



**HAW LANE, SAUNDERTON,
BUCKINGHAMSHIRE, HP14 4JD
PHASE I AND PHASE II
GEOTECHNICAL INVESTIGATION
VIRTUS DATA CENTRES
28TH APRIL 2025
LS8055**

Site:	HAW LANE, SAUNDERTON, BUCKINGHAMSHIRE, HP14 4JT	
Title:	PHASE I AND PHASE II GEOTECHNICAL INVESTIGATION	
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Client:	VIRTUS DATA CENTRES	
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1.0 EXECUTIVE SUMMARY

This summary is a brief precis of the main findings and conclusions of the investigation. For detailed information, the reader is referred to the main report.

The area under investigation comprised a roughly square shaped area, with site offices and welfare units in the north, and a chalk pit that covers the rest of the site. The development was to comprise the construction of 4no new data centre buildings and a retaining wall on the western side of the site. The intrusive investigation included 19no boreholes, 3no to 30.0mbgl and 16no. to 15.0mbgl, 20no plate load tests, 4no trial pits and soakage testing.

Strata	Base Depth range	Summary
New Pit Chalk Formation	30.00m+	Off-white with occasional brown staining, structureless, low density, very weak CHALK over off-white with black speckling, structured, medium density, weak CHALK.

Groundwater was recorded during the return monitoring standing at levels of between 5.00 and 30.00mbgl.

Piled foundations are likely to be suitable to the ground and groundwater conditions, and suggested design parameters are given.

Excavations are generally likely to remain stable. Excavations below the water table may become highly unstable.

Pavements may be formed on the Chalk. CBR value of 5% recommended for the chalk, which is classified as being frost susceptible.

Buried structural concrete may be designed to DS-1 and AC-1 in accordance with BS8500

Soakage testing identified poor infiltration rates within the shallow, structureless chalk, with an estimated soil infiltration rate being unable to be determined. Further soakage testing within the deeper structured chalk identified preferable infiltration rates with infiltration rates in the region of 1.86×10^{-4} m/s. Soakaways in chalk may need to be 20m away from structures.

No issues with respect to ground gases have been identified.

No Radon Protection Measures (RPM) are required for new buildings at this location.

An addendum report will follow upon receipt of the full chemical testing.

No immediate requirements for further ground investigation have been identified.

2.0 INTRODUCTION

2.1 General

Land Science was instructed to undertake a Phase I and Phase II Contamination and Geotechnical Assessment in relation to the proposed development at Haw Lane, Saunderton, Buckinghamshire, HP15 4JD. The location is shown on Figure 1, which is centred at grid reference SU 8077 9847.

2.2 Client

The Client for this appointment was Virtus Data Centres. This report may only be used by this named client and their project team for the purposes set out and subject to the report conditions. It was understood that the Client already owned the property, and that this investigation was not a pre-purchase appraisal.

2.3 Area Under Investigation

The area under investigation comprised a roughly square shaped area, with site offices and welfare units in the north, and a large area of chalk that covers the rest of the site. A buffer zone surrounded the area under investigation where site access was restricted. The layout is indicated on Figure 2, and a walkover survey is presented in section 3.0. The area was approximately 10 hectares.

2.4 Proposed Development

The proposed development (Planning Application Number 22/06872/VCDN) was for the redevelopment of a former industrial site (which has already been demolished and remediated) into a campus comprised of 4no Data Centre Buildings along with their associated mechanical/electrical gantries as well as the restoration and potential reuse of 2no existing buildings. The campus will also require the construction of 1no infiltration basin along with other surface water management structures (attenuation tanks, infiltration trenches) and a retaining wall.

Figure 3 illustrates the layout of the proposed redevelopment. The findings of this report may be not valid if the proposed development is altered.

2.5 Previous Investigations

The following previous investigations relevant to the site were made available:

- Environmental Statement Appendix 8, Molins Site, Haw Lane, Saunderton, King Sturge LLP, March 2008.
- Hydrock Desk Study and Ground Investigation (2014).
- Remediation Statement – June 2020- GEA (J20063A)
- Quantitative Risk Assessment – November 2010 – RPS (BES0131 Rev1)
- Remediation validation report and appendices – December 2022 – Ramboll – v01 (16200011947-004)
- Former Molins Site Saunderton – Remediation Verification Report, Ramboll, December 2022
- Volume 2: Ground Investigation Report by Socotec 'E4011-24 Molins Data Centre Draft Geotech Report' (2024).

This combined Phase I and Phase II Geotechnical and Geoenvironmental Investigation has been carried out to provide up-to-date geotechnical information following a site remediation and to provide geoenvironmental information for those areas outside the scope of works of the approved remediation strategy.

All reports must be read in conjunction with each other.

2.6 Scope of Work

The work carried out is described in detail in following sections but in summary included:

- A phase I assessment desk study
- An intrusive investigation comprising rotary drilled boreholes, trial pits, soakage testing, and plate load testing
- Preliminary geotechnical testing of selected soil in the field and laboratory
- Preliminary chemical testing of selected soil in the laboratory
- Installation of gas or water monitoring wells, and 6no. return visits.

The fieldwork was conducted between 20th January and 19th March 2025, under the supervision of Land Science. The 6no return monitoring visits were conducted on 21st and 28th March, and 3rd, 11th, 17th and 25th April.

2.7 Geotechnical Objectives

An interpretive Ground Investigation Report (GIR) was required in order to provide an assessment of ground conditions with respect to proposed foundations, pavements, soakaways, concrete specification, and excavations.

2.8 Geo-Environmental Objectives

A preliminary phase I assessment was carried out, to identify potential sources of contamination, to develop a preliminary Conceptual Site Model (CSM) and to form the basis of a Preliminary risk Assessment (PRA).

The report was required to assess risks associated with end users, the proposed redevelopment, adjacent land uses, and the wider environment, in the context of the planning regime.

2.9 Standards

Where practicable, the investigation was undertaken in accordance with the following primary standards and guidance:

- Land Contamination Risk Management (LCRM) Environment Agency 2023.
- BS10175:2011+A2:2017, Investigation of Potentially Contaminated Sites.
- National Planning Policy Framework, December 2024.
- Building Regulations Approved Document C: Site preparation and resistance to contaminants and moisture, HM Government, September 2013.
- NHBC Standards Chapter 4.1: Land Quality - Managing Ground Conditions, 2024.

- BS 5930:2015+A1:2020 Code of Practice for Site Investigations.
- BS 1377-1:2016 Methods of test for soils for civil engineering purposes - General requirements and sample preparation.
- BS 1377-2:2022 Methods of test for soils for Civil Engineering Purposes-Classification tests and determination of geotechnical properties.
- BS 8004:2015+A1:2020 Code of Practice for Foundations.
- BS EN 1997-2:2024. Eurocode 7: Geotechnical Design –Ground Properties

Other technical sources have been cited in respect of specific aspects of the investigation, as referenced throughout the text.

3.0 WALKOVER SURVEY

3.1 General

A walkover survey was carried out to order to provide an assessment of the existing site conditions and to identify potential areas of concern. Photographs of the inspection can be found in Appendix A.

3.2 Site Description

In summary, the area under investigation comprised a roughly square shaped area with site offices and welfare units in the north, and a chalk pit covers the rest of the site.



At the time of the walkover, the area was an active construction site with workers present and heavy machinery was often in use. Access was via *Haw Lane* from the north, through a metal gate. The point of access was through temporary, security-controlled Heras fencing adjacent to the security offices to the west. Either side of the access point were two derelict buildings associated with the old Molins factory, with asbestos warning signs present on the Heras fencing forming a perimeter around the buildings.

Beyond the access point was a parking area for site workers, dumpers and excavators and welfare units. Directly south was the entrance to the chalk pit, which was very wet and boggy at the northern edge with some puddles of standing water. Adjacent to this entrance, southeast from the access point, a large area was sectioned off with Heras fencing where the early stages of development of the data centre had begun.

To the west were piles of rubble and soil adjacent to one of the old factory buildings. A steep incline which comprised a soft, chalk surface was noted beyond and wrapped around to the west of the chalk pit heading south. This formed the edge of the chalk pit as a very steep bank approx. 15m in height with Heras fencing noted at the top of the bank. Further west was another, smaller bank with a small, wooden post and white sheeting fence which formed the east, south and west boundaries.

Forming the southern edge of the chalk pit before the fence was another chalk bank approx. 5m in height. At the eastern boundary, the chalk bank gradually decreased in height until level with the remainder of the chalk pit, and the fencing continued along the east and also formed part of the northern boundary.

East from the access point was an asphalt track separating the other dilapidated building from the current site works area. Four mature, approximately 20m tall deciduous trees were noted beyond the building, along with two, attached dwellings which were outside the site's boundaries. Beyond were three more mature, deciduous trees surrounded by fresh topsoil. The track continued to the south, wrapping around the fenced off area with several soil/chalk heaps present.

3.3 Neighbouring Land

The surrounding area comprised agricultural fields adjacent to the north, opposite the site beyond *Haw Lane*. To the west was a hill, then a footpath/treeline followed by an open field with residential beyond. Approx. 75m southeast from the site was woodland with greenhouses and dwellings beyond. South from the south was rough grassland and shrubs with agricultural land approx. 300m beyond. To the east was grassland and shrubs, with *Wycombe Road* approx. 200m from the site with agricultural land beyond. A railway line was situated approx. 125m to the east. Greater than 250m southeast from the site was a residential area, and *Saunderton Train Station* was located approx. 500m from the site.

3.4 Geo-Environmental Conditions

In terms of the environmental condition of the site, the following key features were identified:

- 2no disused buildings were noted between the area under investigation and *Haw Lane*. Heras Fencing around these structures had warning labels for asbestos. Spoil heaps of excavated ground, possibly Made Ground, were present on site.

3.5 Geotechnical Conditions

In terms of the geotechnical condition of the site, the following key features were identified:

- It was consistently very soft and wet by the entrance to the chalk pit with standing water present.
- Around the west and south edge of the pit was a very steep, chalk bank between approx. 5m to 15m in height. The angle of the incline was estimated to be between 60 and 70 degrees. The banks were a result of a large excavation and cut into the natural terrain.

4.0 DESK STUDY

4.1 General

A desk study was carried out to inform the preliminary conceptual understanding of the site and its setting, and to identify potential aspects of concern, in the context of the stated report objectives.

4.2 Historical Mapping

Various historical records were reviewed to assess potential historical land uses and activities that may impact on ground conditions at the site.

A set of historical ordnance survey maps was obtained from Envirocheck and a copy is presented in Appendix F. The following key features were noted:

On Site

- The earliest map dated 1885 showed the site comprised an open, agricultural field (belonging to *Slough Farm*), with a barrow situated by the northern boundary.
- This remained the same until a factory works appeared at some time between 1921 and 1977. Upon further research, it was found that this was a former Molins factory, which specialises in the manufacturing of cigarette-making machinery. The works remained up to the map dated 2006. The site contained tanks in the northeast corner and two electric substations, one in the far northern corner, and one in the southeastern corner of the site.
- The works had since been removed by the latest map dated 2024, which showed the site to be in a broadly similar layout to the present day.

Off-site

- The earliest map dated 1885 showed the surrounding area comprised mostly open fields extending out in all directions. A farm building/house was noted adjacent to the east boundary associated with *Slough farm*, and *Slough Hill* was situated adjacent southwest from the site. This consisted of rough grassland, scrubs and heath. Another property, *The Grange*, was noted approx. 250m northeast from the site. A railway line was also present approx. 130m to the east.
- A few residential properties were noted approx. 500m southeast from the site in the map dated 1900, in an area called *Slough*. The surrounding area was later known as *Saunderton* (from the 1980 mapping).
- The 1922 mapping saw the addition of *Saunderton (train) Station* to this area.
- The map dated 1960 showed residential development to the area to the southeast, from 250-1000m to the southwest/west and approx. 750m to the northeast.
- Further residential development was noted in all these areas in the 1980 mapping. Two more "Works", possibly associated with the Molins factory, and an industrial estate were noted between approx. 250-800m southeast.
- By the 1999 mapping, the closer of the two factories was converted to residential properties, and by the latest map dated 2024 the entire area to the southeast was residential. Land use to the north, west and south remained relatively unchanged from the 1980 OS map.
- The historical map set included an aerial photograph dated 1947. The imagery showed the site undergoing change in preparation for the Molins factory. The surrounding area comprised mainly agricultural land and open fields, with development noted to the southeast and southwest.

4.3 Aerial Imagery

Recent aerial photography covering the site was examined using Google Earth Pro. The imagery identified The Molins factory in 2003, the surrounding residential area to the north, west, southwest and southeast and the small industrial area by *Saunderton Station* to the southeast. The Molins factory was demolished at some point between 2003 and 2010.

The building footprints remained until 2024, when the entire site was levelled and became the construction site and chalk pit that is present today. The industrial estate was demolished by 2017 and was replaced by residential properties by 2018.

4.4 Historic Land Use Data

A brief internet search was carried out, which identified that the “Works” on site used to be a Molins factory. On the Buckinghamshire’s Heritage Portal, via the Buckinghamshire Council website, it was stated that the factory on site was originally built as a ‘shadow factory’ in 1939 which manufactured engine bearings during WW2.

In 1950, the factory was acquired by the Molins Machine Company Limited and was used to produce cigarette-making machinery. Additional machine shops and welfare facilities were provided as it expanded. The factory continued growing as the existing buildings were constantly undergoing development to meet the company’s various manufacturing needs until it closed in 2007 and was sold in 2008.

The land was acquired by several different companies, until finally the most recent amended planning permission was granted in December 2023 to Virtus-linked Avalon DC. The previous factory buildings were demolished between 2008 and 2010.

4.5 Planning Portal

The online planning portal for Buckinghamshire Council was checked with records between 2000 and present day reviewed. Several entries were recorded for the next-door shopping centre but there were no specific details pertaining to ground conditions or contamination. The following table summarises details considered to be relevant to the site and immediate area.

Planning reference	Proposal	Relevant information within the submitted documents
08/05740/FULEA	Erection of 4 no. Data centre buildings (sui generis use) together with associated groundworks, plant, electricity sub-station, security fence, gates and piers, landscaping, amendment to existing vehicular access(es), internal roads, service areas and provision of 150 car parking spaces with retention of the existing office building and "Ballroom" building fronting Haw Lane for ancillary operational uses and demolition of all other buildings and structures.	Permitted and implemented with existing factory buildings demolished but no new buildings constructed on site to date.

Planning reference	Proposal	Relevant information within the submitted documents
15/05250/OUTEA	Outline application (including details of access, layout, scale and appearance) for demolition of all existing buildings and erection of 212 dwellings with vehicle and pedestrian access from Haw Lane, associated car parking, open space and off-site highway works to Haw Lane.	Refused with a subsequent appeal dismissed on the grounds that the benefits arising from the scheme would not outweigh the harm to Green Belt, the Chilterns AONB and conflict with employment policy such that very special circumstances would not exist to justify the development.
23/08067/ADRC	Application for approval of details reserved by condition 8 (contamination verification report) pursuant to planning approval: 22/06872/VCDN	Approved
PI10/03099/ADRC	Application for approval of details subject to conditions 4 (site drainage), 5 (surface water/soakaway), 6 (piling), 12 (foul drainage), 16 (cycle storage), 18 (external lighting) and 27 (highway works) of planning approval ref: 08/05740/FULEA	Prior to being discharged into any watercourse, surface water sewer or soakaway system, all surface water from parking areas and hardstandings susceptible to oil contamination shall be passed through either an oil separator designed and constructed to have a capacity compatible with the site being drained, or by an alternative SUDs designed car park that will provide acceptable levels of hydrocarbon attenuation, the details of which shall be submitted to and approved in writing by the Local Planning Authority. Roof water shall not pass through the interceptor.
	Application for approval of details subject to conditions 4 (site drainage), 5 (surface water/soakaway), 6 (piling), 12 (foul drainage), 16 (cycle storage), 18 (external lighting) and 27 (highway works) of planning approval ref: 08/05740/FULEA	Condition 6 – Piling Method This condition was discharged under reference PI10/03099/ADRC on the basis that the development at that time would not involve any piling foundations. However, to retain protection of the aquifer but allow flexibility in construction approaches, it is recommended that an updated condition controlling piling is imposed which only requires submission of details should piling foundations be needed.
PI11/00197/ADRC	Application for approval of details subject to conditions 7 (method statement), 8 (verification report) and 9 (detailed site investigation) of planning approval ref: 08/05740/FULEA	Condition 7 – Remediation Requirements Method Statement This condition was discharged under application PI11/00197/ADRC and it is therefore recommended that the condition is updated to a compliance condition.

Planning reference	Proposal	Relevant information within the submitted documents
		Condition 8 – Remediation Verification Report The site investigation scheme, pollution prevention and remediation method statement (Conditions 7 and 9) were discharged under application PI11/00197/ADRC, but the verification of the remediation works remain outstanding. Therefore, an updated version of this condition referring to the approved remediation strategy is required in the interests of pollution control. Discharged as part of Application number 23/08067/ADRC Condition 9 - Site Investigation and Pollution Prevention Scheme This condition was discharged under application PI11/00197/ADRC and it is therefore recommended that the condition is updated to a compliance condition.

The area under investigation was covered within the Remediation Verification Report undertaken by Ramboll in December 2022 which was submitted to aid the discharge of Condition 8 of planning reference PI11/00197/ADRC. A thin strip of land (embankment) was noted along the northeastern and southern boundaries was fenced off and Land Science were informed that they formed part of an agreed Buffer zone and these areas were not accessible. The area to the front (northwestern edge of the site) which contained two former buildings were also fenced off and did not form part of the area under investigation.

4.6 Current Industrial Land Use Data

The desk study included a search of contemporary land use records from various databases. Such land uses may impact on the condition of the site and the vicinity.

A reference for Molines Tobacco Machinery Ltd: Precision Engineers was noted within the Envirocheck report, however, this facility has since been removed from the site.

Whilst other records were identified, these were unlikely to be significant in terms of this project due to a combination of their size, distance from the site, and the intervening geology and hydrogeology.

4.7 Ground Conditions

A preliminary ground model was derived for the site by based on a combination of various sources including published maps, borehole records, previous investigations, and the site history. In summary, the following potential ground model was identified:

Strata	Approximate Depth (mbgl)	Summary Description
Hardstanding*	0.1m to 0.4m	Concrete / tarmac
Made Ground*	Generally, <0.50m Locally up to 2.9m	Gravel, cobbles and boulders of brick, concrete and chalk in a matrix of clayey silty Sand.
New Pit Chalk Formation – Bedrock (On site)	2.0m to 2.5m. To depth (35m +)	Initially Grade Dc structureless off white chalk fragments in a matrix of silt sized putty chalk. However, in the south of the site where the chalk had been cut to form the development platform Grade B3 to B4 chalk was encountered and comprised gravel to cobble sized blocks of chalk surrounded by infilled discontinuities.

* Removed from the area under investigation as part of the site remediation.

Groundwater has been recorded at depths of between 19m to 40m with a potential flow direction towards the south-southwest.

4.8 Geological Hazards

The desk study included searches of geological hazards. None of the hazards were rated as moderate or above, considered the screening threshold for further investigation.

A search of various databases for coal mining, mining, brine compensation, and natural cavities was carried out. No relevant features were identified.

4.9 Environmental Setting

The site lies in the following groundwater setting:

- Superficial aquifer: None encountered within the area under investigation.
- Bedrock aquifer: The New Pit Chalk Formation and Holywell Nodular Chalk Formation strata were both classified as a Principal Aquifer – strata that have high inter-granular and/or fracture permeability, usually providing a high level of water storage. They may support water supply and/or river base flow on a strategic scale.
- Source protection zone: the site lies within a SPZ 'II' – defined as either 25% of the source area or a travel time of 400 days whichever is greater.
- Flooding from Rivers and Sea: Zone 1 Low Probability – Land having a less than 1 in 1,000 annual probability of river or sea flooding.
- Surface water flooding on site: Very low risk – each year this area has a chance of flooding of less than 0.1%. Flooding from surface water is difficult to predict as rainfall location and volume are difficult to forecast. In addition, local features can greatly affect the chance and severity of flooding.
- Groundwater flooding on site: Soluble rock risk – Significant risk, Low possibility.
- Located in an Area of Outstanding Natural Beauty and also classified as Green Belt land.

4.10 Radon Gas

The requirement for Radon Protection Measures (RPM) has been assessed in accordance with BRE 211:2015. Public Health England and the BGS estimate the potential for radon and the requirement for Radon Protection Measures on site as follows:

- Radon probability: Moderate probability – between 3% and 5% of homes are estimated by PHE to exceed the threshold for Radon gas in residential dwellings.
- Radon Protection Measures (RPM): Basic protection may be required for new dwellings and extensions constructed at this location, including the use of a well-constructed damp-proof membrane through wall cavities and beneath the floor screed. Further reference should be made to BR211:2015.
- Commercial premises: Different limits apply for commercial developments, although PHE and BGS data is not directly applicable. A risk assessment and consultation with the local Authority will be required. The Ionising Radiations Regulations 1999 require action to protect employees if the average radon gas concentration exceeds 400 Bq m⁻³ (becquerels per cubic metre of air).

Radon gas was identified as naturally occurring at low but elevated levels. As the existing buildings in the north are to remain, it might be prudent to consider on-site Radon testing; kits and advice is available from the Health Protection Agency.

4.11 UXO Risk Assessment

Free online maps suggest the risk from UXO might be Low. As such, no further assessment is considered necessary at this stage.

5.0 CONCEPTUAL SITE MODEL (CSM)

5.1 Source-Pathway-Receptor (SPR) Model

The assessment of potential contamination risks follows a Source-Pathway-Receptor (SPR) approach, following established guidance and best practice. The principle of primary and secondary sources has been adopted:

- A **primary source** for instance a leaking tank or drainage, industrial activity, buried fill materials, etc, identified as part of the desk study and site walkover.
- A **secondary source** is the environmental media (or phases) in which any resulting contamination may occur, being soils, ground gases, volatile vapours, and groundwater:

Secondary source	Summary
Soil	Soils (Made Ground) contaminated with materials such as ash, clinker, bitumen, refuse, wastes, asbestos, etc [Endogenic] or soils contaminated by discharges, spillage, drainage, run-off, migration etc of contaminants from diffuse or point sources [Anthropogenic].
Ground water	Mobile contaminants entering groundwater, being either perched water (impermeable horizons such as clays or buried structures) or as a water table (more persistent water bodies within productive strata).
Volatile vapours	Volatile or semi-volatile compounds generating vapours which exist in a gas phase and may be generated from soils, groundwater or directly from storage such as underground tanks.
Ground gases	Ground gases occurring from a variety of natural and man-made sources, principally from the decomposition of waste materials, organic matter, organic contaminants. Examples include landfill sites, alluvium, and mine workings etc.

5.2 Qualitative Risk Assessment Framework

A qualitative estimate of risk associated with the identified source-pathway-receptor linkages has been made. Each source, pathway and receptor in each linkage is given a rating from 0-5, and the overall rating for the linkage is expressed as a multiple of the three numbers. The overall risk ratings are concluded in the next chapter (Preliminary Risk Assessment).

Rating	Source	Pathway	Receptor	SPR Linkage
Unlikely	0	0	0	0
Very Low	1	1	1	1-3
Low	2	2	2	4-17
Moderate	3	3	3	18-48
High	4	4	4	49-100
Very high	5	5	5	100+

The scoring is based on professional judgement and qualitative assessment of various factors:

Source – Whether it is on-site or off-site, the distance from the site, the age and time period, the history and evolution, whether it has been redeveloped and when, the overall magnitude or extent, any existing data or observations. Sources are identified from the conceptual site model.

Pathway – Proximity and relationship to the associated receptor, frequency, the ground conditions, flow directions, migration pathways. Pathways may vary between each source and each receptor.

Receptor – Direct or indirect effects, human health or non-human receptor, age classes, exposure duration and frequency, types of activity, materials, existing evidence of harm, quality of the receptor and significance of any harm. This will depend on any existing or proposed site uses.

Potential sources and Receptors are identified first, before identifying whether any active realistic pathways exist between them.

5.3 Primary Sources

The site has been remediated and the reports approved by the Council. No further risks relating to contamination are expected.

Potential sources of contamination were identified and rated as follows:

Primary sources	Soils	Ground Water	Vapours	Ground Gases
Made Ground <1m - widespread	Unlikely	Unlikely	Unlikely	Unlikely
Made Ground >1m - localised only	Unlikely	Unlikely	Unlikely	Unlikely
Metal works (Molins Tobacco Machinery)	Unlikely	Unlikely	Unlikely	Unlikely
Agricultural land (fields) (Off-site)	Unlikely	Unlikely	Unlikely	Unlikely
OVERALL RATING	Unlikely	Unlikely	Unlikely	Unlikely

Made Ground had been identified across the site, generally less than 1m in thickness but locally deeper to 2.90m. However, as part of the site remediation, this material has been stripped from the area under investigation and as such no contaminative risks are deemed to still be present and the likelihood of soil, groundwater, vapours and Ground gases is therefore rated to be Unlikely.

The historic Molins Tobacco (machine-making) Factory which ceased production in 2007 the site was remediated and as such no contaminative risks are deemed to still be present and the likelihood of soil, groundwater, vapours and Ground gases sourced from this usage is therefore rated to be Unlikely.

Agricultural land was identified adjacent north and >100m south from the site. Due to the road, *Haw Lane*, separating the land to the north and the distance from the site and topography to the south, the likelihood of any contamination was Unlikely.

No significant naturally occurring sources of ground gases were identified.

5.4 Potential Receptors

The following potential receptors associated with the site and the proposed development have been considered in this report:

Receptor	Rating	Justification
End Users	High	Occupants of the proposed redevelopment. The proposed development comprised; industrial development with limited areas of soft landscaping.
Adjacent Land	Moderate	Sensitive land uses identified locally. the site was surrounded by Scattered residential properties and open farmland.
Soft Landscaping	Low	Areas of planting including lawns, shrubs, trees, etc. The existing soft landscaping was to be retained. No evidence of existing plant phytotoxicity was observed and was unlikely to be a significant issue.
Structural Concrete	Moderate	New foundations etc cast in contact with the ground. The development was anticipated to include shallow foundations OR piled foundations
Water Supply Pipework	Moderate	Water supplies may be damaged or tainted when mains are laid in contaminated ground. New potable water mains are to be laid.
Groundwater	High	Water below ground in permeable strata. The site overlies strata classified as a Principal Aquifer and is a potential resource for potable or commercial abstractions.
Surface Water	Unlikely	Surface water in lakes and rivers etc. No surface water bodies were identified on site or in the vicinity.

5.5 Receptors Excluded

The following potential receptors were excluded from the assessment as they are covered by other legislative controls and are outside the remit of this report.

- Ecological receptors such as statutory protected species or wildlife areas. An assessment of such risks was outside the scope of this report.
- Site workers such as those involved in construction work or future maintenance. Any risks posed to site workers would be controlled through Health & Safety legislation, including the CDM and COSHH regulations etc.

6.0 PRELIMINARY RISK ASSESSMENT (PRA)

6.1 SPR Linkages and Risk Ratings

The source-pathway-receptor linkages identified are summarised below:

Soils	Pathways	Rating	Receptor	Rating	Overall Rating
Unlikely	Dermal contact with soil and soil-borne dust	High	End Users	High	Unlikely
Unlikely	Ingestion of soil and soil-borne dust	High	End Users	High	Unlikely
Unlikely	Inhalation of soil-borne dust	High	End Users	High	Unlikely
Unlikely	Consumption of homegrown produce	Unlikely	End Users	High	Unlikely
Unlikely	Inhalation of soil-borne dust	Moderate	Adjacent Land	Moderate	Unlikely
Unlikely	Plant uptake, phytotoxic effects	High	Planting	Low	Unlikely
Unlikely	Chemical attack	High	Concrete	Moderate	Unlikely
Unlikely	Chemical attack	High	Pipework	Moderate	Unlikely
Unlikely	Leaching-out, migration to water table	High	Groundwater	High	Unlikely
Unlikely	Leaching-out, migration to water bodies	High	Surface Water	Unlikely	Unlikely

Ground water	Pathways	Rating	Receptor	Rating	Overall Rating
Unlikely	Direct contact	Unlikely	End Users	High	Unlikely
Unlikely	Direct contact	Unlikely	Adjacent Land	Moderate	Unlikely
Unlikely	Plant uptake, phytotoxic effects	Very Low	Planting	Low	Unlikely
Unlikely	Chemical attack	Very high	Concrete	Moderate	Unlikely
Unlikely	Chemical attack	Moderate	Pipework	Moderate	Unlikely
Unlikely	Migration to Controlled Water receptor	Low	Groundwater	High	Unlikely
Unlikely	Lateral migration to water bodies	Moderate	Surface Water	Unlikely	Unlikely

Vapours	Pathways	Rating	Receptor	Rating	Overall Rating
Unlikely	Inhalation, ignition	High	End Users	High	Unlikely
Unlikely	Inhalation, ignition	High	Adjacent Land	Moderate	Unlikely
Unlikely	Root asphyxiation, phytotoxic effects	High	Planting	Low	Unlikely
Unlikely	Not a significant hazard	-	Concrete	Moderate	Unlikely
Unlikely	Chemical attack	High	Pipework	Moderate	Unlikely
Unlikely	Not a significant hazard	-	Groundwater	High	Unlikely
Unlikely	Not a significant hazard	-	Surface Water	Unlikely	Unlikely

Ground Gasses	Pathways	Rating	Receptor	Rating	Overall Rating
Unlikely	Inhalation, ignition	High	End Users	High	Unlikely
Unlikely	Inhalation, ignition	Unlikely	Adjacent Land	Moderate	Unlikely

Unlikely	Root asphyxiation, phytotoxic effects	Moderate	Planting	Low	Unlikely
Unlikely	Not a significant hazard	-	Concrete	Moderate	Unlikely
Unlikely	Not a significant hazard	-	Pipework	Moderate	Unlikely
Unlikely	Not a significant hazard	-	Groundwater	High	Unlikely
Unlikely	Not a significant hazard	-	Surface Water	Unlikely	Unlikely

6.2 Other Factors

The following other areas of possible concern were identified, but were outside the geo-environmental risk assessment:

Site managers are responsible for the safety of persons in their employ under a variety of instruments including the CDM regulations and Health & Safety at Work Act. In terms of working on contaminated sites, guidance can be sought from the CIRIA publication entitled "A Guide for Safe Working on Contaminated Sites". Any work in confined spaces should only be carried out following appropriate risk assessment. Detailed risk assessment for workers is outside the scope of this report.

Asbestos may exist within buildings on site, including for instance in cement boarding. An appropriate survey should be undertaken to assess the presence of asbestos within the building fabric.

Weil's Disease is a bacterial infection spread by animals caused by leptospira bacteria. Leptospirosis generally causes mild flu-like symptoms, such as headache, chills and muscle pain, but in severe cases can be life-threatening and cause organ failure and internal bleeding. Leptospirosis can be caught by touching soil or water contaminated with the urine of wild animals (generally cattle, pigs, dogs and rodents, particularly rats) infected with the bacteria. Higher risks may arise through contact with sewage or freshwater. Leptospirosis is rare in the UK; only 44 cases were reported in England and Wales during 2011 (15 originated overseas and none were fatal).

7.0 INTRUSIVE INVESTIGATION

7.1 Investigation Rationale

The scope and layout of the investigation was specified by Bryden Wood. In summary this comprised

- Rotary core boreholes were used to reach the proposed 15.0mbgl depths and to enable 4no. monitoring wells to be installed
- The positions were located to give broad coverage across the site and across the footprints of the proposed new buildings
- Additionally, deeper boreholes BH01, BH02, BH03 and BH04 were located specifically to investigate parameters regarding the proposed retaining wall
- 5.00m deep monitoring wells were installed in BH09, BH15 and BH19, a 15.0m deep monitoring well was installed in BH12 and a 33.50m deep monitoring well was installed within BH02. The installation was sealed through the shallow weathered material, with the response zone in the solid New Pit Chalk Formation.

Position	Provisional Depth / strata	Existing Location	Proposed Location	Testing, installations etc
BH01	15.00mbgl	North-western corner	North end of retaining wall	SPT
BH02	30.00mbgl	Western site boundary, above embankment	Middle-north of retaining wall	SPT, MW
BH03			Middle-south of retaining wall	-
BH04		South-west corner, above embankment	Southern end of retaining wall	SPT
BH05	15.00mbgl	Southern boundary	Southern site boundary	SPT
BH06		Southern portion of site	South-west corner of south-western building	SPT
BH07		Central at the base of embankment	North-west corner of south-western building	SPT
BH08		North of BH07 along base of embankment	South-west corner of north-western building	SPT
BH09		North-west corner at base of embankment	Northwest corner of northwest building	SPT
BH10		South of western remaining building	Northeast corner of northwest building	SPT, MW
BH11		South-western corner of storage area	Southeast corner of northwest building	SPT
BH12		Centre of site	Northeast corner of southwest building	SPT, MW
BH13		Southern portion of site	Southeast corner of southwest building	SPT
BH14		South-eastern portion of site	Southwestern corner of southeastern building	SPT
BH15	15.00mbgl	South-eastern corner of site	Southeastern corner of southeastern building	SPT, MW
BH16		Eastern portion of site	Northeastern corner of southeastern building	SPT

Position	Provisional Depth / strata	Existing Location	Proposed Location	Testing, installations etc
BH17		Centre of chalk pit, south of storage area	Northwestern corner of southeastern building	SPT
BH18		Directly south of storage area	Western side of northeastern building	SPT
BH19		Southeast corner of storage area	Eastern side of northeastern building	SPT, MW, FHST
TP01	3.00mbgl	Northwestern portion of chalk pit	North side of northwestern building	-
TP02			South side of northwestern building	-
TP03		Southwestern portion of chalk pit	North side of southwestern building	-
TP04			Middle of southwestern building	-
TP05		Southeast portion of site	Middle of southeastern building	-
TP06			North side of southeastern building	-
TP07		Northeast portion of site	Middle of northeastern building	-
TP08		Northeast corner of site	Infiltration Basin	BRE365
TP09				
TP10				
TP11*		Upon embankment on western side of site	Base of retaining wall	

*TP11 was added to the scope after the BRE365 soakage tests in TP08-TP10 failed.

7.2 Geotechnical Strategy

Geotechnical aspects were investigated based on the following strategy:

Area of Concern	Investigation	Position(s)
Soil conditions	Exploratory holes located in and around the proposed development footprints	All
Shrinkable soils	Plasticity index and particle size testing was scheduled to determine the shrinkability and percentage passing 425µm sieve.	BH04, BH07 to BH10, BH12 to BH15,
Sulphate	Representative samples from relevant depths were scheduled for analysis of pH value and water-soluble Sulphate.	BH02, BH05 to BH07, BH09 to BH11, BH15 to BH17, TP04 to TP07, TP09 to TP11
Frost susceptibility	All chalk materials are deemed to be frost susceptible.	All
Soakage potential	Trial Pits were positioned in the indicated soakaway location, and a deep borehole was tested in a potential soakaway location	TP08 to TP11 and BH19
Potential piled	30m deep rotary boreholes were sunk on the	BH02 to BH04

Area of Concern	Investigation	Position(s)
foundations	western boundary to provide deeper ground and groundwater information and parameters for retaining wall.	
Groundwater	Observations on the occurrence of water and standing levels were to be made during the fieldwork. Standpipes were installed to enable return groundwater monitoring.	All, standpipes installed in BH02, BH10, BH12, BH15 and BH19
Waste classification	For preliminary waste classification, representative samples were to be screened for contaminants and full hazardous waste leachate testing performed.	BH07, BH09, BH16, TP04, TP06, TP07

7.3 Trial Pits (TP)

Trial pits are open excavations using a mechanical excavator to inspect a larger volume of soils and in turn provide a better understanding of variability water ingress, instability, etc.

7.4 Rotary Boreholes (RO)

Rotary boreholes include drilling with 1.50m long sampling tubes and using a core barrel that is advanced using impact energy plus rotation. A flush of air or water is used to aid in the drilling process.

7.5 Falling Head Soakage Testing (FHST)

A test bore is filled with water and the drop in water level over time is recorded, to provide an indication on the likely permeability of different strata.

7.6 Full Scale Soakage Testing (BRE365)

Full scale soakage tests were undertaken in accordance with BRE365. The test was carried out in open holes in one day with only one repeat test possible.

7.7 Plate Load Test (PLT)

In-situ CBR determinations were undertaken using a plate load test. Incremental increasing loads were applied to plates at each position, and the average settlement was calculated.

7.8 Standard Penetration Test (SPT)

The Standard Penetration Test involved driving a cone (SPT(C)) or split spoon sampler (SPT(S)) with a percussive hammer weight and recording the number of blows to penetrate six consecutive intervals of 75mm; the first two are discarded as 'seating blows', while the final four are added together to calculate an N-Value. The procedure is defined under numerous standards including BS5930:2015.

7.9 Monitoring Wells (MW)

Monitoring wells are installations within boreholes that enable return monitoring to be carried out. The pipework was 50mm diameter HDPE, with cased section sealed with bentonite, and the slotted response zone packed with a shingle filter pack.

Monitoring installations are summarised below and are shown on the relevant logs in the appendix.

Position	Response zone		Diameter	Strata	Objective
	Top	Bottom			
BH02	1.00m	30.00m	50mm	New Pit Chalk Formation	Void and groundwater monitoring
BH10	1.00m	5.00m			Dual gas and groundwater
BH12	1.00m	15.00m			
BH15	1.00m	5.00m			
BH19	1.00m	5.00m			

Post-fieldwork monitoring of ground gas, organic vapour and groundwater levels was undertaken on six occasions between 21 March and 25 April 2025.

7.10 Soil Sampling

Soil samples were recovered from the exploratory holes during the ground investigation and stored/transported in containers appropriate for the laboratory testing undertaken. Sample types and depths are recorded on the relevant exploratory hole records.

7.11 Groundwater Sampling

Groundwater samples were recovered from the wells using dedicated bailers and stored/transported in containers appropriate for the laboratory testing undertaken.

8.0 GROUND CONDITIONS

8.1 General

The expected ground conditions were anticipated to comprise New Pit Chalk Formation to depth. The investigation confirmed the anticipated ground conditions. A summary of the encountered conditions is presented below.

Position	Strata
	New Pit Chalk Formation
BH01	15.00m+
BH02 to BH04	30.00m+
BH05 to BH19	15.00m+
TP01 to TP11	3.00m+

The naming of geological strata is tentative and should be used as a guide. Interpolation between or below investigation points should be treated with caution.

The description and classification of the chalk was in accordance with CIRIA guide C574, although the structure of chalk is difficult to identify in boreholes.

8.2 Chalk

The New Pit Chalk Formation was encountered in all positions and was proved to a maximum depth of 30.00mbgl.

The chalk initially comprised off-white low density structureless chalk melange with gravel sized relic chalk clasts. Various light brown and brown stains, and black specks were identified. These materials were classified as grade Dc.

At depth the chalk became medium density chalk. Many fractures were observed within the weak chalk, and it was easily broken apart by hand. These materials were classified as Grade C.

8.3 Roots and Rootlets

No roots or rootlets were identified in the boreholes.

8.4 Field Evidence of Contamination

No evidence of possible soil contamination (such as staining, malodours, or brightly coloured soils) was identified in the field.

8.5 Groundwater

Groundwater was not encountered during excavation of any of the investigative positions.

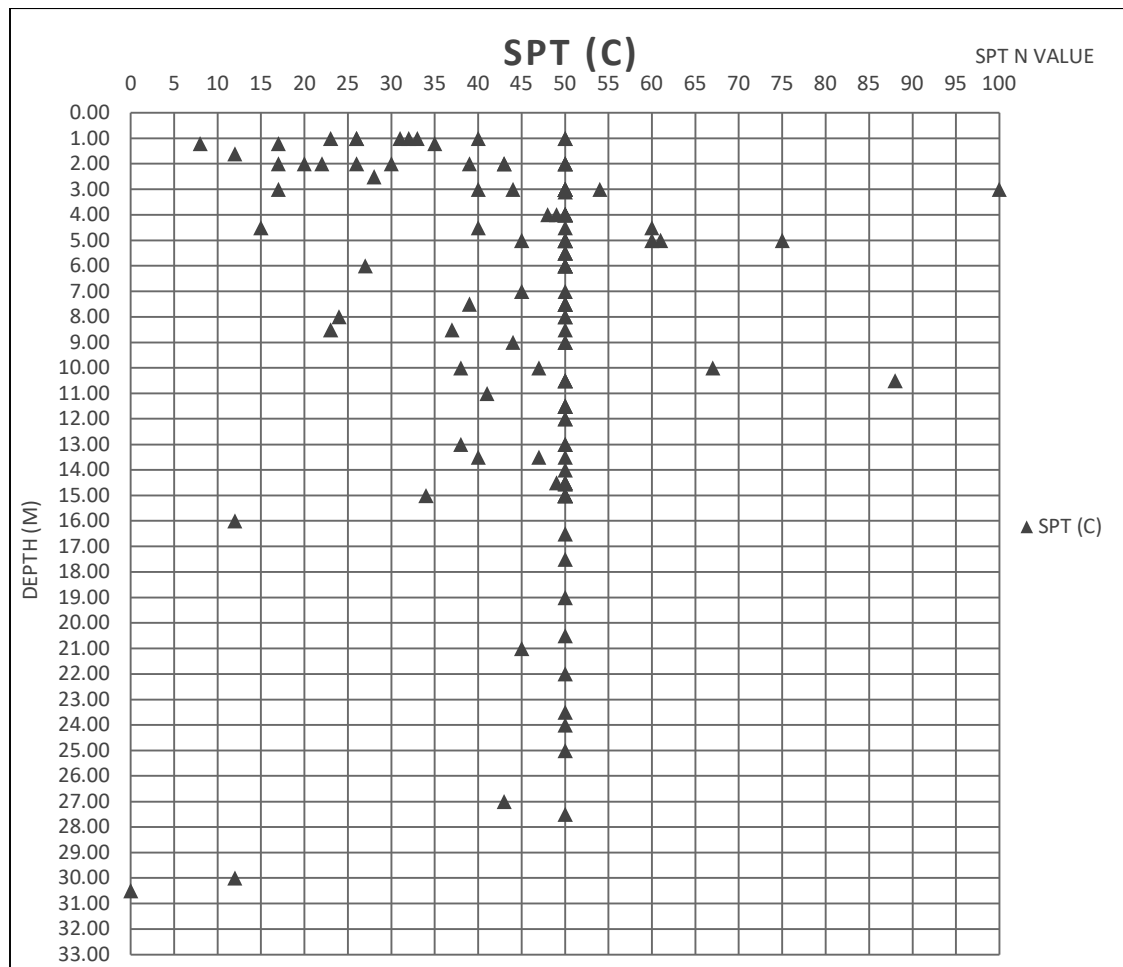
8.6 Stability and Casing

All boreholes remained stable. Boreholes BH05, BH15 and BH19 were cased to 7.50, 5.50 and 4.50m respectively. All other boreholes were drilled without casing. TP10 collapsed due to the soft chalk.

9.0 FIELD TESTING

9.1 Standard Penetration Test (SPT)

The SPT results are summarised below:



There was an overall consistent trend of increasing results with depth. Soft zones were noted in BH02 at 16.00m and in BH04 at 30.00m, potentially on fractured chalk. A void was encountered at 30.50m within BH02, which explains the SPT value of 0 at 30.50m. This was proven with a CCTV survey.

9.2 Plate Load Test (PLT)

The results of the in-situ CBR determinations using plate load tests are summarised below.

Strata	Depth	Results (%)	Notes
New Pit Chalk Formation	0.50-1.10	5.0 - 60	A figure showing the PLT results in their respective locations is found in Appendix B

9.3 Full Scale Soakage Testing (BRE365)

The results of the full scale BRE365 soakage tests are summarised below:

Position	Test	Strata tested	Test depth range	Result	Notes
TP08	Test 1	NPC	1.70 – 2.50m	Failed	Water level fell 100mm within 60 mins
TP09	Test 1	NPC	1.00 – 3.00m	Failed	Water level fell 160mm over 90 mins
TP10	Test 1	NPC	N/A	Failed	Trial pit collapsed upon completion of excavation before gravel infill could be placed
TP11	Test 1	NPC	1.00 – 3.00m	Failed	Water level fell 100mm in 90mins

NPC = New Pit Chalk Formation

The readings were insufficient to calculate a soil infiltration rate.

9.4 Falling Head Soakage Testing (FHST)

The results of the Falling Head Soakage Tests are summarised below:

Position	Test	Strata tested	Test depth range	Result
BH19	Test 1	NPC	8.40 – 11.90m	$2.03 \times 10^{-4} \text{m/s}$
	Test 2		8.42 – 11.90m	$2.01 \times 10^{-4} \text{m/s}$
	Test 3		8.50 – 11.90m	$1.86 \times 10^{-4} \text{m/s}$

NPC = New Pit Chalk Formation

The water level fell 3.48m in 17mins, at a steadily diminishing rate.

9.5 Soil Resistivity Testing

Field resistivity tests were carried out with a Syscal Pro, using the Wenner Four Pin Methodology in accordance with BS1377 and ASTM G57-06 (R2012). This test produces three main outputs:

- Rho – Measured apparent resistivity value in Ohm-m ($\Omega\text{-m}$). This is the primary result output from the apparatus.
- Q(SD) – Standard Deviation of the resistivity in Percent (%). Higher values indicate interference in the field. Values generally less than 1% are good.
- Rs – Grounding resistance check. It is an indicator of the result quality. Higher values suggest poor grounding of the test equipment. The lowest possible values should be sought when conducting the tests, ideally below 3.0, but in any case not above 20.

The results are summarised below:

Location	Interval Distance (m)	RHO ($\Omega\text{-m}$)	Q (SD) (%)	RS
Wenner 1	2.00	274.11	0.44	2.75
	3.00	265.96	0.54	3.05
	4.00	234.64	0.19	2.52
	6.00	208.71	0.07	3.01
	10.00	160.73	0.07	3.42
	14.00	137.02	0.11	3.13

	20.00	115.46	0.12	2.62
	26.00	107.13	0.11	3.03
	32.00	98.49	0.31	3.01

Location	Interval Distance (m)	RHO (Ω -m)	Q (SD) (%)	RS
Wenner 2	2.00	311.47	0.37	2.42
	3.00	288.90	0.65	3.13
	4.00	266.57	0.33	2.36
	6.00	225.03	0.25	2.28
	10.00	186.85	0.13	2.38
	14.00	156.42	0.12	3.41
	20.00	110.39	0.22	2.50
	26.00	101.93	0.22	3.20
	32.00	108.12	0.40	3.13

Location	Interval Distance (m)	RHO (Ω -m)	Q (SD) (%)	RS
Wenner 3	2.00	206.67	0.68	2.03
	3.00	108.76	0.61	2.41
	4.00	140.28	0.20	2.31
	6.00	120.13	0.08	1.88
	10.00	101.53	0.16	2.68
	14.00	92.82	0.23	1.72
	20.00	91.40	0.13	1.78
	26.00	92.90	0.43	1.73
	32.00	89.62	0.12	1.49

Location	Interval Distance (m)	RHO (Ω -m)	Q (SD) (%)	RS
Wenner 4	2.00	161.50	0.26	2.95
	3.00	150.39	0.20	2.39
	4.00	140.29	0.21	1.81
	6.00	110.55	0.15	1.79
	10.00	102.73	0.12	1.77
	14.00	104.60	0.23	1.72
	20.00	103.14	0.25	1.89
	26.00	94.94	0.17	2.55
	32.00	88.19	0.14	2.27

10.0 MONITORING DATA

10.1 Groundwater Monitoring

Groundwater was recorded in the 6 return monitoring visits, standing at depths in the range of 5.00 to 33.50mbgl.

Position	21/03/25	28/03/25	03/04/25	11/04/25	17/04/25	25/04/2025
BH02	-	22.69m	*	*	23.50m	*
BH10	Dry	Dry	Dry	Dry	At base**	Dry
BH12	13.80m	14.92m	Dry	15.00m	At base**	At base**
BH15	Dry	Dry	Dry	Dry	At base**	Dry
BH19	Dry	At base**	Dry	Dry	At base**	Dry

* Unable to dip with logger in well

**It is likely that water measured “at base” is trapped water at the base of the standpipe upon the cap.

10.2 Ground Gas Monitoring

The results of the ground gas monitoring are summarised below:

Measurement	BH10	BH12	BH15	BH19
Carbon Dioxide %	0.0	0.0	0.0-0.4	0.4
Methane %	0.0	0.0	0.0	0.0
Oxygen %	20.1 > 20.7	20.6 > 20.5	19.3 > 20.4	19.3 > 19.1
VOCs ppm	0.5	3.5	0.5	0.4
Flow rate l/hr	0.0	0.0	0.0	0.0

21/03/2025

Measurement	BH10	BH12	BH15	BH19
Carbon Dioxide %	0.0	0.0	0.0	0.4
Methane %	0.0	0.0	0.0	0.0
Oxygen %	20.6 > 20.5	20.4 > 20.1	20.8 > 20.6	20.6 > 20.3
VOCs ppm	0.0	4.0	0.4	0.2
Flow rate l/hr	0.0	0.0	0.0	0.0

28/03/2025

Measurement	BH10	BH12	BH15	BH19
Carbon Dioxide %	0.2 > 0.3	0.0	0.0	0.1-0.2
Methane %	0.0	0.0	0.0	0.0
Oxygen %	19.8 > 19.1	20.5 > 20.8 > 20.0 > 20.5	20.7 > 20.6	20.6 > 19.7
VOCs ppm	0.0	1.0	0.4	0.0
Flow rate l/hr	0.0	0.0	0.0	0.0

03/04/2025

Measurement	BH10	BH12	BH15	BH19	BH02
Carbon Dioxide %	0.3 > 0.4	0.0	0.0	0.1-0.2	0.0

Measurement	BH10	BH12	BH15	BH19	BH02
Methane %	0.0	0.0	0.0	0.0	0.0
Oxygen %	19.4 > 19.3	20.2	20.7	20.5 > 20.6	20.5 > 21.1
VOCs ppm	0.1	0.0	0.1	0.0	0.0
Flow rate l/hr	0.0	0.0	0.0	0.0	0.0

11/04/2025

Measurement	BH10	BH12	BH15	BH19	BH02
Carbon Dioxide %	0.0	0.0	0.0	0.0	0.0
Methane %	0.0	0.0	0.0	0.0	0.0
Oxygen %	20.1 > 20.0	20.3	20.7 > 20.6	20.8 > 20.5	20.7 > 20.6
VOCs ppm	0.0	0.6	0.4	0.6	0.0
Flow rate l/hr	0.0	0.0	0.0	0.0	0.0

17/04/2025

Measurement	BH10	BH12	BH15	BH19	BH02
Carbon Dioxide %	0.0	0.0	0.0	0.1-0.2	0.0
Methane %	0.0	0.0	0.0	0.0	0.0
Oxygen %	19.8	20.7 > 20.6	20.6 > 20.5	20.5	20.1 > 20.7
VOCs ppm	0.0	0.1	0.4	0.1	0.0
Flow rate l/hr	0.0	0.0	0.0	0.0	0.0

25/04/2025

Below is a summary of the atmospheric pressure conditions during the monitoring visits:

Visit	Pressure (recorded on site)	Published pressure trend
21/03/25	989mB	Rapidly falling high to Low
28/03/25	993mB	Rapidly falling high to Low
03/04/25	1001mB	Falling high
11/04/25	1005mB	Fluctuating high
17/04/25	995mB	Fluctuating intermediate
25/04/25	1005mB	Rising high

11.0 GEOTECHNICAL LABORATORY TESTING

11.1 Geotechnical Laboratory Testing

Samples were selected for geotechnical testing, based on the following rationale:

- For general classification purposes, representative cohesive natural samples of grade Dc chalk were analysed for 1pt Atterberg Limit (Plasticity Index) tests (PI).
- Moisture content (MC) determinations were carried out in association with the Atterberg limit tests.
- Saturated moisture content tests were carried out on samples of the New Pit Chalk Formation to aid the chalk classification and to determine bulk and dry densities of both grade Dc and Grade C samples.
- For general classification purposes, representative samples of granular samples were selected for Particle Size Distribution by wet sieving (PSD).
- To determine the required concrete specification to resist chemical attack, samples were tested for pH and soil soluble sulphate. (pH/SO₄)
- Samples of groundwater were also tested for pH and total sulphate (pH/SO₄).
- Uniaxial Compressive Strength tests were scheduled on core samples of the Grade C chalk, to provide further values for compressive strength.
- Point Load Tests were scheduled on smaller cores of Grade C chalk to further assess the strength of the chalk

The results are discussed in the relevant sections.

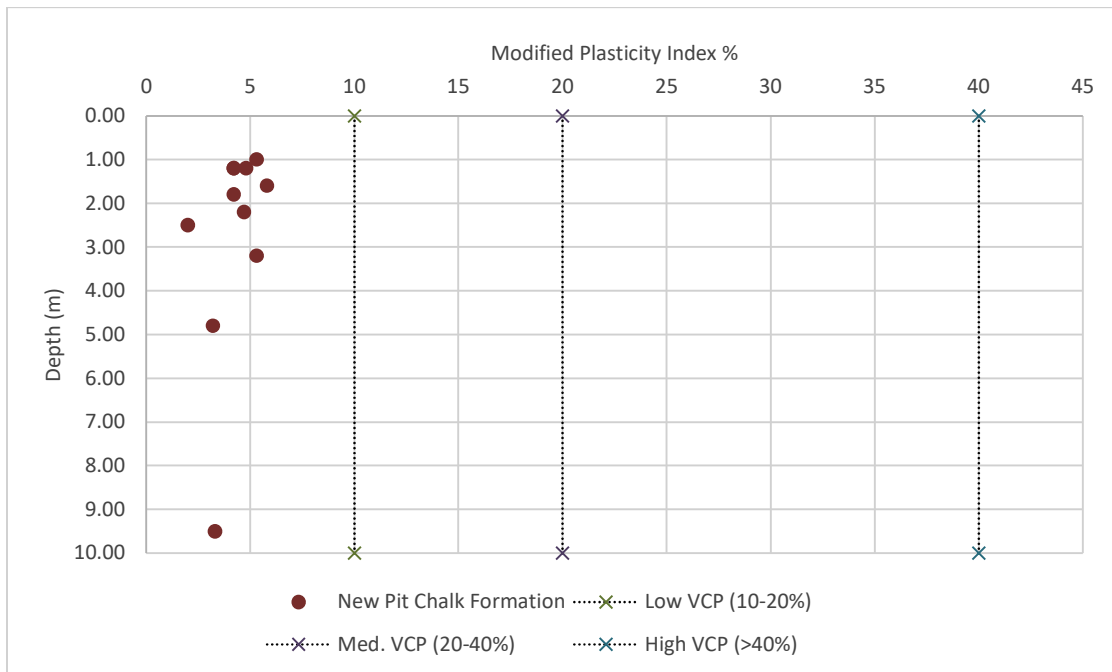
11.2 Plasticity Indexes (Atterberg Limits)

The results of the Atterberg Limit tests are summarised below.

Strata	No. of tests	Plasticity Index %		
		Minimum	Maximum	Average
New Pit Chalk Formation	11	4.8	8.5	6.4

A modified plasticity index (PI') was calculated following the NHBC methodology, to account for any non-shrinkable percentage not passing the 425µm sieve:

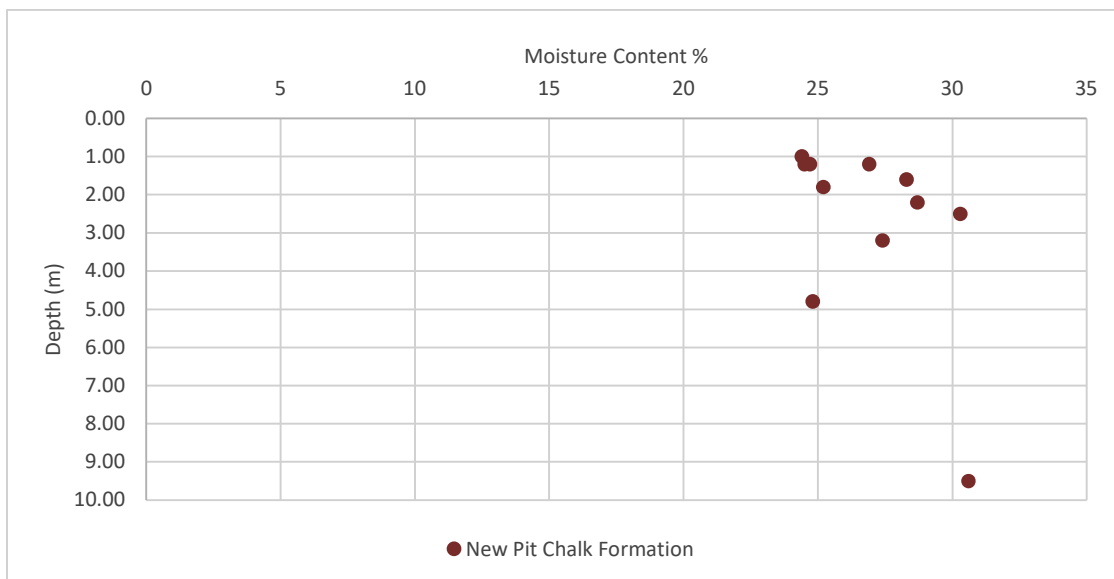
Strata	No. of tests	Modified Plasticity Index %		
		Minimum	Maximum	Average
New Pit Chalk Formation	11	2.0	5.8	4.3



11.3 Water Content

The results of the water content (or *moisture content*) tests are summarised below.

Strata	No. of tests	Moisture content %		
		Minimum	Maximum	Average
New Pit Chalk Formation	11	24.4	30.6	26.9



11.4 pH and Sulphate

The results of the pH and water-soluble Sulphate tests are summarised on the following table.

Strata	No. of tests	Water soluble Sulphate (SO ₄ g/l)	pH (value)
New Pit Chalk Formation	25	<0.02 – 0.08	8.8 – 9.1

11.5 Uniaxial Compressive Strength

The results of the uniaxial compressive strength tests are summarised below.

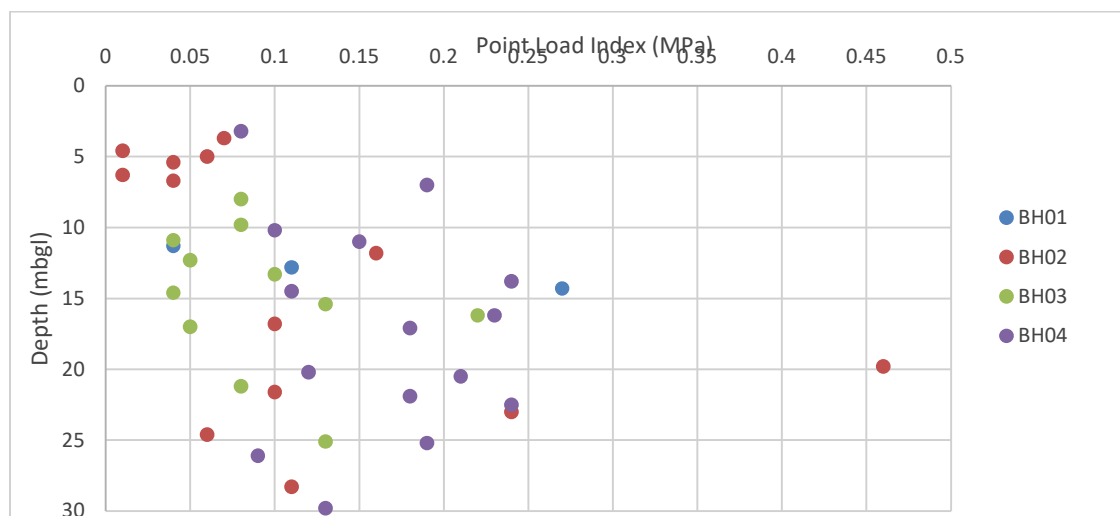
Strata	No. of tests	Bulk density (Mg/m ³)	Dry density (Mg/m ³)	UCS (MPa)	Mode(s) of failure
New Pit Chalk Formation	10	1.78 – 2.21	1.42 – 1.91	1.36 – 7.29	Diagonal Shearing and Axial Splitting

7no additional UCS tests were carried out with

Strata	No. of tests	Youngs Modulus		UCS (MPa)	Mode(s) of failure
		Tangential at 50% Failure Load (GPa)	Secant at 10% Failure Load (GPa)		
New Pit Chalk Formation	7	1.24 – 2.32	0.682 – 4.32	1.79 – 5.76	Diagonal Shearing

11.6 Point Load Tests

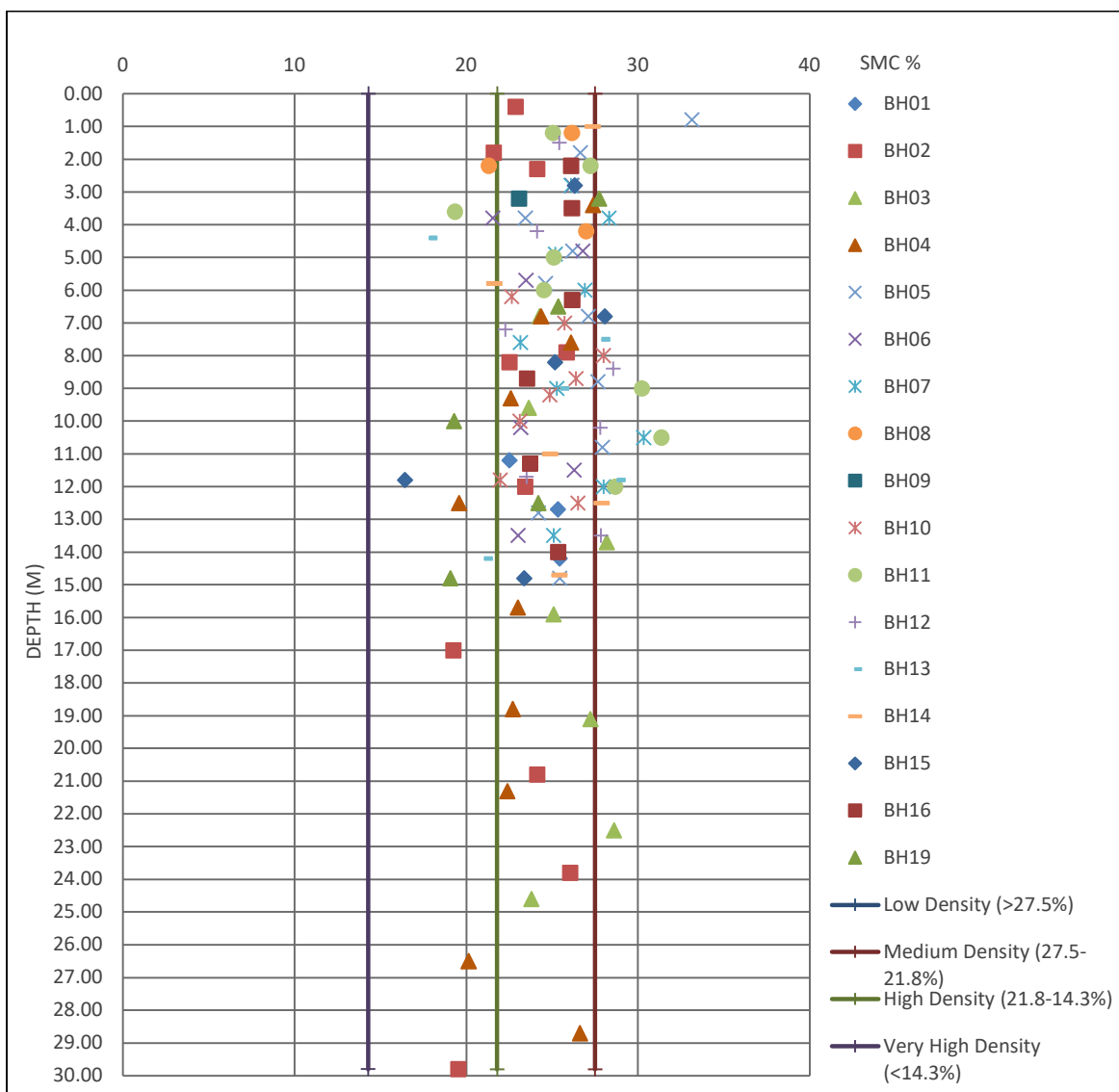
The results of the 42no Point Load Strength tests are summarised on the graph below:



11.7 Saturated Moisture Content

The results of the saturated moisture content, bulk density and density were carried out on samples from the chalk as summarised below.

Strata	No. of tests	Bulk density (Mg/m ³)	Dry density (Mg/m ³)	SMC (%)
New Pit Chalk Formation	102	1.78 – 2.17	1.42 – 1.87	16.4 – 33.1



12.0 GEOTECHNICAL DISCUSSION

12.1 General

The proposed development was for the redevelopment of an industrial site (which has already been demolished and remediated) into a campus comprised of 4No Data Centre Buildings along with their associated mechanical/electrical gantries as well as the restoration and potential reuse of 2No existing buildings. The campus will also require the construction of 1No infiltration basin along with other surface water management structures (attenuation tanks, infiltration trenches) and a retaining wall. All foundations and structures were to be built within the New Pit Chalk Formation.

12.2 New Pit Chalk Formation

New Pit Chalk Formation was encountered across the entirety of the site. The chalk is indicated to range from very low to low strength. Testing indicates bulk density of between 1.78 and 2.21Mg/m³ and dry density of between 1.42 and 1.91Mg/m³.

Based on this CIRIA C574 indicates the chalk to be between low and medium density. Uniaxial Compressive Strength tests undertaken on core samples of the Chalk returned values of strengths (UCS) of between 1.36MPa and 7.29MPa. Samples were also tested for Point Load Index with results ranging between 0.01 and 0.46MPa. Correlations with SPT results represent the in-situ strength of the chalk. SPT results indicate a Cu of 30kN/m², increasing by 10kN/m², every 1m across the main area of the chalk pit, and indicates a Cu of 70kN/m², increasing by 5kN/m², every 1m atop the western wall. A conservative Stroud Correlation factor (f1) of 5.0 was used in the following equation:

$$Cu = f1 \times N60$$

Recommended effective stress parameters can be determined from available published data.

12.3 Recommended Geotechnical Parameters

The recommended geotechnical parameters for design are specified below. These have been determined from both in-situ and laboratory testing.

Strata	Bulk Unit Weight (kN/m ³)	Undrained Shear Strength (kN/m ²)	Angle of Friction (°)	Cohesion (kN/m ²)
Chalk Main Pit	20	30 + 10z	35	0
Chalk Western Wall	20	70 + 5z	35	0

13.0 GEOTECHNICAL ASSESSMENT

13.1 General

The proposed development was understood to comprise of 4No new Data Centre Buildings along with their associated mechanical/electrical gantries as well as the restoration and potential reuse of 2No existing buildings. The campus will also require the construction of 1No infiltration basin along with other surface water management structures (attenuation tanks, infiltration trenches) and a retaining wall with soil anchors.

Groundwater was encountered during the return monitoring visits in BH02 at depths in the range of 22.05mbgl to 33.50mbgl and within BH12 at depths in the range of 13.80 to 15.00mbgl.

Groundwater levels may vary seasonally. Water may also become perched upon cohesive strata or around features such as foundations, and may also occur from leaking drains and water mains etc.

It should be noted that a slope was found rising towards the west in the northwestern portion of the site, with this level then continuing to slope upwards to the south from the far northwestern corner, creating an upper terrace. Another slope was found rising up to halfway up the wall separating the upper terrace and the majority of the site. Appropriate care should be taken in the design of temporary works and the final condition. A high level of care will need to be taken in the design of temporary works and the final condition. Soakaways will need to be carefully positioned.

The chalk is susceptible to dissolution, which can lead to features such as sink holes, cavities and solution pipes. The BGS rate the hazard as Very Low. A void was recorded during the extent of the investigation. No recorded dissolution features were recorded in the vicinity.

Whilst any possible suspect soil conditions identified during construction should be assessed by an Engineering Geologist, this is unlikely to be a significant hazard. There may be restrictions in the positioning of soakaways.

It was understood that the proposed data campus was to be constructed using piled foundations. Based on the ground and groundwater conditions encountered, it is considered that such a foundation design would be appropriate for the proposed development.

The final foundation scheme will depend on other constraints and should be evolved in consultation with the design team.

13.2 Volume Change Potential

Although not strictly applicable to this form of development, reference may be given to the NHBC standards or similar guidance for designing and constructing foundations in the zone of influence of trees and hedgerows that currently exist, are to be planted, or have recently been felled.

Strata	Modified PI'	Shrinkability classification
New Pit Chalk Formation	<10%	Not susceptible to significant volume change

All foundations should extend below any major root zones or desiccated soil encountered, and trenches should be carefully inspected accordingly.

13.3 Retaining Walls

The following design values are suggested as a guide to assist in the design of retaining walls. The values have been obtained from BS8002 and BS EN 1997-1:2004 (Eurocode 7 – Geotechnical Design). The values are based on a level ground surface. The ratio of δ/f' will depend on retaining wall construction, but a value of 0.66 might be appropriate for a pre-cast concrete wall against the chalk.

Chalk	$\delta/f' = 0$	$\delta/f' = 0.66$	$\delta/f' = 1.0$
Critical state angle of shearing resistance (f')	35		
Effective Cohesion kN/m^2	0		
Saturated Bulk Weight (g_{sat}) kN/m^3	19		
Passive Resistance K_p	3.7	7.3	8.6
Active Pressure K_a	0.270	0.230	0.212

13.4 Piled Foundations

The construction of piled foundations is a specialist job and the advice of a reputable contractor should be sought prior to finalising the design.

Pile working loads will depend on the ground and groundwater conditions, the installation technique, the dimensions of the individual piles, and any pile grouping.

Driven piles may be suitable to the ground conditions and given the absence of neighbouring structures in close proximity. Preliminary working load capacities have been calculated for varying diameters of driven piles taken into the New Pit Chalk Formation, below:

Depth (m)	300mm diameter	450mm diameter	600mm diameter
8	150 kN/m^2	325 kN/m^2	525 kN/m^2
10	200 kN/m^2	375 kN/m^2	600 kN/m^2
12	250 kN/m^2	450 kN/m^2	700 kN/m^2

These working loads have been calculated on the basis of the ground and groundwater conditions encountered within the boreholes and based on the following assumptions:

- The contribution to the working load on the upper 3.00m has been ignored.
- In accordance with CIRIA Project Report 11 factors of safety of 2.5 and 5 were used on the skin friction and end bearing working loads respectively

Piles should be taken at least five times the pile diameter into the founding strata.

The working loads above apply to single vertically loaded piles. Where groups of piles are to be constructed, the bearing value of each individual pile should be reduced by a factor of 0.8 and a calculation made to check for the factor of safety against block failure.

13.5 Excavations

The risks arising from excavation works should be properly assessed and appropriate safety precautions should be adopted. Reference may be made to various guidance including BS8000-1:1989, BS6031:2009 and CIRIA C97.

The likelihood of excavation instability through different strata has been assessed as summarised below. It should be noted that all open unsupported excavations have the potential to collapse.

Strata	Stability
New Pit Chalk Formation	Generally stable. Blocky horizons may over break.

Excavations which are to remain open for prolonged periods will require trench support. Water seepages may be encountered at shallow depth, particularly during wetter climatic conditions.

Long deep excavations across the slope such as for foundations should be carefully designed so as not to cause any short term slope instability. It is considered that normal-rated plant and machinery will be sufficient for undertaking excavations.

Adjacent excavations should generally be tackled in order of depth with the deepest first. Vehicles and spoil heaps etc. should not surcharge excavations, and edge protection and fencing should be used as appropriate. Frozen materials should generally not be used as backfill.

13.6 Pavements

The design of pavements will depend on the performance requirements and specification, as well as the ground conditions and finished levels etc. The suitability of shallow soils encountered as a formation level for pavements is summarised as follows:

Strata	Base Depth range (m)	Suitability
New Pit Chalk Formation	30.00m+	These materials are generally a suitable formation level. The formation may be frost susceptible and a minimum pavement of 450mm should be considered. The in-situ CBR results ranged between 5.0% and 60%, typically around 6.0%. A design value of 5.0% is recommended. Cohesive formations will degrade rapidly if exposed to standing water and should be protected.

The formation level should be carefully inspected, and any soft or loose zones should be removed and replaced with engineering fill, well-compacted in layers to a suitable specification. Consideration might be given to installing geotextiles. All engineering fill should be granular and non-frost susceptible (i.e. <10% fine material passing 425µm sieve).

Any hard spots in the formation level such as old foundations may induce reflective cracking in the pavement and allowance should be made for removing any slabs or other hard spots etc. that may be present.

13.7 Building Materials

All sub surface concrete should be designed and specified in accordance with BS8500-1:2015+A1:2016. The results of the Sulphate and pH analyses fell into Class DS-1 and an ACEC class AC-1 is appropriate.

Buried plastics used for potable water supplies should not require any special specification in order to resist chemical contamination. No pipework should be laid where there is evidence of hydrocarbons.

13.8 Surface Water Drainage

The preliminary falling head soakage tests suggested an infiltration rate in the order of 1.86×10^{-4} m/s for the deeper, Grade C New Pit Chalk Formation. These materials are therefore potentially suitable for soakaways.

The full scale BRE 365 soakage tests failed, and an infiltration rate could not be calculated for the Grade Dm / Dc New Pit Chalk Formation. It is unlikely that soakaways will perform satisfactorily in these materials.

Concentrated discharges of water into the Chalk may pose a subsidence risk. CIRIA guidance recommends that soakaways should be avoided where possible but, if unavoidable, should be sited at least 20m away from any foundations or sensitive structures.

Care should be taken in positioning soakaways on slopes, as increases in pore water pressure may decrease stability. They should generally avoid being placed directly up or down hill from structures.

The Environment Agency supports the use of Sustainable Drainage Systems (SuDS). Surface run-off from roads, car parking and public or amenity areas, should have a suitable series of treatment steps to prevent groundwater pollution.

REFERENCES

A number of technical references have been referred to in the preparation of this document, including:

- Smith, I. (2014) Smith's Elements of Soil Mechanics. Chichester. Wiley Blackwell. 9th Edition.
- Highways England 2009. Interim Advice Note 73/06 revision 1: Design Guidance for Road Pavement foundations (draft HD25)
- BRE Design Guide 365. Soakaway design ("DG365")
- Radon: Guidance on protective measures for new buildings, BRE Report BR 211, 2015 2ND edition
- Groundwater protection: Principles and practice (GP3) August 2013 Version 1.1
- Revised EU Waste Framework Directive 2008 2008/98/EC [transposed into English law under The Waste (England and Wales) Regulations 2011]
- European Community (EC) Directive 1999/31/EC [transposed into English law under the Landfill (England and Wales) Regulations 2002]
- Defining Waste Recovery - Permanent Deposit of Waste on Land, EPA13 v1.0, EA 2010
- The definition of waste: Development Industry Code of Practice, v2, CL:AIRE 2011
- Guidance on the classification and assessment of waste Technical Guidance WM3 ("WM3") EA publication (1st edition 2015)

REPORT CONDITIONS

The Client

This report may also be used only by the client named in section 1 and their appointed project team for the purpose of design, obtaining planning, building regulations approval, and in connection with finance. This report must not be used by any other persons or for other purposes without express written agreement of Land Science.

General

Land Science takes all reasonable professional care in preparation of this report, using current standards and industry practice. However, the evaluation of ground conditions depends on an interpretation and extrapolation of the conditions revealed by a limited data set. The level of risk is related to the extent of investigation and no site is ever free of risk. The client should understand their risks and liabilities. We accept no liability whatsoever in respect of:

- The scope, extent or design of an investigation.
- Any conditions not directly revealed by the investigation.
- Published standards or methodologies used or adopted in this report.
- The opinion of any other party including any regulator, authority or stakeholder.
- Any dispute, claim or consequential loss arising from any findings of this report.
- Third party information and data.

This report relates solely to ground-related matters as set out in the objectives and makes no representation on other matters such as ecology, arboriculture, invasive plant species, the condition of buildings and structures, hazardous building materials such as insulation or asbestos, the locations of boundaries, unexploded ordnance, and or planning constraints etc. Further reports should be commissioned in this respect as appropriate.

Regulators and Approvals

This (and any other) report should be submitted to relevant authorities for their own assessments and to provide their approval or comments accordingly. This should be in good time before commencing on site in case additional work is to be carried out.

Standards, technical guidance and regulatory positions change over time and which may therefore affect the findings and recommendations made in this report; this should be verified by the client prior to any critical project milestones. Where this information is used in design, the designer should verify that the information is appropriate and has been used correctly.

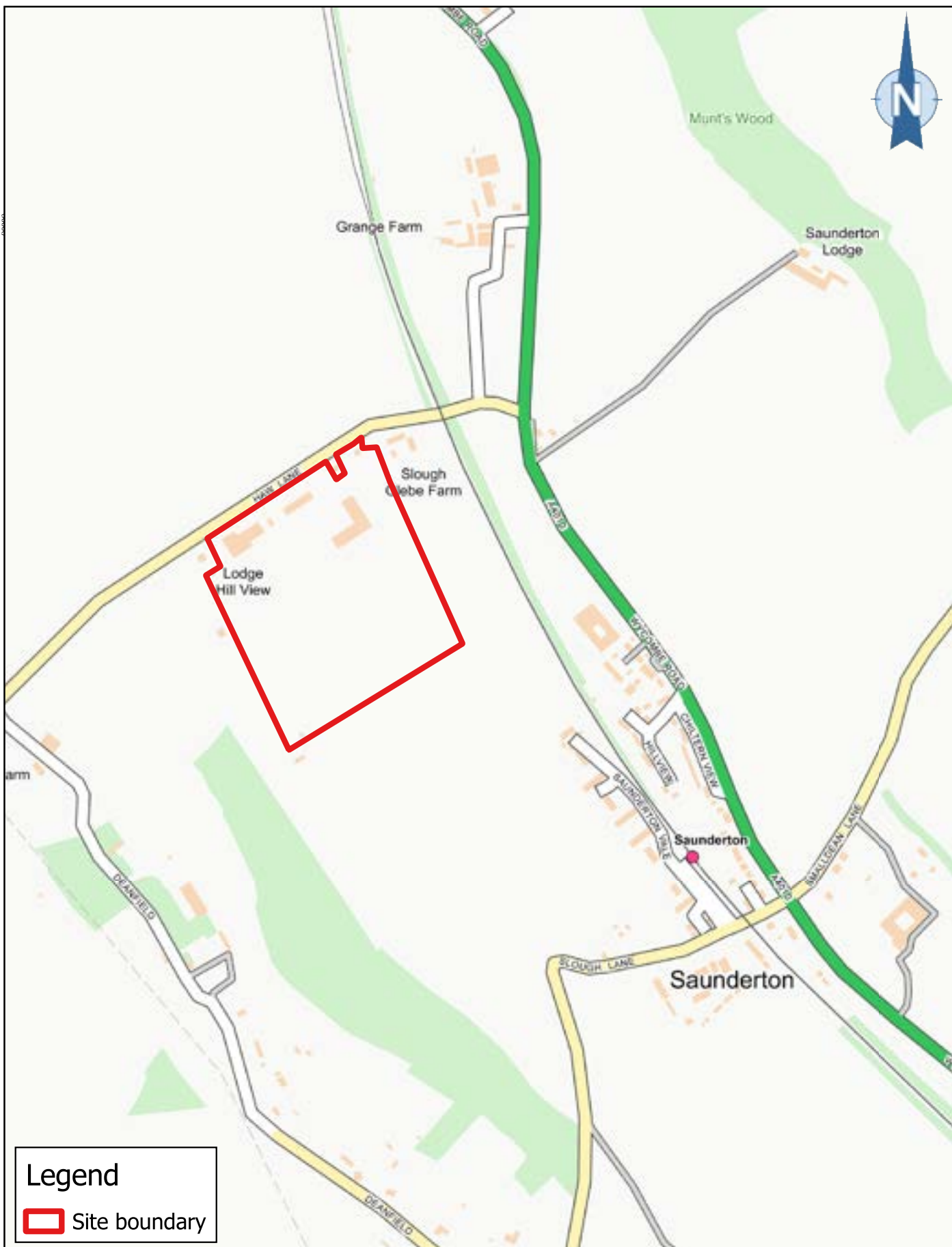
Variations with time

The report relates to conditions revealed at the time of the investigation and any monitoring visits. Some parameters may vary over time or seasonally; groundwater levels, ground gas compositions, or concentrations of contaminants are particularly variable in this respect. Further monitoring or verification should be considered as appropriate.

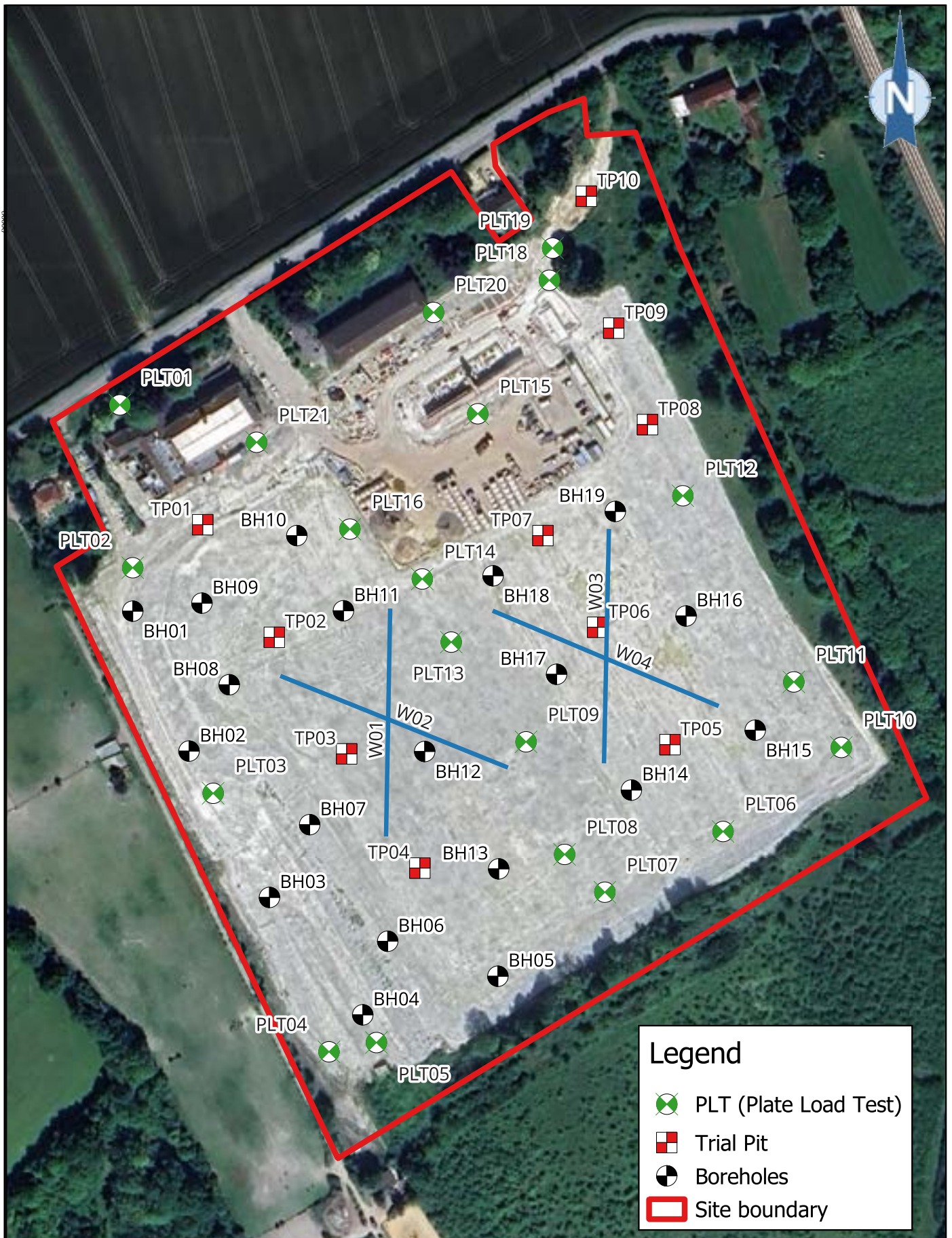
GLOSSARY OF TERMS

ACM	Asbestos Containing Material
BGS	British Geological Survey
BRE	Building Research Establishment
BS	British Standard
C4SL	Category 4 Screening Level
CBR	California Bearing Ratio
CDM	Construction Design and Management regulations
CIRIA	Construction Industry Research and Information Association
CL:AIRE	Contaminated Land: Applications in Real Environments
CLEA	Contaminated Land Exposure Assessment model
CSM	Conceptual Site Model
EA	Environment Agency
EQS	Environmental Quality Standards
FOC	Fraction of Organic Carbon
GAC	Generic Assessment Criterion
GQRA	Generic Quantitative Risk Assessment
mbgl	Meters Below Ground Level
NHBC	National House Building Council
mOD	Metres above Ordnance Datum
PAH's	Polycyclic Aromatic Hydrocarbons
PHE	Public Health England
PID	Photo-Ionisation Detector
PQRA	Preliminary Quantitative Risk Assessment
PSD	Particle Size Distribution Test
RMS	Remediation Method Statement
S4UL	Suitable for Use Level
SOM	Soil Organic Matter
SPZ	Source Protection Zone
SPT	Standard Penetration Test
SSSI	Sites of Special Scientific Interest
ST-WEL	Short Term Workplace Exposure Limit
SVOC's	Semi-Volatile Organic Compounds
TPH	Total Petroleum Hydrocarbons
TRRL / TRL	Transport Road Research Laboratory
TWA-WEL	Time Weighted Average Workplace Exposure Limit
UK HBF	United Kingdom House Building Federation
VOC's	Volatile Organic Compounds
WAC	Waste Acceptance Criteria

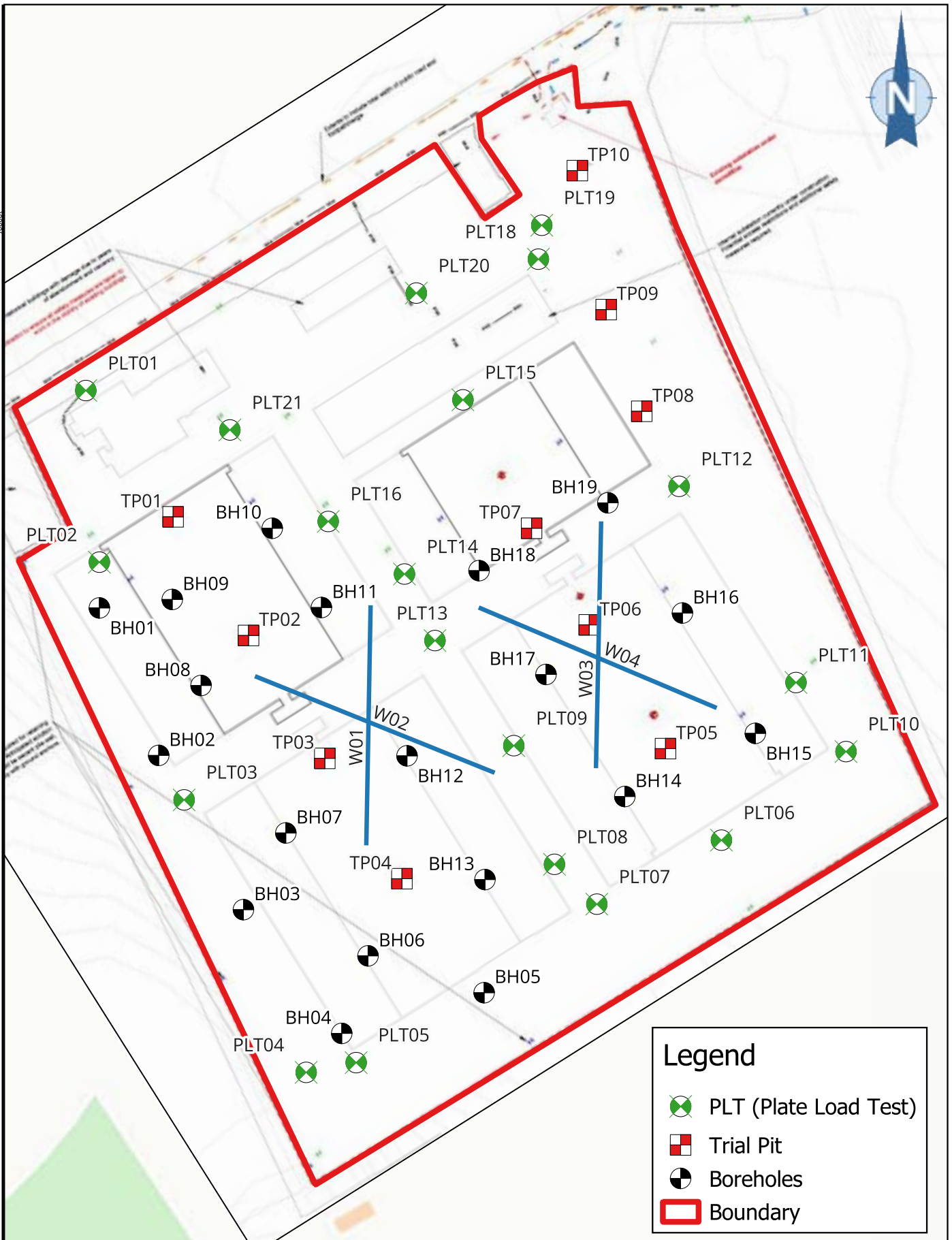
FIGURES



	Title: Site location plan			Reference: LS8055
	Project: Haw Lane, Bledlow-cum-Saunderton, HP14 4JD			Figure: 1
	Client: Virtus Saunderton Ltd			Date: 08/01/2024
	Prepared by: AL	Checked by: SW	Version: 0.1	Sheet: 1 of 1



Title: Exploratory Hole Location Plan			Reference: LS8055
Project: Haw Lane, Bledlow-cum-Saunderton, HP14 4JD			Figure: 2
Client: Virtus Saunderton Ltd			Date: 31/03/2025
Prepared by: AL	Checked by: SW	Version: 2.0	Sheet: 1 of 1



			Title: Proposed Plan	Reference: LS8055
			Project: Haw Lane, Bledlow-cum-Saunderton, HP14 4JD	Figure: 3
			Client: Virtus Saunderton Ltd	Date: 31/03/2025
			Prepared by: AL	Checked by: SW
			Version: 2.0	Sheet: 1 of 1

APPENDIX A



TITLE: Site Photos			REF: LS8055	
PROJECT: Haw Lane			FIGURE N/A	
CLIENT: Virtus Saunderton Ltd			DATE: 28/04/2025	
PREP:	WP	CHECK:	SW	VERSION V1
				SHEET: 1 OF 3

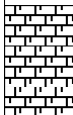
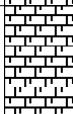
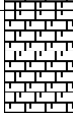
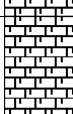
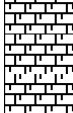
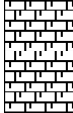
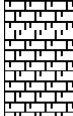


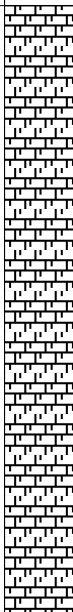
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PROJECT: Haw Lane			FIGURE N/A	
CLIENT: Virtus Saunderton Ltd			DATE: 28/04/2025	
PREP: WP	CHECK: SW	VERSION V1	SHEET: 2 OF 3	



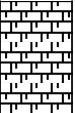
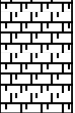
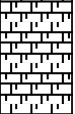
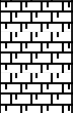
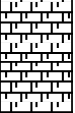
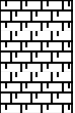
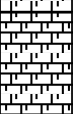
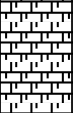
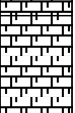
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PROJECT: Haw Lane			FIGURE N/A
CLIENT: Virtus Saunderton Ltd			DATE: 28/04/2025
PREP: WP	CHECK: SW	VERSION V1	SHEET: 3 OF 3

APPENDIX B

			Brighton London Bristol 0845 604 6494 www.landscience.co.uk					Site Haw Lane, Bledlow-cum-Saunderton, Bledlow Ridge, HP14 4JD		Borehole Number BH01	
Machine : Flush : Core Dia: mm Method : Rotary Cored			Casing Diameter			Ground Level (mOD) 131.34		Client Virtus Data Centres		Job Number LS8055	
			Location 480620.404 E 198519.077 N			Dates 01/02/2025		Project Contractor Land Science		Sheet 1/2	
Depth (m)	TCR (%)	SCR (%)	RQD (%)	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	
0.20					D			Off-white with occasional brown-orange staining, structureless, medium density CHALK recovered as a slightly clayey, silty gravel. Gravels are fine to coarse, subangular to subrounded chalk. (NEW PIT CHALK FORMATION - GRADE Dc)			
0.50					D						
0.80					D						
1.00-1.45					4,8/7,6,6,7 SPT N=26		(2.00)				
1.20					D						
1.70					d			Off-white with occasional brown-orange staining, structureless, medium density CHALK recovered as a gravelly clay. Gravels are fine to coarse, subangular to subrounded chalk. (NEW PIT CHALK FORMATION - GRADE Dc)			
2.00-2.45					6,9/10,10,12,11 SPT N=43	129.34	2.00				
2.20					D		(1.00)	Off-white with rare orange-brown staining, medium density CHALK recovered as slightly gravelly, silty clay. Gravels are fine, subangular to subrounded chalk (NEW PIT CHALK FORMATION - GRADE Dc)			
2.70					D						
3.00-3.45					17,8/50 SPT N=50	128.34	3.00				
3.20					D		(1.00)	Off-white with occasional grey bands and black grains, structureless, medium density CHALK. (NEW PIT CHALK FORMATION - GRADE C) ...Chalk recovered as wet gravelly from 4.00 to 4.50m, potentially due to SPT ...Chalk recovered as wet gravelly from 5.00 to 5.50m, potentially due to SPT ...Brown fine to medium gravels at 6.70m ...Chalk recovered as wet gravelly from 7.00 to 7.50m, potentially due to SPT			
3.70					D						
4.00-4.45					7,20/25,12,6,6 SPT N=49	127.34	4.00				
4.20					D						
4.70					D						
5.00-5.45					9,10/17,33 SPT N=50			No recovery.			
5.20					D						
5.70					D						
6.20					D		(5.00)				
6.70					D						
7.00-7.45					5,10/10,11,13,11 SPT N=45			No recovery.			
7.20					D						
7.70					D						
8.20					D						
8.70					D						
						122.34	9.00	No recovery.			
10.00-10.45					4,9/9,10,9,10 SPT N=38						
Remarks NOTES: Hand excavated to 1.20mbgl GROUNDWATER: No groundwater encountered INSTALLATION: No standpipe installed BACKFILL: Backfilled with bentonite sealing pellets from ground level to 15.00m. STABILITY: No instability observed CASING: 150mm casing used to 7.50m									Scale (approx) 1:50	Logged By MW	
									Figure No. LS8055.BH01		

Land Science Brighton London Bristol 0845 604 6494 www.landscience.co.uk						Site Haw Lane, Bledlow-cum-Saunderton, Bledlow Ridge, HP14 4JD		Borehole Number BH01			
Machine : Flush : Core Dia: mm Method : Rotary Cored			Casing Diameter			Ground Level (mOD) 131.34		Client Virtus Data Centres		Job Number LS8055	
			Location 480620.404 E 198519.077 N			Dates 01/02/2025		Project Contractor Land Science		Sheet 2/2	
Depth (m)	TCR (%)	SCR (%)	RQD (%)	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	
							(2.00)	... as previous			
11.20					D	120.34	11.00	Off-white with occasional grey bands and black grains, structureless, medium density CHALK. (NEW PIT CHALK FORMATION - GRADE C)			
11.70					D						
12.20					D						
13.00-13.45					5,9/9,10,9,10 SPT N=38		(4.00)				
13.20					D						
13.70					D						
14.70					D						
15.00-15.45					12,8/6,7,14,7 SPT N=34	116.34	15.00	Complete at 15.00m			
Remarks NOTES: Hand excavated to 1.20mbgl GROUNDWATER: No groundwater encountered INSTALLATION: No standpipe installed BACKFILL: Backfilled with bentonite sealing pellets from ground level to 15.00m. STABILITY: No instability observed CASING: 150mm casing used to 7.50m									Scale (approx) 1:50	Logged By MW	
									Figure No. LS8055.BH01		

Land Science Brighton London Bristol 0845 604 6494 www.landscience.co.uk						Site Haw Lane, Bledlow-cum-Saunderton, Bledlow Ridge, HP14 4JD		Borehole Number BH02			
Machine : Flush : Core Dia: mm Method : Rotary Cored			Casing Diameter			Ground Level (mOD) 133.81		Client Virtus Data Centres		Job Number LS8055	
			Location 480652.815 E 198442.942 N			Dates 17/02/2025-24/02/2025		Project Contractor Land Science		Sheet 1/4	
Depth (m)	TCR (%)	SCR (%)	RQD (%)	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
0.20					D			Off-white with occasional brown-orange staining, structureless, medium density CHALK recovered as a slightly clayey, silty gravel. Gravels are fine to coarse, subangular to subrounded chalk. (NEW PIT CHALK FORMATION - WEATHERED GRADE Dc)			
0.70					D		(2.00)				
1.00-1.45					9,8/7,8,9,8 SPT(C) N=32						
1.70					D	131.81	2.00	Off-white with occasional brown-orange staining, structureless, medium density CHALK recovered as a gravelly clay. Gravels are fine to coarse, subangular to subrounded chalk. (NEW PIT CHALK FORMATION - WEATHERED GRADE Dc)			
2.00-2.45					4,5/6,9,11,17 SPT(C) N=43						
2.20					D		(1.00)	Off-white with rare orange-brown staining, medium density CHALK recovered as slightly gravelly, silty clay. Gravels are fine to coarse, subangular to subrounded chalk. (NEW PIT CHALK FORMATION - WEATHERED GRADE Dc)			
2.70					D	130.81	3.00				
3.00-3.45					68,16/13,12,29 SPT(C) N=54						
3.70					D		(2.00)	Off-white with occasional grey bands and black grains, structureless, medium density CHALK. (NEW PIT CHALK FORMATION - GRADE C) ...Poor recovery from 5.0m to 5.50m.			
4.00-4.45					6,13/22,25,3 SPT(C) N=50						
4.70					D	128.81	5.00	...Poor recovery from 4.0m to 4.50m.			
5.00-5.45					14,20/19,17,11,14 SPT(C) N=61						
5.70					D			...Poor recovery from 6.0m to 6.50m.			
6.00-6.45					11,18/28,22 SPT(C) N=50						
6.70					D			...Poor recovery from 7.0m to 7.50m.			
7.00-7.45					9,14/18,32 SPT(C) N=50		(5.00)				
7.70					D			...Poor recovery from 8.0m to 8.50m.			
8.00-8.45					3,9/20,26,4 SPT(C) N=50						
8.70					D			...Poor recovery from 9.0m to 9.50m.			
9.00-9.45					2,17/27,23 SPT(C) N=50						
9.70					9,21/15,12,16,24						
10.00-10.45					D SPT(C) N=67						
Remarks NOTES: Hand excavated to 1.20mbgl GROUNDWATER: None encountered. INSTALLATION: 50mm HDPE pipework installed to 33.5m to allow for void inspection BACKFILL: No backfill STABILITY: No instability observed CASING: No casing used.									Scale (approx) 1:50	Logged By WP	Figure No. LS8055.BH02

						Brighton London Bristol 0845 604 6494 www.landscience.co.uk		Site Haw Lane, Bledlow-cum-Saunderton, Bledlow Ridge, HP14 4JD		Borehole Number BH02	
Machine : Flush : Core Dia: mm Method : Rotary Cored			Casing Diameter Location 480652.815 E 198442.942 N			Ground Level (mOD) 133.81 Dates 17/02/2025-24/02/2025		Client Virtus Data Centres Project Contractor Land Science		Job Number LS8055 Sheet 2/4	
Depth (m)	TCR (%)	SCR (%)	RQD (%)	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
10.30					D	123.81	10.00	Off-white with rare light brown staining, structureless, medium density CHALK. (NEW PIT CHALK FORMATION - GRADE C) ...10.0m to 10.50m recovered as wet gravelly putty possibly due to SPT.			
10.50-11.50					D						
11.50-11.95					25/50 SPT(C) N=50		(3.35)	...13.0m to 13.35m recovered as wet gravelly putty possibly due to SPT.			
11.50-13.00					D						
13.00-13.45					16,18/25,25 SPT(C) N=50			Off-white with abundant light brown staining and occasionally speckled black, structureless, low density CHALK. (NEW PIT CHALK FORMATION - GRADE C)			
13.20					D	120.46	13.35				
13.35-14.50					D		(1.15)	Off-white with occasional light brown and grey staining, structureless, medium density CHALK. (NEW PIT CHALK FORMATION - GRADE C)			
14.50-14.95					25/50 SPT(C) N=50	119.31	14.50				
14.50-16.00					D		(1.50)	Off-white with occasional light brown and grey staining, structureless, low density CHALK. (NEW PIT CHALK FORMATION - GRADE C) ...16.0m to 16.70m recovered as wet gravelly putty possibly due to SPT.			
16.00-16.45					8,1/0,2,5,5 SPT(C) N=12	117.81	16.00				
16.40					D			...17.50m to 18.20m recovered as wet gravelly putty possibly due to SPT.			
16.70-17.50					D		(2.20)				
17.50-17.95					36/50 SPT(C) N=50			Off-white, structureless, low density CHALK recovered as a slightly sandy, slightly silty gravel. Gravels are fine to coarse, angular to subrounded chalk. (NEW PIT CHALK FORMATION - GRADE C)			
17.50-19.00					D	115.61	18.20				
17.80					D		(0.40)	Off-white with occasional light brown and grey staining, structureless, medium density CHALK. (NEW PIT CHALK FORMATION - GRADE C)			
18.80					D	115.21	18.60				
19.00-19.45					11,23/50 SPT(C) N=50		(0.40)	Off-white with abundant light brown and grey staining and occasionally speckled black, structureless, medium density CHALK. (NEW PIT CHALK FORMATION - GRADE C) ...19.0m to 19.50m recovered as wet gravelly			
19.00-20.50					D	114.81	19.00				
19.20					D						
Remarks NOTES: Borehole complete at target depth. GROUNDWATER: None encountered. INSTALL: Standpipe installed to 33.5m to allow for void inspection BACKFILL: No backfill STABILITY: No instability observed CASING: No casing used.									Scale (approx) 1:50	Logged By WP	Figure No. LS8055.BH02

						Brighton London Bristol 0845 604 6494 www.landscience.co.uk		Site Haw Lane, Bledlow-cum-Saunderton, Bledlow Ridge, HP14 4JD		Borehole Number BH02	
Machine : Flush : Core Dia: mm Method : Rotary Cored			Casing Diameter Location 480652.815 E 198442.942 N			Ground Level (mOD) 133.81 Dates 17/02/2025-24/02/2025		Client Virtus Data Centres Project Contractor Land Science		Job Number LS8055	Sheet 3/4
Depth (m)	TCR (%)	SCR (%)	RQD (%)	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
20.50-20.65 20.60					17.22/50 SPT(C) 50/0 D	112.96	(1.85) 20.85	putty possibly due to SPT. ... as previous ...20.50m to 20.85m recovered as wet gravelly putty possibly due to SPT.			
20.85-22.00					D			Off-white with occasional light brown and grey staining and rarely speckled black, structureless, medium density CHALK. (NEW PIT CHALK FORMATION - GRADE C)			
22.00-22.45 22.00-23.50					1.10/50 SPT(C) N=50 D						
23.50-23.66 23.50-25.00					4.8/11,14,22,3 SPT(C) 50/10 D			...23.50m to 23.90m recovered as wet gravelly putty possibly due to SPT.			
25.00-25.45					9.16/50 SPT(C) N=50		(9.65)				
27.50-27.95					25/50 SPT(C) N=50						
Remarks NOTES: Borehole complete at target depth. GROUNDWATER: None encountered. INSTALL: Standpipe installed to 33.5m to allow for void inspection BACKFILL: No backfill STABILITY: No instability observed CASING: No casing used.									Scale (approx) 1:50	Logged By WP	Figure No. LS8055.BH02

Machine :			Casing Diameter			Ground Level (mOD)		Client			Job Number	
Flush :						133.81		Virtus Data Centres			LS8055	
Core Dia: mm			Location			Dates		Project Contractor			Sheet	
Method : Rotary Cored			480652.815 E 198442.942 N			17/02/2025-24/02/2025		Land Science			4/4	

Depth (m)	TCR (%)	SCR (%)	RQD (%)	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
30.50-30.95					3,4/0 SPT(C) N=0	103.31	30.50	... as previous			
							(1.50)	NO RECOVERY (POTENTIAL VOID)			
							101.81	32.00	Off-white with occasional light brown and grey staining and rarely speckled black, structureless, medium density CHALK. (NEW PIT CHALK FORMATION - GRADE C)		
							(1.50)				
						100.31	33.50	Complete at 33.50m			

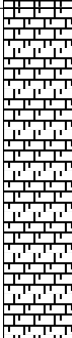
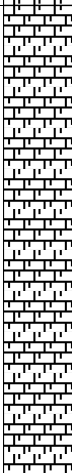
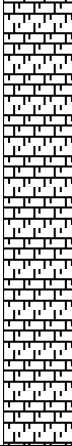
Remarks NOTES: Borehole complete at target depth. GROUNDWATER: None encountered. INSTALL: Standpipe installed to 33.5m to allow for void inspection BACKFILL: No backfill STABILITY: No instability observed CASING: No casing used.									Scale (approx) 1:50	Logged By WP
									Figure No. LS8055.BH02	

Machine :			Casing Diameter			Ground Level (mOD)		Client		Job Number	
Flush :						136.82		Virtus Data Centres		LS8055	
Core Dia: mm			Location			Dates		Project Contractor		Sheet	
Method : Rotary Cored			480691.211 E 198375.083 N			28/03/2025		Land Science		1/3	

Depth (m)	TCR (%)	SCR (%)	RQD (%)	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
6.80-7.00						133.52	(3.30)	White/Off-white structureless medium density CHALK recovered as slightly clayey, silty gravel. Gravels are fine to coarse, subangular to subrounded chalk clasts. (NEW PIT CHALK FORMATION - WEATHERED GRADE C)		
							3.30	... Wet chalk from 0 - 1.2mbgl		
							(0.70)	White/Off-white with occasional black spots and light brown staining, structured but with occasional fracturing, medium to hard density CHALK recovered as gravelly clay. Gravels are fine to coarse, subangular to subrounded chalk. (NEW PIT CHALK FORMATION - WEATHERED GRADE C)		
						132.82	4.00	Off-White with light brown staining, structured with occasional fracturing, high density CHALK. (NEW PIT CHALK FORMATION - GRADE C)		
							(8.00)			
								... Poor recovery from 9.00 - 9.30mbgl		

Remarks NOTES: Borehole complete at target depth GROUNDWATER: None encountered INSTALLATION: None BACKFILL: Backfilled with bentonite sealing pellets STABILITY: No instability observed CASING: No casing used								Scale (approx) 1:50	Logged By AL
								Figure No. ls8055.BH03	

LandScience Brighton London Bristol 0845 604 6494 www.landscience.co.uk						Site Haw Lane, Bledlow-cum-Saunderton, Bledlow Ridge, HP14 4JD		Borehole Number BH03			
Machine : Flush : Core Dia: mm Method : Rotary Cored			Casing Diameter			Ground Level (mOD) 136.82		Client Virtus Data Centres		Job Number LS8055	
			Location 480691.211 E 198375.083 N			Dates 28/03/2025		Project Contractor Land Science		Sheet 2/3	
Depth (m)	TCR (%)	SCR (%)	RQD (%)	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	
						124.82	12.00	... as previous			
							(9.80)	Off-White with light brown staining and occassional black spots, structured high density CHALK. (NEW PIT CHALK FORMATION) - GRADE C			
								... More pronounced light brown staining from 18.00 - 21.00mbgl			
Remarks NOTES: Borehole complete at target depth GROUNDWATER: None encountered INSTALLATION: None BACKFILL: Backfilled with bentonite sealing pellets STABILITY: No instability observed CASING: No casing used									Scale (approx) 1:50		Logged By AL
									Figure No. Is8055.BH03		

Land Science Brighton London Bristol 0845 604 6494 www.landscience.co.uk						Site Haw Lane, Bledlow-cum-Saunderton, Bledlow Ridge, HP14 4JD		Borehole Number BH03			
Machine : Flush : Core Dia: mm Method : Rotary Cored			Casing Diameter			Ground Level (mOD) 136.82		Client Virtus Data Centres		Job Number LS8055	
			Location 480691.211 E 198375.083 N			Dates 28/03/2025		Project Contractor Land Science		Sheet 3/3	
Depth (m)	TCR (%)	SCR (%)	RQD (%)	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	
								... as previous			
						115.02	21.80	Off-White with light brown staining and and occasional black spots, structured with occasional fracturing, medium density CHALK. (NEW PIT CHALK FORMATION - GRADE C)			
							(2.20)				
						112.82	24.00	White/Off-White with occasional light brown staining, occasional black spots and pronounced grey bands, structured but with occasional fracturing, medium to high density CHALK. (NEW PIT CHALK FORMATION - GRADE C)			
							(6.00)				
						106.82	30.00				
Remarks NOTES: Borehole complete at target depth GROUNDWATER: None encountered INSTALLATION: None BACKFILL: Backfilled with bentonite sealing pellets STABILITY: No instability observed CASING: No casing used									Scale (approx) 1:50		Logged By AL
									Figure No. ls8055.BH03		

Land Science						Brighton London Bristol 0845 604 6494 www.landscience.co.uk		Site Haw Lane, Bledlow-cum-Saunderton, Bledlow Ridge, HP14 4JD		Borehole Number BH04			
Machine : Flush : Core Dia: mm Method : Rotary Cored			Casing Diameter			Ground Level (mOD) 138.57		Client Virtus Data Centres		Job Number LS8055			
			Location 480741.542 E 198323.524 N			Dates 10/03/2025-12/03/2025		Project Contractor Land Science		Sheet 1/3			
Depth (m)	TCR (%)	SCR (%)	RQD (%)	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description		Legend	Water		
3.00-3.45 3.20-3.40 3.40-3.60					2,1/5,2,5,5 SPT(C) N=17 D D	138.07	0.50	Off-white, low density, structureless CHALK composed of a slightly sandy, silty GRAVEL. Sand is fine to medium, Gravels are fine to coarse and angular to subrounded. (NEW PIT CHALK FORMATION - Grade Dc)					
						137.47	1.10	Off-white, low density, structureless CHALK composed of a slightly sandy, gravelly SILT. Sand is fine to medium, Gravels are fine to medium and angular to subrounded. (NEW PIT CHALK FORMATION - Grade Dc)					
						137.07	1.50	Off-white, low density, structureless CHALK composed of a slightly sandy, silty GRAVEL. Sand is fine to medium, Gravels are fine to coarse and angular to subrounded. (NEW PIT CHALK FORMATION - Grade Dc)					
						136.57	2.00	Poor recovery due to SPT.					
						136.07	2.50	Off-white with rare light brown staining, low density, structureless CHALK composed of a gravelly SILT. Sand is fine to medium, Gravels are fine to medium and angular to subrounded. (NEW PIT CHALK FORMATION - Grade Dc)					
							(1.70)	Off-white with rare light brown staining and black specks, medium density, structureless CHALK. (NEW PIT CHALK FORMATION - Grade C) ...3.0-3.60m recovered as a gravelly, silty putty due to SPT.					
						134.37	4.20	Off-white, medium density, structureless CHALK composed of a slightly silty GRAVEL. Sand is fine to medium, Gravels are fine to coarse and angular to subrounded. (NEW PIT CHALK FORMATION - Grade C)					
						134.07	4.50						
										Off-white with occasional light brown staining and black specks, medium density, structureless CHALK. (NEW PIT CHALK FORMATION - Grade C)			
	5.80-6.00 6.00-6.45						D 11,14/24,26 SPT(C) N=50			...6.0-6.70m recovered as a gravelly, silty putty due to SPT.			
6.80-7.00 7.00-7.20 7.20-7.40 7.60-7.80													
8.50-8.95					1,7/8,6,9,14 SPT(C) N=37								
9.30-9.50						D				...9.0-9.60 recovered as a gravelly, silty putty due to SPT.			
Remarks NOTES: Borehole complete at target depth. GROUNDWATER: None encountered. INSTALLATION: No install. BACKFILL: Backfilled with bentonite sealing pellets. STABILITY: No instability observed CASING: No casing used.									Scale (approx) 1:50	Logged By AL	Figure No. LS8055.BH04		

				Brighton London Bristol 0845 604 6494 www.landscience.co.uk				Site Haw Lane, Bledlow-cum-Saunderton, Bledlow Ridge, HP14 4JD		Borehole Number BH04
Machine : Flush : Core Dia: mm Method : Rotary Cored				Casing Diameter		Ground Level (mOD) 138.57		Client Virtus Data Centres		Job Number LS8055
				Location 480741.542 E 198323.524 N		Dates 10/03/2025-12/03/2025		Project Contractor Land Science		Sheet 2/3
Depth (m)	TCR (%)	SCR (%)	RQD (%)	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
10.20-10.40					D			... as previous		
11.00-11.10 11.10-11.30					D D		(13.50)			
12.00-12.45 12.20-12.40 12.50-12.70					2,11/13,24,13 SPT(C) N=50 D D			...12.0-12.90m recovered as a slightly sandy, slightly gravelly putty due to SPT.		
13.80-14.00					D					
14.50-14.60					D					
15.70-15.90					D					
16.20-16.40 16.50-16.95					D 2,4/26,24 SPT(C) N=50			...16.50-17.10m recovered as a slightly sandy, slightly gravelly putty due to SPT.		
17.10-17.40					D			...17.40-17.60m consisted of a 0.20m thick, silty GRAVEL layer composed of low density clasts and flint gravels.		
18.80-18.90					D	120.57 119.82	18.00 (0.75) 18.75	Off-white, medium density, structureless CHALK composed of a slightly sandy, silty GRAVEL. Sand is fine to medium, Gravels are fine to coarse and angular to subrounded. (NEW PIT CHALK FORMATION - Grade C)		
								Off-white with rare light brown staining, medium density, structureless CHALK. (NEW PIT CHALK FORMATION - Grade C)		
Remarks NOTES: Borehole complete at target depth. GROUNDWATER: None encountered. INSTALLATION: No install. BACKFILL: Backfilled with bentonite sealing pellets. STABILITY: No instability observed CASING: No casing used.									Scale (approx) 1:50	Logged By AL
									Figure No. LS8055.BH04	

				Brighton London Bristol 0845 604 6494 www.landscience.co.uk				Site Haw Lane, Bledlow-cum-Saunderton, Bledlow Ridge, HP14 4JD		Borehole Number BH04
Machine : Flush : Core Dia: mm Method : Rotary Cored			Casing Diameter		Ground Level (mOD) 138.57		Client Virtus Data Centres		Job Number LS8055	
			Location 480741.542 E 198323.524 N		Dates 10/03/2025-12/03/2025		Project Contractor Land Science		Sheet 3/3	
Depth (m)	TCR (%)	SCR (%)	RQD (%)	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
20.20-20.30					D			... as previous		
20.50-20.70					D					
21.00-21.45					4,8/12,10,9,14 SPT(C) N=45			...Occasional light brown, grey staining and black specks from 21.0m.		
21.30-21.50					D			...21.0-21.30m recovered as a slightly sandy, slightly gravelly putty due to SPT.		
21.90-22.10					D			...Silty GRAVEL putty layers 0.10m thick at 21.60m and 22.0m. Gravels are fine to coarse, angular to subrounded.		
22.50-22.60					D					
24.00-24.45					5,10/18,32 SPT(C) N=50			...Silty GRAVEL putty layer at 23.40m 0.25m thick with yellow-orange and green-brown staining. Gravels are fine to coarse and angular to subrounded.		
24.60-24.80					D		(11.25)	...24.0-24.40m recovered as a slightly sandy, slightly gravelly putty due to SPT.		
25.20-25.40					D			...Flint gravel noted at 24.45m.		
26.10-26.20					D					
26.50-26.70					D					
27.00-27.45					2,6/15,11,10,7 SPT(C) N=43			...Poor recovery from 27.0-28.60m. 0.60m of sample which was recovered as a gravelly, silty putty due to SPT.		
28.70-28.90					D					
29.80-29.90					3,2/4,3,2,3					
30.00-30.45					D SPT(C) N=12	108.57	30.00			
Remarks NOTES: Borehole complete at target depth. GROUNDWATER: None encountered. INSTALLATION: No install. BACKFILL: Backfilled with bentonite sealing pellets. STABILITY: No instability observed CASING: No casing used.									Scale (approx) 1:50	Logged By AL
									Figure No. LS8055.BH04	

Land Science Brighton London Bristol 0845 604 6494 www.landscience.co.uk						Site Haw Lane, Bledlow-cum-Saunderton, Bledlow Ridge, HP14 4JD		Borehole Number BH05			
Machine : Flush : Core Dia: mm Method : Rotary Cored			Casing Diameter			Ground Level (mOD)		Client Virtus Data Centres		Job Number LS8055	
			Location			Dates 21/01/2025-22/01/2025		Project Contractor Land Science		Sheet 1/2	
Depth (m)	TCR (%)	SCR (%)	RQD (%)	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	
0.20					HP=4.0kPa D			Off-white and light brown CHALK, recovered as a silt putty containing medium density clasts. (NEW PIT CHALK FORMATION - Grade Dm)			
0.80					6,8/9,9,8,7 HP=4.0kPa D		(2.00)	...Less brown from 1.00 to 2.00m.			
1.00-1.45					SPT(C) N=33 D						
1.00-1.45					HP=4.5kPa D						
1.20											
1.80					2,8/10,7,5,4 HP=4.5kPa D		2.00	No Recovery.			
2.00-2.45					SPT(C) N=26 D						
2.00-2.45							(1.00)	...No recovery from 2.00 to 3.00m, sample fell out sampler as putty.			
3.00-3.45					9,12/10,10,10,10 SPT(C) N=40 D		3.00	Off-white with occasional light brown staining CHALK recovered as a silt putty with medium density clasts. (NEW PIT CHALK FORMATION - Grade Dm)			
3.00-3.45					D		(0.50)				
3.20							3.50	White with occasional light brown staining, medium density, structureless CHALK. (NEW PIT CHALK FORMATION - Grade C)			
3.80					D						
4.00-4.45					3,8/10,9,16,13 SPT(C) N=48 D		(1.50)				
4.00-4.45					D						
4.20											
4.80					D						
5.00-5.45					11,16/17,21,18,19 SPT(C) N=75 D		5.00	White with abundant light brown staining, low to medium density, structureless CHALK with occasional black sand lenses (NEW PIT CHALK FORMATION - Grade C)			
5.00-5.45					D						
5.20							(1.50)				
5.80					D						
6.00-6.45					D						
6.20					D						
6.80					D		6.50	White with occasional light brown staining. medium density, structureless CHALK with rare black sandy lenses. (NEW PIT CHALK FORMATION - Grade C)			
7.20					D						
7.80					D		(2.00)				
8.00-8.45					3,5/8,6,5,5 SPT(C) N=24 D						
8.00-8.45					D						
8.20							8.50	White with occasional black spots, medium density, structureless CHALK with occasional bands of darker grey chalk (NEW PIT CHALK FORMATION - Grade C)			
8.80					D						
9.20					D						
9.80					D		(2.50)				
Remarks NOTES: Hand excavated to 1.20mbgl GROUNDWATER: No groundwater encountered INSTALLATION: No standpipe installed BACKFILL: Backfilled with bentonite sealing pellets STABILITY: No instability observed CASING: 150mm casing used to 7.50m									Scale (approx) 1:50	Logged By AL	
									Figure No. LS8055.BH05		

Land Science Brighton London Bristol 0845 604 6494 www.landscience.co.uk						Site Haw Lane, Bledlow-cum-Saunderton, Bledlow Ridge, HP14 4JD		Borehole Number BH05			
Machine : Flush : Core Dia: mm Method : Rotary Cored			Casing Diameter			Ground Level (mOD)		Client Virtus Data Centres		Job Number LS8055	
			Location			Dates 21/01/2025-22/01/2025		Project Contractor Land Science		Sheet 2/2	
Depth (m)	TCR (%)	SCR (%)	RQD (%)	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	
10.20					D			... as previous			
10.80					D		11.00	...Occasional light brown staining from 10.20 to 10.40mbgl			
11.20					D			White with occasional light brown staining, medium density, structureless CHALK with occasional bands of darker grey chalk. (NEW PIT CHALK FORMATION - Grade C)			
11.80					D						
12.20					D						
12.80					D						
13.00-13.45					D		(4.00)				
13.20					D			...Occasional light brown staining from 13.10 to 13.30mbgl			
13.80					D						
14.20					D						
14.80					D						
15.00-15.45					D		15.00	Complete at 15.00m			
Remarks NOTES: Hand excavated to 1.20mbgl GROUNDWATER: No groundwater encountered INSTALLATION: No standpipe installed BACKFILL: Backfilled with bentonite sealing pellets STABILITY: No instability observed CASING: 150mm casing used to 7.50m									Scale (approx) 1:50	Logged By AL	Figure No. LS8055.BH05

Land Science Brighton London Bristol 0845 604 6494 www.landscience.co.uk						Site Haw Lane, Bledlow-cum-Saunderton, Bledlow Ridge, HP14 4JD			Borehole Number BH06		
Machine : Flush : Core Dia: mm Method : Rotary Cored			Casing Diameter			Ground Level (mOD)		Client Virtus Data Centres		Job Number LS8055	
			Location			Dates 29/01/2025-30/01/2025		Project Contractor Land Science		Sheet 1/2	
Depth (m)	TCR (%)	SCR (%)	RQD (%)	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	
0.20					D		(0.50)	Off-white, medium density, moderately weak, structureless CHALK composed of gravelly SILT. Gravels are fine to coarse, angular to subangular. (NEW PIT CHALK FORMATION - Grade Dm)			
0.50					D		0.50				
0.80					D			Off-white, very low density, very weak, structureless CHALK composed of slightly sandy, slightly gravelly SILT. Occasional light brown staining. Gravels are fine to medium and angular to subangular. (NEW PIT CHALK FORMATION - Grade Dm)			
1.00-1.45					4,7/8,1,5,9 SPT(C) N=23						
1.20					D						
1.80					D		(2.70)	Off-white, low density, very weak, structureless CHALK composed of slightly sandy, slightly silty GRAVEL with rare cobbles and occasional light brown staining. Gravels are fine to coarse and angular to subrounded. (NEW PIT CHALK FORMATION - Grade Dc)			
2.00-2.45					1,3/6,6,5,5 SPT(C) N=22						
2.20					D						
2.80					D			Off-white to white, very low density, very weak, structureless CHALK composed of slightly sandy, slightly gravelly SILT with occasional light brown staining. Gravels are fine and angular to subrounded. (NEW PIT CHALK FORMATION - Grade Dm)			
3.00-3.45					4,6/9,19,36,36 SPT(C) N=100		3.20				
3.10					D		(0.80)				
3.80					D		4.00	Off-white to white, very low density, very weak, structureless CHALK composed of slightly sandy, slightly gravelly SILT with occasional light brown staining. Gravels are fine and angular to subrounded. (NEW PIT CHALK FORMATION - Grade Dm)			
4.00-4.45					30/50 SPT(C) N=50						
4.20					D						
4.80					D		(1.70)	White, low to medium density, weak, structureless CHALK. (NEW PIT CHALK FORMATION - Grade C)			
5.00-5.45					7,20/17,19,8,16 SPT(C) N=60						
5.20					D		5.70				
5.70-6.50					D			...Medium density from 6.50m.			
6.50-7.50					D		(3.00)	...Occasional light brown staining between 7.50m and 8.20m.			
7.50-7.95					2,2/4,8,12,15 SPT(C) N=39		8.70	White, medium density, moderately weak CHALK with occasional light brown staining. (NEW PIT CHALK FORMATION - Grade C)			
7.50-9.00					D		(1.80)				
								...Low density and weak between 9.60m and 10.10m.			
Remarks NOTES: Hand excavated to 1.20mbgl GROUNDWATER: No groundwater encountered INSTALLATION: No standpipe installed BACKFILL: Backfilled with bentonite sealing pellets STABILITY: No instability observed CASING: 150mm casing used to 2.50m									Scale (approx) 1:50	Logged By WP	
									Figure No. LS8055.BH06		

Land Science Brighton London Bristol 0845 604 6494 www.landscience.co.uk						Site Haw Lane, Bledlow-cum-Saunderton, Bledlow Ridge, HP14 4JD		Borehole Number BH06			
Machine : Flush : Core Dia: mm Method : Rotary Cored			Casing Diameter			Ground Level (mOD)		Client Virtus Data Centres		Job Number LS8055	
			Location			Dates 29/01/2025-30/01/2025		Project Contractor Land Science		Sheet 2/2	
Depth (m)	TCR (%)	SCR (%)	RQD (%)	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	
10.20					D			... as previous			
10.50-10.95					3,9/19,19,20,30 SPT(C) N=88		10.50 (0.30)	Off-white to white, very low density, very weak, structureless CHALK composed of slightly sandy, gravelly			
10.80-11.20					D		10.80 (0.40)	SILT. Gravels are fine to medium and subangular to subrounded. (NEW PIT CHALK FORMATION - Grade Dm)			
							11.20	White, medium density, moderately weak, structureless CHALK. (NEW PIT CHALK FORMATION - Grade Dm)			
11.50					D		(0.80)	Off-white to white, very low density, very weak, structureless CHALK composed of slightly sandy, slightly silty GRAVEL. Gravels are fine to coarse, angular to subrounded. (NEW PIT CHALK FORMATION - Grade Dc)			
12.00-13.50					D		12.00	White and rarely dark grey, medium density, moderately weak, structureless CHALK. (NEW PIT CHALK FORMATION - Grade C)			
	</										

Land Science Brighton London Bristol 0845 604 6494 www.landscience.co.uk						Site Haw Lane, Bledlow-cum-Saunderton, Bledlow Ridge, HP14 4JD		Borehole Number BH07			
Machine : Flush : Core Dia: mm Method : Rotary Cored			Casing Diameter			Ground Level (mOD)		Client Virtus Data Centres		Job Number LS8055	
			Location			Dates 30/01/2025-31/01/2025		Project Contractor Land Science		Sheet 1/2	
Depth (m)	TCR (%)	SCR (%)	RQD (%)	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description		Legend	Water
0.20 0.40 0.50					E D E		(1.00)	Off-white, low density, weak, structureless CHALK composed of slightly sandy, gravelly SILT. Rare light brown staining. Gravels are fine to medium and angular to subangular. (NEW PIT CHALK FORMATION - Grade Dm)			
0.80 1.00-1.45 1.20					D 4,9/7,10,7,7 SPT N=31 D		1.00	Off-white, low density, weak, structureless CHALK composed of slightly gravelly SILT. Gravels are fine and angular. (NEW PIT CHALK FORMATION - Grade Dm)			
1.80 2.00-2.45 2.20					D 5,2/2,8,9,11 SPT N=30 D		(1.70)	...Medium density from 2.0m.			
2.80 3.00-3.45 3.20					D 1,8/7,8,10,19 SPT N=44 D		2.70 (0.30) 3.00	White, medium density, moderately weak CHALK. (NEW PIT CHALK FORMATION - Grade C)			
							(0.70)	Off-white to white, low density, weak, structureless CHALK composed of slightly gravelly SILT. Gravels are fine and angular. (NEW PIT CHALK FORMATION - Grade Dm)			
3.80 4.00-4.45 4.20					D 7,10/12,14,14,10 SPT N=50 D		3.70 (0.30) 4.00	White, very low density, very weak CHALK. (NEW PIT CHALK FORMATION - Grade C)			
4.90 5.00-5.45					D 4,4/2,4,12,27 SPT N=45		(1.30)	Off-white to white, low density, weak, structureless CHALK composed of slightly gravelly SILT. Rare light brown staining. Gravels are fine to medium and angular to subrounded. (NEW PIT CHALK FORMATION - Grade Dm)			
5.80 6.00-7.50					D D		5.30 (0.70) 6.00	Off-white to white, low to medium density, weak, structureless CHALK composed of silty GRAVEL. Occasional light brown staining. Gravels are coarse, angular to subrounded. (NEW PIT CHALK FORMATION - Grade Dc)			
							(1.50)	White, medium density, moderately weak structureless CHALK with rare light brown staining. (NEW PIT CHALK FORMATION - Grade C)			
7.50-7.95 7.60 7.80-9.00					2,13/37,13 SPT N=50 D D		7.50 (0.30) 7.80	Off-white to white, low density, weak, structureless CHALK composed of slightly sandy, gravelly SILT. Occasional light brown staining. Gravels are fine to medium and angular to subrounded. (NEW PIT CHALK FORMATION -Grade Dm)			
9.00-10.50					D			White and occasionally dark grey, medium density, moderately weak, structureless CHALK. Rare light brown staining and occasionally speckled black. (NEW PIT CHALK FORMATION - Grade C)			
Remarks NOTES: Hand excavated to 1.20mbgl GROUNDWATER: No groundwater encountered INSTALLATION: No standpipe installed BACKFILL: Backfilled with bentonite sealing pellets STABILITY: No instability observed CASING: 150mm casing used to 2.50m									Scale (approx) 1:50	Logged By WP	
									Figure No. LS8055.BH07		

Machine :			Casing Diameter			Ground Level (mOD)		Client		Job Number	
Flush :								Virtus Data Centres		LS8055	
Core Dia: mm											
Method : Rotary Cored			Location			Dates		Project Contractor		Sheet	
						30/01/2025-31/01/2025		Land Science		2/2	

Depth (m)	TCR (%)	SCR (%)	RQD (%)	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
10.50-10.95 10.50-12.00					25/50 SPT N=50 D		(7.20)	... as previous		
12.00-12.45 12.00-13.50					8,33/50 SPT N=50 D					
13.50-15.00					D					
15.00-15.45					8,9/10,23,17 SPT N=50		15.00	Complete at 15.00m		

Remarks NOTES: Hand excavated to 1.20mbgl GROUNDWATER: No groundwater encountered INSTALLATION: No standpipe installed BACKFILL: Backfilled with bentonite sealing pellets STABILITY: No instability observed CASING: 150mm casing used to 2.50m									Scale (approx) 1:50	Logged By WP
									Figure No. LS8055.BH07	

Land Science Brighton London Bristol 0845 604 6494 www.landscience.co.uk						Site Haw Lane, Bledlow-cum-Saunderton, Bledlow Ridge, HP14 4JD		Borehole Number BH08			
Machine : Flush : Core Dia: mm Method : Rotary Cored			Casing Diameter			Ground Level (mOD)		Client Virtus Data Centres		Job Number LS8055	
			Location			Dates 03/02/2025-04/02/2025		Project Contractor Land Science		Sheet 1/2	
Depth (m)	TCR (%)	SCR (%)	RQD (%)	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	
0.20					D			Off white, medium density, structurless CHALK with brown staining, recovered as slightly gravelly SILT. Gravels are fine to medium, subangular to subrounded, chalk. (NEW PIT CHALK FORMATION - Grade Dm)			
0.50					D		(1.00)				
0.70					D						
1.00-1.45					7,14/5,9,6,6 SPT N=26		1.00				
1.20					D			Off white, medium density, structurless CHALK with slight brown staining, recovered as slightly gravelly, clayey SILT. Gravels are fine to medium, subangular to subrounded, chalk. (NEW PIT CHALK FORMATION - Grade Dm)			
1.70					D						
2.00-2.45					16,6/23,20,7 SPT N=50		(2.00)				
2.20					D						
2.70					D						
3.00-3.45					20,5/25,25 SPT N=50		3.00	Off white, medium density, structured CHALK with light brown staining. (NEW PIT CHALK FORMATION - Grade C)			
3.00-4.00					C						
4.00-4.45					3,8/26,24 SPT N=50		(2.00)	... From 4.00-4.80mbgl chalk was recovered as heavily fractured with a slightly silty putty.			
4.00-5.00					C						
5.00-5.45					11,16/15,17,18 SPT N=50		5.00	Off white, medium density, structurless CHALK with brown staining, recovered as slightly clayey, silty GRAVEL. Gravels are fine to medium, subangular to subrounded, chalk. (NEW PIT CHALK FORMATION - Grade Dm)			
5.00-6.50					C		(0.50)				
							5.50	Off white, medium density, structured CHALK with rare brown staining. (NEW PIT CHALK FORMATION - Grade C)			
6.50-8.00					C		(2.50)				
8.00-8.45					6,13/13,6,11,20 SPT N=50		8.00	Off white, low to medium density, structurless CHALK with rare brown staining, recovered as slightly gravelly, silty CLAY. Gravels are fine to medium, subangular to subrounded, chalk. (NEW PIT CHALK FORMATION - Grade Dm)			
8.00-9.50					C		(0.50)				
							8.50				
							(1.00)	Off white, medium density, structurless CHALK, recovered as slightly silty, clayey, very cobbly GRAVEL. Gravels are fine to coarse, subangular to subrounded, chalk. (NEW PIT CHALK FORMATION - Grade Dc)			
9.50-11.00					C		9.50	Off white, medium density, structured CHALK with rare brown staining. Chalk was recovered as gravelly clayey putty. Gravels are fine to medium, subangular to subrounded, chalk.(NEW PIT CHALK FORMATION - Grade			
Remarks NOTES: Hand excavated to 1.20mbgl GROUNDWATER: No groundwater encountered INSTALLATION: No standpipe installed BACKFILL: Backfilled with bentonite sealing pellets STABILITY: No instability observed CASING: No casing used									Scale (approx) 1:50	Logged By ON	
									Figure No. LS8055.BH08		

Machine :			Casing Diameter			Ground Level (mOD)		Client		Job Number	
Flush :								Virtus Data Centres		LS8055	
Core Dia: mm								Project Contractor		Sheet	
Method : Rotary Cored			Location			Dates		Land Science		2/2	
						03/02/2025-04/02/2025					

Depth (m)	TCR (%)	SCR (%)	RQD (%)	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
11.00-11.45 11.00-12.50					4,8/8,10,9,14 SPT N=41 C			C)		
12.50-14.00					C		(5.50)			
14.00-14.45					6,19/50 SPT N=50					
14.50					D					
15.00-15.45					14,21/50 SPT N=50		15.00	Complete at 15.00m		

Remarks NOTES: Hand excavated to 1.20mbgl GROUNDWATER: No groundwater encountered INSTALLATION: No standpipe installed BACKFILL: Backfilled with bentonite sealing pellets STABILITY: No instability observed CASING: No casing used									Scale (approx) 1:50	Logged By ON
									Figure No. LS8055.BH08	

			Brighton London Bristol 0845 604 6494 www.landscience.co.uk			Site Haw Lane, Bledlow-cum-Saunderton, Bledlow Ridge, HP14 4JD			Borehole Number BH09	
Machine : Flush : Core Dia: mm Method : Rotary Cored			Casing Diameter			Ground Level (mOD)			Client Virtus Data Centres	
			Location			Dates 03/02/2025-07/02/2025			Project Contractor Land Science	
									Job Number LS8055	
									Sheet 1/2	
Depth (m)	TCR (%)	SCR (%)	RQD (%)	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.20					D			Off white, medium density, structurless CHALK with rare brown staining, recovered as slightly clayey, gravelly SILT. Gravels are fine to coarse, subangular to subrounded chalk clasts. (NEW PIT CHALK FORMATION - Grade Dm)		
0.50					D		(1.00)			
0.70					D			Off white, low to medium density, structurless CHALK, recovered as slightly gravelly CLAY. Gravels are fine to medium, subangular to subrounded chalk clasts. (NEW PIT CHALK FORMATION - Grade Dm)		
1.00-1.45					11,14/22,28 SPT N=50		1.00			
1.20					D			Off white, low to medium density, structured CHALK with brown staining. (NEW PIT CHALK FORMATION - Grade C)		
							(1.30)			
1.70					D			Off white, low to medium density, structured CHALK with brown staining. (NEW PIT CHALK FORMATION - Grade C)		
2.00-2.45					6,19/30,20 SPT N=50		2.30			
2.20					D			... Chalk clasts have black grains from 3.00-4.00mbgl.		
2.70					D			... Chalk clasts have black grains from 3.00-4.00mbgl.		
3.00-3.45					18,10/6,10,34 SPT N=50					
3.20					D			Off white, medium density, structurless CHALK, recovered as slightly clayey, silty GRAVEL. Gravels are fine to medium, subangular to subrounded chalk clasts. (NEW PIT CHALK FORMATION - Grade Dm)		
							(3.30)			
3.70					D			Off white, medium density, structured CHALK with brown staining. (NEW PIT CHALK FORMATION - Grade C)		
4.00-4.45					10,15/20,30 SPT N=50					
4.00-5.50					C			Off white, low density, structured CHALK with brown staining. Chalk was recovered as very fractured. (NEW PIT CHALK FORMATION - Grade C)		
5.50-5.95					9,7/9,10,18,13 SPT N=50		5.60	Off white, medium density, structured CHALK with brown staining. (NEW PIT CHALK FORMATION - Grade C)		
5.50-7.00					C		(0.50)			
							6.10	Off white, low density, structured CHALK with brown staining. Chalk was recovered as very fractured. (NEW PIT CHALK FORMATION - Grade C)		
							(0.90)			
7.00-8.50					C		7.00	... Chalk recovered as clayey, gravelly putty from 9.00-9.20mbgl. Chalk clasts were medium density.		
8.50-8.95					4,14/13,37 SPT N=50		(3.00)			
8.50-10.00					C					
Remarks NOTES: Hand excavated to 1.20mbgl GROUNDWATER: No groundwater encountered INSTALLATION: No standpipe installed BACKFILL: Backfilled with bentonite sealing pellets STABILITY: No instability observed CASING: No casing used									Scale (approx) 1:50	Logged By ON
									Figure No. LS8055.BH09	

Machine :			Casing Diameter			Ground Level (mOD)		Client		Job Number	
Flush :								Virtus Data Centres		LS8055	
Core Dia: mm											
Method : Rotary Cored			Location			Dates		Project Contractor		Sheet	
						03/02/2025-07/02/2025		Land Science		2/2	

Depth (m)	TCR (%)	SCR (%)	RQD (%)	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
10.00-11.50					C		10.00	Off white, medium density, structured CHALK. (NEW PIT CHALK FORMATION - Grade C)		
11.50-11.95 11.50-13.00					4,12/50 SPT N=50 C		(3.00)			
13.00-14.50					C		13.00	Off white, medium density, structured CHALK with rare grey staining. (NEW PIT CHALK FORMATION - Grade C)		
14.50-14.95					18,7/50 SPT N=50		(2.00)			
15.00-15.45					13,12/50 SPT N=50		15.00	Complete at 15.00m		

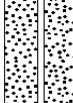
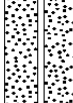
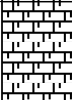
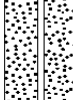
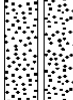
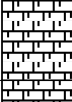
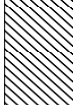
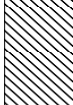
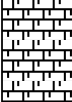
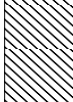
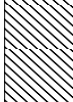
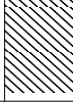
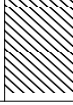
Remarks NOTES: Hand excavated to 1.20mbgl GROUNDWATER: No groundwater encountered INSTALLATION: No standpipe installed BACKFILL: Backfilled with bentonite sealing pellets STABILITY: No instability observed CASING: No casing used									Scale (approx) 1:50	Logged By ON
									Figure No. LS8055.BH09	

Land Science Brighton London Bristol 0845 604 6494 www.landscience.co.uk						Site Haw Lane, Bledlow-cum-Saunderton, Bledlow Ridge, HP14 4JD		Borehole Number BH10			
Machine : Flush : Core Dia: mm Method :			Casing Diameter			Ground Level (mOD) 125.26		Client Virtus Data Centres		Job Number LS8055	
			Location 480701.397 E 198543.44 N			Dates 04/02/2025-05/02/2025		Project Contractor Land Science		Sheet 1/2	
Depth (m)	TCR (%)	SCR (%)	RQD (%)	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	
0.20					D			Off-white, with occasional light brown staining, low density, structureless CHALK recovered as a slightly gravelly SILT. Gravels are fine to medium and subangular to subrounded. (NEW PIT CHALK FORMATION - Grade Dm)			
0.50					D		(1.00)				
0.70					D			Off-white, with occasional light brown staining, low density, structureless CHALK recovered as a slightly gravelly SILT. Gravels are fine to medium and subangular to subrounded. (NEW PIT CHALK FORMATION - Grade Dm)			
1.00-1.45					11,14/50 SPT(C) N=50	124.26	1.00				
1.20					D		(1.00)	Off-white, with occasional light brown staining, low density, structureless CHALK recovered as a slightly gravelly, silty CLAY. Occasional light brown staining. Gravels are fine to medium and subangular to subrounded. (NEW PIT CHALK FORMATION - Grade Dm)			
1.70					D						
2.00-2.45					10,15/30,20 SPT(C) N=50	123.26	2.00	Off-white, with rare grey staining, medium density, structured CHALK with rare, gravelly CLAY putty bands. Gravels are fine to medium and subangular to subrounded. (NEW PIT CHALK FORMATION - Grade C)			
							(1.00)				
3.00-3.45					12,13/15,20,15 SPT(C) N=50	122.26	3.00	Off-white, medium density, structureless CHALK recovered as a slightly gravelly, silty CLAY. Gravels are fine to medium and subangular to rounded. (NEW PIT CHALK FORMATION - Grade C)			
							(0.50)				
						121.76	3.50	Off-white, with occasional orange and grey staining, low density, structured CHALK. (NEW PIT CHALK FORMATION - Grade C) ...4.0m to 4.10m recovered as a clayey putty.			
4.00-4.45					5,15/50 SPT(C) N=50						
5.00-5.45					5,20/50 SPT(C) N=50		(4.00)	Off-white, with occasional orange and grey staining, low density, structured CHALK. (NEW PIT CHALK FORMATION - Grade C) ...4.0m to 4.10m recovered as a clayey putty.			
6.00-7.50					D			Off-white, with occasional orange and grey staining, low density, structured CHALK. (NEW PIT CHALK FORMATION - Grade C) ...4.0m to 4.10m recovered as a clayey putty.			
6.20					D						
7.00					D			Off-white, with occasional orange and grey staining, low density, structured CHALK. (NEW PIT CHALK FORMATION - Grade C) ...4.0m to 4.10m recovered as a clayey putty.			
7.10-7.50					U						
7.50-7.95					10,10/50 SPT(C) N=50	117.76	7.50	Off-white, with occasional orange and brown staining, medium density, structured CHALK. Occasional orange and brown staining. (NEW PIT CHALK FORMATION - Grade C)			
8.00					D						
8.70					D			Off-white, with occasional orange and brown staining, medium density, structured CHALK. Occasional orange and brown staining. (NEW PIT CHALK FORMATION - Grade C)			
9.00-10.50					D						
9.20					D			Off-white, with occasional orange and brown staining, medium density, structured CHALK. Occasional orange and brown staining. (NEW PIT CHALK FORMATION - Grade C)			
Remarks NOTES: Hand excavated to 1.20mbgl GROUNDWATER: No groundwater encountered INSTALLATION: 50mm HDPE pipework installed to 5.00mbgl. Plain casing from ground level to 1.00mbgl, slotted response zone from 1.00 to 5.00mbgl BACKFILL: Backfilled with bentonite sealing pellets from ground level to 1.00mbgl, and from 5.00 to 15.00mbgl. 10mm pea shingle pack from 1.00 to 5.00mbgl STABILITY: No instability observed CASING: No casing used									Scale (approx) 1:50	Logged By ON	
									Figure No. LS8055.BH10		

Machine :			Casing Diameter			Ground Level (mOD)		Client		Job Number	
Flush :						125.26		Virtus Data Centres		LS8055	
Core Dia: mm			Location			Dates		Project Contractor		Sheet	
Method :			480701.397 E 198543.44 N			04/02/2025-05/02/2025		Land Science		2/2	

Depth (m)	TCR (%)	SCR (%)	RQD (%)	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
10.00 10.00-10.50					D U			... as previous		
10.50-10.95					6,19/50 SPT(C) N=50					
							(7.50)			
11.80					D					
12.50					D					
13.00-13.45					12,13/50 SPT(C) N=50					
15.00-15.45					10,15/50 SPT(C) N=50	110.26	15.00	Complete at 15.00m		

Remarks NOTES: Hand excavated to 1.20mbgl GROUNDWATER: No groundwater encountered INSTALLATION: 50mm HDPE pipework installed to 5.00mbgl. Plain casing from ground level to 1.00mbgl, slotted response zone from 1.00 to 5.00mbgl BACKFILL: Backfilled with bentonite sealing pellets from ground level to 1.00mbgl, and from 5.00 to 15.00mbgl. 10mm pea shingle pack from 1.00 to 5.00mbgl STABILITY: No instability observed CASING: No casing used									Scale (approx) 1:50	Logged By ON
									Figure No. LS8055.BH10	

Land Science Brighton London Bristol 0845 604 6494 www.landscience.co.uk						Site Haw Lane, Bledlow-cum-Saunderton, Bledlow Ridge, HP14 4JD		Borehole Number BH11			
Machine : Flush : Core Dia: mm Method :			Casing Diameter			Ground Level (mOD)		Client Virtus Data Centres		Job Number LS8055	
			Location			Dates 04/02/2025-05/02/2025		Project Contractor Land Science		Sheet 1/2	
Depth (m)	TCR (%)	SCR (%)	RQD (%)	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
0.20					5,18/50			Off-white, with occasional light brown staining, low density, structureless CHALK recovered as a slightly clayey gravelly SILT. Gravels are fine to medium and subangular to subrounded. (NEW PIT CHALK FORMATION - Grade Dm)			
0.20					6,11/2,4,4,10						
0.20					7,14/9,9,10,12						
0.20					D						
0.20					D						
0.20					D						
0.20					D						
0.50					D		(2.00)				
1.00-1.45					SPT(C) N=40						
0.50					D						
0.50					D			Off-white, with occasional light brown staining, low density, structureless CHALK recovered as a slightly gravelly, CLAY. Gravels are fine to medium and subangular to subrounded. (NEW PIT CHALK FORMATION - Grade Dm)			
0.50					D						
0.50					D						
0.50					D						
0.50					D						
0.70					D						
0.70					D		2.00				
0.70					D						
2.00-2.45					SPT(C) N=20						
0.70					D						
0.70					D			Off-white, with occasional light brown staining, low density, structured CHALK.. Gravels are fine to medium and subangular to subrounded. (NEW PIT CHALK FORMATION - Grade C)			
0.70					D						
1.20					D						
1.20					D						
1.20					D		(1.50)				
1.20					D						
1.20					D						
1.20					D						
3.00-3.45					SPT(C) N=50		3.50				
1.20					D						
1.70					D			Off-white, with rare grey staining, medium density, structured CHALK. Gravels are fine to medium and subangular to rounded. (NEW PIT CHALK FORMATION - Grade C)			
1.70					D						
1.70					D						
1.70					D						
1.70					D						
2.20					D						
2.20					D						
4.00-4.45					SPT(C) N=50		(2.00)				
2.20					6,19/50						
2.20					D						
2.70					D			... Recovered as clayey putty between 8.50-9.00mbgl			
2.70					D						
2.70					D						
2.70					D						
2.70					D						
2.70					D		5.50				
2.70					D						
5.00-5.45					SPT(C) N=50						
3.00-4.00					14,9/50						
3.00-4.00					D						
3.00-4.00					D			... Recovered as clayey putty between 8.50-9.00mbgl			
3.00-4.00					D						
3.00-4.00					D						
3.00-4.00					D						
3.00-4.00					D						
3.60					D						
3.60					D						
3.60					D						
3.60					D						
3.60					D						
4.00-5.50					D			... Recovered as clayey putty between 8.50-9.00mbgl			
4.00-5.50					D						
4.00-5.50					D						
4.00-5.50					D						
4.00-5.50					D						
4.00-5.50					D						
5.00					D						
5.00					D						
5.00					D						
5.00					D						
5.50-7.00					D			... Recovered as clayey putty between 8.50-9.00mbgl			
5.50-7.00					D						
5.50-7.00					D						
5.50-7.00					D						
5.50-7.00					D						
8.50-8.95					SPT(C) N=23						
6.00					1,4/3,4,6,10						
5.50-7.00					D						
5.50-7.00					D						
5.50-7.00					D						
Remarks NOTES: Hand excavated to 1.20mbgl GROUNDWATER: No groundwater encountered INSTALLATION: No standpipe installed BACKFILL: Backfilled with bentonite sealing pellets STABILITY: No instability observed CASING: No casing used									Scale (approx) 1:50	Logged By ON	Figure No. LS8055.BH11

Machine :			Casing Diameter			Ground Level (mOD)		Client			Job Number	
Flush :								Virtus Data Centres			LS8055	
Core Dia: mm								Project Contractor			Sheet	
Method :			Location			Dates		Land Science			2/2	
						04/02/2025-05/02/2025						

Depth (m)	TCR (%)	SCR (%)	RQD (%)	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
6.00					9,16/50			... as previous			
6.00					D		(9.50)				
6.00					D						
6.00					D						
6.00					D						
7.00-8.50					D						
7.00-8.50					D						
7.00-8.50					D						
7.00-8.50					D						
7.00-8.50					D			... Brown clay noted in fractures between 11.00-11.50mbgl			
7.00-8.50					D						
7.50					D						
7.50					D						
11.50-11.95					SPT(C) N=50						
7.50					D						
7.50					D						
7.50					D						
7.50					D						
8.50-10.00					D						
8.50-10.00					D						
8.50-10.00					D						
8.50-10.00					D						
8.50-10.00					D						
8.50-10.00					D						
9.00					D						
9.00					D						
9.00					D						
9.00					D						
9.00					D						
9.50-10.00					D						
9.50-10.00					U						
9.50-10.00					U						
9.50-10.00					U						
9.50-10.00					U						
9.50-10.00					U						
10.00-11.50					D						
10.00-11.50					D						
14.50-14.95					SPT(C) N=50						
					6,11/10,17,23		15.00				
10.00-11.50					D			Complete at 15.00m			
10.00-11.50					D						
10.00-11.50					D						
10.00-11.50					D						
15.00-15.45					SPT(C) N=50						
					10,15/50						
10.50					D						
10.50					D						
10.50					D						
10.50					D						
10.50					D						
10.50					D						
11.50-13.00					D						
11.50-13.00					D						
11.50-13.00					D						
11.50-13.00					D						
11.50-13.00					D						
11.50-13.00					D						
12.00					D						
12.00					D						
12.00					D						
12.00					D						
12.00					D						
12.00					D						

Remarks NOTES: Hand excavated to 1.20mbgl GROUNDWATER: No groundwater encountered INSTALLATION: No standpipe installed BACKFILL: Backfilled with bentonite sealing pellets STABILITY: No instability observed CASING: No casing used	Scale (approx)	Logged By
	1:50	ON
	Figure No. LS8055.BH11	

Machine :	Casing Diameter	Ground Level (mOD)	Client	Job Number
Flush :			Virtus Data Centres	LS8055
Core Dia: mm	Location	Dates 14/03/2025-17/03/2025	Project Contractor	Sheet
Method :			Land Science	1/2

Depth (m)	TCR (%)	SCR (%)	RQD (%)	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.20					E			Off-white with occasional brown staining and black specks, low density, very weak, structured CHALK. High fracture index. (NEW PIT CHALK FORMATION - GRADE C)		
0.50					D					
1.00					D					
1.50					D					
2.50					D					
4.20					D 4,7/8,13,11,28 SPT(C) N=60		(8.00)	...Recovered as silty GRAVEL from 4.50 to 5.00mbgl		
4.50-4.95										
5.20					D			...Dark grey colour within fractures from 5.50m		
6.50					D					
7.20					D					
7.70					D		8.00	Off-white with black specks and rare brown staining, medium density, weak, structured CHALK. (NEW PIT CHALK FORMATION - GRADE C)		
8.40-8.70					C					
9.00-9.45					3,6/6,14,20,10 SPT(C) N=50			...Recovered as silty GRAVEL from 9.00 to 9.50mbgl		
9.50					D					

Remarks NOTES: Hand excavated to 1.20mbgl GROUNDWATER: No groundwater encountered INSTALLATION: 50mm HDPE pipe installed to 15.00m. Plain casing from ground level to 1.00m, slotted response zone from 1.00 to 15.00m BACKFILL: Backfilled with bentonite sealing pellets from ground level to 1.00m, 10mm pea shingle pack from 1.00 to 15.00m STABILITY: No instability observed CASING: No casing used									Scale (approx)		Logged By
									1:50		
									Figure No. LS8055.BH12		

Machine :			Casing Diameter			Ground Level (mOD)		Client		Job Number	
Flush :								Virtus Data Centres		LS8055	
Core Dia: mm								Project Contractor		Sheet	
Method :			Location			Dates		Land Science		2/2	
						14/03/2025-17/03/2025					

Depth (m)	TCR (%)	SCR (%)	RQD (%)	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
10.20					D			... as previous		
11.00-11.30					C					
11.60-11.80					C		(7.00)			
12.50					D					
13.50-13.95					6,6/6,13,11,10 SPT(C) N=40			...Recovered as silty GRAVEL from 13.50 to 13.95mbgl		
13.50					D					
13.50-15.00					B					
14.55-15.00					21/50 SPT(C) N=50		15.00	Complete at 15.00m		

Remarks NOTES: Hand excavated to 1.20mbgl GROUNDWATER: No groundwater encountered INSTALLATION: 50mm HDPE pipe installed to 15.00m. Plain casing from ground level to 1.00m, slotted response zone from 1.00 to 15.00m BACKFILL: Backfilled with bentonite sealing pellets from ground level to 1.00m, 10mm pea shingle pack from 1.00 to 15.00m STABILITY: No instability observed CASING: No casing used									Scale (approx) 1:50	Logged By MW
									Figure No. LS8055.BH12	

Machine :			Casing Diameter			Ground Level (mOD)			Client			Job Number		
Flush :			0.10mm cased to NOTES: Hand excavated to 1.20mbgl			0.20mm cased to GROUNDWATER: No groundwater observed			Virtus Data Centres			LS8055		
Core Dia: mm			0.30mm cased to INSTALLATION: No standpipe installed			0.40mm cased to BACKFILL: Backfilled with bentonite sealing pellets			Project Contractor			Sheet		
Method : Rotary Cored			Location			0.50mm cased to STABILITY: No instability observed			Land Science			1/2		
						17/03/2025								
						18/03/2025								

Depth (m)	TCR (%)	SCR (%)	RQD (%)	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.20					E			Off-white, occasionally stained light brown, structureless, weak, low density CHALK recovered as a gravelly silty, putty. Gravels are fine to coarse, subangular to subrounded (NEW PIT CHALK FORMATION GRADE Dc)		
1.00					D					
1.20-1.65					1,0/0,0,3,5 SPT(C) N=8		(2.70)			
1.50					D					
2.50					D		2.70			
3.20					D			Off-white, occasionally stained light brown, weak, structured, low density CHALK (NEW PIT CHALK FORMATION GRADE C) ...Black speckles from 3.00 to 6.00mbgl		
3.80					D					
4.40					D					
5.20					D					
5.50-5.95					12,13/25,15,10 SPT(C) N=50			...Medium density from 5.50mbgl		
5.80					D					
6.80					D					
7.50					C					
8.20					D					
9.00					C		(12.30)	...Recovered as a gravelly silty putty from 8.50-8.80mbgl		
9.70					2,3/10,12,12,13 D					
10.00-10.45					SPT(C) N=47					

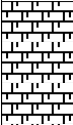
Remarks NOTES: Hand excavated to 1.20mbgl GROUNDWATER: No groundwater observed INSTALLATION: No standpipe installed BACKFILL: Backfilled with bentonite sealing pellets STABILITY: No instability observed CASING: No casing used	Scale (approx)	Logged By
	1:50	ON
	Figure No. LS8055.BH13	

Machine :			Casing Diameter			Ground Level (mOD)			Client			Job Number		
Flush :			0.10mm cased to			0.10mm cased to			Virtus Data Centres			LS8055		
Core Dia: mm			0.20mm cased to			0.20mm cased to			Project Contractor			Sheet		
Method : Rotary Cored			0.30mm cased to			0.30mm cased to			Land Science			2/2		
			Location			Dates								
			0.40mm cased to			17/03/2025								
			0.50mm cased to			18/03/2025								

Depth (m)	TCR (%)	SCR (%)	RQD (%)	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
10.50					D			... as previous		
11.00					D			...Light grey staining within fractures from 11.50mbgl		
12.50					D			...Black speckles from 12.00 to 15.00mbgl		
13.20					D			...Heavily fractured and low density from 12.50 to 13.00mbgl		
14.20					D					
14.50-14.95					4,6/13,13,11,12 SPT(C) N=49		15.00	Complete at 15.00m		

Remarks NOTES: Hand excavated to 1.20mbgl GROUNDWATER: No groundwater observed INSTALLATION: No standpipe installed BACKFILL: Backfilled with bentonite sealing pellets STABILITY: No instability observed CASING: No casing used									Scale (approx) 1:50	Logged By ON
									Figure No. LS8055.BH13	

				Brighton London Bristol 0845 604 6494 www.landscience.co.uk				Site Haw Lane, Bledlow-cum-Saunderton, Bledlow Ridge, HP14 4JD		Borehole Number BH14
Machine : Flush : Core Dia: mm Method : Rotary Cored			Casing Diameter		Ground Level (mOD)		Client Virtus Data Centres		Job Number LS8055	
			Location		Dates 19/03/2025		Project Contractor Land Science		Sheet 1/2	
Depth (m)	TCR (%)	SCR (%)	RQD (%)	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
1.00					D		(1.50)	Off-white, stained light brown, structureless, low density, very weak CHALK recovered as a gravelly, silty putty. Gravels are fine to medium, subangular to subrounded (NEW PIT CHALK FORMATION GRADE DC)		
2.50					D		1.50	Off-white, stained light brown, structureless, low density, very weak CHALK recovered as slightly silty gravels. Gravels are fine to medium, subangular to subrounded (NEW PIT CHALK FORMATION GRADE DC)		
							(3.00)	...Recovered as a very sandy gravel from 3.00 to 3.20mbgl, sand is medium to coarse		
4.20					D		4.50	Off-white, stained brown, very fractured, structured, weak, low density CHALK (NEW PIT CHALK FORMATION GRADE C)		
4.50-4.95					2,6/9,10,10,11 SPT(C) N=40			...Black speckled from 4.50 to 5.00mbgl		
5.00					D					
5.80					D			...Recovered as a gravelly, silty putty from 6.00 to 6.50mbgl		
6.50					D					
7.70					D		(6.50)	...Recovered as a sandy gravel from 7.50 to 7.80mbgl		
8.00-8.30					D					
8.70					D					
9.00-9.45					2,8/10,11,11,12 SPT(C) N=44			...Recovered as a heavily stained brown, gravelly, silty putty from 9.10 to 10.00mbgl		
9.50					D					
Remarks NOTES: Hand excavated to 1.20mbgl GROUNDWATER: No groundwater observed INSTALLATION: No standpipe installed BACKFILL: Backfilled with bentonite sealing pellets STABILITY: No instability observed CASING: No casing used									Scale (approx) 1:50	Logged By MW
									Figure No. LS8055.BH14	

				Brighton London Bristol 0845 604 6494 www.landscience.co.uk				Site Haw Lane, Bledlow-cum-Saunderton, Bledlow Ridge, HP14 4JD		Borehole Number BH14
Machine : Flush : Core Dia: mm Method : Rotary Cored			Casing Diameter		Ground Level (mOD)		Client Virtus Data Centres		Job Number LS8055	
			Location		Dates 19/03/2025		Project Contractor Land Science		Sheet 2/2	
Depth (m)	TCR (%)	SCR (%)	RQD (%)	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
10.20					D			... as previous		
11.00					D		11.00	...Recovered as a heavily stained brown, gravelly, silty putty from 10.50 to 10.70mbgl		
11.70					D			Off-white, occasionally stained brown, fractured, structured, weak, medium density CHALK (NEW PIT CHALK FORMATION GRADE C)		
12.50					D					
13.20-13.50					C					
13.50-13.95					2,4/6,13,13,15 SPT(C) N=47			...Recovered as a gravelly, silty putty from 13.50 to 14.50mbgl ...Brown sand band at 13.50mbgl		
14.00					D		(4.00)			
14.70					D		15.00	Complete at 15.00m		
Remarks NOTES: Hand excavated to 1.20mbgl GROUNDWATER: No groundwater observed INSTALLATION: No standpipe installed BACKFILL: Backfilled with bentonite sealing pellets STABILITY: No instability observed CASING: No casing used									Scale (approx) 1:50	Logged By MW
									Figure No. LS8055.BH14	

Land Science Brighton London Bristol 0845 604 6494 www.landscience.co.uk						Site Haw Lane, Bledlow-cum-Saunderton, Bledlow Ridge, HP14 4JD		Borehole Number BH15			
Machine : Flush : Core Dia: mm Method : Rotary Cored			Casing Diameter			Ground Level (mOD)		Client Virtus Data Centres		Job Number LS8055	
			Location			Dates 24/03/2025		Project Contractor Land Science		Sheet 1/2	
Depth (m)	TCR (%)	SCR (%)	RQD (%)	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	
0.50 0.60					D D			Off-white, stained brown, structureless, low density, very weak CHALK recovered as a gravelly, silty putty. Gravels are fine to coarse, subangular to subrounded (NEW PIT CHALK FORMATION GRADE DC)			
1.60-2.05 1.60-2.00					8,7/5,3,2,2 SPT(C) N=12 D						
2.00					D	(4.50)					
2.80					D						
3.10-3.55 3.30					9,7/12,13,12,13 SPT(C) N=50 D			Off-white, stained brown, structureless, low density, weak CHALK, recovered as a very gravelly putty. Gravels are fine to coarse, subangular to subrounded (NEW PIT CHALK FORMATION GRADE DC)			
3.80 4.00-4.45					D 10,14/15,15,16,4 SPT(C) N=50		4.50				
4.80					D						
5.30 5.50-5.95 5.80					D 12,13/15,25,10 SPT(C) N=50 D	(2.50)					
6.80					D		7.00	Off-white, occasionally stained brown, structured, low density, weak CHALK (NEW PIT CHALK FORMATION GRADE C)			
7.30					D						
8.20 8.70					D D	(3.00)					
9.50					D						
Remarks NOTES: Hand excavated to 1.20mbgl GROUNDWATER: No groundwater encountered INSTALLATION: 50mm HDPE pipe installed to 5.00m. Plain casing from ground level to 1.00m, slotted response zone from 1.00 to 5.00m BACKFILL: Backfilled with bentonite sealing pellets from ground level to 1.00m, and from 5.00 to 15.00m, 10mm pea shingle pack from 1.00 to 5.00m STABILITY: No instability observed CASING: No casing used									Scale (approx) 1:50	Logged By MW	
									Figure No. LS8055.BH15		

				Brighton London Bristol 0845 604 6494 www.landscience.co.uk				Site Haw Lane, Bledlow-cum-Saunderton, Bledlow Ridge, HP14 4JD		Borehole Number BH15
Machine : Flush : Core Dia: mm Method : Rotary Cored			Casing Diameter		Ground Level (mOD)		Client Virtus Data Centres		Job Number LS8055	
			Location		Dates 24/03/2025		Project Contractor Land Science		Sheet 2/2	
Depth (m)	TCR (%)	SCR (%)	RQD (%)	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
10.20					D		10.00	Off-white, occasionally stained brown, structured, medium density, weak CHALK (NEW PIT CHALK FORMATION GRADE C) ...Red staining, heavy fracturing and black speckles from 12.00 to 13.00mbgl		
11.00-11.30					C					
11.80					D					
12.50					D		(5.00)			
13.50-13.80					C					
14.20-14.50					C					
14.80					D		15.00			
								Complete at 15.00m		
Remarks NOTES: Hand excavated to 1.20mbgl GROUNDWATER: No groundwater encountered INSTALLATION: 50mm HDPE pipe installed to 5.00m. Plain casing from ground level to 1.00m, slotted response zone from 1.00 to 5.00m BACKFILL: Backfilled with bentonite sealing pellets from ground level to 1.00m, and from 5.00 to 15.00m, 10mm pea shingle pack from 1.00 to 5.00m STABILITY: No instability observed CASING: No casing used									Scale (approx) 1:50	Logged By MW
									Figure No. LS8055.BH15	

Land Science Brighton London Bristol 0845 604 6494 www.landscience.co.uk						Site Haw Lane, Bledlow-cum-Saunderton, Bledlow Ridge, HP14 4JD		Borehole Number BH16					
Machine : Flush : Core Dia: mm Method : Rotary Cored			Casing Diameter			Ground Level (mOD)		Client Virtus Data Centres		Job Number LS8055			
			Location			Dates 25/02/2025		Project Contractor Land Science		Sheet 1/2			
Depth (m)	TCR (%)	SCR (%)	RQD (%)	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water			
1.20-1.65 1.20 1.80 2.00-2.45 2.20 2.80 3.00-3.43 3.50 4.20 4.50-4.91 5.70 6.00-6.28 6.30 7.20 8.00 8.70 9.50					3,2/5,5,4,3 SPT(C) N=17 D D 7,11/10,10,9,10 SPT(C) N=39 D D 10,12/14,10,12,14 SPT(C) 50/280 D D 2,8/12,12,14,12 SPT(C) 50/260 D 10,10/18,32 SPT(C) 50/130 D D D D		(1.20) 1.20 (1.80) 3.00 (6.00) 9.00	Off-white, stained brown, structureless, low density, very weak CHALK recovered as a gravelly, silty putty. Gravels are fine to coarse, subangular to subrounded (NEW PIT CHALK FORMATION GRADE DC) Off-white with light brown staining, structured, low density, weak, heavily fractured CHALK. (NEW PIT CHALK FORMATION GRADE C) Off-white with black speckles and occasional light brown staining, low density, structured, weak CHALK (NEW PIT CHALK FORMATION GRADE C) Off-white with grey bands, black speckles and light brown staining, medium density, structured, weak CHALK (NEW PIT CHALK FORMATION GRADE C)					
	Remarks NOTES: Hand excavated to 1.20mbgl GROUNDWATER: No groundwater observed INSTALLATION: No standpipe installed BACKFILL: Backfilled with bentonite sealing pellets STABILITY: No instability observed CASING: No casing used											Scale (approx) 1:50	Logged By
	Figure No. LS8055.BH16												

Machine :			Casing Diameter			Ground Level (mOD)		Client		Job Number	
Flush :								Virtus Data Centres		LS8055	
Core Dia: mm											
Method : Rotary Cored			Location			Dates 25/02/2025		Project Contractor Land Science		Sheet 2/2	

Depth (m)	TCR (%)	SCR (%)	RQD (%)	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
10.70-10.90					C			... as previous		
11.30-11.50					C					
12.30					D		(6.00)			
13.00					D					
14.00					D					
14.80					D		15.00			
								Complete at 15.00m		

Remarks NOTES: Hand excavated to 1.20mbgl GROUNDWATER: No groundwater observed INSTALLATION: No standpipe installed BACKFILL: Backfilled with bentonite sealing pellets STABILITY: No instability observed CASING: No casing used	Scale (approx)	Logged By
	1:50	
	Figure No. LS8055.BH16	

Machine :			Casing Diameter			Ground Level (mOD)		Client		Job Number	
Flush :								Virtus Data Centres		LS8055	
Core Dia: mm											
Method : Rotary Cored			Location			Dates		Project Contractor		Sheet	
						18/03/2025		Land Science		1/2	

Depth (m)	TCR (%)	SCR (%)	RQD (%)	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.20					D		(0.60)	Cream to off-white, low density, weak structureless CHALK, recovered as a gravelly silt. Gravels are fine to coarse, subangular to subrounded (NEW PIT CHALK FORMATION GRADE Dc)		
0.20					E		0.60			
0.70					D			Off-white, stuctured, weak, fractured, low density CHALK (NEW PIT CHALK FORMATION GRADE C)		
1.20					D					
2.20					D					
3.40					D					
4.20					D					
5.00					D					
5.80					D					
6.80					D					
8.50					D		(14.40)			
9.50					D					

Remarks NOTES: Hand excavated to 1.20mbgl GROUNDWATER: No groundwater observed INSTALLATION: No standpipe installed BACKFILL: Backfilled with bentonite sealing pellets STABILITY: No instability observed CASING: No casing used								Scale (approx) 1:50	Logged By JW
								Figure No. LS8055.BH17	

Machine :			Casing Diameter			Ground Level (mOD)		Client		Job Number	
Flush :								Virtus Data Centres		LS8055	
Core Dia: mm											
Method : Rotary Cored			Location			Dates 18/03/2025		Project Contractor Land Science		Sheet 2/2	

Depth (m)	TCR (%)	SCR (%)	RQD (%)	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
10.20					D			... as previous		
10.60-10.80					C					
11.80					D					
12.20					D					
12.80					D					
13.70-13.90					C					
14.50-14.70					C					
							15.00	Complete at 15.00m		

Remarks NOTES: Hand excavated to 1.20mbgl GROUNDWATER: No groundwater observed INSTALLATION: No standpipe installed BACKFILL: Backfilled with bentonite sealing pellets STABILITY: No instability observed CASING: No casing used	Scale (approx)	Logged By
	1:50	JW
	Figure No. LS8055.BH17	

Land Science Brighton London Bristol 0845 604 6494 www.landscience.co.uk						Site Haw Lane, Bledlow-cum-Saunderton, Bledlow Ridge, HP14 4JD		Borehole Number BH18			
Machine : Flush : Core Dia: mm Method : Rotary Cored			Casing Diameter 4.5" to 15.00m			Ground Level (mOD)		Client Virtus Data Centres		Job Number LS8055	
			Location			Dates 13/03/2025		Project Contractor Land Science		Sheet 1/2	
Depth (m)	TCR (%)	SCR (%)	RQD (%)	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	
0.20					D			Off-white, stained dark grey and orangey brown, weak, structureless, low density CHALK recovered as a gravelly silt. Gravels of chalk are fine to coarse, subangular to subrounded (NEW PIT CHALK FORMATION GRADE Dc)			
0.70					D						
1.20					D						
1.70					D						
2.50-2.95					0.1/4.4.7.13 SPT(C) N=28		(4.50)				
2.70					D						
3.20					D						
3.70					D						
4.20					D		4.50		...Becoming a silty GRAVEL and chalk gravels becoming stronger and medium density from 4.00mbgl		
4.70					D				Weak, off-white, structured, medium density CHALK (Grade C)		
5.20					D						
5.70					D						
6.00-6.45					5.9/6.9.6.6 SPT(C) N=27				...Poor recovery from 6.00-7.00mbgl		
7.20					D				...Brown staining at 7.20mbgl		
7.70					D				...Orange staining and black speckles at 7.80mbgl		
8.70					D						
9.70					D		(10.50)				
Remarks NOTES: Hand excavated to 1.20mbgl GROUNDWATER: No groundwater observed INSTALLATION: No standpipe installed BACKFILL: Backfilled with bentonite sealing pellets STABILITY: No instability observed CASING: No casing used									Scale (approx) 1:50	Logged By MW	
									Figure No. LS8055.BH18		

Machine :	Casing Diameter	Ground Level (mOD)	Client	Job Number
Flush :	4.5" to 15.00m		Virtus Data Centres	LS8055
Core Dia: mm	Location	Dates 13/03/2025	Project Contractor Land Science	Sheet 2/2
Method : Rotary Cored				

Depth (m)	TCR (%)	SCR (%)	RQD (%)	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
10.20					D			... as previous		
10.50-10.95					3,3/3,2,6,39 SPT(C) N=50					
11.20					D					
11.70					C					
12.70					D					
13.20					C					
13.70					D					
14.70					C					
15.00-15.45					4,18/21,11,18 SPT(C) N=50		15.00	Complete at 15.00m		

Remarks NOTES: Hand excavated to 1.20mbgl GROUNDWATER: No groundwater observed INSTALLATION: No standpipe installed BACKFILL: Backfilled with bentonite sealing pellets STABILITY: No instability observed CASING: No casing used								Scale (approx)	Logged By
								1:50	MW
								Figure No. LS8055.BH18	

Machine :	Casing Diameter	Ground Level (mOD)	Client	Job Number
Flush :		125.24	Virtus Data Centres	LS8055
Core Dia: mm	Location	Dates	Project Contractor	Sheet
Method : Rotary Cored	480876.656 E 198542.617 N	27/02/2025	Land Science	1/2

Depth (m)	TCR (%)	SCR (%)	RQD (%)	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
1.20-1.65					3,6/7,6,10,12 SPT(C) N=35			Off-white, occasionally stained light brown, weak, structureless, low density CHALK recovered as a gravelly, silty putty. Gravels are fine to coarse, subangular to subrounded (NEW PIT CHALK FORMATION GRADE Dc)		
2.00-2.45					2,6/5,4,4,4 SPT(C) N=17					
3.00-3.45					12,10/8,7,15,20 SPT(C) N=50					
4.50-4.95					2,3/3,4,5,3 SPT(C) N=15		(7.00)	...Chalk gravels are fine to medium, subangular to subrounded from 4.50 to 5.00mbgl		
6.00-6.45					4,5/6,12,16,16 SPT(C) N=50			...Speckled black from 5.50 to 6.00mbgl		
7.50-7.95					9,12/50 SPT(C) N=50	118.24	7.00	Off-white, occasionally stained light brown, weak, structureless, medium density, heavily fractured CHALK (NEW PIT CHALK FORMATION GRADE C) ...Speckled black from 7.50 to 9.00mbgl		

NOTES: Hand excavated to 1.20mbgl
GROUNDWATER: No groundwater observed
INSTALLATION: 50mm HDPE pipework installed to 5.00mbgl. Plain casing from ground level to 1.00m, slotted response zone from 1.00 to 5.00mbgl
BACKFILL: Backfilled with bentonite sealing pellets from ground level to 1.00m and from 5.00 to 15.00m. 10mm pea shingle pack from 1.00 to 5.00mbgl
STABILITY: No instability observed
CASING: No casing used

Scale (approx)	Logged By
1:50	AL

Figure No.
LS8055.BH19

Machine :			Casing Diameter			Ground Level (mOD)		Client		Job Number	
Flush :						125.24		Virtus Data Centres		LS8055	
Core Dia: mm			Location			Dates		Project Contractor		Sheet	
Method : Rotary Cored			480876.656 E 198542.617 N			27/02/2025		Land Science		2/2	

Depth (m)	TCR (%)	SCR (%)	RQD (%)	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
								... as previous		
							(8.00)	...Heavily fractured from 10.50 to 11.50mbgl		
						110.24	15.00	Complete at 15.00m		

Remarks NOTES: Hand excavated to 1.20mbgl GROUNDWATER: No groundwater observed INSTALLATION: 50mm HDPE pipework installed to 5.00mbgl. Plain casing from ground level to 1.00m, slotted response zone from 1.00 to 5.00mbgl BACKFILL: Backfilled with bentonite sealing pellets from ground level to 1.00m and from 5.00 to 15.00m. 10mm pea shingle pack from 1.00 to 5.00mbgl STABILITY: No instability observed CASING: No casing used								Scale (approx) 1:50	Logged By AL	Figure No. LS8055.BH19
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Excavation Method Trial Pit	Dimensions		Ground Level (mOD)	Client Virtus Data Centres	Job Number LS8055
	Location		Dates 24/01/2025	Project Contractor Land Science	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.20	D					White to off white, medium density, structureless CHALK, recovered as slightly sandy, silty GRAVEL with occasional cobbles. Sand is fine to coarse. Gravels are fine to coarse, angular to subrounded chalk. (NEW PIT CHALK FORMATION) ... Light brown to orange staining from 0.40 to 3.00mbgl. ... Dark brown sandy chalky layer at 0.40mbgl.		
0.80	D				(2.00)			
1.20	D							
1.80	D				2.00			
2.20	D				(1.00)	White to off white, medium density, structureless CHALK, recovered as slightly sandy, slightly silty GRAVEL with occasional cobbles. Sand is fine to medium. Gravels are fine to coarse, angular to subrounded chalk. Occasional chalk fragments containing darker grey bands and light brown staining with embedded black grains. (NEW PIT CHALK FORMATION) ... Larger chalk cobbles from 2.00 to 3.00mbgl.		
2.80	D				3.00	Complete at 3.00m		

Plan					Remarks			
.	.	.	.	.	GENERAL: Machine excavated to 3.00mbgl GROUNDWATER: No groundwater encountered STABILITY: No instability observed			
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					Scale (approx)	Logged By	Figure No.	
					1:25	AL	LS8055.TP01	

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.20	D				(1.00)	Light grey to off-white, medium density, structureless CHALK recovered as a cobbly, silty, sandy GRAVEL (NEW PIT CHALK FORMATION)		
0.80	D				1.00			
1.20	D					Off-white with occasional brown-orange staining. medium to high density, structureless CHALK recovered as cobbly, silty, sandy GRAVEL (NEW PIT CHALK FORMATION)		
1.80	D				(2.00)			
2.20	D							
2.80	D				3.00			
						Complete at 3.00m		

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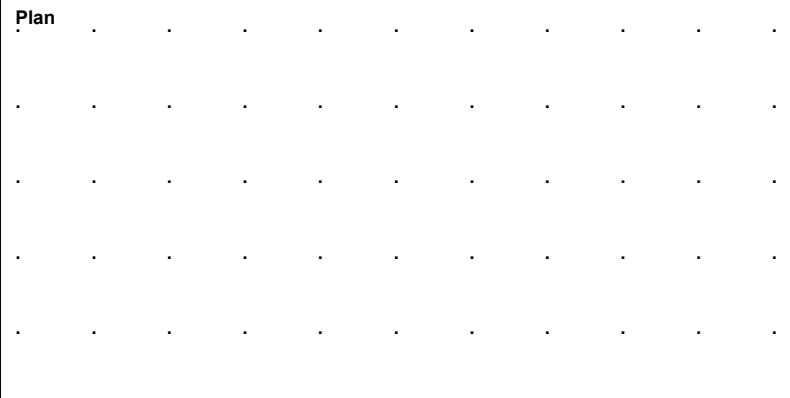
Excavation Method Trial Pit	Dimensions		Ground Level (mOD)	Client Virtus Data Centres	Job Number LS8055
	Location		Dates 24/01/2025	Project Contractor Land Science	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.20	D					White to off white, medium density, structurless CHALK, recovered as slightly sandy, silty GRAVE with occasional cobbles.. Sand is fine to coarse. Gravels are fine to coarse, angular to subrounded chalk. (NEW PIT CHALK FORMATION) ... Light brown to orange staining from 0.40 to 3.00mbL.		
0.80	D				(2.00)			
1.20	D							
1.80	D				2.00			
2.20	D				(1.00)	White to off white, medium density, structurless CHALK, recovered as slightly sandy, slightly silty GRAVEL with occasional cobbles. Sand is fine to medium. Gravels are fine to coarse, angular to subrounded chalk. Occasional chalk fragments containing darker grey bands and light brown staining with embedded black grains. (NEW PIT CHALK FORMATION) ... Larger chalk cobbles from 2.00 to 3.00mbgl.		
2.80	D				3.00			
						Complete at 3.00m		

Plan					Remarks			
.	.	.	.	.	GENERAL: Machine excavated to 3.00mbgl GROUNDWATER: No groundwater encountered STABILITY: No instability observed			
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					Scale (approx)	Logged By	Figure No.	
					1:25	AL	LS8055.TP03	

Excavation Method Trial Pit		Dimensions		Ground Level (mOD)		Client Virtus Data Centres		Job Number LS8055	
		Location		Dates 23/01/2025		Project Contractor Land Science		Sheet 1/1	

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.20	D				(0.50)	Light grey to off-white, medium density, structureless CHALK recovered as a cobbly, silty, sandy GRAVEL (NEW PIT CHALK FORMATION)		
0.80	D				0.50	Off-white with occasional brown-orange staining. medium density, structureless CHALK recovered as cobbly, silty, sandy GRAVEL (NEW PIT CHALK FORMATION)		
1.20	D							
1.80	D				(2.50)			
2.20	D					...Abundant cobbles and boulders from 2.00m		
2.80	D				3.00	Complete at 3.00m		

Plan 					Remarks GENERAL: Machine excavated to 3.00mbgl GROUNDWATER: No groundwater encountered STABILITY: No instability observed			
					Scale (approx) 1:25	Logged By MW	Figure No. LS8055.TP04	

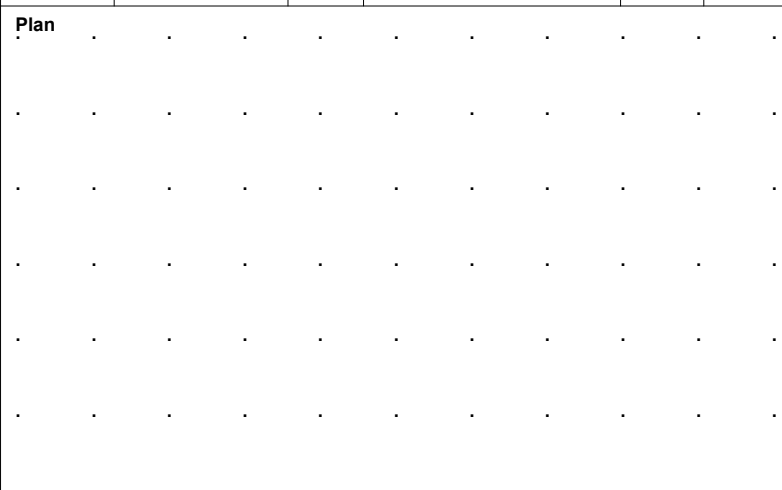
Excavation Method Trial Pit		Dimensions		Ground Level (mOD)		Client Virtus Data Centres		Job Number LS8055	
		Location		Dates 24/01/2025		Project Contractor Land Science		Sheet 1/1	

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.20	D					White to off white, medium density, structurless CHALK, recovered as slightly sandy, silty GRAVEL with occasional cobbles. Sand is fine to coarse. Gravels are fine to coarse, angular to subrounded chalk. Occasional rootlets. (NEW PIT CHALK FORMATION) ... Rare light brown to orange staining from 0.40 to 3.00mbgl.		
0.80	D				(2.00)			
1.20	D							
1.80	D				2.00			
2.20	D				(1.00)	White to off white, medium density, structurless CHALK, recovered as slightly sandy, slightly silty GRAVEL with occasional cobbles. Sand is fine to medium. Gravels are fine to coarse, angular to subrounded chalk. Occasional chalk fragments containing darker grey bands and light brown staining with embedded black grains. (NEW PIT CHALK FORMATION) ... Larger chalk cobbles from 2.00 to 3.00mbgl.		
2.80	D				3.00			
						Complete at 3.00m		

Plan					Remarks GENERAL: Machine excavated to 3.00mbgl GROUNDWATER: No groundwater encountered STABILITY: No instability observed			
					Scale (approx) 1:25		Logged By AL	Figure No. LS8055.TP05

Excavation Method Trial Pit		Dimensions		Ground Level (mOD)		Client Virtus Data Centres		Job Number LS8055	
		Location		Dates 24/01/2025		Project Contractor Land Science		Sheet 1/1	

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.20	D				(0.50)	Light grey to off-white with occasional orange staining, medium density, structureless CHALK recovered as a cobbly, silty, sandy GRAVEL. (NEW PIT CHALK FORMATION)		
0.80	D				0.50	Off-white with occasional brown-orange staining. medium to high density, structureless CHALK recovered as cobbly, silty, sandy GRAVEL (NEW PIT CHALK FORMATION)		
1.20	D							
1.80	D				(2.50)	... Small black grains appear from 2.00-3.00mbgl		
2.20	D					... Dark brown, medium, subrounded to rounded gravel at 2.2mbgl		
2.80	D				3.00	Complete at 3.00m		

Plan 					Remarks GENERAL: Machine excavated to 3.00mbgl GROUNDWATER: No groundwater encountered STABILITY: No instability observed			
					Scale (approx) 1:25	Logged By MW	Figure No. LS8055.TP06	

Excavation Method Trial Pit		Dimensions		Ground Level (mOD)		Client Virtus Data Centres		Job Number LS8055	
		Location		Dates 24/01/2025		Project Contractor Land Science		Sheet 1/1	

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.20	D					White to off white, medium density, structurless CHALK with occasional rootlets, recovered as slightly sandy, silty GRAVEL with occasional cobbles. Sand is fine to coarse. Gravels are fine to coarse, angular to subrounded chalk. (NEW PIT CHALK FORMATION) ... Light brown to orange staining from 0.40 to 3.00mb.		
0.80	D				(2.00)			
1.20	D							
1.80	D				2.00			
2.20	D				(1.00)	White to off white, medium to high density, structurless CHALK, recovered as slightly sandy, slightly silty GRAVEL with occasional cobbles. Sand is fine to medium. Gravels are fine to coarse, angular to subrounded chalk. Occasional chalk fragments containing darker grey bands and light brown staining with embedded black grains. (NEW PIT CHALK FORMATION) ... Larger chalk cobbles from 2.00 to 3.00mbgl. ... Rare medium, subrounded flint gravels at 2.20mbgl.		
2.80	D				3.00	Complete at 3.00m		

Plan					Remarks GENERAL: Machine excavated to 3.00mbgl GROUNDWATER: No groundwater encountered STABILITY: No instability observed			
					Scale (approx) 1:25		Logged By AL	Figure No. LS8055.TP07

Excavation Method Trial Pit		Dimensions		Ground Level (mOD)		Client Virtus Data Centres		Job Number LS8055	
		Location		Dates 26/01/2025		Project Contractor Land Science		Sheet 1/1	

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.50	D				(1.60)	Off-white with occasional light brown staining, low density, structureless CHALK, recovered as a slightly silty GRAVEL. Gravels are fine to coarse and angular to subrounded. (NEW PIT CHALK FORMATION)		
1.00	D							
1.50	D				1.60			
2.00	D				(1.40)	Off-white with occasional light brown staining, medium density, structureless CHALK, recovered as a slightly silty GRAVEL. Gravels are fine to coarse and angular to subrounded. (NEW PIT CHALK FORMATION)		
2.50	D							
					3.00	Complete at 3.00m		

Plan					Remarks			
.	.	.	.	.	GENERAL: Machine excavated to 3.00mbgl GROUNDWATER: No groundwater encountered STABILITY: No instability observed			
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					Scale (approx)		Logged By	Figure No.
					1:25		WP	LS8055.TP08

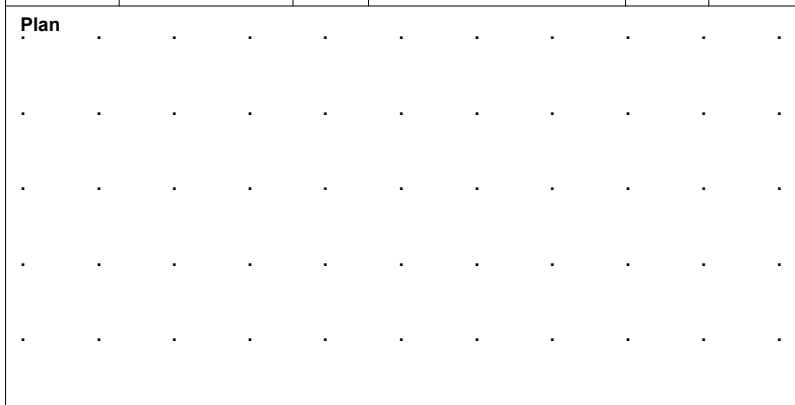
Excavation Method Trial Pit	Dimensions		Ground Level (mOD)	Client Virtus Data Centres	Job Number LS8055
	Location		Dates 24/01/2025	Project Contractor Land Science	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.20	D					White to off white, medium density, structurless CHALK, recovered as slightly sandy, silty GRAVEL with occasional cobbles. Sand is fine to coarse. Gravels are fine to coarse, angular to subrounded chalk. (NEW PIT CHALK FORMATION)		
0.80	D				(2.00)			
1.20	D							
1.80	D				2.00			
2.20	D				(1.00)	Light grey to off white, medium to high density, structurless CHALK, recovered as slightly sandy, silty, clayey GRAVEL with occasional cobbles. Sand is fine to medium. Gravels are fine to coarse, angular to subrounded chalk. Occasional chalk cobbles. Rare flints. (NEW PIT CHALK FORMATION)		
2.80	D				3.00			
						Complete at 3.00m		

Plan					Remarks			
.	.	.	.	.	GENERAL: Machine excavated to 3.00m GROUNDWATER: No groundwater encountered STABILITY: No instability observed			
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					Scale (approx)	Logged By	Figure No.	
					1:25	AL	LS8055.TP09	

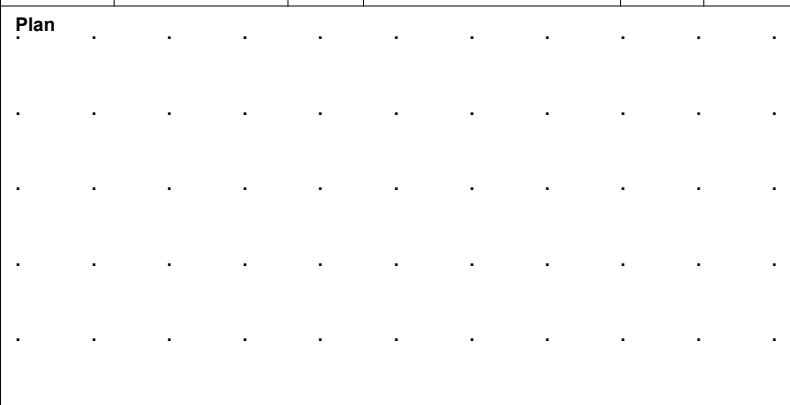
Excavation Method Trial Pit		Dimensions		Ground Level (mOD)		Client Virtus Data Centres		Job Number LS8055	
		Location		Dates 26/01/2025		Project Contractor Land Science		Sheet 1/1	

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.50	D					Off-white with occasional light brown staining, low density, structureless CHALK, recovered as a slightly silty GRAVEL. Gravels are fine to medium. angular to subrounded. (REWORKED CHALK)		
1.00	D				(2.00)			
1.50	D							
2.00	D				2.00	Off-white with occasional light brown staining, medium density, structureless CHALK, recovered as a slightly silty GRAVEL with occasional cobbles. Gravels are fine to medium. angular to subrounded. (REWORKED CHALK)		
2.50	D				(1.00)			
					3.00	Complete at 3.00m		

Plan 					Remarks GENERAL: Machine excavated to 3.00mbgl GROUNDWATER: No groundwater encountered STABILITY: Trial pit collapsed in before FHST to be conducted			
					Scale (approx) 1:25	Logged By WP	Figure No. LS8055.TP10	

Excavation Method Trial Pit		Dimensions		Ground Level (mOD)		Client Virtus Data Centres		Job Number LS8055	
		Location		Dates 24/01/2025		Project Contractor Land Science		Sheet 1/1	

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.20	D					White to off white, medium density, structurless CHALK, recovered as slightly sandy, silty GRAVEL. Sand is fine to coarse. Gravels are fine to coarse, subangular to subrounded chalk, rare flint and rare clinker. (REWORKED CHALK)		
0.80	D					... Rare flint and bitumen at 1.00 to 2.00mbgl.		
1.20	D							
1.80	D				(3.00)			
2.20	D					... Larger chalk cobbles from 2.00 to 3.00mbgl.		
2.80	D				3.00	Complete at 3.00m		

Plan 					Remarks GENERAL: Machine excavated to 3.00mbgl GROUNDWATER: No groundwater encountered STABILITY: No instability observed			
					Scale (approx) 1:25		Logged By AL	Figure No. LS8055.TP09

Site : Haw Lane, Bledlow-cum-Saunderton, Bledlow Ridge, HP14 4JD

Client : Virtus Data Centres

Project Contractor
: AL

Job Number
LS8055

Sheet
1 / 4

Location	Date	Level	Location
TP08	26/01/2025		

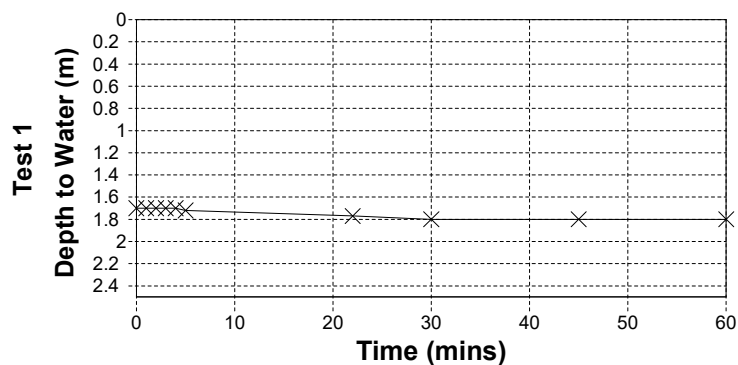
Pit Width (m)	2.50
Pit Depth (m)	2.50
Pit Length (m)	3.50

Soil type at test level	Chalk
Groundwater	None
Drain discharge depth	2.5
Sidewall stability	Collapsing
Stone filled or open pit	Open pit

	1
Effective depth (m)	0.80
Volume outflowing between 75% & 25% (m3)	
Mean surface area through which outflow occurs (m2)	
Time for outflow between 75% & 25% (min)	
SOIL INFILTRATION RATE (ms-1), f	Test Failed

Remarks

Elapsed time (mins)	Depth to Water Test 1
0	1.70
1	1.70
2	1.70
3	1.70
4	1.70
5	1.72
22	1.77
30	1.80
45	1.80
60	1.80



Site : Haw Lane, Bledlow-cum-Saunderton, Bledlow Ridge, HP14 4JD

Client : Virtus Data Centres

Project Contractor
: AL

Job Number
LS8055

Sheet
2 / 4

Location	Date	Level	Location
TP09	24/01/2025		

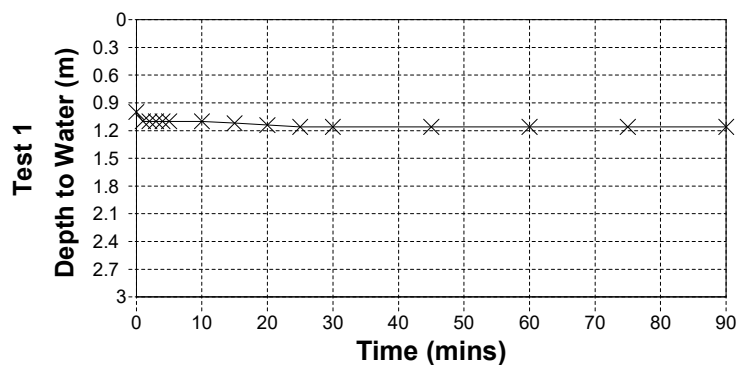
Pit Width (m)	1.50
Pit Depth (m)	3.00
Pit Length (m)	3.00

Soil type at test level	Chalk
Groundwater	None
Drain discharge depth	3.00
Sidewall stability	Unstable
Stone filled or open pit	Open pit

	1
Effective depth (m)	2.00
Volume outflowing between 75% & 25% (m3)	
Mean surface area through which outflow occurs (m2)	
Time for outflow between 75% & 25% (min)	
SOIL INFILTRATION RATE (ms-1), f	Test Failed

Remarks

Elapsed time (mins)	Depth to Water Test 1
0	1.00
1	1.10
2	1.10
3	1.10
4	1.10
5	1.10
10	1.10
15	1.12
20	1.14
25	1.16
30	1.16
45	1.16
60	1.16
75	1.16
90	1.16



Site : Haw Lane, Bledlow-cum-Saunderton, Bledlow Ridge, HP14 4JD

Client : Virtus Data Centres

Project Contractor
: AL

Job Number
LS8055

Sheet
3 / 4

Location	Date	Level	Location
TP10	24/01/2025		

Pit Width (m)	1.50
Pit Depth (m)	3.00
Pit Length (m)	3.00

Soil type at test level	Chalk
Groundwater	None
Drain discharge depth	3.00
Sidewall stability	Collapsed
Stone filled or open pit	Open pit

	1
Effective depth (m)	3.00
Volume outflowing between 75% & 25% (m3)	
Mean surface area through which outflow occurs (m2)	
Time for outflow between 75% & 25% (min)	
SOIL INFILTRATION RATE (ms-1), f	Test Failed

Remarks

Site : Haw Lane, Bledlow-cum-Saunderton, Bledlow Ridge, HP14 4JD

Client : Virtus Data Centres

Project Contractor
: AL

Job Number
LS8055

Sheet
4 / 4

Location	Date	Level	Location
TP11	24/01/2025		

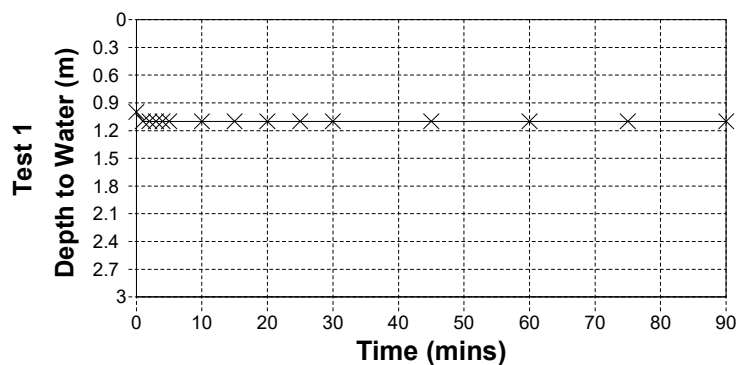
Pit Width (m)	1.50
Pit Depth (m)	3.00
Pit Length (m)	3.00

Soil type at test level	Chalk
Groundwater	None
Drain discharge depth	3
Sidewall stability	Stable
Stone filled or open pit	Open pit

	1
Effective depth (m)	2.00
Volume outflowing between 75% & 25% (m3)	
Mean surface area through which outflow occurs (m2)	
Time for outflow between 75% & 25% (min)	
SOIL INFILTRATION RATE (ms-1), f	Test Failed

Remarks

Elapsed time (mins)	Depth to Water Test 1
0	1.00
1	1.10
2	1.10
3	1.10
4	1.10
5	1.10
10	1.10
15	1.10
20	1.10
25	1.10
30	1.10
45	1.10
60	1.10
75	1.10
90	1.10

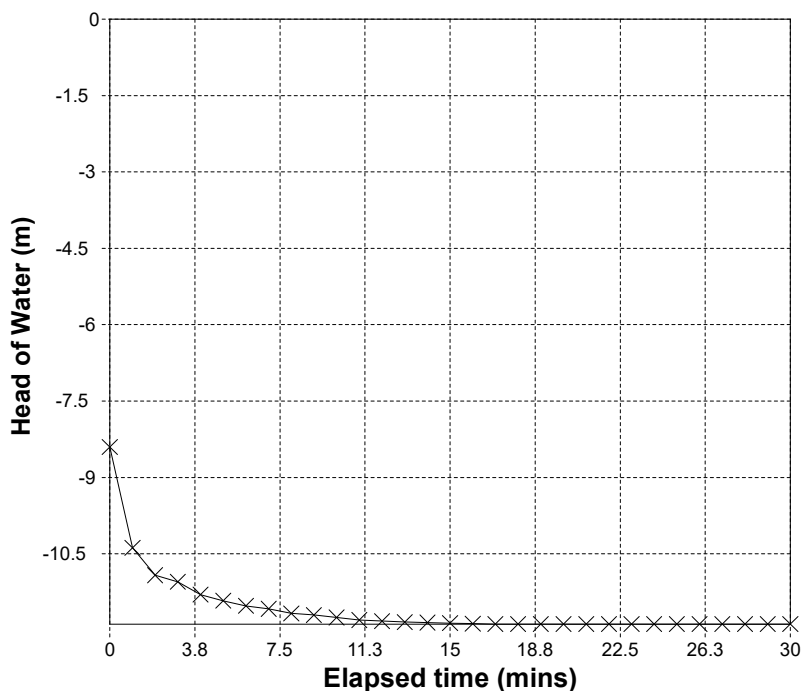


In Situ Permeability Type Falling Head	Test No. 1	Ground Level (mOD) 125.24	Client Virtus Data Centres	Job Number LS8055
	Location 480876.656 E 198542.617 N	Dates 27/02/2025	Project Contractor AL	Sheet 1/3

Height of casing above ground level:	0.00 m
Depth to Base of Borehole:	11.90 m bgl
Depth to Base of Casing:	4.50 m bgl
Depth to equilibrium water level:	m bgl
Test Length L:	7.40 m
Diameter of Test Length D:	0.50 m
Area of Test Section:	0.1963 m ²
Intake Factor F: (after condition B, figure 6, BS 5930)	1.3750

PERMEABILITY (after Hvorslev, 1951)
General Approach
H1 selected at $t = -9.21$ m ($\approx t_1 = 24.6$ secs)
H2 selected at $t = -11.04$ m ($\approx t_2 = 151.8$ secs)
 $k = -2.03E-04$ ms⁻¹

Elapsed time (mins)	Depth to water (m bgl)	Head of Water, H (m)	Ht / Ho
0.00	8.400	-8.400	1.000
1.00	10.380	-10.380	1.236
2.00	10.920	-10.920	1.300
3.00	11.050	-11.050	1.315
4.00	11.300	-11.300	1.345
5.00	11.420	-11.420	1.360
6.00	11.520	-11.520	1.371
7.00	11.580	-11.580	1.379
8.00	11.670	-11.670	1.389
9.00	11.700	-11.700	1.393
10.00	11.750	-11.750	1.399
11.00	11.800	-11.800	1.405
12.00	11.820	-11.820	1.407
13.00	11.840	-11.840	1.410
14.00	11.850	-11.850	1.411
15.00	11.860	-11.860	1.412
16.00	11.870	-11.870	1.413
17.00	11.880	-11.880	1.414
18.00	11.880	-11.880	1.414
19.00	11.880	-11.880	1.414
20.00	11.880	-11.880	1.414
21.00	11.880	-11.880	1.414
22.00	11.880	-11.880	1.414
23.00	11.880	-11.880	1.414
24.00	11.880	-11.880	1.414
25.00	11.880	-11.880	1.414
26.00	11.880	-11.880	1.414
27.00	11.880	-11.880	1.414
28.00	11.880	-11.880	1.414
29.00	11.880	-11.880	1.414
30.00	11.880	-11.880	1.414



Remarks

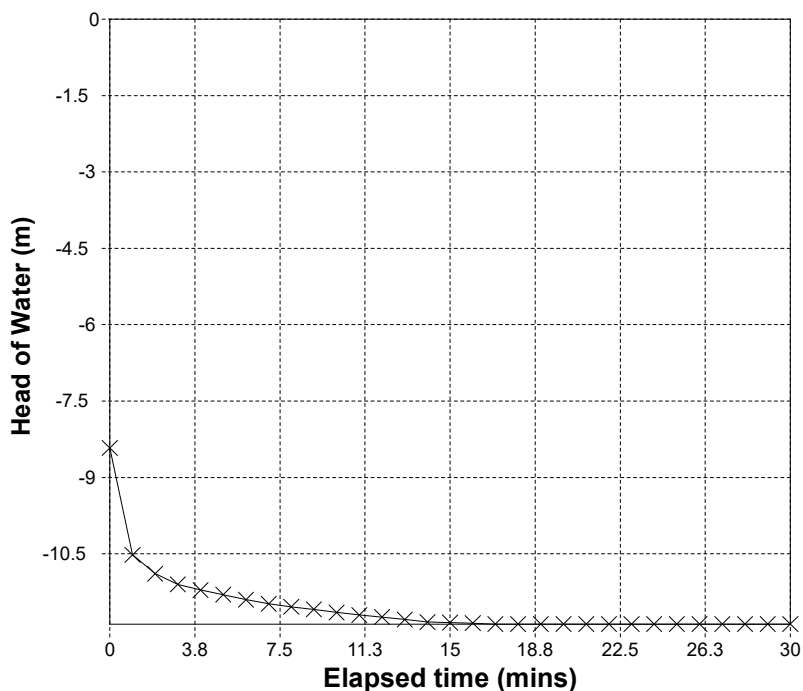
Key: bgl = Below Ground Level btoc = Below Top of Casing

In Situ Permeability Type Falling Head	Test No. 2	Ground Level (mOD) 125.24	Client Virtus Data Centres	Job Number LS8055
	Location 480876.656 E 198542.617 N	Dates 27/02/2025	Project Contractor AL	Sheet 2/3

Height of casing above ground level:	0.00 m
Depth to Base of Borehole:	11.90 m bgl
Depth to Base of Casing:	4.50 m bgl
Depth to equilibrium water level:	m bgl
Test Length L:	7.40 m
Diameter of Test Length D:	0.50 m
Area of Test Section:	0.1963 m ²
Intake Factor F: (after condition B, figure 6, BS 5930)	1.3750

PERMEABILITY (after Hvorslev, 1951)
General Approach
H1 selected at $t = -9.3$ m ($=t_1 = 24.6$ secs)
H2 selected at $t = -10.996$ m ($=t_2 = 143.4$ secs)
 $k = -2.01E-04$ ms⁻¹

Elapsed time (mins)	Depth to water (m bgl)	Head of Water, H (m)	Ht / Ho
0.00	8.420	-8.420	1.000
1.00	10.520	-10.520	1.249
2.00	10.890	-10.890	1.293
3.00	11.100	-11.100	1.318
4.00	11.210	-11.210	1.331
5.00	11.300	-11.300	1.342
6.00	11.400	-11.400	1.354
7.00	11.480	-11.480	1.363
8.00	11.540	-11.540	1.371
9.00	11.590	-11.590	1.376
10.00	11.650	-11.650	1.384
11.00	11.700	-11.700	1.390
12.00	11.740	-11.740	1.394
13.00	11.790	-11.790	1.400
14.00	11.840	-11.840	1.406
15.00	11.850	-11.850	1.407
16.00	11.860	-11.860	1.409
17.00	11.880	-11.880	1.411
18.00	11.880	-11.880	1.411
19.00	11.880	-11.880	1.411
20.00	11.880	-11.880	1.411
21.00	11.880	-11.880	1.411
22.00	11.880	-11.880	1.411
23.00	11.880	-11.880	1.411
24.00	11.880	-11.880	1.411
25.00	11.880	-11.880	1.411
26.00	11.880	-11.880	1.411
27.00	11.880	-11.880	1.411
28.00	11.880	-11.880	1.411
29.00	11.880	-11.880	1.411
30.00	11.880	-11.880	1.411



Remarks

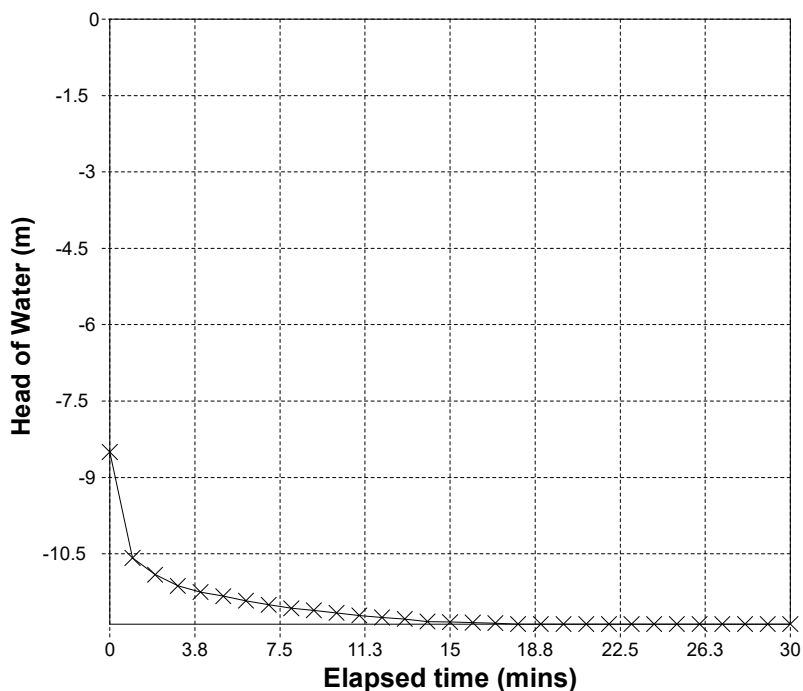
Key: bgl = Below Ground Level btoc = Below Top of Casing

In Situ Permeability Type Falling Head	Test No. 3	Ground Level (mOD) 125.24	Client Virtus Data Centres	Job Number LS8055
	Location 480876.656 E 198542.617 N	Dates 27/02/2025	Project Contractor AL	Sheet 3/3

Height of casing above ground level:	0.00 m
Depth to Base of Borehole:	11.90 m bgl
Depth to Base of Casing:	4.50 m bgl
Depth to equilibrium water level:	m bgl
Test Length L:	7.40 m
Diameter of Test Length D:	0.50 m
Area of Test Section:	0.1963 m ²
Intake Factor F: (after condition B, figure 6, BS 5930)	1.3750

PERMEABILITY (after Hvorslev, 1951)
General Approach
H1 selected at $t = -9.39$ m ($=t_1 = 27.6$ secs)
H2 selected at $t = -11.083$ m ($=t_2 = 154.8$ secs)
 $k = -1.86E-04$ ms⁻¹

Elapsed time (mins)	Depth to water (m bgl)	Head of Water, H (m)	Ht / Ho
0.00	8.500	-8.500	1.000
1.00	10.580	-10.580	1.245
2.00	10.910	-10.910	1.284
3.00	11.130	-11.130	1.309
4.00	11.250	-11.250	1.324
5.00	11.330	-11.330	1.333
6.00	11.420	-11.420	1.344
7.00	11.500	-11.500	1.353
8.00	11.570	-11.570	1.361
9.00	11.610	-11.610	1.366
10.00	11.660	-11.660	1.372
11.00	11.710	-11.710	1.378
12.00	11.750	-11.750	1.382
13.00	11.780	-11.780	1.386
14.00	11.830	-11.830	1.392
15.00	11.840	-11.840	1.393
16.00	11.850	-11.850	1.394
17.00	11.860	-11.860	1.395
18.00	11.880	-11.880	1.398
19.00	11.880	-11.880	1.398
20.00	11.880	-11.880	1.398
21.00	11.880	-11.880	1.398
22.00	11.880	-11.880	1.398
23.00	11.880	-11.880	1.398
24.00	11.880	-11.880	1.398
25.00	11.880	-11.880	1.398
26.00	11.880	-11.880	1.398
27.00	11.880	-11.880	1.398
28.00	11.880	-11.880	1.398
29.00	11.880	-11.880	1.398
30.00	11.880	-11.880	1.398



Remarks

Key: bgl = Below Ground Level btoc = Below Top of Casing



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9873

TEST REPORT: ESTIMATION OF CALIFORNIA BEARING RATIO
Design Manual for Roads and Bridges Vol. 7, Design and Maintenance: IAN 73/06, Revision 1 (2009)

REFERENCE NUMBER : MH25-14319-22-01-25-1 CLIENT : Land Science Ltd
CLIENT REF.: Site Plan ADDRESS : Unit 10, 19 Albert Drive, Burgess Hill
DATE TESTED : 22.01.2025
TECHNICIAN : S.Shea SITE : Haw Lane Bledlow-cum-Saunderton High Wycombe
LOCATION : PLT 01 MATERIAL : Chalk

TEST RESULTS

LOAD APPLIED TO PLATE	AVERAGE BEARING PRESSURE	GAUGE READING			GAUGE SETTLEMENT			AVERAGE SETTLEMENT
		1	2	3	1	2	3	
kN	kN/m ²	mm			mm			mm
0.0	0.0	22.35	21.17	23.05	0.00	0.00	0.00	0
15.0	53.1	21.95	20.56	22.71	0.40	0.61	0.34	0.45
30.0	106.1	21.07	19.55	21.59	1.28	1.62	1.46	1.45
45.0	159.2	20.34	18.96	20.70	2.01	2.21	2.35	2.19
60.0	212.2	19.67	18.42	19.98	2.68	2.75	3.07	2.83
75.0	265.3	19.01	17.86	19.35	3.34	3.31	3.70	3.45

EQUIPMENT DETAILS

Plate Diameter : 600 mm
Plate Area : 0.2827 m²
Plate Correction : 0.80

AVERAGE BEARING PRESSURE

Average Bearing Pressure (P) at 1.25mm penetration

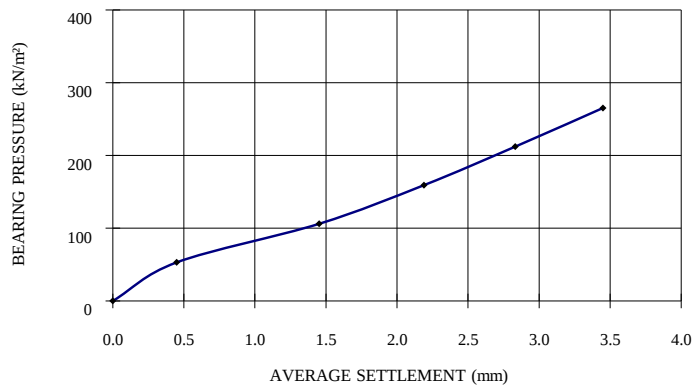
$$P = 95 \text{ kN / m}^2$$

ESTIMATED C.B.R VALUE

Estimated C.B.R at 1.25mm penetration

Estimated C.B.R.=12%

APPLIED LOAD vs SETTLEMENT RELATIONSHIP



Estimated C.B.R.=12%

REMARKS :

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TEST REPORT: ESTIMATION OF CALIFORNIA BEARING RATIO
Design Manual for Roads and Bridges Vol. 7, Design and Maintenance: IAN 73/06, Revision 1 (2009)

REFERENCE NUMBER : MH25-14319-22-01-25-2 CLIENT : Land Science Ltd
CLIENT REF.: Site Plan ADDRESS : Unit 10, 19 Albert Drive, Burgess Hill
DATE TESTED : 22.01.2025
TECHNICIAN : S.Shea SITE : Haw Lane Bledlow-cum-Saunderton High Wycombe
LOCATION : PLT 02 MATERIAL : Chalk

TEST RESULTS

LOAD APPLIED TO PLATE	AVERAGE BEARING PRESSURE	GAUGE READING			GAUGE SETTLEMENT			AVERAGE SETTLEMENT
		1	2	3	1	2	3	
kN	kN/m ²	mm			mm			mm
0.0	0.0	20.59	21.52	22.50	0.00	0.00	0.00	0
15.0	53.1	20.41	21.29	22.30	0.18	0.23	0.20	0.20
30.0	106.1	19.82	20.42	21.60	0.77	1.10	0.90	0.92
45.0	159.2	19.54	19.91	20.93	1.05	1.61	1.57	1.41
60.0	212.2	19.22	19.55	20.48	1.37	1.97	2.02	1.79
75.0	265.3	18.95	19.29	20.18	1.64	2.23	2.32	2.06

EQUIPMENT DETAILS

Plate Diameter : 600 mm
Plate Area : 0.2827 m²
Plate Correction : 0.80

AVERAGE BEARING PRESSURE

Average Bearing Pressure (P) at 1.25mm penetration

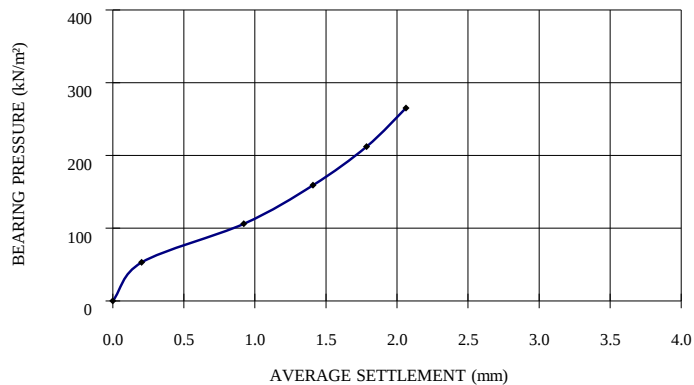
$$P = 142 \text{ kN / m}^2$$

ESTIMATED C.B.R VALUE

Estimated C.B.R at 1.25mm penetration

Estimated C.B.R.=24%

APPLIED LOAD vs SETTLEMENT RELATIONSHIP



Estimated C.B.R.=24%

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TEST REPORT: ESTIMATION OF CALIFORNIA BEARING RATIO
Design Manual for Roads and Bridges Vol. 7, Design and Maintenance: IAN 73/06, Revision 1 (2009)

REFERENCE NUMBER : MH25-14319-20-01-25-1 CLIENT : Land Science Ltd
CLIENT REF.: Site Plan ADDRESS : Unit 10, 19 Albert Drive, Burgess Hill
DATE TESTED : 20.01.25
TECHNICIAN : S Shea SITE : Haw Lane Bledlow-cum-Saunderton High Wycombe
LOCATION : PLT03 MATERIAL : Chalk

TEST RESULTS

LOAD APPLIED TO PLATE	AVERAGE BEARING PRESSURE	GAUGE READING			GAUGE SETTLEMENT			AVERAGE SETTLEMENT
		1	2	3	1	2	3	
kN	kN/m ²	mm			mm			mm
0.0	0.0	21.74	22.62	22.50	0.00	0.00	0.00	0
15.0	53.1	20.93	21.82	21.48	0.81	0.80	1.02	0.88
30.0	106.1	19.17	19.93	19.75	2.57	2.69	2.75	2.67
45.0	159.2	17.80	18.46	18.48	3.94	4.16	4.02	4.04
60.0	212.2	16.76	17.27	17.61	4.98	5.35	4.89	5.07
75.0	265.3	16.05	16.42	17.12	5.69	6.20	5.38	5.76

EQUIPMENT DETAILS

Plate Diameter : 600 mm
Plate Area : 0.2827 m²
Plate Correction : 0.80

AVERAGE BEARING PRESSURE

Average Bearing Pressure (P) at 1.25mm penetration

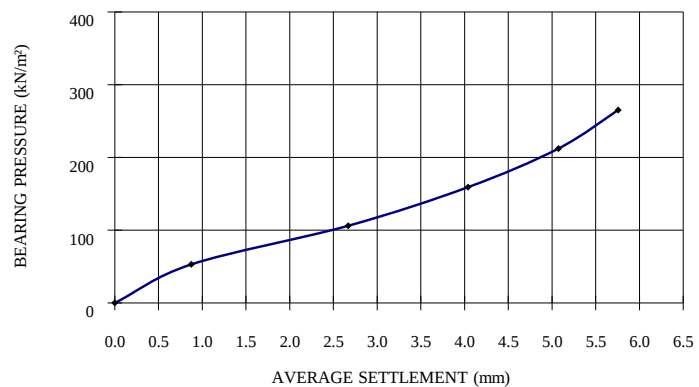
$$P = 64 \text{ kN / m}^2$$

ESTIMATED C.B.R VALUE

Estimated C.B.R at 1.25mm penetration

Estimated C.B.R.=6.1%

APPLIED LOAD vs SETTLEMENT RELATIONSHIP



Estimated C.B.R.=6.1%

REMARKS :

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09

Checked and verified by
Jon Champion
Technical Manager

20-Jan-25



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TEST REPORT: ESTIMATION OF CALIFORNIA BEARING RATIO
Design Manual for Roads and Bridges Vol. 7, Design and Maintenance: IAN 73/06, Revision 1 (2009)

REFERENCE NUMBER : MH25-14319-21-01-25-6 CLIENT : Land Science Ltd
CLIENT REF.: Site Plan ADDRESS : Unit 10, 19 Albert Drive, Burgess Hill
DATE TESTED : 21.01.2025
TECHNICIAN : S.Shea SITE : Haw Lane Bledlow-cum-Saunderton High Wycombe
LOCATION : PLT 04 MATERIAL : Chalk

TEST RESULTS

LOAD APPLIED TO PLATE	AVERAGE BEARING PRESSURE	GAUGE READING			GAUGE SETTLEMENT			AVERAGE SETTLEMENT
		1	2	3	1	2	3	
kN	kN/m ²	mm			mm			mm
0.0	0.0	22.89	22.93	22.04	0.00	0.00	0.00	0
15.0	53.1	22.55	22.68	21.81	0.34	0.25	0.23	0.27
30.0	106.1	21.62	22.09	20.96	1.27	0.84	1.08	1.06
45.0	159.2	20.71	21.53	20.23	2.18	1.40	1.81	1.80
60.0	212.2	19.85	20.97	19.34	3.04	1.96	2.70	2.57
75.0	265.3	19.25	20.41	18.64	3.64	2.52	3.40	3.19

EQUIPMENT DETAILS

Plate Diameter : 600 mm
Plate Area : 0.2827 m²
Plate Correction : 0.80

AVERAGE BEARING PRESSURE

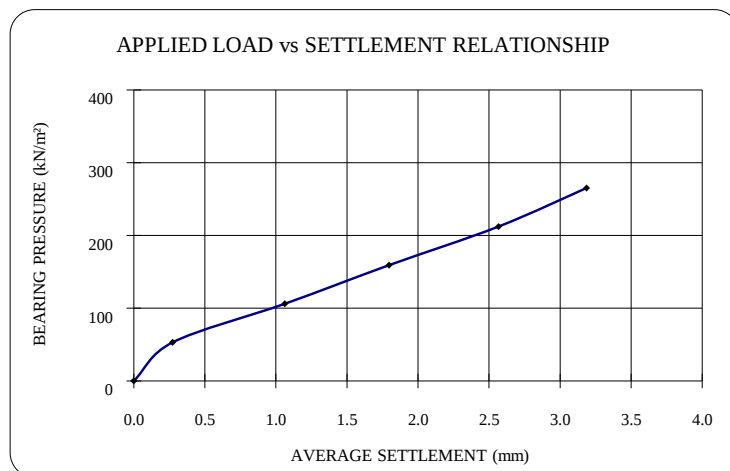
Average Bearing Pressure (P) at 1.25mm penetration

$$P = 120 \text{ kN / m}^2$$

ESTIMATED C.B.R VALUE

Estimated C.B.R at 1.25mm penetration

Estimated C.B.R.=18%



Estimated C.B.R.=18%

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21-Jan-25



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TEST REPORT: ESTIMATION OF CALIFORNIA BEARING RATIO
Design Manual for Roads and Bridges Vol. 7, Design and Maintenance: IAN 73/06, Revision 1 (2009)

REFERENCE NUMBER : MH25-14319-20-01-25-2 CLIENT : Land Science Ltd
CLIENT REF.: Site Plan ADDRESS : Unit 10, 19 Albert Drive, Burgess Hill
DATE TESTED : 20.01.25
TECHNICIAN : S Shea SITE : Haw Lane Bledlow-cum-Saunderton High Wycombe
LOCATION : PLT05 MATERIAL : Chalk

TEST RESULTS

LOAD APPLIED TO PLATE	AVERAGE BEARING PRESSURE	GAUGE READING			GAUGE SETTLEMENT			AVERAGE SETTLEMENT
		1	2	3	1	2	3	
kN	kN/m ²	mm			mm			mm
0.0	0.0	21.83	20.74	22.66	0.00	0.00	0.00	0
15.0	53.1	21.35	20.22	22.20	0.48	0.52	0.46	0.49
30.0	106.1	20.40	19.65	21.32	1.43	1.09	1.34	1.29
45.0	159.2	19.75	19.28	20.35	2.08	1.46	2.31	1.95
60.0	212.2	19.28	18.86	19.61	2.55	1.88	3.05	2.49
75.0	265.3	18.71	18.44	18.80	3.12	2.30	3.86	3.09

EQUIPMENT DETAILS

Plate Diameter : 600 mm
Plate Area : 0.2827 m²
Plate Correction : 0.80

AVERAGE BEARING PRESSURE

Average Bearing Pressure (P) at 1.25mm penetration

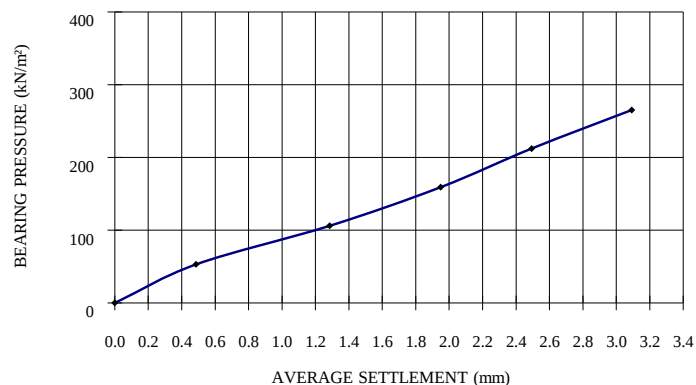
$$P = 104 \text{ kN / m}^2$$

ESTIMATED C.B.R VALUE

Estimated C.B.R at 1.25mm penetration

Estimated C.B.R.=14%

APPLIED LOAD vs SETTLEMENT RELATIONSHIP



Estimated C.B.R.=14%

REMARKS :

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TEST REPORT:

ESTIMATION OF CALIFORNIA BEARING RATIO

Design Manual for Roads and Bridges Vol. 7, Design and Maintenance: IAN 73/06, Revision 1 (2009)

REFERENCE NUMBER : MH25-14319-20-01-25-4

CLIENT : Land Science Ltd

CLIENT REF.: Site Plan

ADDRESS : Unit 10, 19 Albert Drive, Burgess Hill

DATE TESTED : 20.01.25

TECHNICIAN : S Shea

SITE : Haw Lane Bledlow-cum-Saunderton High Wycombe

LOCATION : PLT06

MATERIAL : Chalk

TEST RESULTS

LOAD APPLIED TO PLATE	AVERAGE BEARING PRESSURE	GAUGE READING			GAUGE SETTLEMENT			AVERAGE SETTLEMENT
		1	2	3	1	2	3	
kN	kN/m ²	mm			mm			mm
0.0	0.0	20.51	21.29	20.88	0.00	0.00	0.00	0
15.0	53.1	20.06	20.80	20.25	0.45	0.49	0.63	0.52
30.0	106.1	18.52	19.26	18.20	1.99	2.03	2.68	2.23
45.0	159.2	16.87	17.74	16.45	3.64	3.55	4.43	3.87
60.0	212.2	15.79	16.58	15.23	4.72	4.71	5.65	5.03
75.0	265.3	14.76	15.47	14.09	5.75	5.82	6.79	6.12

EQUIPMENT DETAILS

Plate Diameter : 600 mm

Plate Area : 0.2827 m²

Plate Correction : 0.80

AVERAGE BEARING PRESSURE

Average Bearing Pressure (P) at 1.25mm penetration

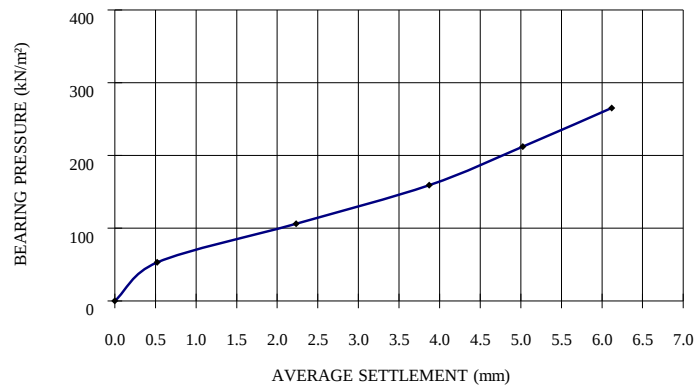
$$P = 76 \text{ kN / m}^2$$

ESTIMATED C.B.R VALUE

Estimated C.B.R at 1.25mm penetration

Estimated C.B.R.=8.2%

APPLIED LOAD vs SETTLEMENT RELATIONSHIP



Estimated C.B.R.=8.2%

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Checked and verified by
Jon Champion
Technical Manager

20-Jan-25



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TEST REPORT:

ESTIMATION OF CALIFORNIA BEARING RATIO

Design Manual for Roads and Bridges Vol. 7, Design and Maintenance: IAN 73/06, Revision 1 (2009)

REFERENCE NUMBER : MH25-14319-20-01-25-3

CLIENT : Land Science Ltd

CLIENT REF.: Site Plan

ADDRESS : Unit 10, 19 Albert Drive, Burgess Hill

DATE TESTED : 20.01.25

TECHNICIAN : S Shea

SITE : Haw Lane Bledlow-cum-Saunderton High Wycombe

LOCATION : PLT07

MATERIAL : Chalk

TEST RESULTS

LOAD APPLIED TO PLATE	AVERAGE BEARING PRESSURE	GAUGE READING			GAUGE SETTLEMENT			AVERAGE SETTLEMENT
		1	2	3	1	2	3	
kN	kN/m ²	mm			mm			mm
0.0	0.0	22.49	21.92	22.87	0.00	0.00	0.00	0
15.0	53.1	22.13	21.52	22.45	0.36	0.40	0.42	0.39
30.0	106.1	21.60	21.02	21.62	0.89	0.90	1.25	1.01
45.0	159.2	21.07	20.68	21.19	1.42	1.24	1.68	1.45
60.0	212.2	20.48	20.08	20.30	2.01	1.84	2.57	2.14
75.0	265.3	20.01	19.62	19.52	2.48	2.30	3.35	2.71

EQUIPMENT DETAILS

Plate Diameter : 600 mm

Plate Area : 0.2827 m²

Plate Correction : 0.80

AVERAGE BEARING PRESSURE

Average Bearing Pressure (P) at 1.25mm penetration

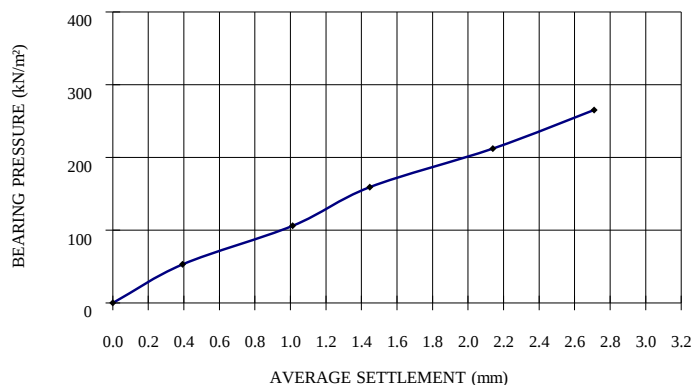
$$P = 135 \text{ kN / m}^2$$

ESTIMATED C.B.R VALUE

Estimated C.B.R at 1.25mm penetration

Estimated C.B.R.=22%

APPLIED LOAD vs SETTLEMENT RELATIONSHIP



Estimated C.B.R.=22%

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Jon Chapman
Technical Manager

20-Jan-25



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Design Manual for Roads and Bridges Vol. 7, Design and Maintenance: IAN 73/06, Revision 1 (2009)

REFERENCE NUMBER : MH25-14319-20-01-25-7 CLIENT : Land Science Ltd
CLIENT REF.: Site Plan ADDRESS : Unit 10, 19 Albert Drive, Burgess Hill
DATE TESTED : 20.01.25
TECHNICIAN : S Shea SITE : Haw Lane Bledlow-cum-Saunderton High Wycombe
LOCATION : PLT08 MATERIAL : Chalk

TEST RESULTS

LOAD APPLIED TO PLATE	AVERAGE BEARING PRESSURE	GAUGE READING			GAUGE SETTLEMENT			AVERAGE SETTLEMENT
		1	2	3	1	2	3	
kN	kN/m ²	mm			mm			mm
0.0	0.0	21.56	20.15	21.14	0.00	0.00	0.00	0
15.0	53.1	20.82	19.51	20.59	0.74	0.64	0.55	0.64
30.0	106.1	19.14	18.15	19.08	2.42	2.00	2.06	2.16
45.0	159.2	17.90	16.87	17.95	3.66	3.28	3.19	3.38
60.0	212.2	16.31	15.83	17.02	5.25	4.32	4.12	4.56
75.0	265.3	14.63	14.71	15.13	6.93	5.44	6.01	6.13

EQUIPMENT DETAILS

Plate Diameter : 600 mm
Plate Area : 0.2827 m²
Plate Correction : 0.80

AVERAGE BEARING PRESSURE

Average Bearing Pressure (P) at 1.25mm penetration

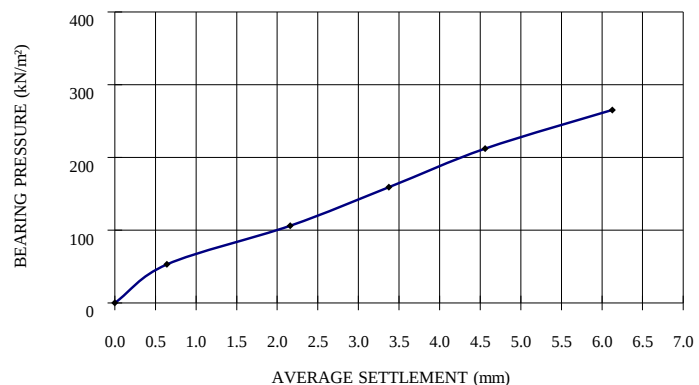
$$P = 74 \text{ kN / m}^2$$

ESTIMATED C.B.R VALUE

Estimated C.B.R at 1.25mm penetration

Estimated C.B.R.=7.8%

APPLIED LOAD vs SETTLEMENT RELATIONSHIP



Estimated C.B.R.=7.8%

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Technical Manager

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Design Manual for Roads and Bridges Vol. 7, Design and Maintenance: IAN 73/06, Revision 1 (2009)

REFERENCE NUMBER : MH25-14319-21-01-25-1 CLIENT : Land Science Ltd
CLIENT REF.: Site Plan ADDRESS : Unit 10, 19 Albert Drive, Burgess Hill
DATE TESTED : 21.01.2025
TECHNICIAN : S.Shea SITE : Haw Lane Bledlow-cum-Saunderton High Wycombe
LOCATION : PLT 09 MATERIAL : Chalk

TEST RESULTS

LOAD APPLIED TO PLATE	AVERAGE BEARING PRESSURE	GAUGE READING			GAUGE SETTLEMENT			AVERAGE SETTLEMENT
		1	2	3	1	2	3	
kN	kN/m ²	mm			mm			mm
0.0	0.0	21.29	21.50	20.44	0.00	0.00	0.00	0
15.0	53.1	21.25	21.44	20.35	0.04	0.06	0.09	0.06
30.0	106.1	21.03	21.21	19.80	0.26	0.29	0.64	0.40
45.0	159.2	20.90	20.06	19.57	0.39	1.44	0.87	0.90
60.0	212.2	20.80	19.94	19.31	0.49	1.56	1.13	1.06
75.0	265.3	20.54	19.60	18.82	0.75	1.90	1.62	1.42

EQUIPMENT DETAILS

Plate Diameter : 600 mm
Plate Area : 0.2827 m²
Plate Correction : 0.80

AVERAGE BEARING PRESSURE

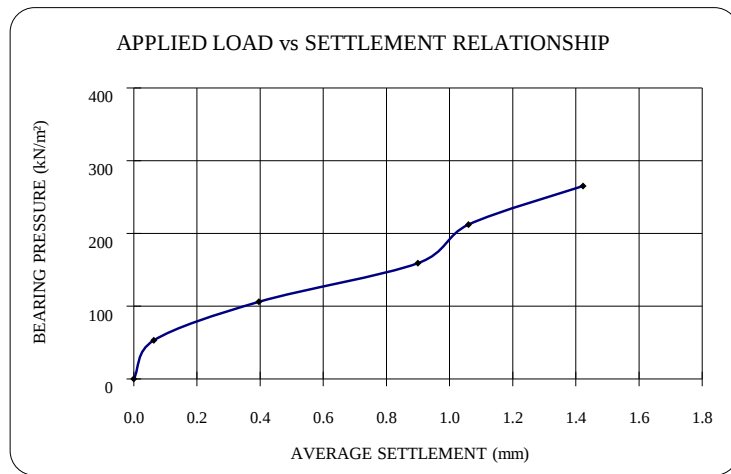
Average Bearing Pressure (P) at 1.25mm penetration

$$P = 240 \text{ kN / m}^2$$

ESTIMATED C.B.R VALUE

Estimated C.B.R at 1.25mm penetration

Estimated C.B.R.=60%



Estimated C.B.R.=60%

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Design Manual for Roads and Bridges Vol. 7, Design and Maintenance: IAN 73/06, Revision 1 (2009)

REFERENCE NUMBER : MH25-14319-20-01-25-5 CLIENT : Land Science Ltd

CLIENT REF.: Site Plan ADDRESS : Unit 10, 19 Albert Drive, Burgess Hill

DATE TESTED : 20.01.25

TECHNICIAN : S Shea SITE : Haw Lane Bledlow-cum-Saunderton High Wycombe

LOCATION : PLT 10 MATERIAL : Chalk

TEST RESULTS

LOAD APPLIED TO PLATE kN	AVERAGE BEARING PRESSURE kN/m ²	GAUGE READING			GAUGE SETTLEMENT			AVERAGE SETTLEMENT mm
		1	2	3	1	2	3	
		mm			mm			
0.0	0.0	22.84	22.98	22.69	0.00	0.00	0.00	0
15.0	53.1	22.44	22.53	22.28	0.40	0.45	0.41	0.42
30.0	106.1	21.40	21.25	21.14	1.44	1.73	1.55	1.57
45.0	159.2	20.38	20.17	20.30	2.46	2.81	2.39	2.55
60.0	212.2	19.56	19.23	19.62	3.28	3.75	3.07	3.37
75.0	265.3	18.79	18.36	19.04	4.05	4.62	3.65	4.11

EQUIPMENT DETAILS

Plate Diameter : 600 mm
Plate Area : 0.2827 m²
Plate Correction : 0.80

AVERAGE BEARING PRESSURE

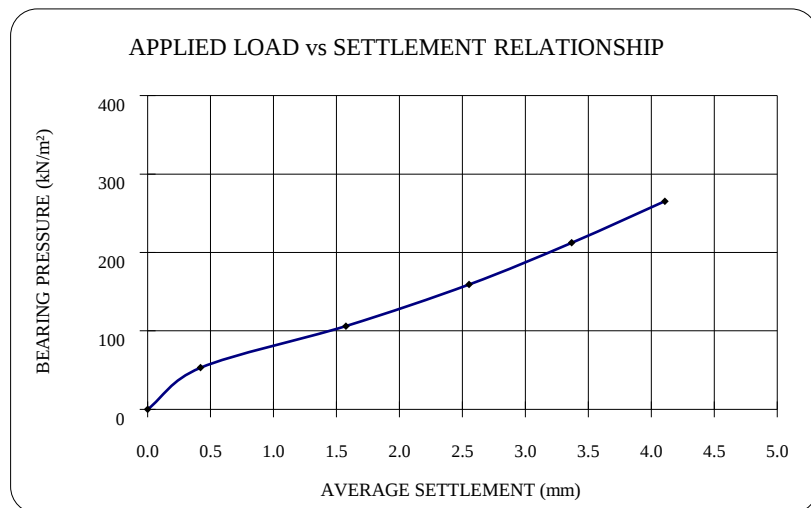
Average Bearing Pressure (P) at 1.25mm penetration

$$P = 91 \text{ kN / m}^2$$

ESTIMATED C.B.R VALUE

Estimated C.B.R at 1.25mm penetration

Estimated C.B.R.=11%



Estimated C.B.R.=11%

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[Signature]

Checked and verified by
Ian Champion
General Manager

20-Jan-25



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Design Manual for Roads and Bridges Vol. 7, Design and Maintenance: IAN 73/06, Revision 1 (2009)

REFERENCE NUMBER : MH25-14319-20-01-25-6 CLIENT : Land Science Ltd
CLIENT REF.: Site Plan ADDRESS : Unit 10, 19 Albert Drive, Burgess Hill
DATE TESTED : 20.01.25
TECHNICIAN : S Shea SITE : Haw Lane Bledlow-cum-Saunderton High Wycombe
LOCATION : PLT11 MATERIAL : Chalk

TEST RESULTS

LOAD APPLIED TO PLATE	AVERAGE BEARING PRESSURE	GAUGE READING			GAUGE SETTLEMENT			AVERAGE SETTLEMENT
		1	2	3	1	2	3	
kN	kN/m ²	mm			mm			mm
0.0	0.0	23.07	22.53	21.95	0.00	0.00	0.00	0
15.0	53.1	22.75	22.14	21.59	0.32	0.39	0.36	0.36
30.0	106.1	21.97	20.90	20.38	1.10	1.63	1.57	1.43
45.0	159.2	20.95	19.72	18.87	2.12	2.81	3.08	2.67
60.0	212.2	20.06	18.70	17.49	3.01	3.83	4.46	3.77
75.0	265.3	19.14	17.65	16.35	3.93	4.88	5.60	4.80

EQUIPMENT DETAILS

Plate Diameter : 600 mm
Plate Area : 0.2827 m²
Plate Correction : 0.80

AVERAGE BEARING PRESSURE

Average Bearing Pressure (P) at 1.25mm penetration

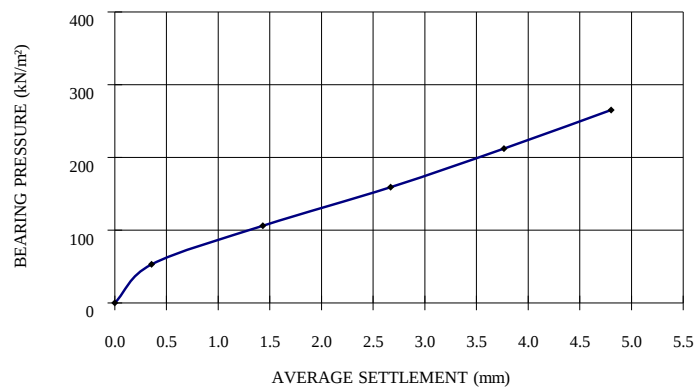
$$P = 97 \text{ kN / m}^2$$

ESTIMATED C.B.R VALUE

Estimated C.B.R at 1.25mm penetration

Estimated C.B.R.=12%

APPLIED LOAD vs SETTLEMENT RELATIONSHIP



Estimated C.B.R.=12%

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Checked and verified by
Jon Chapman
Technical Manager

20-Jan-25



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REFERENCE NUMBER : MH25-14319-21-01-25-5 CLIENT : Land Science Ltd
CLIENT REF.: Site Plan ADDRESS : Unit 10, 19 Albert Drive, Burgess Hill
DATE TESTED : 21.01.2025
TECHNICIAN : S.Shea SITE : Haw Lane Bledlow-cum-Saunderton High Wycombe
LOCATION : PLT 12 MATERIAL : Chalk

TEST RESULTS

LOAD APPLIED TO PLATE	AVERAGE BEARING PRESSURE	GAUGE READING			GAUGE SETTLEMENT			AVERAGE SETTLEMENT
		1	2	3	1	2	3	
kN	kN/m ²	mm			mm			mm
0.0	0.0	22.52	21.95	22.86	0.00	0.00	0.00	0
15.0	53.1	21.99	21.20	22.39	0.53	0.75	0.47	0.58
30.0	106.1	19.45	18.44	19.77	3.07	3.51	3.09	3.22
45.0	159.2	16.55	15.49	16.91	5.97	6.46	5.95	6.13
60.0	212.2	14.42	13.10	14.22	8.10	8.85	8.64	8.53
75.0	265.3	11.28	10.15	11.70	11.24	11.80	11.16	11.40

EQUIPMENT DETAILS

Plate Diameter : 600 mm
Plate Area : 0.2827 m²
Plate Correction : 0.80

AVERAGE BEARING PRESSURE

Average Bearing Pressure (P) at 1.25mm penetration

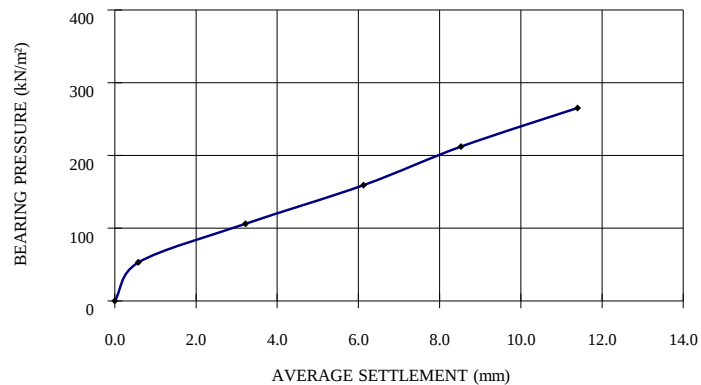
$$P = 66 \text{ kN / m}^2$$

ESTIMATED C.B.R VALUE

Estimated C.B.R at 1.25mm penetration

Estimated C.B.R.=6.4%

APPLIED LOAD vs SETTLEMENT RELATIONSHIP



Estimated C.B.R.=6.4%

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REFERENCE NUMBER : MH25-14319-21-01-25-2 CLIENT : Land Science Ltd
CLIENT REF.: Site Plan ADDRESS : Unit 10, 19 Albert Drive, Burgess Hill
DATE TESTED : 21.01.2025
TECHNICIAN : S.Shea SITE : Haw Lane Bledlow-cum-Saunderton High Wycombe
LOCATION : PLT 13 MATERIAL : Chalk

TEST RESULTS

LOAD APPLIED TO PLATE	AVERAGE BEARING PRESSURE	GAUGE READING			GAUGE SETTLEMENT			AVERAGE SETTLEMENT
		1	2	3	1	2	3	
kN	kN/m ²	mm			mm			mm
0.0	0.0	22.53	22.49	22.40	0.00	0.00	0.00	0
15.0	53.1	22.45	22.30	22.28	0.08	0.19	0.12	0.13
30.0	106.1	21.41	21.15	21.11	1.12	1.34	1.29	1.25
45.0	159.2	20.73	20.70	20.30	1.80	1.79	2.10	1.90
60.0	212.2	20.18	20.33	19.49	2.35	2.16	2.91	2.47
75.0	265.3	19.43	19.59	18.71	3.10	2.90	3.69	3.23

EQUIPMENT DETAILS

Plate Diameter : 600 mm
Plate Area : 0.2827 m²
Plate Correction : 0.80

AVERAGE BEARING PRESSURE

Average Bearing Pressure (P) at 1.25mm penetration

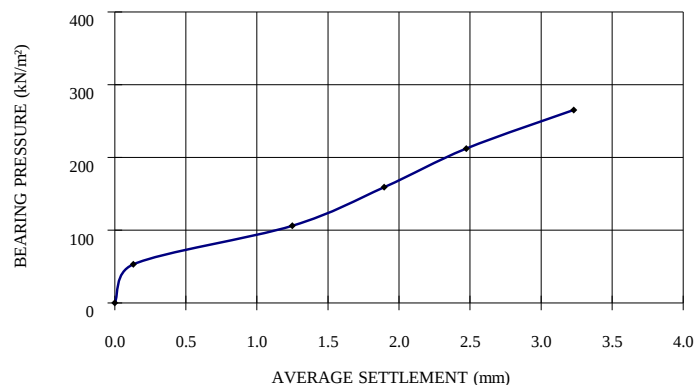
$$P = 106 \text{ kN / m}^2$$

ESTIMATED C.B.R VALUE

Estimated C.B.R at 1.25mm penetration

Estimated C.B.R.=15%

APPLIED LOAD vs SETTLEMENT RELATIONSHIP



Estimated C.B.R.=15%

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REFERENCE NUMBER : MH25-14319-21-01-25-3 CLIENT : Land Science Ltd
CLIENT REF.: Site Plan ADDRESS : Unit 10, 19 Albert Drive, Burgess Hill
DATE TESTED : 21.01.2025
TECHNICIAN : S.Shea SITE : Haw Lane Bledlow-cum-Saunderton High Wycombe
LOCATION : PLT 14 MATERIAL : Chalk

TEST RESULTS

LOAD APPLIED TO PLATE	AVERAGE BEARING PRESSURE	GAUGE READING			GAUGE SETTLEMENT			AVERAGE SETTLEMENT
		1	2	3	1	2	3	
kN	kN/m ²	mm			mm			mm
0.0	0.0	23.46	22.23	24.31	0.00	0.00	0.00	0
15.0	53.1	22.98	21.80	23.82	0.48	0.43	0.49	0.47
30.0	106.1	22.17	21.68	23.17	1.29	0.55	1.14	0.99
45.0	159.2	21.70	19.97	22.80	1.76	2.26	1.51	1.84
60.0	212.2	21.37	19.40	22.45	2.09	2.83	1.86	2.26
75.0	265.3	21.05	18.96	22.02	2.41	3.27	2.29	2.66

EQUIPMENT DETAILS

Plate Diameter : 600 mm
Plate Area : 0.2827 m²
Plate Correction : 0.80

AVERAGE BEARING PRESSURE

Average Bearing Pressure (P) at 1.25mm penetration

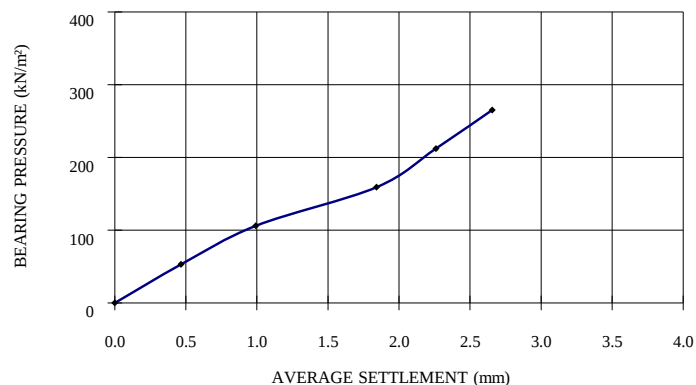
$$P = 122 \text{ kN / m}^2$$

ESTIMATED C.B.R VALUE

Estimated C.B.R at 1.25mm penetration

Estimated C.B.R.=19%

APPLIED LOAD vs SETTLEMENT RELATIONSHIP



Estimated C.B.R.=19%

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TEST REPORT: **ESTIMATION OF CALIFORNIA BEARING RATIO**
Design Manual for Roads and Bridges Vol. 7, Design and Maintenance: IAN 73/06, Revision 1 (2009)

REFERENCE NUMBER : MH25-14319-22-01-25-5 CLIENT : Land Science Ltd
CLIENT REF.: Site Plan ADDRESS : Unit 10, 19 Albert Drive, Burgess Hill
DATE TESTED : 22.01.2025
TECHNICIAN : S.Shea SITE : Haw Lane Bledlow-cum-Saunderton High Wycombe
LOCATION : PLT 15 MATERIAL : Chalk

TEST RESULTS

LOAD APPLIED TO PLATE	AVERAGE BEARING PRESSURE	GAUGE READING			GAUGE SETTLEMENT			AVERAGE SETTLEMENT
		1	2	3	1	2	3	
kN	kN/m ²	mm			mm			mm
0.0	0.0	20.30	21.97	21.04	0.00	0.00	0.00	0
15.0	53.1	19.62	20.67	20.15	0.68	1.30	0.89	0.96
30.0	106.1	18.30	19.08	18.37	2.00	2.89	2.67	2.52
45.0	159.2	17.87	18.51	17.02	2.43	3.46	4.02	3.30
60.0	212.2	17.30	17.91	15.93	3.00	4.06	5.11	4.06
75.0	265.3	16.33	17.07	14.80	3.97	4.90	6.24	5.04

EQUIPMENT DETAILS

Plate Diameter : 600 mm
Plate Area : 0.2827 m²
Plate Correction : 0.80

AVERAGE BEARING PRESSURE

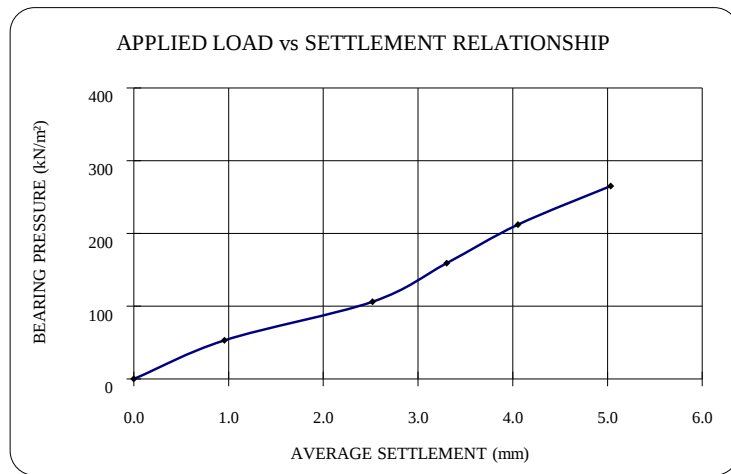
Average Bearing Pressure (P) at 1.25mm penetration

$$P = 63 \text{ kN / m}^2$$

ESTIMATED C.B.R VALUE

Estimated C.B.R at 1.25mm penetration

Estimated C.B.R.=5.9%



Estimated C.B.R.=5.9%

REMARKS :

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22-Jan-25



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9873

TEST REPORT: ESTIMATION OF CALIFORNIA BEARING RATIO
Design Manual for Roads and Bridges Vol. 7, Design and Maintenance: IAN 73/06, Revision 1 (2009)

REFERENCE NUMBER : MH25-14319-21-01-25-4 CLIENT : Land Science Ltd
CLIENT REF.: Site Plan ADDRESS : Unit 10, 19 Albert Drive, Burgess Hill
DATE TESTED : 21.01.2025
TECHNICIAN : S.Shea SITE : Haw Lane Bledlow-cum-Saunderton High Wycombe
LOCATION : PLT 16 MATERIAL : Chalk

TEST RESULTS

LOAD APPLIED TO PLATE	AVERAGE BEARING PRESSURE	GAUGE READING			GAUGE SETTLEMENT			AVERAGE SETTLEMENT
		1	2	3	1	2	3	
kN	kN/m ²	mm			mm			mm
0.0	0.0	22.01	22.97	21.46	0.00	0.00	0.00	0
15.0	53.1	21.40	22.35	20.81	0.61	0.62	0.65	0.63
30.0	106.1	19.51	20.92	18.70	2.50	2.05	2.76	2.44
45.0	159.2	17.45	19.65	16.82	4.56	3.32	4.64	4.17
60.0	212.2	15.46	18.29	14.86	6.55	4.68	6.60	5.94
75.0	265.3	12.90	16.45	12.25	9.11	6.52	9.21	8.28

EQUIPMENT DETAILS

Plate Diameter : 600 mm
Plate Area : 0.2827 m²
Plate Correction : 0.80

AVERAGE BEARING PRESSURE

Average Bearing Pressure (P) at 1.25mm penetration

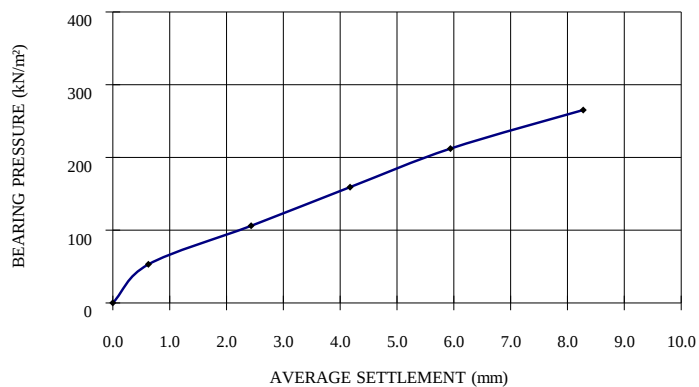
$$P = 71 \text{ kN / m}^2$$

ESTIMATED C.B.R VALUE

Estimated C.B.R at 1.25mm penetration

Estimated C.B.R.=7.3%

APPLIED LOAD vs SETTLEMENT RELATIONSHIP



Estimated C.B.R.=7.3%

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TEST REPORT: ESTIMATION OF CALIFORNIA BEARING RATIO
Design Manual for Roads and Bridges Vol. 7, Design and Maintenance: IAN 73/06, Revision 1 (2009)

REFERENCE NUMBER : MH25-14319-21-01-25-8 CLIENT : Land Science Ltd
CLIENT REF.: Site Plan ADDRESS : Unit 10, 19 Albert Drive, Burgess Hill
DATE TESTED : 21.01.2025
TECHNICIAN : S.Shea SITE : Haw Lane Bledlow-cum-Saunderton High Wycombe
LOCATION : PLT 18 MATERIAL : Chalk

TEST RESULTS

LOAD APPLIED TO PLATE	AVERAGE BEARING PRESSURE	GAUGE READING			GAUGE SETTLEMENT			AVERAGE SETTLEMENT
		1	2	3	1	2	3	
kN	kN/m ²	mm			mm			mm
0.0	0.0	22.61	23.26	22.90	0.00	0.00	0.00	0
15.0	53.1	21.87	21.95	21.88	0.74	1.31	1.02	1.02
30.0	106.1	18.70	17.70	19.17	3.91	5.56	3.73	4.40
45.0	159.2	16.50	14.43	16.57	6.11	8.83	6.33	7.09
60.0	212.2	15.25	12.29	15.04	7.36	10.97	7.86	8.73
75.0	265.3	13.88	10.18	12.70	8.73	13.08	10.20	10.67

EQUIPMENT DETAILS

Plate Diameter : 600 mm
Plate Area : 0.2827 m²
Plate Correction : 0.80

AVERAGE BEARING PRESSURE

Average Bearing Pressure (P) at 1.25mm penetration

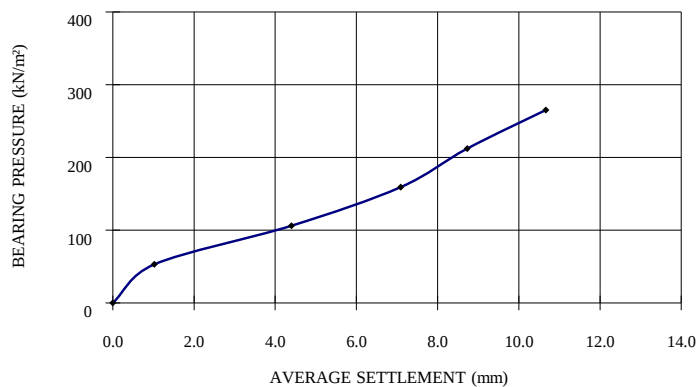
$$P = 57 \text{ kN / m}^2$$

ESTIMATED C.B.R VALUE

Estimated C.B.R at 1.25mm penetration

Estimated C.B.R.=5.0%

APPLIED LOAD vs SETTLEMENT RELATIONSHIP



Estimated C.B.R.=5.0%

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TEST REPORT: **ESTIMATION OF CALIFORNIA BEARING RATIO**
Design Manual for Roads and Bridges Vol. 7, Design and Maintenance: IAN 73/06, Revision 1 (2009)

REFERENCE NUMBER : MH25-14319-21-01-25-7 CLIENT : Land Science Ltd
CLIENT REF.: Site Plan ADDRESS : Unit 10, 19 Albert Drive, Burgess Hill
DATE TESTED : 21.01.2025
TECHNICIAN : S.Shea SITE : Haw Lane Bledlow-cum-Saunderton High Wycombe
LOCATION : PLT 19 MATERIAL : Chalk

TEST RESULTS

LOAD APPLIED TO PLATE	AVERAGE BEARING PRESSURE	GAUGE READING			GAUGE SETTLEMENT			AVERAGE SETTLEMENT
		1	2	3	1	2	3	
kN	kN/m ²	mm			mm			mm
0.0	0.0	20.79	20.33	19.66	0.00	0.00	0.00	0
15.0	53.1	20.24	19.71	19.15	0.55	0.62	0.51	0.56
30.0	106.1	18.62	18.26	17.98	2.17	2.07	1.68	1.97
45.0	159.2	14.80	14.42	13.95	5.99	5.91	5.71	5.87
60.0	212.2	9.62	9.87	8.65	11.17	10.46	11.01	10.88
75.0	265.3	4.42	4.40	3.10	16.37	15.93	16.56	16.29

EQUIPMENT DETAILS

Plate Diameter : 600 mm
Plate Area : 0.2827 m²
Plate Correction : 0.80

AVERAGE BEARING PRESSURE

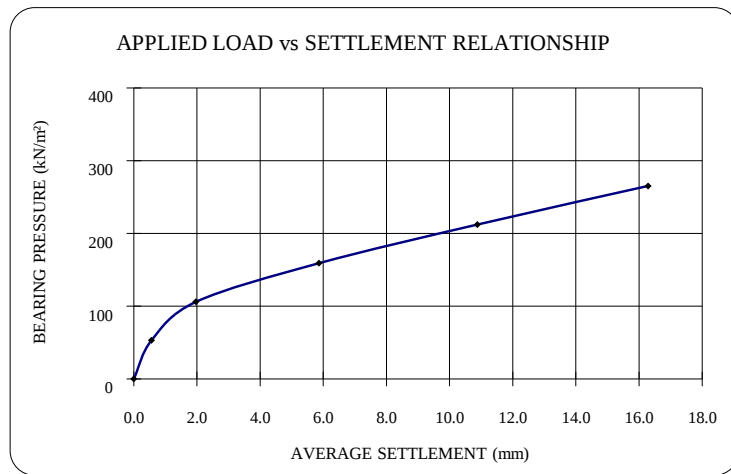
Average Bearing Pressure (P) at 1.25mm penetration

$$P = 79 \text{ kN / m}^2$$

ESTIMATED C.B.R VALUE

Estimated C.B.R at 1.25mm penetration

Estimated C.B.R.=8.7%



Estimated C.B.R.=8.7%

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Design Manual for Roads and Bridges Vol. 7, Design and Maintenance: IAN 73/06, Revision 1 (2009)

REFERENCE NUMBER : MH25-14319-22-01-25-4 CLIENT : Land Science Ltd
CLIENT REF.: Site Plan ADDRESS : Unit 10, 19 Albert Drive, Burgess Hill
DATE TESTED : 22.01.2025
TECHNICIAN : S.Shea SITE : Haw Lane Bledlow-cum-Saunderton High Wycombe
LOCATION : PLT 20 MATERIAL : Mixed Made Ground Occ. Chalk

TEST RESULTS

LOAD APPLIED TO PLATE	AVERAGE BEARING PRESSURE	GAUGE READING			GAUGE SETTLEMENT			AVERAGE SETTLEMENT
		1	2	3	1	2	3	
kN	kN/m ²	mm			mm			mm
0.0	0.0	22.83	23.98	24.15	0.00	0.00	0.00	0
15.0	53.1	21.85	23.02	23.22	0.98	0.96	0.93	0.96
30.0	106.1	20.31	21.96	21.94	2.52	2.02	2.21	2.25
45.0	159.2	18.72	20.15	20.33	4.11	3.83	3.82	3.92
60.0	212.2	16.50	17.62	18.01	6.33	6.36	6.14	6.28
75.0	265.3	14.82	15.03	16.06	8.01	8.95	8.09	8.35

EQUIPMENT DETAILS

Plate Diameter : 600 mm
Plate Area : 0.2827 m²
Plate Correction : 0.80

AVERAGE BEARING PRESSURE

Average Bearing Pressure (P) at 1.25mm penetration

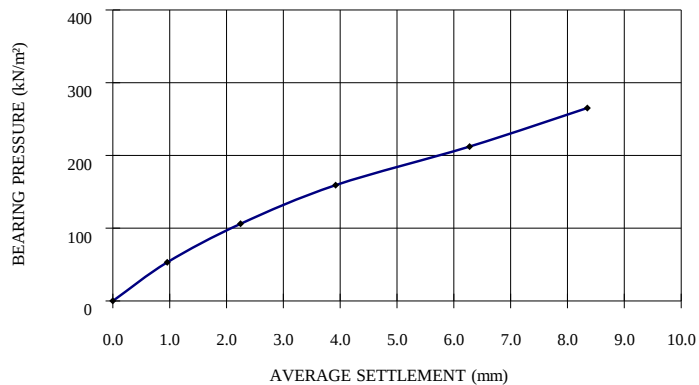
$$P = 65 \text{ kN / m}^2$$

ESTIMATED C.B.R VALUE

Estimated C.B.R at 1.25mm penetration

Estimated C.B.R.=6.2%

APPLIED LOAD vs SETTLEMENT RELATIONSHIP



Estimated C.B.R.=6.2%

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Design Manual for Roads and Bridges Vol. 7, Design and Maintenance: IAN 73/06, Revision 1 (2009)

REFERENCE NUMBER : MH25-14319-22-01-25-3 CLIENT : Land Science Ltd
CLIENT REF.: Site Plan ADDRESS : Unit 10, 19 Albert Drive, Burgess Hill
DATE TESTED : 22.01.2025
TECHNICIAN : S.Shea SITE : Haw Lane Bledlow-cum-Saunderton High Wycombe
LOCATION : PLT 21 MATERIAL : Chalk

TEST RESULTS

LOAD APPLIED TO PLATE	AVERAGE BEARING PRESSURE	GAUGE READING			GAUGE SETTLEMENT			AVERAGE SETTLEMENT
		1	2	3	1	2	3	
kN	kN/m ²	mm			mm			mm
0.0	0.0	21.90	21.27	22.20	0.00	0.00	0.00	0
15.0	53.1	21.34	21.20	21.32	0.56	0.07	0.88	0.50
30.0	106.1	17.35	16.42	17.73	4.55	4.85	4.47	4.62
45.0	159.2	12.09	10.22	12.41	9.81	11.05	9.79	10.22
60.0	212.2	7.85	5.03	6.62	14.05	16.24	15.58	15.29
67.5	238.8	4.20	4.52	2.40	17.70	16.75	19.80	18.08

EQUIPMENT DETAILS

Plate Diameter : 600 mm
Plate Area : 0.2827 m²
Plate Correction : 0.80

AVERAGE BEARING PRESSURE

Average Bearing Pressure (P) at 1.25mm penetration

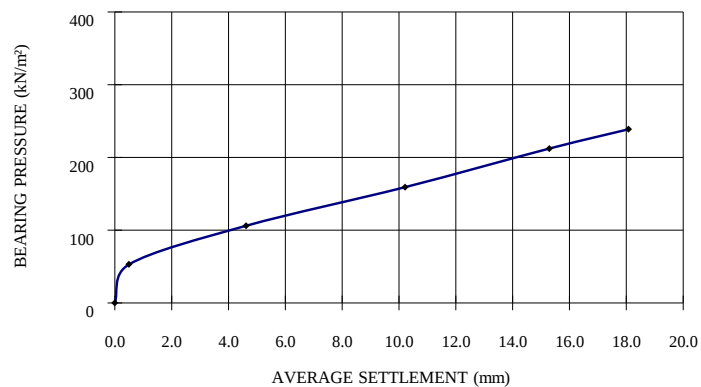
$$P = 63 \text{ kN / m}^2$$

ESTIMATED C.B.R VALUE

Estimated C.B.R at 1.25mm penetration

Estimated C.B.R.=5.9%

APPLIED LOAD vs SETTLEMENT RELATIONSHIP



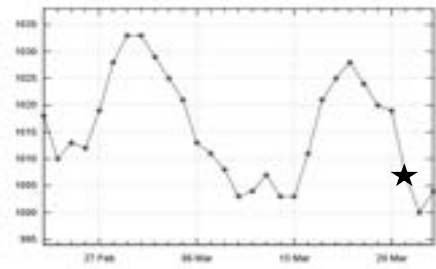
Estimated C.B.R.=5.9%

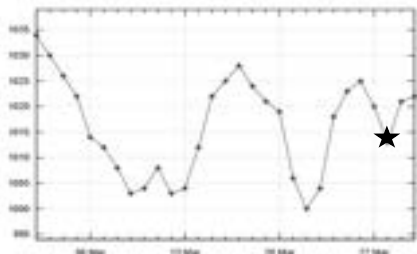
REMARKS :

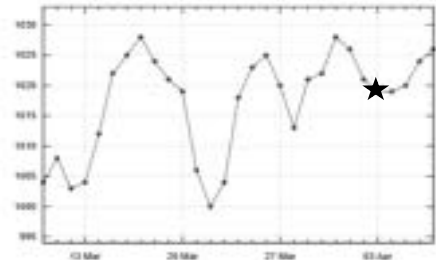
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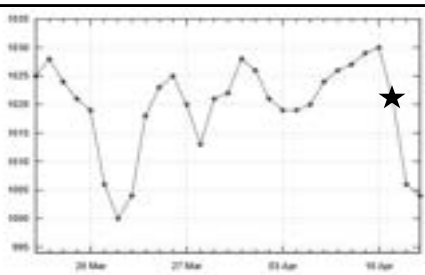
22-Jan-25

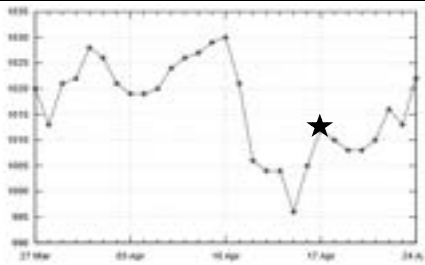
APPENDIX C

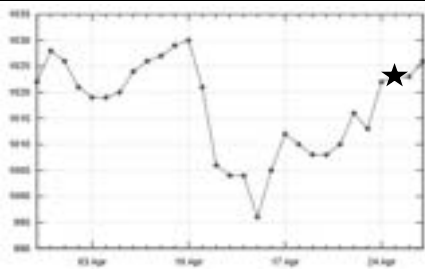
GROUND GAS AND GROUNDWATER MONITORING												
Project: Haw Lane, Saunderton			Ref: LS8055									
Date: 21/03/2025			Visit: 1 of 6									
Engineer: ON			Check: SW									
Weather: Sunny			Page: 1 of 1									
Atmospheric Pressure			before: 989mB									
			after: 989mB									
Published pressure trend:			Falling intermediate pressure. (London Heathrow AP)									
Remarks:			Equipment used: GFM 435, Phocheck TigerLT PID, Dipmeter									
Position	Flow (l/hr)		Common Gases (%)				VOC's (ppm)	Groundwater (m)				Remarks
	High	Low	Time	CO2	CH4	O2		LNAPL	Water	DNAPL	Base	
Calibration Check	0.0	0.0	15s	0.0	0.0	20.4	0.0	-	-	-	-	Calibration Check Passed
			30s	0.0	0.0	20.4						
			60s	0.0	0.0	20.4						
BH10	0.0	0.0	15s	0.0	0.0	20.1	0.5	-	Dry	-	5.00	Security cover knocked open and bung had been filled with chalk - bung replaced
			30s	0.0	0.0	20.7						
			60s	0.0	0.0	20.6						
			120s	0.0	0.0	20.6						
			180s	0.0	0.0	20.6						
			240s	0.0	0.0	20.6						
			300s	0.0	0.0	20.6						
BH12	0.0	0.0	15s	0.0	0.0	20.6	3.5	-	13.80	-	15.00	Water sample attempted - too much chalk in GW for bailer / geopump
			30s	0.0	0.0	20.5						
			60s	0.0	0.0	20.5						
			120s	0.0	0.0	20.5						
			180s	0.0	0.0	20.5						
			240s	0.0	0.0	20.5						
			300s	0.0	0.0	20.5						
BH15	0.0	0.0	15s	0.4	0.0	19.3	0.5	-	Dry	-	5.20	Soft chalk at base
			30s	0.0	0.0	20.4						
			60s	0.0	0.0	20.4						
			120s	0.0	0.0	20.4						
			180s	0.0	0.0	20.4						
			240s	0.0	0.0	20.4						
			300s	0.0	0.0	20.4						
BH19	0.0	0.0	15s	0.4	0.0	19.3	0.4	-	Dry	-	5.00	Soft chalk at base
			30s	0.4	0.0	19.2						
			60s	0.4	0.0	19.1						
			120s	0.4	0.0	19.1						
			180s	0.4	0.0	19.1						
			240s	0.4	0.0	19.1						
			300s	0.4	0.0	19.1						
			15s					-		-		
			30s									
			60s									
			120s									
			180s									
			240s									
			300s									
Calibration Check	0.0	0.0	15s	0.0	0.0	20.6	0.0	-	-	-	-	Calibration Check Passed
			30s	0.0	0.0	20.4						
			60s	0.0	0.0	20.4						

GROUND GAS AND GROUNDWATER MONITORING												
Project: Haw Lane, Saunderton			Ref: LS8055									
Date: 28/03/2025			Visit: 2 of 6									
Engineer: BM			Check: SW									
Weather: Partly sunny, partly cloudy			Page: 1 of 1									
Atmospheric Pressure			before: 993mB									
			after: 992mB									
Published pressure trend:			Fluctuating high pressure. (London Heathrow AP)									
Remarks:			Equipment used: GFM 435, Phoccheck TigerLT PID, Dipmeter									
Position	Flow (l/hr)		Common Gases (%)				VOC's (ppm)	Groundwater (m)				Remarks
	High	Low	Time	CO2	CH4	O2		LNAPL	Water	DNAPL	Base	
Calibration Check	0.0	0.0	15s	0.0	0.0	20.5	0.0	-	-	-	-	Calibration Check Passed
			30s	0.0	0.0	20.5						
			60s	0.0	0.0	20.4						
BH10	0.0	0.0	15s	0.0	0.0	20.6	0.0	-	Dry	-	4.92	Top of pipe had been cut, pipe in borehole open with no bung - bung replaced / Pipe 0.45m above ground level
			30s	0.0	0.0	20.6						
			60s	0.0	0.0	20.5						
			120s	0.0	0.0	20.5						
			180s	0.0	0.0	20.5						
			240s	0.0	0.0	20.5						
			300s	0.0	0.0	20.5						
BH12	0.0	0.0	15s	0.0	0.0	20.4	4.0	-	14.92	-	15.66	Pipe 0.85m above ground level / Water loggers installed
			30s	0.0	0.0	20.1						
			60s	0.0	0.0	20.1						
			120s	0.0	0.0	20.1						
			180s	0.0	0.0	20.1						
			240s	0.0	0.0	20.1						
			300s	0.0	0.0	20.1						
BH15	0.0	0.0	15s	0.0	0.0	20.8	0.4	-	Dry	-	5.72	Pipe 0.70m above ground level
			30s	0.0	0.0	20.7						
			60s	0.0	0.0	20.6						
			120s	0.0	0.0	20.6						
			180s	0.0	0.0	20.6						
			240s	0.0	0.0	20.6						
			300s	0.0	0.0	20.6						
BH19	0.0	0.0	15s	0.4	0.0	20.6	0.2	-	5.20	-	5.20	Pipe 0.80m above ground level - needs raised cover
			30s	0.4	0.0	20.4						
			60s	0.4	0.0	20.3						
			120s	0.4	0.0	20.3						
			180s	0.4	0.0	20.3						
			240s	0.4	0.0	20.3						
			300s	0.4	0.0	20.3						
BH02	-	-	15s	-	-	-	-	-	22.69	-	33.50	Water loggers installed and geo-pump attempted but failed - larger pump required
			30s	-	-	-						
			60s	-	-	-						
			120s	-	-	-						
			180s	-	-	-						
			240s	-	-	-						
			300s	-	-	-						
Calibration Check	0.0	0.0	15s	0.0	0.0	20.6	0.0	-	-	-	-	Calibration Check Passed
			30s	0.0	0.0	20.4						
			60s	0.0	0.0	20.4						

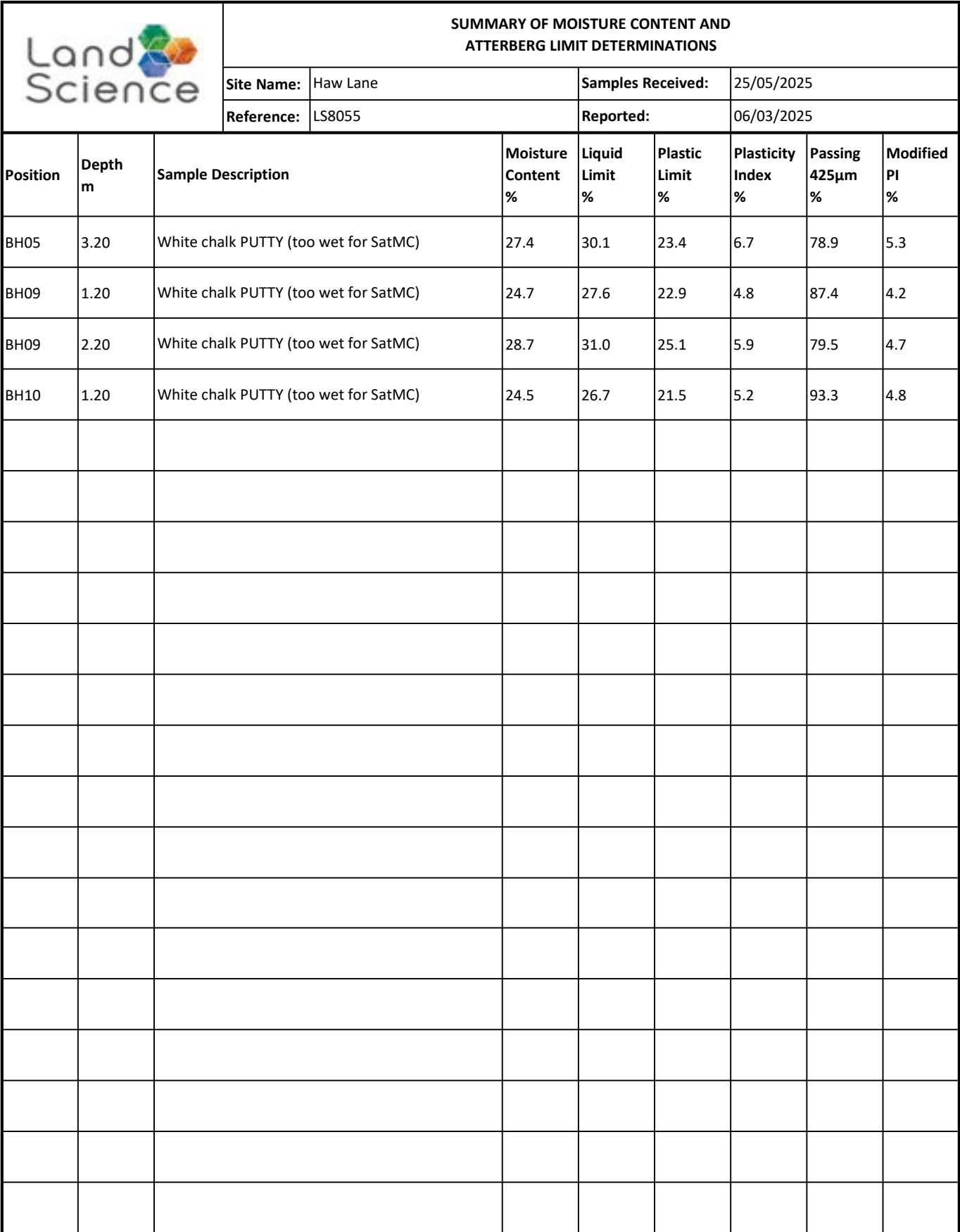
GROUND GAS AND GROUNDWATER MONITORING												
Project: Haw Lane, Saunderton			Ref: LS8055									
Date: 03/04/2025			Visit: 3 of 6									
Engineer: BM			Check: SW									
Weather: Partly sunny, partly cloudy			Page: 1 of 1									
Atmospheric Pressure			before: 1001mB									
			after: 1001mB									
Published pressure trend:			Falling high pressure. (London Heathrow AP)									
Remarks:			Equipment used: GFM 435, Phocheck TigerLT PID, Dipmeter									
Position	Flow (l/hr)		Common Gases (%)				VOC's (ppm)	Groundwater (m)				Remarks
	High	Low	Time	CO2	CH4	O2		LNAPL	Water	DNAPL	Base	
Calibration Check	0.0	0.0	15s	0.0	0.0	20.1	0.0	-	-	-	-	Calibration Check Passed
			30s	0.0	0.0	20.1						
			60s	0.2	0.0	20.1						
BH10	0.0	0.0	15s	0.2	0.0	19.8	0.0	-	Dry	-	5.00	
			30s	0.2	0.0	19.2						
			60s	0.3	0.0	19.2						
			120s	0.3	0.0	19.1						
			180s	0.3	0.0	19.1						
			240s	0.3	0.0	19.1						
			300s	0.3	0.0	19.1						
BH12	0.0	0.0	15s	0.0	0.0	20.5	4.0	-	Dry	-	15.50	
			30s	0.0	0.0	20.8						
			60s	0.0	0.0	20.0						
			120s	0.0	0.0	20.5						
			180s	0.0	0.0	20.5						
			240s	0.0	0.0	20.5						
			300s	0.0	0.0	20.5						
BH15	0.0	0.0	15s	0.0	0.0	20.7	0.4	-	Dry	-	5.00	
			30s	0.0	0.0	20.7						
			60s	0.0	0.0	20.6						
			120s	0.0	0.0	20.6						
			180s	0.0	0.0	20.6						
			240s	0.0	0.0	20.6						
			300s	0.0	0.0	20.6						
BH19	0.0	0.0	15s	0.1	0.0	20.6	0.0	-	Dry	-	5.00	
			30s	0.2	0.0	20.5						
			60s	0.2	0.0	19.7						
			120s	0.2	0.0	20.2						
			180s	0.2	0.0	19.9						
			240s	0.2	0.0	19.9						
			300s	0.2	0.0	19.9						
			15s									
			30s									
			60s									
			120s									
			180s									
			240s									
			300s									
Calibration Check	0.0	0.0	15s	0.0	0.0	20.0	0.0	-	-	-	-	Calibration Check Passed
			30s	0.0	0.0	20.1						
			60s	0.0	0.0	20.1						

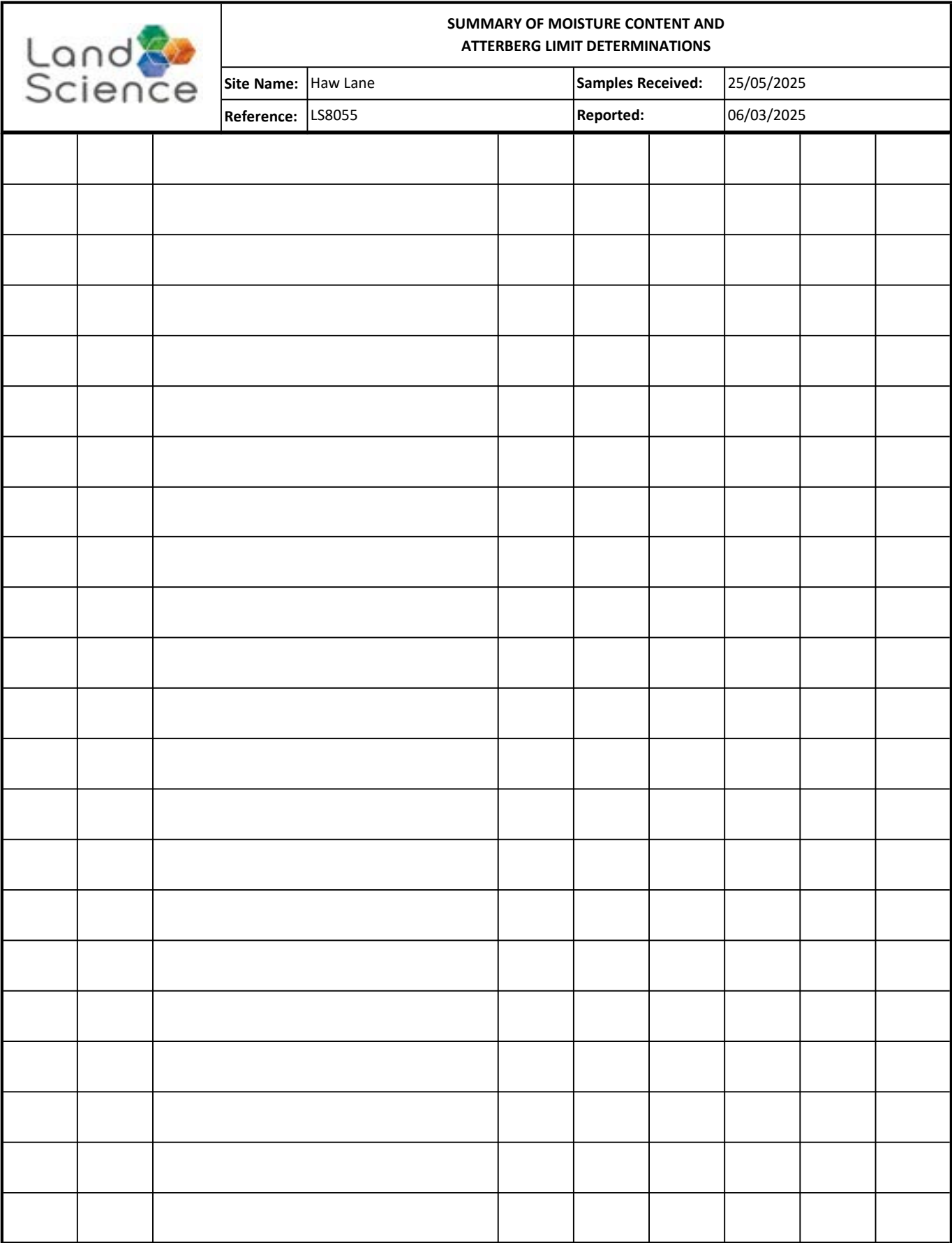
GROUND GAS AND GROUNDWATER MONITORING												
Project: Haw Lane, Saunderton			Ref: LS8055									
Date: 11/04/2025			Visit: 4 of 6									
Engineer: ON			Check: SW									
Weather: Sunny			Page: 1 of 1									
Atmospheric Pressure			before: 1005mB									
			after: 1005mB									
Published pressure trend:			Fluctuating high pressure. (London Heathrow AP)									
Remarks:			Equipment used: GFM 435, Phocheck TigerLT PID, Dipmeter									
Position	Flow (l/hr)		Common Gases (%)				VOC's (ppm)	Groundwater (m)				Remarks
	High	Low	Time	CO2	CH4	O2		LNAPL	Water	DNAPL	Base	
Calibration Check	0.0	0.0	15s	0.0	0.0	19.7	0.0	-	-	-	-	Calibration Check Passed
			30s	0.0	0.0	19.7						
			60s	0.0	0.0	19.7						
BH10	0.0	0.0	15s	0.3	0.0	19.4	0.1	-	Dry	-	5.00	
			30s	0.4	0.0	19.3						
			60s	0.4	0.0	19.3						
			120s	0.4	0.0	19.3						
			180s	0.4	0.0	19.3						
			240s	0.4	0.0	19.3						
			300s	0.4	0.0	19.3						
BH12	0.0	0.0	15s	0.0	0.0	20.2	0.0	-	Wet at base	-	15.00	Small GW sample recovered. Logger data downloaded
			30s	0.0	0.0	20.2						
			60s	0.0	0.0	20.2						
			120s	0.0	0.0	20.2						
			180s	0.0	0.0	20.2						
			240s	0.0	0.0	20.2						
			300s	0.0	0.0	20.2						
BH15	0.0	0.0	15s	0.0	0.0	20.7	0.1	-	Dry	-	5.00	
			30s	0.0	0.0	20.7						
			60s	0.0	0.0	20.7						
			120s	0.0	0.0	20.7						
			180s	0.0	0.0	20.7						
			240s	0.0	0.0	20.7						
			300s	0.0	0.0	20.7						
BH19	0.0	0.0	15s	0.1	0.0	20.5	0.0	-	Dry	-	5.00	
			30s	0.2	0.0	20.6						
			60s	0.2	0.0	20.6						
			120s	0.2	0.0	20.6						
			180s	0.2	0.0	20.6						
			240s	0.2	0.0	20.5						
			300s	0.2	0.0	20.6						
BH02	0.0	0.0	15s	0.0	0.0	20.5	0.0	-	Wet at base	-	33.50	Logger data downloaded
			30s	0.0	0.0	21.1						
			60s	0.0	0.0	20.7						
			120s	0.0	0.0	20.7						
			180s	0.0	0.0	20.7						
			240s	0.0	0.0	20.7						
			300s	0.0	0.0	20.7						
Calibration Check	0.0	0.0	15s	0.0	0.0	19.7	0.0	-	-	-	-	Calibration Check Passed
			30s	0.0	0.0	19.7						
			60s	0.0	0.0	19.7						

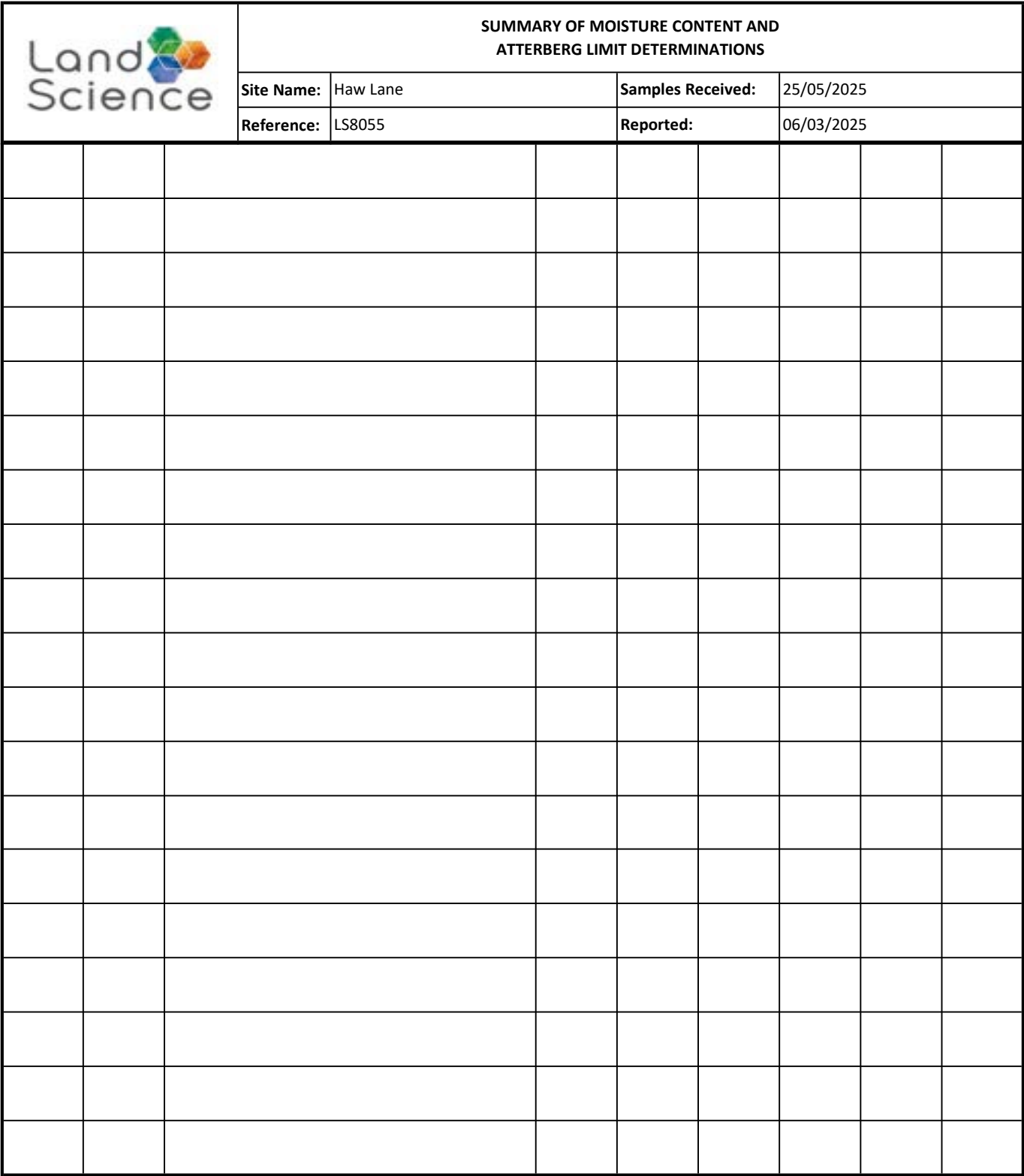
GROUND GAS AND GROUNDWATER MONITORING												
Project: Haw Lane, Saunderton			Ref: LS8055									
Date: 17/04/2025			Visit: 5 of 6									
Engineer: WP			Check: SW									
Weather: Sunny			Page: 1 of 1									
Atmospheric Pressure			before: 995mB after: 994mB									
Published pressure trend:			Fluctuating Intermediate Pressure. (London Heathrow AP)									
Remarks:			Equipment used: GFM 435, Phoccheck TigerLT PID, Dipmeter									
Position	Flow (l/hr)		Common Gases (%)				VOC's (ppm)	Groundwater (m)				Remarks
	High	Low	Time	CO2	CH4	O2		LNAPL	Water	DNAPL	Base	
Calibration Check	0.0	0.0	15s	0.0	0.0	20.1	0.0	-	-	-	-	Calibration Check Passed
			30s	0.0	0.0	20.2						
			60s	0.0	0.0	20.1						
BH10	0.0	0.0	15s	0.0	0.0	20.1	0.0	-	Wet at base	-	5.00	
			30s	0.0	0.0	20.0						
			60s	0.0	0.0	20.0						
			120s	0.0	0.0	20.0						
			180s	0.0	0.0	20.0						
			240s	0.0	0.0	20.0						
BH12	0.0	0.0	300s	0.0	0.0	20.0	0.6	-	Wet at base	-	15.00	Logger data downloaded
			15s	0.0	0.0	20.3						
			30s	0.0	0.0	20.3						
			60s	0.0	0.0	20.3						
			120s	0.0	0.0	20.3						
			180s	0.0	0.0	20.3						
BH15	0.0	0.0	240s	0.0	0.0	20.0	0.4	-	Wet at base	-	5.00	
			300s	0.0	0.0	20.3						
			15s	0.0	0.0	20.7						
			30s	0.0	0.0	20.6						
			60s	0.0	0.0	20.6						
			120s	0.0	0.0	20.6						
BH19	0.0	0.0	180s	0.0	0.0	20.6	0.6	-	Wet at base	-	5.00	
			240s	0.0	0.0	20.6						
			300s	0.0	0.0	20.6						
			15s	0.0	0.0	20.7						
			30s	0.0	0.0	20.8						
			60s	0.0	0.0	20.7						
BH02	0.0	0.0	120s	0.0	0.0	20.5	0.0	-	23.50	-	33.50	Logger data downloaded
			180s	0.0	0.0	20.5						
			240s	0.0	0.0	20.5						
			300s	0.0	0.0	20.5						
			15s	0.0	0.0	20.6						
			30s	0.0	0.0	20.7						
Calibration Check	0.0	0.0	60s	0.0	0.0	20.6	0.0	-	-	-	-	Calibration Check Passed
			15s	0.0	0.0	21.0						
			30s	0.0	0.0	20.8						

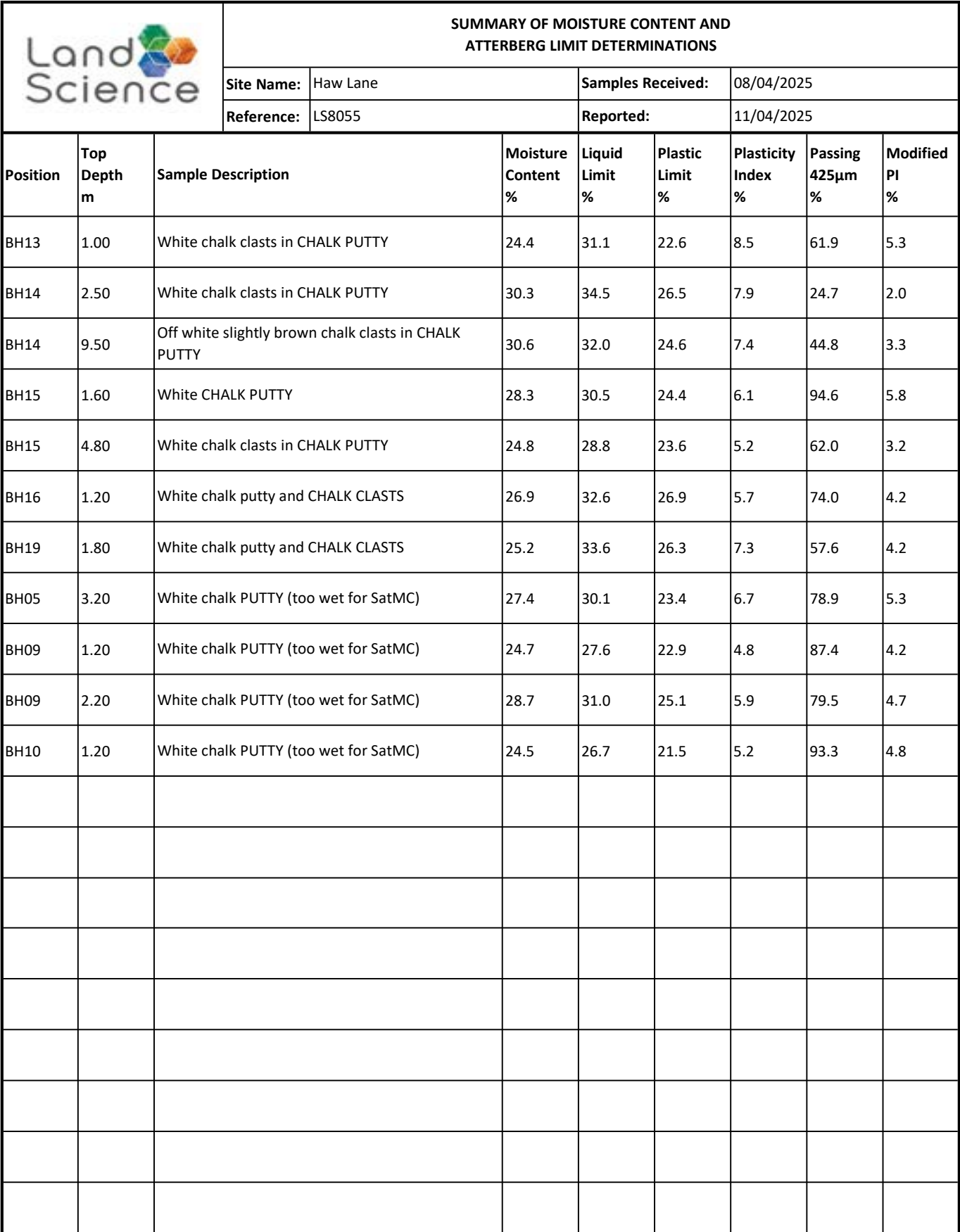
GROUND GAS AND GROUNDWATER MONITORING												
Project: Haw Lane, Saunderton			Ref: LS8055									
Date: 25/04/2025			Visit: 6 of 6									
Engineer: ON			Check: SW									
Weather: Overcast			Page: 1 of 1									
Atmospheric Pressure			before: 1005mB									
			after: 1005mB									
Published pressure trend:			Rising High Pressure (London Heathrow AP)									
Remarks:			Equipment used: GFM 435, Phoccheck TigerLT PID, Dipmeter									
Position	Flow (l/hr)		Common Gases (%)				VOC's (ppm)	Groundwater (m)				Remarks
	High	Low	Time	CO2	CH4	O2		LNAPL	Water	DNAPL	Base	
Calibration Check	0.0	0.0	15s	0.0	0.0	20.4	0.0	-	-	-	-	Calibration Check Passed
			30s	0.0	0.0	20.4						
			60s	0.0	0.0	20.4						
BH10	0.0	0.0	15s	0.0	0.0	19.8	0.0	-	Dry	-	5.00	
			30s	0.0	0.0	19.8						
			60s	0.0	0.0	19.8						
			120s	0.0	0.0	19.8						
			180s	0.0	0.0	19.8						
			240s	0.0	0.0	19.8						
			300s	0.0	0.0	19.8						
BH12	0.0	0.0	15s	0.0	0.0	20.7	0.1	-	Wet at base	-	15.00	Logger removed from borehole
			30s	0.0	0.0	20.6						
			60s	0.0	0.0	20.6						
			120s	0.0	0.0	20.6						
			180s	0.0	0.0	20.6						
			240s	0.0	0.0	20.6						
			300s	0.0	0.0	20.6						
BH15	0.0	0.0	15s	0.0	0.0	20.5	0.4	-	Dry	-	5.00	
			30s	0.0	0.0	20.6						
			60s	0.0	0.0	20.5						
			120s	0.0	0.0	20.5						
			180s	0.0	0.0	20.5						
			240s	0.0	0.0	20.5						
			300s	0.0	0.0	20.5						
BH19	0.0	0.0	15s	0.1	0.0	20.5	0.1	-	Dry	-	5.00	
			30s	0.2	0.0	20.5						
			60s	0.2	0.0	20.5						
			120s	0.2	0.0	20.5						
			180s	0.2	0.0	20.5						
			240s	0.2	0.0	20.5						
			300s	0.2	0.0	20.5						
BH02	0.0	0.0	15s	0.0	0.0	20.1	0.0	-	30.00	-	33.50	Logger data downloaded
			30s	0.0	0.0	20.6						
			60s	0.0	0.0	20.7						
			120s	0.0	0.0	20.7						
			180s	0.0	0.0	20.7						
			240s	0.0	0.0	20.7						
			300s	0.0	0.0	20.7						
Calibration Check	0.0	0.0	15s	0.0	0.0	20.4	0.0	-	-	-	-	Calibration Check Passed
			30s	0.0	0.0	20.4						
			60s	0.0	0.0	20.4						

APPENDIX D









	SUMMARY OF PARTICLE SIZE DISTRIBUTION			
	ANALYSIS			
	Site Name:	Haw Lane	Samples Received:	08/04/2025
	Reference:	LS8055	Reported:	11/04/2025

Sample Data				Sample Description																																																																											
Position		BH13		White CHALK GRAVEL																																																																											
Sample Ref		-																																																																													
Depth		2.50																																																																													
Sieve Analysis				<table><tr><th colspan="3">CLAY</th><th>Fine</th><th>Medium</th><th>Coarse</th><th>Fine</th><th>Medium</th><th>Coarse</th><th>Fine</th><th>Medium</th><th>Coarse</th><th colspan="3">COBBLES</th></tr><tr><th colspan="3"></th><th colspan="3">SILT</th><th colspan="3">SAND</th><th colspan="3">GRAVEL</th><th colspan="3"></th></tr></table><table><thead><tr><th>Particle Size (mm)</th><th>Percentage Passing (%)</th></tr></thead><tbody><tr><td>0.075</td><td>11.6</td></tr><tr><td>0.15</td><td>12.8</td></tr><tr><td>0.3</td><td>13.9</td></tr><tr><td>0.6</td><td>15.6</td></tr><tr><td>1.18</td><td>18.3</td></tr><tr><td>2.0</td><td>21.4</td></tr><tr><td>3.35</td><td>25.8</td></tr><tr><td>5.0</td><td>29.6</td></tr><tr><td>6.3</td><td>33.3</td></tr><tr><td>10</td><td>40.1</td></tr><tr><td>14</td><td>48.0</td></tr><tr><td>20</td><td>53.9</td></tr><tr><td>28</td><td>65.3</td></tr><tr><td>37.5</td><td>68.8</td></tr><tr><td>50</td><td>100.0</td></tr><tr><td>63</td><td>100.0</td></tr></tbody></table>												CLAY			Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse	COBBLES						SILT			SAND			GRAVEL						Particle Size (mm)	Percentage Passing (%)	0.075	11.6	0.15	12.8	0.3	13.9	0.6	15.6	1.18	18.3	2.0	21.4	3.35	25.8	5.0	29.6	6.3	33.3	10	40.1	14	48.0	20	53.9	28	65.3	37.5	68.8	50	100.0	63	100.0
CLAY			Fine													Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse	COBBLES																																																							
			SILT													SAND			GRAVEL																																																												
Particle Size (mm)	Percentage Passing (%)																																																																														
0.075	11.6																																																																														
0.15	12.8																																																																														
0.3	13.9																																																																														
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1.18	18.3																																																																														
2.0	21.4																																																																														
3.35	25.8																																																																														
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6.3	33.3																																																																														
10	40.1																																																																														
14	48.0																																																																														
20	53.9																																																																														
28	65.3																																																																														
37.5	68.8																																																																														
50	100.0																																																																														
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6.3	33.3																																																																														
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3.35	25.8																																																																														
2.0	21.4																																																																														
1.18	18.3																																																																														
0.60	15.6																																																																														
0.425	14.7																																																																														
0.30	13.9																																																																														
0.212	13.4	Sample Proportions						Grading Analysis																																																																							
0.150	12.8	Cobbles		0.0				D100		50																																																																					
0.063	11.6	Gravel		78.6				D60		24																																																																					
0.020		Sand		9.8				D10		-																																																																					
0.006		Silt & Clay		11.6				Uniformity Coeff.		#VALUE!																																																																					
0.002		-						-																																																																							

BS 1377 : Part 2 : 1990 : Clause 9		Prepared: T Curtis	
Test Results relate only to the sample numbers shown above.		Checked: E Toms	

	Summary of determination of saturated moisture content - Immersion in water method			
	Site name:	Haw Lane	Samples received:	06/03/2025
	Reference:	LS8055	Reported:	12/03/2025

Sample	Initial Wet Weight, Ms (g)	Waxed sample Weight, Mw (g)	Weight in water, Mg (g)	Moisture content, w (%)	Test specimen volume, Vs (cm3)	Bulk Density, pb (Mg/m3)	Dry Density, pd (Mg/m3)	Saturated moisture content, Ws
BH01 11.20	1015	1045	519	23.09	491.05	2.07	1.68	22.51
BH01 12.70	812	839	404	25.51	403.54	2.01	1.60	25.34
BH01 14.20	1031	1059	514	25.74	512.38	2.01	1.60	25.45
BH02 0.40	231	241	116	22.10	113.35	2.04	1.67	22.88
BH02 1.80	883	904	454	21.67	425.53	2.08	1.71	21.60
BH02 2.30	609	627	304	23.35	302.03	2.02	1.63	24.14
BH02 7.9-8.0	840	863	404	22.21	432.20	1.94	1.59	25.84
BH02 8.20	716	740	355	19.42	357.04	2.01	1.68	22.51
BH02 12.0-12.1	864	893	410	16.28	449.21	1.92	1.65	23.42
BH02 17.0-17.3	1040	1067	532	16.23	503.54	2.07	1.78	19.24
BH02 20.8-21.0	1005	1028	493	20.98	508.20	1.98	1.63	24.14
BH02 23.8-24.0	1009	1032	492	24.04	513.20	1.97	1.59	26.05
BH02 29.8-29.9	1154	1176	605	19.73	545.37	2.12	1.77	19.54

13

Density of water (g/cm3)	1	Density of the paraffin wax (g/cm3)	0.8583
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Test Method:	BS 1377-2:1990: 3.3	Prepared:
Comments:		T Curtis
Test Results relate only to the sample numbers shown above.		Checked: 
		E Toms

	Summary of determination of saturated moisture content - Immersion in water method			
	Site name:	Haw Lane	Samples received:	12/03/2025
	Reference:	LS8055	Reported:	14/03/2025

Sample	Initial Wet Weight, Ms (g)	Waxed sample Weight, Mw (g)	Weight in water, Mg (g)	Moisture content, w (%)	Test specimen volume, Vs (cm3)	Bulk Density, pb (Mg/m3)	Dry Density, pd (Mg/m3)	Saturated moisture content, Ws
BH03 6.8-7.0	913	953	458	24.83	448.40	2.04	1.63	24.27
BH03 9.6-9.8	1168	1205	590	23.94	571.89	2.04	1.65	23.65
BH03 13.8-14.	725	752	353	28.65	367.54	1.97	1.53	28.18
BH03 15.9-16.	1087	1127	541	25.17	539.40	2.02	1.61	25.08
BH03 19.1-19.	1054	1092	517	27.64	530.73	1.99	1.56	27.23
BH03 22.5-22.	919	951	446	28.97	467.72	1.96	1.52	28.60
BH03 24.6-24.	983	1019	495	24.05	482.06	2.04	1.64	23.80

Density of water (g/cm3)	1	Density of the parrafin wax (g/cm3)	0.8583
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Test Method:	BS 1377-2:1990: 3.3	Prepared:
Comments:		T Curtis
Test Results relate only to the sample numbers shown above.		Checked: 
		E Toms

	Summary of determination of saturated moisture content - Immersion in water method			
	Site name:	Haw Lane, BH04	Samples received:	24/03/2025
	Reference:	LS8055	Reported:	27/03/2025

Sample	Initial Wet Weight, Ms (g)	Waxed sample Weight, Mw (g)	Weight in water, Mg (g)	Moisture content, w (%)	Test specimen volume, Vs (cm3)	Bulk Density, pb (Mg/m3)	Dry Density, pd (Mg/m3)	Saturated moisture content, Ws
BH04, 3.40	935	947	458.7	27	474.32	1.97	1.55	27.39
BH04, 6.80	1222	1238	614.4	24	604.96	2.02	1.63	24.35
BH04, 7.60	1219	1235	590.5	23	625.86	1.95	1.58	26.11
BH04, 9.30	693	709	354.4	23	335.96	2.06	1.68	22.59
BH04, 12.50	563	576	295.2	20	265.65	2.12	1.77	19.59
BH04, 15.70	1335	1351	680.7	23	651.66	2.05	1.67	23.00
BH04, 18.80	1071	1090	547.5	23	520.36	2.06	1.67	22.72
BH04, 21.30	549	556	280.4	22	267.44	2.05	1.68	22.40
BH04, 26.50	1449	1477	754	20	690.38	2.10	1.75	20.14
BH04, 28.70	1160	1191	523.7	17	631.18	1.84	1.57	26.63

Density of water (g/cm3)	1	Density of the paraffin wax (g/cm3)	0.8583
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Test Method:	BS 1377-2:1990: 3.3	Prepared:
Comments:		T Curtis
		Checked: 
		E Toms

Test Results relate only to the sample numbers shown above.

	Summary of determination of saturated moisture content - Immersion in water method			
	Site name:	Haw Lane	Samples received:	25/02/2025
	Reference:	LS8055	Reported:	05/03/2025

Sample	Initial Wet Weight, Ms (g)	Waxed sample Weight, Mw (g)	Weight in water, Mg (g)	Moisture content, w (%)	Test specimen volume, Vs (cm3)	Bulk Density, pb (Mg/m3)	Dry Density, pd (Mg/m3)	Saturated moisture content, Ws
BH05 0.80	277	290	122	27.18	152.85	1.81	1.42	33.14
BH05 1.80	373	390	183	26.88	187.19	1.99	1.57	26.64
BH05 3.80	946	973	479	23.68	462.54	2.05	1.65	23.44
BH05 4.80	771	795	381	26.32	386.04	2.00	1.58	26.21
BH05 5.80	656	682	328	24.95	323.71	2.03	1.62	24.62
BH05 6.80	496	514	243	27.25	250.03	1.98	1.56	27.11
BH05 8.80	527	547	257	27.87	266.70	1.98	1.55	27.68
BH05 10.80	741	770	361	28.30	375.21	1.97	1.54	27.93
BH05 12.80	658	678	331	24.48	323.70	2.03	1.63	24.20
BH05 14.80	562	583	279	25.62	279.53	2.01	1.60	25.44
BH06 2.80	539	568	265	26.53	269.21	2.00	1.58	26.16
BH06 3.80	529	554	269	21.13	255.87	2.07	1.71	21.55
BH06 4.80	577	603	282	26.69	290.71	1.98	1.57	26.79
BH06 5.70	710	738	358	23.68	347.38	2.04	1.65	23.48
BH06 10.20	475	491	240	23.09	232.36	2.04	1.66	23.18
BH06 11.50	208	219	102	26.41	104.18	2.00	1.58	26.28
BH06 13.50	317	334	143	11.23	171.19	1.85	1.66	23.03

Density of water (g/cm3)	1	Density of the parrafin wax (g/cm3)	0.8583
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Test Method:	BS 1377-2:1990: 3.3	Prepared:
Comments:		T Curtis
		Checked: 
		E Toms

Test Results relate only to the sample numbers shown above.

	Summary of determination of saturated moisture content - Immersion in water method			
	Site name:	Haw Lane	Samples received:	25/02/2025
	Reference:	LS8055	Reported:	05/03/2025

Sample	Initial Wet Weight, Ms (g)	Waxed sample Weight, Mw (g)	Weight in water, Mg (g)	Moisture content, w (%)	Test specimen volume, Vs (cm3)	Bulk Density, pb (Mg/m3)	Dry Density, pd (Mg/m3)	Saturated moisture content, Ws
BH07 2.80	1013	1046	502	26.52	505.55	2.00	1.58	26.10
BH07 3.80	411	426	199	28.21	209.52	1.96	1.53	28.32
BH07 4.90	851	877	424	25.28	422.71	2.01	1.61	25.19
BH07 6.00	704	725	334	22.84	366.53	1.92	1.56	26.92
BH07 7.60	771	798	380	20.07	386.54	1.99	1.66	23.16
BH07 9.00	443	463	209	19.67	230.70	1.92	1.60	25.28
BH07 10.50	346	366	148	19.72	194.70	1.78	1.48	30.33
BH07 12.00	716	742	330	21.99	381.71	1.88	1.54	28.00
BH07 13.50	685	704	335	22.68	346.86	1.97	1.61	25.08
BH08 1.20	721	746	353	25.21	363.87	1.98	1.58	26.15
BH08 2.20	391	404	201	21.45	187.85	2.08	1.71	21.31
BH08 4.20	601	626	288	24.56	308.87	1.95	1.56	26.98
BH08 14.50	929	959	476	21.55	448.05	2.07	1.71	21.59
BH09 3.20	795	811	402	22.41	390.36	2.04	1.66	23.07

Density of water (g/cm3)	1	Density of the paraffin wax (g/cm3)	0.8583
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Test Method:	BS 1377-2:1990: 3.3	Prepared:
Comments:		T Curtis
		Checked: 
		E Toms

Test Results relate only to the sample numbers shown above.

	Summary of determination of saturated moisture content - Immersion in water method			
	Site name:	Haw Lane	Samples received:	25/02/2025
	Reference:	LS8055	Reported:	05/03/2025

Sample	Initial Wet Weight, Ms (g)	Waxed sample Weight, Mw (g)	Weight in water, Mg (g)	Moisture content, w (%)	Test specimen volume, Vs (cm3)	Bulk Density, pb (Mg/m3)	Dry Density, pd (Mg/m3)	Saturated moisture content, Ws
BH10 6.20	740	755	378	22.86	359.52	2.06	1.68	22.65
BH10 7.00	810	836	402	25.94	403.71	2.01	1.59	25.73
BH10 8.00	359	380	174	28.62	181.53	1.98	1.54	28.00
BH10 8.70	380	402	186	26.60	190.37	2.00	1.58	26.39
BH10 9.20	429	449	213	24.85	212.70	2.02	1.62	24.87
BH10 10.00	539	563	273	23.73	262.04	2.06	1.66	23.12
BH10 11.80	832	880	423	22.42	401.08	2.07	1.69	21.98
BH10 12.50	876	890	434	26.61	439.69	1.99	1.57	26.51
BH11 1.20	320	337	158	24.80	159.19	2.01	1.61	25.05
BH11 2.20	473	500	230	27.45	238.54	1.98	1.56	27.24
BH11 3.60	342	363	177	19.37	161.53	2.12	1.77	19.34
BH11 5.00	861	920	425	25.51	426.26	2.02	1.61	25.10
BH11 6.00	841	875	420	24.63	415.39	2.02	1.62	24.52
BH11 9.00	495	520	236	30.67	254.87	1.94	1.49	30.24
BH11 10.50	432	458	203	31.50	224.71	1.92	1.46	31.36
BH11 12.00	470	504	225	29.01	239.39	1.96	1.52	28.67

Density of water (g/cm3)	1	Density of the parrafin wax (g/cm3)	0.8583
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Test Method:	BS 1377-2:1990: 3.3	Prepared:
Comments:		T Curtis
Test Results relate only to the sample numbers shown above.		Checked: 
		E Toms

	Summary of determination of saturated moisture content - Immersion in water method			
	Site name:	Haw Lane	Samples received:	08/04/2025
	Reference:	LS8055	Reported:	11/04/2025

Sample	Initial Wet Weight, Ms (g)	Waxed sample Weight, Mw (g)	Weight in water, Mg (g)	Moisture content, w (%)	Test specimen volume, Vs (cm3)	Bulk Density, pb (Mg/m3)	Dry Density, pd (Mg/m3)	Saturated moisture content, Ws
BH12 1.50	272	284	135	25.82	135.02	2.01	1.60	25.42
BH12 4.20	922	946	465	24.46	453.04	2.04	1.64	24.12
BH12 7.20	393	406	201	22.78	189.85	2.07	1.69	22.28
BH12 8.40	1056	1082	514	28.80	537.71	1.96	1.52	28.55
BH12 10.20	915	938	448	28.09	463.20	1.98	1.54	27.81
BH12 11.70	1331	1359	676	23.90	650.38	2.05	1.65	23.51
BH12 13.50	898	920	440	28.22	454.37	1.98	1.54	27.84

Density of water (g/cm3)	1	Density of the parrafin wax (g/cm3)	0.8583
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Test Method:	BS 1377-2:1990: 3.3	Prepared:
Comments:		T Curtis
Test Results relate only to the sample numbers shown above.		Checked: 
		E Toms

	Summary of determination of saturated moisture content - Immersion in water method			
	Site name:	Haw Lane	Samples received:	08/04/2025
	Reference:	LS8055	Reported:	11/04/2025

Sample	Initial Wet Weight, Ms (g)	Waxed sample Weight, Mw (g)	Weight in water, Mg (g)	Moisture content, w (%)	Test specimen volume, Vs (cm3)	Bulk Density, pb (Mg/m3)	Dry Density, pd (Mg/m3)	Saturated moisture content, Ws
BH13 4.40	592	611	314	18.22	274.86	2.15	1.82	17.85
BH13 7.50	1051	1087	510	27.58	535.06	1.96	1.54	27.91
BH13 9.00	937	974	465	25.84	465.89	2.01	1.60	25.53
BH13 11.80	1304	1344	632	29.04	665.40	1.96	1.52	28.81
BH13 14.20	1346	1377	696	21.31	644.88	2.09	1.72	21.08

Density of water (g/cm3)	1	Density of the paraffin wax (g/cm3)	0.8583
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Test Method:	BS 1377-2:1990: 3.3	Prepared:
Comments:		T Curtis
Test Results relate only to the sample numbers shown above.		Checked: 
		E Toms

	Summary of determination of saturated moisture content - Immersion in water method			
	Site name:	Haw Lane	Samples received:	08/04/2025
	Reference:	LS8055	Reported:	11/04/2025

Sample	Initial Wet Weight, Ms (g)	Waxed sample Weight, Mw (g)	Weight in water, Mg (g)	Moisture content, w (%)	Test specimen volume, Vs (cm3)	Bulk Density, pb (Mg/m3)	Dry Density, pd (Mg/m3)	Saturated moisture content, Ws
BH14 1.00	602	622	293	26.84	305.70	1.97	1.55	27.37
BH14 5.80	749	774	383	21.43	361.87	2.07	1.70	21.63
BH14 11.00	781	807	383	22.82	393.71	1.98	1.62	24.88
BH14 12.50	1048	1077	512	28.06	531.21	1.97	1.54	27.88
BH14 14.70	908	929	453	25.59	451.53	2.01	1.60	25.42

Density of water (g/cm3)	1	Density of the parrafin wax (g/cm3)	0.8583
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Test Method:	BS 1377-2:1990: 3.3	Prepared:
Comments:		T Curtis
Test Results relate only to the sample numbers shown above.		Checked: 
		E Toms

	Summary of determination of saturated moisture content - Immersion in water method			
	Site name:	Haw Lane	Samples received:	08/04/2025
	Reference:	LS8055	Reported:	11/04/2025

Sample	Initial Wet Weight, Ms (g)	Waxed sample Weight, Mw (g)	Weight in water, Mg (g)	Moisture content, w (%)	Test specimen volume, Vs (cm3)	Bulk Density, pb (Mg/m3)	Dry Density, pd (Mg/m3)	Saturated moisture content, Ws
BH15 2.80	1057	1082	519	25.45	533.87	1.98	1.58	26.33
BH15 6.80	1070	1091	523	28.17	543.53	1.97	1.54	28.07
BH15 8.20	812	832	405	25.12	403.70	2.01	1.61	25.17
BH15 11.80	744	761	399	16.25	342.19	2.17	1.87	16.43
BH15 14.80	1093	1118	536	19.45	552.87	1.98	1.66	23.38

Density of water (g/cm3)	1	Density of the paraffin wax (g/cm3)	0.8583
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Test Method:	BS 1377-2:1990: 3.3	Prepared:
Comments:		T Curtis
Test Results relate only to the sample numbers shown above.		Checked: 
		E Toms

	Summary of determination of saturated moisture content - Immersion in water method			
	Site name:	Haw Lane	Samples received:	08/04/2025
	Reference:	LS8055	Reported:	11/04/2025

Sample	Initial Wet Weight, Ms (g)	Waxed sample Weight, Mw (g)	Weight in water, Mg (g)	Moisture content, w (%)	Test specimen volume, Vs (cm3)	Bulk Density, pb (Mg/m3)	Dry Density, pd (Mg/m3)	Saturated moisture content, Ws
BH16 2.20	1155	1186	569	25.53	580.88	1.99	1.58	26.10
BH16 3.50	760	780	365	22.59	391.70	1.94	1.58	26.15
BH16 6.30	1083	1115	535	26.14	542.72	2.00	1.58	26.17
BH16 8.70	734	754	369	22.95	361.70	2.03	1.65	23.55
BH16 11.30	1345	1382	673	22.72	665.89	2.02	1.65	23.72
BH16 14.00	1004	1026	500	25.19	500.37	2.01	1.60	25.35

Density of water (g/cm3)	1	Density of the parrafin wax (g/cm3)	0.8583
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Test Method:	BS 1377-2:1990: 3.3	Prepared:
Comments:		T Curtis
Test Results relate only to the sample numbers shown above.		Checked: 
		E Toms

	Summary of determination of saturated moisture content - Immersion in water method			
	Site name:	Haw Lane	Samples received:	08/04/2025
	Reference:	LS8055	Reported:	11/04/2025

Sample	Initial Wet Weight, Ms (g)	Waxed sample Weight, Mw (g)	Weight in water, Mg (g)	Moisture content, w (%)	Test specimen volume, Vs (cm3)	Bulk Density, pb (Mg/m3)	Dry Density, pd (Mg/m3)	Saturated moisture content, Ws
BH19 3.20	384	396	187	27.55	195.02	1.97	1.54	27.74
BH19 6.50	614	630	306	25.47	305.36	2.01	1.60	25.36
BH19 10.00	1076	1099	565	19.49	507.20	2.12	1.78	19.29
BH19 12.50	1022	1043	515	24.29	503.53	2.03	1.63	24.20
BH19 14.80	1039	1063	546	19.22	489.04	2.12	1.78	19.08

Density of water (g/cm3)	1	Density of the parrafin wax (g/cm3)	0.8583
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Test Method:	BS 1377-2:1990: 3.3	Prepared:
Comments:		T Curtis
Test Results relate only to the sample numbers shown above.		Checked: 
		E Toms

	Summary of determination of saturated moisture content - Immersion in water method			
	Site name:	Haw Lane Trial Pits	Samples received:	05/02/2025
	Reference:	LS8055	Reported:	07/02/2025

Sample	Initial Wet Weight, Ms (g)	Waxed sample Weight, Mw (g)	Weight in water, Mg (g)	Moisture content, w (%)	Test specimen volume, Vs (cm3)	Bulk Density, pb (Mg/m3)	Dry Density, pd (Mg/m3)	Saturated moisture content, Ws
TP01 0.80	674	719	336	23.76	330.57	2.04	1.65	24
TP01 1.80	770	809	375	25.91	388.56	1.98	1.57	26
TP03 1.20	441	467	213	28.45	223.71	1.97	1.53	28
TP03 2.20	830	867	409	26.46	414.89	2.00	1.58	26
TP04 0.80	1027	1067	510	25.58	510.40	2.01	1.60	25
TP04 1.80	736	778	361	26.43	368.07	2.00	1.58	26
TP04 2.80	959	1003	478	25.00	473.74	2.02	1.62	25
TP06 1.20	853	890	423	25.74	423.89	2.01	1.60	25
TP06 2.20	908	941	453	23.26	449.55	2.02	1.64	24

Density of water (g/cm3)	1	Density of the paraffin wax (g/cm3)	0.8583
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Test Method:	BS 1377-2:1990: 3.3	Prepared:
Comments:		T Curtis
Test Results relate only to the sample numbers shown above.		Checked: 
		E Toms

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17 March 2025

Report No : GEO/42116/01

Page 1 of 1

For the attention of Sam Whewell

Our ref	GEO / 42116	Date samples received	10/03/2025
Your ref	LS8055	Date written instructions received	07/03/2025
Order ref	PO000484	Date testing commenced	11/03/2025
		Date of sample disposal	14/04/2025

Project **HAW LANE, SAUNDERTON**

Further to your instructions we have pleasure in enclosing the results of the tests you requested in the attached figures.

LABORATORY TEST REPORT

Item No	Test Quantity	Description
1	~	Unconfined Compressive Strength Summary
	1	Unconfined Compressive Strength with Young's Modulus
	3	Unconfined Compressive Strength
2	16	Point Load Strength Index

Any opinions or interpretations expressed herein are outside the scope of UKAS accreditation. All results contained in this report are provisional and may be subject to change unless signed by an approved signatory. The results contained in this report relate only to samples received in the laboratory and are tested 'as received' unless otherwise stated. This report should not be reproduced, except in full, without the written approval of the laboratory. The results reported are applicable only to the test items received by the laboratory.

All the necessary data required by the documented test procedures has been recorded and will be stored for a period of not less than 6 years. This data will be issued to yourselves at your request. All samples will be disposed of after the date shown above. Written confirmation will be required to retain the samples beyond this period and a storage charge may be applied.

We trust that the above meets your requirements and should you require any further information or assistance, please do not hesitate to contact us.

Yours faithfully
on behalf of **GEOLABS Limited**



I Tabios
Laboratory Manager



UNIAXIAL COMPRESSIVE STRENGTH OF ROCK MATERIALS

Sample details						Density		Uniaxial Compression Test (LF0879C (1000kN) compression frame used)							
Borehole Ref.	Sample Ref.	Depth (m)	Description	MC (%)	Degree of Saturation (%)	Bulk (Mg/m³)	Dry (Mg/m³)	Mean after prep.		H/D Ratio	Load at Failure (kN)	UCS (MPa) 3 sig. fig.	Failure Sketch	D. Tested	Remarks
								Diameter (mm)	Height (mm)						
BH02		7.50-7.80	Very weak white CHALK.	26	89.2	1.99	1.58	41.10	102.40	2.5	3.6	2.71		14/03/25	
BH02		10.80-11.00	Very weak white CHALK.	19	67.3	1.90	1.59	88.00	208.90	2.4	21.5	3.53		14/03/25	
BH02		24.70-24.90	Very weak white CHALK.	26	83.7	1.92	1.53	41.10	118.20	2.9	1.8	1.36		14/03/25	
BH02		28.30-28.50	Very weak white CHALK.	22	87.6	2.05	1.68	54.90	146.00	2.7	6.8	2.87		14/03/25	

Note: The dimensional requirements of flatness (<0.02 mm), perpendicularity (<0.05 / 50 mm) and straightness (0.3 mm deviation) are all met. Specific Gravity used for Degree of Saturation is assumed unless specified by the client.

Checked and Approved by  I Tabios (Head of Department) Date: 17/03/2025	Project Number: GEO / 42116 Project Name: HAW LANE, SAUNDERTON LS8055	 
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UNCONFINED COMPRESSIVE STRENGTH WITH YOUNG'S MODULUS

Borehole Ref.: BH02
 Sample Ref.: -
 Depth (m): 7.50-7.80

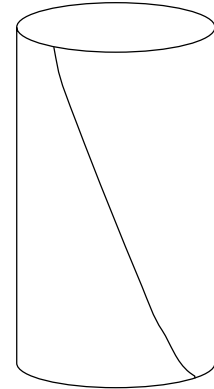
Description:
 Very weak white CHALK.

Diameter	41.10 mm
Height	102.40 mm
Bulk Density	1.99 Mg/m ³
Dry Density	1.58 Mg/m ³
Water Content	26 %
Degree of Saturation: 89.2 %	Specific Gravity: 2.9 Mg/m ³ (Assumed)

LF0879C (1000kN) compression frame used

Failure Sketch

Mode of failure: Diagonal shearing



Solid lines for material failures.
 Dashed lines for apparent weakness failure.

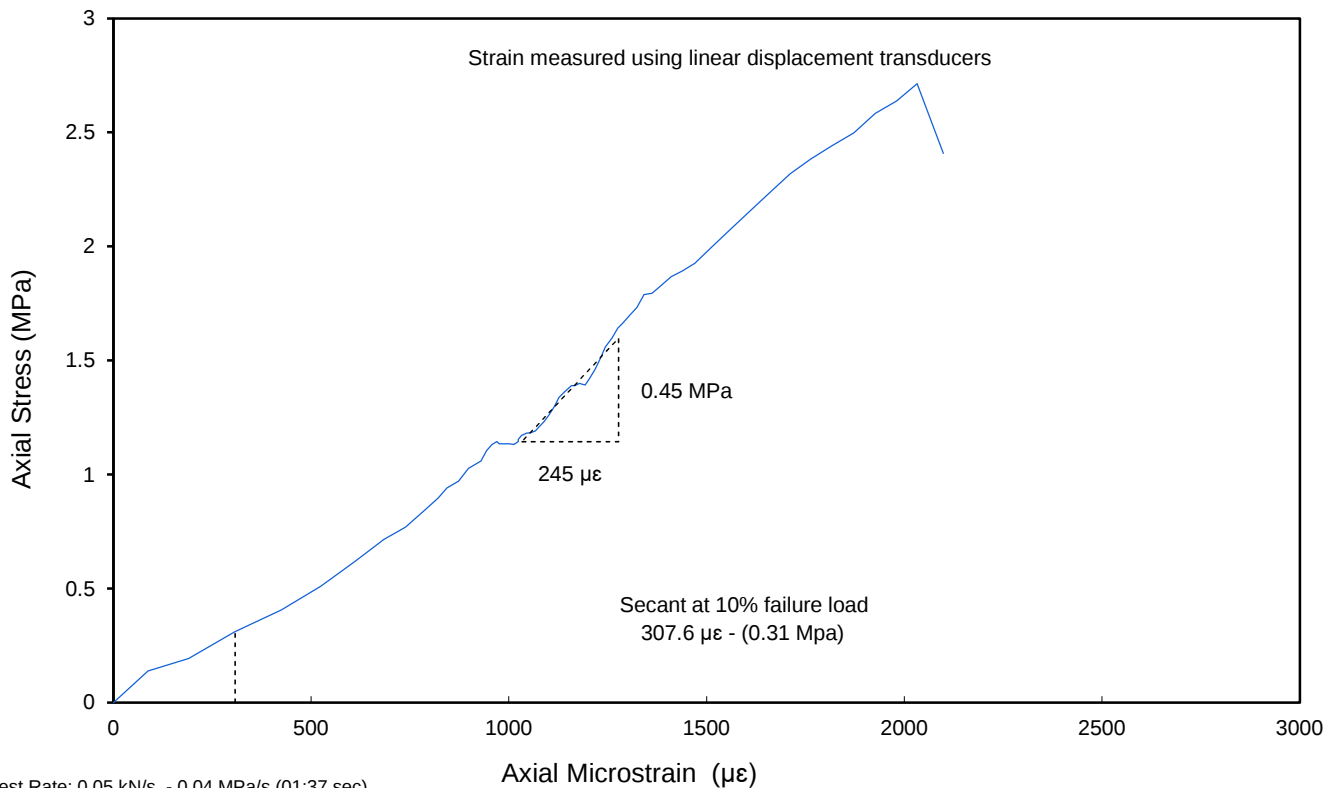
Angle of foliation/Axis of loading: n/a
 Angle of shear plane/Axis of loading: n/a

Date tested: 14/03/2025

Test results

Unconfined Compressive Strength Maximum load (kN): 3.60	2.71 MPa
Young's Modulus (tangential at 50% failure load)	1.86 GPa
Poisson's Ratio (tangential at 50% failure load)	n/a
Young's Modulus (secant at 10% failure load)	1.01 GPa
Poisson's Ratio (secant at 10% failure load)	n/a

Sample type

C

Test Rate: 0.05 kN/s - 0.04 MPa/s (01:37 sec)

Note: The dimensional requirements of Flatness (<0.02 mm), Perpendicularity (<0.05 / 50 mm) and Straightness (0.3 mm deviation) are all met.

Checked and Approved by

IT

I Tabios (Head of Department)

Date: 17/03/2025

Project Number:

GEO / 42116

Project Name:

HAW LANE, SAUNDERTON
LS8055

GEOLABS

UNIAXIAL COMPRESSIVE STRENGTH OF ROCK MATERIALS

Borehole Ref.: BH02
 Sample Ref.: -
 Depth (m): 10.80-11.00

Description:
 Very weak white CHALK.

Diameter
Height
Bulk Density
Dry Density
Water Content

88.00 mm
208.90 mm
1.90 Mg/m ³
1.59 Mg/m ³
19 %

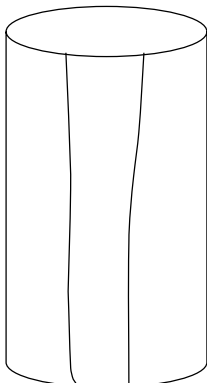
Degree of Saturation: 67.3 %

Specific Gravity: 2.9 Mg/m³ (Assumed)**Test results**

Unconfined Compressive Strength Maximum load (kN): 21.50
Young's Modulus (tangential at 50% failure load)
Poisson's Ratio (tangential at 50% failure load)
Young's Modulus (secant at 10% failure load)
Poisson's Ratio (secant at 10% failure load)

3.53 MPa
n/a
n/a
n/a
n/a

LF0879C (1000kN) compression frame used

Failure Sketch Mode of failure: Axial splitting  Solid lines for material failures. Dashed lines for apparent weakness failure. Angle of foliation/Axis of loading: n/a Angle of shear plane/Axis of loading: n/a	Date tested: 14/03/2025
Sample type	C

Note: The dimensional requirements of Flatness (<0.02 mm), Perpendicularity (<0.05 / 50 mm) and Straightness (0.3 mm deviation) are all met.

Checked and Approved by

IT

I Tabios (Head of Department)

Date: 17/03/2025

Project Number:

GEO / 42116

Project Name:

HAW LANE, SAUNDERTON
LS8055

GEOLABS

UNIAXIAL COMPRESSIVE STRENGTH OF ROCK MATERIALS

Borehole Ref.: BH02
 Sample Ref.: -
 Depth (m): 24.70-24.90

Description:
 Very weak white CHALK.

Diameter
Height
Bulk Density
Dry Density
Water Content

41.10 mm
118.20 mm
1.92 Mg/m ³
1.53 Mg/m ³
26 %

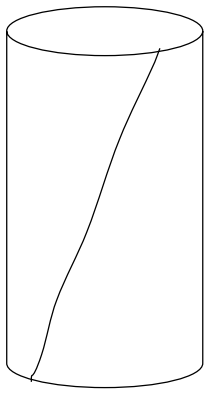
Degree of Saturation: 83.7 %

Specific Gravity: 2.9 Mg/m³ (Assumed)**Test results**

Unconfined Compressive Strength Maximum load (kN): 1.80
Young's Modulus (tangential at 50% failure load)
Poisson's Ratio (tangential at 50% failure load)
Young's Modulus (secant at 10% failure load)
Poisson's Ratio (secant at 10% failure load)

1.36 MPa
n/a
n/a
n/a
n/a

LF0879C (1000kN) compression frame used

Failure Sketch	
Mode of failure: Diagonal shearing	
	
Solid lines for material failures. Dashed lines for apparent weakness failure.	
Angle of foliation/Axis of loading: n/a Angle of shear plane/Axis of loading: n/a	
Sample type	C

Date tested: 14/03/2025

Note: The dimensional requirements of Flatness (<0.02 mm), Perpendicularity (<0.05 / 50 mm) and Straightness (0.3 mm deviation) are all met.

Checked and Approved by

IT

I Tabios (Head of Department)

Date: 17/03/2025

Project Number:

GEO / 42116

Project Name:

HAW LANE, SAUNDERTON
LS8055

GEOLABS

UNIAXIAL COMPRESSIVE STRENGTH OF ROCK MATERIALS

Borehole Ref.: BH02
 Sample Ref.: -
 Depth (m): 28.30-28.50

Description:
 Very weak white CHALK.

Diameter
Height
Bulk Density
Dry Density
Water Content

54.90 mm
146.00 mm
2.05 Mg/m ³
1.68 Mg/m ³
22 %

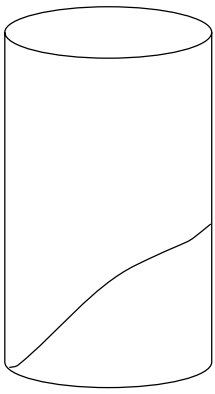
Degree of Saturation: 87.6 %

Specific Gravity: 2.9 Mg/m³ (Assumed)**Test results**

Unconfined Compressive Strength Maximum load (kN): 6.80
Young's Modulus (tangential at 50% failure load)
Poisson's Ratio (tangential at 50% failure load)
Young's Modulus (secant at 10% failure load)
Poisson's Ratio (secant at 10% failure load)

2.87 MPa
n/a
n/a
n/a
n/a

LF0879C (1000kN) compression frame used

Failure Sketch Mode of failure: Diagonal shearing

Solid lines for material failures. Dashed lines for apparent weakness failure.
Angle of foliation/Axis of loading: n/a Angle of shear plane/Axis of loading: n/a
Sample type
C

Date tested: 14/03/2025

Note: The dimensional requirements of Flatness (<0.02 mm), Perpendicularity (<0.05 / 50 mm) and Straightness (0.3 mm deviation) are all met.

Checked and Approved by

IT

I Tabios (Head of Department)

Date: 17/03/2025

Project Number:

GEO / 42116

Project Name:

**HAW LANE, SAUNDERTON
LS8055****GEOLABS**

DETERMINATION OF POINT LOAD STRENGTH ON ROCK

Sample details				Point Load test											
Borehole Ref.	Sample Ref.	Depth (m)	Description	D. Tested	Test type & Direction		Sample width W (mm)	Platen separation (mm)		Water Content (%)	Equiv. Diameter D _e (mm)	Failure Load P (kN)	I _s P/De ² (MPa)	Correction Factor F	Point Load Index I _{s(50)} (MPa)
								Start D	End D'						
BH01		11.30-11.50	Extremely weak white CHALK.	17/03/25	D	U	88.8	88.5	86.7		87.6	0.25	0.03	1.29	0.04
BH01		12.80-13.00	Very weak white CHALK.	17/03/25	I	U	44.3	43.5	41.1		48.1	0.25	0.11	0.98	0.11
BH01		14.30-14.50	Weak white CHALK.	17/03/25	A	U	88.5	68.7	65.2		85.7	1.55	0.21	1.27	0.27
BH02		3.70-4.00	Very weak white CHALK.	14/03/25	A	U	95.6	74.1	70.4		92.6	0.42	0.05	1.32	0.07
BH02		4.60-5.00	Extremely weak white CHALK.	14/03/25	A	U	88.4	63.6	63.2		84.3	0.06	0.01	1.27	0.01
BH02		5.00-5.40	Very weak white CHALK.	14/03/25	I	U	57.5	33.7	21.2		39.4	0.12	0.07	0.90	0.06
BH02		5.40-5.80	Extremely weak white CHALK.	14/03/25	I	U	65.9	38.3	30.7		50.8	0.10	0.04	1.01	0.04
BH02		6.30-6.50	Extremely weak white CHALK.	14/03/25	D	U	85.5	82.7	79.1		80.9	0.08	0.01	1.24	0.01
BH02		6.70-7.00	Extremely weak white CHALK.	14/03/25	I	U	86.3	68.6	67.3		86.0	0.19	0.03	1.28	0.04
BH02		11.80-11.90	Very weak white CHALK.	14/03/25	D	U	87.1	81.9	81.9		81.9	0.86	0.13	1.25	0.16

(*) Sample failed on weakness

Test type and direction: **D** - Diametral **A** - Axial **B** - Block **I** - Irregular lump **P** - Perpendicular to planes of weakness **U** - Random or unknown orientation **L** - Parallel to planes of weakness

Checked and Approved by  I Tabios (Head of Department) Date: 17/03/2025	Project Number: GEO / 42116 Project Name: HAW LANE, SAUNDERTON LS8055	
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DETERMINATION OF POINT LOAD STRENGTH ON ROCK

Sample details				Point Load test											
Borehole Ref.	Sample Ref.	Depth (m)	Description	D. Tested	Test type & Direction		Sample width W (mm)	Platen separation (mm)		Water Content (%)	Equiv. Diameter D _e (mm)	Failure Load P (kN)	I _s P/De ² (MPa)	Correction Factor F	Point Load Index I _{s(50)} (MPa)
								Start D	End D'						
BH02		16.80-17.00	Very weak white CHALK.	14/03/25	D	U	87.5	88.5	85.8		87.1	0.61	0.08	1.28	0.1
BH02		19.80-20.0	Weak white CHALK.	14/03/25	D	U	87.5	87.5	86.0		86.7	2.69	0.36	1.28	0.46
BH02		21.60-21.70	Very weak white CHALK.	14/03/25	D	U	87.4	87.4	85.1		86.2	0.60	0.08	1.28	0.1
BH02		23.00-23.20	Very weak white CHALK.	14/03/25	D	U	87.8	88.6	85.4		87.0	1.43	0.19	1.28	0.24
BH02		24.60-24.70	Very weak white CHALK.	14/03/25	D	L	87.8	86.7	82.5		84.6	0.37	0.05	1.27	0.06
BH02		28.30-28.50	Very weak white CHALK.	14/03/25	D	L	86.9	87.3	80.8		84.0	0.66	0.09	1.26	0.11

(*) Sample failed on weakness

 Test type and direction: **D** - Diametral **A** - Axial **B** - Block **I** - Irregular lump **P** - Perpendicular to planes of weakness **U** - Random or unknown orientation **L** - Parallel to planes of weakness

Checked and Approved by  I Tabios (Head of Department) Date: 17/03/2025	Project Number: GEO / 42116 Project Name: HAW LANE, SAUNDERTON LS8055	 
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TESTING RESTRICTION

The following tests have been scheduled on the below project. Those listed **CANNOT** be performed for the reason stated. If alternative samples are available for the restricted tests, please supply details.

Sample details				Tests restricted	Reason for restriction and comments
Borehole Ref.	Sample Ref.	Depth (m)	Description		
BH01		11.30-11.50	n/a	UCS	Sample too short to meet the recommended H:D ratio. Also unsuitable for recoring. Cancel UCS and do Point load test as scheduled.
BH02		3.70-4.00	n/a	UCS	Sample too short to meet the recommended H:D ratio. Also unsuitable for recoring. Cancel UCS and do Point load test as scheduled.
BH02		5.40-5.80	n/a	UCS	Sample arrived broken, too short to meet the recommended H:D ratio. Also unsuitable for recoring. Cancel UCS and do Point load test instead.
BH02		7.50-7.80	n/a	UCS w/ YM	Sample too short to meet the recommended H:D ratio. Recore a 38mm diameter specimen to get a suitable UCS sample.
BH02		21.10-21.20	n/a	Point load	Sample not received.
BH02		24.70-24.90	n/a	UCS	Sample too short to meet the recommended H:D ratio. Recore a 41m diameter specimen to get a suitable UCS sample.
BH02		28.30-28.50	n/a	UCS	Sample too short to meet the recommended H:D ratio. Recore a 54m diameter specimen to get a suitable UCS sample.

Checked and Approved by

IT

I Tabios (Head of Department)

Date: 10/03/2025

Project Number:

Project Name:

GEO / 42116

HAW LANE, SAUNDERTON
LS8055



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31 March 2025

Report No : GEO/42161/01

Page 1 of 1

For the attention of Sam Whewell

Our ref **GEO / 42161**
Your ref **LS8055**

Date samples received 17/03/2025
Date written instructions received 12/03/2025
Date testing commenced 18/03/2025
Date of sample disposal 28/04/2025

Project **HAW LANE, SAUNDERTON**

Further to your instructions we have pleasure in enclosing the results of the tests you requested in the attached figures.

LABORATORY TEST REPORT

Item No	Test Quantity	Description
1	~	Unconfined Compressive Strength Summary
	2	Unconfined Compressive Strength with Young's Modulus
	3	Unconfined Compressive Strength
2	11	Point Load Strength Index

Any opinions or interpretations expressed herein are outside the scope of UKAS accreditation. All results contained in this report are provisional and may be subject to change unless signed by an approved signatory. The results contained in this report relate only to samples received in the laboratory and are tested 'as received' unless otherwise stated. This report should not be reproduced, except in full, without the written approval of the laboratory. The results reported are applicable only to the test items received by the laboratory.

All the necessary data required by the documented test procedures has been recorded and will be stored for a period of not less than 6 years. This data will be issued to yourselves at your request. All samples will be disposed of after the date shown above. Written confirmation will be required to retain the samples beyond this period and a storage charge may be applied.

We trust that the above meets your requirements and should you require any further information or assistance, please do not hesitate to contact us.

Yours faithfully
on behalf of **GEOLABS Limited**



I Tabios
Laboratory Manager

UNIAXIAL COMPRESSIVE STRENGTH OF ROCK MATERIALS

Sample details						Density		Uniaxial Compression Test (LF0879C (1000kN) compression frame used)							
Borehole Ref.	Sample Ref.	Depth (m)	Description	MC (%)	Degree of Saturation (%)	Bulk (Mg/m³)	Dry (Mg/m³)	Mean after prep.		H/D Ratio	Load at Failure (kN)	UCS (MPa) 3 sig. fig.	Failure Sketch	D. Tested	Remarks
								Diameter (mm)	Height (mm)						
BH03		8.30-8.50	Very weak white CHALK.	24	95.0	2.08	1.68	38.00	99.50	2.6	3.2	2.82		28/03/25	
BH03		8.70-8.90	Very weak white CHALK.	27	93.0	2.00	1.58	54.00	151.80	2.8	8.5	3.71		28/03/25	
BH03		12.10-12.30	Very weak white CHALK.	22	85.8	2.02	1.66	85.10	173.50	2.0	16.9	2.97		28/03/25	
BH03		20.30-20.50	Very weak white CHALK.	27	93.6	2.00	1.57	54.00	153.30	2.8	9.3	4.06		28/03/25	
BH03		21.40-21.60	Very weak white CHALK.	29	93.8	1.98	1.54	54.00	139.60	2.6	8.6	3.76		28/03/25	

Note: The dimensional requirements of flatness (<0.02 mm), perpendicularity (<0.05 / 50 mm) and straightness (0.3 mm deviation) are all met. Specific Gravity used for Degree of Saturation is assumed unless specified by the client.

Checked and Approved by  I Tabios (Head of Department) Date: 31/03/2025	Project Number: GEO / 42161 Project Name: HAW LANE, SAUNDERTON LS8055	 
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UNIAXIAL COMPRESSIVE STRENGTH OF ROCK MATERIALS

Borehole Ref.: BH03
 Sample Ref.: -
 Depth (m): 8.30-8.50

Description:
 Very weak white CHALK.

Diameter
Height
Bulk Density
Dry Density
Water Content

38.00 mm
99.50 mm
2.08 Mg/m ³
1.68 Mg/m ³
24 %

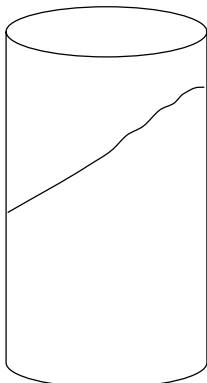
Degree of Saturation: 95.0 %

Specific Gravity: 2.9 Mg/m³ (Assumed)**Test results**

Unconfined Compressive Strength Maximum load (kN): 3.20
Young's Modulus (tangential at 50% failure load)
Poisson's Ratio (tangential at 50% failure load)
Young's Modulus (secant at 10% failure load)
Poisson's Ratio (secant at 10% failure load)

2.82 MPa
n/a
n/a
n/a
n/a

LF0879C (1000kN) compression frame used

Failure Sketch Mode of failure: Diagonal shearing  Solid lines for material failures. Dashed lines for apparent weakness failure. Angle of foliation/Axis of loading: n/a Angle of shear plane/Axis of loading: n/a	Date tested: 28/03/2025		
<table border="1"> <tr> <td>Sample type</td> <td>C</td> </tr> </table>	Sample type	C	
Sample type	C		

Note: The dimensional requirements of Flatness (<0.02 mm), Perpendicularity (<0.05 / 50 mm) and Straightness (0.3 mm deviation) are all met.

Checked and Approved by

IT

I Tabios (Head of Department)

Date: 31/03/2025

Project Number:

GEO / 42161

Project Name:

HAW LANE, SAUNDERTON
LS8055

GEOLABS

UNCONFINED COMPRESSIVE STRENGTH WITH YOUNG'S MODULUS

Borehole Ref.: BH03
 Sample Ref.: -
 Depth (m): 8.70-8.90

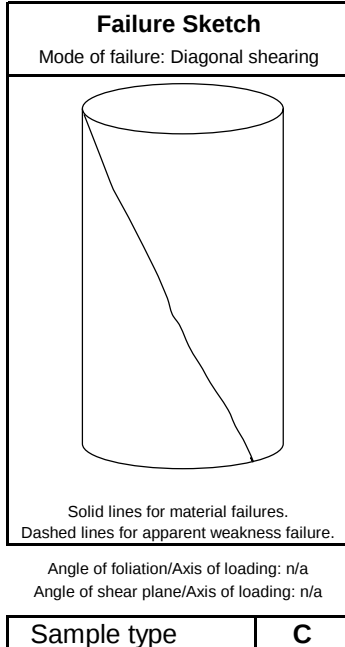
Description:
 Very weak white CHALK.

Diameter	54.00 mm
Height	151.80 mm
Bulk Density	2.00 Mg/m ³
Dry Density	1.58 Mg/m ³
Water Content	27 %
Degree of Saturation: 93.0 %	Specific Gravity: 2.9 Mg/m ³ (Assumed)

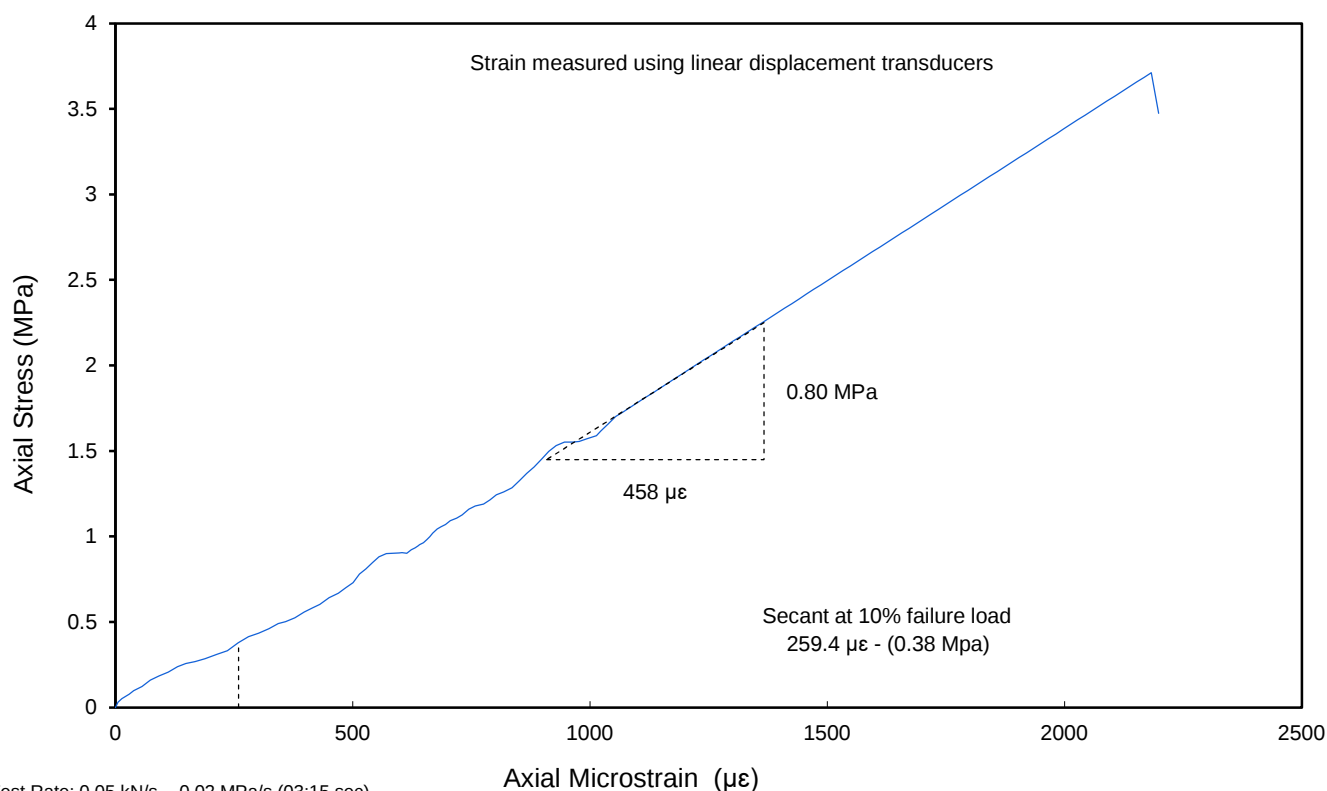
Test results

Unconfined Compressive Strength Maximum load (kN): 8.50	3.71 MPa
Young's Modulus (tangential at 50% failure load)	1.75 GPa
Poisson's Ratio (tangential at 50% failure load)	n/a
Young's Modulus (secant at 10% failure load)	1.46 GPa
Poisson's Ratio (secant at 10% failure load)	n/a

LF0879C (1000kN) compression frame used



Date tested: 28/03/2025



Test Rate: 0.05 kN/s - 0.02 MPa/s (03:15 sec)

Note: The dimensional requirements of Flatness (<0.02 mm), Perpendicularity (<0.05 / 50 mm) and Straightness (0.3 mm deviation) are all met.

Checked and Approved by

IT

I Tabios (Head of Department)

Date: 31/03/2025

Project Number:

GEO / 42161

Project Name:

**HAW LANE, SAUNDERTON
LS8055****GEOLABS**

UNCONFINED COMPRESSIVE STRENGTH WITH YOUNG'S MODULUS

Borehole Ref.: BH03
Sample Ref.: -
Depth (m): 12.10-12.30

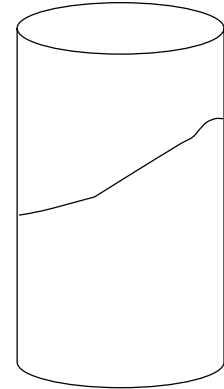
Description:
Very weak white CHALK.

Diameter	85.10 mm
Height	173.50 mm
Bulk Density	2.02 Mg/m ³
Dry Density	1.66 Mg/m ³
Water Content	22 %
Degree of Saturation: 85.8 %	Specific Gravity: 2.9 Mg/m ³ (Assumed)

LF0879C (1000kN) compression frame used

Failure Sketch

Mode of failure: Diagonal shearing



Solid lines for material failures.
Dashed lines for apparent weakness failure.

Angle of foliation/Axis of loading: n/a
Angle of shear plane/Axis of loading: n/a

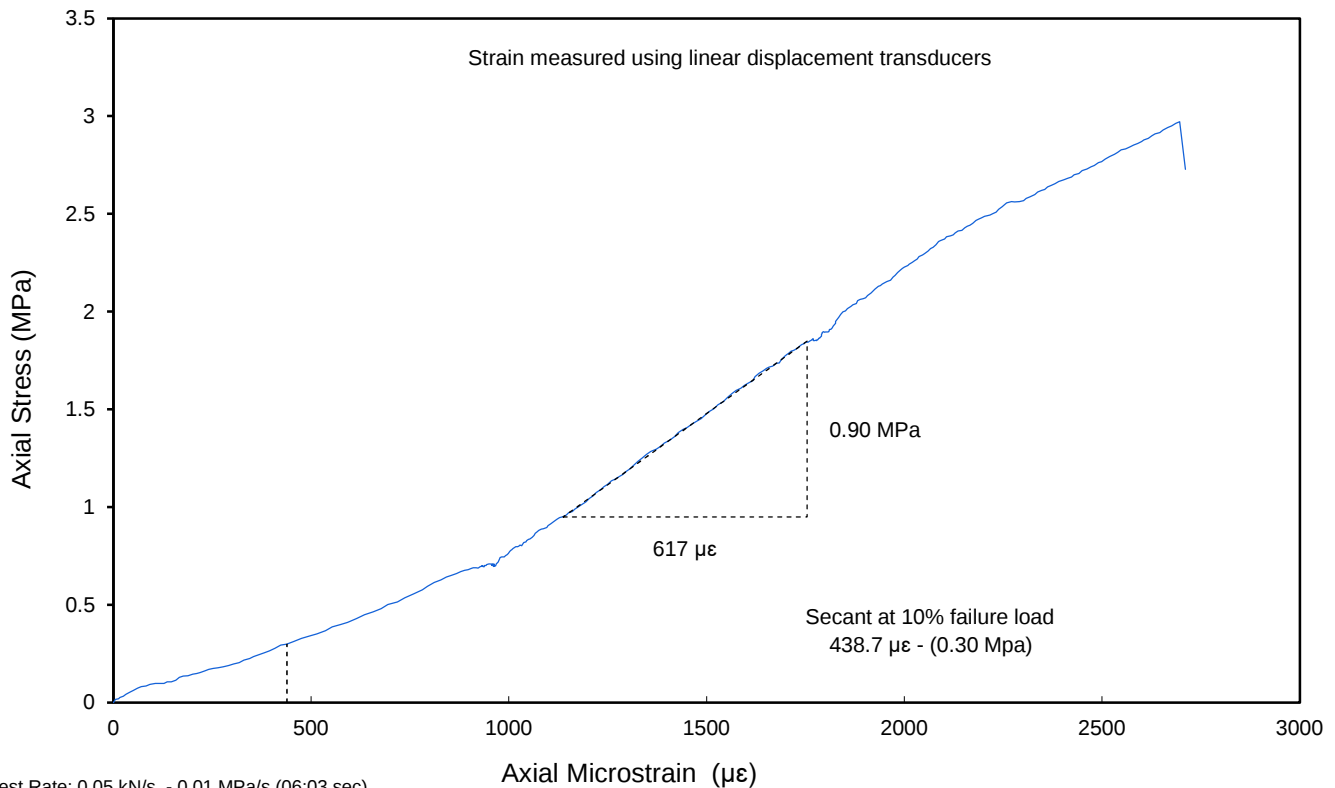
Date tested: 28/03/2025

Test results

Unconfined Compressive Strength Maximum load (kN): 16.90	2.97 MPa
Young's Modulus (tangential at 50% failure load)	1.46 GPa
Poisson's Ratio (tangential at 50% failure load)	n/a
Young's Modulus (secant at 10% failure load)	0.682 GPa
Poisson's Ratio (secant at 10% failure load)	n/a

Sample type

C



Test Rate: 0.05 kN/s - 0.01 MPa/s (06:03 sec)

Note: The dimensional requirements of Flatness (<0.02 mm), Perpendicularity (<0.05 / 50 mm) and Straightness (0.3 mm deviation) are all met.

Checked and Approved by

IT

I Tabios (Head of Department)

Date: 31/03/2025

Project Number:

GEO / 42161

Project Name:

HAW LANE, SAUNDERTON
LS8055

GEOLABS®

UNIAXIAL COMPRESSIVE STRENGTH OF ROCK MATERIALS

Borehole Ref.: BH03
 Sample Ref.: -
 Depth (m): 20.30-20.50

Description:
 Very weak white CHALK.

Diameter
Height
Bulk Density
Dry Density
Water Content

54.00 mm
153.30 mm
2.00 Mg/m ³
1.57 Mg/m ³
27 %

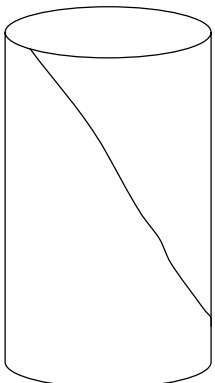
Degree of Saturation: 93.6 %

Specific Gravity: 2.9 Mg/m³ (Assumed)**Test results**

Unconfined Compressive Strength Maximum load (kN): 9.30
Young's Modulus (tangential at 50% failure load)
Poisson's Ratio (tangential at 50% failure load)
Young's Modulus (secant at 10% failure load)
Poisson's Ratio (secant at 10% failure load)

4.06 MPa
n/a
n/a
n/a
n/a

LF0879C (1000kN) compression frame used

Failure Sketch Mode of failure: Diagonal shearing	
	
Solid lines for material failures. Dashed lines for apparent weakness failure.	
Angle of foliation/Axis of loading: n/a Angle of shear plane/Axis of loading: n/a	
Sample type	C

Date tested: 28/03/2025

Note: The dimensional requirements of Flatness (<0.02 mm), Perpendicularity (<0.05 / 50 mm) and Straightness (0.3 mm deviation) are all met.

Checked and Approved by

IT

I Tabios (Head of Department)

Date: 31/03/2025

Project Number:

GEO / 42161

Project Name:

HAW LANE, SAUNDERTON
LS8055

GEOLABS

UNIAXIAL COMPRESSIVE STRENGTH OF ROCK MATERIALS

Borehole Ref.: BH03
Sample Ref.: -
Depth (m): 21.40-21.60

Description:
Very weak white CHALK.

Diameter
Height
Bulk Density
Dry Density
Water Content

54.00 mm
139.60 mm
1.98 Mg/m ³
1.54 Mg/m ³
29 %

Degree of Saturation: 93.8 %

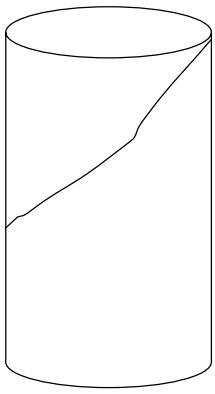
Specific Gravity: 2.9 Mg/m³ (Assumed)

Test results

Unconfined Compressive Strength Maximum load (kN): 8.60
Young's Modulus (tangential at 50% failure load)
Poisson's Ratio (tangential at 50% failure load)
Young's Modulus (secant at 10% failure load)
Poisson's Ratio (secant at 10% failure load)

3.76 MPa
n/a
n/a
n/a
n/a

LF0879C (1000kN) compression frame used

Failure Sketch Mode of failure: Diagonal shearing

Solid lines for material failures. Dashed lines for apparent weakness failure.
Angle of foliation/Axis of loading: n/a Angle of shear plane/Axis of loading: n/a
Sample type
C

Date tested: 28/03/2025

Note: The dimensional requirements of Flatness (<0.02 mm), Perpendicularity (<0.05 / 50 mm) and Straightness (0.3 mm deviation) are all met.

Checked and Approved by

I Tabios (Head of Department)
Date: 31/03/2025

Project Number:

GEO / 42161

Project Name:

HAW LANE, SAUNDERTON
LS8055



DETERMINATION OF POINT LOAD STRENGTH ON ROCK

Sample details				Point Load test											
Borehole Ref.	Sample Ref.	Depth (m)	Description	D. Tested	Test type & Direction		Sample width W (mm)	Platen separation (mm)		Water Content (%)	Equiv. Diameter D _e (mm)	Failure Load P (kN)	I _s P/De ² (MPa)	Correction Factor F	Point Load Index I _{s(50)} (MPa)
								Start D	End D'						
BH03		8.00-8.20	Very weak white CHALK.	28/03/25	D	U	88.0	88.5	86.4		87.4	0.44	0.06	1.29	0.08
BH03		9.80-10.00	Very weak white CHALK.	28/03/25	I	U	87.5	71.8	69.5		88.0	0.49	0.06	1.29	0.08
BH03		10.90-11.00	Extremely weak white CHALK.	28/03/25	D	U	86.0	86.0	83.8		84.9	0.25	0.03	1.27	0.04
BH03		12.30-12.50	Extremely weak white CHALK.	28/03/25	D	U	83.5	81.8	80.7		81.2	0.24	0.04	1.24	0.05
BH03		13.30-13.50	Very weak white CHALK.	28/03/25	D	U	87.8	88.0	86.2		87.1	0.57	0.08	1.28	0.1
BH03		14.60-14.80	Extremely weak white CHALK.	28/03/25	D	U	86.6	87.3	85.6		86.4	0.26	0.03	1.28	0.04
BH03		15.40-15.60	Very weak white CHALK.	28/03/25	D	U	89.0	88.8	86.1		87.4	0.80	0.10	1.29	0.13
BH03		16.20-16.40	Very weak white CHALK.	28/03/25	D	U	88.7	89.0	86.3		87.6	1.34	0.17	1.29	0.22
BH03		17.00-17.20	Extremely weak white CHALK.	28/03/25	D	U	86.5	86.4	84.2		85.3	0.28	0.04	1.27	0.05
BH03		21.20-21.40	Very weak white CHALK.	28/03/25	I	U	87.0	48.3	45.7		71.1	0.34	0.07	1.17	0.08

(*) Sample failed on weakness

Test type and direction: **D** - Diametral **A** - Axial **B** - Block **I** - Irregular lump **P** - Perpendicular to planes of weakness **U** - Random or unknown orientation **L** - Parallel to planes of weakness

Checked and Approved by  I Tabios (Head of Department) Date: 31/03/2025	Project Number: GEO / 42161 Project Name: HAW LANE, SAUNDERTON LS8055	
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DETERMINATION OF POINT LOAD STRENGTH ON ROCK

Sample details				Point Load test											
Borehole Ref.	Sample Ref.	Depth (m)	Description	D. Tested	Test type & Direction		Sample width W (mm)	Platen separation (mm)		Water Content (%)	Equiv. Diameter D _e (mm)	Failure Load P (kN)	I _s P/De ² (MPa)	Correction Factor F	Point Load Index I _{s(50)} (MPa)
								Start D	End D'						
BH03		25.10-25.30	Very weak white CHALK.	28/03/25	D	U	87.8	88.0	85.8		86.9	0.66	0.09	1.28	0.12

(*) Sample failed on weakness

Test type and direction: **D** - Diametral **A** - Axial **B** - Block **I** - Irregular lump **P** - Perpendicular to planes of weakness **U** - Random or unknown orientation **L** - Parallel to planes of weakness

Checked and Approved by  I Tabios (Head of Department) Date: 31/03/2025	Project Number: GEO / 42161 Project Name: HAW LANE, SAUNDERTON LS8055	
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TESTING RESTRICTION

The following tests have been scheduled on the below project. Those listed **CANNOT** be performed for the reason stated. If alternative samples are available for the restricted tests, please supply details.

Sample details				Tests restricted	Reason for restriction and comments
Borehole Ref.	Sample Ref.	Depth (m)	Description		
BH03		8.30-8.50	n/a	UCS	Sample arrived broken. Recore a 38mm diameter specimen to get a suitable UCS sample.
BH03		8.70-8.90	n/a	UCS w/ YM	Sample is not a perfect cylinder (irregular). Recore a 54mm diameter specimen to get a suitable UCS sample.
BH03		20.30-20.50	n/a	UCS	Sample is not a perfect cylinder (irregular). Recore a 54mm diameter specimen to get a suitable UCS sample.
BH03		21.40-21.60	n/a	UCS	Sample is not a perfect cylinder (irregular). Recore a 54mm diameter specimen to get a suitable UCS sample.

Checked and Approved by

IT

I Tabios (Head of Department)

Date: 25/03/2025

Project Number:

GEO / 42161

Project Name:

HAW LANE, SAUNDERTON
LS8055



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web: www.geolabs.co.uk

01 April 2025

Report No : GEO/42248/01

Page 1 of 1

For the attention of Sam Whewell

Our ref **GEO / 42248**
Your ref **LS8055**

Date samples received 25/03/2025
Date written instructions received 25/03/2025
Date testing commenced 26/03/2025
Date of sample disposal 29/04/2025

Project **HAW LANE, SAUNDERTON**

Further to your instructions we have pleasure in enclosing the results of the tests you requested in the attached figures.

LABORATORY TEST REPORT

Item No	Test Quantity	Description
1	~ 4	Unconfined Compressive Strength Summary Unconfined Compressive Strength with Young's Modulus
2	4 15	Unconfined Compressive Strength Point Load Strength Index

Any opinions or interpretations expressed herein are outside the scope of UKAS accreditation. All results contained in this report are provisional and may be subject to change unless signed by an approved signatory. The results contained in this report relate only to samples received in the laboratory and are tested 'as received' unless otherwise stated. This report should not be reproduced, except in full, without the written approval of the laboratory. The results reported are applicable only to the test items received by the laboratory.

All the necessary data required by the documented test procedures has been recorded and will be stored for a period of not less than 6 years. This data will be issued to yourselves at your request. All samples will be disposed of after the date shown above. Written confirmation will be required to retain the samples beyond this period and a storage charge may be applied.

We trust that the above meets your requirements and should you require any further information or assistance, please do not hesitate to contact us.

Yours faithfully
on behalf of **GEOLABS Limited**



I Tabios
Laboratory Manager

UNIAXIAL COMPRESSIVE STRENGTH OF ROCK MATERIALS

Sample details						Density		Uniaxial Compression Test (LF0879C (1000kN) compression frame used)							
Borehole Ref.	Sample Ref.	Depth (m)	Description	MC (%)	Degree of Saturation (%)	Bulk (Mg/m³)	Dry (Mg/m³)	Mean after prep.		H/D Ratio	Load at Failure (kN)	UCS (MPa) 3 sig. fig.	Failure Sketch	D. Tested	Remarks
								Diameter (mm)	Height (mm)						
BH04	3	5.80-6.00	Very weak white CHALK.	27	88.1	1.95	1.53	41.00	116.80	2.8	2.4	1.82		31/03/25	
BH04	6	7.20-7.40	Very weak white CHALK.	26	93.1	2.02	1.60	54.00	153.80	2.8	4.1	1.79		31/03/25	
BH04	8	7.80-8.00	Very weak white CHALK.	24	85.8	1.99	1.60	85.40	182.20	2.1	16.4	2.86		31/03/25	
BH04	12	11.10-11.30	Very weak white CHALK.	23	87.6	2.03	1.65	41.00	117.90	2.9	3.2	2.42		31/03/25	
BH04	13	12.20-12.40	Weak white CHALK.	19	92.2	2.16	1.82	54.00	122.70	2.3	16.7	7.29		31/03/25	
BH04	15	13.80-14.00	Weak white CHALK.	16	88.8	2.21	1.91	54.00	146.40	2.7	13.2	5.76		31/03/25	
BH04	19	17.10-17.40	Very weak white CHALK.	25	83.5	1.95	1.56	87.90	187.90	2.1	25.1	4.14		31/03/25	
BH04	26	24.60-24.80	Very weak white CHALK.	26	92.9	2.01	1.59	41.00	84.70	2.1	2.3	1.74		31/03/25	

Note: The dimensional requirements of flatness (<0.02 mm), perpendicularity (<0.05 / 50 mm) and straightness (0.3 mm deviation) are all met. Specific Gravity used for Degree of Saturation is assumed unless specified by the client.

Checked and Approved by  I Tabios (Head of Department) Date: 01/04/2025	Project Number: GEO / 42248 Project Name: HAW LANE, SAUNDERTON LS8055	 
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UNIAXIAL COMPRESSIVE STRENGTH OF ROCK MATERIALS

Borehole Ref.: BH04
 Sample Ref.: 3
 Depth (m): 5.80-6.00

Description:
 Very weak white CHALK.

Diameter
Height
Bulk Density
Dry Density
Water Content

41.00 mm
116.80 mm
1.95 Mg/m ³
1.53 Mg/m ³
27 %

Degree of Saturation: 88.1 %

Specific Gravity: 2.9 Mg/m³ (Assumed)**Test results**

Unconfined Compressive Strength Maximum load (kN): 2.40
Young's Modulus (tangential at 50% failure load)
Poisson's Ratio (tangential at 50% failure load)
Young's Modulus (secant at 10% failure load)
Poisson's Ratio (secant at 10% failure load)

1.82 MPa
n/a
n/a
n/a
n/a

LF0879C (1000kN) compression frame used

Failure Sketch Mode of failure: Diagonal shearing	
Solid lines for material failures. Dashed lines for apparent weakness failure.	
Angle of foliation/Axis of loading: n/a Angle of shear plane/Axis of loading: n/a	
Sample type	C

Date tested: 31/03/2025

Note: The dimensional requirements of Flatness (<0.02 mm), Perpendicularity (<0.05 / 50 mm) and Straightness (0.3 mm deviation) are all met.

Checked and Approved by

IT

I Tabios (Head of Department)

Date: 01/04/2025

Project Number:

GEO / 42248

Project Name:

HAW LANE, SAUNDERTON
LS8055

GEOLABS

UNCONFINED COMPRESSIVE STRENGTH WITH YOUNG'S MODULUS

Borehole Ref.: BH04
 Sample Ref.: 6
 Depth (m): 7.20-7.40

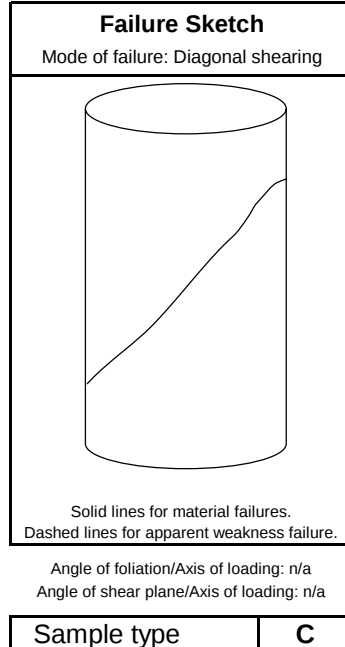
Description:
 Very weak white CHALK.

Diameter	54.00 mm
Height	153.80 mm
Bulk Density	2.02 Mg/m ³
Dry Density	1.60 Mg/m ³
Water Content	26 %
Degree of Saturation: 93.1 %	Specific Gravity: 2.9 Mg/m ³ (Assumed)

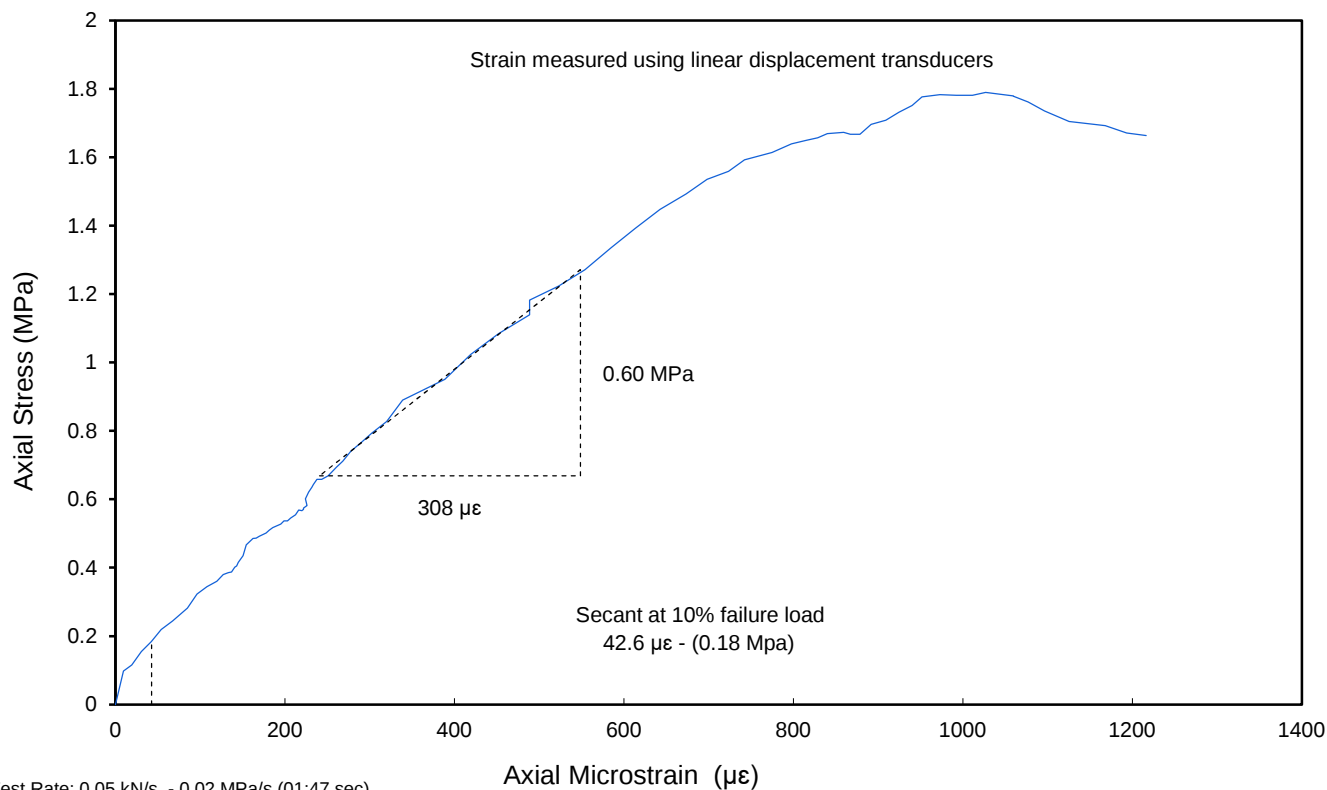
Test results

Unconfined Compressive Strength Maximum load (kN): 4.10	1.79 MPa
Young's Modulus (tangential at 50% failure load)	1.96 GPa
Poisson's Ratio (tangential at 50% failure load)	n/a
Young's Modulus (secant at 10% failure load)	4.32 GPa
Poisson's Ratio (secant at 10% failure load)	n/a

LF0879C (1000kN) compression frame used



Date tested: 31/03/2025



Test Rate: 0.05 kN/s - 0.02 MPa/s (01:47 sec)

Note: The dimensional requirements of Flatness (<0.02 mm), Perpendicularity (<0.05 / 50 mm) and Straightness (0.3 mm deviation) are all met.

Checked and Approved by

IT

I Tabios (Head of Department)

Date: 01/04/2025

Project Number:

GEO / 42248

Project Name:

**HAW LANE, SAUNDERTON
LS8055**

UNIAXIAL COMPRESSIVE STRENGTH OF ROCK MATERIALS

Borehole Ref.: BH04
 Sample Ref.: 8
 Depth (m): 7.80-8.00

Description:
 Very weak white CHALK.

Diameter
Height
Bulk Density
Dry Density
Water Content

85.40 mm
182.20 mm
1.99 Mg/m ³
1.60 Mg/m ³
24 %

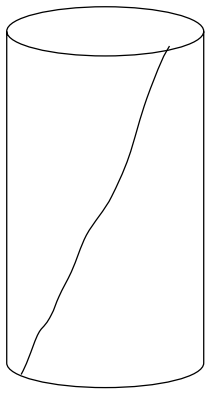
Degree of Saturation: 85.8 %

Specific Gravity: 2.9 Mg/m³ (Assumed)**Test results**

Unconfined Compressive Strength Maximum load (kN): 16.40
Young's Modulus (tangential at 50% failure load)
Poisson's Ratio (tangential at 50% failure load)
Young's Modulus (secant at 10% failure load)
Poisson's Ratio (secant at 10% failure load)

2.86 MPa
n/a
n/a
n/a
n/a

LF0879C (1000kN) compression frame used

Failure Sketch Mode of failure: Diagonal shearing  Solid lines for material failures. Dashed lines for apparent weakness failure. Angle of foliation/Axis of loading: n/a Angle of shear plane/Axis of loading: n/a	Date tested: 31/03/2025		
<table border="1"> <tr> <td>Sample type</td> <td>C</td> </tr> </table>	Sample type	C	
Sample type	C		

Note: The dimensional requirements of Flatness (<0.02 mm), Perpendicularity (<0.05 / 50 mm) and Straightness (0.3 mm deviation) are all met.

Checked and Approved by

IT

I Tabios (Head of Department)

Date: 01/04/2025

Project Number:

GEO / 42248

Project Name:

HAW LANE, SAUNDERTON
LS8055




UNCONFINED COMPRESSIVE STRENGTH WITH YOUNG'S MODULUS

Borehole Ref.: BH04
Sample Ref.: 12
Depth (m): 11.10-11.30

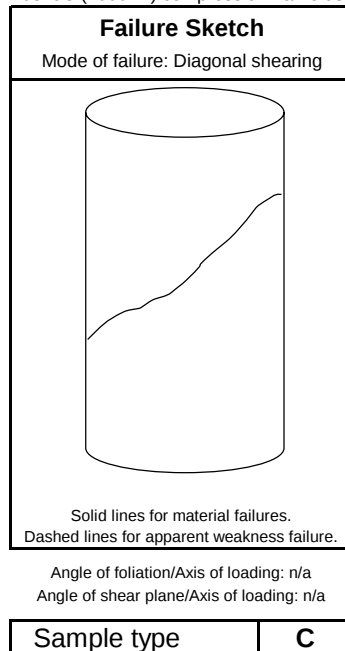
Description:
Very weak white CHALK.

Diameter	41.00 mm
Height	117.90 mm
Bulk Density	2.03 Mg/m ³
Dry Density	1.65 Mg/m ³
Water Content	23 %
Degree of Saturation: 87.6 %	Specific Gravity: 2.9 Mg/m ³ (Assumed)

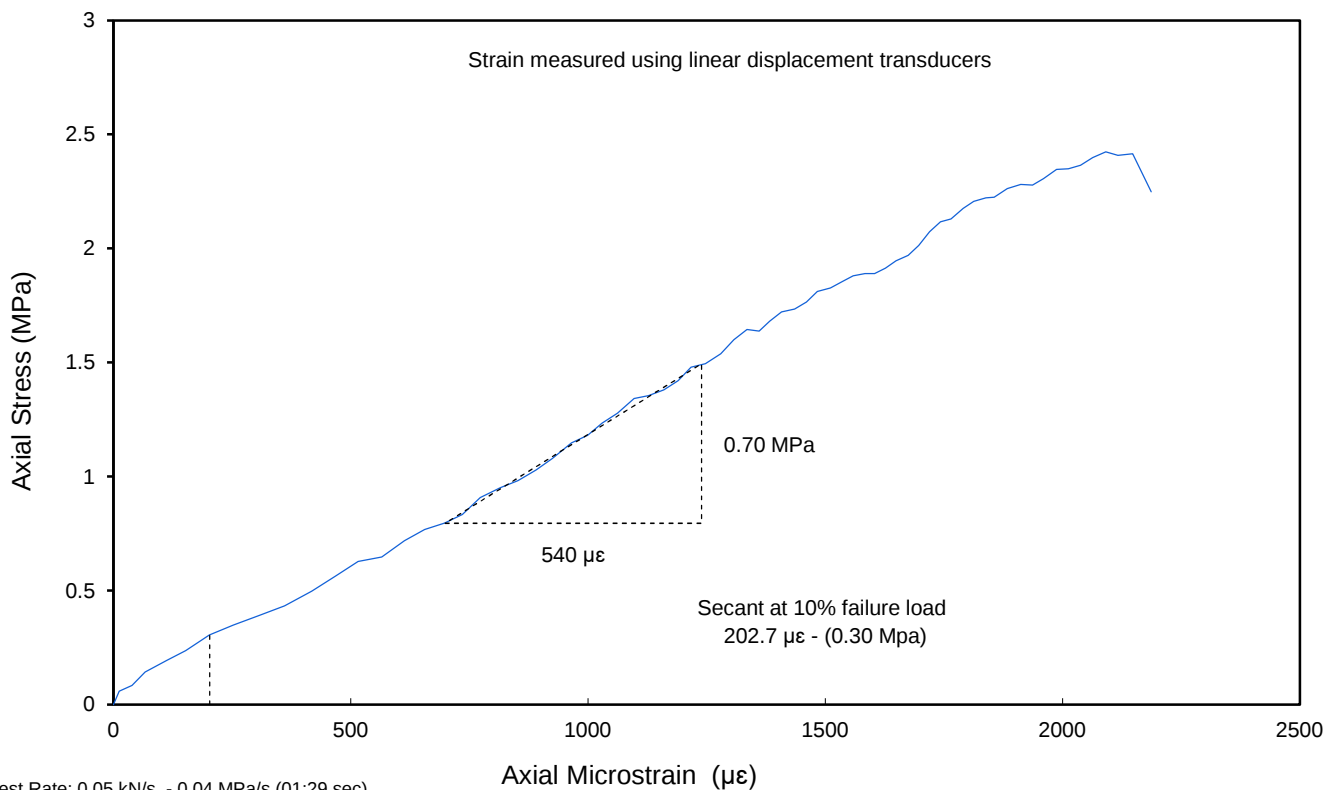
Test results

Unconfined Compressive Strength Maximum load (kN): 3.20	2.42 MPa
Young's Modulus (tangential at 50% failure load)	1.29 GPa
Poisson's Ratio (tangential at 50% failure load)	n/a
Young's Modulus (secant at 10% failure load)	1.5 GPa
Poisson's Ratio (secant at 10% failure load)	n/a

LF0879C (1000kN) compression frame used



Date tested: 31/03/2025



Test Rate: 0.05 kN/s - 0.04 MPa/s (01:29 sec)

Note: The dimensional requirements of Flatness (<0.02 mm), Perpendicularity (<0.05 / 50 mm) and Straightness (0.3 mm deviation) are all met.

Checked and Approved by

IT

I Tabios (Head of Department)

Date: 01/04/2025

Project Number:

GEO / 42248

Project Name:

**HAW LANE, SAUNDERTON
LS8055**



UNIAXIAL COMPRESSIVE STRENGTH OF ROCK MATERIALS

Borehole Ref.: BH04
 Sample Ref.: 13
 Depth (m): 12.20-12.40

Description:
 Weak white CHALK.

Diameter
Height
Bulk Density
Dry Density
Water Content

54.00 mm
122.70 mm
2.16 Mg/m ³
1.82 Mg/m ³
19 %

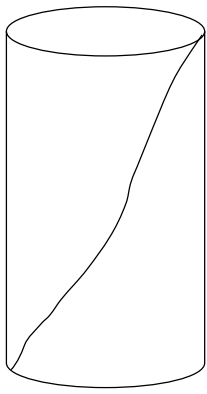
Degree of Saturation: 92.2 %

Specific Gravity: 2.9 Mg/m³ (Assumed)**Test results**

Unconfined Compressive Strength Maximum load (kN): 16.70
Young's Modulus (tangential at 50% failure load)
Poisson's Ratio (tangential at 50% failure load)
Young's Modulus (secant at 10% failure load)
Poisson's Ratio (secant at 10% failure load)

7.29 MPa
n/a
n/a
n/a
n/a

LF0879C (1000kN) compression frame used

Failure Sketch Mode of failure: Diagonal shearing	
	
Solid lines for material failures. Dashed lines for apparent weakness failure.	
Angle of foliation/Axis of loading: n/a Angle of shear plane/Axis of loading: n/a	
Sample type	C

Date tested: 31/03/2025

Note: The dimensional requirements of Flatness (<0.02 mm), Perpendicularity (<0.05 / 50 mm) and Straightness (0.3 mm deviation) are all met.

Checked and Approved by

IT

I Tabios (Head of Department)

Date: 01/04/2025

Project Number:

GEO / 42248

Project Name:

HAW LANE, SAUNDERTON
LS8055

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UNCONFINED COMPRESSIVE STRENGTH WITH YOUNG'S MODULUS

Borehole Ref.: BH04
Sample Ref.: 15
Depth (m): 13.80-14.00

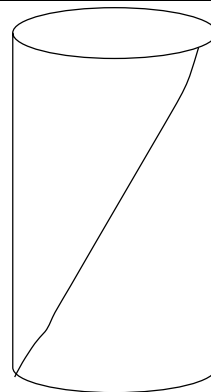
Description:
Weak white CHALK.

Diameter	54.00 mm
Height	146.40 mm
Bulk Density	2.21 Mg/m ³
Dry Density	1.91 Mg/m ³
Water Content	16 %
Degree of Saturation: 88.8 % Specific Gravity: 2.9 Mg/m ³ (Assumed)	

LF0879C (1000kN) compression frame used

Failure Sketch

Mode of failure: Diagonal shearing



Solid lines for material failures.
Dashed lines for apparent weakness failure.

Angle of foliation/Axis of loading: n/a
Angle of shear plane/Axis of loading: n/a

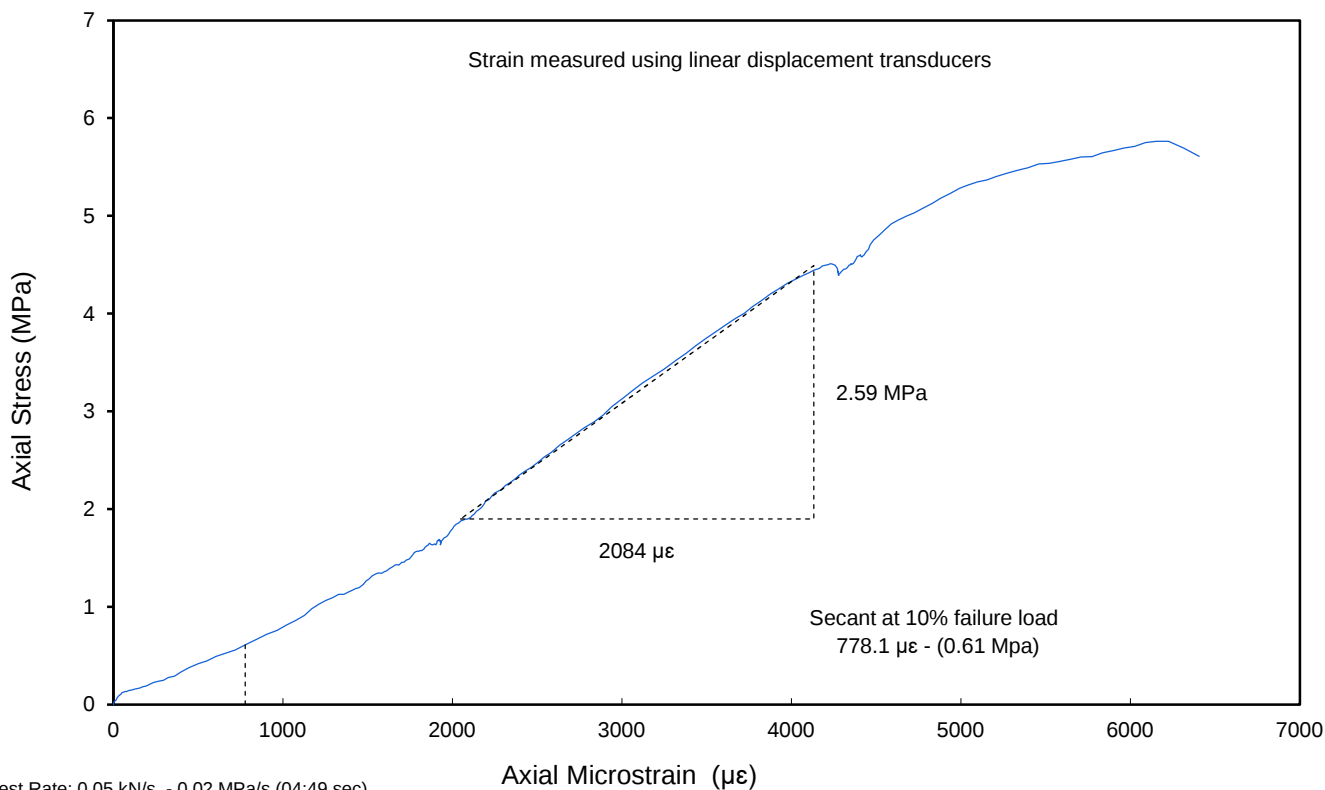
Date tested: 31/03/2025

Test results

Unconfined Compressive Strength Maximum load (kN): 13.20	5.76 MPa
Young's Modulus (tangential at 50% failure load)	1.24 GPa
Poisson's Ratio (tangential at 50% failure load)	n/a
Young's Modulus (secant at 10% failure load)	0.786 GPa
Poisson's Ratio (secant at 10% failure load)	n/a

Sample type

C



Test Rate: 0.05 kN/s - 0.02 MPa/s (04:49 sec)

Note: The dimensional requirements of Flatness (<0.02 mm), Perpendicularity (<0.05 / 50 mm) and Straightness (0.3 mm deviation) are all met.

Checked and Approved by

IT

I Tabios (Head of Department)

Date: 01/04/2025

Project Number:

GEO / 42248

Project Name:

HAW LANE, SAUNDERTON
LS8055

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UNCONFINED COMPRESSIVE STRENGTH WITH YOUNG'S MODULUS

Borehole Ref.: BH04
Sample Ref.: 19
Depth (m): 17.10-17.40

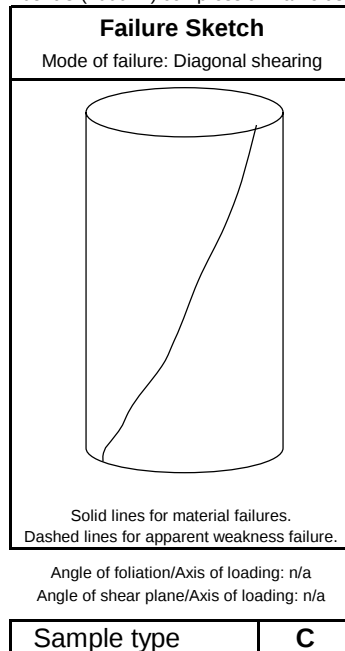
Description:
Very weak white CHALK.

Diameter	87.90 mm
Height	187.90 mm
Bulk Density	1.95 Mg/m ³
Dry Density	1.56 Mg/m ³
Water Content	25 %
Degree of Saturation: 83.5 %	Specific Gravity: 2.9 Mg/m ³ (Assumed)

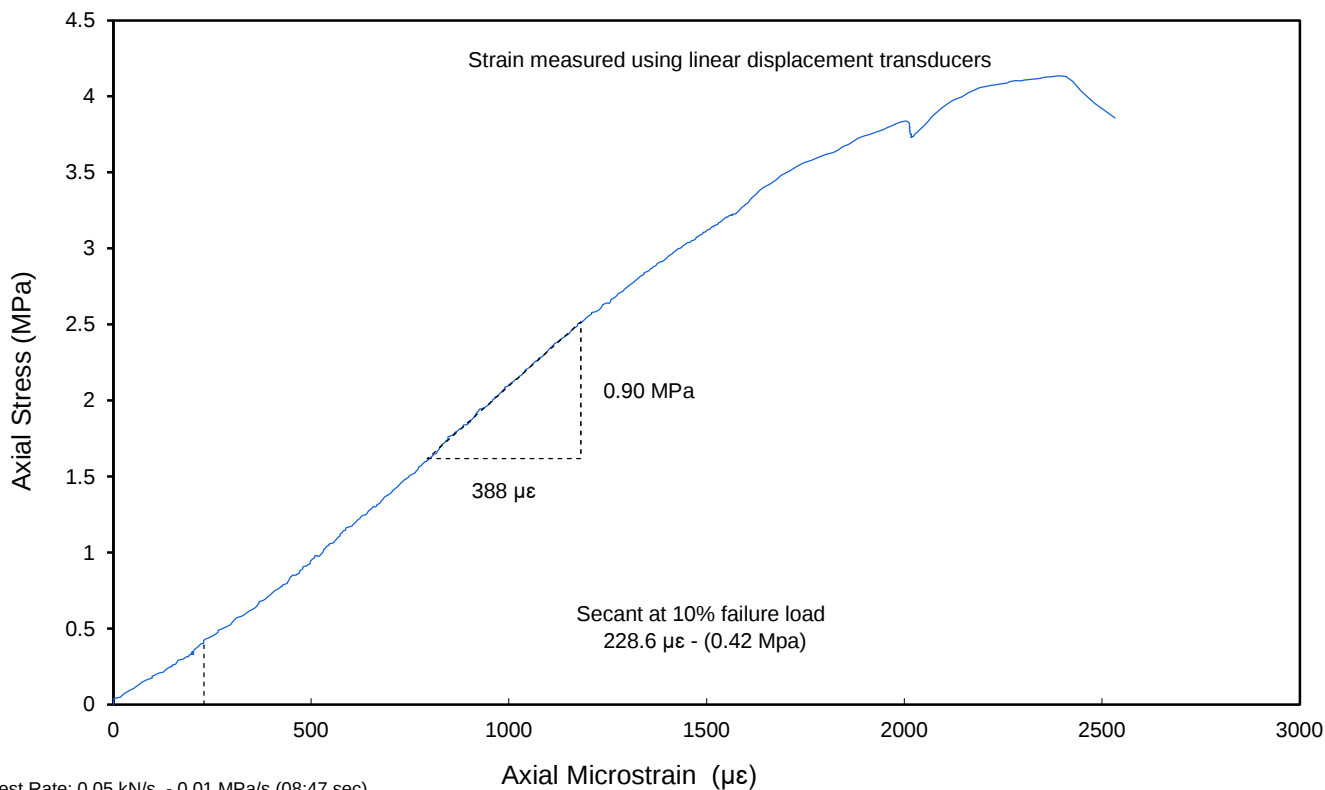
Test results

Unconfined Compressive Strength Maximum load (kN): 25.10	4.14 MPa
Young's Modulus (tangential at 50% failure load)	2.32 GPa
Poisson's Ratio (tangential at 50% failure load)	n/a
Young's Modulus (secant at 10% failure load)	1.85 GPa
Poisson's Ratio (secant at 10% failure load)	n/a

LF0879C (1000kN) compression frame used



Date tested: 31/03/2025



Test Rate: 0.05 kN/s - 0.01 MPa/s (08:47 sec)

Note: The dimensional requirements of Flatness (<0.02 mm), Perpendicularity (<0.05 / 50 mm) and Straightness (0.3 mm deviation) are all met.

Checked and Approved by

IT

I Tabios (Head of Department)

Date: 01/04/2025

Project Number:

GEO / 42248

Project Name:

**HAW LANE, SAUNDERTON
LS8055**



UNIAXIAL COMPRESSIVE STRENGTH OF ROCK MATERIALS

Borehole Ref.: BH04
 Sample Ref.: 26
 Depth (m): 24.60-24.80

Description:
 Very weak white CHALK.

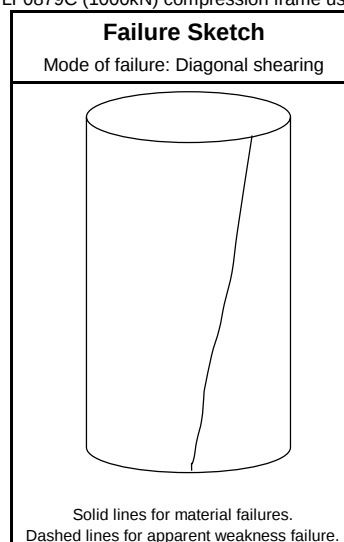
Diameter	41.00 mm
Height	84.70 mm
Bulk Density	2.01 Mg/m ³
Dry Density	1.59 Mg/m ³
Water Content	26 %

Degree of Saturation: 92.9 %

Specific Gravity: 2.9 Mg/m³ (Assumed)**Test results**

Unconfined Compressive Strength Maximum load (kN): 2.30	1.74 MPa
Young's Modulus (tangential at 50% failure load)	n/a
Poisson's Ratio (tangential at 50% failure load)	n/a
Young's Modulus (secant at 10% failure load)	n/a
Poisson's Ratio (secant at 10% failure load)	n/a

LF0879C (1000kN) compression frame used



Angle of foliation/Axis of loading: n/a
 Angle of shear plane/Axis of loading: n/a

Sample type	C
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Date tested: 31/03/2025

Note: The dimensional requirements of Flatness (<0.02 mm), Perpendicularity (<0.05 / 50 mm) and Straightness (0.3 mm deviation) are all met.

Checked and Approved by

IT

I Tabios (Head of Department)

Date: 01/04/2025

Project Number:

GEO / 42248

Project Name:

HAW LANE, SAUNDERTON
LS8055

GEOLABS

DETERMINATION OF POINT LOAD STRENGTH ON ROCK

Sample details				Point Load test											
Borehole Ref.	Sample Ref.	Depth (m)	Description	D. Tested	Test type & Direction		Sample width W (mm)	Platen separation (mm)		Water Content (%)	Equiv. Diameter D _e (mm)	Failure Load P (kN)	I _s P/De ² (MPa)	Correction Factor F	Point Load Index I _{s(50)} (MPa)
								Start D	End D'						
BH04	1	3.20-3.40	Very weak white CHALK.	28/03/25	D	U	84.6	84.5	82.3		83.4	0.40	0.06	1.26	0.08
BH04	5	7.00-7.20	Very weak white CHALK.	28/03/25	D	U	88.3	88.5	85.6		87.0	1.13	0.15	1.28	0.19
BH04	10	10.20-10.40	Very weak white CHALK.	28/03/25	D	U	87.6	88.0	85.7		86.8	0.59	0.08	1.28	0.1
BH04	11	11.00-11.10	Very weak white CHALK.	28/03/25	D	U	84.0	84.0	81.8		82.9	0.85	0.12	1.26	0.15
BH04	15	13.80-14.00	Weak white CHALK.	28/03/25	I	U	54.0	50.1	47.6		57.2	0.74	0.23	1.06	0.24
BH04	16	14.50-14.60	Very weak white CHALK.	28/03/25	D	U	80.0	80.1	78.3		79.2	0.60	0.09	1.23	0.11
BH04	18	16.20-16.40	Very weak white CHALK.	28/03/25	I	U	88.3	64.7	62.2		83.6	1.26	0.18	1.26	0.23
BH04	19	17.10-17.40	Very weak white CHALK.	28/03/25	I	U	74.7	50.3	47.5		67.2	0.70	0.16	1.14	0.18
BH04	21	20.20-20.30	Very weak white CHALK.	28/03/25	D	U	88.0	88.0	86.2		87.1	0.72	0.09	1.28	0.12
BH04	22	20.50-20.70	Very weak white CHALK.	28/03/25	I	U	38.6	38.5	35.2		41.6	0.40	0.23	0.92	0.21

(*) Sample failed on weakness

Test type and direction: **D** - Diametral **A** - Axial **B** - Block **I** - Irregular lump **P** - Perpendicular to planes of weakness **U** - Random or unknown orientation **L** - Parallel to planes of weakness

Checked and Approved by  I Tabios (Head of Department) Date: 01/04/2025	Project Number: GEO / 42248 Project Name: HAW LANE, SAUNDERTON LS8055	
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DETERMINATION OF POINT LOAD STRENGTH ON ROCK

Sample details				Point Load test											
Borehole Ref.	Sample Ref.	Depth (m)	Description	D. Tested	Test type & Direction		Sample width W (mm)	Platen separation (mm)		Water Content (%)	Equiv. Diameter D _e (mm)	Failure Load P (kN)	I _s P/De ² (MPa)	Correction Factor F	Point Load Index I _{s(50)} (MPa)
								Start D	End D'						
BH04	24	21.90-22.10	Very weak white CHALK.	28/03/25	I	U	59.1	53.8	51.3		62.1	0.60	0.16	1.10	0.18
BH04	25	22.50-22.60	Very weak white CHALK.	28/03/25	A	U	86.7	57.4	55.1		78.0	1.20	0.20	1.22	0.24
BH04	27	25.20-25.40	Very weak white CHALK.	28/03/25	D	U	89.2	88.9	86.2		87.5	1.12	0.15	1.29	0.19
BH04	28	26.10-26.20	Very weak white CHALK.	28/03/25	D	U	88.1	88.0	86.3		87.1	0.56	0.07	1.28	0.09
BH04	31	29.80-29.90	Very weak white CHALK.	28/03/25	D	U	86.8	87.0	85.1		86.0	0.77	0.10	1.28	0.13

(*) Sample failed on weakness

 Test type and direction: **D** - Diametral **A** - Axial **B** - Block **I** - Irregular lump **P** - Perpendicular to planes of weakness **U** - Random or unknown orientation **L** - Parallel to planes of weakness

Checked and Approved by  I Tabios (Head of Department) Date: 01/04/2025	Project Number: GEO / 42248 Project Name: HAW LANE, SAUNDERTON LS8055	 
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TESTING RESTRICTION

The following tests have been scheduled on the below project. Those listed **CANNOT** be performed for the reason stated. If alternative samples are available for the restricted tests, please supply details.

Sample details				Tests restricted	Reason for restriction and comments
Borehole Ref.	Sample Ref.	Depth (m)	Description		
BH04	22	20.50-20.70	n/a	UCS	Sample failed during recoring.

Checked and Approved by

IT

I Tabios (Head of Department)

Date: 01/04/2025

Project Number:

GEO / 42248

Project Name:

HAW LANE, SAUNDERTON
LS8055



APPENDIX E



SML Laboratories Ltd
Unit E1, Rosery Business Park
Brampton Road
Eastbourne
BN22 9BN

Tel: 01323 302280
Email: cs@sml-laboratories.co.uk

Preliminary Analytical Report: 25-000013

Issue Number: 1 24/04/25

FAO: Sam Whewell

Land Science
Unit 10
19 Albert Drive
Burgess Hill
West Sussex
RH15 9TN

Site: Haw Lane

Customer Job reference: LS8055

Quote Reference: -

Samples Received: 14/04/25

Sampling Date: -

Instruction Received: 14/04/25

Report issued:

Report Approved by

A handwritten signature in black ink, appearing to read 'Graham Knight', is written over a horizontal line.

Graham Knight – Laboratory Operations Manger



Sample Summary

Report No: 25-000013 Issue 1

SML No.	Client's Ref	Date Sampled	Date Scheduled	Description	Deviations
1074	BH02 0.2	-	14/04/25	Chalky Silt Loam	-
1075	BH05 0.8	-	14/04/25	Chalky Silt Loam	-
1076	BH05 3.2	-	14/04/25	Chalky Silt Loam	-
1077	BH06 0.5	-	14/04/25	Chalky Silt Loam	-
1078	BH06 4.8	-	14/04/25	Chalky Silt Loam	-
1079	BH07 0.2	-	14/04/25	Chalky Silt Loam	-
1080	BH07 0.5	-	14/04/25	Chalky Silt Loam	-
1081	BH07 6.0	-	14/04/25	Chalky Silt Loam	-
1082	BH09 0.5	-	14/04/25	Chalky Silt Loam	-
1083	BH10 0.2	-	14/04/25	Chalky Silt Loam	-
1084	BH11 0.5	-	14/04/25	Chalky Silt Loam	-
1085	BH11 7.5	-	14/04/25	Chalky Silt Loam	-
1086	BH15 0.5	-	14/04/25	Chalky Silt Loam	-
1087	BH16 1.2	-	14/04/25	Chalky Silt Loam	-
1088	BH17 0.2	-	14/04/25	Chalky Silt Loam	-

Sample Summary

Report No: 25-000013, Issue 1

SML Ref	1074	1075	1076	1077
Customer Ref	-	-	-	-
Sample ID	-	-	-	-
Sample Type	Soil	Soil	Soil	Soil
Sample Location	BH02	BH05	BH05	BH06
Sample Depth (m)	0.2	0.80	3.2	0.5
Sampling Date	-	-	-	-

Determinant	Codes	Units	LOD
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Soil preparation parameters

Moisture Content	N	%	0.1	16.51	19.77	18.82	18.53
Material removed	N	%	0.1	<0.1	<0.1	<0.1	<0.1
Description of inert material removed	N		N/A	N/A	N/A	N/A	N/A

Metals

Beryllium	N	mg/kg	3	<3	<3	-	-
Vanadium	N	mg/kg	3	<3	<3	-	-
Chromium	N	mg/kg	3	9.38	4.33	-	-
Nickel	N	mg/kg	3	4.92	3.6	-	-
Copper	N	mg/kg	3	3.39	<3	-	-
Zinc	N	mg/kg	3	<3	<3	-	-
Arsenic	N	mg/kg	3	<3	<3	-	-
Selenium	N	mg/kg	3	<3	<3	-	-
Cadmium	N	mg/kg	3	<3	<3	-	-
Barium	N	mg/kg	3	10.2	6.19	-	-
Mercury	N	mg/kg	1	<1	<1	-	-
Lead	N	mg/kg	3	10.9	<3	-	-

Inorganics

Total Cyanide	N	mg/kg	1	<1	<1	-	-
Hexavalent Chromium	N	mg/kg	5			-	-
Fraction Organic Carbon	N	%	0.01	<0.01	<0.01	-	-
Sulphide	N	mg/kg	<2	<2	<2	-	-
Water Soluble Boron	N	mg/kg	0.02	<0.02	<0.02	-	-

Miscellaneous

pH	N	pH Units	0.1	8.91	8.96	8.96	9.00
Water Soluble Sulphate (2:1)	N	mg/kg	40	67.8	<40	<40	<40
Water Soluble Sulphate (2:1)	N	g/l	0.02	0.03	<0.02	<0.02	<0.02
Water Soluble Sulphate (2:1)	N	Mg/l	20	33.9	<20	<20	<20

Sample Summary

Report No: 25-000013, Issue 1

SML Ref	1078	1079	1080	1081
Customer Ref	-	-	-	-
Sample ID	-	-	-	-
Sample Type	Soil	Soil	Soil	Soil
Sample Location	BH06	BH07	BH07	BH07
Sample Depth (m)	4.8	0.2	0.5	6.0
Sampling Date	-	-	-	-

Determinant	Codes	Units	LOD
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Soil preparation parameters

Moisture Content	N	%	0.1	20.02	16.93	16.55	14.11
Material removed	N	%	0.1	<0.1	<0.1	<0.1	<0.1
Description of inert material removed	N		0	N/A	N/A	N/A	N/A

Metals

Beryllium	N	mg/kg	3	-	<3	<3	-
Vanadium	N	mg/kg	3	-	<3	<3	-
Chromium	N	mg/kg	3	-	<3	22.7	-
Nickel	N	mg/kg	3	-	<3	11.0	-
Copper	N	mg/kg	3	-	<3	<3	-
Zinc	N	mg/kg	3	-	<3	<3	-
Arsenic	N	mg/kg	3	-	<3	<3	-
Selenium	N	mg/kg	3	-	<3	<3	-
Cadmium	N	mg/kg	3	-	<3	<3	-
Barium	N	mg/kg	3	-	9.91	8.47	-
Mercury	N	mg/kg	1	-	<1	<1	-
Lead	N	mg/kg	3	-	<3	<3	-

Inorganics

Total Cyanide	N	mg/kg	1	-	<1	<1	-
Hexavalent Chromium	N	mg/kg	5	-			-
Fraction Organic Carbon	N	%	0.001	-	<0.001	<0.001	-
Sulphide	N	mg/kg	<2	-	<2	<2	-
Water Soluble Boron	N	mg/kg	0.02	-	<0.02	<0.02	-

Miscellaneous

pH	N	pH Units	0.1	8.90	9.04	8.98	8.98
Water Soluble Sulphate (2:1)	N	mg/kg	40	44.6	<40	<40	<40
Water Soluble Sulphate (2:1)	N	g/l	0.02	0.02	<0.02	<0.02	<0.02
Water Soluble Sulphate (2:1)	N	Mg/l	20	22.3	<20	<20	<20

Sample Summary

Report No: 25-000013, Issue 1

SML Ref	1082	1083	1084	1085
Customer Ref	-	-	-	-
Sample ID	-	-	-	-
Sample Type	Soil	Soil	Soil	Soil
Sample Location	BH09	BH10	BH11	BH11
Sample Depth (m)	0.5	0.2	0.5	7.5
Sampling Date	-	-	-	-

Determinant	Codes	Units	LOD
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Soil preparation parameters

Moisture Content	N	%	0.1	20.67	20.2	17.68	17.9
Material removed	N	%	0.1	<0.1	<0.1	<0.1	<0.1
Description of inert material removed	N		0	N/A	N/A	N/A	N/A

Metals

Beryllium	N	mg/kg	3	<3	<3	-	-
Vanadium	N	mg/kg	3	<3	<3	-	-
Chromium	N	mg/kg	3	3.85	5.35	-	-
Nickel	N	mg/kg	3	<3	3.64	-	-
Copper	N	mg/kg	3	<3	<3	-	-
Zinc	N	mg/kg	3	<3	<3	-	-
Arsenic	N	mg/kg	3	<3	<3	-	-
Selenium	N	mg/kg	3	<3	<3	-	-
Cadmium	N	mg/kg	3	<3	<3	-	-
Barium	N	mg/kg	3	3.65	4.86	-	-
Mercury	N	mg/kg	1	<1	<1	-	-
Lead	N	mg/kg	3	<3	<3	-	-

Inorganics

Total Cyanide	N	mg/kg	1	<1	<1	-	-
Hexavalent Chromium	N	mg/kg	5			-	-
Fraction Organic Carbon	N	%	0.001	<0.001	<0.001	-	-
Sulphide	N	mg/kg	<2	<2	<2	-	-
Water Soluble Boron	N	mg/kg	0.02	<0.02	<0.02	-	-

Miscellaneous

pH	N	pH Units	0.1	8.97	8.98	8.98	8.80
Water Soluble Sulphate (2:1)	N	mg/kg	40	<40	<40	<40	149
Water Soluble Sulphate (2:1)	N	g/l	0.02	<0.02	<0.02	<0.02	0.08
Water Soluble Sulphate (2:1)	N	mg/l	20	<20	<20	<20	74.5

Sample Summary

Report No: 25-000013, Issue 1

SML Ref	1086	1087	1088
Customer Ref	-	-	-
Sample ID	-	-	-
Sample Type	Soil	Soil	Soil
Sample Location	BH15	BH16	BH17
Sample Depth (m)	0.5	1.2	0.2
Sampling Date	-	-	-

Determinant	Codes	Units	LOD
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Soil preparation parameters

Moisture Content	N	%	0.1	19.5	19.71	20.34
Material removed	N	%	0.1	<0.1	<0.1	<0.1
Description of inert material removed	N		0	N/A	N/A	N/A

Metals

Beryllium	N	mg/kg	3	<3	<3	<3
Vanadium	N	mg/kg	3	4.3	<3	<3
Chromium	N	mg/kg	3	4.7	7.38	4.46
Nickel	N	mg/kg	3	4.13	4.00	<3
Copper	N	mg/kg	3	<3	<3	<3
Zinc	N	mg/kg	3	<3	<3	<3
Arsenic	N	mg/kg	3	<3	<3	<3
Selenium	N	mg/kg	3	<3	<3	<3
Cadmium	N	mg/kg	3	<3	<3	<3
Barium	N	mg/kg	3	8.96	9.54	7.81
Mercury	N	mg/kg	1	<1	<1	<1
Lead	N	mg/kg	3	<3	<3	<3

Inorganics

Total Cyanide	N	mg/kg	1	<1	<1	<1
Hexavalent Chromium	N	mg/kg	5			
Fraction Organic Carbon	N	%	0.001	<0.001	<0.001	<0.001
Sulphide	N	mg/kg	<2	<2	<2	<2
Water Soluble Boron	N	mg/kg	0.02	<0.02	<0.02	<0.02

Miscellaneous

pH	N	pH Units	0.1	8.85	9.05	8.95
Water Soluble Sulphate (2:1)	N	mg/kg	40	<40	<40	<40
Water Soluble Sulphate (2:1)	N	g/l	0.02	<0.02	<0.02	<0.02
Water Soluble Sulphate (2:1)	N	Mg/l	20	<20	<20	<20

Sample Summary

Report No: 25-000013, Issue 1

SML Ref	1074	1075	1079	1080
Customer Ref	-	-	-	-
Sample ID	-	-	-	-
Sample Type	Soil	Soil	Soil	Soil
Sample Location	BH02	BH05	BH07	BH07
Sample Depth (m)	0.2	0.80	0.2	0.5
Sampling Date	-	-	-	-

Determinant	Codes	Units	LOD
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Phenols

Phenol	N	mg/kg	1	<1	<1	<1	<1
M,P-Cresol	N	mg/kg	1	<1	<1	<1	<1
O-Cresol	N	mg/kg	1	<1	<1	<1	<1
3,4-Dimethylphenol	N	mg/kg	1	<1	<1	<1	<1
2,3-Dimethylphenol	N	mg/kg	1	<1	<1	<1	<1
2,3,5-Trimethylphenol	N	mg/kg	1	<1	<1	<1	<1
Total Monohydric Phenols	N	mg/kg	1	<1	<1	<1	<1

Polyaromatic Hydrocarbons

Napthalene	N	mg/kg					
Acenaphthylene	N	mg/kg					
Acenaphthene	N	mg/kg					
Fluorene	N	mg/kg					
Phenanthrene	N	mg/kg					
Anthracene	N	mg/kg					
Fluoranthene	N	mg/kg					
Pyrene	N	mg/kg					
Benzo(a)anthracene	N	mg/kg					
Chrysene	N	mg/kg					
Benzo(b)fluoranthene	N	mg/kg					
Benzo(k)fluoranthene	N	mg/kg					
Benzo(a)pyrene	N	mg/kg					
Indeno(1,2,3-cd)pyrene	N	mg/kg					
Dibenzo(a,h)anthracene	N	mg/kg					
Benzo[g,h,i]perylene	N	mg/kg					
Coronene	N	mg/kg					
Total PAH(16)	N	mg/kg					
Total (of 17) PAHs	N	mg/kg					

Total Petroleum Hydrocarbons

EPH C10-C40	N	mg/kg					
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Sample Summary

Report No: 25-000013, Issue 1

SML Ref	1082	1083	1086	1087
Customer Ref	-	-	-	-
Sample ID	-	-	-	-
Sample Type	Soil	Soil	Soil	Soil
Sample Location	BH09	BH10	BH15	BH16
Sample Depth (m)	0.5	0.2	0.5	1.2
Sampling Date	-	-	-	-

Determinant	Codes	Units	LOD
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Phenols

Phenol	N	mg/kg	<1	<1	<1	<1	<1
M,P-Cresol	N	mg/kg	<1	<1	<1	<1	<1
O-Cresol	N	mg/kg	<1	<1	<1	<1	<1
3,4-Dimethylphenol	N	mg/kg	<1	<1	<1	<1	<1
2,3-Dimethylphenol	N	mg/kg	<1	<1	<1	<1	<1
2,3,5-Trimethylphenol	N	mg/kg	<1	<1	<1	<1	<1
Total Monohydric Phenols	N	mg/kg	<1	<1	<1	<1	<1

Polyaromatic Hydrocarbons

Napthalene	N	mg/kg					
Acenaphthylene	N	mg/kg					
Acenaphthene	N	mg/kg					
Fluorene	N	mg/kg					
Phenanthrene	N	mg/kg					
Anthracene	N	mg/kg					
Fluoranthene	N	mg/kg					
Pyrene	N	mg/kg					
Benzo(a)anthracene	N	mg/kg					
Chrysene	N	mg/kg					
Benzo(b)fluoranthene	N	mg/kg					
Benzo(k)fluoranthene	N	mg/kg					
Benzo(a)pyrene	N	mg/kg					
Indeno(1,2,3-cd)pyrene	N	mg/kg					
Dibenzo(a,h)anthracene	N	mg/kg					
Benzo[g,h,i]perylene	N	mg/kg					
Coronene	N	mg/kg					
Total PAH(16)	N	mg/kg					
Total (of 17) PAHs	N	mg/kg					

Total Petroleum Hrdrocarbons

EPH C10-C40	N	mg/kg					
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Sample Summary

Report No: 25-000013, Issue 1

SML Ref	1088
Customer Ref	-
Sample ID	-
Sample Type	Soil
Sample Location	BH17
Sample Depth (m)	0.2
Sampling Date	-

Determinant	Codes	Units	LOD
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Phenols

Phenol	N	mg/kg		
M,P-Cresol	N	mg/kg		
O-Cresol	N	mg/kg		
3,4-Dimethylphenol	N	mg/kg		
2,3-Dimethylphenol	N	mg/kg		
2,3,5-Trimethylphenol	N	mg/kg		
Total Monohydric Phenols	N	mg/kg		

Polyaromatic Hydrocarbons

Napthalene	N	mg/kg		
Acenaphthylene	N	mg/kg		
Acenaphthene	N	mg/kg		
Fluorene	N	mg/kg		
Phenanthrene	N	mg/kg		
Anthracene	N	mg/kg		
Fluoranthene	N	mg/kg		
Pyrene	N	mg/kg		
Benzo(a)anthracene	N	mg/kg		
Chrysene	N	mg/kg		
Benzo(b)fluoranthene	N	mg/kg		
Benzo(k)fluoranthene	N	mg/kg		
Benzo(a)pyrene	N	mg/kg		
Indeno(1,2,3-cd)pyrene	N	mg/kg		
Dibenzo(a,h)anthracene	N	mg/kg		
Benzo[g,h,i]perylene	N	mg/kg		
Coronene	N	mg/kg		
Total PAH(16)	N	mg/kg		
Total (of 17) PAHs	N	mg/kg		

Total Petroleum Hrdrocarbons

EPH C10-C40	N	mg/kg		
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Sample Summary

Report No: 25-000013, Issue 1

SML Ref	1074	1075	1079	1080
Customer Ref	-	-	-	-
Sample ID	-	-	-	-
Sample Type	Soil	Soil	Soil	Soil
Sample Location	BH02	BH05	BH07	BH07
Sample Depth (m)	0.2	0.80	0.2	0.5
Sampling Date	-	-	-	-

Determinant	Codes	Units	LOD
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TPH CWG

TPH CWG - Aromatic (EC5 - EC7)	N	mg/kg					
TPH CWG - Aromatic (EC7 - EC8)	N	mg/kg					
TPH CWG - Aromatic (EC8 - EC10)	N	mg/kg					
TPH CWG - Aromatic (EC10 - EC12)	N	mg/kg					
TPH CWG - Aromatic (EC12 - EC16)	N	mg/kg					
TPH CWG - Aromatic (EC16 - EC21)	N	mg/kg					
TPH CWG - Aromatic (EC21 - EC35)	N	mg/kg					
TPH CWG - Aromatic (EC35 - EC40)	N	mg/kg					
TPH CWG - Aliphatic (C5 - C6)	N	mg/kg					
TPH CWG - Aliphatic (C6 - C8)	N	mg/kg					
TPH CWG - Aliphatic (C8 - C10)	N	mg/kg					
TPH CWG - Aliphatic (C10 - C12)	N	mg/kg					
TPH CWG - Aliphatic (C12 - C16)	N	mg/kg					
TPH CWG - Aliphatic (C16 - C21)**	N	mg/kg					
TPH CWG - Aliphatic (C21 - C35)**	N	mg/kg					
TPH CWG Total - Aliphatic (EC5-EC40)	N	mg/kg					

VOC

Benzene	N	ug/kg					
Toluene	N	ug/kg					
Ethylbenzene	N	ug/kg					
Xylenes	N	ug/kg					
MTBE	N	ug/kg					
Total BTEX	N	ug/kg					



Sample Summary

Report No: 25-000013, Issue 1

SML Ref	1082	1083	1086	1087
Customer Ref	-	-	-	-
Sample ID	-	-	-	-
Sample Type	Soil	Soil	Soil	Soil
Sample Location	BH09	BH10	BH15	BH16
Sample Depth (m)	0.5	0.2	0.5	1.2
Sampling Date	-	-	-	-

Determinant	Codes	Units	LOD
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TPH CWG

TPH CWG - Aromatic (EC5 - EC7)	N	mg/kg					
TPH CWG - Aromatic (EC7 - EC8)	N	mg/kg					
TPH CWG - Aromatic (EC8 - EC10)	N	mg/kg					
TPH CWG - Aromatic (EC10 - EC12)	N	mg/kg					
TPH CWG - Aromatic (EC12 - EC16)	N	mg/kg					
TPH CWG - Aromatic (EC16 - EC21)	N	mg/kg					
TPH CWG - Aromatic (EC21 - EC35)	N	mg/kg					
TPH CWG - Aromatic (EC35 - EC40)	N	mg/kg					
TPH CWG - Aliphatic (C5 - C6)	N	mg/kg					
TPH CWG - Aliphatic (C6 - C8)	N	mg/kg					
TPH CWG - Aliphatic (C8 - C10)	N	mg/kg					
TPH CWG - Aliphatic (C10 - C12)	N	mg/kg					
TPH CWG - Aliphatic (C12 - C16)	N	mg/kg					
TPH CWG - Aliphatic (C16 - C21)**	N	mg/kg					
TPH CWG - Aliphatic (C21 - C35)**	N	mg/kg					
TPH CWG Total - Aliphatic (EC5-EC40)	N	mg/kg					

VOC

Benzene	N	ug/kg					
Toluene	N	ug/kg					
Ethylbenzene	N	ug/kg					
Xylenes	N	ug/kg					
MTBE	N	ug/kg					
Total BTEX	N	ug/kg					



Sample Summary

Report No: 25-000013, Issue 1

SML Ref	1088
Customer Ref	-
Sample ID	-
Sample Type	Soil
Sample Location	BH17
Sample Depth (m)	0.2
Sampling Date	-

Determinant	Codes	Units	LOD
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TPH CWG

TPH CWG - Aromatic (EC5 - EC7)	N	mg/kg		
TPH CWG - Aromatic (EC7 - EC8)	N	mg/kg		
TPH CWG - Aromatic (EC8 - EC10)	N	mg/kg		
TPH CWG - Aromatic (EC10 - EC12)	N	mg/kg		
TPH CWG - Aromatic (EC12 - EC16)	N	mg/kg		
TPH CWG - Aromatic (EC16 - EC21)	N	mg/kg		
TPH CWG - Aromatic (EC21 - EC35)	N	mg/kg		
TPH CWG - Aromatic (EC35 - EC40)	N	mg/kg		
TPH CWG - Aliphatic (C5 - C6)	N	mg/kg		
TPH CWG - Aliphatic (C6 - C8)	N	mg/kg		
TPH CWG - Aliphatic (C8 - C10)	N	mg/kg		
TPH CWG - Aliphatic (C10 - C12)	N	mg/kg		
TPH CWG - Aliphatic (C12 - C16)	N	mg/kg		
TPH CWG - Aliphatic (C16 - C21)**	N	mg/kg		
TPH CWG - Aliphatic (C21 - C35)**	N	mg/kg		
TPH CWG Total - Aliphatic (EC5-EC40)	N	mg/kg		

VOC

Benzene	N	ug/kg		
Toluene	N	ug/kg		
Ethylbenzene	N	ug/kg		
Xylenes	N	ug/kg		
MTBE	N	ug/kg		
Total BTEX	N	ug/kg		



Sample Summary

Report No: 25-000013, Issue 1

SML Ref	1079	1080	1082	1083
Customer Ref	-	-	-	-
Sample ID	-	-	-	-
Sample Type	Soil	Soil	Soil	Soil
Sample Location	BH07	BH07	BH09	BH10
Sample Depth (m)	0.2	0.5	0.5	0.2
Sampling Date	-	-	-	-

Determinant	Codes	Units	LOD
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VOCs

Chloromethane	N	µg/l	5				
Chloroethane	N	µg/l	5				
Bromomethane	N	µg/l	5				
Vinyl Chloride	N	µg/l	5				
Trichlorofluoromethane	N	µg/l	5				
1,1-Dichloroethene	N	µg/l	5				
1,1,2-Trichloro-1,2,2-trifluoroethane	N	µg/l	5				
Trans 1,2-dichloroethylene	N	µg/l	5				
MTBE (Methyl Tertiary Butyl Ether)	N	µg/l	5				
1,1-Dichloroethane	N	µg/l	5				
2,2-Dichloropropane	N	µg/l	5				
Chloroform	N	µg/l	5				
1,1,1-Trichloroethane	N	µg/l	5				
1,2-Dichloroethane	N	µg/l	5				
1,1-Dichloropropene	N	µg/l	5				
Cis-1,2-dichloroethene	N	µg/l	5				
Benzene	N	µg/l	5				
Carbontetrachloride	N	µg/l	5				
1,2-Dichloropropane	N	µg/l	5				
Trichloroethene	N	µg/l	5				
Dibromomethane	N	µg/l	5				
Bromodichloromethane	N	µg/l	5				
Cis-1,3-dichloropropene	N	µg/l	5				
Trans-1,3-dichloropropene	N	µg/l	5				
Toluene	N	µg/l	5				
1,1,2-Trichloroethane	N	µg/l	5				
1,3-Dichloropropane	N	µg/l	5				
Dibromochloromethane	N	µg/l	5				
Tetrachloroethene	N	µg/l	5				
1,2-Dibromoethane	N	µg/l	5				
Chlorobenzene	N	µg/l	5				
1,1,1,2-Tetrachloroethane	N	µg/l	5				
Ethylbenzene	N	µg/l	5				
p & m-xylene	N	µg/l	5				
Styrene	N	µg/l	5				
Bromoform	N	µg/l	5				
o-xylene	N	µg/l	5				
Isopropylbenzene	N	µg/l	5				
1,1,2,2-Tetrachloroethane	N	µg/l	5				
Bromobenzene	N	µg/l	5				



Sample Summary

Report No: 25-000013, Issue 1

SML Ref	1079	1080	1082	1083
Customer Ref	-	-	-	-
Sample ID	-	-	-	-
Sample Type	Soil	Soil	Soil	Soil
Sample Location	BH07	BH07	BH09	BH10
Sample Depth (m)	0.2	0.5	0.5	0.2
Sampling Date	-	-	-	-

Determinant	Codes	Units	LOD
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VOCs

n-Propylbenzene	N	µg/l					
2-Chlorotoluene	N	µg/l					
4-Chlorotoluene	N	µg/l					
1,3,5-Trimethylbenzene	N	µg/l					
tert-Butylbenzene	N	µg/l					
1,2,4-Trimethylbenzene	N	µg/l					
sec-Butylbenzene	N	µg/l					
1,3-Dichlorobenzene	N	µg/l					
p-Isopropyltoluene	N	µg/l					
1,4-Dichlorobenzene	N	µg/l					
1,2-Dichlorobenzene	N	µg/l					
Butylbenzene	N	µg/l					
1,2-Dibromo-3-chloropropane	N	µg/l					
1,2,4-Trichlorobenzene	N	µg/l					
Hexachlorobutadiene	N	µg/l					
1,2,3-Trichlorobenzene	N	µg/l					



Sample Summary

Report No: 25-000013, Issue 1

SML Ref	1079	1080	1082	1083
Customer Ref	-	-	-	-
Sample ID	-	-	-	-
Sample Type	Soil	Soil	Soil	Soil
Sample Location	BH07	BH07	BH09	BH10
Sample Depth (m)	0.2	0.5	0.5	0.2
Sampling Date	-	-	-	-

Determinant	Codes	Units	LOD
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SVOCs

Aniline	N	µg/l					
Phenol	N	µg/l					
2-Chlorophenol	N	µg/l					
Bis(2-chloroethyl)ether	N	µg/l					
1,3-Dichlorobenzene	N	µg/l					
1,2-Dichlorobenzene	N	µg/l					
1,4-Dichlorobenzene	N	µg/l					
Bis(2-chloroisopropyl)ether	N	µg/l					
2-Methylphenol	N	µg/l					
Hexachloroethane	N	µg/l					
Nitrobenzene	N	µg/l					
4-Methylphenol	N	µg/l					
Isophorone	N	µg/l					
2-Nitrophenol	N	µg/l					
2,4-Dimethylphenol	N	µg/l					
Bis(2-chloroethoxy)methane	N	µg/l					
1,2,4-Trichlorobenzene	N	µg/l					
2,4-Dichlorophenol	N	µg/l					
4-Chloroaniline	N	µg/l					
Hexachlorobutadiene	N	µg/l					
4-Chloro-3-methylphenol	N	µg/l					
2,4,6-Trichlorophenol	N	µg/l					
2,4,5-Trichlorophenol	N	µg/l					
2-Methylnaphthalene	N	µg/l					
2-Chloronaphthalene	N	µg/l					
Dimethylphthalate	N	µg/l					
2,6-Dinitrotoluene	N	µg/l					
2,4-Dinitrotoluene	N	µg/l					
Dibenzofuran	N	µg/l					
4-Chlorophenyl phenyl ether	N	µg/l					
Diethyl phthalate	N	µg/l					
4-Nitroaniline	N	µg/l					
Azobenzene	N	µg/l					
Bromophenyl phenyl ether	N	µg/l					
Hexachlorobenzene	N	µg/l					
Carbazole	N	µg/l					
Dibutyl phthalate	N	µg/l					
Anthraquinone	N	µg/l					
Butyl benzyl phthalate	N	µg/l					
3+4-Methylphenol	N	µg/l					

WAC Analysis							
SML Ref:	1079				Landfill WAC Limits*		
Sample Date:	-						
Sample ID:	BH07				Inert Waste Landfill	Stable non-Reactive Hazardous Waste in non-Hazardous Landfill	Hazardous Waste Landfill
Depth (m):	0.2						
Site:	Haw Lane						
Determinand	Code	Units					
Total Organic Carbon	N	%		<0.1	3	5	6
Loss on Ignition	N	%		0.23	-	-	10
Total BTEX	N	mg/kg			6	-	-
Total PCB (7 congeners)	N	mg/kg			1	-	-
TPH Total WAC (EH_CU_1D_Total)	N	mg/kg			500	-	-
Total (of 17) PAHs	N	mg/kg			100	-	-
pH	N	Units		9.04	-	>6	-
Acid Neutralisation Capacity	N	mol/kg		0.05	-	-	-
Eluate Analysis		10:1		10:1	Limit values for compliance leaching test using BS EN 12457-2 at L/S 10 l/kg		
		mg/l		Mg/kg			
Arsenic	N				0.5	2	25
Barium	N				20	100	300
Cadmium	N				0.04	1	5
Chromium	N				0.5	10	70
Copper	N				2	50	100
Mercury	N				0.01	0.2	2
Molybdenum	N				0.5	10	30
Nickel	N				0.4	10	40
Lead	N				0.5	10	50
Antimony	N				0.06	0.7	5
Selenium	N				0.1	0.5	7
Zinc	N				4	50	200
Chloride	N				800	15000	25000
Fluoride	N				10	150	500
Sulphate	N				1000	20000	50000
Total Dissolved Solids	N	29.70		297	4000	60000	100000
Phenol Index	N				1	-	25
Dissolved Organic Carbon	N				500	800	300
Leach Test Information							

Results are expressed on a dry weight basis, after correction for moisture content where applicable.

*Stated limits are for guidance only, and not for conformity assessment.

WAC Analysis							
SML Ref:	1080				Landfill WAC Limits*		
Sample Date:	-						
Sample ID:	BH07				Inert Waste Landfill	Stable non-Reactive Hazardous Waste in non-Hazardous Landfill	Hazardous Waste Landfill
Depth (m):	0.5						
Site:	Haw Lane						
Determinand	Code	Units					
Total Organic Carbon	N	%		<0.1	3	5	6
Loss on Ignition	N	%		0.25	-	-	10
Total BTEX	N	mg/kg			6	-	-
Total PCB (7 congeners)	N	mg/kg			1	-	-
TPH Total WAC (EH_CU_1D_Total)	N	mg/kg			500	-	-
Total (of 17) PAHs	N	mg/kg			100	-	-
pH	N	Units		8.98	-	>6	-
Acid Neutralisation Capacity	N	mol/kg		0.05	-	-	-
Eluate Analysis		10:1		10:1	Limit values for compliance leaching test using BS EN 12457-2 at L/S 10 l/kg		
		mg/l		Mg/kg			
Arsenic	N				0.5	2	25
Barium	N				20	100	300
Cadmium	N				0.04	1	5
Chromium	N				0.5	10	70
Copper	N				2	50	100
Mercury	N				0.01	0.2	2
Molybdenum	N				0.5	10	30
Nickel	N				0.4	10	40
Lead	N				0.5	10	50
Antimony	N				0.06	0.7	5
Selenium	N				0.1	0.5	7
Zinc	N				4	50	200
Chloride	N				800	15000	25000
Fluoride	N				10	150	500
Sulphate	N				1000	20000	50000
Total Dissolved Solids	N	28.3		283	4000	60000	100000
Phenol Index	N				1	-	25
Dissolved Organic Carbon	N				500	800	300

Results are expressed on a dry weight basis, after correction for moisture content where applicable.

*Stated limits are for guidance only, and not for conformity assessment.

WAC Analysis							
SML Ref:	1082				Landfill WAC Limits*		
Sample Date:	-						
Sample ID:	BH09						
Depth (m):	0.5						
Site:	Haw Lane						
Determinand	Code	Units			Inert Waste Landfill	Stable non-Reactive Hazardous Waste in non-Hazardous Landfill	Hazardous Waste Landfill
Total Organic Carbon	N	%		<0.1			
Loss on Ignition	N	%		0.21			
Total BTEX	N	mg/kg					
Total PCB (7 congeners)	N	mg/kg					
TPH Total WAC (EH_CU_1D_Total)	N	mg/kg					
Total (of 17) PAHs	N	mg/kg					
pH	N	Units		8.97			
Acid Neutralisation Capacity	N	mol/kg		0.05			
Eluate Analysis		10:1		10:1	Limit values for compliance leaching test using BS EN 12457-2 at L/S 10 l/kg		
		mg/l		Mg/kg			
Arsenic	N				0.5	2	25
Barium	N				20	100	300
Cadmium	N				0.04	1	5
Chromium	N				0.5	10	70
Copper	N				2	50	100
Mercury	N				0.01	0.2	2
Molybdenum	N				0.5	10	30
Nickel	N				0.4	10	40
Lead	N				0.5	10	50
Antimony	N				0.06	0.7	5
Selenium	N				0.1	0.5	7
Zinc	N				4	50	200
Chloride	N				800	15000	25000
Fluoride	N				10	150	500
Sulphate	N				1000	20000	50000
Total Dissolved Solids	N	28.7		287	4000	60000	100000
Phenol Index	N				1	-	25
Dissolved Organic Carbon	N				500	800	300

Results are expressed on a dry weight basis, after correction for moisture content where applicable.

*Stated limits are for guidance only, and not for conformity assessment.

WAC Analysis							
SML Ref:	1087				Landfill WAC Limits*		
Sample Date:	-						
Sample ID:	BH16						
Depth (m):	1.2						
Site:	Haw Lane						
Determinand	Code	Units			Inert Waste Landfill	Stable non-Reactive Hazardous Waste in non-Hazardous Landfill	Hazardous Waste Landfill
Total Organic Carbon	N	%		<0.1			
Loss on Ignition	N	%		0.24			
Total BTEX	N	mg/kg					
Total PCB (7 congeners)	N	mg/kg					
TPH Total WAC (EH_CU_1D_Total)	N	mg/kg					
Total (of 17) PAHs	N	mg/kg					
pH	N	Units		9.05			
Acid Neutralisation Capacity	N	mol/kg		0.05			
Eluate Analysis		10:1		10:1	Limit values for compliance leaching test using BS EN 12457-2 at L/S 10 l/kg		
		mg/l		Mg/kg			
Arsenic	N				0.5	2	25
Barium	N				20	100	300
Cadmium	N				0.04	1	5
Chromium	N				0.5	10	70
Copper	N				2	50	100
Mercury	N				0.01	0.2	2
Molybdenum	N				0.5	10	30
Nickel	N				0.4	10	40
Lead	N				0.5	10	50
Antimony	N				0.06	0.7	5
Selenium	N				0.1	0.5	7
Zinc	N				4	50	200
Chloride	N				800	15000	25000
Fluoride	N				10	150	500
Sulphate	N				1000	20000	50000
Total Dissolved Solids	N	28.6		286	4000	60000	100000
Phenol Index	N				1	-	25
Dissolved Organic Carbon	N				500	800	300

Results are expressed on a dry weight basis, after correction for moisture content where applicable.

*Stated limits are for guidance only, and not for conformity assessment.



Sample Summary

Report No: 25-000013, Issue 1

Asbestos Results

Analytical results only apply to the samples submitted by the client. In accordance with procedures, a 1kg soil sample should be submitted for analysis. Sample sizes less than 1kg may not be representative of the materials present on site.

Descriptions of sample matrix are outside the laboratories scope of UKAS accreditation.

SML Number	Client Reference	Sample Matrix Description	Asbestos Identification	Gravimetric Analysis Total %	Gravimetric Analysis by ACM Type %	Free fibre Analysis %	Total Asbestos %	F/mm2 (l)
1079	BH07 0.2	Soil	NAD	N/T	N/T	N/T	N/T	N/T
1080	BH07 0.5	Soil	NAD	N/T	N/T	N/T	N/T	N/T
1082	BH09 0.5	Soil	NAD	N/T	N/T	N/T	N/T	N/T
1087	BH16 1.2	Soil	NAD	N/T	N/T	N/T	N/T	N/T

Report Information

Method Summary

Soil					
Parameter	Codes	Undertaken On	Date Tested	Method Number	Technique
pH value	N	Air dried sample	16/04/25	105	Electrometric
Water Soluble Sulphate	N	Air dried sample	17/04/25	130	Ion Chromatography
Total Cyanide	N	As submitted sample	17/04/25	137	Colorimetric
Phenols	N	Air dried sample	16/04/25	111	HPLC
Asbestos ID	SU	Oven dried @ 100	17/04/25	147	Microscopy
Loss On Ignition	N	Air dried sample	16/04/25	115	Gravimetric
Acid Neutralisation Capacity	N	Air dried sample	16/04/25	150	Electrometric
Hexavalent Chromium	N	As submitted sample		103	Colorimetric
Total (of 16) PAH	N	As submitted sample			
Aliphatic/Aromatic Hydrocarbons	N	As submitted sample			
Mineral Oil (EH_CU_1D-Total)	N	As submitted sample			
Total PCBs (7 congeners)	N	As submitted sample			
Total BTEX	N	As submitted sample			
Sulphide	N	As submitted sample	14/04/25	117	Discrete Analyser
VOC	N	As submitted sample			GC-MS
TOC	N	As submitted sample	16/04/25	139	Titration
SVOC	N	As submitted sample			GC-MS

Leachate				
Parameter	Codes	Date Tested	Method Number	Technique
Anions	N		152	Ion Chromatography
Dissolved Metals	N		149	ICP-MS
Phenols	N		111	HPLC
Electrical Conductivity	N	24/04/25	118	Probe
DOC	N		101	Colorimetric
TDS	N	24/04/25	In-House	Calculation

Key

U	Hold UKAS accreditation
M	Hold MCERTS accreditation
N	Not accredited
NS	Sample matrix not UKAS accredited
NM	Sample matrix not MCERTS accredited
SU	Subcontracted to a UKAS accredited laboratory
SM	Subcontracted to an MCERTS accredited laboratory
IS	Insufficient sample
US	Unsuitable sample
NT	Not tested
<	Less than
>	Greater than

Soil samples are expressed on an air dried <30°C basis and are **not** corrected for inert material removed.

LOD refers to limit of detection, except in the case of pH where it refers to limit of discrimination.

APPENDIX F

Envirocheck[®] Report:

Datasheet

Order Details:

Order Number:

369139705_1_1

Customer Reference:

LS8055

National Grid Reference:

480790, 198500

Slice:

A

Site Area (Ha):

10.38

Search Buffer (m):

1000

Site Details:

Haw Lane
Saunderton
HIGH WYCOMBE
HP14 4JD

Client Details:

Mr E Toms
Land Science Ltd
Unit 10
19 Albert Drive
Burgess Hill
West Sussex
RH15 9TN

Report Section	Page Number
Summary	-
Agency & Hydrological	1
Waste	11
Hazardous Substances	-
Geological	13
Industrial Land Use	16
Sensitive Land Use	24
Data Currency	25
Data Suppliers	31
Useful Contacts	32

Introduction

The Environment Act 1995 has made site sensitivity a key issue, as the legislation pays as much attention to the pathways by which contamination could spread, and to the vulnerable targets of contamination, as it does the potential sources of contamination. For this reason, Landmark's Site Sensitivity maps and Datasheet(s) place great emphasis on statutory data provided by the Environment Agency/Natural Resources Wales and the Scottish Environment Protection Agency; it also incorporates data from Natural England (and the Scottish and Welsh equivalents) and Local Authorities; and highlights hydrogeological features required by environmental and geotechnical consultants. It does not include any information concerning past uses of land. The datasheet is produced by querying the Landmark database to a distance defined by the client from a site boundary provided by the client. In this datasheet the National Grid References (NGRs) are rounded to the nearest 10m in accordance with Landmark's agreements with a number of Data Suppliers.

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Radon Potential dataset Copyright Notice

Information supplied from a joint dataset compiled by The British Geological Survey and Public Health England. The probability result is only valid for properties above ground. All basement and cellar areas are considered to be at additional risk from high radon levels. If an underground room such as a cellar or basement makes up part of the living or working accommodation, the property should be tested regardless of Radon Affected Area status.

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Report Version v53.0

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Agency & Hydrological					
BGS Groundwater Flooding Susceptibility	pg 1	Yes	Yes	Yes	n/a
Contaminated Land Register Entries and Notices					
Discharge Consents	pg 4	1		3	6
Prosecutions					
Enforcement and Prohibition Notices					
Integrated Pollution Controls					
Integrated Pollution Prevention And Control					
Local Authority Integrated Pollution Prevention And Control					
Local Authority Pollution Prevention and Controls	pg 6	2			
Local Authority Pollution Prevention and Control Enforcements					
Nearest Surface Water Feature	pg 6				Yes
Pollution Incidents to Controlled Waters					
Historical Prosecutions					
Registered Radioactive Substances	pg 6	3			
Substantiated Pollution Incident Register					
Water Abstractions	pg 7		4		(*4)
Water Industry Act Referrals					
Groundwater Vulnerability Map	pg 9	Yes	n/a	n/a	n/a
Groundwater Vulnerability - Soluble Rock Risk	pg 9	1	n/a	n/a	n/a
Groundwater Vulnerability - Local Information			n/a	n/a	n/a
Bedrock Aquifer Designations	pg 9	Yes	n/a	n/a	n/a
Superficial Aquifer Designations	pg 9	Yes	n/a	n/a	n/a
Source Protection Zones	pg 9	1			
Extreme Flooding from Rivers or Sea without Defences				n/a	n/a
Flooding from Rivers or Sea without Defences				n/a	n/a
Areas Benefiting from Flood Defences				n/a	n/a
Flood Water Storage Areas				n/a	n/a
Flood Defences				n/a	n/a
OS Water Network Lines					
Water Framework Directive - Catchment	pg 10	Yes			Yes
Water Framework Directive - Groundwater	pg 10	Yes			
Water Framework Directive - Surface Waters					

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Waste					
BGS Recorded Landfill Sites					
Historical Landfill Sites					
Integrated Pollution Control Registered Waste Sites					
Licensed Waste Management Facilities (Landfill Boundaries)					
Licensed Waste Management Facilities (Locations)	pg 11				2
Local Authority Landfill Coverage	pg 11	2	n/a	n/a	n/a
Local Authority Recorded Landfill Sites					
Potentially Infilled Land (Non-Water)	pg 11				1
Potentially Infilled Land (Water)	pg 11				2
Registered Landfill Sites					
Registered Waste Transfer Sites	pg 12				1
Registered Waste Treatment or Disposal Sites					
Hazardous Substances					
Control of Major Accident Hazards Sites (COMAH)					
Explosive Sites					
Notification of Installations Handling Hazardous Substances (NIHHS)					
Planning Hazardous Substance Consents					
Planning Hazardous Substance Enforcements					

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Geological					
BGS 1:625,000 Solid Geology	pg 13	Yes	n/a	n/a	n/a
BGS Estimated Soil Chemistry	pg 13	Yes		Yes	Yes
BGS Recorded Mineral Sites	pg 14				1
BGS Urban Soil Chemistry					
BGS Urban Soil Chemistry Averages					
CBSCB Compensation District			n/a	n/a	n/a
Coal Mining Affected Areas			n/a	n/a	n/a
Mining Instability			n/a	n/a	n/a
Man-Made Mining Cavities					
Natural Cavities					
Non Coal Mining Areas of Great Britain	pg 14	Yes		n/a	n/a
Potential for Collapsible Ground Stability Hazards	pg 14	Yes		n/a	n/a
Potential for Compressible Ground Stability Hazards				n/a	n/a
Potential for Ground Dissolution Stability Hazards	pg 14	Yes	Yes	n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 14	Yes	Yes	n/a	n/a
Potential for Running Sand Ground Stability Hazards				n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 15	Yes	Yes	n/a	n/a
Radon Potential - Radon Affected Areas	pg 15	Yes	n/a	n/a	n/a
Radon Potential - Radon Protection Measures	pg 15	Yes	n/a	n/a	n/a
Industrial Land Use					
Contemporary Trade Directory Entries	pg 16	1	11		35
Fuel Station Entries					
Points of Interest - Commercial Services	pg 20				12
Points of Interest - Education and Health					
Points of Interest - Manufacturing and Production	pg 21	3			10
Points of Interest - Public Infrastructure	pg 23			2	1
Points of Interest - Recreational and Environmental	pg 23				1
Underground Electrical Cables					

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Sensitive Land Use					
Ancient Woodland	pg 24				3
Areas of Adopted Green Belt	pg 24	1			
Areas of Unadopted Green Belt					
Areas of Outstanding Natural Beauty	pg 24	1			
Environmentally Sensitive Areas					
Forest Parks					
Local Nature Reserves					
Marine Nature Reserves					
National Nature Reserves					
National Parks					
Nitrate Sensitive Areas					
Nitrate Vulnerable Zones					
Ramsar Sites					
Sites of Special Scientific Interest	pg 24				1
Special Areas of Conservation	pg 24				1
Special Protection Areas					
World Heritage Sites					

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13SW (W)	0	1	480750 198498
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NW (N)	0	1	480788 198650
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SE (E)	0	1	480950 198498
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13SW (E)	0	1	480788 198498
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NW (N)	0	1	480788 198550
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NW (NW)	13	1	480600 198600
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SE (E)	63	1	481050 198450
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NW (N)	73	1	480788 198800
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A13NE (NE)	103	1	481000 198700
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SE (E)	116	1	481100 198400
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13SW (SW)	124	1	480600 198250
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NW (N)	127	1	480700 198800
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A13NE (E)	133	1	481050 198600
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A8NW (S)	140	1	480650 198150
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A18SW (N)	142	1	480750 198850
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SW (SW)	146	1	480550 198250
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13SW (SW)	146	1	480550 198300
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A14SW (E)	165	1	481150 198400
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13SE (SE)	169	1	481100 198300
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13SW (SW)	169	1	480500 198350
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A18SW (N)	170	1	480788 198900
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A8NW (SW)	174	1	480600 198150

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A8NW (S)	183	1	480650 198100
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SW (SW)	191	1	480500 198300
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A12SE (W)	191	1	480450 198400
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A14SW (SE)	206	1	481150 198300
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A12SE (W)	215	1	480400 198450
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NE (NE)	242	1	481100 198750
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A12SE (W)	254	1	480350 198498
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A12SE (W)	263	1	480350 198450
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A14NW (NE)	266	1	481150 198700
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A12SE (SW)	280	1	480400 198300
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A14NW (NE)	287	1	481150 198750
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A12NE (W)	301	1	480300 198500
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A14NW (NE)	311	1	481200 198700
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A14NW (E)	313	1	481250 198600
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A8NW (S)	315	1	480700 197950
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A18SE (NE)	317	1	481000 199000
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A8NW (SW)	320	1	480550 198000
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A9NW (SE)	320	1	481150 198150
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A14NW (NE)	333	1	481200 198750
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A14NW (E)	334	1	481250 198650
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A12SE (SW)	347	1	480350 198250
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A9NW (SE)	349	1	481200 198150

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A19SW (NE)	350	1	481150 198900
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A12SE (W)	360	1	480250 198450
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A8NW (S)	363	1	480750 197900
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A9NW (SE)	389	1	481200 198100
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A19SW (NE)	393	1	481200 198900
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A19SW (NE)	411	1	481150 199000
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A8NW (S)	413	1	480750 197850
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A8NW (S)	414	1	480788 197850
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A8NW (S)	415	1	480700 197850
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A8NW (S)	434	1	480600 197850
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A19SW (NE)	449	1	481200 199000
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A9NW (SE)	459	1	481250 198050
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A8SW (S)	463	1	480750 197800
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A8SW (S)	464	1	480788 197800
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A8SE (S)	469	1	480800 197800
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A8SE (S)	479	1	480850 197800
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A9NW (SE)	489	1	481300 198050
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A19SW (NE)	489	1	481250 199000
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A14NW (E)	495	1	481450 198600

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
1	Discharge Consents Operator: Molins Tobacco Machinery Limited Property Type: MAKING OF MACHINERY/ENGINE/PUMP/FURNACE/TRACTOR Location: Premises, Haw Lane, Saunderton, Bucks Authority: Environment Agency, Thames Region Catchment Area: Not Given Reference: Ctcu.0498 Permit Version: 1 Effective Date: 2nd June 1968 Issued Date: 2nd June 1968 Revocation Date: 8th October 1996 Discharge Type: Unknown Discharge: Land/Soakaway Environment: Receiving Water: Not Supplied Status: Authorisation revoked Positional Accuracy: Located by supplier to within 100m	A13NE (N)	0	2	480800 198600
2	Discharge Consents Operator: The Trustees For The Time Being Of Hearing Dogs Fo Property Type: VETERINARY ACTIVITIES/ANIMAL SHELTER/RSPCA Location: Hearing Dogs For Deaf People Grange Farm Saunderton High Wycombe Buckinghamshire Hp27 9ns Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Cawm.0096 Permit Version: 2 Effective Date: 21st December 2012 Issued Date: 21st December 2012 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Land/Soakaway Environment: Receiving Water: Into Land Status: Varied under EPR 2010 Positional Accuracy: Located by supplier to within 10m	A18SE (N)	440	2	481040 199120
2	Discharge Consents Operator: The Trustees For The Time Being Of Hearing Dogs Fo Property Type: VETERINARY ACTIVITIES/ANIMAL SHELTER/RSPCA Location: Hearing Dogs For Deaf People Grange Farm Saunderton High Wycombe Buckinghamshire Hp27 9ns Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Cawm.0096 Permit Version: 1 Effective Date: 24th January 2000 Issued Date: 31st January 2000 Revocation Date: 20th December 2012 Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Land/Soakaway Environment: Receiving Water: Into Land Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m	A18SE (N)	440	2	481040 199120
3	Discharge Consents Operator: Austin Hoy & Co Ltd Property Type: Undefined Or Other Location: Station Works, Saunderton, Highwycombe, Bucks Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Ctcu.0353 Permit Version: 1 Effective Date: 15th June 1967 Issued Date: 15th June 1967 Revocation Date: 18th February 1992 Discharge Type: Trade Discharges - Cooling Water Discharge: Land/Soakaway Environment: Receiving Water: Chalk Strata Status: Authorisation revoked Positional Accuracy: Located by supplier to within 100m	A9NW (SE)	452	2	481300 198100

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
4	Discharge Consents Operator: Mr R Goddard Property Type: KENNEL/DRY CLEANING/HAIRDRESSER/OTHER PERSONAL SERVICES Location: Saunderton Salvage Unit 2 West Yard Industrial Estate Slough Lane Saunderton, High Wycombe Bucks Hp14 4hn Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Cawm.0803 Permit Version: 2 Effective Date: 21st December 2012 Issued Date: 21st December 2012 Revocation Date: 19th March 2021 Discharge Type: Trade Effluent Discharge-Site Drainage Discharge: Land/Soakaway Environment: Receiving Water: Into Land Status: Revoked under EPR 2010 Positional Accuracy: Located by supplier to within 10m	A9NW (SE)	648	2	481334 197879
4	Discharge Consents Operator: Mr R Goddard Property Type: KENNEL/DRY CLEANING/HAIRDRESSER/OTHER PERSONAL SERVICES Location: Saunderton Salvage Unit 2 West Yard Industrial Estate Slough Lane Saunderton, High Wycombe Bucks Hp14 4hn Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Cawm.0803 Permit Version: 1 Effective Date: 6th January 2004 Issued Date: 29th April 2004 Revocation Date: 20th December 2012 Discharge Type: Trade Effluent Discharge-Site Drainage Discharge: Land/Soakaway Environment: Receiving Water: Into Land Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m	A9NW (SE)	648	2	481334 197879
5	Discharge Consents Operator: Musketeer Pubs Limited Property Type: FOOD+BEVERAGE SERVICES/CAFE/RESTAURANT/PUB Location: Rose & Crown Ph, , Bledlow Cum Saunderton, Buckinghamshire Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Ctcu.0947 Permit Version: 3 Effective Date: 10th May 2013 Issued Date: 21st December 2012 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Land/Soakaway Environment: Receiving Water: Chalk Strata Status: Varied under EPR 2010 Positional Accuracy: Located by supplier to within 100m	A23SE (N)	867	2	480800 199600
5	Discharge Consents Operator: Musketeer Pubs Limited Property Type: FOOD+BEVERAGE SERVICES/CAFE/RESTAURANT/PUB Location: Rose & Crown Ph, , Bledlow Cum Saunderton, Buckinghamshire Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Ctcu.0947 Permit Version: 2 Effective Date: 21st December 2012 Issued Date: 21st December 2012 Revocation Date: 9th May 2013 Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Land/Soakaway Environment: Receiving Water: Chalk Strata Status: Varied under EPR 2010 Positional Accuracy: Located by supplier to within 100m	A23SE (N)	867	2	480800 199600

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
5	Discharge Consents Operator: Musketeer Pubs Limited Property Type: FOOD+BEVERAGE SERVICES/CAFE/RESTAURANT/PUB Location: Rose & Crown Ph, , Bledlow Cum Saunderton, Buckinghamshire Authority: Environment Agency, Thames Region Catchment Area: Not Given Reference: CTCU.0947 Permit Version: 1 Effective Date: 29th April 1980 Issued Date: 29th April 1980 Revocation Date: 20th December 2012 Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Land/Soakaway Environment: Receiving Water: Chalk Strata Status: Transferred from Water Resources Act 1963 Positional Accuracy: Located by supplier to within 100m	A23SE (N)	867	2	480800 199600
6	Discharge Consents Operator: Mr. P.A. Macfarlan Property Type: DOMESTIC PROPERTY (SINGLE) (INCL FARM HOUSE) Location: Yew Tree Cottage, The City, Bledlow Ridge, Bucks Authority: Environment Agency, Thames Region Catchment Area: Not Given Reference: Ctcu.0462 Permit Version: 1 Effective Date: 10th December 1982 Issued Date: 10th December 1982 Revocation Date: 12th August 1996 Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Land/Soakaway Environment: Receiving Water: Chalk Strata Status: Authorisation revoked Positional Accuracy: Located by supplier to within 100m	A7SW (SW)	991	2	480100 197500
7	Local Authority Pollution Prevention and Controls Name: Molins PLC Location: Haw Lane, Saunderton, HIGH WYCOMBE, Buckinghamshire, HP14 4JE Authority: Wycombe District Council (now part of Buckinghamshire Council), Environmental Services Permit Reference: P13 Dated: 8th June 1995 Process Type: Local Authority Air Pollution Control Description: Part B - General Coating Process (No Specific Reference) Status: Authorisation revoked Positional Accuracy: Manually positioned to the address or location	A13NE (N)	0	3	480827 198613
7	Local Authority Pollution Prevention and Controls Name: Molins plc Location: Haw Lane, Saunderton, HIGH WYCOMBE, Buckinghamshire, HP14 4JE Authority: Wycombe District Council (now part of Buckinghamshire Council), Environmental Services Permit Reference: S20 Dated: 25th November 1993 Process Type: Local Authority Air Pollution Control Description: PG6/2 Manufacture of timber and wood-based products Status: Authorisation revoked Positional Accuracy: Manually positioned to the address or location	A13NE (N)	0	3	480827 198613
	Nearest Surface Water Feature	A9NW (SE)	589	-	481431 198039
8	Registered Radioactive Substances Name: Molins Tobacco Machinery Ltd Location: Haw Lane, Saunderton, HIGH WYCOMBE, Buckinghamshire, HP14 4JE Authority: Environment Agency, Thames Region Permit Reference: Bw8429 Dated: 1st December 2003 Process Type: Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7) Description: Minor variation to authorisation under RSA Status: Authorisation either revoked or cancelled Positional Accuracy: Automatically positioned to the address	A13NE (N)	0	2	480827 198613

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
8	Registered Radioactive Substances Name: Molins Tobacco Machinery Ltd Location: Haw Lane, Saunderton, HIGH WYCOMBE, Buckinghamshire, HP14 4JE Authority: Environment Agency, Thames Region Permit Reference: BA5783 Dated: 29th April 1998 Process Type: Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7) Description: Minor variation to authorisation under RSA Status: Authorisation superseded by a substantial or non substantial variation Positional Accuracy: Automatically positioned to the address	A13NE (N)	0	2	480827 198613
8	Registered Radioactive Substances Name: Molins Tobacco Machinery Ltd Location: Haw Lane, Saunderton, HIGH WYCOMBE, Buckinghamshire, HP14 4JE Authority: Environment Agency, Thames Region Permit Reference: AZ9672 Dated: 4th December 1997 Process Type: Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7) Description: Authorisation under RSA Status: Authorisation superseded by a substantial or non substantial variation Positional Accuracy: Automatically positioned to the address	A13NE (N)	0	2	480827 198613
9	Water Abstractions Operator: Saunderton Data Centre Gp Limited Licence Number: 28/39/25/0023 Permit Version: 101 Location: Molins Machine Company 'A' Authority: Environment Agency, Thames Region Abstraction: Machinery And Electronics: Process Water Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Se Of Hall Lane Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 7th October 2009 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A13SW (SW)	12	2	480700 198300
9	Water Abstractions Operator: Molins Machine Co Ltd Licence Number: 28/39/25/0023 Permit Version: 100 Location: Molins Machine Company 'A' Authority: Environment Agency, Thames Region Abstraction: Machinery And Electronics: Process Water Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): 455 Yearly Rate (m3): 165929 Details: Se Of Hall Lane Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 13th June 1966 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A13SW (SW)	12	2	480700 198300
10	Water Abstractions Operator: Saunderton Data Centre Gp Limited Licence Number: 28/39/25/0023 Permit Version: 101 Location: Molins Machine Company 'B' Authority: Environment Agency, Thames Region Abstraction: Machinery And Electronics: Process Water Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Se Of Hall Lane Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 7th October 2009 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A13SE (S)	90	2	480800 198200

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
10	Water Abstractions Operator: Molins Machine Co Ltd Licence Number: 28/39/25/0023 Permit Version: 100 Location: Molins Machine Company 'B' Authority: Environment Agency, Thames Region Abstraction: Machinery And Electronics: Process Water Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Se Of Hall Lane Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 13th June 1966 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A13SE (S)	90	2	480800 198200
	Water Abstractions Operator: Thames Water Utilities Ltd Licence Number: 28/39/25/0051 Permit Version: 100 Location: Radnage Pumping Station 'C' Authority: Environment Agency, Thames Region Abstraction: Public Water Supply: Potable Water Supply - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 October Authorised End: 30 September Permit Start Date: 1st April 2022 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A1SE (SW)	1623	2	479600 197100
	Water Abstractions Operator: Princes Risborough Golf Club Ltd Licence Number: 28/39/19/0210 Permit Version: 100 Location: Parsonage Farmhouse, Lee Road, Saunderton Lee, Bucks Authority: Environment Agency, Thames Region Abstraction: Golf Courses: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): 36 Yearly Rate (m3): 6819 Details: Upper Chalk Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st April 2008 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	(N)	1896	2	480500 200600
	Water Abstractions Operator: Thames Water Utilities Ltd Licence Number: 28/39/25/0051 Permit Version: 100 Location: Bennett End Pumping Station 'B' Authority: Environment Agency, Thames Region Abstraction: Public Water Supply: Potable Water Supply - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 October Authorised End: 30 September Permit Start Date: 1st April 2022 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	(SW)	1935	2	479000 197400

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Thames Water Utilities Ltd Licence Number: 28/39/25/0051 Permit Version: 100 Location: Bennett End Pumping Station 'B' Authority: Environment Agency, Thames Region Abstraction: Public Water Supply: Potable Water Supply - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 5th July 1976 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(SW)	1935	2	479000 197400
	Groundwater Vulnerability Map Combined Principle Bedrock Aquifer - High Vulnerability Classification: High Combined High Vulnerability: Productive Bedrock Aquifer, Productive Superficial Aquifer Combined Aquifer: Intermediate Pollutant Speed: Well Connected Fractures Bedrock Flow: 300-550 mm/year Dilution: >70% Baseflow Index: <90% Superficial Patchiness: <3m Superficial Thickness: No Data Superficial Recharge:	A13NE (N)	0	4	480851 198678
	Groundwater Vulnerability Map Combined Principle Bedrock Aquifer - High Vulnerability Classification: High Combined High Vulnerability: Productive Bedrock Aquifer, No Superficial Aquifer Combined Aquifer: Intermediate Pollutant Speed: Well Connected Fractures Bedrock Flow: 300-550 mm/year Dilution: >70% Baseflow Index: <90% Superficial Patchiness: <3m Superficial Thickness: No Data Superficial Recharge:	A13SW (E)	0	4	480788 198498
	Groundwater Vulnerability - Soluble Rock Risk Classification: Significant Risk - Low Possibility	A13SW (E)	0	4	480788 198498
	Bedrock Aquifer Designations Aquifer Designation: Principal Aquifer	A13SW (E)	0	4	480788 198498
	Superficial Aquifer Designations Aquifer Designation: Secondary Aquifer - Undifferentiated	A13NE (N)	0	4	480851 198678
11	Source Protection Zones Name: Not Supplied Source: Environment Agency, Head Office Reference: Not Supplied Type: Zone II (Outer Protection Zone): Either 25% of the source area or a 400 day travel time whichever is greater.	A13SW (E)	0	2	480788 198498
	Extreme Flooding from Rivers or Sea without Defences None				
	Flooding from Rivers or Sea without Defences None				
	Areas Benefiting from Flood Defences None				
	Flood Water Storage Areas None				

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Flood Defences None				
	OS Water Network Lines None				
	Water Framework Directive - Catchment Class Code: River Catchment WaterBody Name: Wye (Source to High Wycombe fire station) WaterBody ID: GB106039023890 Operational: Chilterns South Catchment: Thames and Chilterns South Management: South Chilterns Catchment Name: South Chilterns	A13SW (E)	0	2	480788 198498
	Water Framework Directive - Catchment Class Code: River Catchment WaterBody Name: Kingsey Cuttle Brook and tributaries at Thame WaterBody ID: GB106039030200 Operational: Thame Catchment: Thames and Chilterns South Management: Thame Catchment Name: Thame	A18NW (N)	726	2	480500 199380
	Water Framework Directive - Groundwater Waterbody Name: South-West Chilterns Chalk Waterbody ID: GB40601G601100 URL Address: https://environment.data.gov.uk/catchment-planning/WaterBody/GB40601G601100 Overall Rating: Good Chemical Rating: Good Quantitative Measure: Good Year: 2019	A13SW (E)	0	2	480788 198498

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
12	Licensed Waste Management Facilities (Locations) Licence Number: 86060 Location: Wests Yard, Slough Lane, Saunderton, High Wycombe, Buckinghamshire, HP14 4HN Operator Name: HAWES PLANT & TOOL HIRE LIMITED Operator Location: Not Supplied Authority: Environment Agency - South East Region, West Thames Area Site Category: Household, Commercial And Industrial Transfer Stations Licence Status: Surrendered Issued: 24th October 1994 Last Modified: Not Supplied Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: 24th October 1994 IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 100m	A9NW (SE)	612	2	481300 197900
12	Licensed Waste Management Facilities (Locations) Licence Number: 86326 Location: West Yard, Slough Lane, Saunderton, High Wycombe, Buckinghamshire, HP14 4HN Operator Name: Richard Goddard Operator Location: Not Supplied Authority: Environment Agency - South East Region, West Thames Area Site Category: Metal Recycling Sites (Vehicle Dismantlers) Licence Status: Revoked Issued: 4th March 2004 Last Modified: Not Supplied Expires: Not Supplied Suspended: Not Supplied Revoked: 8th January 2024 Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m	A9NW (SE)	634	2	481310 197880
	Local Authority Landfill Coverage Name: Wycombe District Council - Has supplied landfill data		0	3	480788 198498
	Local Authority Landfill Coverage Name: Buckinghamshire County Council - Has supplied landfill data		0	5	480788 198498
13	Potentially Infilled Land (Non-Water) Bearing Ref: W Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1981	A12SW (W)	511	-	480103 198415
14	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1960	A9NW (SE)	604	-	481441 198029
15	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1885	A9NE (SE)	638	-	481556 198138

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
16	Registered Waste Transfer Sites Licence Holder: Hawes Plant & Tool Hire Ltd Licence Reference: 434 Site Location: Wests Yard, Slough Lane, Saunderton, HIGH WYCOMBE, Buckinghamshire, HP14 4HN Operator Location: 11/15 Abbey Barn Road, HIGH WYCOMBE, Buckinghamshire, HP11 1RS Authority: Environment Agency - Thames Region, West Area Site Category: Transfer Max Input Rate: Small (Equal to or greater than 10,000 and less than 25,000 tonnes per year) Waste Source: No known restriction on source of waste Restrictions: Licence Status: Site dormant Dated: 24th October 1994 Preceded By: Not Given Licence: Superseded By: Not Given Licence: Positional Accuracy: Located by supplier to within 100m Boundary Quality: Not Supplied Authorised Waste: Com. & Ind. Non-Haz. Waste Excavated Road Metal Ferrous Metal Scrap Glass, Ceramics, Cement, Clinker, Ash Gravel, Hassock, Ragstone, Sand, Silica Hardcore, Bricks, Concrete, Coal, Coke Max. Waste Permitted By Licence Non-Ferrous Metal Scrap Pottery, China, Enamels, Mica, Abrasives Scrap Metal Sub/Topsoil, Stone, Clay, Chalk, Any Waste In Drums Clinical Wastes Contaminated Soil Fibrous Forms Of Asbestos Flammable Waste Fl.Pt < 40 C Food/Foodstuffs High-Dens/Hard/Bonded/Cement Asbestos Liquids/Sludges In Containers Or Not Poisonous, Noxious, Polluting Wastes Putres.H/Hold W.Norm.Collectd By L.A. Putrescible Waste Special Wastes W.Likely Give Rise Danger Fire/Explos. Waste From Civic Amenity Sites Waste N.O.S. Waste Which May Prod.Pot'Y Poll.Liqs. Prohibited Waste	A9NW (SE)	612	2	481300 197900

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS 1:625,000 Solid Geology Description: White Chalk Subgroup	A13SW (E)	0	1	480788 198498
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 30 - 45 mg/kg	A13SW (E)	0	1	480788 198498
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 40 - 60 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A18SW (N)	267	1	480788 199000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 30 - 45 mg/kg	A18NW (N)	617	1	480549 199282
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 40 - 60 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A14SE (E)	681	1	481661 198329
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 30 - 45 mg/kg	A19NE (NE)	847	1	481519 199238
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 30 - 45 mg/kg	A17NE (NW)	890	1	480235 199408

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
17	BGS Recorded Mineral Sites Site Name: Hall Lane Chalk Pit Location: Bledlow Ridge, High Wycombe, Buckinghamshire Source: British Geological Survey, National Geoscience Information Service Reference: 35943 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Cretaceous Geology: New Pit Chalk Formation Commodity: Chalk Positional Accuracy: Located by supplier to within 10m	A12SW (W)	508	1	480106 198418
	BGS Measured Urban Soil Chemistry No data available				
	BGS Urban Soil Chemistry Averages No data available				
	Coal Mining Affected Areas In an area that might not be affected by coal mining				
	Non Coal Mining Areas of Great Britain Risk: Rare Source: British Geological Survey, National Geoscience Information Service	A13SW (E)	0	1	480788 198498
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SW (E)	0	1	480788 198498
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SW (E)	0	1	480788 198498
	Potential for Ground Dissolution Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SW (E)	0	1	480788 198498
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SW (SW)	0	1	480706 198358
	Potential for Ground Dissolution Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SE (E)	22	1	481012 198459
	Potential for Ground Dissolution Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SW (S)	36	1	480689 198258
	Potential for Ground Dissolution Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SW (SW)	45	1	480632 198334
	Potential for Ground Dissolution Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A8NE (S)	178	1	480797 198094
	Potential for Ground Dissolution Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13NW (NW)	183	1	480578 198797
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	0	1	480851 198678
	Potential for Landslide Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SW (E)	0	1	480788 198498
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (E)	22	1	481012 198459
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NW (NW)	183	1	480578 198797
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SW (E)	0	1	480788 198498

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SW (E)	0	1	480788 198498
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	0	1	480851 198678
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SE (E)	22	1	481012 198459
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13NW (NW)	183	1	480578 198797
	Radon Potential - Radon Affected Areas Affected Area: The property is in an Intermediate probability radon area (1 to 3% of homes are estimated to be at or above the Action Level). Source: British Geological Survey, National Geoscience Information Service	A13SW (E)	0	1	480788 198498
	Radon Potential - Radon Affected Areas Affected Area: The property is an Intermediate probability radon area (3 to 5% of homes are estimated to be at or above the Action Level). Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	0	1	480825 198650
	Radon Potential - Radon Protection Measures Protection Measure: No radon protective measures are necessary in the construction of new dwellings or extensions Source: British Geological Survey, National Geoscience Information Service	A13SW (E)	0	1	480788 198498
	Radon Potential - Radon Protection Measures Protection Measure: Basic radon protective measures are necessary in the construction of new dwellings or extensions Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	0	1	480825 198650

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
18	Contemporary Trade Directory Entries Name: Molins Tobacco Machinery Ltd Location: Haw Lane, Saunderton, High Wycombe, Buckinghamshire, HP14 4JE Classification: Precision Engineers Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NE (N)	0	-	480827 198613
19	Contemporary Trade Directory Entries Name: Thames Restek Location: 8-16, MINISTRY WHARF, WYCOMBE ROAD, SAUNDERTON, HP14 4HW Classification: Laboratory Equipment, Instruments & Supplies Status: Active Positional Accuracy: Automatically positioned to the address	A14SW (E)	177	-	481157 198475
19	Contemporary Trade Directory Entries Name: P Valli & Son Location: 14, Ministry Wharf, Wycombe Road, Saunderton, High Wycombe, HP14 4HW Classification: Precision Engineers Status: Inactive Positional Accuracy: Automatically positioned to the address	A14SW (E)	181	-	481167 198444
19	Contemporary Trade Directory Entries Name: B-Tech Office Systems Ltd Location: 6, Ministry Wharf, Wycombe Road, Saunderton, High Wycombe, Buckinghamshire, HP14 4HW Classification: Photocopiers Status: Inactive Positional Accuracy: Automatically positioned to the address	A14SW (E)	192	-	481170 198482
19	Contemporary Trade Directory Entries Name: Image Moulds Location: 6, Ministry Wharf, Wycombe Road, Saunderton, High Wycombe, Buckinghamshire, HP14 4HW Classification: Tool Design, Manufacturers & Makers Status: Inactive Positional Accuracy: Automatically positioned to the address	A14SW (E)	192	-	481170 198482
19	Contemporary Trade Directory Entries Name: Asp (Uk) Ltd Location: 7, Ministry Wharf, Wycombe Road, Saunderton, High Wycombe, Buckinghamshire, HP14 4HW Classification: Cash Registers & Check-Out Equipment Status: Inactive Positional Accuracy: Automatically positioned to the address	A14SW (E)	192	-	481170 198482
19	Contemporary Trade Directory Entries Name: P Valli & Son Location: 14, Ministry Wharf, Wycombe Road, Saunderton, High Wycombe, Buckinghamshire, HP14 4HW Classification: Precision Engineers Status: Inactive Positional Accuracy: Automatically positioned to the address	A14SW (E)	192	-	481170 198482
19	Contemporary Trade Directory Entries Name: Plus International Location: 3, Ministry Wharf, Wycombe Road, Saunderton, High Wycombe, Buckinghamshire, HP14 4HW Classification: Packaging Materials Manufacturers & Suppliers Status: Inactive Positional Accuracy: Automatically positioned to the address	A14SW (E)	192	-	481170 198482
19	Contemporary Trade Directory Entries Name: B-Tech Office Systems Ltd Location: 6, Ministry Wharf, Wycombe Road, Saunderton, High Wycombe, Buckinghamshire, HP14 4HW Classification: Photocopiers Status: Inactive Positional Accuracy: Automatically positioned to the address	A14SW (E)	192	-	481170 198482
19	Contemporary Trade Directory Entries Name: Office Ergonomics Ltd Location: 4, Ministry Wharf, Wycombe Road, Saunderton, High Wycombe, Buckinghamshire, HP14 4HW Classification: Office Furniture & Equipment Status: Active Positional Accuracy: Automatically positioned to the address	A14SW (E)	192	-	481170 198482

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
19	Contemporary Trade Directory Entries Name: Ategi Shared Lives Scheme Location: The Claire Charity Centre, Wycombe Road, Saunderton, High Wycombe, Buckinghamshire, HP14 4BF Classification: Engineers - General Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A14SW (E)	234	-	481214 198484
20	Contemporary Trade Directory Entries Name: Wycombe Car Body Repair Centre Location: Saunderton Carriage House, Wycombe Road, Saunderton, High Wycombe, Buckinghamshire, HP14 4HX Classification: Car Body Repairs Status: Inactive Positional Accuracy: Automatically positioned to the address	A14SW (E)	244	-	481231 198422
21	Contemporary Trade Directory Entries Name: M Blackwell Location: 5, Deanfield Close, Saunderton, High Wycombe, Buckinghamshire, HP14 4HT Classification: Antiques - Repairing & Restoring Status: Inactive Positional Accuracy: Automatically positioned to the address	A9NW (SE)	538	-	481403 198085
22	Contemporary Trade Directory Entries Name: South Bucks Car Body Repair Centre Location: Wests Yard, Slough Lane, Saunderton, High Wycombe, Buckinghamshire, HP14 4HN Classification: Car Body Repairs Status: Inactive Positional Accuracy: Automatically positioned to the address	A9NW (SE)	541	-	481258 197957
22	Contemporary Trade Directory Entries Name: Wycombe Car Spares Location: West Yard Ind Est, 11 Slough La, Saunderton, High Wycombe, Buckinghamshire, HP14 4HN Classification: Salvage Dealers Status: Inactive Positional Accuracy: Manually positioned within the geographical locality	A9NW (SE)	558	-	481311 197972
22	Contemporary Trade Directory Entries Name: G C Woodcraft Ltd Location: West Yard Industrial Estate, Slough Lane, Saunderton, High Wycombe, Buckinghamshire, HP14 4HN Classification: Furniture Manufacturers - Home & Office Status: Inactive Positional Accuracy: Automatically positioned to the address	A9NW (SE)	565	-	481301 197956
22	Contemporary Trade Directory Entries Name: J & D Group Location: West Yard Industrial Estate, Slough Lane, Saunderton, High Wycombe, Buckinghamshire, HP14 4HN Classification: Garage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A9NW (SE)	565	-	481301 197956
22	Contemporary Trade Directory Entries Name: Saunderton Salvage Location: West Yard Industrial Estate, Slough Lane, Saunderton, High Wycombe, Buckinghamshire, HP14 4HN Classification: Car Breakers & Dismantlers Status: Inactive Positional Accuracy: Automatically positioned to the address	A9NW (SE)	565	-	481301 197956
22	Contemporary Trade Directory Entries Name: Aaron Metal Polishing Location: West Yard Industrial Estate, Slough Lane, Saunderton, High Wycombe, Buckinghamshire, HP14 4HN Classification: Blast Cleaning Status: Inactive Positional Accuracy: Automatically positioned to the address	A9NW (SE)	565	-	481301 197956
22	Contemporary Trade Directory Entries Name: Alba Precision Tooling Location: West Yard Industrial Estate, Slough Lane, Saunderton, High Wycombe, Buckinghamshire, HP14 4HN Classification: Tool Design, Manufacturers & Makers Status: Inactive Positional Accuracy: Automatically positioned to the address	A9NW (SE)	565	-	481301 197956

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
22	Contemporary Trade Directory Entries Name: K B Motors Location: West Yard Industrial Estate, Slough Lane, Saunderton, High Wycombe, Buckinghamshire, HP14 4HN Classification: Commercial Vehicle Dealers Status: Inactive Positional Accuracy: Automatically positioned to the address	A9NW (SE)	565	-	481301 197956
22	Contemporary Trade Directory Entries Name: M J S Autos Location: West Yard Industrial Estate, Slough Lane, Saunderton, High Wycombe, Buckinghamshire, HP14 4HN Classification: Garage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A9NW (SE)	565	-	481301 197956
22	Contemporary Trade Directory Entries Name: V A C Systems Location: West Yard Industrial Estate, Slough Lane, Saunderton, High Wycombe, Buckinghamshire, HP14 4HN Classification: Ventilators & Ventilation Systems Status: Inactive Positional Accuracy: Automatically positioned to the address	A9NW (SE)	565	-	481301 197956
22	Contemporary Trade Directory Entries Name: Concrete Products Location: West Yard Industrial Estate, Slough Lane, Saunderton, High Wycombe, Buckinghamshire, HP14 4HN Classification: Concrete Products Status: Inactive Positional Accuracy: Automatically positioned to the address	A9NW (SE)	565	-	481301 197956
22	Contemporary Trade Directory Entries Name: J & D Vehicle Repairs Location: Unit 14, West Yard Industrial Estate, Slough Lane, Saunderton, High Wycombe, Buckinghamshire, HP14 4HN Classification: Garage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A9NW (SE)	565	-	481301 197956
22	Contemporary Trade Directory Entries Name: Pedestal Sales & Services Location: West Yard Indust Est, Slough La, Saunderton, High Wycombe, Buckinghamshire, HP14 4HN Classification: Car Body Repairs Status: Inactive Positional Accuracy: Automatically positioned to the address	A9NW (SE)	570	-	481300 197950
22	Contemporary Trade Directory Entries Name: J & S Auto Repairs Ltd Location: Unit 17, West Yard, Slough Lane, Saunderton, High Wycombe, Buckinghamshire, HP14 4HN Classification: Car Body Repairs Status: Inactive Positional Accuracy: Manually positioned within the geographical locality	A9NW (SE)	582	-	481311 197942
23	Contemporary Trade Directory Entries Name: Apw Coachworks Ltd Location: West Yard Industrial Estate, Slough Lane, Saunderton, High Wycombe, Buckinghamshire, HP14 4HN Classification: Car Body Repairs Status: Inactive Positional Accuracy: Automatically positioned to the address	A9NW (SE)	632	-	481306 197880
23	Contemporary Trade Directory Entries Name: G Joel Location: Slough Lane, Saunderton, High Wycombe, Buckinghamshire, HP14 4HN Classification: Car Body Repairs Status: Inactive Positional Accuracy: Automatically positioned to the address	A9NW (SE)	652	-	481321 197866
24	Contemporary Trade Directory Entries Name: J B Searl & Sons Location: Smalldean Lane, Saunderton, High Wycombe, Buckinghamshire, HP14 4HH Classification: Coal & Smokeless Fuel Merchants & Distributors Status: Inactive Positional Accuracy: Automatically positioned to the address	A9NE (SE)	633	-	481518 198081

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
25	Contemporary Trade Directory Entries Name: Durashine Auto Body Restoration Ltd Location: 1 Crownfield, Wycombe Road, Saunderton, Princes Risborough, HP27 9NR Classification: Car Body Repairs Status: Inactive Positional Accuracy: Automatically positioned to the address	A18NE (N)	649	-	481012 199356
25	Contemporary Trade Directory Entries Name: Durashine Auto Body Restoration Ltd Location: 1, CROWNFIELD, WYCOMBE ROAD, SAUNDERTON, HP27 9NR Classification: Car Body Repairs Status: Inactive Positional Accuracy: Automatically positioned to the address	A18NE (N)	649	-	481012 199356
26	Contemporary Trade Directory Entries Name: The Green Reaper Ltd Location: 3, Crownfield, Wycombe Road, Saunderton, Princes Risborough, Buckinghamshire, HP27 9NR Classification: Lawnmowers & Garden Machinery - Sales & Service Status: Inactive Positional Accuracy: Automatically positioned to the address	A18NE (N)	658	-	480977 199375
26	Contemporary Trade Directory Entries Name: A P Spindle Tooling Ltd Location: 4, CROWNFIELD, WYCOMBE ROAD, SAUNDERTON, HP27 9NR Classification: Machine Tools - Manufacturers & Distributors Status: Active Positional Accuracy: Automatically positioned to the address	A18NE (N)	664	-	480973 199382
26	Contemporary Trade Directory Entries Name: Opperman (1990) Ltd Location: 5, Crownfield, Wycombe Road, Saunderton, Princes Risborough, Buckinghamshire, HP27 9NR Classification: Fire Escapes & Evacuation Equipment Status: Inactive Positional Accuracy: Automatically positioned to the address	A18NE (N)	674	-	480964 199393
27	Contemporary Trade Directory Entries Name: Artisan Gourmet Meats Ltd Location: Unit 5, Crownfield Works, Wycombe Road, Saunderton, Princes Risborough, HP27 9NR Classification: Meat - Wholesale Status: Active Positional Accuracy: Automatically positioned to the address	A18NE (N)	697	-	481071 199387
27	Contemporary Trade Directory Entries Name: Southern Counties Saw Co Ltd Location: Unit 4, Crownfield Works, Wycombe Road, Saunderton, Princes Risborough, HP27 9NR Classification: Saw Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address	A18NE (N)	702	-	481070 199393
27	Contemporary Trade Directory Entries Name: Dab Restoration Ltd Location: 4, Crownfield, Wycombe Road, Saunderton, Princes Risborough, Buckinghamshire, HP27 9NR Classification: Paint & Varnish Stripping Status: Inactive Positional Accuracy: Automatically positioned to the address	A18NE (N)	702	-	481069 199393
27	Contemporary Trade Directory Entries Name: Durashine Auto Body Restoration Location: Unit 4, Crownfield Works, Wycombe Road, Saunderton, Princes Risborough, Buckinghamshire, HP27 9NR Classification: Car Body Repairs Status: Inactive Positional Accuracy: Automatically positioned to the address	A18NE (N)	704	-	481065 199397
27	Contemporary Trade Directory Entries Name: Crownfield Engineering Ltd Location: Wycombe Road, Saunderton, Princes Risborough, Buckinghamshire, HP27 9NR Classification: Precision Engineers Status: Inactive Positional Accuracy: Automatically positioned to the address	A18NE (N)	710	-	481030 199415

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
27	Contemporary Trade Directory Entries Name: Wdx Technology Location: Wycombe Road, Saunderton, Princes Risborough, Buckinghamshire, HP27 9NR Classification: Precision Engineers Status: Inactive Positional Accuracy: Automatically positioned to the address	A18NE (N)	710	-	481030 199415
27	Contemporary Trade Directory Entries Name: Resource Print Management Ltd Location: Unit 6, Crownfield Works, Wycombe Road, Saunderton, Princes Risborough, HP27 9NR Classification: Printers Status: Active Positional Accuracy: Automatically positioned to the address	A18NE (N)	711	-	481030 199415
27	Contemporary Trade Directory Entries Name: Hawke Industries Ltd Location: Crownfield Works, Wycombe Road, Saunderton, Princes Risborough, HP27 9NR Classification: Precision Engineers Status: Inactive Positional Accuracy: Automatically positioned to the address	A18NE (N)	711	-	481030 199415
28	Contemporary Trade Directory Entries Name: C L Boddy Location: Que-Sera, Church Lane, Bledlow Ridge, High Wycombe, Buckinghamshire, HP14 4AX Classification: Electrical Engineers Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NW (SW)	970	-	479837 197884
29	Contemporary Trade Directory Entries Name: Icknield Dairy Location: Lee Road, Saunderton Lee, Princes Risborough, Buckinghamshire, HP27 9NU Classification: Dairies Status: Inactive Positional Accuracy: Automatically positioned to the address	A23SW (N)	979	-	480573 199678
29	Contemporary Trade Directory Entries Name: Planet Engineering & Presswork Ltd Location: Lee Road, Saunderton Lee, Princes Risborough, Buckinghamshire, HP27 9NU Classification: Engineers - General Status: Inactive Positional Accuracy: Automatically positioned to the address	A23SW (N)	979	-	480573 199678
30	Contemporary Trade Directory Entries Name: Batting & Co Location: 1, Church Cottages, Church Lane, Bledlow Ridge, High Wycombe, Buckinghamshire, HP14 4AX Classification: Engineers - General Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NW (SW)	998	-	479835 197824
31	Points of Interest - Commercial Services Name: M J S Autos Location: West Yard Industrial Estate, Slough Lane, Saunderton, High Wycombe, HP14 4HN Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A9NW (SE)	565	6	481301 197956
31	Points of Interest - Commercial Services Name: J & D Group Location: West Yard Industrial Estate, Slough Lane, Saunderton, High Wycombe, HP14 4HN Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A9NW (SE)	565	6	481301 197956
31	Points of Interest - Commercial Services Name: J & D Vehicle Repairs Location: Unit 14 West Yard Industrial Estate, Slough Lane, Saunderton, High Wycombe, HP14 4HN Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A9NW (SE)	565	6	481301 197956

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
31	Points of Interest - Commercial Services Name: J & D Vehicle Repairs Location: Unit 14 West Yard Industrial Estate, Slough Lane, Saunderton, High Wycombe, HP14 4HN Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A9NW (SE)	565	6	481301 197956
31	Points of Interest - Commercial Services Name: Combined Carriers Location: Unit 15 West Yard Industrial Estate, Slough Lane, Saunderton, High Wycombe, HP14 4HN Category: Transport, Storage and Delivery Class Code: Distribution and Haulage Positional Accuracy: Positioned to address or location	A9NW (SE)	565	6	481301 197956
31	Points of Interest - Commercial Services Name: Apw Coachworks Ltd Location: West Yard Industrial Estate, Slough Lane, Saunderton, High Wycombe, HP14 4HN Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A9NW (SE)	632	6	481306 197880
31	Points of Interest - Commercial Services Name: A P W Coachworks Ltd Location: Unit 12 West Yard Industrial Estate, Slough Lane, Saunderton, High Wycombe, HP14 4HN Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A9NW (SE)	632	6	481306 197880
31	Points of Interest - Commercial Services Name: Pedestal Accident Repair Centre Location: Unit 17 West Yard Industrial Estate, Slough Lane, Saunderton, High Wycombe, HP14 4HN Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A9NW (SE)	652	6	481321 197866
31	Points of Interest - Commercial Services Name: M J S Autos Location: Unit 17 West Yard Industrial Estate, Slough Lane, Saunderton, High Wycombe, HP14 4HN Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A9NW (SE)	652	6	481321 197866
32	Points of Interest - Commercial Services Name: Saunderton Salvage Location: Unit 11 West Yard Industrial Estate, Slough Lane, Saunderton, High Wycombe, HP14 4HN Category: Recycling Services Class Code: Scrap Metal Merchants Positional Accuracy: Positioned to address or location	A9NW (SE)	578	6	481384 198006
33	Points of Interest - Commercial Services Name: Durashine Auto Body Restoration Location: Unit 4 Crownfield Works, Wycombe Road, Saunderton, Princes Risborough, HP27 9NR Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A18NE (N)	704	6	481065 199397
33	Points of Interest - Commercial Services Name: Dab Restoration Location: Unit 4 Crownfield Works, Wycombe Road, Saunderton, Princes Risborough, HP27 9NR Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A18NE (N)	704	6	481065 199397
34	Points of Interest - Manufacturing and Production Name: Tanks Location: HP14 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A13NW (N)	0	6	480791 198540

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
35	Points of Interest - Manufacturing and Production Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A13SE (SE)	0	6	480837 198446
35	Points of Interest - Manufacturing and Production Name: Works Location: HP14 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A13SE (SE)	0	6	480824 198444
36	Points of Interest - Manufacturing and Production Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A9NW (SE)	616	6	481400 197969
36	Points of Interest - Manufacturing and Production Name: West Yard Industrial Estate Location: HP14 Category: Industrial Features Class Code: Business Parks and Industrial Estates Positional Accuracy: Positioned to an adjacent address or location	A9NW (SE)	676	6	481410 197899
37	Points of Interest - Manufacturing and Production Name: Industrial Estate Location: HP27 Category: Industrial Features Class Code: Business Parks and Industrial Estates Positional Accuracy: Positioned to an adjacent address or location	A18NE (N)	669	6	481074 199356
38	Points of Interest - Manufacturing and Production Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A9NE (SE)	752	6	481624 198027
38	Points of Interest - Manufacturing and Production Name: Works Location: HP14 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A9NE (SE)	752	6	481624 198027
38	Points of Interest - Manufacturing and Production Name: Works Location: HP14 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A9NE (SE)	777	6	481626 197983
38	Points of Interest - Manufacturing and Production Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A9NE (SE)	786	6	481635 197981
39	Points of Interest - Manufacturing and Production Name: Workings (Dis) Location: HP27 Category: Extractive Industries Class Code: Unspecified Quarries Or Mines Positional Accuracy: Positioned to an adjacent address or location	A19NW (NE)	777	6	481259 199381
40	Points of Interest - Manufacturing and Production Name: Global Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A23SW (N)	957	6	480568 199654
40	Points of Interest - Manufacturing and Production Name: Global Works Location: HP27 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A23SW (N)	958	6	480568 199655

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
41	Points of Interest - Public Infrastructure Name: Saunderton Rail Station Location: HP14 Category: Public Transport, Stations and Infrastructure Class Code: Railway Stations, Junctions and Halts Positional Accuracy: Positioned to address or location	A9NW (SE)	445	6	481304 198114
41	Points of Interest - Public Infrastructure Name: Saunderton Station Location: Saunderton Vale, HP14 Category: Public Transport, Stations and Infrastructure Class Code: Railway Stations, Junctions and Halts Positional Accuracy: Positioned to address or location	A9NW (SE)	445	6	481304 198114
42	Points of Interest - Public Infrastructure Name: Sewage Pumping Station Location: HP14 Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to an adjacent address or location	A9NW (SE)	544	6	481353 198024
43	Points of Interest - Recreational and Environmental Name: Play Area Location: HP14 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A9NW (SE)	616	6	481337 197919

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
44	Ancient Woodland Name: Munts Wood Reference: 1497045 Area(m²): 114845.71 Type: Ancient and Semi-Natural Woodland	A19SW (NE)	647	7	481363 199117
45	Ancient Woodland Name: Hearnton Wood Reference: 1496973 Area(m²): 256542.04 Type: Ancient and Semi-Natural Woodland	A9SW (SE)	884	7	481270 197557
46	Ancient Woodland Name: The Coppice Reference: 1497025 Area(m²): 800329.39 Type: Ancient and Semi-Natural Woodland	A15SW (E)	995	7	481954 198190
47	Areas of Adopted Green Belt Authority: Wycombe District Council (now part of Buckinghamshire Council), Development Control Plan Name: Wycombe District Local Plan To 2011 Status: Adopted Plan Date: 31st January 2004	A13SW (E)	0	8	480788 198498
48	Areas of Outstanding Natural Beauty Name: Chilterns Multiple Areas: Y Total Area (m2): 838304032.5301754 Designation Date: 30th March 1990 Source: Natural England	A13SW (E)	0	7	480788 198498
49	Sites of Special Scientific Interest Name: Bradenham Woods, Park Wood & The Coppice Multiple Areas: Y Total Area (m2): 1348545.57 Source: Natural England Reference: 1000478 Designation Details: Nature Conservation Review Designation Date: 23rd March 1984 Date Type: Notified Designation Details: National Trust Reserve Designation Date: 23rd March 1984 Date Type: Notified Designation Details: Special Area Of Conservation Designation Date: 23rd March 1984 Date Type: Notified Designation Details: Site Of Special Scientific Interest Designation Date: 23rd March 1984 Date Type: Notified	A15SW (E)	1000	7	481954 198170
50	Special Areas of Conservation Name: Chilterns Beechwoods Multiple Areas: Y Total Area (m2): 12838463.31 Source: Natural England Reference: UK0012724 Status: Designated	A15SW (E)	1000	7	481954 198170

Agency & Hydrological	Version	Update Cycle
Contaminated Land Register Entries and Notices Buckinghamshire Council Environment Agency - Head Office South Oxfordshire District Council - Environmental Health Department Wycombe District Council (now part of Buckinghamshire Council) - Environmental Services Chiltern District Council (now part of Buckinghamshire Council) - Environmental Health	December 2019 November 2023 October 2017 October 2017 September 2017	Annual Rolling Update Annually Annual Rolling Update Annual Rolling Update Annual Rolling Update
Discharge Consents Environment Agency - Thames Region	October 2024	Quarterly
Enforcement and Prohibition Notices Environment Agency - Thames Region	March 2013	
Integrated Pollution Controls Environment Agency - Thames Region	January 2009	
Integrated Pollution Prevention And Control Environment Agency - South East Region - West Thames Area Environment Agency - Thames Region	October 2024 October 2024	Quarterly Quarterly
Local Authority Integrated Pollution Prevention And Control Buckinghamshire Council South Oxfordshire District Council - Environmental Health Department Chiltern District Council (now part of Buckinghamshire Council) - Environmental Health Wycombe District Council (now part of Buckinghamshire Council) - Environmental Services	February 2015 June 2014 October 2014 September 2014	Variable Variable Variable Variable
Local Authority Pollution Prevention and Controls South Oxfordshire District Council - Environmental Health Department Wycombe District Council (now part of Buckinghamshire Council) - Environmental Services Buckinghamshire Council Chiltern District Council (now part of Buckinghamshire Council) - Environmental Health	December 2020 December 2020 February 2015 October 2014	Annual Rolling Update Annual Rolling Update Annual Rolling Update Not Applicable
Local Authority Pollution Prevention and Control Enforcements Buckinghamshire Council South Oxfordshire District Council - Environmental Health Department Chiltern District Council (now part of Buckinghamshire Council) - Environmental Health Wycombe District Council (now part of Buckinghamshire Council) - Environmental Services	February 2015 June 2014 October 2014 September 2014	Variable Variable Variable Variable
Nearest Surface Water Feature Ordnance Survey	November 2024	
Pollution Incidents to Controlled Waters Environment Agency - Thames Region	September 1999	
Historical Prosecutions Environment Agency, Thames Region	March 2013	Not Applicable
Registered Radioactive Substances Environment Agency - Head Office Environment Agency - Thames Region	May 2023 May 2023	
Substantiated Pollution Incident Register Environment Agency - South East Region - West Thames Area Environment Agency - Thames Region - North East Area Environment Agency - Thames Region - West Area	October 2024 October 2024 October 2024	Quarterly Quarterly Quarterly
Water Abstractions Environment Agency - Thames Region	October 2024	Quarterly
Water Industry Act Referrals Environment Agency - Thames Region	October 2017	
Groundwater Vulnerability Map Environment Agency - Head Office	June 2018	As notified
Groundwater Vulnerability - Soluble Rock Risk Environment Agency - Head Office	June 2018	As notified

Agency & Hydrological	Version	Update Cycle
Bedrock Aquifer Designations Environment Agency - Head Office	January 2018	As notified
Superficial Aquifer Designations Environment Agency - Head Office	January 2018	As notified
Source Protection Zones Environment Agency - Head Office	September 2022	Bi-Annually
Extreme Flooding from Rivers or Sea without Defences Environment Agency - Head Office	December 2023	As notified
Flooding from Rivers or Sea without Defences Environment Agency - Head Office	December 2023	As notified
Areas Benefiting from Flood Defences Environment Agency - Head Office	February 2023	
Flood Water Storage Areas Environment Agency - Head Office	January 2024	Quarterly
Flood Defences Environment Agency - Head Office	August 2022	
OS Water Network Lines Ordnance Survey	October 2024	Quarterly
Surface Water 1 in 30 year Flood Extent Environment Agency - Head Office	May 2018	Annually
Surface Water 1 in 100 year Flood Extent Environment Agency - Head Office	May 2018	Annually
Surface Water 1 in 1000 year Flood Extent Environment Agency - Head Office	May 2018	Annually
Surface Water Suitability Environment Agency - Head Office	February 2016	Annually
BGS Groundwater Flooding Susceptibility British Geological Survey - National Geoscience Information Service	May 2013	As notified
Water Framework Directive - Catchment Environment Agency - Head Office	July 2024	Annually
Water Framework Directive - Groundwater Environment Agency - Head Office	July 2024	Annually

Waste	Version	Update Cycle
BGS Recorded Landfill Sites British Geological Survey - National Geoscience Information Service	November 2002	As notified
Historical Landfill Sites Environment Agency - Head Office	October 2024	Quarterly
Integrated Pollution Control Registered Waste Sites Environment Agency - Thames Region	January 2009	Not Applicable
Licensed Waste Management Facilities (Landfill Boundaries) Environment Agency - South East Region - West Thames Area Environment Agency - Thames Region - North East Area Environment Agency - Thames Region - West Area	November 2024 November 2024 November 2024	Quarterly Quarterly Quarterly
Licensed Waste Management Facilities (Locations) Environment Agency - South East Region - West Thames Area Environment Agency - Thames Region - North East Area Environment Agency - Thames Region - West Area	October 2024 October 2024 October 2024	Quarterly Quarterly Quarterly
Local Authority Landfill Coverage Buckinghamshire Council Buckinghamshire County Council Chiltern District Council (now part of Buckinghamshire Council) - Environmental Health Oxfordshire County Council South Oxfordshire District Council - Environmental Health Department Wycombe District Council (now part of Buckinghamshire Council) - Environmental Services	February 2003 February 2003 February 2003 February 2003 February 2003 February 2003	Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable
Local Authority Recorded Landfill Sites Buckinghamshire Council Buckinghamshire County Council Chiltern District Council (now part of Buckinghamshire Council) - Environmental Health Oxfordshire County Council South Oxfordshire District Council - Environmental Health Department Wycombe District Council (now part of Buckinghamshire Council) - Environmental Services	October 2018 October 2018 October 2018 October 2018 October 2018 October 2018	
Potentially Infilled Land (Non-Water) Landmark Information Group Limited	December 1999	
Potentially Infilled Land (Water) Landmark Information Group Limited	December 1999	
Registered Landfill Sites Environment Agency - Thames Region - North East Area Environment Agency - Thames Region - West Area	March 2006 March 2006	Not Applicable Not Applicable
Registered Waste Transfer Sites Environment Agency - Thames Region - North East Area Environment Agency - Thames Region - West Area	April 2018 April 2018	
Registered Waste Treatment or Disposal Sites Environment Agency - Thames Region - North East Area Environment Agency - Thames Region - West Area	June 2015 June 2015	

Hazardous Substances	Version	Update Cycle
Control of Major Accident Hazards Sites (COMAH) Health and Safety Executive	September 2024	Bi-Annually
Explosive Sites Health and Safety Executive	March 2017	
Notification of Installations Handling Hazardous Substances (NIHHS) Health and Safety Executive	August 2001	
Planning Hazardous Substance Enforcements Buckinghamshire Council Chiltern District Council (now part of Buckinghamshire Council) - Planning Department Buckinghamshire County Council Oxfordshire County Council Wycombe District Council (now part of Buckinghamshire Council) - Development Control South Oxfordshire District Council - Planning Department (West)	February 2016 February 2016 February 2023 January 2023 October 2015 September 2023	Variable Variable Variable Variable Variable Variable
Planning Hazardous Substance Consents Buckinghamshire Council Chiltern District Council (now part of Buckinghamshire Council) - Planning Department South Oxfordshire District Council - Planning Department (West) Buckinghamshire County Council Oxfordshire County Council Wycombe District Council (now part of Buckinghamshire Council) - Development Control	February 2016 February 2016 February 2016 February 2023 January 2023 October 2015	Variable Variable Variable Variable Variable Variable

Geological	Version	Update Cycle
BGS 1:625,000 Solid Geology British Geological Survey - National Geoscience Information Service	January 2009	As notified
BGS Estimated Soil Chemistry British Geological Survey - National Geoscience Information Service	December 2015	As notified
BGS Recorded Mineral Sites British Geological Survey - National Geoscience Information Service	March 2024	Bi-Annually
CBSCB Compensation District Cheshire Brine Subsidence Compensation Board (CBSCB) Cheshire Brine Subsidence Compensation Board (CBSCB)	August 2011 November 2020	As notified
Coal Mining Affected Areas The Coal Authority - Property Searches	February 2023	Annual Rolling Update
Mining Instability Ove Arup & Partners	June 1998	Not Applicable
Non Coal Mining Areas of Great Britain British Geological Survey - National Geoscience Information Service	May 2015	Not Applicable
Potential for Collapsible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	April 2020	As notified
Potential for Compressible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Ground Dissolution Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Landslide Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Running Sand Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Shrinking or Swelling Clay Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Radon Potential - Radon Affected Areas British Geological Survey - National Geoscience Information Service	November 2024	Annually
Radon Potential - Radon Protection Measures British Geological Survey - National Geoscience Information Service	November 2024	Annually
Industrial Land Use	Version	Update Cycle
Contemporary Trade Directory Entries Thomson Directories	December 2024	Quarterly
Fuel Station Entries Catalist Ltd - Experian	February 2024	Quarterly
Points of Interest - Commercial Services PointX	December 2024	Quarterly
Points of Interest - Education and Health PointX	December 2024	Quarterly
Points of Interest - Manufacturing and Production PointX	December 2024	Quarterly
Points of Interest - Public Infrastructure PointX	December 2024	Quarterly
Points of Interest - Recreational and Environmental PointX	December 2024	Quarterly
Underground Electrical Cables National Grid	January 2024	

Sensitive Land Use	Version	Update Cycle
Ancient Woodland Natural England	November 2024	Bi-Annually
Areas of Adopted Green Belt Buckinghamshire Council Chiltern District Council (now part of Buckinghamshire Council) - Planning Department South Oxfordshire District Council Wycombe District Council (now part of Buckinghamshire Council) - Development Control	July 2024 July 2024 July 2024 July 2024	Quarterly Quarterly Quarterly Quarterly
Areas of Unadopted Green Belt Buckinghamshire Council Chiltern District Council (now part of Buckinghamshire Council) - Planning Department South Oxfordshire District Council Wycombe District Council (now part of Buckinghamshire Council) - Development Control	July 2024 July 2024 July 2024 July 2024	Quarterly Quarterly Quarterly Quarterly
Areas of Outstanding Natural Beauty Natural England	November 2024	Bi-Annually
Environmentally Sensitive Areas Natural England	August 2023	
Forest Parks Forestry Commission	May 2023	Not Applicable
Local Nature Reserves Natural England	August 2024	Bi-Annually
Marine Nature Reserves Natural England	August 2024	Bi-Annually
National Nature Reserves Natural England	January 2025	Bi-Annually
National Parks Natural England	September 2024	Bi-Annually
Nitrate Sensitive Areas Natural England	April 2023	Not Applicable
Nitrate Vulnerable Zones Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA) Environment Agency - Head Office	April 2016 November 2024	Annually
Ramsar Sites Natural England	August 2024	Bi-Annually
Sites of Special Scientific Interest Natural England	November 2024	Bi-Annually
Special Areas of Conservation Natural England	October 2024	Bi-Annually
Special Protection Areas Natural England	November 2024	Bi-Annually

A selection of organisations who provide data within this report

Data Supplier	Data Supplier Logo
Ordnance Survey	
Environment Agency	
Scottish Environment Protection Agency	
The Coal Authority	
British Geological Survey	
Centre for Ecology and Hydrology	
Natural Resources Wales	
Scottish Natural Heritage	
Natural England	
Public Health England	
Ove Arup	
Stantec UK Ltd	

Contact	Name and Address	Contact Details
1	British Geological Survey - Enquiry Service British Geological Survey, Environmental Science Centre, Keyworth, Nottingham, Nottinghamshire, NG12 5GG	Telephone: 0115 936 3143 Fax: 0115 936 3276 Email: enquiries@bgs.ac.uk Website: www.bgs.ac.uk
2	Environment Agency - National Customer Contact Centre (NCCC) PO Box 544, Templeborough, Rotherham, S60 1BY	Telephone: 03708 506 506 Email: enquiries@environment-agency.gov.uk
3	Wycombe District Council (now part of Buckinghamshire Council) - Environmental Services District Council Offices, Queen Victoria Road, High Wycombe, Buckinghamshire, HP11 1BB	Telephone: 01494 461000 Fax: 01494 461292 Website: www.wycombe.gov.uk
4	Environment Agency - Head Office Rio House, Waterside Drive, Aztec West, Almondsbury, Bristol, Avon, BS32 4UD	Telephone: 01454 624400 Fax: 01454 624409
5	Buckinghamshire County Council County Hall, Aylesbury, Buckinghamshire, HP20 1UA	Telephone: 01296 395900 Fax: 01296 88887 Website: www.buckscc.gov.uk
6	PointX 5-6 Abbey Court, Eagle Way, Sowton, Exeter, Devon, EX2 7HY	Website: www.pointx.co.uk
7	Natural England County Hall, Spetchley Road, Worcester, WR5 2NP	Telephone: 0300 060 3900 Email: enquiries@naturalengland.org.uk Website: www.naturalengland.org.uk
8	Wycombe District Council (now part of Buckinghamshire Council) - Development Control District Council Offices, Queen Victoria Road, High Wycombe, Buckinghamshire, HP11 1BB	Telephone: 01494 461000 Fax: 01494 421108 Website: www.wycombe.gov.uk
-	Public Health England - Radon Survey, Centre for Radiation, Chemical and Environmental Hazards Chilton, Didcot, Oxfordshire, OX11 0RQ	Telephone: 01235 822622 Fax: 01235 833891 Email: radon@phe.gov.uk Website: www.ukradon.org
-	Landmark Information Group Limited Landmark Information Group, Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0330 036 6618 Fax: 0844 844 9951 Email: helpdesk@landmark.co.uk Website: www.landmark.co.uk

Please note that the Environment Agency / Natural Resources Wales / SEPA have a charging policy in place for enquiries.