a particular ecosystem or organism forming part of such ecosystem.
Mild	Pollution of non sensitive water resources. Significant damage to crops, buildings, structures and services ("significant harm" as defined in the Draft Circular on Contaminated Land, DETR, 2000). Damage to sensitive buildings/structures/services or the environment.
Minor	Harm, although not necessarily significant harm, which may result in a financial loss or expenditure to resolve. Non permanent health effects to human health (easily prevented by means such as personal protective clothing, etc). Easily repairable effects of damage to buildings, structures and services.

Table A2: Classification of Likelihood (Probability)

CLASSIFICATION	DEFINITION
High Likelihood	There is a pollution linkage and an event that either appears very likely in the short term and almost inevitable over the long term or there is evidence at the receptor of harm or pollution.
Likely	There is a pollution linkage and all the elements are present and in the right place, which means that it is probable that an event will occur. Circumstances are such that an event is not inevitable, but possible in the short term and likely over the long term.
Low Likelihood	There is a pollution linkage and circumstances are possible under which an event could occur. However, it is by no means certain that even over a longer period such event would take place, and is less likely in the shorter term.
Unlikely	There is a pollution linkage but circumstances are such that it is improbable that an event would occur even in the very long term.

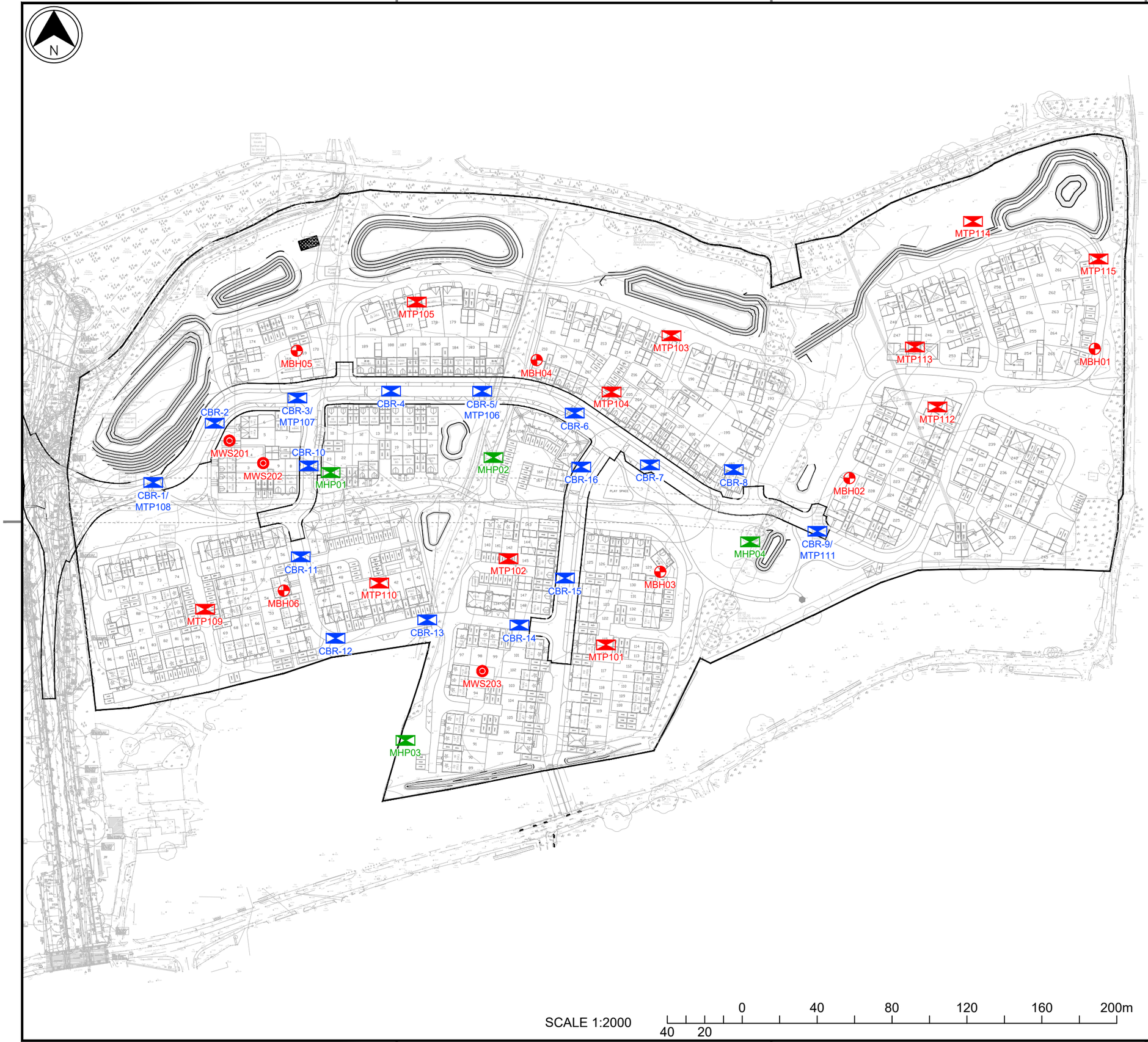
Table A3: Risk Estimation – Combination of Consequence and Probability(after CIRIA C552 and R&D66)

		MAGNITUDE OF POTENTIAL CONSEQUENCE (SEVERITY) OF RISK			
		SEVERE	**MEDIUM**	**MILD**	**MINOR**
LIKELIHOOD OF RISK	**HIGH LIKELIHOOD**	Very High Risk	High Risk	Moderate Risk	Low Risk
	LIKELY	High Risk	Moderate Risk	Moderate / Low Risk	Low Risk
	LOW LIKELIHOOD	Moderate Risk	Moderate / Low Risk	Low Risk	Very Low Risk
	UNLIKELY	Moderate / Low Risk	Low Risk	Very Low Risk	Very Low Risk

Table A4: Description of the Classified Risks and Likely Reaction Required

CLASSIFICATION	DEFINITION
Very High Risk	There is a high probability that severe harm could arise to a designated receptor from an identified hazard, OR, there is evidence that severe harm to a designated receptor is currently happening. This risk, if realised, is likely to result in a substantial liability. Urgent investigation (if not undertaken already) and remediation are likely to be required.
High Risk	Harm is likely to arise to a designated receptor from an identified hazard. Realisation of the risk is likely to present a substantial liability. Urgent investigation (if not undertaken already) is required and remedial works may be necessary in the short term and are likely over the long term.
Moderate Risk	It is possible that harm could arise to a designated receptor from an identified hazard. However, it is relatively unlikely that any such harm would be severe, or if any harm were to occur it is more likely that the harm would be relatively mild. Investigation (if not already undertaken) is normally required to clarify the risk and to determine the potential liability. Some remedial works may be required in the longer term.
Low Risk	It is possible that harm could arise to a designated receptor from an identified hazard but it is likely that this harm, if realised, would at worst normally be mild.
Very Low Risk	There is a low possibility that harm could arise to a receptor. In the event of such harm being realised, it is not likely to be severe.

APPENDIX 4 ▪ Site Investigation Location Plan



NOTES

1. Do not scale from this drawing.
2. Levels are in metres AOD, unless stated otherwise.
3. Dimensions are in metres, unless stated otherwise.
4. This drawing should only be used for the purpose intended. Merebrook Consulting Limited are not accountable for use outside of intended purpose.

LEGEND

- Site boundary
- MBHref — Merebrook borehole with location reference
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DESCRIPTION	DATE	DWN	CHD	APP'D	REV
First Issue	14/11/25	FO	BA	BA	-

ISSUE PURPOSE: PRELIMINARY

CLIENT: Vistry South East

PROJECT: Glebe Farm, Steyning

DWG TITLE: Undertaken Site Investigation Locations Plan

DWG NO.: 21949ah-304-001

SCALE	DATE	FRAME DIMS (mm)
1:2000	November 2025	(A3) 420 x 297

DRAWN	CHECKED	APPROVED
FO	BA	BA

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Website: www.merebrook.co.uk t: +44(0)1773 829 988 e: info@merebrook.co.uk

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APPENDIX 5 ▪ Exploratory Hole Logs

MEREBROOK CONSULTING

Borehole Log

BH01

Project Name: Glebe Farm	Client: Vistry Group	Date: 29/09/2025
Location: Steyning	Contractor:	
Project No: 21949ah	Weather: Sunny	Drilling Equipment: D2000

Logged By	Checked By	Level	Hole Type	Scale	Page Number
Ben Alexander			CP	1:50	Sheet 1 of 2

Well	Water Strikes	Sample and In Situ Testing Depth (m)	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description	Scale (m)
		0.50	B		0.50			[Topsoil] Dark brown slightly sandy slightly gravelly CLAY. Gravel is fine to coarse, sub angular to sub rounded of flint and occasional brick.	
		1.50	SPT	N=12 (2,2/2,3,3,4)	1.40			Firm brown slightly sandy slightly gravelly CLAY. Gravel is fine to coarse, sub angular to sub rounded of flint and chalk [River Terrace Deposits]	1
		2.00	B					Stiff grey and orange brown sandy slightly gravelly CLAY. Gravel is fine to coarse, sub angular to sub rounded of flint and chalk [River Terrace Deposits]	2
		2.50	SPT	N=18 (2,2/4,4,5,5)	2.50			Very stiff light grey mottled dark grey and orange brown silty CLAY [Gault Formation]	
		3.00	D						3
		3.50	U	Ublow=100					
		3.75	D						4
		4.50	SPT	N=35 (2,6/7,8,10,10)					
		5.00	D						5
		5.50	SPT	N=43 (3,5/8,10,12,13)					
		6.00	D						6
		7.00	D						7
		7.00	SPT	N=45 (3,6/8,11,11,15)					
	▼	8.00	D					*becomes soft from 8.0 to 8.45m* *becomes grey from 8.0m*	8
		8.50	SPT	N=49 (3,7/10,13,13,13)					
		9.00	D						9
		10.00	D						10

Casing Details		Chiselling Details			Groundwater Remarks			General Remarks
Diameter (mm)	Depth Base (mbgl)	From (mbgl)	To (mbgl)	Duration (mins)	Strike (mbgl)	Rose (mbgl)	Time Elapsed (mins)	No Remarks
								Termination Reason: Target depth reached Hand dug pit: N/A

Coordinates and levels, where indicated, must not be used for design purposes. The user is responsible for verifying all site and setting out dimensions. HVP = Hand Vane Peak (kPa); PP: Pocket Penetrometer (kg cm2); PID: Photoionisation detector (ppm); D: Small Disturbed Sample (tub); J: Organic Sample (amber glass jar); V: Volatile Sample (amber glass vial); B: Bulk Bag Sample; SPT(C): Standard Penetration Test (cone);SPT(S): Standard Penetration Test (split spoon); U: Undisturbed Sample

MEREBROOK CONSULTING

Borehole Log

BH01

Project Name: Glebe Farm	Client: Vistry Group	Date: 29/09/2025
Location: Steyning	Contractor:	
Project No: 21949ah	Weather: Sunny	Drilling Equipment: D2000

Logged By	Checked By	Level	Hole Type	Scale	Page Number
Ben Alexander			CP	1:50	Sheet 2 of 2

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	Scale (m)
		Depth (m)	Type	Results					
		10.00	SPT	N=35 (4,4/6,6,9,14)				Very stiff light grey mottled dark grey and orange brown silty CLAY [Gault Formation]	
		11.00	D					*Dark grey very weak MUDSTONE [Gault Formation]*	11
		11.50	SPT	N=41 (4,4/9,9,10,13)					
		12.00	D					*becomes firm and dark grey from 12.0 to 13.0m*	12
		13.00	D		13.00			Very weak dark grey MUDSTONE [Gault Formation]	13
		13.00	SPT	N=45 (4,5/10,11,11,13)					
		14.00	D						14
		14.50	SPT	N=50 (4,8/11,11,13,15)					
					15.00			End of Borehole at 15.00m	15
									16
									17
									18
									19
									20

Casing Details		Chiselling Details			Groundwater Remarks			General Remarks
Diameter (mm)	Depth Base (mbgl)	From (mbgl)	To (mbgl)	Duration (mins)	Strike (mbgl)	Rose (mbgl)	Time Elapsed (mins)	No Remarks
								Termination Reason: Target depth reached
								Hand dug pit: N/A

Coordinates and levels, where indicated, must not be used for design purposes. The user is responsible for verifying all site and setting out dimensions. HVP = Hand Vane Peak (kPa); PP: Pocket Penetrometer (kg cm2); PID: Photoionisation detector (ppm); D: Small Disturbed Sample (tub); J: Organic Sample (amber glass jar); V: Volatile Sample (amber glass vial); B: Bulk Bag Sample; SPT(C): Standard Penetration Test (cone);SPT(S): Standard Penetration Test (split spoon); U: Undisturbed Sample

MEREBROOK CONSULTING

Borehole Log

BH02

Project Name: Glebe Farm	Client: Vistry Group	Date: 29/09/2025 - 30/09/2025
Location: Steyning	Contractor:	
Project No: 21949ah	Weather: Sunny	Drilling Equipment: D2000

Logged By	Checked By	Level	Hole Type	Scale	Page Number
Ben Alexander			CP	1:50	Sheet 1 of 2

Well	Water Strikes	Sample and In Situ Testing Depth (m)	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description	Scale (m)
					0.30			[Topsoil] Dark brown slightly sandy slightly gravelly CLAY. Gravel is fine to coarse, sub angular to sub rounded of flint and occasional brick.	
		0.60	B					Very stiff light grey slighlty gravelly silty CLAY. Gravel is fine to medium, sub angular to angular of flint [Gault Formation]	1
		1.50	SPT	N=17 (2,2/3,4,5,5)					
		2.00	D					*no gravel from 2.0m becomes soft from 2.0 - 2.75m*	2
		2.50	U	Ublow=100					
		2.75	D						3
		3.50	SPT	N=23 (6 for 77.5mm/4,6,6,7)					
		4.00	D						4
		4.50	U	Ublow=100					
		4.95	D						5
		5.50	SPT	N=32 (2,2/3,6,10,13)					6
		7.00	U	Ublow=50					7
		7.20	D					*Zones of soft slightly gravelly silty CLAY. Gravel of fine to medium, sub angular to angular of mudstone becomes dark grey from 7.2m*	
		8.00	B						8
		8.50	SPT	N=49 (3,6/8,13,13,15)				*Zones of extremely weak dark grey MUDSTONE from 8.5 to 10m*	9
		10.00	D		10.00				10

Casing Details		Chiselling Details			Groundwater Remarks			General Remarks
Diameter (mm)	Depth Base (mbgl)	From (mbgl)	To (mbgl)	Duration (mins)	Strike (mbgl)	Rose (mbgl)	Time Elapsed (mins)	No Remarks
		15.00	15.50	02:00				Termination Reason: Refusal Hand dug pit: N/A

Coordinates and levels, where indicated, must not be used for design purposes. The user is responsible for verifying all site and setting out dimensions. HVP = Hand Vane Peak (kPa); PP: Pocket Penetrometer (kg cm2); PID: Photoionisation detector (ppm); D: Small Disturbed Sample (tub); J: Organic Sample (amber glass jar); V: Volatile Sample (amber glass vial); B: Bulk Bag Sample; SPT(C): Standard Penetration Test (cone);SPT(S): Standard Penetration Test (split spoon); U: Undisturbed Sample

MEREBROOK CONSULTING

Borehole Log

BH02

Project Name: Glebe Farm	Client: Vistry Group	Date: 29/09/2025 - 30/09/2025
Location: Steyning	Contractor:	
Project No: 21949ah	Weather: Sunny	Drilling Equipment: D2000

Logged By	Checked By	Level	Hole Type	Scale	Page Number
Ben Alexander			CP	1:50	Sheet 2 of 2

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	Scale (m)
		Depth (m)	Type	Results					
		10.00	SPT	N=48 (4,6/12,8,14,14)				Extremely weak dark grey MUDSTONE [Gault Formation]	
		11.00	D						11
		11.50	SPT	N=49 (6,8/8,13,13,15)					
		12.00	D					*becomes extremely weak to very weak from 12.0m*	12
		13.00	D						13
		13.00	SPT	N=50 (6,6/50 for 265mm)					
		14.00	D						14
		14.50	SPT	N=50 (6,8/50 for 235mm)					
									15
					15.50			End of Borehole at 15.50m	
									16
									17
									18
									19
									20

Casing Details		Chiselling Details			Groundwater Remarks			General Remarks
Diameter (mm)	Depth Base (mbgl)	From (mbgl)	To (mbgl)	Duration (mins)	Strike (mbgl)	Rose (mbgl)	Time Elapsed (mins)	No Remarks
		15.00	15.50	02:00				Termination Reason: Refusal Hand dug pit: N/A

Coordinates and levels, where indicated, must not be used for design purposes. The user is responsible for verifying all site and setting out dimensions. HVP = Hand Vane Peak (kPa); PP: Pocket Penetrometer (kg cm2); PID: Photoionisation detector (ppm); D: Small Disturbed Sample (tub); J: Organic Sample (amber glass jar); V: Volatile Sample (amber glass vial); B: Bulk Bag Sample; SPT(C): Standard Penetration Test (cone);SPT(S): Standard Penetration Test (split spoon); U: Undisturbed Sample

MEREBROOK CONSULTING

Borehole Log

BH03

Project Name: Glebe Farm	Client: Vistry Group	Date: 30/09/2025
Location: Steyning	Contractor:	
Project No: 21949ah	Weather: Sunny	Drilling Equipment: D2000

Logged By	Checked By	Level	Hole Type	Scale	Page Number
Ben Alexander			CP	1:50	Sheet 1 of 2

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	Scale (m)
		Depth (m)	Type	Results					
					0.30			[Topsoil] Dark brown slightly sandy slightly gravelly CLAY. Gravel is fine to coarse, sub angular to sub rounded of flint and occasional brick.	
		0.90	B					Soft orange brown very sandy slightly gravelly CLAY. Gravel is fine to coarse, sub angular to sub rounded of flint [River Terrace Deposits]	1
		1.50	SPT	N=9 (1,1/2,2,3,2)					
		2.00	D		2.00			Firm light grey silty CLAY [Gault Formation]	2
		2.50	U	Ublow=40					
		3.00	B					*becomes very stiff and slightly gravelly with fine to coarse, angular to sub rounded of mudstone*	3
		3.00	D						
		3.50	SPT	N=23 (2,3/4,5,6,8)					
		4.00	D						4
		4.50	U	Ublow=100					
		4.80	D						5
		5.50	SPT	N=31 (2,3/6,8,8,9)					6
		7.00	D						7
		7.00	U	Ublow=100	7.10			Very weak light grey MUDSTONE [Gault Formation]	
		7.20	D						
		8.00	B						8
		8.50	SPT	N=50 (2,8/50 for 280mm)				*becomes dark grey from 8.5m*	
		9.00	D		9.00			Extremely weak dark grey MUDSTONE with bands of very stiff clay [Gault Formation]	9
		10.00	D						10

Casing Details		Chiselling Details			Groundwater Remarks			General Remarks
Diameter (mm)	Depth Base (mbgl)	From (mbgl)	To (mbgl)	Duration (mins)	Strike (mbgl)	Rose (mbgl)	Time Elapsed (mins)	No Remarks
								Termination Reason: Target depth reached
								Hand dug pit: N/A

Coordinates and levels, where indicated, must not be used for design purposes. The user is responsible for verifying all site and setting out dimensions. HVP = Hand Vane Peak (kPa); PP: Pocket Penetrometer (kg cm2); PID: Photoionisation detector (ppm); D: Small Disturbed Sample (tub); J: Organic Sample (amber glass jar); V: Volatile Sample (amber glass vial); B: Bulk Bag Sample; SPT(C): Standard Penetration Test (cone);SPT(S): Standard Penetration Test (split spoon); U: Undisturbed Sample

MEREBROOK CONSULTING

Borehole Log

BH03

Project Name: Glebe Farm	Client: Vistry Group	Date: 30/09/2025
Location: Steyning	Contractor:	
Project No: 21949ah	Weather: Sunny	Drilling Equipment: D2000

Logged By	Checked By	Level	Hole Type	Scale	Page Number
Ben Alexander			CP	1:50	Sheet 2 of 2

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	Scale (m)
		Depth (m)	Type	Results					
		10.00	SPT	N=50 (3,7/50 for 275mm)				Extremely weak dark grey MUDSTONE with bands of very stiff clay [Gault Formation]	
		11.00	D						11
		11.50	SPT	N=50 (5,7/50 for 285mm)					
		12.00	D		12.00			Firm to stiff dark grey CLAY interbedded with extremely weak MUDSTONE [Gault Formation]	12
		13.00	D		13.00			Extremely weak dark grey MUDSTONE [Gault Formation]	13
		13.00	SPT	N=50 (6,8/50 for 290mm)					
		14.00	D					*interbedded with very stiff clay from 14 to 16m*	14
	▼	14.50	SPT	N=50 (6,8/50 for 285mm)					
		15.00	D						15
		16.00	D						16
		16.00	SPT	N=50 (6,6/50 for 285mm)					
		17.00	D						17
		17.50	SPT	N=50 (6,14/50 for 155mm)					
		18.00	D						18
		19.00	D						19
		19.00	SPT	N=50 (6,10/50 for 175mm)					
					19.50			End of Borehole at 19.50m	
									20

Casing Details		Chiselling Details			Groundwater Remarks			General Remarks
Diameter (mm)	Depth Base (mbgl)	From (mbgl)	To (mbgl)	Duration (mins)	Strike (mbgl)	Rose (mbgl)	Time Elapsed (mins)	No Remarks
								Termination Reason: Target depth reached
								Hand dug pit: N/A

Coordinates and levels, where indicated, must not be used for design purposes. The user is responsible for verifying all site and setting out dimensions. HVP = Hand Vane Peak (kPa); PP: Pocket Penetrometer (kg cm2); PID: Photoionisation detector (ppm); D: Small Disturbed Sample (tub); J: Organic Sample (amber glass jar); V: Volatile Sample (amber glass vial); B: Bulk Bag Sample; SPT(C): Standard Penetration Test (cone);SPT(S): Standard Penetration Test (split spoon); U: Undisturbed Sample

MEREBROOK CONSULTING

Borehole Log

BH04

Project Name: Glebe Farm	Client: Vistry Group	Date: 01/10/2025
Location: Steyning	Contractor:	
Project No: 21949ah	Weather: Sunny	Drilling Equipment: D2000

Logged By	Checked By	Level	Hole Type	Scale	Page Number
Ben Alexander			CP	1:50	Sheet 1 of 2

Well	Water Strikes	Sample and In Situ Testing Depth (m)	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description	Scale (m)
		0.50	B		0.50			[Topsoil] Dark brown slightly sandy slightly gravelly CLAY. Gravel is fine to coarse, sub angular to sub rounded of flint and occasional brick.	
		1.50	B					Stiff light greyish brown mottled orange brown slightly gravelly silty CLAY. Gravel is fine to medium, sub angular to sub rounded of flint and chalk [Head Deposits]	1
		1.50	SPT	N=12 (2,2/2,3,3,4)					
					2.10			Stiff light grey slighlty gravelly silty CLAY. Gravel is fine to medium, sub angular to sub rounded of mudstone [Gault Formation]	2
		2.50	U	Ublow=40					
		3.00	D						3
		3.50	B						
		3.50	SPT	N=18 (2,3/3,4,5,6)					
		4.00	D						4
		4.50	U	Ublow=100					
		4.80	D		4.75			Very stiff grey silty CLAY interbedded with extremely weak to very weak MUDSTONE	5
		5.50	SPT	N=32 (2,3/6,7,9,10)					6
		6.50	D						
		7.00	SPT	N=35 (4,5/6,6,10,13)					7
		8.00	B						8
		8.50	SPT	N=50 (7,9/50 for 245mm)					9
		9.50	D						
									10

Casing Details		Chiselling Details			Groundwater Remarks			General Remarks
Diameter (mm)	Depth Base (mbgl)	From (mbgl)	To (mbgl)	Duration (mins)	Strike (mbgl)	Rose (mbgl)	Time Elapsed (mins)	No Remarks
		15.50	16.00	02:00				Termination Reason: Refusal Hand dug pit: N/A

Coordinates and levels, where indicated, must not be used for design purposes. The user is responsible for verifying all site and setting out dimensions. HVP = Hand Vane Peak (kPa); PP: Pocket Penetrometer (kg cm2); PID: Photoionisation detector (ppm); D: Small Disturbed Sample (tub); J: Organic Sample (amber glass jar); V: Volatile Sample (amber glass vial); B: Bulk Bag Sample; SPT(C): Standard Penetration Test (cone);SPT(S): Standard Penetration Test (split spoon); U: Undisturbed Sample

MEREBROOK CONSULTING

Borehole Log

BH04

Project Name: Glebe Farm	Client: Vistry Group	Date: 01/10/2025
Location: Steyning	Contractor:	
Project No: 21949ah	Weather: Sunny	Drilling Equipment: D2000

Logged By	Checked By	Level	Hole Type	Scale	Page Number
Ben Alexander			CP	1:50	Sheet 2 of 2

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	Scale (m)
		Depth (m)	Type	Results					
		10.00	SPT	N=52 (4,8/52 for 245mm)				Very stiff grey silty CLAY interbedded with extremely weak to very weak MUDSTONE	
		11.00	D						11
		11.50	SPT	N=50 (5,14/50 for 165mm)					
		12.50	D						12
	▼	13.00	SPT	N=50 (5,6/50 for 275mm)					13
		14.00	D						14
		14.50	SPT	N=50 (6,9/50 for 230mm)					
		15.50	D						15
		16.00	SPT	N=50 (8,15/50 for 160mm)					16
					16.30			End of Borehole at 16.30m	
									17
									18
									19
									20

Casing Details		Chiselling Details			Groundwater Remarks			General Remarks
Diameter (mm)	Depth Base (mbgl)	From (mbgl)	To (mbgl)	Duration (mins)	Strike (mbgl)	Rose (mbgl)	Time Elapsed (mins)	No Remarks
		15.50	16.00	02:00				Termination Reason: Refusal Hand dug pit: N/A

Coordinates and levels, where indicated, must not be used for design purposes. The user is responsible for verifying all site and setting out dimensions. HVP = Hand Vane Peak (kPa); PP: Pocket Penetrometer (kg cm2); PID: Photoionisation detector (ppm); D: Small Disturbed Sample (tub); J: Organic Sample (amber glass jar); V: Volatile Sample (amber glass vial); B: Bulk Bag Sample; SPT(C): Standard Penetration Test (cone);SPT(S): Standard Penetration Test (split spoon); U: Undisturbed Sample

MEREBROOK CONSULTING

Borehole Log

BH05

Project Name: Glebe Farm	Client: Vistry Group	Date: 02/10/2025
Location: Steyning	Contractor:	
Project No: 21949ah	Weather:	Drilling Equipment: Dando 2000

Logged By	Checked By	Level	Hole Type	Scale	Page Number
Cameron Swatton			CP	1:50	Sheet 1 of 2

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	Scale (m)
		Depth (m)	Type	Results					
		0.50	D		0.60			[TOPSOIL] Grass over brown sandy gravelly clay. Sand is fine to coarse. Gravel is fine to coarse angular to sub-rounded of flint.	
		1.00	B					Firm light grey mottled orange sandy CLAY with white chalk veins. Sand is fine to coarse. [Gault Formation]	1
		1.50	SPT	N=16 (1,3/3,3,5,5)					
		2.00	D		2.10				2
		2.50	U	Ublow=100				Stiff light grey mottled orange sandy CLAY. Sand is fine to coarse. [Gault Formation]	
		2.90	D						3
		3.50	SPT	N=23 (2,3/4,6,6,7)	3.20			Firm to stiff light grey sandy CLAY. Sand is fine to coarse. [Gault Formation]	
		4.00	D						4
		4.50	U	Ublow=100					
		4.85	D						
		5.00	B						5
		5.50	SPT	N=33 (6,7/8,8,8,9)					
		6.50	D						6
		7.00	U	Ublow=100	6.80			Weak to very weak grey MUDSTONE. [Gault Formation]	7
	▼	7.25	D						
		8.50	SPT	N=45 (6,7/9,10,12,14)					8
		9.00	B						9
									10

Casing Details		Chiselling Details			Groundwater Remarks			General Remarks
Diameter (mm)	Depth Base (mbgl)	From (mbgl)	To (mbgl)	Duration (mins)	Strike (mbgl)	Rose (mbgl)	Time Elapsed (mins)	No Remarks
								Termination Reason: N/A
								Hand dug pit: N/A

Coordinates and levels, where indicated, must not be used for design purposes. The user is responsible for verifying all site and setting out dimensions. HVP = Hand Vane Peak (kPa); PP: Pocket Penetrometer (kg cm2); PID: Photoionisation detector (ppm); D: Small Disturbed Sample (tub); J: Organic Sample (amber glass jar); V: Volatile Sample (amber glass vial); B: Bulk Bag Sample; SPT(C): Standard Penetration Test (cone);SPT(S): Standard Penetration Test (split spoon); U: Undisturbed Sample

MEREBROOK CONSULTING

Borehole Log

BH05

Project Name: Glebe Farm	Client: Vistry Group	Date: 02/10/2025
Location: Steyning	Contractor:	
Project No: 21949ah	Weather:	Drilling Equipment: Dando 2000

Logged By	Checked By	Level	Hole Type	Scale	Page Number
Cameron Swatton			CP	1:50	Sheet 2 of 2

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	Scale (m)
		Depth (m)	Type	Results					
		10.00	SPT	N=40 (4,5/6,8,10,16)				Weak to very weak grey MUDSTONE. [Gault Formation]	
		11.00	D						11
		11.50	SPT	N=38 (6,6/7,9,10,12)					12
		12.50	D						
		13.00	SPT	N=50 (5,7/50 for 245mm)					13
		14.00	D						14
		14.50	SPT	N=50 (6,8/50 for 230mm)					
					14.80			End of Borehole at 14.80m	15
									16
									17
									18
									19
									20

Casing Details		Chiselling Details			Groundwater Remarks			General Remarks
Diameter (mm)	Depth Base (mbgl)	From (mbgl)	To (mbgl)	Duration (mins)	Strike (mbgl)	Rose (mbgl)	Time Elapsed (mins)	No Remarks
								Termination Reason: N/A Hand dug pit: N/A

Coordinates and levels, where indicated, must not be used for design purposes. The user is responsible for verifying all site and setting out dimensions. HVP = Hand Vane Peak (kPa); PP: Pocket Penetrometer (kg cm2); PID: Photoionisation detector (ppm); D: Small Disturbed Sample (tub); J: Organic Sample (amber glass jar); V: Volatile Sample (amber glass vial); B: Bulk Bag Sample; SPT(C): Standard Penetration Test (cone);SPT(S): Standard Penetration Test (split spoon); U: Undisturbed Sample

MEREBROOK CONSULTING

Borehole Log

BH06

Project Name: Glebe Farm	Client: Vistry Group	Date: 02/10/2025 - 03/10/2025
Location: Steyning	Contractor: Southeastern Drilling Services Ltd	
Project No: 21949ah	Weather:	Drilling Equipment: Dando 2000

Logged By	Checked By	Level	Hole Type	Scale	Page Number
Cameron Swatton			CP	1:50	Sheet 1 of 2

Well	Water Strikes	Sample and In Situ Testing Depth (m)	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description	Scale (m)
		0.50	D		0.50			[TOPSOIL] Firm dark brown slightly sandy slightly gravelly CLAY. Sand is fine. Gravel is angular to sub-angular and fine to medium of flint. Occasional rootlets.	
		0.90	B		0.90			Firm light grey mottled orange sandy CLAY. Sand is fine to coarse. [Gault Formation]	
		1.50	SPT	N=30 (3,5/6,7,8,9)				Firm greyish orange sandy silty CLAY. Sand is fine to coarse. [Gault Formation]	1
		2.00	D						2
		2.50	B		2.40			Stiff to very stiff light grey slightly gravelly silty CLAY. Gravel is fine to coarse sub-angular to sub-rounded of mudstone. [Gault Formation]	
		2.50	SPT	N=17 (7,8/5,4,4,4)	2.60			Very weak to weak light grey MUDSTONE. [Gault Formation]	3
		3.40	B						
		4.00	D						4
		4.50	SPT	N=34 (3,3/6,9,9,10)					
		5.00	D						5
		5.50	SPT	N=36 (4,6/7,9,9,11)					6
		6.50	D						
		7.00	SPT	N=38 (5,6/8,10,10,10)					7
		8.00	D						8
		8.50	SPT	N=40 (3,4/8,8,11,13)					9
		9.50	D						
									10

Casing Details

Diameter (mm)	Depth Base (mbgl)
150	2.50

Chiselling Details

From (mbgl)	To (mbgl)	Duration (mins)
3.40	3.60	00:15

Groundwater Remarks

Strike (mbgl)	Rose (mbgl)	Time Elapsed (mins)

General Remarks

No Remarks

Termination Reason: N/A

Hand dug pit: N/A

Coordinates and levels, where indicated, must not be used for design purposes. The user is responsible for verifying all site and setting out dimensions. HVP = Hand Vane Peak (kPa); PP: Pocket Penetrometer (kg cm2); PID: Photoionisation detector (ppm); D: Small Disturbed Sample (tub); J: Organic Sample (amber glass jar); V: Volatile Sample (amber glass vial); B: Bulk Bag Sample; SPT(C): Standard Penetration Test (cone);SPT(S): Standard Penetration Test (split spoon); U: Undisturbed Sample

MEREBROOK CONSULTING

Borehole Log

BH06

Project Name: Glebe Farm	Client: Vistry Group	Date: 02/10/2025 - 03/10/2025
Location: Steyning	Contractor: Southeastern Drilling Services Ltd	
Project No: 21949ah	Weather:	Drilling Equipment: Dando 2000

Logged By	Checked By	Level	Hole Type	Scale	Page Number
Cameron Swatton			CP	1:50	Sheet 2 of 2

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	Scale (m)
		Depth (m)	Type	Results					
		10.00	SPT	N=44 (4,5/9,9,11,15)				Very weak to weak light grey MUDSTONE. [Gault Formation]	
	▼	11.00	D						11
		11.50	SPT	50 (7,9/50 for 220mm)					12
		12.50	D						
		13.00	SPT	50 (7,9/50 for 190mm)	13.00			Extremely weak dark grey MUDSTONE. [Gault Formation]	13
		14.00	B						14
		14.50	SPT	N=50 (4,7/50 for 275mm)					
					14.95			End of Borehole at 14.95m	15
									16
									17
									18
									19
									20

Casing Details		Chiselling Details			Groundwater Remarks			General Remarks
Diameter (mm)	Depth Base (mbgl)	From (mbgl)	To (mbgl)	Duration (mins)	Strike (mbgl)	Rose (mbgl)	Time Elapsed (mins)	No Remarks
150	2.50	3.40	3.60	00:15				Termination Reason: N/A Hand dug pit: N/A

Coordinates and levels, where indicated, must not be used for design purposes. The user is responsible for verifying all site and setting out dimensions. HVP = Hand Vane Peak (kPa); PP: Pocket Penetrometer (kg cm2); PID: Photoionisation detector (ppm); D: Small Disturbed Sample (tub); J: Organic Sample (amber glass jar); V: Volatile Sample (amber glass vial); B: Bulk Bag Sample; SPT(C): Standard Penetration Test (cone);SPT(S): Standard Penetration Test (split spoon); U: Undisturbed Sample

MEREBROOK CONSULTING

Trial Pit Log

Project Name: Glebe Farm	Client: Vistry Group	Date: 06/10/2025
Location: Steyning	Contractor: Soils Limited/3D Drilling	
Project No. : 21949ah	Crew Name: BPH	Equipment: JCB 3CX

Location Number	Location Type	Level	Logged By	Scale	Page Number
CBR10 (Oct 25)	TP		Ben Alexander	1:20	Sheet 1 of 1

Well	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.10	ES					[Topsoil] Dark brown slightly sandy slightly gravelly CLAY. Gravel is fine to coarse, sub angular to sub rounded of flint and occasional brick.
				0.30			
	0.40	B					Very stiff greyish brown mottled orange brown slightly gravelly CLAY. Gravel is fine to coarse, sub angular to angular of mudstone [Gault Formation]
	0.60	HV	HVP=95 kPa	0.60			End of Borehole at 0.60m

0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0

Dimensions		Trench Support and Comment			Pumping Data		
Pit Length	Pit Width	Pit Stability	Shoring Used	Remarks	Date	Rate	Remarks
		Stable					

Remarks

MEREBROOK CONSULTING

Trial Pit Log

Project Name: Glebe Farm	Client: Vistry Group	Date: 06/10/2025
Location: Steyning	Contractor: Soils Limited/3D Drilling	
Project No. : 21949ah	Crew Name: BPH	Equipment: JCB 3CX

Location Number	Location Type	Level	Logged By	Scale	Page Number
CBR11 (Oct 25)	TP		Ben Alexander	1:20	Sheet 1 of 1

Well	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.20	ES					[Topsoil] Dark brown slightly sandy slightly gravelly CLAY. Gravel is fine to coarse, sub angular to sub rounded of flint and occasional brick.
	0.40	B		0.35			Stiff gravelly silty CLAY. Gravel is fine to coarse, sub angular to angular of mudstone. Low cobble content of mudstone [Gault Formation]
				0.60			End of Borehole at 0.60m

0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0

Dimensions		Trench Support and Comment			Pumping Data		
Pit Length	Pit Width	Pit Stability	Shoring Used	Remarks	Date	Rate	Remarks

Remarks

MEREBROOK CONSULTING

Trial Pit Log

Project Name: Glebe Farm	Client: Vistry Group	Date: 06/10/2025
Location: Steyning	Contractor: Soils Limited/3D Drilling	
Project No. : 21949ah	Crew Name: BPH	Equipment: JCB 3CX

Location Number	Location Type	Level	Logged By	Scale	Page Number
CBR12	TP		Ben Alexander	1:20	Sheet 1 of 1

Well	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.20	ES					[Topsoil] Dark brown slightly sandy slightly gravelly CLAY. Gravel is fine to coarse, sub angular to sub rounded of flint and occasional brick.
				0.40			
	0.50	B					Stiff brown slightly gravelly silty CLAY. Gravel fine to coarse, sub angular to angular of mudstone [Gault Formation]
	0.70	HV	HVP=80 kPa	0.70			End of Borehole at 0.70m

0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0

Dimensions		Trench Support and Comment			Pumping Data		
Pit Length	Pit Width	Pit Stability	Shoring Used	Remarks	Date	Rate	Remarks
		Stable					

Remarks

MEREBROOK CONSULTING

Trial Pit Log

Project Name: Glebe Farm	Client: Vistry Group	Date: 01/10/2025
Location: Steyning	Contractor: Soils Limited/3D Drilling	
Project No. : 21949ah	Crew Name: BPH	Equipment: JCB 3CX

Location Number	Location Type	Level	Logged By	Scale	Page Number
CBR13	TP		Ben Alexander	1:20	Sheet 1 of 1

Well	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.10	ES					[Topsoil] Dark brown slightly sandy slightly gravelly CLAY. Gravel is fine to coarse, sub angular to sub rounded of flint and occasional brick.
	0.20	ES		0.25			
	0.30	B					Firm light brown slightly sandy slightly gravelly silty CLAY. Gravel is fine to coarse, sub angular to sub rounded of mudstone [Gault Formation]
	0.40	HV	HVP=65 kPa	0.40			End of Borehole at 0.40m

0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0

Dimensions		Trench Support and Comment			Pumping Data		
Pit Length	Pit Width	Pit Stability	Shoring Used	Remarks	Date	Rate	Remarks
		Stable					

Remarks

MEREBROOK CONSULTING

Trial Pit Log

Project Name: Glebe Farm	Client: Vistry Group	Date: 30/09/2025
Location: Steyning	Contractor: Soils Limited/3D Drilling	
Project No. : 21949ah	Crew Name: BPH	Equipment: JCB 3CX

Location Number	Location Type	Level	Logged By	Scale	Page Number
CBR14	TP		Ben Alexander	1:20	Sheet 1 of 1

Well	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.20	ES					[Topsoil] Dark brown slightly sandy slightly gravelly CLAY. Gravel is fine to coarse, sub angular to sub rounded of flint and occasional brick.
	0.40	B		0.35			Firm mottled light brown, grey and orange brown slightly sandy slightly gravelly silty CLAY. Gravel is fine to coarse, sub angular to sub rounded of flint and mudstone [River Terrace Deposits]
	0.60	HV	HVP=60 kPa	0.60			End of Borehole at 0.60m

0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0

Dimensions		Trench Support and Comment			Pumping Data		
Pit Length	Pit Width	Pit Stability	Shoring Used	Remarks	Date	Rate	Remarks

Remarks

MEREBROOK CONSULTING

Trial Pit Log

Project Name: Glebe Farm	Client: Vistry Group	Date: 30/09/2025
Location: Steyning	Contractor: Soils Limited/3D Drilling	
Project No. : 21949ah	Crew Name: BPH	Equipment: JCB 3CX

Location Number	Location Type	Level	Logged By	Scale	Page Number
CBR15	TP		Ben Alexander	1:20	Sheet 1 of 1

Well	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.10	ES					[Topsoil] Dark brown slightly sandy slightly gravelly CLAY. Gravel is fine to coarse, sub angular to sub rounded of flint and occasional brick.
	0.30	B		0.30			Firm to stiff brown slightly sandy slightly gravelly CLAY. Gravel is fine to medium, sub angular to sub rounded of flint [Head Deposits]
	0.50	HV	HVP=75 kPa	0.50			End of Borehole at 0.50m

0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0

Dimensions		Trench Support and Comment			Pumping Data		
Pit Length	Pit Width	Pit Stability	Shoring Used	Remarks	Date	Rate	Remarks

Remarks

Trial Pit Log

Project Name: Glebe Farm	Client: Vistry Group	Date: 30/09/2025
Location: Steyning	Contractor: Soils Limited/3D Drilling	
Project No. : 21949ah	Crew Name: BPH	Equipment: JCB 3CX

Location Number	Location Type	Level	Logged By	Scale	Page Number
CBR16	TP		Ben Alexander	1:20	Sheet 1 of 1

Well	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.30	ES					[Topsoil] Dark brown slightly sandy slightly gravelly CLAY. Gravel is fine to coarse, sub angular to sub rounded of flint and occasional brick.
	0.40	B		0.40			Stiff brown slightly sandy slightly gravelly CLAY. Gravel is fine to coarse, sub angular to sub rounded of flint [Head deposits]
	0.60	HV	HVP=75 kPa	0.60			End of Borehole at 0.60m

0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0

Dimensions		Trench Support and Comment			Pumping Data		
Pit Length	Pit Width	Pit Stability	Shoring Used	Remarks	Date	Rate	Remarks
		Stable					

Remarks

MEREBROOK CONSULTING

Trial Pit Log

Project Name: Glebe Farm	Client: Vistry Group	Date: 06/10/2025
Location: Steyning	Contractor: Soils Limited/3D Drilling	
Project No. : 21949ah	Crew Name: BPH	Equipment: JCB 3CX

Location Number	Location Type	Level	Logged By	Scale	Page Number
CBR2	TP		Ben Alexander	1:20	Sheet 1 of 1

Well	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.20	ES		0.35			[Topsoil] Dark brown slightly sandy slightly gravelly CLAY. Gravel is fine to coarse, sub angular to sub rounded of flint and occasional brick.
	0.40	B					Firm to stiff light grey mottled orange brown gravelly silty CLAY. Gravel is fine to coarse, sub angular to angular of mudstone [Gault Formation]
	0.60	HV	HVP=63 kPa	0.60			End of Borehole at 0.60m

0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0

Dimensions		Trench Support and Comment			Pumping Data		
Pit Length	Pit Width	Pit Stability	Shoring Used	Remarks	Date	Rate	Remarks
		Stable					

Remarks

MEREBROOK CONSULTING

Trial Pit Log

Project Name: Glebe Farm	Client: Vistry Group	Date: 06/10/2025
Location: Steyning	Contractor: Soils Limited/3D Drilling	
Project No. : 21949ah	Crew Name: BPH	Equipment: JCB 3CX

Location Number	Location Type	Level	Logged By	Scale	Page Number
CBR4	TP		Ben Alexander	1:20	Sheet 1 of 1

Well	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth (m)	Type	Results				
				0.35			[Topsoil] Dark brown slightly sandy slightly gravelly CLAY. Gravel is fine to coarse, sub angular to sub rounded of flint and occasional brick.
	0.40	B					Firm greyish brown mottled orange brown silty CLAY [Gault Formation]
	0.50	HV	HVP=75 kPa	0.50			End of Borehole at 0.50m

0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0

Dimensions		Trench Support and Comment			Pumping Data		
Pit Length	Pit Width	Pit Stability	Shoring Used	Remarks	Date	Rate	Remarks

Remarks

Trial Pit Log

Project Name: Glebe Farm	Client: Vistry Group	Date: 30/09/2025
Location: Steyning	Contractor: Soils Limited/3D Drilling	
Project No. : 21949ah	Crew Name: BPH	Equipment: JCB 3CX

Location Number	Location Type	Level	Logged By	Scale	Page Number
CBR6	TP		Ben Alexander	1:20	Sheet 1 of 1

Well	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.10	ES					[Topsoil] Dark brown slightly sandy slightly gravelly CLAY. Gravel is fine to coarse, sub angular to sub rounded of flint and occasional brick.
	0.30	B		0.25			Stiff brown slightly sandy slightly gravelly CLAY. Gravel is fine to coarse, sub angular to sub rounded of flint [Head deposits]
	0.50	HV	HVP=60 kPa	0.50			End of Borehole at 0.50m

0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0

Dimensions		Trench Support and Comment			Pumping Data		
Pit Length	Pit Width	Pit Stability	Shoring Used	Remarks	Date	Rate	Remarks
		Stable					

Remarks

Trial Pit Log

Project Name: Glebe Farm	Client: Vistry Group	Date: 30/09/2025
Location: Steyning	Contractor: Soils Limited/3D Drilling	
Project No. : 21949ah	Crew Name: BPH	Equipment: JCB 3CX

Location Number	Location Type	Level	Logged By	Scale	Page Number
CBR7	TP		Ben Alexander	1:20	Sheet 1 of 1

Well	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.10	ES		0.25			[Topsoil] Dark brown slightly sandy slightly gravelly CLAY. Gravel is fine to coarse, sub angular to sub rounded of flint and occasional brick.
	0.30	B					Firm brown sandy slightly gravelly CLAY. Gravel is fine to coarse, sub angular to sub rounded of flint [Head deposits]
	0.60	HV	HVP=65 kPa	0.60			End of Borehole at 0.60m

0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0

Dimensions		Trench Support and Comment			Pumping Data		
Pit Length	Pit Width	Pit Stability	Shoring Used	Remarks	Date	Rate	Remarks
		Stable					

Remarks

Trial Pit Log

Project Name: Glebe Farm	Client: Vistry Group	Date: 30/09/2025
Location: Steyning	Contractor: Soils Limited/3D Drilling	
Project No. : 21949ah	Crew Name: BPH	Equipment: JCB 3CX

Location Number	Location Type	Level	Logged By	Scale	Page Number
CBR8	TP		Ben Alexander	1:20	Sheet 1 of 1

Well	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.10	ES					[Topsoil] Dark brown slightly sandy slightly gravelly CLAY. Gravel is fine to coarse, sub angular to sub rounded of flint and occasional brick.
	0.40	B		0.40			Stiff grey slightly sandy slightly gravelly silty CLAY. Gravel is fine to coarse, sub angular to sub rounded of flint [Gault Formation]
	0.60	HV	HVP=75 kPa	0.60			End of Borehole at 0.60m

0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0

Dimensions		Trench Support and Comment			Pumping Data		
Pit Length	Pit Width	Pit Stability	Shoring Used	Remarks	Date	Rate	Remarks
		Stable					

Remarks

Trial Pit Log

Project Name: Glebe Farm	Client: Vistry Group	Date: 30/09/2025
Location: Steyning	Contractor: Soils Limited/3D Drilling	
Project No. : 21949ah	Crew Name: BPH	Equipment: JCB 3CX

Location Number	Location Type	Level	Logged By	Scale	Page Number
MHP01	TP		Ben Alexander	1:20	Sheet 1 of 1

Well	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth (m)	Type	Results				
				0.10			Concrete
	0.30	ES					[Made Ground] Dark brown gravelly sandy CLAY. Gravel fine to coarse, sub angular to sub rounded of flint, brick, concrete, metal and pottery. Medium cobble content of brick
	0.40	ES					
	0.60	ES		0.55			Grey and brown slightly sandy silty CLAY. Sand is fine [Gault Formation]
				0.80			End of Borehole at 0.80m

0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0

Dimensions		Trench Support and Comment			Pumping Data		
Pit Length	Pit Width	Pit Stability	Shoring Used	Remarks	Date	Rate	Remarks
		Stable					

Remarks

Trial Pit Log

Project Name: Glebe Farm	Client: Vistry Group	Date: 30/09/2025
Location: Steyning	Contractor: Soils Limited/3D Drilling	
Project No. : 21949ah	Crew Name: BPH	Equipment: JCB 3CX

Location Number	Location Type	Level	Logged By	Scale	Page Number
MHP02	TP		Ben Alexander	1:20	Sheet 1 of 1

Well	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.20	ES					[Topsoil] Dark brown slightly sandy slightly gravelly CLAY. Gravel is fine to coarse, sub angular to sub rounded of flint and occasional brick.
	0.40	ES		0.35			Stiff brown slightly sandy slightly gravelly CLAY. Gravel is fine to coarse, sub angular to sub rounded of flint [Head deposits]
				0.60			End of Borehole at 0.60m

0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0

Dimensions		Trench Support and Comment			Pumping Data		
Pit Length	Pit Width	Pit Stability	Shoring Used	Remarks	Date	Rate	Remarks
		Stable					

Remarks

MEREBROOK CONSULTING

Trial Pit Log

Project Name: Glebe Farm	Client: Vistry Group	Date: 02/10/2025
Location: Steyning	Contractor: Soils Limited/3D Drilling	
Project No. : 21949ah	Crew Name: 3D Drilling	Equipment: Hand dug

Location Number	Location Type	Level	Logged By	Scale	Page Number
MHP03	TP		Ben Alexander	1:20	Sheet 1 of 1

Well	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.00	D					[Topsoil / Made Ground] Dark brown slightly sandy slightly gravelly CLAY. Gravel is fine to coarse, sub angular to sub rounded of flint, brick and charcoal. Asbestos cement roof tile fragments and on the ground surface.
	0.20	ES					
	0.30	ES					
				0.50			Brown slightly gravelly slightly sandy CLAY. Gravel is fine to medium of flint [Head deposits]
				0.60			End of Borehole at 0.60m

0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0

Dimensions		Trench Support and Comment			Pumping Data		
Pit Length	Pit Width	Pit Stability	Shoring Used	Remarks	Date	Rate	Remarks

Remarks

Trial Pit Log

Project Name: Glebe Farm	Client: Vistry Group	Date: 02/10/2025
Location: Steyning	Contractor: Soils Limited/3D Drilling	
Project No. : 21949ah	Crew Name: 3D Drilling	Equipment: Hand dug

Location Number	Location Type	Level	Logged By	Scale	Page Number
MHP04	TP		Ben Alexander	1:20	Sheet 1 of 1

Well	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.30	ES		0.30			[Topsoil] Brown slightly sandy slightly gravelly CLAY. Gravel is fine to medium, sub angular to sub rounded of flint.
							End of Borehole at 0.30m

0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0

Dimensions		Trench Support and Comment			Pumping Data		
Pit Length	Pit Width	Pit Stability	Shoring Used	Remarks	Date	Rate	Remarks

Remarks

Trial Pit Log

Project Name: Glebe Farm	Client: Vistry Group	Date: 30/09/2025
Location: Steyning	Contractor: Soils Limited/3D Drilling	
Project No. : 21949ah	Crew Name: BPH	Equipment: JCB 3CX

Location Number	Location Type	Level	Logged By	Scale	Page Number
MTP101	TP		Ben Alexander	1:20	Sheet 1 of 1

Well	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.20	ES					[Topsoil] Dark brown slightly sandy slightly gravelly CLAY. Gravel is fine to coarse, sub angular to sub rounded of flint and occasional brick.
				0.30			
	0.60	HV	HVP=60 kPa				Firm brown mottled orange brown slightly sandy slightly gravelly CLAY. Gravel is fine to medium, sub angular to sub rounded of flint [Head Deposits]
	1.00	B					
	1.20	HV	HVP=60 kPa	1.20			Firm grey mottled orange brown silty CLAY with horizons of silt [Gault Clay Formation]
	1.90	HV	HVP=50 kPa				
				2.20			Grey SILTSTONE interbeded with soft grey mottled orange brown silty CLAY [Gault Clay Formation]
	2.50	B					
				3.00			Very weak to weak grey SILTSTONE [Gault Clay Formation]
	3.30	B					
				3.40			End of Borehole at 3.40m

0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0

Dimensions		Trench Support and Comment			Pumping Data		
Pit Length	Pit Width	Pit Stability	Shoring Used	Remarks	Date	Rate	Remarks

Remarks

Trial Pit Log

MEREBROOK CONSULTING

Project Name: Glebe Farm	Client: Vistry Group	Date: 30/09/2025
Location: Steyning	Contractor: Soils Limited/3D Drilling	
Project No. : 21949ah	Crew Name: BPH	Equipment: JCB 3CX

Location Number	Location Type	Level	Logged By	Scale	Page Number
MTP102	TP		Ben Alexander	1:20	Sheet 1 of 1

Well	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.10	ES					[Topsoil] Dark brown slightly sandy slightly gravelly CLAY. Gravel is fine to coarse, sub angular to sub rounded of flint and occasional brick.
				0.35			
	0.40	ES					Stiff light brown mottled orange brown slightly sandy slightly gravelly silty CLAY. Gravel is fine to medium sub angular of mudstone and flint [Head Deposits]
	0.50	HV	HVP=115 kPa				
	1.00	B					
	1.20	HV	HVP=90 kPa				
	2.00	HV	HVP=60 kPa				
				2.20			
	2.30	B					Soft light brown, grey and orange brown slightly gravelly CLAY with cobbles of mudstone. Gravel is fine to coarse, sub angular to angular of mudstone. Medium cobble content of angular to sub angular mudstone [Gault Formation]
	3.40	B					
				3.60			End of Borehole at 3.60m

0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0

Dimensions		Trench Support and Comment			Pumping Data		
Pit Length	Pit Width	Pit Stability	Shoring Used	Remarks	Date	Rate	Remarks
		Stable					

Remarks

MEREBROOK CONSULTING

Trial Pit Log

Project Name: Glebe Farm	Client: Vistry Group	Date: 30/09/2025
Location: Steyning	Contractor: Soils Limited/3D Drilling	
Project No. : 21949ah	Crew Name: BPH	Equipment: JCB 3CX

Location Number	Location Type	Level	Logged By	Scale	Page Number
MTP103	TP		Ben Alexander	1:20	Sheet 1 of 1

Well	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.10	ES					[Topsoil] Dark brown slightly sandy slightly gravelly CLAY. Gravel is fine to coarse, sub angular to sub rounded of flint and occasional brick.
				0.30			Firm brown very gravelly slightly sandy CLAY. Gravel is fine to coarse, sub angular to sub rounded of flint [Head deposits]
	0.60	HV	HVP=65 kPa	0.60			Firm light grey mottled yellowish brown slightly sandy slightly gravelly silty CLAY. Gravel is fine to coarse, sub angular to sub rounded of flint and chalk [Gault Formation]
	1.00	B					
	1.10	HV	HVP=70 kPa				
	1.50	HV	HVP=40 kPa				
	2.00	HV	HVP=65 kPa				
	2.30	B					
	2.30	B					
				3.00			Grey very weak to weak MUDSTONE [Gault Formation]
				3.60			End of Borehole at 3.60m

0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0

Dimensions		Trench Support and Comment			Pumping Data		
Pit Length	Pit Width	Pit Stability	Shoring Used	Remarks	Date	Rate	Remarks
		Stable					

Remarks

Trial Pit Log

MEREBROOK CONSULTING

Project Name: Glebe Farm	Client: Vistry Group	Date: 30/09/2025
Location: Steyning	Contractor: Soils Limited/3D Drilling	
Project No. : 21949ah	Crew Name: BPH	Equipment: JCB 3CX

Location Number	Location Type	Level	Logged By	Scale	Page Number
MTP104	TP		Ben Alexander	1:20	Sheet 1 of 1

Well	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.10	ES					[Topsoil] Dark brown slightly sandy slightly gravelly CLAY. Gravel is fine to coarse, sub angular to sub rounded of flint and occasional brick.
				0.30			Stiff brown slightly sandy slightly gravelly CLAY. Gravel is fine to coarse, sub angular to sub rounded of flint [Head deposits]
	0.50	HV	HVP=95 kPa				
	0.90	B					
	1.00	HV	HVP=70 kPa				*becomes firm from 1.0m*
	1.90	B					
	2.00	HV	HVP=45 kPa				
				2.20			Stiff grey slightly gravelly silty CLAY. Gravel is fine to medium, sub angular to sub rounded of flint [Gault Formation]
	2.50	B					
	2.60	HV	HVP=55 kPa				
				3.00			Very weak grey MUDSTONE [Gault Formation]
				3.50			End of Borehole at 3.50m

0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0

Dimensions		Trench Support and Comment			Pumping Data		
Pit Length	Pit Width	Pit Stability	Shoring Used	Remarks	Date	Rate	Remarks
		Stable					

Remarks

MEREBROOK CONSULTING

Trial Pit Log

MEREBROOK CONSULTING

Project Name: Glebe Farm	Client: Vistry Group	Date: 06/10/2025
Location: Steyning	Contractor: Soils Limited/3D Drilling	
Project No. : 21949ah	Crew Name: BPH	Equipment: JCB 3CX

Location Number	Location Type	Level	Logged By	Scale	Page Number
MTP105	TP		Ben Alexander	1:20	Sheet 1 of 1

Well	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.10	ES					[Topsoil] Dark brown slightly sandy slightly gravelly CLAY. Gravel is fine to coarse, sub angular to sub rounded of flint and occasional brick.
				0.35			Stiff grey mottled orange brown silty CLAY [Gault Formation]
	0.60	HV	HVP=65 kPa				
	1.00	B					
	1.20	HV	HVP=80 kPa				
							becomes slightly gravelly with gravels of fine to coarse, angular to sub angular mudstone from 1.5m
	2.00	B					
	2.00	HV	HVP=75 kPa				
							Horizons of extremely weak to weak mudstone from 2.5m.
	3.00	B					
				3.30			End of Borehole at 3.30m

0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0

Dimensions		Trench Support and Comment			Pumping Data		
Pit Length	Pit Width	Pit Stability	Shoring Used	Remarks	Date	Rate	Remarks

Remarks

MEREBROOK CONSULTING

Trial Pit Log

Project Name: Glebe Farm	Client: Vistry Group	Date: 06/10/2025
Location: Steyning	Contractor: Soils Limited/3D Drilling	
Project No. : 21949ah	Crew Name: BPH	Equipment: JCB 3CX

Location Number	Location Type	Level	Logged By	Scale	Page Number
MTP106 / CBR5	TP		Ben Alexander	1:20	Sheet 1 of 1

Well	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.10	ES					[Topsoil] Dark brown slightly sandy slightly gravelly CLAY. Gravel is fine to coarse, sub angular to sub rounded of flint and occasional brick.
				0.30			
	0.40	B					Firm to stiff light grey mottled orange brown silty CLAY [Gault Formation]
	0.60	HV	HVP=55 kPa				
	1.20	B					
	1.20	HV	HVP=60 kPa				
	2.00	B					
	2.00	HV	HVP=47 kPa				*becomes gravelly at 2.0m. Gravels fine to coarse, angular to sub angular of mudstone*
	2.50	HV	HVP=82 kPa				
	3.10	B					
				3.50			End of Borehole at 3.50m

0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0

Dimensions		Trench Support and Comment			Pumping Data		
Pit Length	Pit Width	Pit Stability	Shoring Used	Remarks	Date	Rate	Remarks
		Stable					

Remarks

Trial Pit Log

MEREBROOK CONSULTING

Project Name: Glebe Farm	Client: Vistry Group	Date: 06/10/2025
Location: Steyning	Contractor: Soils Limited/3D Drilling	
Project No. : 21949ah	Crew Name: BPH	Equipment: JCB 3CX

Location Number	Location Type	Level	Logged By	Scale	Page Number
MTP107 / CBR03	TP		Ben Alexander	1:20	Sheet 1 of 1

Well	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.10	ES					[Topsoil] Dark brown slightly sandy slightly gravelly CLAY. Gravel is fine to coarse, sub angular to sub rounded of flint, occasional brick and glass.
				0.30			
	0.40	B					Firm grey mottled orange brown silty CLAY [Gault Formation]
	1.00	B					
	1.10	HV	HVP=110 kPa				*Becomes stiff to very stiff from 1.0m and slightly gravelly. Gravel is fine to coarse, sub angular to angular of mudstone.*
				1.50			Very stiff light grey silty CLAY / Extremely weak to weak weathered MUDSTONE [Gault Formation]
	2.20	B					
				2.50			Light grey extremely weak to weak MUDSTONE [Gault Formation]
	3.30	B					
				3.50			End of Borehole at 3.50m

0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0

Dimensions		Trench Support and Comment			Pumping Data		
Pit Length	Pit Width	Pit Stability	Shoring Used	Remarks	Date	Rate	Remarks

Remarks

MEREBROOK CONSULTING

Trial Pit Log

Project Name: Glebe Farm	Client: Vistry Group	Date: 06/10/2025
Location: Steyning	Contractor: Soils Limited/3D Drilling	
Project No. : 21949ah	Crew Name: BPH	Equipment: JCB 3CX

Location Number	Location Type	Level	Logged By	Scale	Page Number
MTP108 / CBR1	TP		Ben Alexander	1:20	Sheet 1 of 1

Well	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.30	ES		0.40			[Topsoil] Dark brown slightly sandy slightly gravelly CLAY. Gravel is fine to coarse, sub angular to sub rounded of flint and occasional brick.
	0.50	B					Stiff light greyish brown mottled orange brown silty slightly gravelly CLAY. Gravel is fine to coarse, sub angular to angular of mudstone [Gault Formation]
	0.70	HV	HVP=60 kPa				
	1.40	B					
	1.50	HV	HVP=55 kPa	1.60			Grey extremely weak to weak MUDSTONE / Very stiff silty CLAY [Gault Formation]
	2.30	B					
	3.30	B		3.50			End of Borehole at 3.50m

0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0

Dimensions		Trench Support and Comment			Pumping Data		
Pit Length	Pit Width	Pit Stability	Shoring Used	Remarks	Date	Rate	Remarks

Remarks

MEREBROOK CONSULTING

Trial Pit Log

Project Name: Glebe Farm	Client: Vistry Group	Date: 06/10/2025
Location: Steyning	Contractor: Soils Limited/3D Drilling	
Project No. : 21949ah	Crew Name: BPH	Equipment: JCB 3CX

Location Number	Location Type	Level	Logged By	Scale	Page Number
MTP109	TP		Ben Alexander	1:20	Sheet 1 of 1

Well	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.10	ES					[Topsoil] Dark brown slightly sandy slightly gravelly CLAY. Gravel is fine to coarse, sub angular to sub rounded of flint and occasional brick.
				0.40			
	0.50	ES					[Made Ground] Brown slightly sandy slightly gravelly CLAY. Gravel fine to coarse, sub angular to sub rounded of brick, charcoal and flint.
	0.60	ES					
				0.80			Very weak to weak brownish grey MUDSTONE [Gault Formation]
	1.20	B					
	2.00	B					
				2.50			End of Borehole at 2.50m

0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0

Dimensions		Trench Support and Comment			Pumping Data		
Pit Length	Pit Width	Pit Stability	Shoring Used	Remarks	Date	Rate	Remarks
		Stable					

Remarks

MEREBROOK CONSULTING

Trial Pit Log

Project Name: Glebe Farm	Client: Vistry Group	Date: 06/10/2025
Location: Steyning	Contractor: Soils Limited/3D Drilling	
Project No. : 21949ah	Crew Name: BPH	Equipment: JCB 3CX

Location Number	Location Type	Level	Logged By	Scale	Page Number
MTP110	TP		Ben Alexander	1:20	Sheet 1 of 1

Well	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.20	ES					[Topsoil] Dark brown slightly sandy slightly gravelly CLAY. Gravel is fine to coarse, sub angular to sub rounded of flint and occasional brick.
				0.40			
	0.60	HV	HVP=70 kPa				Light brown mottled orange brown slightly gravelly silty CLAY. Gravel is fine to coarse, sub angular to angular of mudstone. Medium cobble content of angular mudstone [Gault Formation]
	1.10	B					
	1.30	HV	HVP=83 kPa				
				1.50			Very weak to weak grey and brown MUDSTONE with occasional clay horizons [Gault Formation]
	2.00	B					
				2.30			End of Borehole at 2.30m

0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0

Dimensions		Trench Support and Comment			Pumping Data		
Pit Length	Pit Width	Pit Stability	Shoring Used	Remarks	Date	Rate	Remarks

Remarks

Trial Pit Log

Project Name: Glebe Farm	Client: Vistry Group	Date: 07/10/2025
Location: Steyning	Contractor: Soils Limited/3D Drilling	
Project No. : 21949ah	Crew Name: BPH	Equipment: JCB 3CX

Location Number	Location Type	Level	Logged By	Scale	Page Number
MTP111 / CBR9	TP		Ben Alexander	1:20	Sheet 1 of 1

Well	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.10	ES					[Topsoil] Dark brown slightly sandy slightly gravelly CLAY. Gravel is fine to coarse, sub angular to sub rounded of flint and occasional brick.
				0.25			Firm brown slightly sandy slightly gravelly CLAY. Gravel is fine to coarse, sub angular to sub rounded of flint [Head deposits]
	0.50	HV	HVP=48 kPa				
				0.90			Stiff light brown mottled grey CLAY [Head deposits]
	1.00	B					
	1.00	HV	HVP=73 kPa				
				1.40			Stiff light grey slightly gravelly silty CLAY. Gravel is fine to coarse, sub angular to angular of mudstone [Gault Formation]
	1.50	HV	HVP=58 kPa				
							becomes friable and gravelly from 1.9m
	2.00	B					
				2.90			Grey very weak to weak MUDSTONE with clay horizons [Gault Formation]
	3.00	B					
				3.30			End of Borehole at 3.30m

Dimensions		Trench Support and Comment			Pumping Data		
Pit Length	Pit Width	Pit Stability	Shoring Used	Remarks	Date	Rate	Remarks
		Stable					

Remarks

Trial Pit Log

Project Name: Glebe Farm	Client: Vistry Group	Date: 07/10/2025
Location: Steyning	Contractor: Soils Limited/3D Drilling	
Project No. : 21949ah	Crew Name: BPH	Equipment: JCB 3CX

Location Number	Location Type	Level	Logged By	Scale	Page Number
MTP112	TP		Ben Alexander	1:20	Sheet 1 of 1

Well	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.10	ES		0.20			[Topsoil] Dark brown slightly sandy slightly gravelly CLAY. Gravel is fine to coarse, sub angular to sub rounded of flint and occasional brick.
	0.50	ES					[Made Ground] Brown slightly sandy slightly gravelly CLAY. Gravel is fine to coarse, sub angular to sub rounded of flint, brick and charcoal
	0.60	ES					
	0.70	HV	HVP=70 kPa				
	1.00	B		0.90			Brown, orange brown and grey clayey sandy fine to coarse sub angular to sub rounded GRAVEL of flint and chalk [River Terrace Deposits]
	1.00	ES					
	2.00	B		1.70			Light grey stiff friable gravelly silty CLAY interbedded with horizons of extremely weak mudstone. Gravel of fine to coarse, sub angular to sub rounded of mudstone [Gault Formation]
	3.00	B		2.90			Extremely weak to very weak grey with brown staining MUDSTONE [Gault Formation]
				3.50			End of Borehole at 3.50m

0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0

Dimensions		Trench Support and Comment			Pumping Data		
Pit Length	Pit Width	Pit Stability	Shoring Used	Remarks	Date	Rate	Remarks

Remarks

Trial Pit Log

Project Name: Glebe Farm	Client: Vistry Group	Date: 07/10/2025
Location: Steyning	Contractor: Soils Limited/3D Drilling	
Project No. : 21949ah	Crew Name: BPH	Equipment: JCB 3CX

Location Number	Location Type	Level	Logged By	Scale	Page Number
MTP113	TP		Ben Alexander	1:20	Sheet 1 of 1

Well	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.10	ES					[Topsoil] Dark brown slightly sandy slightly gravelly CLAY. Gravel is fine to coarse, sub angular to sub rounded of flint and occasional brick.
				0.30			Orange brown clayey sandy fine to coarse sub angular to sub rounded GRAVEL of flint [River Terrace Deposits]
	0.50	B					
	0.60	HV	HVP=70 kPa				
				0.70			Stiff light grey mottled orange brown silty slightly gravelly CLAY. Gravel is fine to coarse, sub angular to sub rounded of mudstone [Gault Formation]
	1.50	B					
	1.70	HV	HVP=62 kPa				*becomes firm and gravelly from 1.7m*
	2.80	B					
				3.00			End of Borehole at 3.00m

0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0

Dimensions		Trench Support and Comment			Pumping Data		
Pit Length	Pit Width	Pit Stability	Shoring Used	Remarks	Date	Rate	Remarks
		Stable					

Remarks

MEREBROOK CONSULTING

Trial Pit Log

Project Name: Glebe Farm	Client: Vistry Group	Date: 07/10/2025
Location: Steyning	Contractor: Soils Limited/3D Drilling	
Project No. : 21949ah	Crew Name: BPH	Equipment: JCB 3CX

Location Number	Location Type	Level	Logged By	Scale	Page Number
MTP114	TP		Ben Alexander	1:20	Sheet 1 of 1

Well	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.20	ES					[Topsoil] Dark brown slightly sandy slightly gravelly CLAY. Gravel is fine to coarse, sub angular to sub rounded of flint and occasional brick.
	0.40	ES		0.35			Firm orange brown slightly sandy slightly gravelly CLAY. Gravel is fine to coarse, sub angular to sub rounded of flint and chalk [Head deposits]
	0.60	HV	HVP=42 kPa				
	0.90	B					
	1.00	HV	HVP=57 kPa				
							becomes gravelly from 1.3m
	1.50	HV	HVP=68 kPa				
				1.60			Stiff grey silty slightly gravelly CLAY. Gravel is fine to coarse, sub angular to sub rounded of flint [Gault Formation]
	2.00	B					
	2.00	HV	HVP=68 kPa				*No flint gravel from 2.0m*
	2.50	HV	HVP=73 kPa				
	3.00	HV	HVP=58 kPa	3.00			Soft to firm grey gravelly CLAY interbedded with horizons of mudstone. Gravel is fine to coarse, sub angular to angular of mudstone. Low cobble content of mudstone [Gault Formation]
	3.30	B					
				3.50			End of Borehole at 3.50m

Dimensions		Trench Support and Comment			Pumping Data		
Pit Length	Pit Width	Pit Stability	Shoring Used	Remarks	Date	Rate	Remarks
		Stable					

Remarks

Trial Pit Log

Project Name: Glebe Farm	Client: Vistry Group	Date: 07/10/2025
Location: Steyning	Contractor: Soils Limited/3D Drilling	
Project No. : 21949ah	Crew Name: BPH	Equipment: JCB 3CX

Location Number	Location Type	Level	Logged By	Scale	Page Number
MTP115	TP		Ben Alexander	1:20	Sheet 1 of 1

Well	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth (m)	Type	Results				
	0.20	ES					[Topsoil] Dark brown slightly sandy slightly gravelly CLAY. Gravel is fine to coarse, sub angular to sub rounded of flint and occasional brick.
				0.40			Brown sandy clayey GRAVEL of fine to coarse, sub angular to sub rounded flint and chalk [River Terrace Deposits]
	0.70	B					
	1.00	HV	HVP=60 kPa	1.00			Firm light grey mottled orange brown silty CLAY [Gault Formation]
	1.70	B					
	1.70	HV	HVP=60 kPa				*becomes stiff from 1.7m*
				3.00			Grey extremely weak to very weak MUDSTONE with soft clay horizons [Gault Formation]
	3.10	B					
				3.30			End of Borehole at 3.30m

0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0

Dimensions		Trench Support and Comment			Pumping Data		
Pit Length	Pit Width	Pit Stability	Shoring Used	Remarks	Date	Rate	Remarks
		Stable					

Remarks

MEREBROOK CONSULTING

Borehole Log

MWS201

Project Name: Glebe Farm	Client: Vistry Group	Date: 02/10/2025
Location: Steyning	Contractor:	
Project No: 21949ah	Weather: Sunny	Drilling Equipment: Premier 110

Logged By	Checked By	Level	Hole Type	Scale	Page Number
Ben Alexander			WLS	1:30	Sheet 1 of 1

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	Scale (m)
		Depth (m)	Type	Results					
		0.10	ES					[Topsoil] Dark brown slightly sandy slightly gravelly CLAY. Gravel is fine to coarse, sub angular to sub rounded of flint and occasional brick.	
		0.20	ES		0.30				
		0.40	ES					Stiff light greyish brown mottled orange brown slightly sandy slightly gravelly CLAY. Gravel is fine to medium, sub angular of mudstone [Gault Formation]	
		0.50	D						
		1.00	SPT	N=13 (1,1/2,3,3,5)					1
					1.20			Light grey extremely weak to very weak MUDSTONE interbeded with very stiff friable CLAY [Gault Formation]	
		1.50	D						
		2.00	SPT	N=24 (1,5/5,7,6,6)					2
		2.50	D						
		3.00	SPT	N=19 (1,2/4,4,5,6)					3
		3.50	D						
		4.00	SPT	N=20 (1,3/5,6,5,4)					4
		4.50	D						
		5.00	SPT	N=21 (2,4/5,6,5,5)	5.00			End of Borehole at 5.00m	5
									6

Casing Details		Chiselling Details			Groundwater Remarks			General Remarks
Diameter (mm)	Depth Base (mbgl)	From (mbgl)	To (mbgl)	Duration (mins)	Strike (mbgl)	Rose (mbgl)	Time Elapsed (mins)	No Remarks
								Termination Reason: Target depth reached
								Hand dug pit: N/A

Coordinates and levels, where indicated, must not be used for design purposes. The user is responsible for verifying all site and setting out dimensions. HVP = Hand Vane Peak (kPa); PP: Pocket Penetrometer (kg cm2); PID: Photoionisation detector (ppm); D: Small Disturbed Sample (tub); J: Organic Sample (amber glass jar); V: Volatile Sample (amber glass vial); B: Bulk Bag Sample; SPT(C): Standard Penetration Test (cone);SPT(S): Standard Penetration Test (split spoon); U: Undisturbed Sample

MEREBROOK CONSULTING

Borehole Log

MWS202

Project Name: Glebe Farm	Client: Vistry Group	Date: 02/10/2025
Location: Steyning	Contractor:	
Project No: 21949ah	Weather: Sunny	Drilling Equipment: Premier 110

Logged By	Checked By	Level	Hole Type	Scale	Page Number
Ben Alexander			WLS	1:30	Sheet 1 of 1

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	Scale (m)
		Depth (m)	Type	Results					
		0.10	ES					[Topsoil] Dark brown slightly sandy slightly gravelly CLAY. Gravel is fine to coarse, sub angular to sub rounded of flint and occasional brick.	
					0.30				
		0.50	D					Stiff light greyish brown mottled orange brown slightly sandy slightly gravelly CLAY. Gravel is fine to medium, sub angular of mudstone [Gault Formation]	
		1.00	SPT	N=18 (1,2/3,4,5,6)	1.00			Light grey extremely weak to very weak MUDSTONE interbeded with very stiff friable CLAY [Gault Formation]	1
		1.50	D						
		2.00	SPT	N=6 (1,1/1,2,2,1)					2
		2.50	D						
		3.00	SPT	N=17 (1,2/3,5,5,4)					3
		3.50	D						
		4.00	SPT	N=30 (2,4/6,8,8,8)					4
		4.50	D						
		5.00	SPT	N=23 (2,4/4,6,6,7)	5.00			End of Borehole at 5.00m	5
									6

Casing Details		Chiselling Details			Groundwater Remarks			General Remarks
Diameter (mm)	Depth Base (mbgl)	From (mbgl)	To (mbgl)	Duration (mins)	Strike (mbgl)	Rose (mbgl)	Time Elapsed (mins)	No Remarks
								Termination Reason: Target depth reached
								Hand dug pit: N/A

Coordinates and levels, where indicated, must not be used for design purposes. The user is responsible for verifying all site and setting out dimensions. HVP = Hand Vane Peak (kPa); PP: Pocket Penetrometer (kg cm2); PID: Photoionisation detector (ppm); D: Small Disturbed Sample (tub); J: Organic Sample (amber glass jar); V: Volatile Sample (amber glass vial); B: Bulk Bag Sample; SPT(C): Standard Penetration Test (cone);SPT(S): Standard Penetration Test (split spoon); U: Undisturbed Sample

MEREBROOK CONSULTING

Borehole Log

MWS203

Project Name: Glebe Farm	Client: Vistry Group	Date: 02/10/2025
Location: Steyning	Contractor:	
Project No: 21949ah	Weather: Sunny	Drilling Equipment: Premier 110

Logged By	Checked By	Level	Hole Type	Scale	Page Number
Ben Alexander			WLS	1:30	Sheet 1 of 1

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	Scale (m)
		Depth (m)	Type	Results					
		0.10	ES					[Topsoil] Dark brown slightly sandy slightly gravelly CLAY. Gravel is fine to coarse, sub angular to sub rounded of flint and occasional brick.	
					0.30				
		0.50	D					Firm light greyish brown mottled orange brown slightly sandy silty CLAY. Sand is fine [Gault Formation]	
		1.00	SPT	N=7 (1,1/2,1,2,2)				*becomes stiff to very stiff with horizons of mudstone from 1.0m*	1
		1.50	D						
					1.80			Extremely weak to very weak grey MUDSTONE [Gault Formation]	
		2.00	SPT	N=50 (3,11/50 for 80mm)	2.10			End of Borehole at 2.10m	2
									3
									4
									5
									6

Casing Details		Chiselling Details			Groundwater Remarks			General Remarks
Diameter (mm)	Depth Base (mbgl)	From (mbgl)	To (mbgl)	Duration (mins)	Strike (mbgl)	Rose (mbgl)	Time Elapsed (mins)	No Remarks
								Termination Reason: Refusal Hand dug pit: N/A

Coordinates and levels, where indicated, must not be used for design purposes. The user is responsible for verifying all site and setting out dimensions. HVP = Hand Vane Peak (kPa); PP: Pocket Penetrometer (kg cm2); PID: Photoionisation detector (ppm); D: Small Disturbed Sample (tub); J: Organic Sample (amber glass jar); V: Volatile Sample (amber glass vial); B: Bulk Bag Sample; SPT(C): Standard Penetration Test (cone);SPT(S): Standard Penetration Test (split spoon); U: Undisturbed Sample

Windowless Sample Log

IDOM			Borehole No. MWS101	Sheet 1 of 1
Project Name:	Glebe Farm, Steyning	Project No. 22635	Co-ords: 518230E - 111610N	Scale 1:25
Location:	Steyning		Level (m):	Logged By FL
Equipment:	DART		Dates: 23/10/2023	Checked By

Well	Wtr Strk	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
								Topsoil - Grass atop dark brown slightly gravelly CLAY. Gravel is fine sub-angular to subrounded of flint. Frequent rootlets.
					0.40			Soft to firm brownish grey mottled orangish brown and grey SILT.
					1.00			Soft light yellowish brown mottled orange and grey SILT.
					2.10			Firm light yellowish brown mottled orange and grey CLAY. Rare calcite veins.
					3.00			End of Borehole at 3.00m

1 2 3 4 5

D = small disturbed sample (tub)
J = organic sample (amber glass jar)
V = volatile sample (amber glass vial)
B = bulk bag sample

SPT(C) = Standard Penetration Test (Cone)
SPT(S) = Standard Penetration Test (Split Spoon)
HSV = hand shear vane (kPa)
PP = pocket penetrometer (kg.cm2)
PID = photoionisation detector (ppm)

Remarks

Coordinates and levels, where indicated, must not be used for design purposes. The designer is responsible for verifying all site and setting out dimensions.

1) Hole terminated at target depth. 2) No groundwater encountered.

Windowless Sample Log

IDOM			Borehole No. MWS102	Sheet 1 of 1
Project Name:	Glebe Farm, Steyning	Project No. 22635	Co-ords: 518343E - 111667N	Scale 1:25
Location:	Steyning		Level (m):	Logged By FL
Equipment:	DART		Dates: 23/10/2023	Checked By

Well	Wtr Strk	Sample and In Situ Testing: Depth (m)	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description
					0.40			Topsoil - Grass atop dark brown slightly gravelly CLAY. Gravel is fine sub-angular to subrounded of flint. Frequent rootlets.
					0.90			Soft light orangish brown gravelly SILT. Gravel is fine to coarse angular to sub-angular of flint.
								Soft to firm greenish grey mottled orange and yellowish grey CLAY. Rare calcite veins.
					4.00			End of Borehole at 4.00m

1 2 3 4 5

D = small disturbed sample (tub)
J = organic sample (amber glass jar)
V = volatile sample (amber glass vial)
B = bulk bag sample

SPT(C) = Standard Penetration Test (Cone)
SPT(S) = Standard Penetration Test (Split Spoon)
HSV = hand shear vane (kPa)
PP = pocket penetrometer (kg.cm2)
PID = photoionisation detector (ppm)

Remarks

Coordinates and levels, where indicated, must not be used for design purposes. The designer is responsible for verifying all site and setting out dimensions.

1) Hole terminated at target depth. 2) No groundwater encountered.

IDOM

Windowless Sample Log

Borehole No. **MWS103**

Sheet 1 of 1

Project Name:	Glebe Farm, Steyning	Project No. 22635	Co-ords: 518423E - 111681N
Location:	Steyning		Level (m):
Equipment:	DART		Dates: 23/10/2023

Scale 1:25

Logged By FL

Checked By

Well	Wtr Strk	Sample and In Situ Testing: Depth (m)	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description
								MADE GROUND -Topsoil - Grass atop dark brown slightly gravelly CLAY. Gravel is fine sub-angular to subrounded of flint. Frequent rootlets. Rare brick fragments.
					0.40			Soft to firm light brown SILT. Rare coarse gravels of flint.
					1.00			Soft to firm light brown mottled orangish brown slightly gravelly SILT. Gravel is fine to medium subangular of flint.
					2.20			Soft light brown mottled orangish brown and dark brown slightly gravelly SILT. Gravel is fine to medium subangular of flint.
					3.00			End of Borehole at 3.00m

1 2 3 4 5

D = small disturbed sample (tub)
J = organic sample (amber glass jar)
V = volatile sample (amber glass vial)
B = bulk bag sample

SPT(C) = Standard Penetration Test (Cone)
SPT(S) = Standard Penetration Test (Split Spoon)
HSV = hand shear vane (kPa)
PP = pocket penetrometer (kg.cm2)
PID = photoionisation detector (ppm)

Remarks

Coordinates and levels, where indicated, must not be used for design purposes. The designer is responsible for verifying all site and setting out dimensions.

1) Hole terminated at target depth. 2) No groundwater encountered.

Windowless Sample Log

IDOM			Borehole No. MWS104	Sheet 1 of 1
Project Name:	Glebe Farm, Steyning	Project No. 22635	Co-ords: 518534E - 111596N	Scale 1:25
Location:	Steyning		Level (m):	Logged By FL
Equipment:	DART		Dates: 23/10/2023	Checked By

Well	Wtr Strk	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
								Topsoil - Grass atop dark brown slightly gravelly CLAY. Gravel is fine sub-angular to subrounded of flint. Frequent rootlets.
					0.35			Soft to firm light brownish grey mottled light grey SILT.
								Band of coarse subangular gravels of flint.
					1.40			Firm light brownish grey mottled orange and light grey CLAY.
					3.00			End of Borehole at 3.00m

1 2 3 4 5

D = small disturbed sample (tub)
J = organic sample (amber glass jar)
V = volatile sample (amber glass vial)
B = bulk bag sample

SPT(C) = Standard Penetration Test (Cone)
SPT(S) = Standard Penetration Test (Split Spoon)
HSV = hand shear vane (kPa)
PP = pocket penetrometer (kg.cm2)
PID = photoionisation detector (ppm)

Remarks

Coordinates and levels, where indicated, must not be used for design purposes. The designer is responsible for verifying all site and setting out dimensions.

1) Hole terminated at target depth. 2) No groundwater encountered.

Windowless Sample Log

IDOM		Borehole No. MWS105	Sheet 1 of 1
Project Name: Glebe Farm, Steyning	Project No. 22635	Co-ords: 518691E - 111684N	Scale 1:25
Location: Steyning		Level (m):	Logged By FL
Equipment: DART		Dates: 23/10/2023	Checked By

Well	Wtr Strk	Sample and In Situ Testing: Depth (m)	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description
					0.40			Topsoil - Grass atop dark brown slightly gravelly CLAY. Gravel is fine sub-angular to subrounded of flint. Frequent rootlets.
								Soft to firm light brownish grey mottled orange and light grey CLAY.
								Band of softer, wetter clay.
					4.00			End of Borehole at 4.00m

1 2 3 4 5

D = small disturbed sample (tub)
J = organic sample (amber glass jar)
V = volatile sample (amber glass vial)
B = bulk bag sample

SPT(C) = Standard Penetration Test (Cone)
SPT(S) = Standard Penetration Test (Split Spoon)
HSV = hand shear vane (kPa)
PP = pocket penetrometer (kg.cm2)
PID = photoionisation detector (ppm)

Remarks

Coordinates and levels, where indicated, must not be used for design purposes. The designer is responsible for verifying all site and setting out dimensions.

1) Hole terminated at target depth. 2) Slightly wetter clay encountered @ 3.80 m bgl.