SITE INVESTIGATION REPORT

PROPOSED DEVELOPMENT:

SONNING GOLF CLUB (HOUSING), DUFFIELD ROAD, SONNING, READING, BERKSHIRE RG4 6GJ



Client:	**Sonning Golf Club** **Duffield Road, Sonning,** **Reading, Berkshire** **RG4 6GJ**
Consulting Engineers:	**Aventus Design Ltd** **4 Harrier Close, Watermead** **Aylesbury, Bucks HP19 0UN**
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- GroundSure Geo+EnviroInsight Report (Ref: SCL-6ZX-IEU-HY6-55U, 10/07/25)
- Envirocheck mining and natural cavities database search (Ref: 381156499_1_1, 10/07/2025)

1.0 INTRODUCTION

Consideration is being given to the construction of 50no new residential dwellings with associated access roads, areas of hardstanding, soft landscaping and public open space. In connection with the proposed works, Soil Consultants Ltd (SCL) were commissioned by Aventus Design Ltd to carry out a site investigation to include the following elements:

- Stage 1 Tier 1 Preliminary Risk Assessment (Desk Study) including initial Conceptual Site Model (CSM)
- Intrusive investigation to identify the ground sequence and groundwater conditions
- Geotechnical and geo-environmental sampling and laboratory testing
- Provision of advice on shallow foundation and floor slab design along with advice on the construction of hard standing and the use of soakaways
- Stage 1 Tier 2 generic quantitative risk assessment and refined Conceptual Site Model (CSM)

This report includes a summary of the findings and conclusions of the Desk Study research and Preliminary Risk Assessment. It then describes the intrusive investigation undertaken, gives a summary of the ground conditions encountered and discusses geotechnical design elements. A contamination assessment is also provided.

2.0 SITE DESCRIPTION

A summary description of the site and its general setting is as follows:

Element	Description
Site location and setting	• Located in Wokingham Borough Council district, within the county of Berkshire • Predominately residential area with sports ground to the north with open farm land beyond • The site forms part of the wider Sonning Golf Club located towards the south western corner of the complex occupying an area of about 4.5 hectares • Golf club located to the northeast of Duffield Road close to the junction with Pound Lane • NGR 476545E, 174846N
Site dimensions	• Approximately 340m (NE-SW) x 80m (NW-SE); site narrows to the north east
Site boundaries	• The south eastern boundary is open to the golf course and formed in part by trees and a small area of woodland (Photos 3 to 6) • The north western boundary largely comprises mature trees and hedgerows with residential properties and Rams Rugby Club beyond (Photos 3 to 6 and 10) • The south western boundary comprises a part wooden fence and part hedgerow which separates the site from a plot of ground which is scheduled for residential development (adjacent to Pound Lane) (Photo 7)
Site description	• The site currently comprises an open grassed area which appears to have been formerly a fairway for the golf club but is currently unused. Several landscaped bunds are present as shown on the appended Site Survey Plan. • An area of woodland/cops is located along the northern half of the south eastern boundary and trees are largely present along the north western boundary. (Photos 1 to 6)
Topography and site levels	• A site survey has been provided completed by KND Surveys Ltd Ref Partial 3D Site Survey dated May 2022. • Overall, the highest point of the development plot is at about +54.25mOD (on the north western side) and the lowest point at about +35.30mOD (north eastern corner and south eastern side). Thus, the site attains a very gentle slope rising from south east to north west.
Existing vegetation within site and adjacent properties	• The trees within the wooded area / cops and those along the south eastern boundary are largely mature oaks up to about 15m in height. • Trees of varying species are present along the northwestern boundary including mostly poplar, oak, sycamore, horse chestnut, cherry and holly with some pine and coniferous trees towards the south western corner • A arboricultural survey has been undertaken for the site by Arbtech (Ref: Sonning Golf Club – Arbtech TSR 01 A) and reference should be made to this report in regarding to tree location and identification.

The current site features are shown on the Site Plan and Site Photographs which are included in Appendix A.

3.0 STAGE 1 TIER 1 PRELIMINARY RISK ASSESSMENT (DESK STUDY)

This assessment is generally based upon current UK guidance, primarily the Environment Agency's "Land contamination: risk management" 2023. The scope of the assessment is as follows:

- A review of historical and current land–use and potential contaminated land risks
- Development of an outline conceptual model, identifying potential sources, pathways and receptors and potential contaminant linkages (PCLs)
- Development of a strategy for intrusive investigation

3.1 Review of historical mapping

The following summary of the history of the site and surrounding area has been compiled from a series of historical maps (Groundsure Ref: SCL-37Z-4LU-5AW-28S, dated 10/07/25) obtained from a commercially available database; these are included in Appendix B.

Historical development of site and surrounding area		
Map date	**The site**	**Significant development / features in surrounding area**
1872 to 1914	The site comprises part of an undeveloped plot of arable land within a wider open field	Woodland of Holmemoor Copse is present approx. 150m S/SE of site Railway tracks are present approx. 150-250m SW/S/SE Unnamed roads are present 100m SW and 150m NW A residential cottage is present approx. 120m S/SW, on the north side of the railway tracks A gravel pit is present 500m NE The village of Sonning is present beyond 600m NW
1932 to 2025	By 1932, the golf club had been developed with the Golf club "Club House" present 100m off the SW corner of site. The site appears to be part of the overall golf course forming part of the fairway with areas of trees along the south eastern boundary	Low density residential development is shown directly NW, about 100m W and 250m SW (beyond the rail tracks) The village of Sonning had undergone significant residential development by this time The gravel pit located 500m NEis no longer labelled but surface features are still present By 1956 further residential development has occurred directly NW , 250m N, 220m W/SWand 300m S By 1972 residential development has occurred beyond 250m W, SW, S and SE.

3.2 Database information

The database report includes information of local activities encompassing a range of subjects related to land use, pollution, and geological/hydrological conditions. Our assessment of contaminative uses and other environmental issues relevant to the site and its surroundings is provided below. The full database report (Groundsure Ref: SCL-6ZX-IEU-HY6-55U, dated 10/07/25) is included as Appendix B and this should be read and understood fully in conjunction with this summary.

Past land use

- Historical industrial land uses (within 250m): Ten records of potentially contaminative historical land uses within proximity to site, all of which relate to the cuttings located 163m south to 245m southeast associated with the rail tracks, dated between 1898 to 1986. Unspecified ground workings are also detailed 251-254m south/southwest dated 1977 to 1986; along with an unspecified heap located 253-257m southwest dated 1900 to 1986.
- Historical tanks (within 250m): An unspecified tank is identified to be present 234m north of site, dated 1977 to 1993.
- Historical energy features (within 250m): There are four records of historical energy features within proximity to site, all relating to electricity substations located 90m southwest to 198m northwest, dated between 1977 to 1995.

Waste and landfill

- Waste exemptions (within 250m): Four records of activities involving the storage, treatment, use or disposal of waste that are exempt from needing a permit within proximity to site. The nearest of these records relates to Old Bath Road, Sonning, Reading RG4 6TQ located 64m northwest of site and is for sorting and de-naturing of controlled drugs for disposal.

Current industrial land use

- Recent industrial land uses: Eight records of current potentially contaminative land uses within proximity to the site. The nearest of these records relates to an electricity substations located 100m southwest. Other records include pump located 113m northwest; electricity substations located 130m northwest, 202m northwest, 213m southeast and 244m southeast; mast located 141m north; telephone exchange.
- Current or recent tanks (within 250m): A roofed storage tank is present 222m northeast, present from 20/06/2014
- Licensed Discharges to controlled waters (within 250m): Rear of the Lawn & Birchley, Old Bath Road, Sonning located 12m northwestwhich is identified to discharge final/treated effluent to gravel with the license revoked on 01/10/1996.

Hydrogeology

- Superficial aquifer: Secondary A aquifer present beneath site
- Bedrock aquifer: Secondary A aquifer present beneath site
- Groundwater vulnerability: High vulnerability on site. Leaching class 'High'
- Groundwater abstractions: two records of groundwater abstractions are identified at Sonning Golf Club located 225m north of site, both of which identified to be extraction of Thames groundwater for use as spray irrigation
- Source Protection Zones: Type III Total Catchment on site.

Hydrology

- Water Network (within 250m): there are 10 records of rivers, streams, lakes and canal features within proximity to site. There nearest of these records relates to an inland river not influenced by normal tidal action at ground surface located 182m southeast of site.
- Water Framework Directive (WFD) surface water body catchments: onsite is the River Loddon catchment, with a operational catchment of Loddon and a management catchment of Loddon and Trib
- WFD groundwater bodies: onsite is the Twyford Tertiaries catchment which has a overall rating of good, a chemical rating of good and a quantitative rating of good.

River and coastal flooding

- Risks of flooding (RoFRaS), historical flooding and flood defences: none identified within 250m
- No Zone 2 or 3 floodplains or flood defences within 50m

Surface water and groundwater flooding

- Surface water flooding: the highest risk on site (and within 50m) is 1 in 30 year – 0.3m-1.0m
- Groundwater flooding: the highest risk on site (and within 50m) is 'low'

Environmental designations

- Designated Ancient Woodland: Holmemoor Copse is located 238m southeast of site
- Nitrate Vulnerable Zones: The Sheeplands nitrate vulnerable zone is present onsite
- SSSI Impact Risk Zones: the site and surrounding area are located within an SSSI impact zone which requires certain developments/activities to undergo consultation

Visual and cultural designations

- Listed buildings: Keepers Cottage located 140m southeast of site is designated a Grade II listed building, with a listed date of 11/09/2009
- Scheduled ancient monuments: Cropmark complex south of Charvil Lane located 185m north of site

Agricultural designations

- Agricultural land designation: The site has a non-agricultural/no quality assigned designation. 13m west of site is designated urban. 35m northwest of site is designated Grade 2
- Tree felling license: There are two records of tree felling applications onsite which relate to clear fell (conditional) and selective fell/thin (conditional) both with an application date of 19/11/2008. 18m southeast of site a clear fell application is identified with an application date of 19/11/2008

Habitat designations

- Priority habitat inventory: There are twelve records of habitats of principal importance, with the nearest of these records identified to be deciduous woodland (INV >50%) located 31m southeast of site

Geology

- Superficial geology: River Terrace Deposits (4); flow type is intergranular; high to very high permeability
- Bedrock geology: Lambeth Group; flow type is mixed; very low to moderate permeability. It is noted that several faults are present in proximity to site, located onsite along the southwestern extent of the site, 37m southwest of site and 260m northwest of site.
- BGS boreholes: There are fifteen records of BGS boreholes within 250m of the site. The nearest of these boreholes records, located 25m northwest of site (BGS ID: 18375518; BGS Reference: SU77SE317) identifies the following sequence of strata: topsoil to a depth of 0.30m bgl, brown silty very clayey gravelly sand to 0.70m bgl, soft orange brown silty very sandy gravelly clay to a depth of 1.30m bgl and very dense orange brown silty gravelly sand to 2.0m bgl. No groundwater was encountered
- Natural ground subsidence: see Section 3.3

Mining, ground workings and natural cavities:

- Surface ground workings: There are eleven records of surface ground workings, all of which relate to cuttings associated with the nearby railway tracks. The nearest of these records relate to cuttings located 163m south of site, dated 1900.
- Historical mineral planning areas: There are three records of mineral planning permissions within proximity to site. The nearest of these records relates to Butts Hill located 230m south of site and is identified to be for the extraction of sand and gravel from a surface mineral working and has a valid planning status since 28/04/1959.
- Non-coal mining: There are two records of potential non-coal mining activity within proximity to the site, both of these records relate to chalk mining one located onsite and one 25m north which consider that mining may have occurred although there is no definitive evidence of mining having been undertaken.
- JPB mining areas: The site is outside the area of data held by the Coal Authority however, JPB may have records of mining in this area. Contact details contained within Groundsure report (JPB have not been contacted as part of this work). .
- Researched mining: There is one record of areas of potential mining identified from alternative or archival sources, located 451m northwest of site and is fir the extraction of stone.
- There is a potential risk of chalk mining to have occurred onsite or within close proximity to site, this is further discussed in section 3.3 of this report.

Radon

- Less than 1% of properties affected, Radon protection measures not required

Soil chemistry

- BGS estimated urban soil chemistry, extract as follows:

Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
25m N	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg

Railway infrastructure and projects

- Underground railways (London): there is one record of active London Underground lines within proximity to site, this relates to the Elizabeth Line surface track located 189m south
- Railways: there are six records of currently / existing railway lines the nearest of these records relates to Great Western Main Line located 182m to the south. Other records relate to the same rail tracks.

3.3 Mining and natural cavities

We commissioned a site-specific report from Envirocheck (Ref: 381156499_1_1, 10/07/2025) to address mining and natural cavity risks. Whilst the Groundsure report (discussed above) does provide some information in this respect, the Envirocheck report is more detailed and generally allows for better risk assessment. The following sections summarise the key data from the Envirocheck report and associated maps.

BGS recorded mineral sites: none within 500m.

Coal mining: site located 'in an area which may not be affected by coal mining'.

Natural cavities: nearest is sinkhole (x2) and solution pipe (x2) (in chalk) located 487m north

Non coal mining areas of GB: the risk is identified as 'unlikely'

Heap (unknown constituents): four records of heaps within proximity to site, the nearest of which is located 365m southwest of site noted to be present between 1882 to 1960.

Quarrying/Pits: nearest located 413m northeast of site identified to have taken place between 1882 to 1914.

Potentially infilled land: nearest non-water infilled land is identified to be an unknown filled ground pit (pit, quarry etc) located 448m northeast of site. The nearest water infilled land is identified to be unknown filled ground (pond, march, river, stream, dock etc) located 583m southeast.

Brine: the site does not fall within a brine compensation area or a brine subsidence solution area.

Ground stability: the following table summarises the hazard potential onsite and within 50m for all categories of natural ground subsidence where listed:

Stability Hazard	Hazard potential
Shrink/swell clays	Moderate on site
Running sand	Very low on site
Compressible ground	Negligible on site
Collapsible ground	Very low on site
Landslide	Very low on site
Ground dissolution	Very low on site

3.4 Other information

Wokingham Borough Council has been contacted on multiple occasions (11th July 2025, 18th July 2025, 11th August 2025 and 14th August 2025) but no response has been received at the time of writing this report.

3.5 Unexploded ordnance risk assessment

From a preliminary search of UXO risk (shown below), the site is within a low risk UXO area therefore on-site support is considered to not be required for both investigation or development works.



This map principally indicates a hazard from Unexploded Bombs (UXB) due to WWII bombardment. Other sources of Unexploded Ordnance (UXO) may be present. It should be noted that this map does not represent UXO risk and should not be reported as such when reproduced.



3.6 Walk-over survey

A site walk-over survey was undertaken on 16th July 2025. A description of the general features of the site and the topography is provided in Section 2.0 above. From inspection of visible and accessible areas, a summary of specific features relevant to the land quality assessment is as follows:

Feature	Commentary
Electricity substations and transformers	• None observed within the site boundary • A electricity substation is present offsite approx. 100m NW of site at the adjacent rugby club (Photo 9) • A small gas regulator box is present within the vehicle parking area to the front of the main clubhouse, approx. 135m southeast of the site
Fuel storage tanks	• None observed
Fuel interceptors	• None observed
General chemical storage/waste	• None observed
Invasive species	• None observed
Evidence of gas protection	• None observed
Surface water contamination	• None observed
Waste storage	• None observed
ACMs	• None observed
Other	• Railway in cutting 230m SE (Photo 8)

3.7 Potential pollution linkages and Initial Conceptual Site Model

The information in the preceding sections has been used to undertake the Preliminary Risk Assessment and to compile the Initial Site Conceptual Model below in accordance with current LCRM (EA2021) guidance. The assessment follows a risk-based approach, with the potential risks determined qualitatively using the 'source-pathway-receptor' linkage concept. Potential harm may only exist where a plausible, rational and justified linkage is present between all factors of the linkage.

The following assessment pro-forma methodology has been formulated from existing guidance using a standard modified consequence and probability matrix:

		Consequences			
		Severe (4)	**Medium (3)**	**Mild (2)**	**Minor (1)**
Probability	**High likelihood (4)**	Very high risk	High risk	Moderate risk	Moderate/low risk
	Likely (3)	High risk	Moderate risk	Moderate/low risk	Low risk
	Low likelihood (2)	Moderate risk	Moderate/low risk	Low risk	Very low risk
	Unlikely (1)	Moderate/low risk	Low risk	Very low risk	Very low risk

Definitions of Consequence:

- Severe (4): Significant damage or harm to buildings/property/services, short-term (possibly immediate) acute direct risks to controlled waters, human and ecological receptors via pollution and direct exposure.
- Medium (3): Direct pollution of controlled waters and possible chronic or acute risks of significant harm to human health, buildings/services and/or ecological receptors via exposure.
- Mild (2): Indirect pollution of controlled waters and possible chronic risks to human health, building/service and/or ecological receptors over the longer term causing potential harm.
- Minor (1): Negligible potential for damage or harm to be significant to identified receptors but may still be present which may result in actions being required by appropriate regulators.

Definitions of Probability:

- High likelihood (4): There is, or it is inevitable that there will be, an identified and/or confirmed potential pollution linkage or incident capable of causing harm in the immediate to medium term.
- Likely (3): There is, or it is inevitable that there will be, an identified and/or confirmed potential pollution linkage or incident capable of causing harm in the medium or longer term.
- Low likelihood (2): There is, or could be, an identified and/or confirmed potential pollution linkage or incident potentially capable of causing harm over time, but it is not inevitable.
- Unlikely (1): There is, or could be, an identified and/or confirmed potential pollution linkage or incident potentially capable of causing harm over the longer term, but it is improbable that it will be significant.

Definitions of the final linkage risks are summarised as follows:

- **Very high:** high probability that severe harm could occur, or there is evidence that it is currently occurring. If realised, the risk could result in substantial liability. Urgent investigation/remediation
- **High:** harm is likely to occur, realisation is likely to present substantial liability. Urgent investigation required. Remedial works may be required in short-term, will be in long-term
- **Moderate:** possible that harm could arise, but unlikely to be severe. Investigation normally required to clarify risk and liability. Remedial works may be necessary in long-term
- **Low:** possible that harm could occur, but this would at worst be mild
- **Very low:** low possibility of harm, unlikely to be severe

The following initial assessment has been carried out by identifying and evaluating the potential sources of contamination, the potential receptors and the plausible pathways for contamination migration. These have been determined from the available data using current guidance at the time of writing and will be subject to re-evaluation if or when additional data becomes available.

Potential sources of contamination

A summary of potential sources identified by our review of the above information is as follows:

- **Present/recent site usage:** the site has been an undeveloped agricultural land from earliest map edition to early 1930's at which point it appears to have been developed as the golf course for Sonning Golf Club. It is noted that small scale landscaping has taken placed onsite associated with the creation of the course and fairways which would have created the presence of limited made ground.
- **Offsite usage:** the surrounding area has been developed largely for residential purpose. A historical electricity substation is noted 90m southwest of site which may be a source for potential inorganics (metalloids and heavy metals), hydrocarbons (TPH and PAH), organics (PCBs); railway tracks/sidings are noted to be present from earliest map edition which may be a source for potential inorganics (metalloids and heavy metals), asbestos, hydrocarbons (TPH and PAH), organics (lubricating oils PCB's, solvents, creosote). However, given their age, the distance and mostly topographically lower than the site, the risk from these features is considered to be low and unlikely to have affected the site.

It should be noted that any developed, non-greenfield land is likely to contain made ground. This will probably be of uncertain or unknown origin and may contain contaminants that have not been specifically identified.

The assessed risks from these potential sources are summarised in the Initial Conceptual Site Model below.

Potential receptors

In the context of the proposed development, the following potential receptors have been identified:

- Human health: users of building, construction workers, adjacent site users
- Controlled waters: Secondary A aquifer superficial deposits and bedrock geology beneath site. The site lies within a Type III source protection zone. The site is assessed as being of **medium environmental sensitivity**
- Building fabric and services: buried foundations and potable water pipes

Plausible pathways

- Ingestion of soil, dust or water
- Inhalation of dust, gas or vapours
- Direct physical contact with contaminated soil/water
- Vertical and lateral migration of contamination including leaching
- Chemical attack of building infrastructure, including water supply pipes
- Migration of ground gas/vapour through permeable soils or open pathways

The Initial Conceptual Site Model and an estimate of the risk associated with each potential linkage is shown in the following table:

Source	Pathway	Receptor	Preliminary assessed risk and commentary/justification
On-site: contaminated soil and groundwater	Ingestion, contact, inhalation	End user, construction workers and infrastructure	**Probability: 1** **Consequence: 2** **Potential Contaminant Linkage risk: Very low** Historical/recent development of the site leaving made ground
	Leaching from contaminated soils and migration in groundwater	Superficial Aquifer	**Probability: 1** **Consequence: 2** **Potential Contaminant Linkage risk: Very low** There is a Secondary Aquifer (superficial and bedrock) beneath the site. However, no significant potential onsite contamination sources were identified and therefore the risk to the aquifer is expected to be lower bound
Off-site: contaminated soil and groundwater	Lateral migration of contaminants to site in groundwater	End user, construction workers and infrastructure	**Probability: 1** **Consequence: 2/3** **Potential Contaminant Linkage risk: Very low to low** No significant sources of offsite contamination have been identified within the vicinity
On-site and off-site: ground gas and vapours	Lateral and vertical migration of gas/vapour	End user, construction workers and infrastructure	**Probability: 1** **Consequence: 2** **Potential Contaminant Linkage risk: Very low** No specific significant sources of ground gas and vapour generation have been identified on or near to the site and therefore risk is expected to be very low. The site is not in a radon affected area

The overall risk rating for the site is assessed as being **Very low**.

3.8 Recommendations for intrusive investigation

The Initial Conceptual Site Model identified potential pollution linkages resulting in the overall assessed risk rating of very low. The following programme of intrusive investigation is recommended:

- Intrusive investigation to confirm the ground sequence and groundwater regime, allow soil/water sampling and the installation of monitoring pipes for gas, groundwater and vapours.
- No significant sources of contamination were identified during the preliminary risk assessment besides the presence of made ground from development onsite. Therefore, ground investigation works should be undertaken to provide general coverage of accessible areas of the site. It is considered that the railway sidings are too distant to present a viable source of contamination that could affect the site.
- Soil sampling should provide general coverage of the development area from both any made ground and the underlying natural ground, as well as any obviously deleterious materials.
- Samples should be analysed for a range of 'screening' contaminants to include metals, pH, TPH, and speciated PAHs.
- An allowance for soil asbestos screening (and quantification as required) should also be included.
- A preliminary programme of groundwater and gas monitoring should be undertaken to establish the potential gas risk present. There is no identified ground gas generation source but there is a potential moderate risk to the residential end user. Therefore, it is suggested that three preliminary rounds of gas monitoring are undertaken, with further rounds required only if a significant gas risk is identified from the preliminary rounds.

The Initial Conceptual Site Model should then be revised and reviewed to include assessment and quantification of any confirmed complete pollution linkages and/or the establishment of any previously unidentified or unexpected contamination. This should include an assessment of the potential risks and outline any potential mitigation/remedial measures, together with any requirements for any additional investigation to resolve any remaining unknowns or unquantified elements.

4.0 EXPLORATORY WORK AND LABORATORY TESTING

The ground investigation was carried out between 21st to 24th July 2025 and is described below.

4.1 Constraints of investigation

At the time of the investigation suitable access was available to the majority of areas across the site and reasonable coverage was possible.

4.2 Dynamic sampler boreholes

Fifteen window sample boreholes (WS01 to WS15) were completed using a tracked rig under the supervision of an experienced geo-environmental engineer. Representative samples were taken for geotechnical and environmental testing. In-situ Standard Penetration Testing (SPT) was carried out at appropriate intervals; the hammer Energy Ratio (E_r) for the SPT equipment used was 73% and 76%; the relevant test certificate is appended. Combined groundwater/gas monitoring pipes were installed in WS01, WS05 to WS08, WS10, WS12, WS14 and WS15; details of the installation is shown on the relevant borehole log.

4.3 Dynamic probing

Dynamic probe testing was carried out through the base of the respective borehole using 'Super Heavy-B' apparatus, to assist in the assessment of the potential presence of chalk dissolution features. A maximum depth of 10.00m bgl was achieved at one location with the majority refusing at shallow depth between 1.10m and 2.90mbgl due to the high density of the natural deposits.

4.4 Trial pits

Sixt trial pits (TP01 to TP06) were completed using a 2.5-ton tracked excavator to depths of between 1.0m and 2.0m under the supervision on an experienced geotechnical engineer. Representative geotechnical and geo-environmental samples were recovered. Soakage testing was undertaken in all of the trial pits in general accordance with the procedure outlined in BRE Digest 365:2016 'Soakaway design'; however, in general only one fill and drain cycle was achievable due to time constraints and the infiltration rate of the ground.

4.5 Groundwater and gas monitoring

Groundwater and ground gas monitoring was carried out on two occasions following completion of the site works on 1st and 18th August 2025.

4.6 Geotechnical laboratory testing

The following geotechnical laboratory testing was completed:

- Index properties tests (Atterberg Limits)
- Particle size distribution tests

4.7 Chemical and contamination testing

Selected soil samples were delivered to a specialist laboratory (NORMEC DETS Ltd), and the following testing was carried out:

- General soil suite - 15no samples
- Asbestos screening - 15no samples
- TPH-LQM/BTEX - 8no samples
- Waste Acceptance Criteria (WAC) - 3no samples
- Soluble sulphate/sulphur/pH analyses - 6no samples

The engineering borehole and trial pit logs and the laboratory testing results are included in Appendix A.

5.0 GROUND CONDITIONS

Published BGS information (1:50,000 and 1:10,000 scale maps) indicates that the site is underlain by River Terrace Deposits which rests upon the Lambeth Group; this in turn overlies the Seaford and Newhaven Chalk Formations which are present at greater depth. It is noted that a geological fault runs diagonally through the south-western part of the site in a NW/SE direction. Further faults are recorded about 37m southwest and 260m northwest of site, both aligned in a NW/SE direction

The presence of River Terrace Deposits was confirmed by the investigation, with a covering of made ground and reworked natural material associated with the landscaping. The Lambeth Group and undifferentiated chalk formations were not encountered within the depth of investigation.

Detailed descriptions are presented on the exploratory hole records, and the ground sequence is represented on the geological cross sections; this information is appended. The ground sequence is summarised in the following sections. Note that all depths are relative to existing ground level unless otherwise stated.

5.1 Topsoil

Topsoil was encountered from ground level and identified to depths between 0.05m and 0.30m bgl and generally comprised brown silty gravelly sand locally, with occasional rootlets.

5.2 Made ground

Made ground was met beneath the topsoil and was proven to depths of between 0. 40m and 0.75mbgl. With the exception of a thin layer (200mm thick) in TP01 which contained anthropogenic material, the soils were devoid of man-made material, generally comprising light greyish-brown silty gravelly sand. It is considered that this material represents naturally derived material used for regrading and landscaping of the golf course and fairways and also possibly to aid drainage.

Particle size distribution (PSD) analyses undertaken on two samples indicate a predominance of either gravel (58% and 27%) or sand (49% and 30%) with subordinate fines (12% and 24%).

5.3 River Terrace Deposits

River Terrace Deposits were met beneath the made ground, and the base of this stratum was not proven within the depths investigated (maximum depth 2.95mbgl). The soils generally comprised orangish-brown very sandy flint gravel, locally grading to gravelly sand, and were observed to be locally slightly silty to silty.

Particle size distribution (PSD) analyses undertaken indicate a predominance of either gravel (between 76% and 40%) or sand (between 84% and 44%) with sand (between 18% and 38%) with subordinate fines (between 4% and21%).

Standard Penetration Test (SPT) recorded N values of between 10 and >50 (refusal) indicate the soils to be in a generally dense to very dense state of compaction locally being medium dense at shallow depth.

5.4 Groundwater

During site investigation works groundwater was not encountered within any of the boreholes or Measured in the monitoring pipes. We consider that the 'main' groundwater table lies within the underlying Lambeth Group and / or undifferentiated chalk formations at greater depth.

Of course, groundwater levels can of course vary seasonally and may be higher during the winter months and / or following periods of wet weather. We note that the investigation was undertaken during a period of extended dry weather (spring / summer 2025).

5.5 Environmental observations

No obvious olfactory or visual signs of soil contamination was encountered during site investigation works. PID headspace testing (for VOC concentrations) was undertaken on samples of made ground and natural soils during the work and during subsequent monitoring - no elevated levels were noted.

6.0 GEOTECHNICAL ASSESSMENT

The proposed works at this site include the following elements:

- any required regrading works and clearance of any non retained trees
- construction of 50no new residential dwellings with associated access, areas of hardstanding, soft landscaping and public open space.

The investigation has revealed that beneath a layer of topsoil, made ground (up to 0.75m thick) overlies competent natural River Terrace Deposits, extending to at least 2.75mbgl. We anticipate that the granular material of the River Terrace Deposits should be capable of supporting the envisaged moderate structural loads using traditional spread foundations.

6.1 Chalk dissolution and ground stability

Dissolution features within the chalk occur due to erosional processed during the last periglacial period. Their occurrence is random, and mobilisation of these features can be triggered by construction activities and/or changes to the groundwater regime.

The appended Groundsure report includes information on historical mining and natural cavities recorded in the vicinity of the site. The report indicates there are no recorded instances of natural cavities within 500m and the site lies within an area of 'negligible' risk with regards to the presence of chalk dissolution features, which are considered to be 'unlikely' to be present. There are no recorded underground workings in proximity to site and the nearest recorded surface ground working is 230m south of site. We have undertaken a natural cavities risk assessment using Edmonds procedure (Engineering Geology Special Publications No.18, 2001); this assessment indicates the site to have a 'Moderately low' subsidence hazard classification.

Our investigation revealed competent granular soils at shallow depth, with boreholes and dynamic probe tests generally refusing at shallow depth; the chalk was not encountered. A single probe (DP02) was completed to a depth of 10.0mbgl, which identified a possible change in strata at about 5.0mbgl; based on nearby historical boreholes we consider this could reflect the base of the River Terrace Gravel / top of the Lambeth Group. The Lambeth Group are typically composed of interbedded clay and sand and, are shown to extend to about 20mbgl in this area. The boreholes and probes did not identify any significant weak / loose soils or open voids which could be associated with the presence of chalk dissolution and given the significant thickness of cover deposits shown above the chalk on historical logs, the risk to foundation performance from the presence of chalk dissolution is considered to be low. Notwithstanding this, our investigation provided only limited lateral and vertical coverage of the site, and thus the presence of solution features below the site cannot be totally ruled out. Thus, a careful watching brief should therefore be adopted during construction and if anomalous ground conditions are encountered then specialist advice should be sought from geotechnical contractors experienced in providing options for additional measures.

6.2 Spread foundations

Spread foundations must bypass any topsoil and made ground and be placed within the competent natural River Terrace Deposits. The natural granular soils are not considered to be frost susceptible and thus, a minimum foundation depth of 0.75m is recommended although some deepening may be required to ensure that the 'reworked' soils are bypassed and the natural undisturbed soils are exposed at founding level.

For preliminary assessment of the feasibility and sizing of foundations placed within the natural gravel, we envisage that an allowable bearing resistance of 225kN/m^2 would be appropriate; this would be applicable to moderate sized strip or pad foundations, say up to 2.5m width. Settlement for this design pressure is expected to be very small and well within normal tolerable design limits. As required by EC7, the design engineer must ensure that the correct comparisons are made between Design Actions and Design Resistances after the application of appropriate partial factors and using the final base geometry. For ULS design the bearing resistance should be determined, using undrained and/or drained analysis as appropriate, to calculate the degree of utilisation of the foundation (limit state GEO). SLS checks should be carried out using appropriate methods in accordance with current practice.

Whilst the boreholes and trial pits encountered non-shrinkable granular soils, in our experience cohesive, shrinkable, clay layers can occur within River Terrace Deposits, and some variability in soil composition should be expected across the site. Thus, if clay soils are encountered then foundations should be deepened to bear on natural granular soils. In proximity to the trees on site, attention should be given any potential desiccation effects which may affect foundation design and construction and the guidance contained within NHBC Chapter 4.2 should be adopted.

The foundation excavations will encounter made ground and natural deposits that are granular in nature. These are expected to remain stable in the short term although some spalling of the unconsolidated soils could occur. Thus, provision for temporary lateral support should be made if excavations are to remain open or personnel entrance is required. On the basis of the boreholes, the excavations should remain dry but it must be noted that groundwater levels can rise significantly during wet periods. We recommend that a monitoring of the borehole installations is carried out to confirm the groundwater levels.

6.3 Ground floor slabs

Whilst the investigation has indicated that made ground is present across the site, this is generally less than 600mm thick and thus, ground bearing floor slabs could be adopted following proof rolling of the formation level. Any weak zone identified by proof rolling should be excavated and replaced with suitably compacted fill material. In proximity to trees, any root infested soils should be replaced.

Alternatively, fully suspended floor slabs could be adopted.

6.4 Pavement construction

Following removal of topsoil, a preliminary CBR value of 5% is considered appropriate for the underlying natural granular soils present at shallow depth. The formation should be proof rolled prior to surfacing, and any soft/loose zones replaced with suitably compacted granular material. Proof rolling could of course generate a higher CBR value dependant upon the method and achievable compaction depth. Based on the CBR value of the slightly deeper soils, a CBR value in excess of 20% could be achievable. This should be confirmed by the ground works contractor.

The shallow soils across the site are assessed as not being frost susceptible.

6.5 Soakaways

Trial pit soakage testing resulted in infiltration rates of between $2.48x10^{-5}$m/s and $9.03x10^{-6}$m/s, which indicate the shallow granular soils may provide a suitable medium for the disposal of surface water via traditional soakaways. Variability in the soakage rate is observable and this is likely due to compositional changes within the river Terrace Gravel. Thus, trench style soakaways may offer the most efficient form of soakaway design.

The site lies within a source protection zone and thus, use of soakaways may require approval from the Environment Agency. Although it is considered that the risk of chalk solution features is low, it is recommended that any soakaway is at a minimum distance of 5m from any structure.

6.6 Foundation concrete

Low concentrations of water-soluble sulphates (2:1 water/soil extract) were measured in selected soil samples, with slightly acidic to neutral pH values. The results fall into Site Design Class DS-1 of Table C2 given in BRE Special Digest 1 (2005). We assess the site as having 'mobile' groundwater and this would result in an ACEC Site Class of AC-3z.

Consideration should also be given to the potential oxidation of pyritic soils. Following the procedure recommended in the BRE digest, the amount of oxidisable sulphides is seen to be >0.3% in none of samples, suggesting that pyrite is probably not present.

7.0 STAGE 1 TIER 2 ENVIRONMENTAL ASSESSMENT

This appraisal is generally based on the Environment Agency's 'Land contamination: risk management', 2023, adopting current UK practice which uses the Source-Pathway-Receptor methodology to assess contamination risks. For a site to be designated as contaminated a plausible linkage between any identified sources and receptors must be identified, i.e. whether potential contaminant linkages (PCLs) are present. In considering the potential for contamination to cause a significant effect, the extent and nature of the potential source are assessed and pathways/receptors identified; without a PCL there is theoretically no risk to the receptors from contamination. The assessed risks to the various potential receptors are summarised in the tabulated Conceptual Site Model which forms Section 7.5 of this report.

7.1 Environmental setting and context

The site is underlain by River Terrace Deposits (4) which has a Superficial Aquifer Designation of '**Secondary Aquifer – A**'. The underlying Lambeth Group has a Bedrock Aquifer Designation of '**Secondary Aquifer – A**'. The site lies within a Source Protection Zone III. Two groundwater abstraction points are identified at Sonning Golf Club, both of which identified to be extraction of Thames groundwater for use as spray irrigation

The site is assessed as being of **Moderate** environmental sensitivity.

7.2 Contamination sources and testing

The Preliminary Risk Assessment presented in Section 3.6 has not identified any significant potential sources of contamination. To confirm the presence or absence of contaminants for the proposed redevelopment, we have undertaken analysis of fifteen soil samples for a range of contaminants commonly associated with industrial activities and contaminative uses.

The soil test results have been assessed where relevant against the DEFRA Soil Guideline Values (SGV) and Category 4 Screening Levels (C4SLs), together with the LQM/CIEH Suitable 4 Use Level (S4UL) for Human Health Risk Assessment in which Generic Assessment Criteria (GACs) have been derived from the CLEA Model (2nd Edition, 2009). Any groundwater test results have primarily been assessed against the Water Supply (Water Quality) Regulations 2016, Environmental Quality Standards (EQS) and the WHO Guidelines for Drinking Water Quality WHO/SDE/WSH/0.5.08/123. The contamination testing was carried out specifically for the purpose of providing a general guidance evaluation for the proposed development. Reference should be made to the foreword to the appended contamination test results in order to fully understand the context in which this discussion should be viewed.

We have used, where relevant, the trigger levels for **residential development (with home-grown produce)** to assess the results of the contamination testing.

Using the relevant the trigger levels, all of the results fell below the threshold values indicating widespread contamination is not present. The implications of these results are addressed in the revised Conceptual Site Model below.

Although Asbestos-Containing Materials (ACMs) were neither observed on site nor identified in the samples examined, we note that buildings, especially those constructed or refurbished before 2000, are a potential source of ACM and may contribute to Asbestos-Containing Soils (ACS) on-site and in surrounding areas. Furthermore, made ground, construction and/or demolition materials on site may also contain ACM and/or ACS which should be further investigated, if encountered, by competent persons. These matters should be addressed and assessed by competent persons in the Pre-Construction H&S plan prior to any demolition or earthworks being undertaken.

7.3 Ground gas/vapour monitoring

No specific gas generating uses/risks were identified by the PRA, but with 'made ground' being identified as a possible potential source. Precautionary gas monitoring was undertaken on two occasions following completion of the boreholes. No elevated levels of methane were measured. Carbon Dioxide was identified with a maximum recorded concentration of 2.0%, carbon monoxide and hydrogen sulphide were identified each with a maximum recorded concentration of 4ppm. PID readings in the borehole installations were below 5ppm. A maximum gas flow of 0.5l/hr was recorded during the monitoring visits, therefore used to calculate gas screening values (GSV). On the basis of these results, we consider that Characteristic Situation 1 (very low risk) is appropriate (as described in CIRIA C665 "Assessing risks posed by hazardous ground gases to buildings", 2007) and this suggests that no gas protection measures will be required.

The site is not situated within a radon risk area therefore radon protection measures are considered not to be required. This is subject to no habitable basement being constructed as part of this development.

7.4 Disposal of excavated soils

Whilst a rigorous hazard assessment of the results was not within the scope of our investigation, three composite samples were tested for Waste Acceptance Criteria (WAC) determination. It should be noted that WAC tests alone do not allow for the characterisation of wastes under current UK law, which requires solid material results to be used to generate an appropriate European Waste Code (EWC) for the material. WAC results merely indicate if a waste soil or other excavated material "may" be suitable for disposal at a UK landfill of the appropriate type or if other methods of disposal are indicated or required. The WAC results to date indicate that the material would be suitable for disposal at a facility capable of accepting Inert wastes.

Specialist waste advice should be sought to confirm these findings using the additional contamination data provided in the environmental analysis in this report. These results should be sufficient to allow a characterisation to be undertaken by a competent waste advisor and they are available in electronic form on request.

Note that materials defined as wastes (ie anything intended to be discarded) cannot be removed from site or transported without being classified as either hazardous or non-hazardous and the appropriate EWC and Hazard Codes being determined, recorded, agreed and applied by competent licensed waste contractors. If re-use or retention of waste materials on-site is considered desirable or required (for example to meet sustainability criteria), this will have to be agreed with the regulator prior to being undertaken to avoid such actions being considered 'licensable and chargeable' waste activities under current UK legislation and guidance. Additional investigation and data analysis by competent persons may be required in order to determine and/or confirm the suitability and fitness for purpose of the materials concerned on a site-specific basis.

7.5 Refined Conceptual Site Model

Taking into account the above discussion, the assessed risks to potential receptors identified in the PRA are summarised in the refined Conceptual Site Model (CSM) below. See Section 3.6 for an explanation of probability and consequence ratings and the overall assessment of the risks of contaminant linkages. The CSM below includes recommendations for appropriate mitigation measures to render any linkages inactive and reduce the risks to receptors to acceptable levels:

Source	Pathway	Receptor	Assessed risk, justification and measures to mitigate the risk to acceptable levels
On site: contaminated soil/water	Ingestion & direct contact	End user	**Probability: 1** **Consequence: 2** **Potential Contaminant Linkage (PCL) risk: Very low** • No contamination was measured in the soil samples so there will be no PCL to human health • The near-surface soils were free from visual/olfactory evidence of volatile compounds/vapours; this was corroborated by analysis (TPH, PAH). The PCL to human health will be inactive • A careful watching brief should be kept during construction and if obvious or suspected contamination is encountered this should be dealt with prescriptively
	Ingestion, contact & inhalation	Construction workers and third parties	**Probability: 1** **Consequence: 2** **Potential Contaminant Linkage (PCL) risk: Very low** • No contamination was measured in the soil samples so there will be no PCL to human health • No PCL to human health has been identified. Any residual risks to these receptors will be managed through health & safety procedures and CDM regulations

Source	Pathway	Receptor	Assessed risk, justification and measures to mitigate the risk to acceptable levels
	Leaching from contaminated soils and migration in groundwater	Aquifer and surface water	**Probability: 1** **Consequence: 2** **Potential Contaminant Linkage (PCL) risk: Very low** - No contamination was measured in the soil samples so there will be no PCL to human health
	Direct contact with soil/water	Building fabric and infrastructure	- The effects of soluble sulphates and alkali/acidic ground are discussed in Section 6.6 of this report - Detailed assessment of soil/groundwater contamination with respect to water supply pipes is outside the scope of this report. The UKWIR publication 'Guidance for the selection of water supply pipes to be used in brownfield sites', 2010 states that if suitable barrier pipe is specified "there is no need to carry out soil sampling and analysis and this may be the most cost-effective solution". The validity of this approach will clearly be dependent upon the scale of the development and the quantity of pipe needed
Off site: contaminated soil/water	Lateral migration of contaminants in groundwater	End-user and buildings	**Probability: 1** **Consequence: 2** **Potential Contaminant Linkage (PCL) risk: Very low** - No contamination measured in onsite soils which may be associated with off-site sources
On-site and off-site: ground gas & vapour	Lateral migration through strata, service runs and cracks in buildings	End-user and buildings	**Probability: 1** **Consequence: 2** **Potential Contaminant Linkage (PCL) risk: Very low** - No elevated concentrations of ground gasses were measured during monitoring visits. Monitoring indicates that CIRIA C665 CS1 applies therefore no ground gas protection measures are required. - The site is not located within a radon risk area

In conclusion, based upon the information reviewed and the results of the investigation, our assessment is that there is suitably low contamination risk for the proposed residential end use. Any residual associated risks to construction workers will be mitigated by appropriate PPE and soil handling.

The investigation has provided coverage of the site specific to the development, and it is self-evident that there may be zones of contamination which were not encountered, including areas beneath the existing building. A careful watching brief should be kept during construction to ensure that any potentially contaminated soil encountered is disposed of in a safe and controlled manner. Site workers should observe normal hygiene precautions when handling soils and if material suspected of being contaminated is identified during construction, this should be set aside under protective cover and further tests undertaken to verify the nature and levels of contamination present. If contamination is present, a full site re-assessment may be required, and a contingency should be in place in this regard.

GENERAL INFORMATION, LIMITATIONS AND EXCEPTIONS

Unless otherwise stated, our Report should be construed as being a Ground Investigation Report (GIR) as defined in BS EN1997-2. Our Report is not intended to be and should not be viewed or treated as a Geotechnical Design Report (GDR) as defined in EN1997-2. Any 'design' recommendations which are provided are for guidance only and are intended to allow the designer to assess the results and implications of our investigation/testing and to permit preliminary design of relevant elements of the proposed scheme.

The methods of investigation used have been chosen taking into account the constraints of the site including but not limited to access and space limitations. Where it has not been possible to reasonably use an EC7 compliant investigation technique we have adopted a practical technique to obtain indicative soil parameters and any interpretation is based upon our engineering experience and relevant published information.

The Report is issued on the condition that Soil Consultants Ltd will under no circumstances be liable for any loss arising directly or indirectly from ground conditions between the exploratory points which differ from those identified during our investigation. In addition, Soil Consultants Ltd will not be liable for any loss arising directly or indirectly from any opinion given on the possible configuration of strata between the exploratory points, below the maximum depth of the investigation or where site conditions have changed since the exploratory work; such opinions, where given, are for guidance only and no liability can be accepted as to their accuracy. The results of any measurements taken may vary spatially or with time and further confirmatory measurements should be made after any significant delay in using this Report. We will provide an indication of the strata configuration within the site based upon exploratory holes undertaken. Any strata boundaries shown will relate to the principal layers but it should be noted that these boundaries could be gradational and the depths identified would then not be definitive. The boundary depths/levels are given for guidance only.

Comments made relating to groundwater or ground-gas are based upon observations made during our investigation unless otherwise stated. Groundwater and ground-gas conditions may vary with time from those reported due to factors such as seasonal effects, atmospheric effects and and/or tidal conditions. We recommend that if monitoring installations have been included as part of our investigation, continued monitoring should be carried out to maximise the information gained.

Specific geotechnical features/hazards such as (but not limited to) areas of root-related desiccation and dissolution features in chalk/soluble rock can exist in discrete localised areas - there can be no certainty that any or all of such features/hazards have been located, sampled or identified. Where a risk is identified the designer should provide appropriate contingencies to mitigate the risk through additional exploratory work and/or an engineered solution.

Where a specific risk of ground dissolution features has been identified in our Report (anything above a 'low' risk rating), reference should be made to the local building control to establish whether there are any specific local requirements for foundation design and appropriate allowances should be incorporated into the design. If such a risk assessment was not within the scope of our investigation and where it is deemed that the ground sequence may give rise to such a risk (for example near-surface chalk strata) it is recommended that an appropriate assessment should be undertaken prior to design of foundations.

Where spread foundations are used, we recommend that all excavations are inspected and approved by suitably experienced personnel; appropriate inspection records should be kept. This should also apply to any structures which are in direct contact with the soil where the soil could have a detrimental effect on performance or integrity of the structure.

Ground contamination often exists in small discrete areas - there can be no certainty that any or all such areas have been located, sampled or identified.

The findings and opinions conveyed in this Report may be based on information from a variety of sources such as previous desk studies, investigations or chemical analyses. Soil Consultants Limited cannot and does not provide any guarantee as to the authenticity, accuracy or reliability of such information from third parties; such information has not been independently verified unless stated in our Report. No liability will be accepted for changes to the ground and groundwater conditions which occur post investigation.

Our Report is written in the context of an agreed scope of work between Soil Consultants Ltd and the Client and should not be used in any different context. In light of additional information becoming available, improved practices and changes in legislation, amendment or re-interpretation of the assessment or the Report in part or in whole may be necessary after its original publication.

Unless otherwise stated our investigation does not include an arboricultural survey, asbestos survey, ecological survey or flood risk assessment and these should be deemed to be outside the scope of our investigation.

We will identify tree and plant species if possible, but a suitably qualified arboriculturalist/botanist should be consulted to provide definitive identification.

Where reference to 'topsoil' is made, this should be construed as any turf (if present) plus any obvious organic-rich/humic layer of soil beneath, which may or may not contain roots/rootlets. Unless otherwise requested, we do not provide a detailed description, undertake sampling/testing for classification purposes or provide a specific classification. The thickness of the 'topsoil' identified on our exploratory hole records is indicative only and should not be used for detailed volume or site strip calculations.

STANDARD TERMS OF APPOINTMENT OF SOIL CONSULTANTS LTD FOR GEOTECHNICAL SERVICES

1 Unless previously withdrawn, our offer remains valid for a period of sixty days from date of offer. If an instruction is given after the sixty days we reserve the right to reasonably adjust any cost associated with the project to reflect any variance on the original offer. In placing an instruction to proceed with exploratory work, whether directly from the Client or Client's representative, the Client is deemed to have accepted our Terms of Appointment.

2 Our offer is on the basis that free, unhindered access and working conditions are available and that the investigation can be completed in one visit, if applicable. Delays beyond our control will incur additional charges. If additional works outside our offer are required to facilitate the investigation these will be advised and any costs will be passed on to the Client.

3 In our quotation we will provide an estimate of any mobilisation period following an instruction to proceed. This estimate will be accurate at the time of quotation, but it should be noted that the mobilisation period may vary at a later date due to factors such as sub-contractor availability and workload.

4 In commissioning this work, the Client has a responsibility for the health, safety and welfare of operatives invited to undertake work on their site. The Client shall indemnify us in respect of any failure to fulfil their obligations in connection with all relevant and current Health and Safety Regulations.

5 The methods of investigation used have been chosen taking into account the constraints of the site including but not limited to access, space and budgetary limitations. Where it has not been possible to reasonably use an EC7 compliant investigation technique, or where a non-compliant technique has been specified, we will adopt practical and appropriate techniques to obtain indicative soil parameters.

6 Unless otherwise stated, our Report should be construed as being a Ground Investigation Report (GIR) as defined in BS EN1997-2. Our Report is not intended to be and should not be viewed or treated as a Geotechnical Design Report (GDR) as defined in BS EN1997-2. Any interpretation which is provided is for guidance only and must not be regarded as design or design recommendation.

7 Where excavation is required as part of the exploratory work, the Client shall provide drawings or plans showing accurate and complete locations of all underground services and structures. In performing our service, we shall take reasonable precautions to avoid damage to underground services or structures. We will not be responsible for any damage caused to underground services or structures and will not be liable for any claims for damage, expenses arising or losses unless the location of all underground services or structures are accurately shown on drawings and those plans have been provided to us in good time prior to commencement of the exploratory work. Risk to the Client can be further reduced by undertaking a scan of the site using a specialist underground scanning service which would be intended to identify traceable services at shallow depth.

8 With some sites, especially those in certain areas of London and other large towns and cities, there may be a risk of unexploded ordnance (UXO) being present. Unless otherwise stated our offer is on the basis that the Client or their representative provides a preliminary UXO risk assessment for the site. It should be noted that if the site is deemed to be in an area of risk then further measures will be required. These would normally comprise either a more detailed risk assessment and/or specialist site attendance by an EOD engineer. These measures can be commissioned either by the Client or Soil Consultants Ltd. If the Client requires, we would be pleased to obtain a preliminary risk assessment at cost+10%.

9 The Client will supply a site plan (to a rational scale), an indication of the scope and type of the proposed development and an indication of any relevant structural loading information.

10 Should the Client terminate the contract after instruction, we reserve the right to recover costs associated to work carried out between the time of instruction and the point of termination. Cancellation fees, and material costs shall be charged at cost plus 20% (+VAT). Engineer/technician time shall be charged at £95+VAT per hour and principal consultant/director time shall be charged at £125+VAT per hour.

11 The Report is issued on the condition that Soil Consultants Ltd will under no circumstances be liable for any loss arising directly or indirectly from ground conditions between the exploratory points which differ from those identified during the investigation. In addition Soil Consultants Ltd will not be liable for any loss arising directly or indirectly from any opinion given on the possible configuration of strata both between the exploratory points and/or below the maximum depth of the investigation; such opinions, where given, are for guidance only and no liability can be accepted as to their accuracy. The results of any measurements taken may vary spatially or with time and further confirmatory measurements should be made after any significant delay in using this Report.

12 If and when instructed, an agreed number of contamination tests will be carried out to give an outline assessment of potential contaminants. In some circumstances it may be necessary to recommend further monitoring, contamination testing and assessment and the scope of this work would be agreed with the Client. Notwithstanding this additional scope, local regulatory authorities may have specific requirements which need to be addressed. Unless otherwise agreed or stated our reporting will constitute neither a Quantitative Risk Assessment nor a Remediation Statement or Strategy.

13 Our reports are counter-checked by one of our suitably qualified and experienced engineers/geologists.

14 Notwithstanding anything to the contrary contained in these terms, our liability under or in connection with these terms whether in contract or in tort, in negligence, for breach of statutory duty or otherwise (other than in respect of personal injury or death) shall not exceed the sum equivalent to ten times our contract fee or £100,000 whichever is less in the aggregate for geotechnical and environmental matters unless otherwise agreed.

15 Without prejudice to any other exclusion or limitation of liability, damages, loss, expense or costs our liability for any claim or claims under this agreement be further limited to such sum as it would be just and equitable for us to pay having regard to the extent of our responsibility for the loss or damage giving rise to such claim or claims ("the loss and damage") and on the assumptions that:

(a) All other consultants, contractors, sub-contractors, project managers or advisers engaged in connection with the Project have provided contractual undertakings to the Client on terms no less onerous than those set out in the original contracts in respect of the carrying out of their obligations in connection with the Project; and

(b) There are no exclusions of or limitations of liability nor joint insurance or co-insurance provisions between the Client and any other party referred to in this clause and any such other party who is responsible to any extent for the loss and damage is contractually liable to the Client for the loss and damage; and

(c) All such other consultants, contractors, sub-contractors, project managers or advisers have paid to the Client such proportion of the loss or damage which it would be just and equitable for them to pay having regard to the extent of their responsibility for the loss and damage.

16 Further and notwithstanding anything to the contrary contained in this agreement and without prejudice to any provision in this agreement whereby liability is excluded or limited to a lesser amount, our liability under or in connection with this agreement whether in contract or in tort, in negligence, for breach of statutory duty or otherwise for any claim shall not exceed the amount, if any, recoverable by us by way of indemnity against the claim in question under professional indemnity insurance taken out by us and in force at the time that the claims or (if earlier) circumstances that may give rise to the claim is or are reported to the insurers in question. The limitation shall not apply if no such amount is recoverable due to us having been in breach of our obligations or the terms of any insurance maintained in accordance therewith or having failed to report any such claim or circumstances to the Insurers in question timeously.

17 Whilst our investigation may include asbestos screening/quantification on selected samples, this must not be deemed to constitute a full asbestos survey or be taken as sufficient to definitively identify the presence or quantity of asbestos within or on the ground. We will not accept responsibility if asbestos is encountered during any subsequent construction or development works and in placing a contract with us the Client accepts this condition. Where the fabric of a building is to be disturbed, the Client shall provide an appropriate asbestos survey to us prior to exploratory work and make adequate provision to allow the implementation of sufficient and appropriate protective/remedial measures for the work to progress safely.

18 Where our report refers to 'topsoil', this should be construed as any turf (if present) plus any obvious organic rich/humic layer of soil beneath, which may or may not contain roots/rootlets. Unless otherwise requested, we do not provide a detailed description, undertake sampling/testing for classification purposes or provide a specific classification. The thickness of the 'topsoil' identified on our exploratory hole records is indicative only and should not be used for detailed volume or site strip calculations; if this type of classification is required, this should be identified to us at an early stage and the method of sampling, testing and classification agreed.

19 The Client agrees that they shall not bring any claim personally against any director/employee of Soil Consultants Ltd or consultant to us in respect of loss or damage suffered by the Client arising out of this contract.

20 Our appointment shall be under simple agreement and our liability under this agreement whether in contract or in tort shall be for a period of six years from date of instruction.

21 Our reports are non-assignable and are prepared for the benefit of the Client. No reliance can be assumed by others without written agreement from Soil Consultants Ltd. We will provide a letter of reliance at our discretion and this will be subject to payment of our fee, which will be 10% of contract value, subject to a minimum fee of £1,250 plus VAT. The terms of our letter of reliance are non-negotiable and the beneficiary should be aware that the information shall only apply to the scheme for which the report was originally produced and the original rights and benefits will apply.

22 A VAT invoice (at current rate) will be presented in respect of the work undertaken. Payment of our account is to be made within twenty-eight days of issue of our invoice unless otherwise agreed. On no account shall payment be on a 'pay-when-paid' basis. The information contained within our report remains the property of Soil Consultants Ltd and no reliance may be assumed by any party with an interest in the project until payment has been received in full. After one calendar month interest shall be chargeable at 10% above the Bank of England Rate and compensation claimed in accordance with 'Late Payments of Commercial Debts (Interest) Act 1998 and subsequent revisions. If the debt is referred to a debt collection agency then we have the right to recover associated fees under the terms of our contract.

APPENDIX A

Fieldwork, in-situ testing and monitoring

- Foreword
- Borehole records
- Standard Penetration Test results
- SPT hammer calibration certificates
- Trial pit records
- Dynamic Probe Test results
- TRL DCP Test results
- Soakaway Test results
- Groundwater and gas monitoring results

Laboratory testing

- Index property testing
- Plasticity chart
- Particle size distribution tests

Ground profiles

- Plot of SPT 'N' value versus depth
- Plot of SPT 'N' value versus level
- Cross section through boreholes

Contamination and chemical testing

- Foreword
- General soil suite
- WAC test results
- Sulphate/pH suite

Plans, drawings & photographs

- Site photographs
- Proposed development plans
- Topographical drawing
- Site Walkover Plan
- Tree Survey Plan
- Location Plan

FOREWORD FOR DYNAMIC SAMPLER BOREHOLES (WINDOWLESS) - GUIDANCE NOTES

GENERAL

The borehole records are compiled from the driller's description of the strata encountered, an examination of the samples by our geotechnical engineer and the results of in-situ and laboratory tests. Based on these data, the report presents an opinion on the configuration of strata within the site. However, such reasonable assumptions are given for guidance only and no liability can be accepted for changes in conditions not revealed by the boreholes.

BORING METHODS

The dynamic sampler technique uses 1m long tubes containing a rigid plastic liner. These are driven into the ground by a falling hammer, then withdrawn and the liner removed. The borehole commences using a large diameter tube (usually 100mm) with each succeeding tube reducing usually by 10mm in diameter to assist the extraction of the tube from the ground. Thus, it is theoretically possible to obtain a total continuous sample of the soil for examination or testing. Casing can be utilised as required. The technique allows the ground conditions to be reasonably well established although disturbance of the ground is inevitable, particularly some "softening" of the upper zone of clay immediately beneath a granular soil. The presence of thin layers of different soils within a stratum may not always be detected.

GROUND WATER

The depth at which ground water was struck is entered on the borehole records. However, this observation may not indicate the true water level at that time. Due to the speed of boring and the relatively small diameter of the borehole, natural ground water may be present at a depth higher than the water strike. Moreover, ground water levels are subject to variations caused by changes in the local drainage conditions and by seasonal effects. When a moderate inflow of water does take place, boring is suspended for at least 10 minutes to enable a more accurate short-term water level to be achieved. An estimate of the rate of inflow is also given. This is a relative term and serves only as a guide to the probable flow of water into an excavation.

Further observations of the water level made during the progress of the borehole are shown including end of shift and overnight readings and the depth at which water was sealed off by the borehole casing, if applicable.

SAMPLES

Small disturbed samples can be recovered from the lining tubes for subsequent laboratory testing, including moisture content, index property tests and contamination analyses.

IN-SITU TESTING

Standard Penetration Test (SPT): this test is performed in accordance with the procedure given in BS EN ISO 22476-3:2005. The individual blow count record for each test is given on a separate table. The 'N' value is normally the number of blows to achieve a penetration of 0.3m following a seating distance of 0.15m and is quoted at the mid-depth of the test zone. However if a change of stratum occurs within the test zone then a revised 'N' value can be calculated to assess one layer in particular. In hard strata full penetration may not be obtained. The presence of groundwater and particularly Where groundwater can affect the test and the measured values may not represent the true in-situ density of the soil.

Hand Shear Vane: provides the shear strength of cohesive soils, values reported in kPa

Pocket Penetrometer: provides an estimate of the unconfined compression strength, values reported in kg/cm^2

Site & Location:	**Sonning Golf Club (Housing)** **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**	Borehole No:	**WS01**
Client:	**Sonning Golf Club Ltd**	Coordinates: 476436E, 174712N	Sheet 1 of 1
Engineer:	**Aventus Design Ltd**	Ground Level: +53.38mOD	Report No: 11043a/CA

Progress & Observations	Samples & Tests: Type	Samples & Tests: Depth (m)	Field Test Results	Strata: Depth (m)	Strata: Level (m)	Legend	Strata Descriptions	Backfill / Installation
BH commenced: 21/07/2025	D ES	0.00 0.00					Grass over dark brownish-grey, gravelly, sandy TOPSOIL. Occasional rootlets.	
	D ES PID	0.20 0.20 0.20	0.0	0.20	53.18		POSSIBLE MADE GROUND: Light greyish-brown, silty very sandy gravel. Gravel is angular to subangular, fine to coarse, flint.	
Inspection pit to 0.50m BH dia. 100mm reducing with depth	D ES PID	0.50 0.50 0.50	0.0	0.50	52.88		Dense becoming very dense orangish-brown silty very sandy GRAVEL. Gravel is angular to subrounded fine to coarse flint.	
	D SPT/S PID	1.00 1.00 1.00	N=48 0.0					1
	D	1.50					*...below 1.50m, becoming dark brown*	
	SPT/S	1.60	N>50*					2
BH complete: 21/07/2025 BH depth: 2.10m (refusal) Water depth: Dry Dynamic Probe follow-on from 2.10m, see DP01				2.10	51.28		End of hole at 2.10m	3

Key: U = Undisturbed B = Bulk D = Small disturbed W = Water ES = glass jar & plastic tub E = glass jar SPT/S = split spoon SPT/C = solid cone PP = Pocket Penetrometer [kg/cm²] HV = Hand Vane [kPa] PID = Photo Ionisation Detector [ppm - Isobutylene Equivalent, PhoCheck Tiger, 10.6eV lamp] * = full SPT penetration not achieved - see summary sheet

Borehole type: Dynamic Sampler

Remarks:
A) Co-ordinates and levels obtained by SVS Ltd
B) Installed with 0.50m plain and 1.10m slotted pipe (50mm)

Borehole No: **WS01**

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Site & Location:	**Sonning Golf Club (Housing)** **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**		Borehole No: **WS02**
Client:	**Sonning Golf Club Ltd**	Coordinates: 476419E, 174737N	Sheet 1 of 1
Engineer:	**Aventus Design Ltd**	Ground Level: +53.99mOD	Report No: 11043a/CA

Progress & Observations	Samples & Tests: Type	Samples & Tests: Depth (m)	Field Test Results	Strata: Depth (m)	Strata: Level (m)	Legend	Strata Descriptions	Backfill / Installation
BH commenced: 21/07/2025	ES	0.00					Grass over brown, gravelly, sandy TOPSOIL. Occasional rootlets.	
	D	0.10		0.10	53.89		POSSIBLE MADE GROUND: Light greyish-brown very gravelly fine to medium sand. Gravel is angular to subangular fine to coarse, flint.	
	ES	0.10						
	PID	0.10	0.0					
Inspection pit to 0.50m								
BH dia. 100mm reducing with depth	PID	0.60	0.0					
	D	0.70		0.70	53.29		Medium dense becoming very dense orangish-brown and dark red silty very sandy GRAVEL. Gravel is angular to subangular fine to coarse flint. Rare pockets of light grey clay.	
	D	1.00						1
	SPT/S	1.00	N=10					
	PID	1.00	0.0					
	D	1.50						
	D	2.00						2
	SPT/S	2.00	N=52					
	SPT/S	2.50	N=38				*...below 2.50m; becoming dense*	
BH complete: 21/07/2025 BH depth: 3.00m (refusal) Water depth: Dry Dynamic Probe follow-on from 3.00m, see DP02				3.00	50.99		End of hole at 3.00m	3

Key: U = Undisturbed B = Bulk D = Small disturbed W = Water ES = glass jar & plastic tub E = glass jar SPT/S = split spoon SPT/C = solid cone PP = Pocket Penetrometer [kg/cm²] HV = Hand Vane [kPa] PID = Photo Ionisation Detector [ppm - Isobutylene Equivalent, PhoCheck Tiger, 10.6eV lamp] * = full SPT penetration not achieved - see summary sheet

Borehole type: Dynamic Sampler

Remarks:
A) Co-ordinates and levels obtained by SVS Ltd
B) Backfilled with arisings

Borehole No: **WS02**

Site & Location:	**Sonning Golf Club (Housing)** **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**	Borehole No:	**WS03**
Client:	**Sonning Golf Club Ltd**	Coordinates: 476383E, 174749N	Sheet 1 of 1
Engineer:	**Aventus Design Ltd**	Ground Level: +54.61mOD	Report No: 11043a/CA

Progress & Observations	Samples & Tests: Type	Samples & Tests: Depth (m)	Field Test Results	Strata: Depth (m)	Strata: Level (m)	Legend	Strata Descriptions	Backfill / Installation
BH commenced: 22/07/2025	D ES	0.00 0.00					Grass over brown, slightly silty, gravelly, sandy TOPSOIL.	
	D ES PID	0.15 0.15 0.15	0.0	0.15	54.46		POSSIBLE MADE GROUND: Light greyish-brown very gravelly fine to coarse sand. Gravel is angular to subrounded fine to coarse, flint.	
	PID	0.40	0.0				*...below 1.00m, becoming light brown to light grey*	
Inspection pit to 0.50m BH dia. 100mm reducing with depth								
	D	0.75		0.75	53.86		Medium dense becoming very dense dark orangish-brown silty very sandy GRAVEL. Gravel is angular to subrounded fine to coarse flint.	
	D SPT/S PID	1.00 1.00 1.00	 N=21 0.0					1
	SPT/S	1.60	N>50*					
BH complete: 22/07/2025 BH depth: 2.00m (refusal) Water depth: Dry Dynamic Probe follow-on from 2.00m, see DP03				2.00	52.61		End of hole at 2.00m	2 3

Key: U = Undisturbed B = Bulk D = Small disturbed W = Water ES = glass jar & plastic tub E = glass jar SPT/S = split spoon SPT/C = solid cone PP = Pocket Penetrometer [kg/cm²] HV = Hand Vane [kPa] PID = Photo Ionisation Detector [ppm - Isobutylene Equivalent, PhoCheck Tiger, 10.6eV lamp] * = full SPT penetration not achieved - see summary sheet

Borehole type: Dynamic Sampler

Remarks:
A) Co-ordinates and levels obtained by SVS Ltd
B) Backfilled with arisings

Borehole No: **WS03**

Site & Location:	**Sonning Golf Club (Housing)** **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**	Borehole No:	**WS04**
Client:	**Sonning Golf Club Ltd**	Coordinates: 476421E, 174785N	Sheet 1 of 1
Engineer:	**Aventus Design Ltd**	Ground Level: +54.22mOD	Report No: 11043a/CA

Progress & Observations	Samples & Tests: Type	Samples & Tests: Depth (m)	Field Test Results	Strata: Depth (m)	Strata: Level (m)	Legend	Strata Descriptions	Backfill / Installation
BH commenced: 22/07/2025	D	0.00					Grass over light brownish-light grey, gravelly, sandy TOPSOIL.	
	ES	0.00						
	D	0.10						
	ES	0.10		0.15	54.07			
	PID	0.10	0.0				Orangish-brown very gravelly fine to coarse SAND. Gravel is angular to subrounded fine to coarse flint.	
Inspection pit to 0.50m	PID	0.50	0.0					
BH dia. 100mm reducing with depth								
BH complete: 22/07/2025 BH depth: 1.00m (refusal) Water depth: Dry Dynamic Probe follow-on from 1.00m, see DP04				1.00	53.22		End of hole at 1.00m	

1

2

3

Key: U = Undisturbed B = Bulk D = Small disturbed W = Water ES = glass jar & plastic tub E = glass jar SPT/S = split spoon SPT/C = solid cone PP = Pocket Penetrometer [kg/cm²] HV = Hand Vane [kPa] PID = Photo Ionisation Detector [ppm - Isobutylene Equivalent, PhoCheck Tiger, 10.6eV lamp] * = full SPT penetration not achieved - see summary sheet

Borehole type: Dynamic Sampler

Remarks:
A) Co-ordinates and levels obtained by SVS Ltd
B) Backfilled with arisings

Borehole No: **WS04**

Site & Location:	**Sonning Golf Club (Housing)** **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**	Borehole No:	**WS05**
Client:	**Sonning Golf Club Ltd**	Coordinates: 476463E, 174763N	Sheet 1 of 1
Engineer:	**Aventus Design Ltd**	Ground Level: +53.84mOD	Report No: 11043a/CA

Progress & Observations	Samples & Tests: Type	Samples & Tests: Depth (m)	Field Test Results	Strata: Depth (m)	Strata: Level (m)	Legend	Strata Descriptions	Backfill / Installation
BH commenced: 22/07/2025	D ES	0.00 0.00					Grass over brownish-light grey, slightly silty, gravelly, sandy TOPSOIL.	
	D ES PID	0.15 0.15 0.15	0.0	0.15	53.69		POSSIBLE MADE GROUND: Light brown slightly silty to silty very gravelly fine to coarse sand. Gravel is angular to subangular, fine to coarse, flint.	
Inspection pit to 0.50m	D PID	0.50 0.50	0.0	0.50	53.34		Medium dense yellowish-orange, silty slightly gravelly fine to medium SAND. Gravel is angular to subangular fine to medium flint.	
BH dia. 100mm reducing with depth								
	D SPT/S PID	1.00 1.00 1.00	N=25 0.0					1
	D	1.40		1.40	52.44		Medium dense becoming very dense dark orangish-brown silty very sandy GRAVEL. Gravel is angular to subangular fine to coarse flint.	
	D SPT/S	2.00 2.00	N>50*					2
BH complete: 22/07/2025 BH depth: 2.40m (refusal) Water depth: Dry Dynamic Probe follow-on from 2.40m, see DP05				2.40	51.44		End of hole at 2.40m	3

Key: U = Undisturbed B = Bulk D = Small disturbed W = Water ES = glass jar & plastic tub E = glass jar SPT/S = split spoon SPT/C = solid cone PP = Pocket Penetrometer [kg/cm²] HV = Hand Vane [kPa] PID = Photo Ionisation Detector [ppm - Isobutylene Equivalent, PhoCheck Tiger, 10.6eV lamp] * = full SPT penetration not achieved - see summary sheet

Borehole type: Dynamic Sampler

Remarks:
A) Co-ordinates and levels obtained by SVS Ltd
B) Installed with 1.30m plain and 1.10m slotted pipe (50mm)

Borehole No: **WS05**

Site & Location:	**Sonning Golf Club (Housing)** **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**	Borehole No:	**WS06**
Client:	**Sonning Golf Club Ltd**	Coordinates: 476477E, 174795N	Sheet 1 of 1
Engineer:	**Aventus Design Ltd**	Ground Level: +53.80mOD	Report No: 11043a/CA

Progress & Observations	Samples & Tests: Type	Samples & Tests: Depth (m)	Field Test Results	Strata: Depth (m)	Strata: Level (m)	Legend	Strata Descriptions	Backfill / Installation
BH commenced: 22/07/2025	D ES	0.00 0.00					Grass over brownish-light grey, gravelly, sandy TOPSOIL.	
	D ES PID	0.20 0.20 0.20	0.0	0.20	53.60		POSSIBLE MADE GROUND: Light greyish-brown slightly clayey silty very gravelly fine to medium sand. Gravel is angular to subrounded fine to coarse flint.	
Inspection pit to 0.50m	D PID	0.50 0.50	0.0	0.50	53.30		Medium dense becoming very dense dark orangish-brown silty SAND and GRAVEL. Gravel is angular to subangular fine to coarse flint.	
BH dia. 100mm reducing with depth								
	D SPT/S PID	1.00 1.00 1.00	N=23 0.0					
	SPT/S	1.60	N>50*					
BH complete: 22/07/2025 BH depth: 1.90m (refusal) Water depth: Dry Dynamic Probe follow-on from 1.90m, see DP06				1.90	51.90		End of hole at 1.90m	

1

2

3

Key: U = Undisturbed B = Bulk D = Small disturbed W = Water ES = glass jar & plastic tub E = glass jar SPT/S = split spoon SPT/C = solid cone PP = Pocket Penetrometer [kg/cm²] HV = Hand Vane [kPa] PID = Photo Ionisation Detector [ppm - Isobutylene Equivalent, PhoCheck Tiger, 10.6eV lamp] * = full SPT penetration not achieved - see summary sheet

Borehole type: Dynamic Sampler

Remarks:
A) Co-ordinates and levels obtained by SVS Ltd
B) Installed with 0.70m plain and 1.0m slotted pipe (19mm)

Borehole No: **WS06**

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Site & Location:	**Sonning Golf Club (Housing)** **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**	Borehole No:	**WS07**
Client:	**Sonning Golf Club Ltd**	Coordinates: 476495E, 174793N	Sheet 1 of 1
Engineer:	**Aventus Design Ltd**	Ground Level: +53.86mOD	Report No: 11043a/CA

Progress & Observations	Samples & Tests: Type	Samples & Tests: Depth (m)	Field Test Results	Strata: Depth (m)	Strata: Level (m)	Legend	Strata Descriptions	Backfill / Installation
BH commenced: 22/07/2025	D ES	0.00 0.00					Grass over brownish-light grey, gravelly, sandy TOPSOIL.	
	D ES PID	0.15 0.15 0.15	0.0	0.15	53.72		POSSIBLE MADE GROUND: Light greyish-brown slightly silty very gravelly fine to medium sand. Gravel is angular to subangular fine to coarse flint.	
Inspection pit to 0.50m BH dia. 100mm reducing with depth	D PID	0.50 0.50	0.0	0.50	53.36		Dense yellowish-orange very silty gravelly fine to coarse SAND. Gravel is angular to subangular fine to coarse flint.	
	D SPT/S PID	1.00 1.00 1.00	N=37 0.0					1
	D	1.30		1.30	52.56		Dense becoming very dense dark orangish-brown slightly silty very sandy GRAVEL. Gravel is angular to subangular fine to coarse flint.	
	SPT/S	1.50	N>50*					
BH complete: 22/07/2025 BH depth: 1.90m (refusal) Water depth: Dry Dynamic Probe follow-on from 1.90m, see DP07.				1.90	51.96		End of hole at 1.90m	2
								3

Key: U = Undisturbed B = Bulk D = Small disturbed W = Water ES = glass jar & plastic tub E = glass jar SPT/S = split spoon SPT/C = solid cone PP = Pocket Penetrometer [kg/cm²] HV = Hand Vane [kPa] PID = Photo Ionisation Detector [ppm - Isobutylene Equivalent, PhoCheck Tiger, 10.6eV lamp] * = full SPT penetration not achieved - see summary sheet

Borehole type: Dynamic Sampler

Remarks:
A) Co-ordinates and levels obtained by SVS Ltd
B) Installed with 0.50m plain and 1.00m slotted pipe (19mm)

Borehole No: **WS07**

Soil Consultants

Site & Location:	**Sonning Golf Club (Housing)** **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**	Borehole No:	**WS08**
Client:	**Sonning Golf Club Ltd**	Coordinates: 476457E, 174819N	Sheet 1 of 1
Engineer:	**Aventus Design Ltd**	Ground Level: +54.64mOD	Report No: 11043a/CA

Progress & Observations	Samples & Tests: Type	Samples & Tests: Depth (m)	Field Test Results	Strata: Depth (m)	Strata: Level (m)	Legend	Strata Descriptions	Backfill / Installation
BH commenced: 22/07/2025	D	0.00					Grass over brown, gravelly, sandy TOPSOIL.	
	ES	0.00						
	D	0.10		0.10	54.54		POSSIBLE MADE GROUND: Light greyish-brown slightly silty very gravelly fine to coarse sand. Gravel is angular to subrounded, fine to coarse, flint.	
	ES	0.10						
	PID	0.10	0.0					
Inspection pit to 0.50m	D	0.50		0.50	54.14		Dense becoming very dense orangish-brown slightly silty very sandy GRAVEL. Gravel is angular to subangular fine to coarse flint.	
	PID	0.50	0.0					
BH dia. 100mm reducing with depth								
	D	1.00						1
	SPT/S	1.00	N=43					
	PID	1.00	0.0					
	SPT/S	1.60	N=60					
BH complete: 22/07/2025 BH depth: 2.00m (refusal) Water depth: Dry Dynamic Probe follow-on from 2.00m, see DP08				2.00	52.64		End of hole at 2.00m	2 3

Key: U = Undisturbed B = Bulk D = Small disturbed W = Water ES = glass jar & plastic tub E = glass jar SPT/S = split spoon SPT/C = solid cone PP = Pocket Penetrometer [kg/cm²] HV = Hand Vane [kPa] PID = Photo Ionisation Detector [ppm - Isobutylene Equivalent, PhoCheck Tiger, 10.6eV lamp] * = full SPT penetration not achieved - see summary sheet

Borehole type: Dynamic Sampler

Remarks:
A) Co-ordinates and levels obtained by SVS Ltd
B) Installed with 0.60m plain and 1.00m slotted pipe (50mm)

Borehole No: **WS08**

Site & Location:	**Sonning Golf Club (Housing)** **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**	Borehole No:	**WS09**
Client:	**Sonning Golf Club Ltd**	Coordinates: 476481E, 174846N	Sheet 1 of 1
Engineer:	**Aventus Design Ltd**	Ground Level: +54.27mOD	Report No: 11043a/CA

Progress & Observations	Samples & Tests: Type	Samples & Tests: Depth (m)	Field Test Results	Strata: Depth (m)	Strata: Level (m)	Legend	Strata Descriptions	Backfill / Installation
BH commenced: 22/07/2025	D ES	0.00 0.00					Grass over brown, gravelly, sandy TOPSOIL.	
	D ES PID	0.15 0.15 0.15	0.0	0.15	54.12		POSSIBLE MADE GROUND: Light greyish-brown very gravelly fine to medium sand. Gravel is angular to subangular fine to coarse flint.	
Inspection pit to 0.50m								
	PID	0.55	0.0	0.55	53.72			
BH dia. 100mm reducing with depth	D	0.60					Very dense dark orangish-brown, slightly silty very sandy GRAVEL. Gravel is angular to subangular fine to coarse flint.	
	D SPT/S PID	1.00 1.00 1.00	 N=70 0.0					
	SPT/S	1.60	N>50*					
BH complete: 22/07/2025 BH depth: 1.90m (refusal) Water depth: Dry Dynamic Probe follow-on from 1.90m, see DP09				1.90	52.37		End of hole at 1.90m	

1 2 3

Key: U = Undisturbed B = Bulk D = Small disturbed W = Water ES = glass jar & plastic tub E = glass jar SPT/S = split spoon SPT/C = solid cone PP = Pocket Penetrometer [kg/cm²] HV = Hand Vane [kPa] PID = Photo Ionisation Detector [ppm - Isobutylene Equivalent, PhoCheck Tiger, 10.6eV lamp] * = full SPT penetration not achieved - see summary sheet

Borehole type: Dynamic Sampler

Remarks:
A) Co-ordinates and levels obtained by SVS Ltd
B) Backfilled with arisings

Borehole No: **WS09**

Site & Location:	**Sonning Golf Club (Housing)** **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**	Borehole No:	**WS10**
Client:	**Sonning Golf Club Ltd**	Coordinates: 476514E, 174827N	Sheet 1 of 1
Engineer:	**Aventus Design Ltd**	Ground Level: +53.91mOD	Report No: 11043a/CA

Progress & Observations	Samples & Tests: Type	Samples & Tests: Depth (m)	Field Test Results	Strata: Depth (m)	Strata: Level (m)	Legend	Strata Descriptions	Backfill / Installation
BH commenced: 22/07/2025	D ES	0.00 0.00					Grass over brown, gravelly, sandy TOPSOIL.	
	D ES PID	0.15 0.15 0.15	0.0	0.15	53.76		POSSIBLE MADE GROUND: Light greyish-brown slightly silty very gravelly fine to medium sand. Gravel is angular to subrounded fine to coarse flint.	
Inspection pit to 0.50m	D PID	0.50 0.50	0.0	0.50	53.41		Orangish-brown silty slightly gravelly fine to coarse SAND. Gravel is angular to subangular fine to coarse flint.	
BH dia. 100mm reducing with depth								
	D SPT/S PID	1.00 1.00 1.00	N=42 0.0	1.00	52.91		Dense becoming very dense dark orangish-brown slightly silty very sandy GRAVEL. Gravel is angular to subangular fine to coarse flint.	
							...below 1.20m, becoming clayey	
	SPT/S	1.50	N>50*					
BH complete: 22/07/2025 BH depth: 1.80m (refusal) Water depth: Dry Dynamic Probe follow-on from 1.80m, see DP10				1.80	52.11		End of hole at 1.80m	

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Key: U = Undisturbed B = Bulk D = Small disturbed W = Water ES = glass jar & plastic tub E = glass jar SPT/S = split spoon SPT/C = solid cone PP = Pocket Penetrometer [kg/cm²] HV = Hand Vane [kPa] PID = Photo Ionisation Detector [ppm - Isobutylene Equivalent, PhoCheck Tiger, 10.6eV lamp] * = full SPT penetration not achieved - see summary sheet

Borehole type: Dynamic Sampler

Remarks:
A) Co-ordinates and levels obtained by SVS Ltd
B) Installed with 0.60m plain and 1.00m slotted pipe (50mm)

Borehole No: **WS10**

Soil Consultants

Site & Location:	**Sonning Golf Club (Housing)** **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**	Borehole No:	**WS11**
Client:	**Sonning Golf Club Ltd**	Coordinates: 476494E, 174862N	Sheet 1 of 1
Engineer:	**Aventus Design Ltd**	Ground Level: +54.26mOD	Report No: 11043a/CA

Progress & Observations	Samples & Tests: Type	Samples & Tests: Depth (m)	Field Test Results	Strata: Depth (m)	Strata: Level (m)	Legend	Strata Descriptions	Backfill / Installation
BH commenced: 22/07/2025	D ES	0.00 0.00					Grass over brown, gravelly, sandy TOPSOIL.	
	D ES PID	0.15 0.15 0.15	0.0	0.15	54.11		Very dense light brownish-yellow, very gravelly fine to medium SAND. Gravel is angular to subangular fine to coarse flint.	
Inspection pit to 0.50m BH dia. 100mm reducing with depth								
	SPT/S PID	0.90 0.90	N>50* 0.0					
BH complete: 22/07/2025 BH depth: 1.15m (refusal) Water depth: Dry Dynamic Probe follow-on from 1.15m, see DP11				1.15	53.11		End of hole at 1.15m	

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Key: U = Undisturbed B = Bulk D = Small disturbed W = Water ES = glass jar & plastic tub E = glass jar SPT/S = split spoon SPT/C = solid cone PP = Pocket Penetrometer [kg/cm²] HV = Hand Vane [kPa] PID = Photo Ionisation Detector [ppm - Isobutylene Equivalent, PhoCheck Tiger, 10.6eV lamp] * = full SPT penetration not achieved - see summary sheet

Borehole type: Dynamic Sampler

Remarks:
A) Co-ordinates and levels obtained by SVS Ltd
B) Backfilled with arisings

Borehole No: **WS11**

Site & Location:	**Sonning Golf Club (Housing)** **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**	Borehole No:	**WS12**
Client:	**Sonning Golf Club Ltd**	Coordinates: 476538E, 174855N	Sheet 1 of 1
Engineer:	**Aventus Design Ltd**	Ground Level: +53.88mOD	Report No: 11043a/CA

Progress & Observations	Samples & Tests: Type	Samples & Tests: Depth (m)	Field Test Results	Strata: Depth (m)	Strata: Level (m)	Legend	Strata Descriptions	Backfill / Installation
BH commenced: 23/07/2025	D	0.00					Grass over brown slightly silty gravelly sandy TOPSOIL.	
	D	0.08		0.08	53.80		POSSIBLE MADE GROUND: Light greyish-brown slightly silty gravelly to very gravelly fine to medium sand. Gravel is angular to subangular fine to coarse flint.	
	ES	0.08						
	PID	0.08	0.0					
Inspection pit to 0.30m								
	D	0.50		0.50	53.38		Dense orangish-brown slightly silty very sandy GRAVEL. Gravel is angular to subrounded fine to coarse flint.	
	PID	0.50	0.0					
BH dia. 100mm reducing with depth								
	SPT/S	0.90						
	PID	1.00	0.0					
BH complete: 23/07/2025 BH depth: 1.20m (refusal) Water depth: Dry Dynamic Probe follow-on from 1.20m, see DP12				1.20	52.68		End of hole at 1.20m	

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Key: U = Undisturbed B = Bulk D = Small disturbed W = Water ES = glass jar & plastic tub E = glass jar SPT/S = split spoon SPT/C = solid cone PP = Pocket Penetrometer [kg/cm²] HV = Hand Vane [kPa] PID = Photo Ionisation Detector [ppm - Isobutylene Equivalent, PhoCheck Tiger, 10.6eV lamp] * = full SPT penetration not achieved - see summary sheet

Borehole type: Dynamic Sampler

Remarks:
A) Co-ordinates and levels obtained by SVS Ltd
B) Installed with 0.20m plain and 0.45m slotted pipe (50mm)

Borehole No: **WS12**

Soil Consultants

Site & Location:	**Sonning Golf Club (Housing)** **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**	Borehole No:	**WS13**
Client:	**Sonning Golf Club Ltd**	Coordinates: 476528E, 174896N	Sheet 1 of 1
Engineer:	**Aventus Design Ltd**	Ground Level: +54.17mOD	Report No: 11043a/CA

Progress & Observations	Samples & Tests Type	Samples & Tests Depth (m)	Field Test Results	Strata Depth (m)	Strata Level (m)	Legend	Strata Descriptions	Backfill / Installation
BH commenced: 22/07/2025	D ES	0.00 0.00					Grass over brown, slightly silty, gravelly, sandy TOPSOIL.	
	PID	0.20	0.0	0.20	53.97		POSSIBLE MADE GROUND: Light greyish-brown slightly silty very gravelly fine to coarse sand. Gravel is angular to subrounded fine to coarse flint.	
Inspection pit to 0.30m	D ES	0.30 0.30		0.30	53.87		Very dense orangish-brown slightly silty very sandy GRAVEL. Gravel is angular to subrounded fine to coarse flint.	
BH dia. 100mm reducing with depth	D PID	0.60 0.60	0.0					
	SPT/S PID	1.00 1.00	N>50* 0.0					
BH complete: 22/07/2025 BH depth: 1.30m (refusal) Water depth: Dry Dynamic Probe follow-on from 1.30m, see DP13				1.30	52.87		End of hole at 1.30m	

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Key: U = Undisturbed B = Bulk D = Small disturbed W = Water ES = glass jar & plastic tub E = glass jar SPT/S = split spoon SPT/C = solid cone PP = Pocket Penetrometer [kg/cm²] HV = Hand Vane [kPa] PID = Photo Ionisation Detector [ppm - Isobutylene Equivalent, PhoCheck Tiger, 10.6eV lamp] * = full SPT penetration not achieved - see summary sheet

Borehole type: Dynamic Sampler

Remarks:
A) Co-ordinates and levels obtained by SVS Ltd
B) Backfilled with arisings

Borehole No: **WS13**

Site & Location:	**Sonning Golf Club (Housing)** **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**	Borehole No:	**WS14**
Client:	**Sonning Golf Club Ltd**	Coordinates: 476542E, 174880N	Sheet 1 of 1
Engineer:	**Aventus Design Ltd**	Ground Level: +53.90mOD	Report No: 11043a/CA

Progress & Observations	Samples & Tests: Type	Samples & Tests: Depth (m)	Field Test Results	Strata: Depth (m)	Strata: Level (m)	Legend	Strata Descriptions	Backfill / Installation
BH commenced: 23/07/2025	ES	0.00		0.05	53.85		Grass over brown, slightly silty, gravelly, sandy TOPSOIL.	
	D	0.05					POSSIBLE MADE GROUND: Light greyish-brown slightly silty very gravelly fine to coarse sand. Gravel is angular to subrounded fine to coarse flint.	
	ES	0.05						
	PID	0.05	0.0					
Inspection pit to 0.30m								
	D	0.40		0.40	53.50		Very dense orangish-brown, slightly silty very sandy GRAVEL. Gravel is angular to subangular fine to coarse flint.	
	PID	0.40	0.0					
BH dia. 100mm reducing with depth								
	D	1.00						
	SPT/S	1.00	N>50*					
	PID	1.00	0.0					
	SPT/S	1.30	N>50*					
BH complete: 23/07/2025 BH depth: 1.60m (refusal and collapse to 1.30m bgl) Water depth: Dry Dynamic Probe follow-on from 1.30m, see DP14				1.60	52.30		End of hole at 1.60m	

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Key: U = Undisturbed B = Bulk D = Small disturbed W = Water ES = glass jar & plastic tub E = glass jar SPT/S = split spoon SPT/C = solid cone PP = Pocket Penetrometer [kg/cm²] HV = Hand Vane [kPa] PID = Photo Ionisation Detector [ppm - Isobutylene Equivalent, PhoCheck Tiger, 10.6eV lamp] * = full SPT penetration not achieved - see summary sheet

Borehole type: Dynamic Sampler

Remarks:
A) Co-ordinates and levels obtained by SVS Ltd
B) Installed with 0.25m plain and 0.60m slotted pipe (50mm)

Borehole No: **WS14**

Soil Consultants

Site & Location:	**Sonning Golf Club (Housing)** **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**	Borehole No:	**WS15**
Client:	**Sonning Golf Club Ltd**	Coordinates: 476568E, 174881N	Sheet 1 of 1
Engineer:	**Aventus Design Ltd**	Ground Level: +53.70mOD	Report No: 11043a/CA

Progress & Observations	Samples & Tests: Type	Samples & Tests: Depth (m)	Field Test Results	Strata: Depth (m)	Strata: Level (m)	Legend	Strata Descriptions	Backfill / Installation
BH commenced: 23/07/2025	D ES	0.00 0.00					Grass over brown, slightly silty, gravelly, sandy TOPSOIL.	
	D ES PID	0.15 0.15 0.15	0.0	0.15	53.55		POSSIBLE MADE GROUND: Light greyish-brown slightly silty gravelly fine to coarse sand. Gravel is angular to subrounded fine to coarse flint.	
Inspection pit to 0.30m								
	D PID	0.50 0.50	0.0	0.50	53.20		Orangish-brown silty very gravelly fine to coarse SAND. Gravel is angular to subrounded fine to coarse flint.	
BH dia. 100mm reducing with depth								
	D PID SPT/S	0.90 0.90 1.00	0.0 N=73	0.90	52.80		Very dense dark orange mottled light brownish-light grey silty slightly gravelly fine to coarse SAND. Gravel is angular to subangular fine to coarse flint.	
				1.30	52.40		Very dense dark orangish-brown, slightly silty very sandy GRAVEL. Gravel is angular to subangular fine to coarse flint.	
	SPT/S	1.50	N>50*					
BH complete: 23/07/2025 BH depth: 1.70m (refusal) Water depth: Dry Dynamic Probe follow-on from 1.70m, see DP15				1.70	52.00		End of hole at 1.70m	

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Key: U = Undisturbed B = Bulk D = Small disturbed W = Water ES = glass jar & plastic tub E = glass jar SPT/S = split spoon SPT/C = solid cone PP = Pocket Penetrometer [kg/cm²] HV = Hand Vane [kPa] PID = Photo Ionisation Detector [ppm - Isobutylene Equivalent, PhoCheck Tiger, 10.6eV lamp] * = full SPT penetration not achieved - see summary sheet

Borehole type: Dynamic Sampler

Remarks:
A) Co-ordinates and levels obtained by SVS Ltd
B) Installed with 0.40m plain and 1.00m slotted pipe (50mm)

Borehole No: **WS15**

Soil Consultants

Site & Location	**Sonning Golf Club (Housing)** **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**	Report No:	**11043a/CA**

STANDARD PENETRATION TEST SUMMARY

BH ID	Depth (m)	Test type	N value (Note b)	Blow-counts and penetration						Casing depth (m)	Water depth (m)	Remarks
				Seating blows		Test blows						
WS01	1.00	S	N=48	5	7	9	11	13	15		Dry	73% energy ratio
WS01	1.60	S	(45)	5	10	14	16	15			Dry	73% energy ratio
WS02	1.00	S	N=10	2	2	2	2	3	3		Dry	73% energy ratio
WS02	2.00	S	N=52	10	10	14	9	12	17		Dry	73% energy ratio
WS02	2.50	S	N=38	12	13	11	10	10	7		Dry	73% energy ratio
WS03	1.00	S	N=21	3	4	5	5	5	6		Dry	73% energy ratio
WS03	1.60	S	(42)	8	12	15	15	12			Dry	73% energy ratio
WS05	1.00	S	N=25	4	5	5	5	6	9		Dry	73% energy ratio
WS05	2.00	S	(44)	11	12	14	14	16			Dry	73% energy ratio
WS06	1.00	S	N=23	4	5	6	5	6	6		Dry	73% energy ratio
WS06	1.60	S	(58)	5	11	15	22	21			Dry	73% energy ratio
WS07	1.00	S	N=37	4	3	5	10	11	11		Dry	73% energy ratio
WS07	1.50	S	(50)	11	16	17	15	18			Dry	73% energy ratio
WS08	1.00	S	N=43	8	10	10	10	11	12		Dry	76% energy ratio
WS08	1.60	S	N=60	8	9	12	13	16	19		Dry	76% energy ratio
WS09	1.00	S	N=70	12	12	15	15	20	20		Dry	76% energy ratio
WS09	1.60	S	(30)	20	22	30					Dry	76% energy ratio
WS10	1.00	S	N=42	6	12	11	11	10	10		Dry	73% energy ratio
WS10	1.50	S	(58)	5	11	17	18	23			Dry	73% energy ratio
WS11	0.90	S	(39)	22	36	39					Dry	76% energy ratio
WS12	0.90	S	N=48	6	15	21	27	0	0		Dry	73% energy ratio
WS13	1.00	S	(44)	19	20	20	24				Dry	76% energy ratio
WS14	1.00	S	(73)	15	18	23	25	25			Dry	73% energy ratio
WS14	1.30	S	(62)	19	25	27	35				Dry	73% energy ratio
WS15	1.00	S	N=73	10	12	12	15	19	27		Dry	73% energy ratio
WS15	1.50	S	(55)	18	25	30	25				Dry	73% energy ratio

a) Standard Penetration Test : BS EN ISO 22476:2005 Part 3

b) Where full penetration was not achieved, the total test blow-counts are reported

c) Hammer Energy Ratio, Er = 73% & 76%%

SPT Hammer Energy Test Report

in accordance with BSEN ISO 22476-3:2005

Southern Testing
Unit 11
Charlwoods Road
East Grinstead
West Sussex
RH19 2HU

SPT Hammer Ref:	2014RP
Test Date:	29/03/2025
Report Date:	28/03/2025
File Name:	2014RP.spt
Test Operator:	BOB

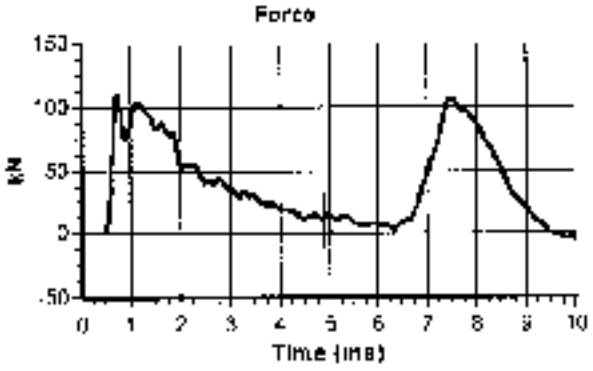
Instrumented Rod Data

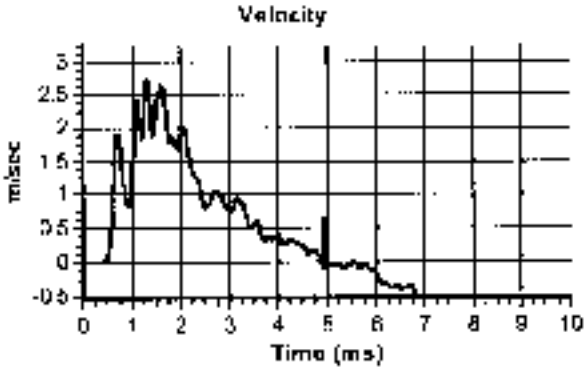
Diameter d_r (mm):	54
Wall Thickness t_r (mm):	6.7
Assumed Modulus E_o (GPa):	208
Accelerometer No.1:	73547
Accelerometer No.2:	64789

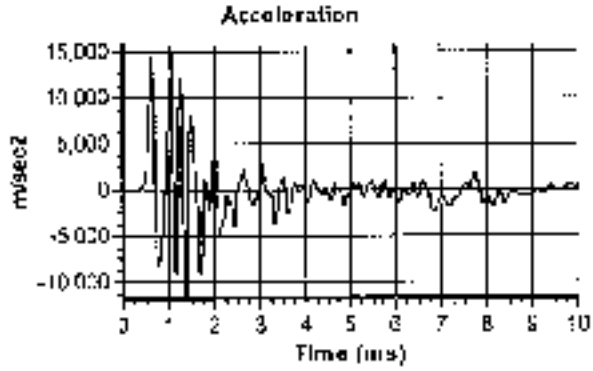
SPT Hammer Information

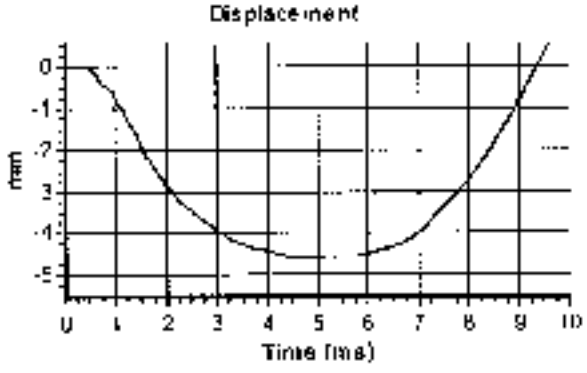
Hammer Mass m (kg):	63.5
Falling Height h (mm):	760
SPT String Length L (m):	14.7

Comments / Location
CHARLWOODS









Calculations

Area of Rod A (mm2):	996
Theoretical Energy E_{theor} (J):	473
Measured Energy E_{meas} (J):	345

Energy Ratio E_r (%): **73**

Signed: Bob Stewart
Title: Technician

The recommended calibration interval is 12 months

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SPT Hammer Energy Test Report

in accordance with BSEN ISO 22476-3:2005

Southern Testing
Unit 11
Charlwoods Road
East Grinstead
West Sussex
RH19 2HU

SPT Hammer Ref: 110113
Test Date: 16/09/2024
Report Date: 16/09/2024
File Name: 110113.spt
Test Operator: BOB

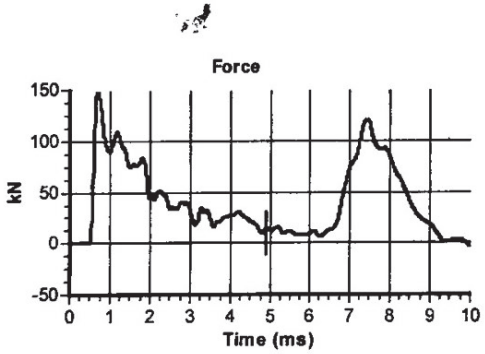
Instrumented Rod Data

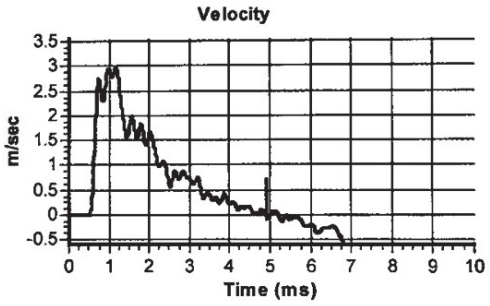
Diameter d_r (mm):	54
Wall Thickness t_r (mm):	6.7
Assumed Modulus E_a (GPa):	208
Accelerometer No.1:	73547
Accelerometer No.2:	64789

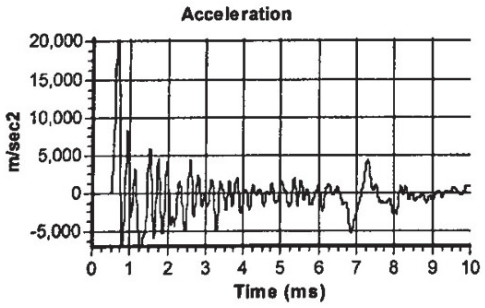
SPT Hammer Information

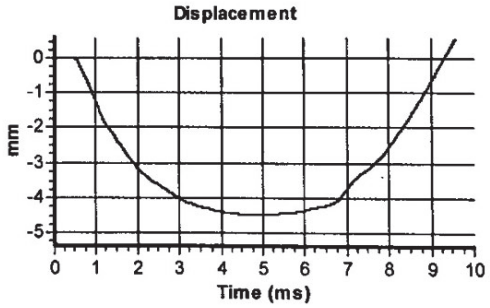
Hammer Mass m (kg):	63.5
Falling Height h (mm):	760
SPT String Length L (m):	14.7

Comments / Location
CHARLWOODS









Calculations

Area of Rod A (mm2):	996
Theoretical Energy E_{theor} (J):	473
Measured Energy E_{meas} (J):	357

Energy Ratio E_r (%): **76**

Signed: Bob Stewart
Title: Technician

The recommended calibration interval is 12 months

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Site & Location	**Sonning Golf Club (Housing)** **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**		Trial Pit No: **TP01**
Client:	**Sonning Golf Club Ltd**	**Coords: 476448, 174770**	Report No: **11043a/CA**
Engineer:	**Aventus Design Ltd**	**Level: +53.941mOD**	

Depth (m)	Strata description	Samples/tests		
		Depth (m)	Type	Test results
GL to 0.10m	Grass over light brown gravelly sandy TOPSOIL. Gravel is angular to subrounded, fine to coarse flint. Frequent roots and rootlets.	0.0-0.10	D/ES	
0.10m to 0.30m	MADE GROUND: light brown slightly silty very sandy gravel. Gravel is angular to rounded, fine to coarse flint. Low cobble content of flint. Frequent roots and rootlets. Occasional brick fragments.	0.20-0.25	D/ES	
0.30m to 0.90m	POSSIBLE MADE GROUND: Light greyish brown silty very sandy gravel. Gravel is angular to subrounded fine to coarse flint. Low cobble content of flint.	0.35-0.40	D/ES	
		0.50-0.90	B	
0.90m to 1.50m	Orangish-brown clayey silty very gravelly fine to coarse SAND. Gravel is angular to rounded fine to coarse flint. Low cobble content of flint. Occasional pockets of light grey very sandy clay.	1.00-1.50	B	





Date of excavation:	22nd July 2025	Groundwater:	Dry		
Equipment:	DX27z 2.5 ton excavator				
Stability:	Stable	Logged by:	CA/RL	Checked by:	SCW

Remarks: Infiltration testing undertaken
Length: 1.40m, Width: 0.48m, Depth: 1.50m

Key: D = Small disturbed sample, B = Bulk disturbed sample, HV = Hand Shear Vane test (kN/m²), P = Pocket Penetrometer (kg/cm²)

Soil Consultants

Site & Location	**Sonning Golf Club (Housing)** **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**		Trial Pit No: **TP02**
Client:	**Sonning Golf Club Ltd**	**Coords: 476467, 174738**	Report No: **11043a/CA**
Engineer:	**Aventus Design Ltd**	**Level: +53.488mOD**	

Depth (m)	Strata description	Samples/tests		
		Depth (m)	Type	Test results
GL to 0.30m	MADE GROUND: grass over light brown slightly silty gravelly fine to medium sand. Gravel is angular to subrounded, fine to coarse flint. Occasional brick and chalk fragments.	0.0-0.25	D/ES	
0.30m to 0.70m	POSSIBLE MADE GROUND: Light greyish brown slightly silty gravelly fine to medium sand. Gravel is angular to subrounded, fine to coarse flint.	0.30-0.40	D/ES	
		0.55-0.70	B	
0.70m to 1.00m	Orangish-brown slightly silty very gravelly fine to coarse SAND. Gravel is angular to rounded, fine to coarse flint. Low cobble content of flint.	0.70-1.00	B	





Date of excavation:	22nd July 2025	Groundwater:	Dry		
Equipment:	DX27z 2.5 ton excavator				
Stability:	Stable	Logged by:	CA/RL	Checked by:	SCW

Remarks: Infiltration testing undertaken
Length: 1.35m, Width: 0.50m, Depth: 1.00m

Key: D = Small disturbed sample, B = Bulk disturbed sample, HV = Hand Shear Vane test (kN/m²), P = Pocket Penetrometer (kg/cm²)

Site & Location	**Sonning Golf Club (Housing)** **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**		Trial Pit No: **TP03**
Client:	**Sonning Golf Club Ltd**	**Coords: 476465, 174787**	Report No: **11043a/CA**
Engineer:	**Aventus Design Ltd**	**Level: +53.881mOD**	

Depth (m)	Strata description	Samples/tests		
		Depth (m)	Type	Test results
GL to 0.10m	Grass over brown gravelly sandy TOPSOIL. Gravel is angular to subrounded, fine to coarse flint.	0.0-0.10	D/ES	
0.10m to 0.35m	POSSIBLE MADE GROUND: Light greyish brown slightly silty very gravelly fine to medium sand. Gravel is angular to subrounded, fine to coarse flint.	0.10-0.35	D/ES	
0.35m to 2.00m	Orangish-brown silty sandy to very sandy GRAVEL. Gravel is angular to rounded fine to coarse flint. Low cobble content of flint. …below 0.90m, becoming dark orangish brown. …below 1.00m, occasional pockets of light grey very sandy clay.	0.50 1.00 1.30 1.50 1.75 2.00	B B D B B B	





Date of excavation:	23rd July 2025	Groundwater:	Below 0.90m damp soils		
Equipment:	DX27z 2.5 ton excavator				
Stability:	Stable	Logged by:	CA/RL	Checked by:	SCW

Remarks: Infiltration testing undertaken
Length: 1.75m, Width: 0.50m, Depth: 2.00m

Key: D = Small disturbed sample, B = Bulk disturbed sample, HV = Hand Shear Vane test (kN/m²), P = Pocket Penetrometer (kg/cm²)

Soil Consultants

Site & Location	**Sonning Golf Club (Housing)** **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**		Trial Pit No: **TP04**
Client:	**Sonning Golf Club Ltd**	**Coords: 476500, 174839**	Report No: **11043a/CA**
Engineer:	**Aventus Design Ltd**	**Level: +53.958mOD**	

Depth (m)	Strata description	Samples/tests		
		Depth (m)	Type	Test results
GL to 0.05m	Grass over brown gravelly sandy TOPSOIL. Gravel is angular to subrounded, fine to coarse flint.	0.0-0.05	D/ES	
0.05m to 0.30m	POSSIBLE MADE GROUND: Light greyish brown slightly silty very gravelly fine to medium sand. Gravel is angular to subrounded, fine to coarse flint.	0.05-0.30	D	
0.30m to 1.00m	Orangish-brown silty very sandy GRAVEL. Gravel is angular to rounded, fine to coarse flint. Low cobble content of flint.	0.50 1.00	B B	





Date of excavation:	23rd July 2025	Groundwater:	Dry		
Equipment:	DX27z 2.5 ton excavator				
Stability:	Stable	Logged by:	CA/RL	Checked by:	SCW

Remarks: Infiltration testing undertaken
Length: 1.30m, Width: 0.50m, Depth: 1.00m

Key: D = Small disturbed sample, B = Bulk disturbed sample, HV = Hand Shear Vane test (kN/m²), P = Pocket Penetrometer (kg/cm²)

Site & Location	**Sonning Golf Club (Housing)** **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**		Trial Pit No: **TP05**
Client:	**Sonning Golf Club Ltd**	**Coords: 476514, 174856**	Report No: **11043a/CA**
Engineer:	**Aventus Design Ltd**	**Level: +53.973mOD**	

Depth (m)	Strata description	Samples/tests		
		Depth (m)	Type	Test results
GL to 0.05m	Grass over brown gravelly sandy TOPSOIL. Gravel is angular to subrounded, fine to coarse flint. Frequent rootlets.	0.0-0.05	D/ES	
0.05m to 0.25m	POSSIBLE MADE GROUND: Light greyish brown slightly silty very gravelly fine to medium sand. Gravel is angular to subrounded, fine to coarse flint. Low cobble content of flint.	0.10-0.20	D/ES	
0.25m to 1.60m	Light brown silty very sandy GRAVEL. Gravel is angular to subrounded, fine to coarse flint. Low cobble content of flint.	0.50	B	
		1.30	D	
	…below 0.80m, becoming dark orangish brown	1.50	D	
	…below 1.30m, occasional pockets of light grey very sandy clay			





Date of excavation:	23rd July 2025	Groundwater:	Dry		
Equipment:	DX27z 2.5 ton excavator				
Stability:	Stable	Logged by:	CA/RL	Checked by:	SCW
Remarks: Infiltration testing undertaken Length: 1.60m, Width: 0.50m, Depth: 1.60m					

Key: D = Small disturbed sample, B = Bulk disturbed sample, HV = Hand Shear Vane test (kN/m²), P = Pocket Penetrometer (kg/cm²)

Soil Consultants

Site & Location	**Sonning Golf Club (Housing)** **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**		Trial Pit No: **TP06**
Client:	**Sonning Golf Club Ltd**	**Coords: 476560, 174901**	Report No: **11043a/CA**
Engineer:	**Aventus Design Ltd**	**Level: +53.933mOD**	

Depth (m)	Strata description	Samples/tests		
		Depth (m)	Type	Test results
GL to 0.08m	Grass over brown gravelly sandy TOPSOIL. Gravel is angular to subrounded, fine to coarse flint.	0.0-0.08	D/ES	
0.08m to 0.26m	POSSIBLE MADE GROUND: Light greyish brown slightly silty very gravelly fine to medium sand. Gravel is angular to subrounded, fine to coarse flint.	0.10-0.20	D/ES	
0.26m to 2.05m	Light brown slightly silty to silty very sandy GRAVEL. Gravel is angular to subrounded, fine to coarse flint. Low cobble content of flint.	0.50	B	
		1.50	B	
	…below 0.90m, becoming dark orangish brown.	1.80	D	
	…below 1.50m, rare pockets of light-grey sandy clay	2.00	B	
	…below 1.80m, occasional black manganese staining			





Date of excavation:	23rd July 2025	Groundwater:	Dry		
Equipment:	DX27z 2.5 ton excavator				
Stability:	Stable	Logged by:	CA/RL	Checked by:	SCW
Remarks: Infiltration testing undertaken Length: 1.90m, Width: 0.50m, Depth: 2.05m					

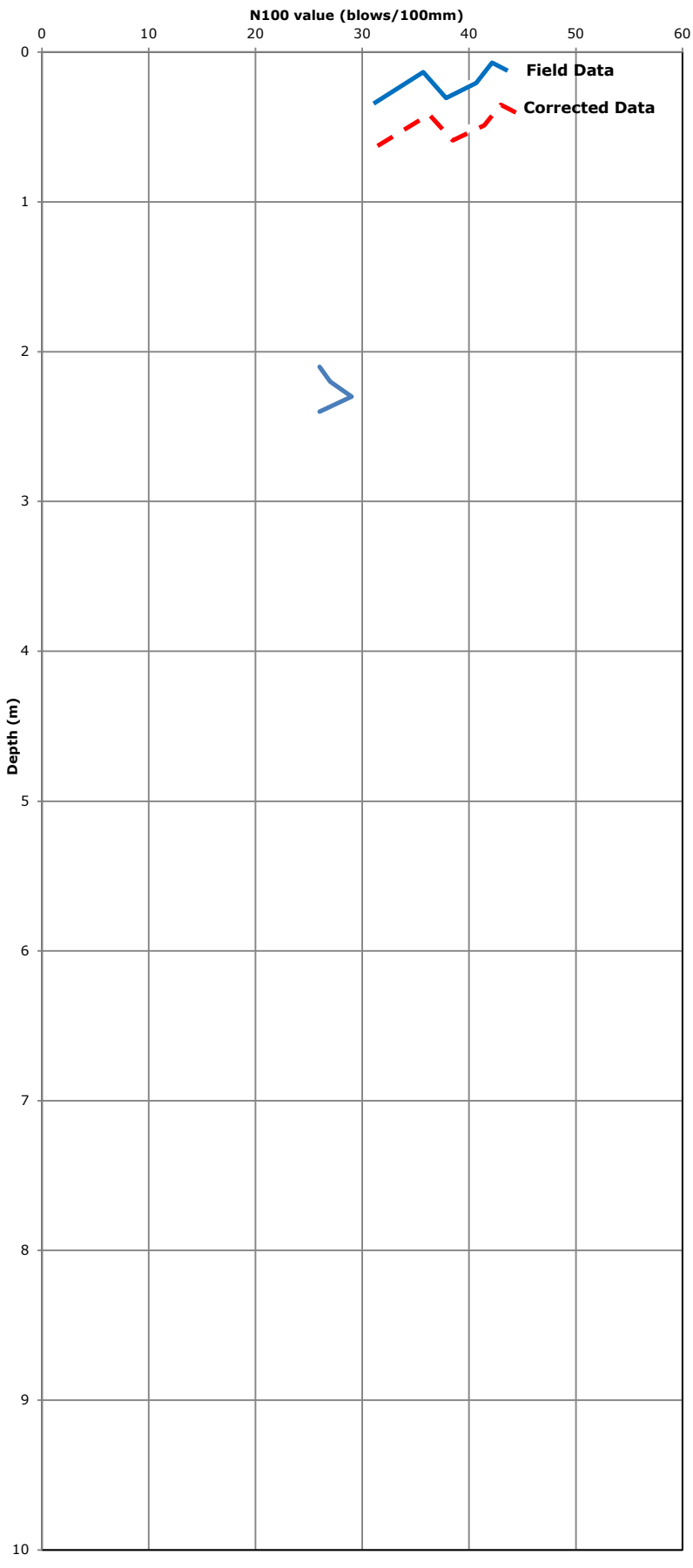
Key: D = Small disturbed sample, B = Bulk disturbed sample, HV = Hand Shear Vane test (kN/m²), P = Pocket Penetrometer (kg/cm²)

Soil Consultants

Site & Location	**Sonning Golf Club (Housing)** **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**			DP No:	**DP01**
Client:	**Sonning Golf Club Ltd**	Co-ords (E-N):	476436 174712	Sheet No:	1 of 1
Eng:	**Aventus Design Ltd**	Ground level (mOD):	53.38	Report No:	11043a/CA

Dynamic probe record

Depth (m)	DP blows/100mm
0.50	
1.00	
1.50	
2.00	26
2.50	27 29 26
3.00	
3.50	
4.00	
4.50	
5.00	
5.50	
6.00	
6.50	
7.00	
7.50	
8.00	
8.50	
9.00	
9.50	
10.00	



Torque (Nm)
10

Probing by:	SPG Site Investigation Ltd			Remarks:	
Equipment:	DPSH-B	Hammer weight (kg):	63.5	Date:	21 Jul 25
Cone area (cm2):	20	Hammer drop (mm):	750	Rod dia (mm)	35

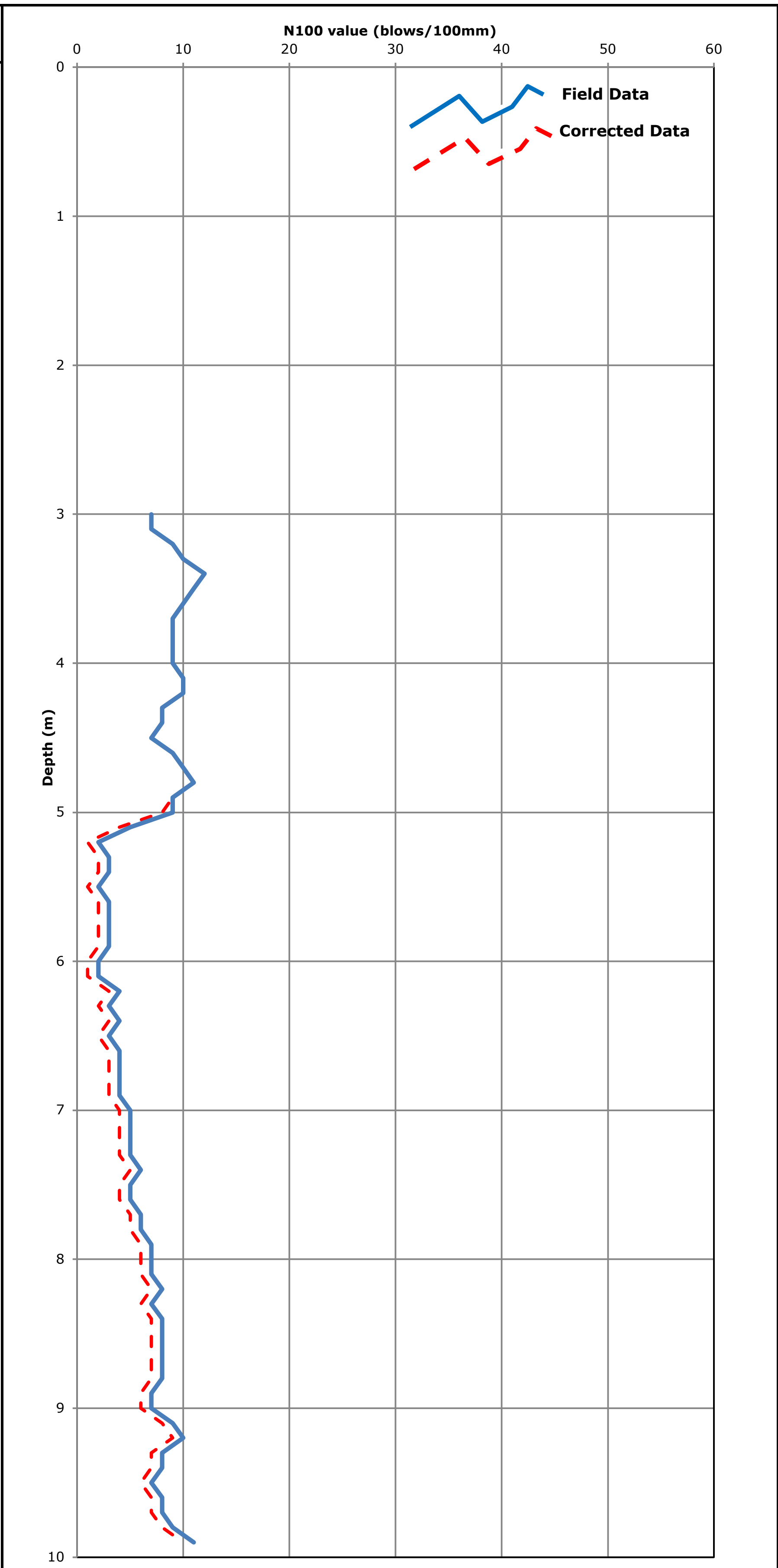
N100 values adjusted according to Butcher et al. 1995

Soil Consultants

Site & Location	Sonning Golf Club (Housing) Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ			DP No:	DP02
Client:	Sonning Golf Club Ltd	Co-ords (E-N):	476419 174737	Sheet No:	1 of 1
Eng:	Aventus Design Ltd	Ground level (mOD):	53.99	Report No:	11043/CA

Dynamic probe record

Depth (m)	DP blows/100mm					Torque (Nm)
0.50						
1.00						
1.50						
2.00						
2.50						
3.00						
3.50	7	7	9	10	12	
4.00	11	10	9	9	9	20
4.50	9	10	10	8	8	
5.00	7	9	10	11	9	20
5.50	9	5	2	3	3	
6.00	2	3	3	3	3	50
6.50	2	2	4	3	4	
7.00	3	4	4	4	4	70
7.50	5	5	5	5	6	
8.00	5	5	6	6	7	60
8.50	7	7	8	7	8	
9.00	8	8	8	8	7	70
9.50	7	9	10	8	8	
10.00	7	8	8	9	11	70



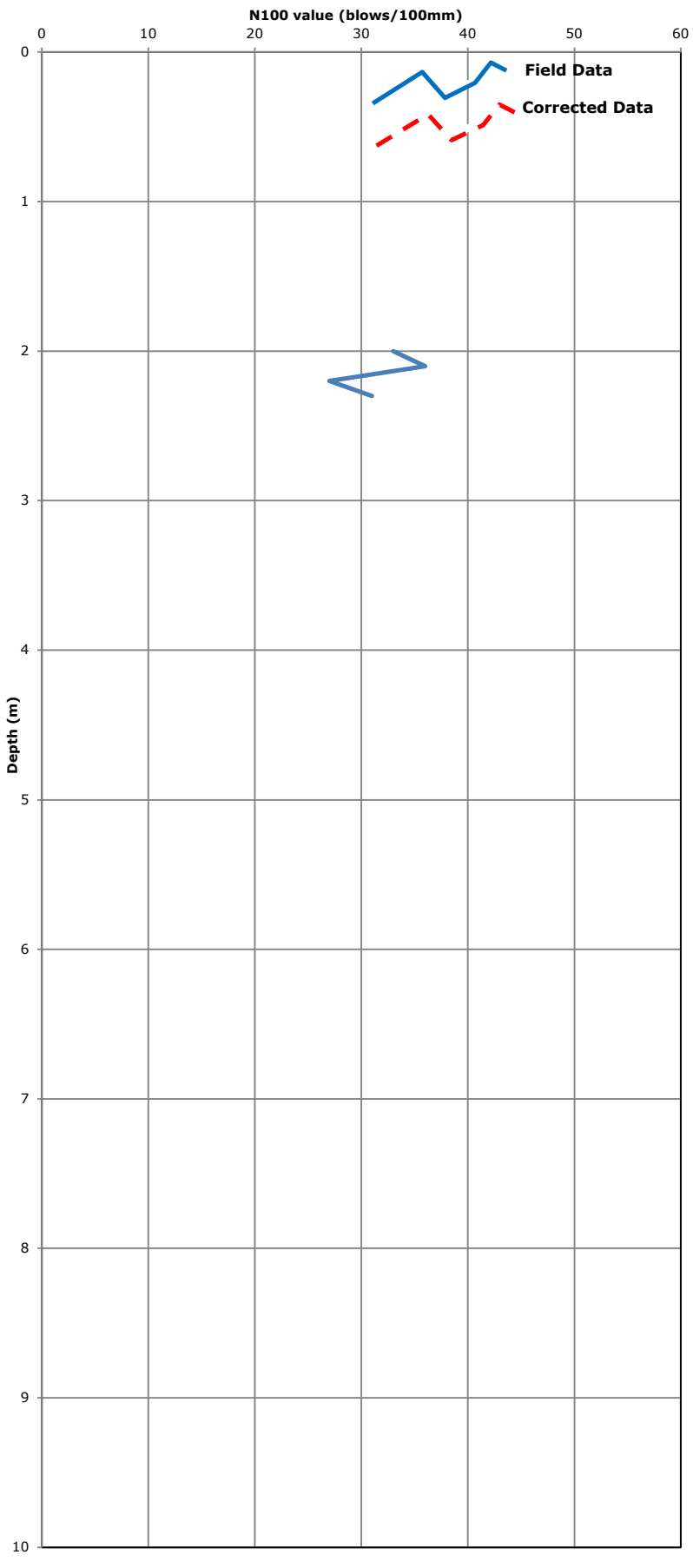
Probing by: SPG Site Investigation Ltd			Remarks: N100 values adjusted according to Butcher et al. 1995
Equipment: DPSH-B	Hammer weight (kg): 63.5	Date: 21 Jul 25	
Cone area (cm2): 20	Hammer drop (mm): 750	Rod dia (mm) 35	

Soil Consultants

Site & Location	**Sonning Golf Club (Housing)** **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**			DP No:	**DP03**
Client:	**Sonning Golf Club Ltd**	Co-ords (E-N):	476383 174749	Sheet No:	1 of 1
Eng:	**Aventus Design Ltd**	Ground level (mOD):	54.61	Report No:	11043/CA

Dynamic probe record

Depth (m)	DP blows/100mm
0.50	
1.00	
1.50	
2.00	33
2.50	36 27 31
3.00	
3.50	
4.00	
4.50	
5.00	
5.50	
6.00	
6.50	
7.00	
7.50	
8.00	
8.50	
9.00	
9.50	
10.00	



Torque (Nm)
10

Probing by:	SPG Site Investigation Ltd			Remarks:	
Equipment:	DPSH-B	Hammer weight (kg):	63.5	Date:	22 Jul 25
Cone area (cm2):	20	Hammer drop (mm):	750	Rod dia (mm)	35

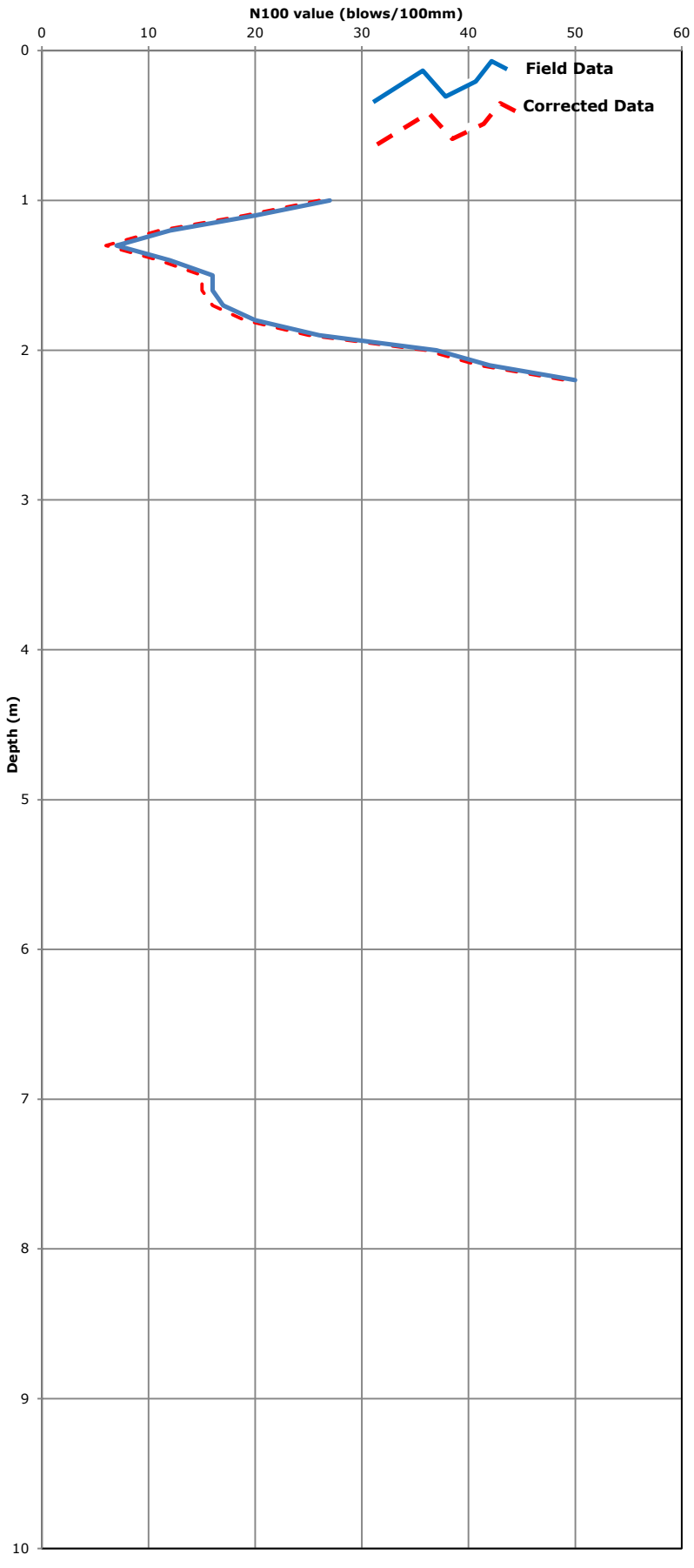
N100 values adjusted according to Butcher et al. 1995

Soil Consultants

Site & Location	**Sonning Golf Club (Housing)** **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**			DP No:	**DP04**
Client:	**Sonning Golf Club Ltd**	Co-ords (E-N):	476421 174785	Sheet No:	1 of 1
Eng:	**Aventus Design Ltd**	Ground level (mOD):	54.22	Report No:	11043a/CA

Dynamic probe record

Depth (m)	DP blows/100mm	Torque (Nm)
0.50		
1.00	27	
	20	
	12	
	7	
1.50	12	
	16	
	16	
	17	
	20	
2.00	26	50
	37	
	42	50
	50	
2.50		
3.00		
3.50		
4.00		
4.50		
5.00		
5.50		
6.00		
6.50		
7.00		
7.50		
8.00		
8.50		
9.00		
9.50		
10.00		



Probing by:	SPG Site Investigation Ltd			Remarks:	
Equipment:	DPSH-B	Hammer weight (kg):	63.5	Date:	22 Jul 25
Cone area (cm2):	20	Hammer drop (mm):	750	Rod dia (mm)	35

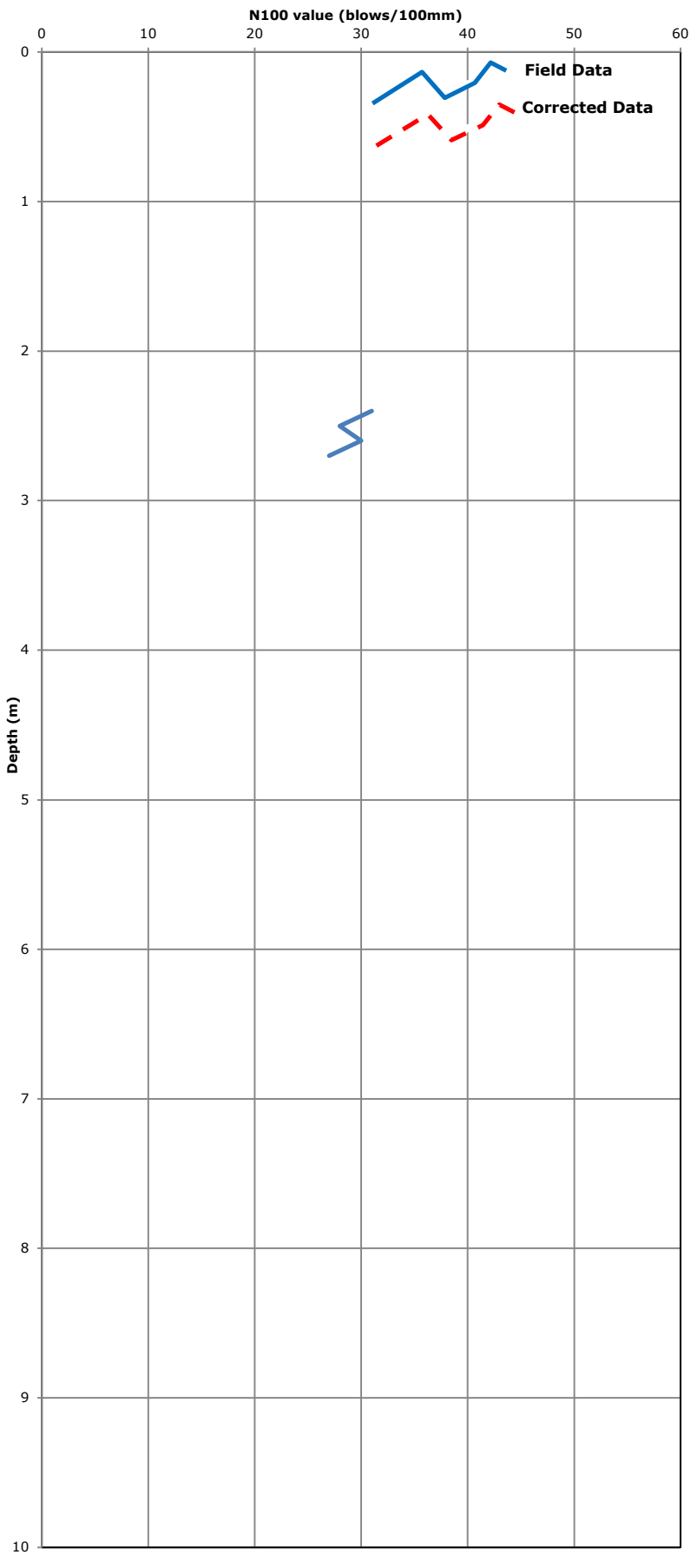
N100 values adjusted according to Butcher et al. 1995

Soil Consultants

Site & Location	**Sonning Golf Club (Housing)** **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**			DP No:	**DP05**
Client:	**Sonning Golf Club Ltd**	Co-ords (E-N):	476463 174763	Sheet No:	1 of 1
Eng:	**Aventus Design Ltd**	Ground level (mOD):	53.84	Report No:	11043a/CA

Dynamic probe record

Depth (m)	DP blows/100mm
2.50	28
	30
	27
	31



Torque (Nm)
10

Probing by:	SPG Site Investigation Ltd			Remarks:	
Equipment:	DPSH-B	Hammer weight (kg):	63.5	Date:	21 Jul 25
Cone area (cm2):	20	Hammer drop (mm):	750	Rod dia (mm)	35

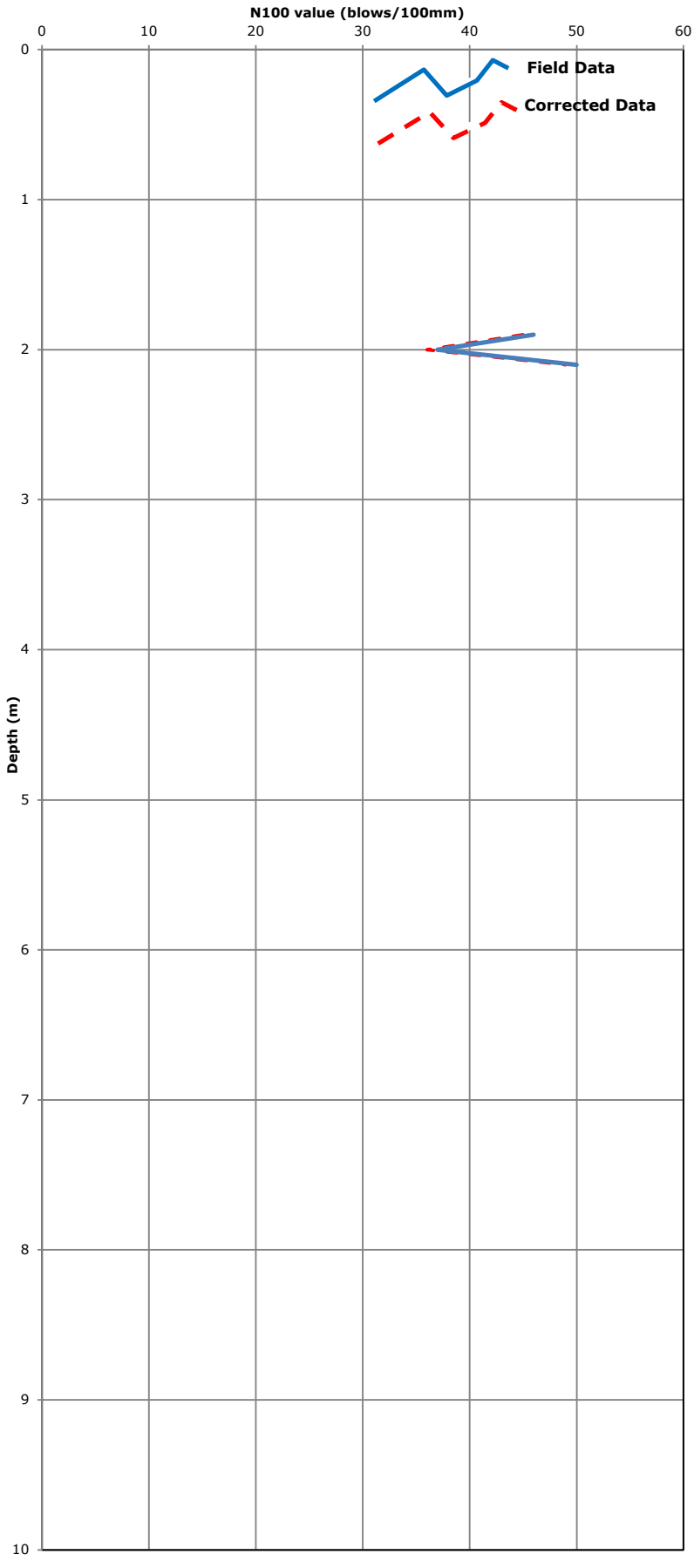
N100 values adjusted according to Butcher et al. 1995

Soil Consultants

Site & Location	**Sonning Golf Club (Housing)** **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**			DP No:	**DP06**
Client:	**Sonning Golf Club Ltd**	Co-ords (E-N):	476477 174795	Sheet No:	1 of 1
Eng:	**Aventus Design Ltd**	Ground level (mOD):	53.80	Report No:	11043a/CA

Dynamic probe record

Depth (m)	DP blows/100mm	Torque (Nm)
0.50		
1.00		
1.50		
2.00	50 46 37	50
2.50		
3.00		
3.50		
4.00		
4.50		
5.00		
5.50		
6.00		
6.50		
7.00		
7.50		
8.00		
8.50		
9.00		
9.50		
10.00		



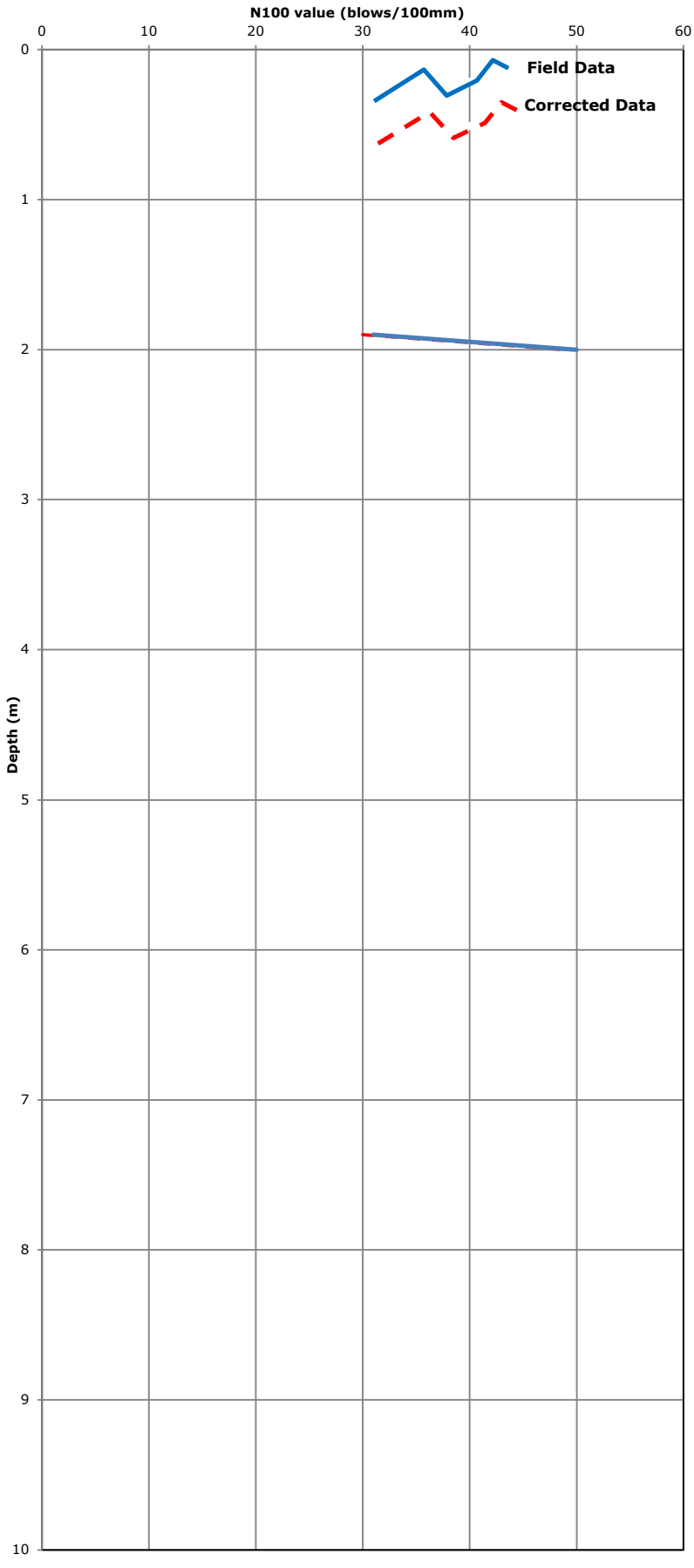
Probing by:	SPG Site Investigation Ltd			Remarks:
Equipment:	DPSH-B	Hammer weight (kg): 63.5	Date: 22 Jul 25	N100 values adjusted according to Butcher et al. 1995
Cone area (cm2):	20	Hammer drop (mm): 750	Rod dia (mm) 35	

Soil Consultants

Site & Location	**Sonning Golf Club (Housing)** **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**			DP No:	**DP07**
Client:	**Sonning Golf Club Ltd**	Co-ords (E-N):	476495 174793	Sheet No:	1 of 1
Eng:	**Aventus Design Ltd**	Ground level (mOD):	53.87	Report No:	11043a/CA

Dynamic probe record

Depth (m)	DP blows/100mm	Torque (Nm)
0.50		
1.00		
1.50		
2.00	31 50	50
2.50		
3.00		
3.50		
4.00		
4.50		
5.00		
5.50		
6.00		
6.50		
7.00		
7.50		
8.00		
8.50		
9.00		
9.50		
10.00		



Probing by:	SPG Site Investigation Ltd			Remarks:	
Equipment:	DPSH-B	Hammer weight (kg):	63.5	Date:	22 Jul 25
Cone area (cm2):	20	Hammer drop (mm):	750	Rod dia (mm)	35

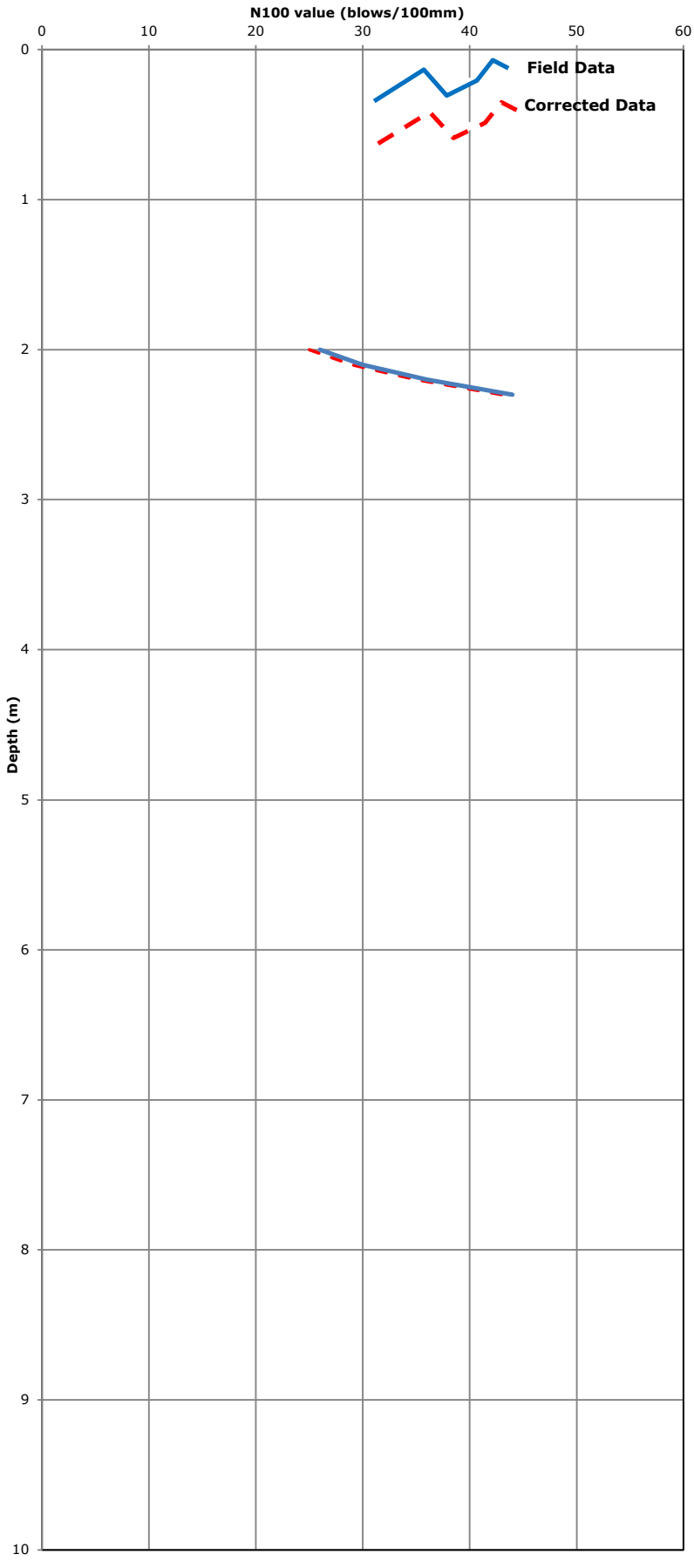
N100 values adjusted according to Butcher et al. 1995

Soil Consultants

Site & Location	**Sonning Golf Club (Housing)** **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**			DP No:	**DP08**
Client:	**Sonning Golf Club Ltd**	Co-ords (E-N):	476457 174819	Sheet No:	1 of 1
Eng:	**Aventus Design Ltd**	Ground level (mOD):	54.64	Report No:	11043a/CA

Dynamic probe record

Depth (m)	DP blows/100mm	Torque (Nm)
0.50		
1.00		
1.50		
2.00	26	
2.50	30	50
3.00	36	
3.50	50	
4.00		
4.50		
5.00		
5.50		
6.00		
6.50		
7.00		
7.50		
8.00		
8.50		
9.00		
9.50		
10.00		



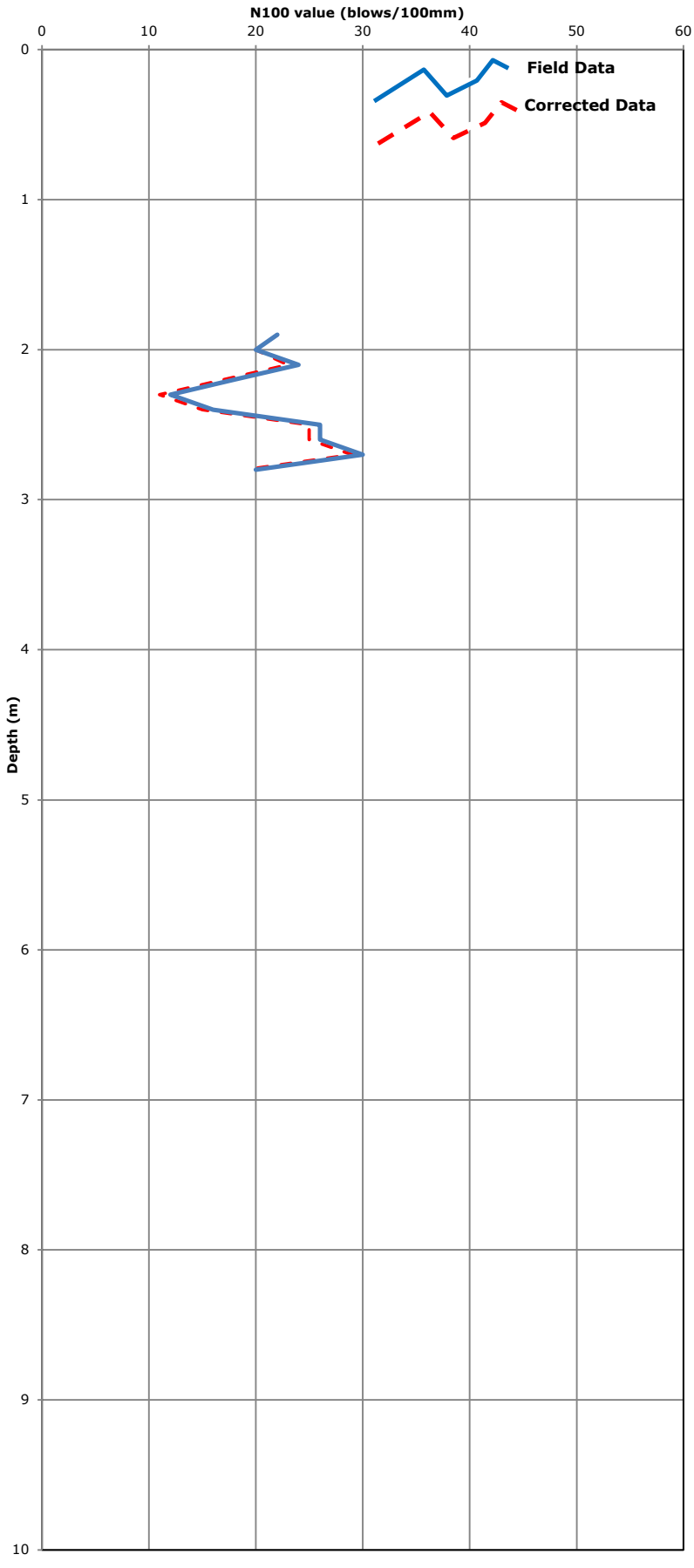
Probing by:	SPG Site Investigation Ltd			Remarks:
Equipment:	DPSH-B	Hammer weight (kg): 63.5	Date: 22 Jul 25	N100 values adjusted according to Butcher et al. 1995
Cone area (cm2):	20	Hammer drop (mm): 750	Rod dia (mm) 35	

Soil Consultants

Site & Location	**Sonning Golf Club (Housing)** **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**			DP No:	**DP09**
Client:	**Sonning Golf Club Ltd**	Co-ords (E-N):	476481 174846	Sheet No:	1 of 1
Eng:	**Aventus Design Ltd**	Ground level (mOD):	54.27	Report No:	11043a/CA

Dynamic probe record

Depth (m)	DP blows/100mm	Torque (Nm)
0.50		
1.00		
1.50		
2.00	20 24 18 12 22	20
2.50	26 26 30 20 16	50
3.00		
3.50		
4.00		
4.50		
5.00		
5.50		
6.00		
6.50		
7.00		
7.50		
8.00		
8.50		
9.00		
9.50		
10.00		



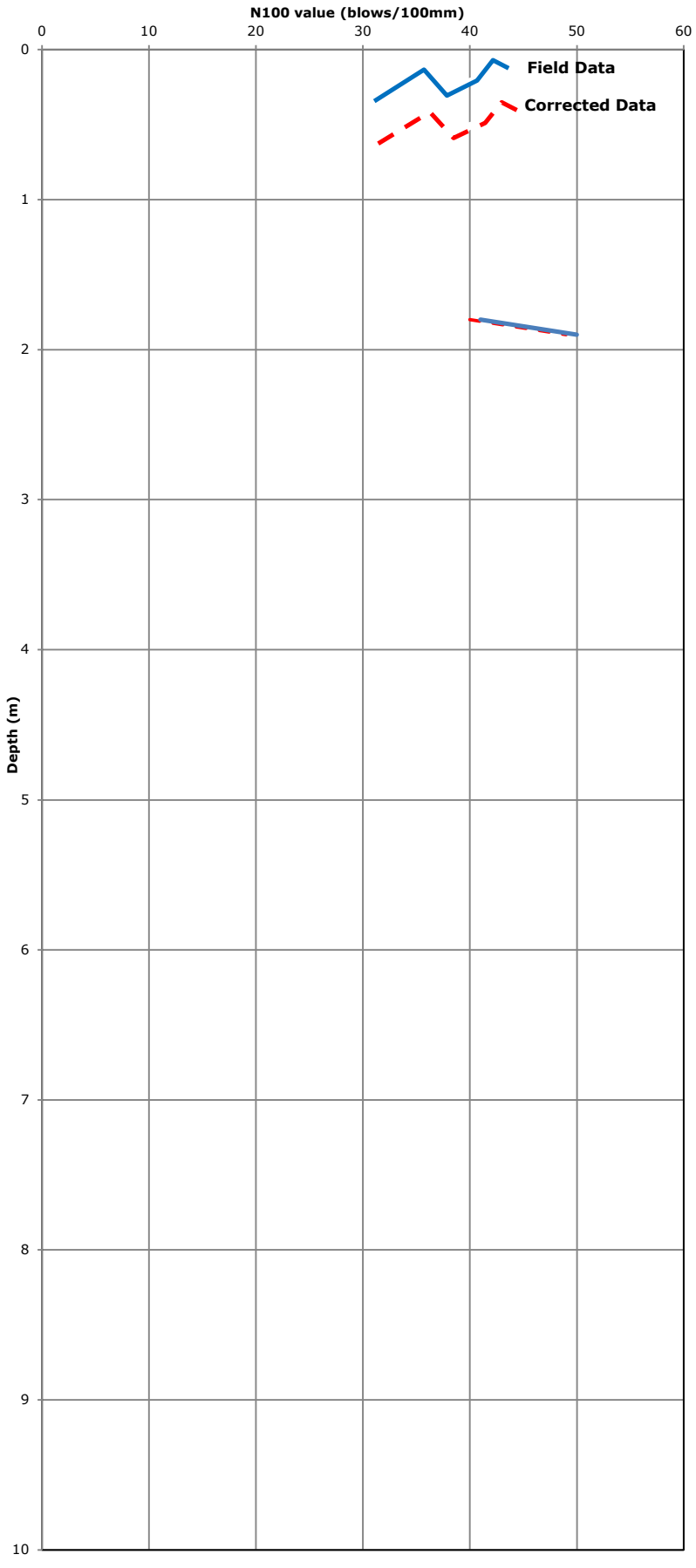
Probing by:	SPG Site Investigation Ltd			Remarks: N100 values adjusted according to Butcher et al. 1995
Equipment:	DPSH-B	Hammer weight (kg): 63.5	Date: 22 Jul 25	
Cone area (cm2):	20	Hammer drop (mm): 750	Rod dia (mm) 35	

Soil Consultants

Site & Location	**Sonning Golf Club (Housing)** **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**			DP No:	**DP10**
Client:	**Sonning Golf Club Ltd**	Co-ords (E-N):	476514 174827	Sheet No:	1 of 1
Eng:	**Aventus Design Ltd**	Ground level (mOD):	53.91	Report No:	11043/CA

Dynamic probe record

Depth (m)	DP blows/100mm	Torque (Nm)
0.50		
1.00		
1.50		
2.00	41 50	50
2.50		
3.00		
3.50		
4.00		
4.50		
5.00		
5.50		
6.00		
6.50		
7.00		
7.50		
8.00		
8.50		
9.00		
9.50		
10.00		



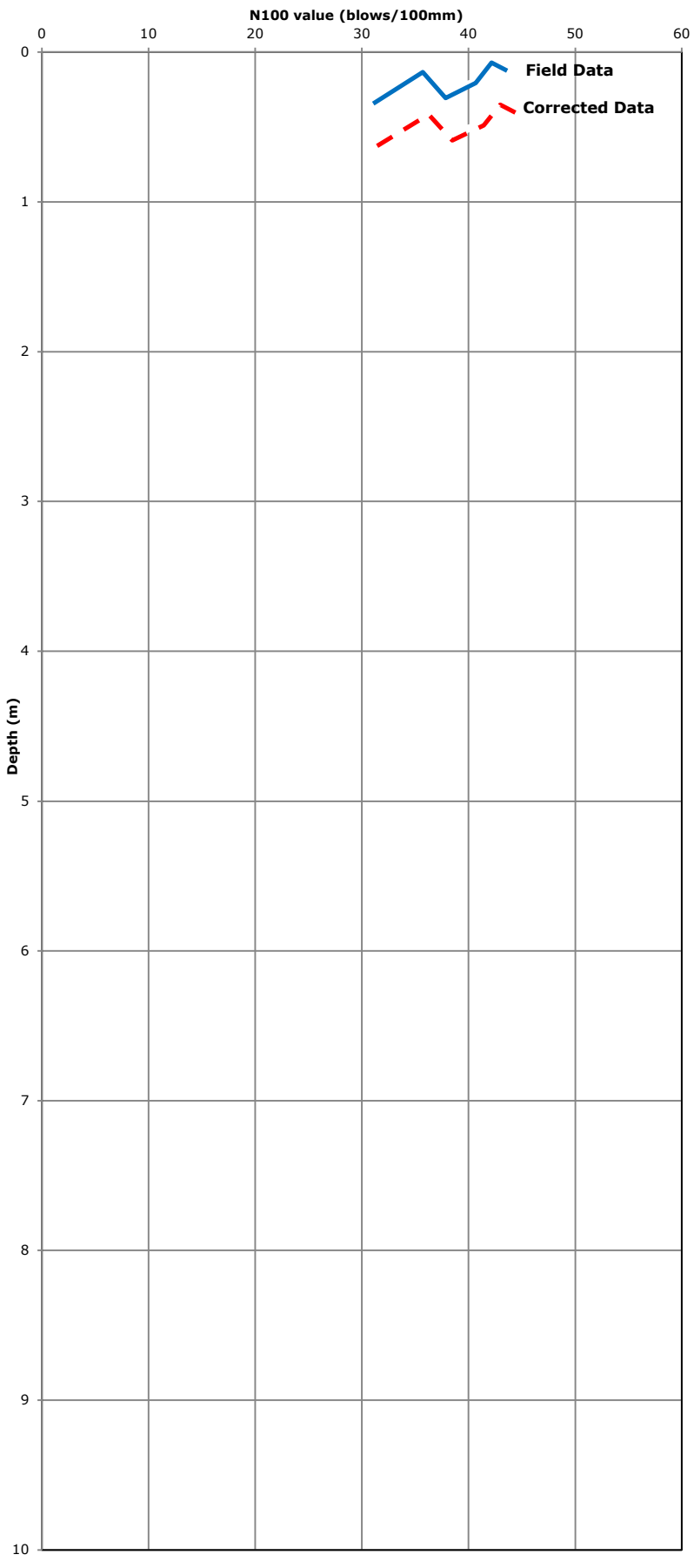
Probing by:	SPG Site Investigation Ltd			Remarks:
Equipment:	DPSH-B	Hammer weight (kg): 63.5	Date: 22 Jul 25	N100 values adjusted according to Butcher et al. 1995
Cone area (cm2):	20	Hammer drop (mm): 750	Rod dia (mm) 35	

Soil Consultants

Site & Location	**Sonning Golf Club (Housing)** **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**			DP No:	**DP11**
Client:	**Sonning Golf Club Ltd**	Co-ords (E-N):	476494 174862	Sheet No:	1 of 1
Eng:	**Aventus Design Ltd**	Ground level (mOD):	54.26	Report No:	11043a/CA

Dynamic probe record

Depth (m)	DP blows/100mm	Torque (Nm)
0.50		
1.00	50	50
1.50		
2.00		
2.50		
3.00		
3.50		
4.00		
4.50		
5.00		
5.50		
6.00		
6.50		
7.00		
7.50		
8.00		
8.50		
9.00		
9.50		
10.00		



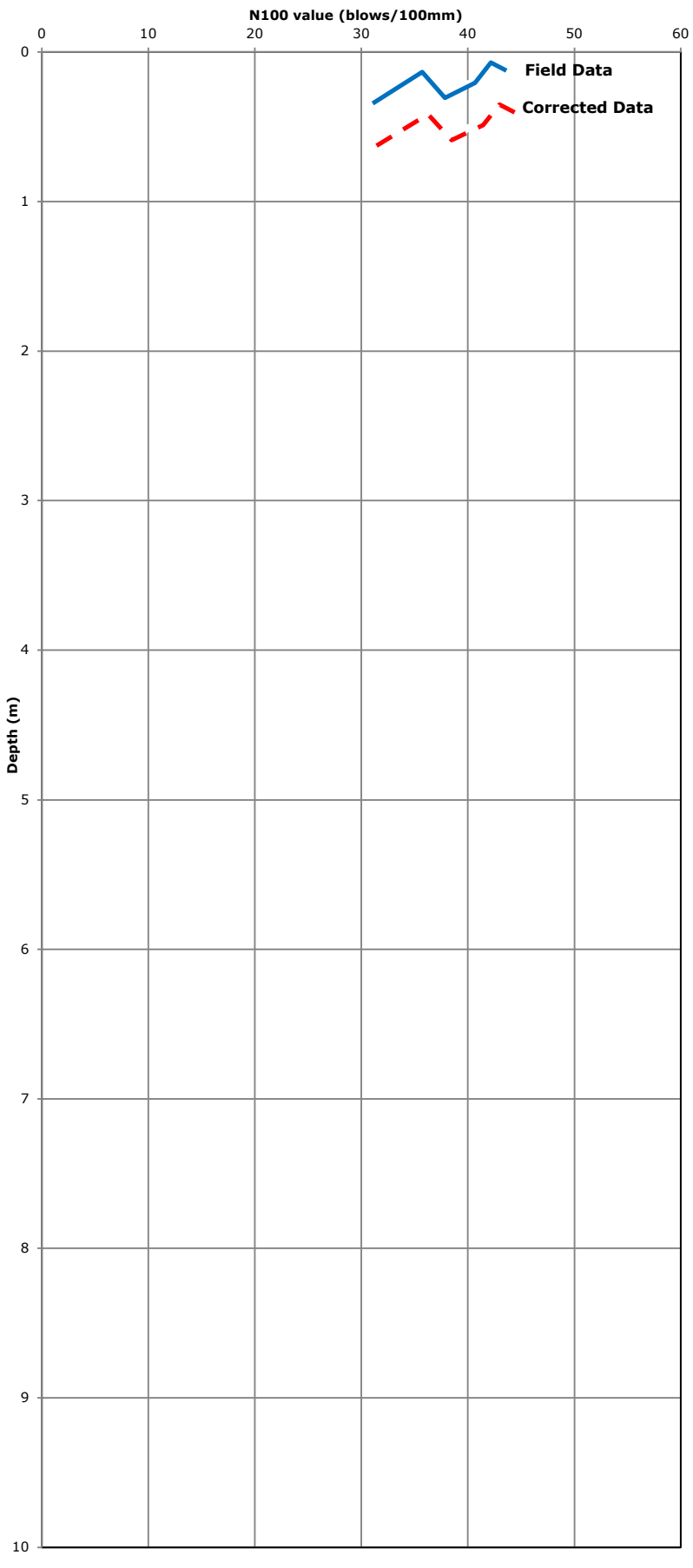
Probing by:	SPG Site Investigation Ltd			Remarks:
Equipment:	DPSH-B	Hammer weight (kg): 63.5	Date: 22 Jul 25	N100 values adjusted according to Butcher et al. 1995
Cone area (cm2):	20	Hammer drop (mm): 750	Rod dia (mm) 35	

Soil Consultants

Site & Location	**Sonning Golf Club (Housing)** **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**			DP No:	**DP12**
Client:	**Sonning Golf Club Ltd**	Co-ords (E-N):	476538 174855	Sheet No:	1 of 1
Eng:	**Aventus Design Ltd**	Ground level (mOD):	53.88	Report No:	11043/CA

Dynamic probe record

Depth (m)	DP blows/100mm	Torque (Nm)
0.50		
1.00	50	50
1.50		
2.00		
2.50		
3.00		
3.50		
4.00		
4.50		
5.00		
5.50		
6.00		
6.50		
7.00		
7.50		
8.00		
8.50		
9.00		
9.50		
10.00		



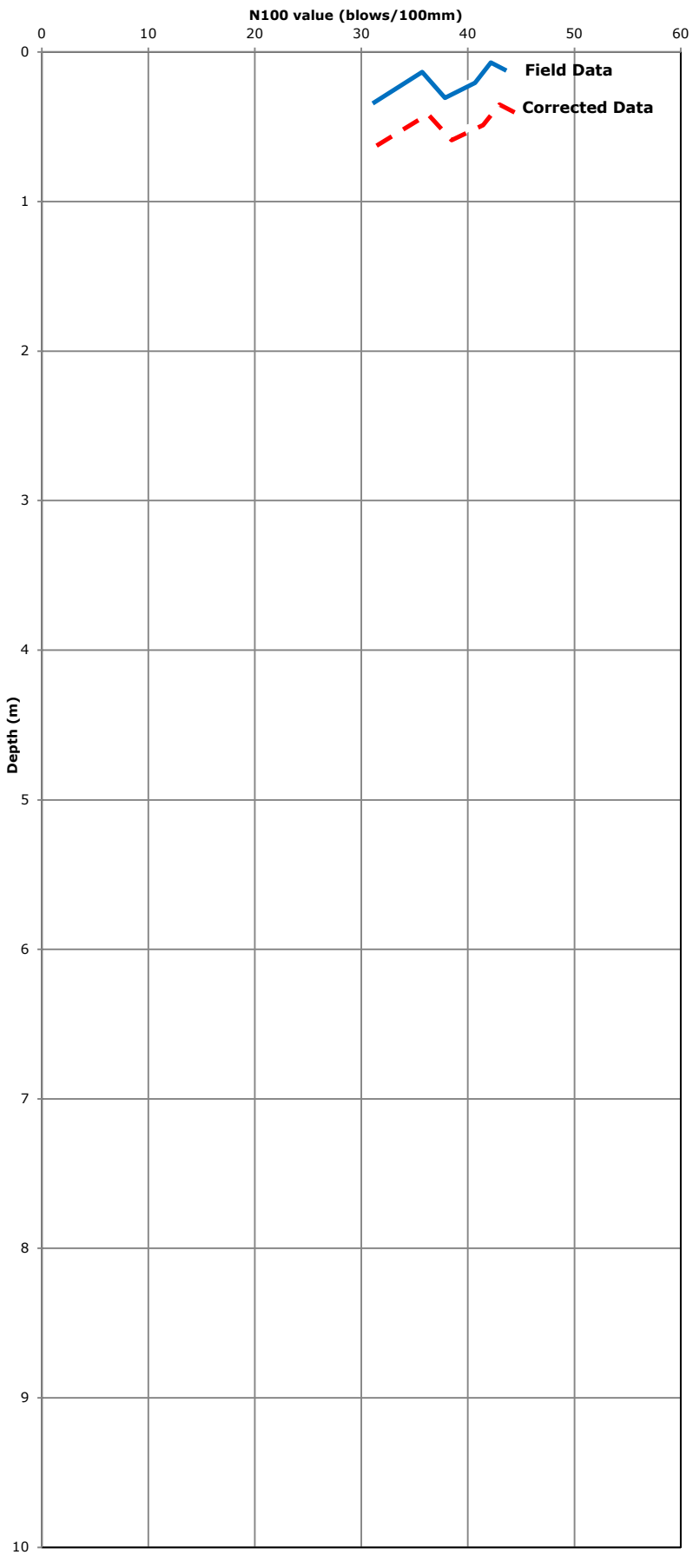
Probing by:	SPG Site Investigation Ltd			Remarks:
Equipment:	DPSH-B	Hammer weight (kg): 63.5	Date: 23 Jul 25	N100 values adjusted according to Butcher et al. 1995
Cone area (cm2):	20	Hammer drop (mm): 750	Rod dia (mm) 35	

Soil Consultants

Site & Location	**Sonning Golf Club (Housing)** **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**			DP No:	**DP13**
Client:	**Sonning Golf Club Ltd**	Co-ords (E-N):	476528 174896	Sheet No:	1 of 1
Eng:	**Aventus Design Ltd**	Ground level (mOD):	54.17	Report No:	11043/CA

Dynamic probe record

Depth (m)	DP blows/100mm	Torque (Nm)
0.50	50	50
1.00		
1.50		
2.00		
2.50		
3.00		
3.50		
4.00		
4.50		
5.00		
5.50		
6.00		
6.50		
7.00		
7.50		
8.00		
8.50		
9.00		
9.50		
10.00		



Probing by:	SPG Site Investigation Ltd			Remarks:	
Equipment:	DPSH-B	Hammer weight (kg):	63.5	Date:	22 Jul 25
Cone area (cm2):	20	Hammer drop (mm):	750	Rod dia (mm)	35

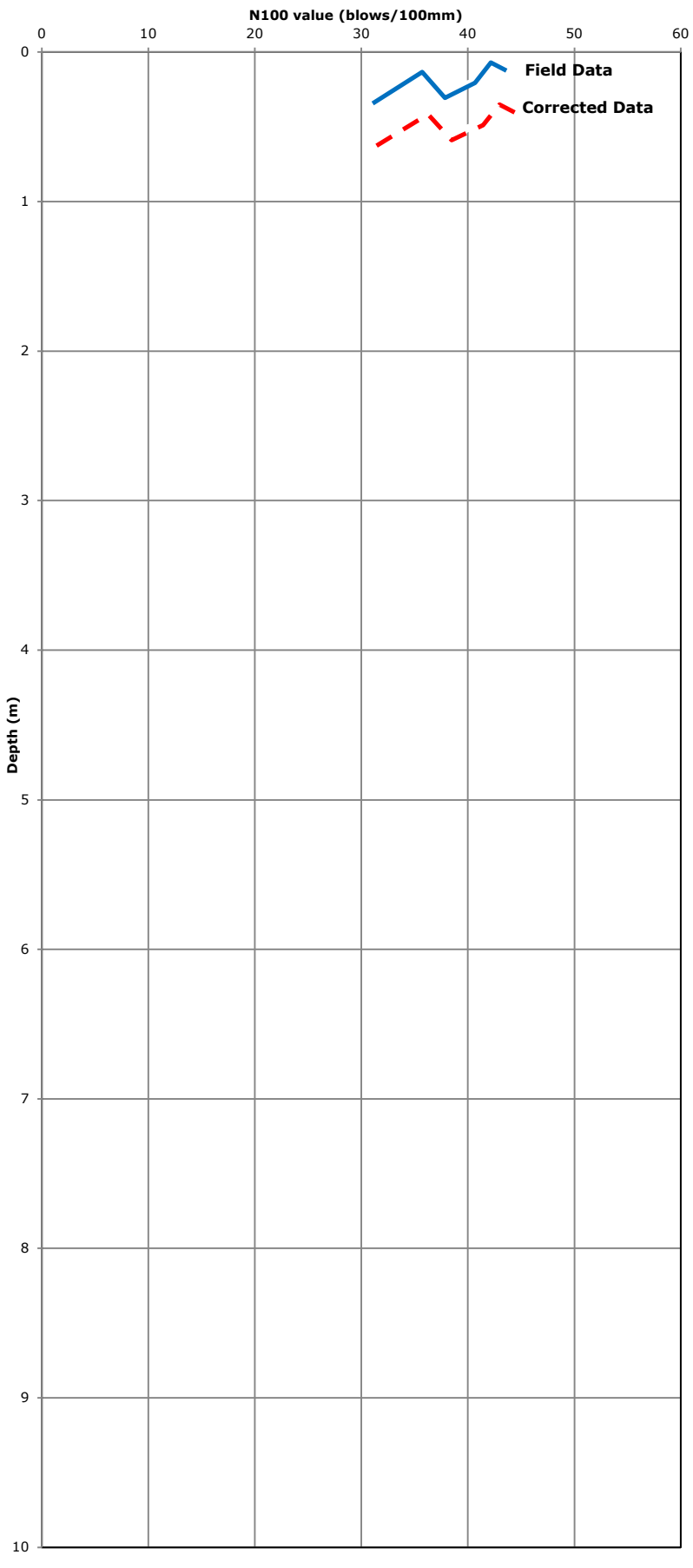
N100 values adjusted according to Butcher et al. 1995

Soil Consultants

Site & Location	**Sonning Golf Club (Housing)** **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**			DP No:	**DP14**
Client:	**Sonning Golf Club Ltd**	Co-ords (E-N):	476542 174880	Sheet No:	1 of 1
Eng:	**Aventus Design Ltd**	Ground level (mOD):	53.90	Report No:	11043/CA

Dynamic probe record

Depth (m)	DP blows/100mm	Torque (Nm)
0.50	50	50
1.00		
1.50		
2.00		
2.50		
3.00		
3.50		
4.00		
4.50		
5.00		
5.50		
6.00		
6.50		
7.00		
7.50		
8.00		
8.50		
9.00		
9.50		
10.00		



Probing by:	SPG Site Investigation Ltd			Remarks:	
Equipment:	DPSH-B	Hammer weight (kg):	63.5	Date:	23 Jul 25
Cone area (cm2):	20	Hammer drop (mm):	750	Rod dia (mm)	35

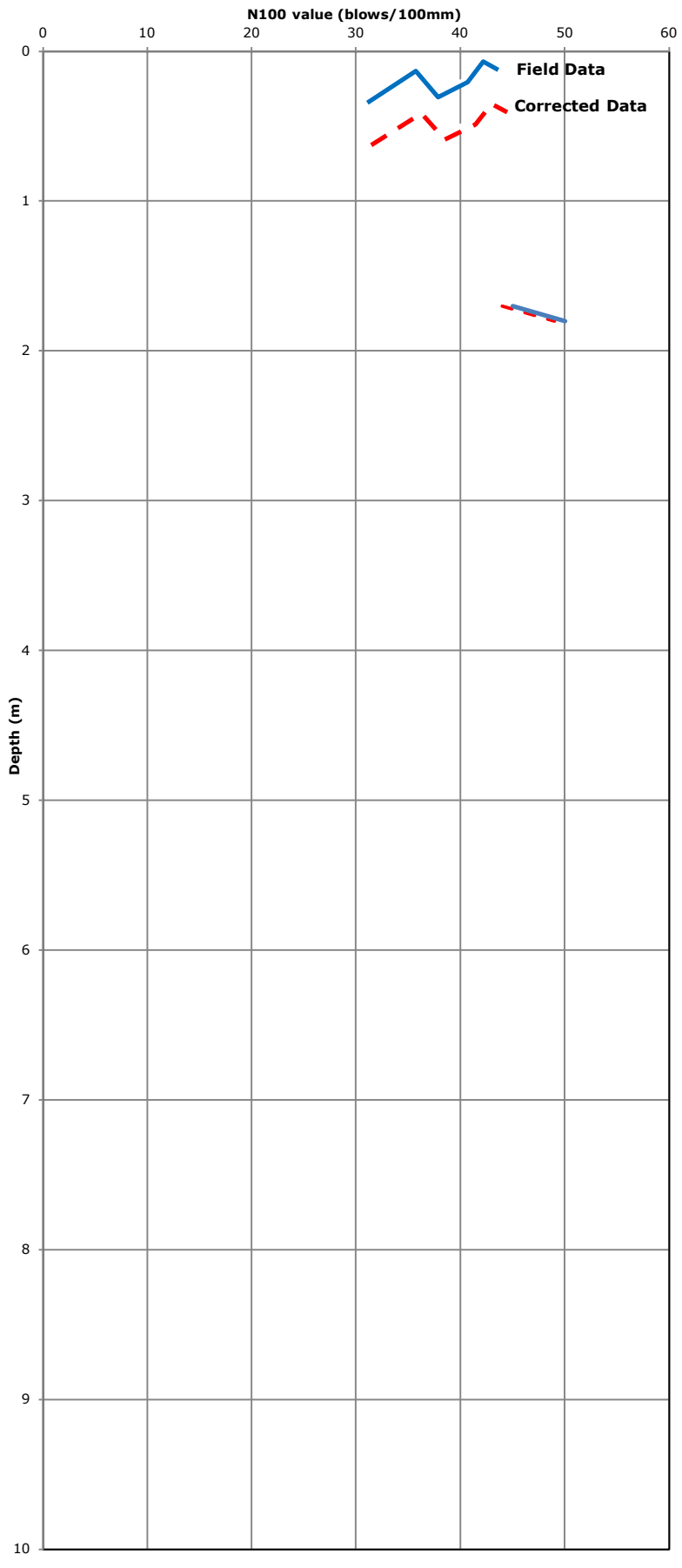
N100 values adjusted according to Butcher et al. 1995

Soil Consultants

Site & Location	**Sonning Golf Club (Housing)** **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**			DP No:	**DP15**
Client:	**Sonning Golf Club Ltd**	Co-ords (E-N):	476568 174881	Sheet No:	1 of 1
Eng:	**Aventus Design Ltd**	Ground level (mOD)	53.70	Report No:	11043/CA

Dynamic probe record

Depth (m)	DP blows/100mm	Torque (Nm)
0.00		
0.50		
1.00		
1.50	45	
2.00	50	50
2.50		
3.00		
3.50		
4.00		
4.50		
5.00		
5.50		
6.00		
6.50		
7.00		
7.50		
8.00		
8.50		
9.00		
9.50		
10.00		



Probing by:	SPG Site Investigation Ltd			Remarks:
Equipment:	DPSH-B	Hammer weight (kg): 63.5	Date: 23 Jul 25	N100 values adjusted according to Butcher et al. 1995
Cone area (cm2):	20	Hammer drop (mm): 750	Rod dia (mm) 35	

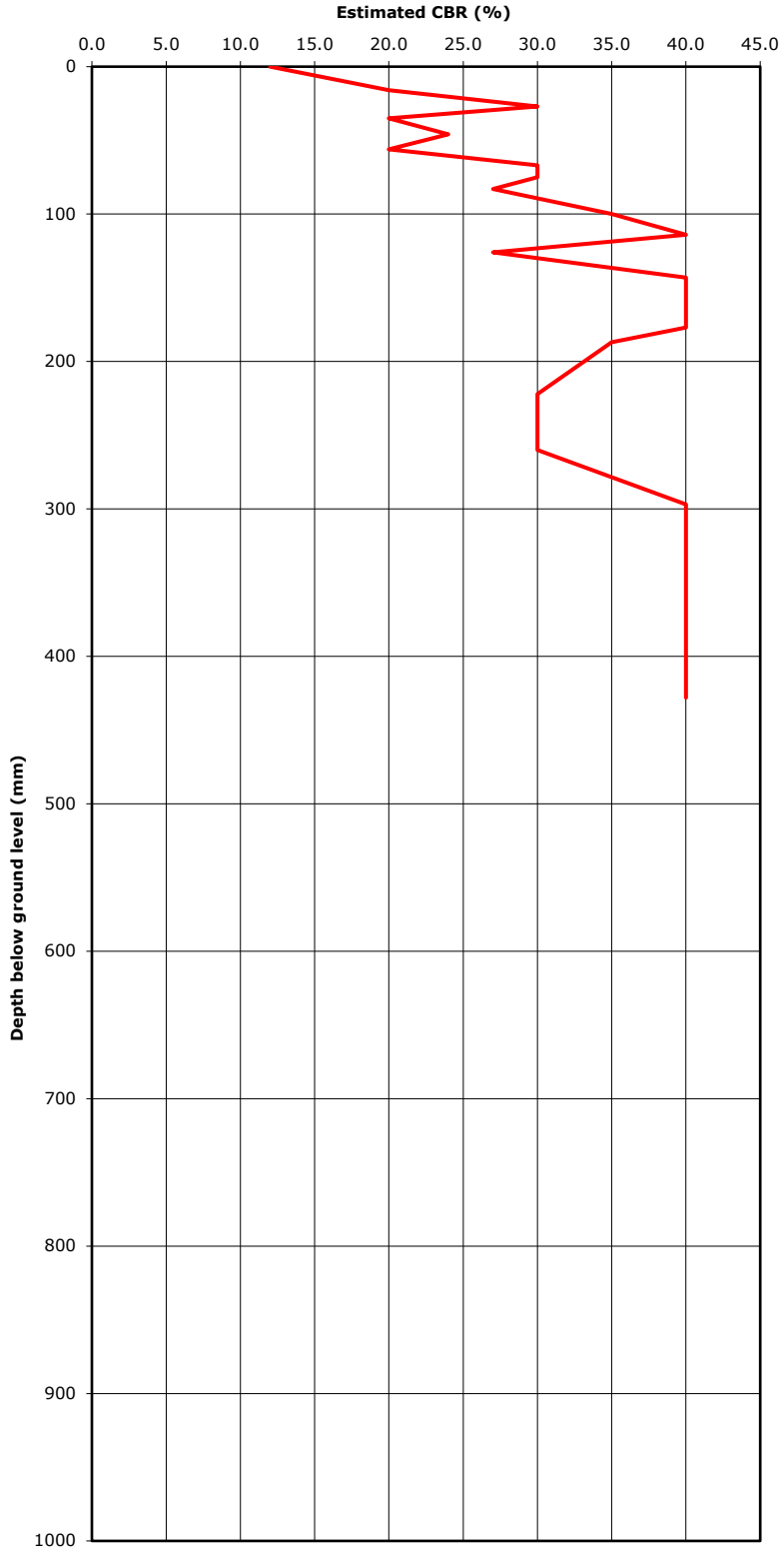
Soil Consultants

Site & Location	**Sonning Golf Club (Housing)** **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**	TRL Probe No: **TRL 01**
Client:	**Sonning Golf Club Ltd**	(Sheet 1 of 1)
Engineers:	**Aventus Design Ltd**	Report No: **11043a/CA**

TRL Dynamic Cone Penetration test result

Blow Count	Depth (mm)	mm per blow	CBR (%)
Commencement Depth	0	16	12.0
1	16	11	20.0
2	27	8	30.0
3	35	11	20.0
4	46	10	24.0
5	56	11	20.0
6	67	8	30.0
7	75	8	30.0
8	83	9	27.0
10	100	7	35.0
12	114	6	40.0
14	126	9	27.0
16	143	7	40.0
18	156	6	40.0
20	167	5	40.0
22	177	5	40.0
24	187	7	35.0
29	222	8	30.0
34	260	7	30.0
39	297	6	40.0
44	328	3	40.0
49	343	4	40.0
54	362	3	40.0
59	379	3	40.0
64	395	3	40.0
69	409	1	40.0
74	416	1	40.0
84	426	0	40.0
94	428	0	40.0
104	428	0	40.0

PLOT OF CBR VS DEPTH



Date of test: **18/08/25**

Note:
CBR value plots at top of the drive increment

Remarks:

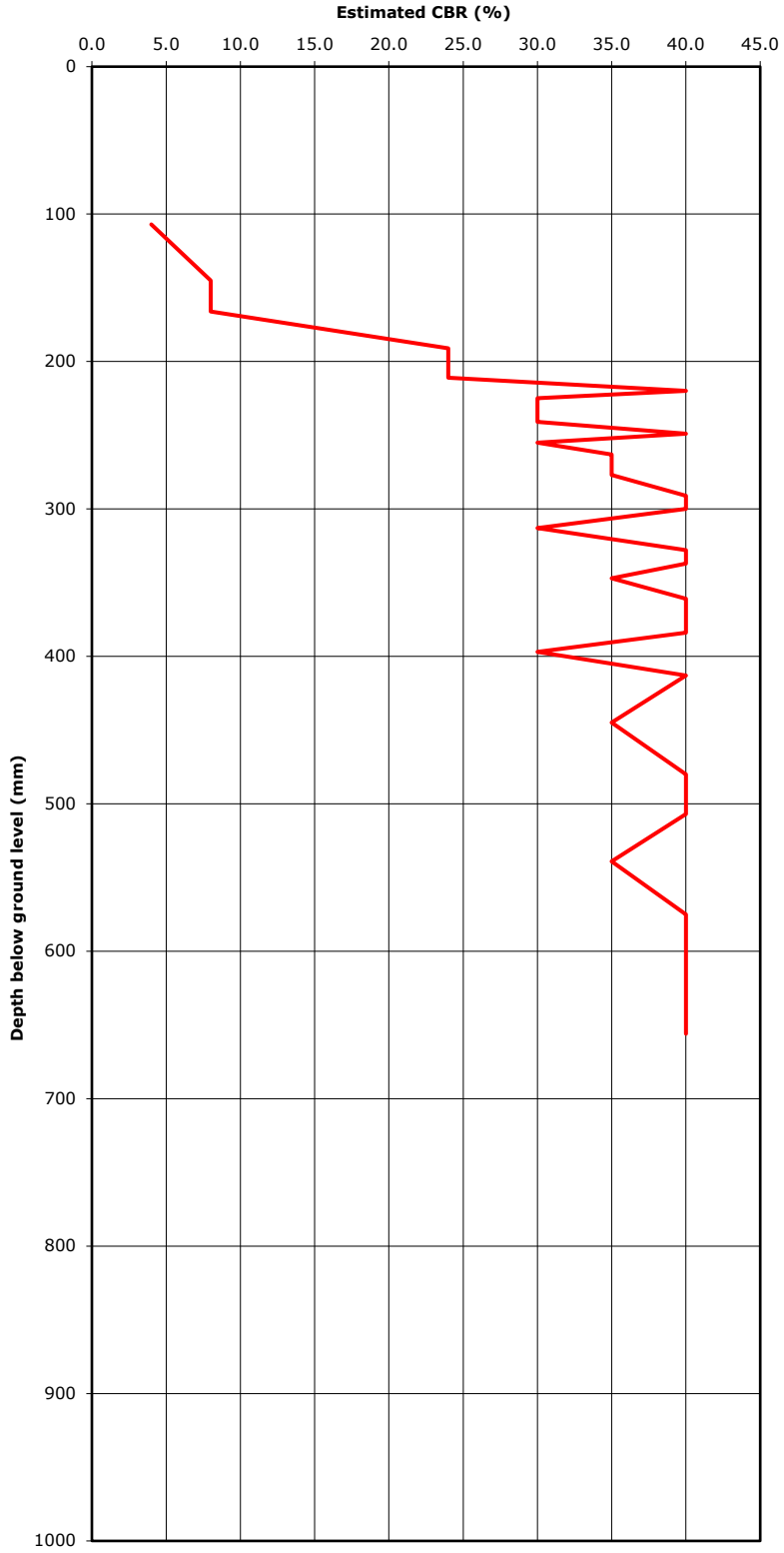
Soil Consultants

Site & Location	**Sonning Golf Club (Housing)** **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**	TRL Probe No:	**TRL 02**
Client:	**Sonning Golf Club Ltd**	(Sheet 1 of 1)	
Engineers:	**Aventus Design Ltd**	Report No:	**11043a/CA**

TRL Dynamic Cone Penetration test result

Blow Count	Depth (mm)	mm per blow	CBR (%)
Commencement Depth	107	38	4.0
1	145	21	8.0
2	166	25	8.0
3	191	10	24.0
4	201	10	24.0
5	211	9	24.0
6	220	5	40.0
7	225	8	30.0
8	233	8	30.0
9	241	8	30.0
10	249	6	40.0
11	255	8	30.0
12	263	7	35.0
13	270	7	35.0
14	277	7	35.0
16	291	5	40.0
18	300	7	40.0
20	313	8	30.0
22	328	5	40.0
24	337	5	40.0
26	347	7	35.0
28	361	7	40.0
30	374	5	40.0
32	384	7	40.0
34	397	8	30.0
36	413	6	40.0
41	445	7	35.0
46	480	5	40.0
51	507	6	40.0
56	539	7	35.0
61	575	6	40.0
66	607	3	40.0
71	624	1	40.0
76	630	1	40.0
86	643	0	40.0
96	646	1	40.0
116	656	0	40.0

PLOT OF CBR VS DEPTH



Date of test: **24/07/25**

Note:
CBR value plots at top of the drive increment

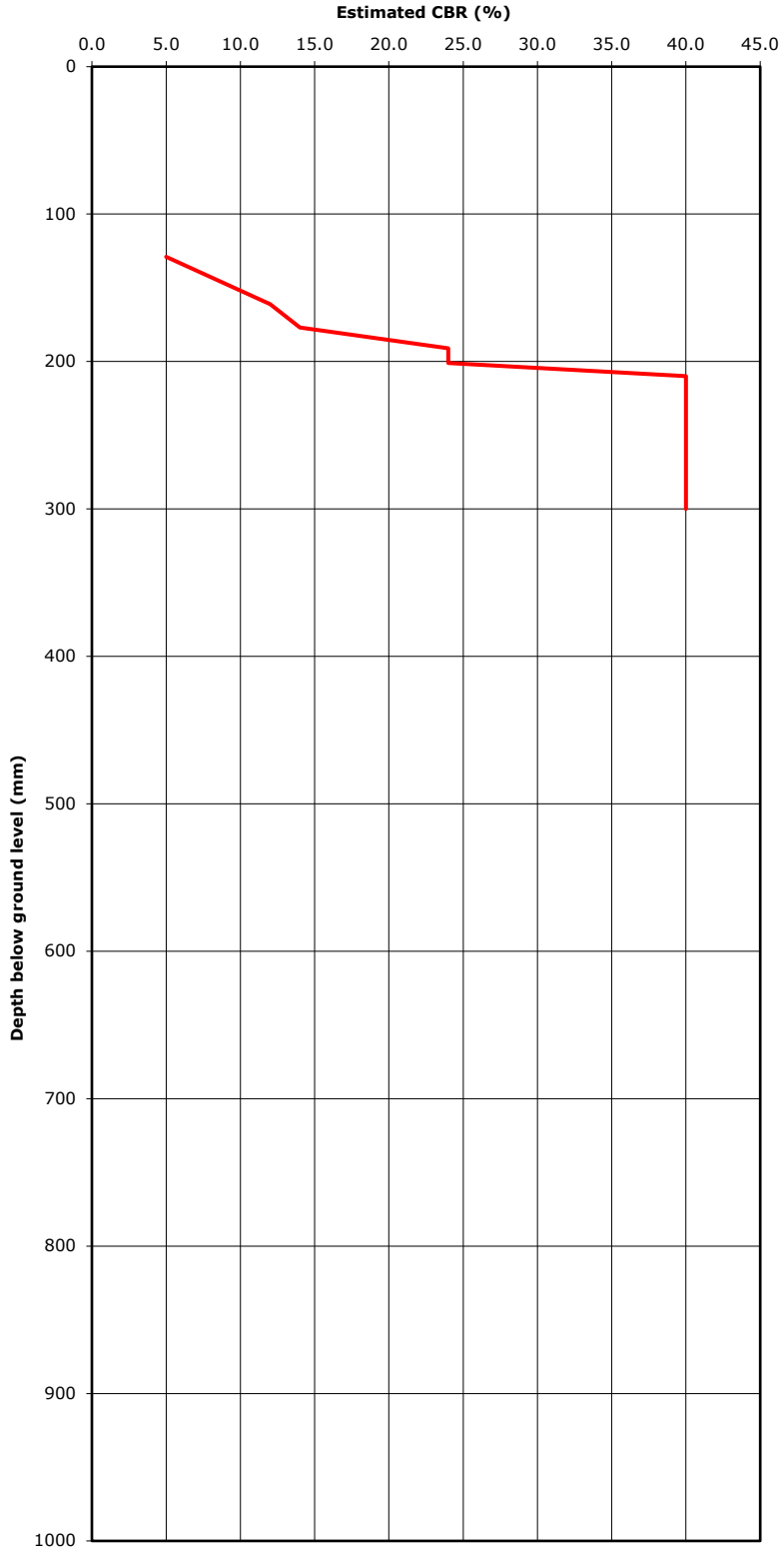
Remarks:

Site & Location	**Sonning Golf Club (Housing)** **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**	TRL Probe No:	**TRL 03**
Client:	**Sonning Golf Club Ltd**	(Sheet 1 of 1)	
Engineers:	**Aventus Design Ltd**	Report No:	**11043a/CA**

TRL Dynamic Cone Penetration test result

Blow Count	Depth (mm)	mm per blow	CBR (%)
Commencement Depth	129	32	5.0
1	161	16	12.0
2	177	14	14.0
3	191	10	24.0
4	201	9	24.0
5	210	7	40.0
7	223	6	40.0
9	235	3	40.0
11	240	5	40.0
13	250	2	40.0
18	262	3	40.0
23	279	2	40.0
33	300	3	40.0

PLOT OF CBR VS DEPTH



Date of test: **24/07/25**

Note:
CBR value plots at top of the drive increment

Remarks:

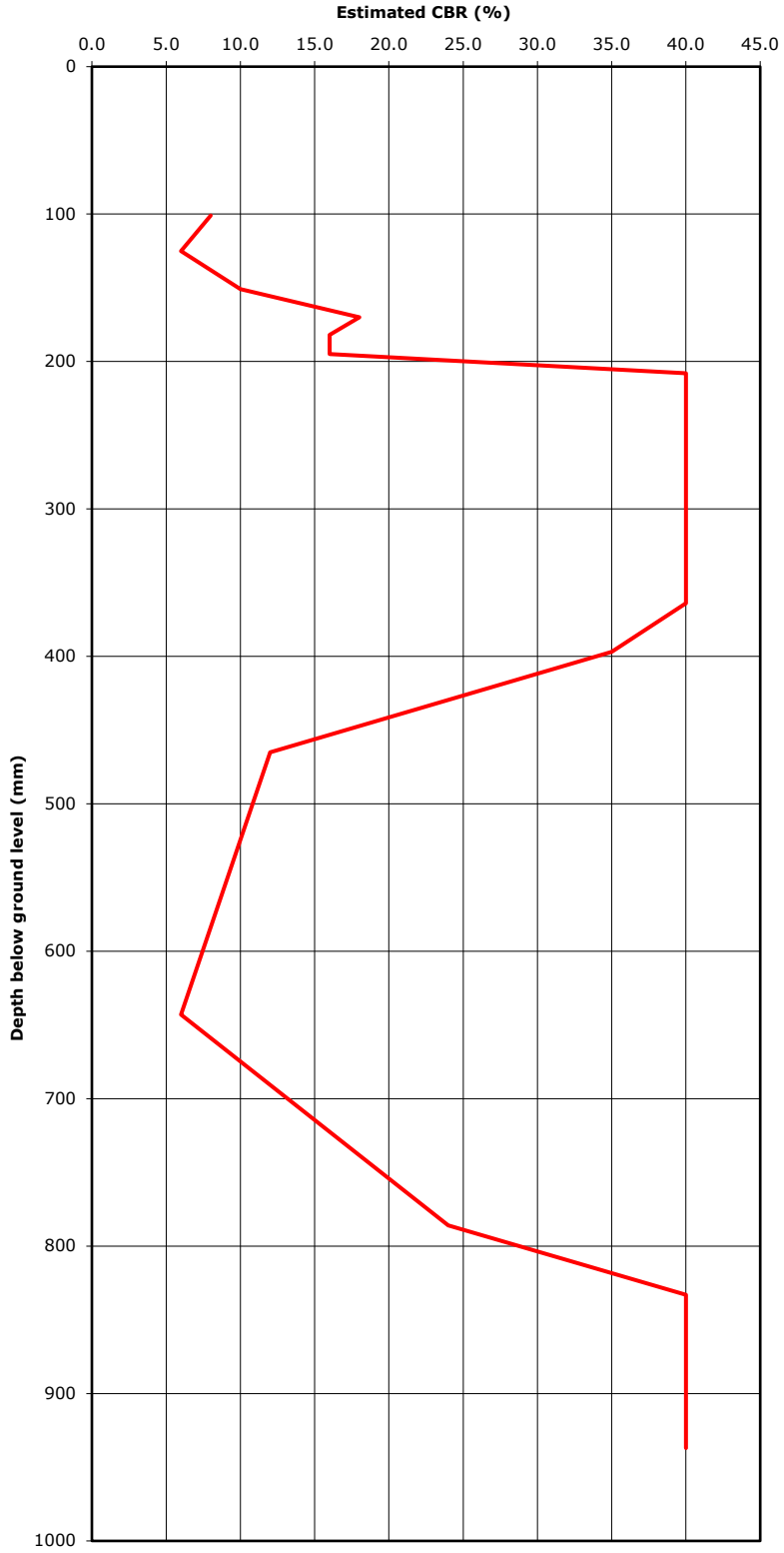
Soil Consultants

Site & Location	**Sonning Golf Club (Housing)** **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**	TRL Probe No:	**TRL 04**
Client:	**Sonning Golf Club Ltd**	(Sheet 1 of 1)	
Engineers:	**Aventus Design Ltd**	Report No:	**11043a/CA**

TRL Dynamic Cone Penetration test result

Blow Count	Depth (mm)	mm per blow	CBR (%)
Commencement Depth	101	24	8.0
1	125	26	6.0
2	151	19	10.0
3	170	12	18.0
4	182	13	16.0
5	195	13	16.0
6	208	6	40.0
7	214	5	40.0
8	219	3	40.0
13	235	2	40.0
18	245	2	40.0
28	262	3	40.0
38	287	2	40.0
48	304	2	40.0
58	320	2	40.0
68	336	3	40.0
78	364	3	40.0
88	397	7	35.0
98	465	18	12.0
108	643	29	6.0
113	786	9	24.0
118	833	5	40.0
123	858	4	40.0
128	877	4	40.0
133	899	4	40.0
138	917	2	40.0
148	937	2	40.0

PLOT OF CBR VS DEPTH



Date of test: **24/07/25**

Note:
CBR value plots at top of the drive increment

Remarks:

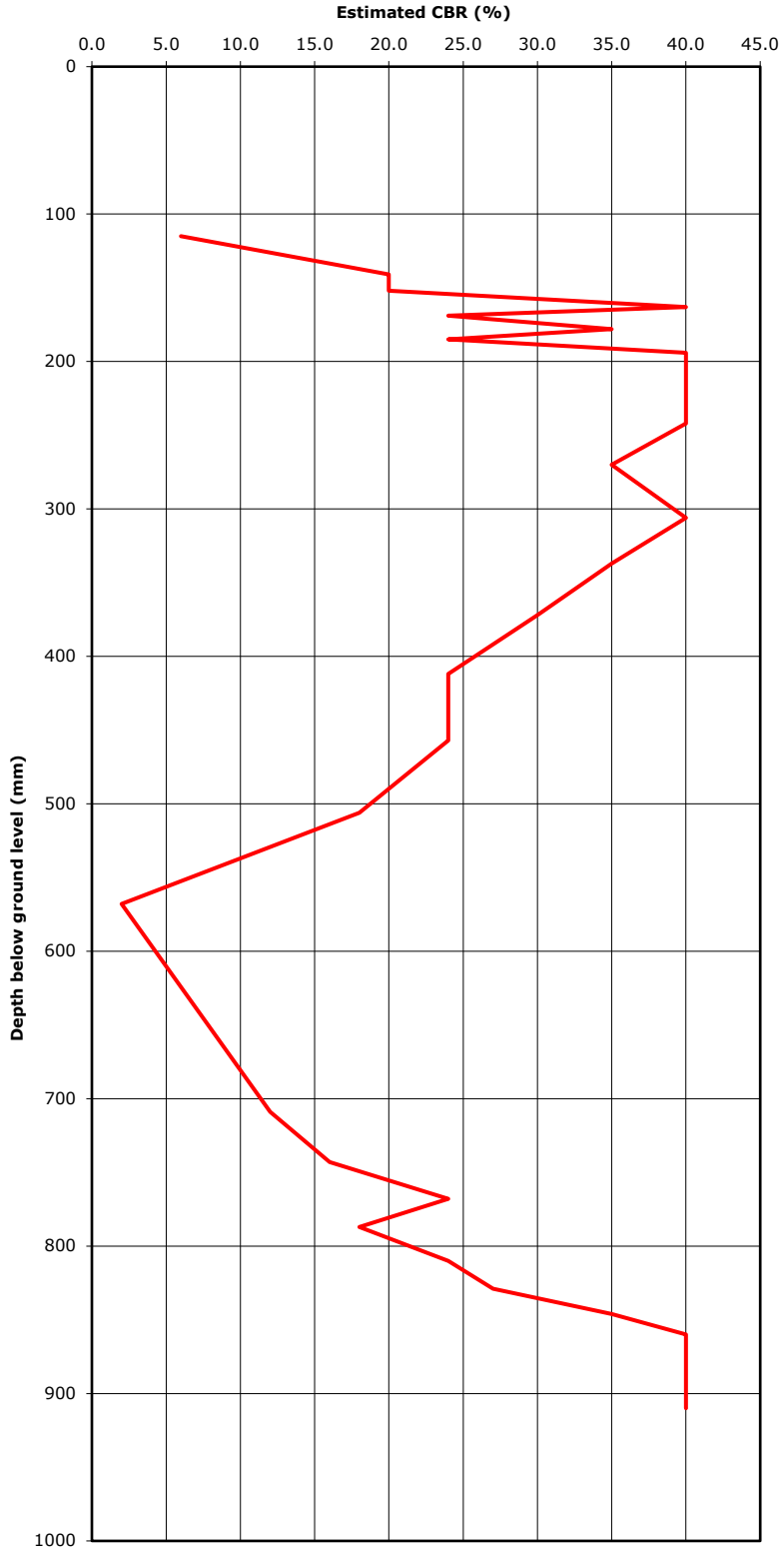
Soil Consultants

Site & Location	**Sonning Golf Club (Housing)** **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**	TRL Probe No: **TRL 05**
Client:	**Sonning Golf Club Ltd**	(Sheet 1 of 1)
Engineers:	**Aventus Design Ltd**	Report No: **11043a/CA**

TRL Dynamic Cone Penetration test result

Blow Count	Depth (mm)	mm per blow	CBR (%)
Commencement Depth	115	26	6.0
1	141	11	20.0
2	152	11	20.0
3	163	6	40.0
4	169	9	24.0
5	178	7	35.0
6	185	9	24.0
7	194	6	40.0
9	206	5	40.0
11	216	6	40.0
13	227	4	40.0
15	234	4	40.0
17	242	6	40.0
22	270	7	35.0
27	306	6	40.0
32	337	7	35.0
37	372	8	30.0
42	412	9	24.0
47	457	10	24.0
52	506	12	18.0
57	568	71	2.0
59	709	17	12.0
61	743	13	16.0
63	768	10	24.0
65	787	12	18.0
67	810	10	24.0
69	829	9	27.0
71	846	7	35.0
73	860	5	40.0
75	869	4	40.0
80	890	4	40.0
85	910	5	40.0

PLOT OF CBR VS DEPTH



Date of test: **24/07/25**

Note:
CBR value plots at top of the drive increment

Remarks:

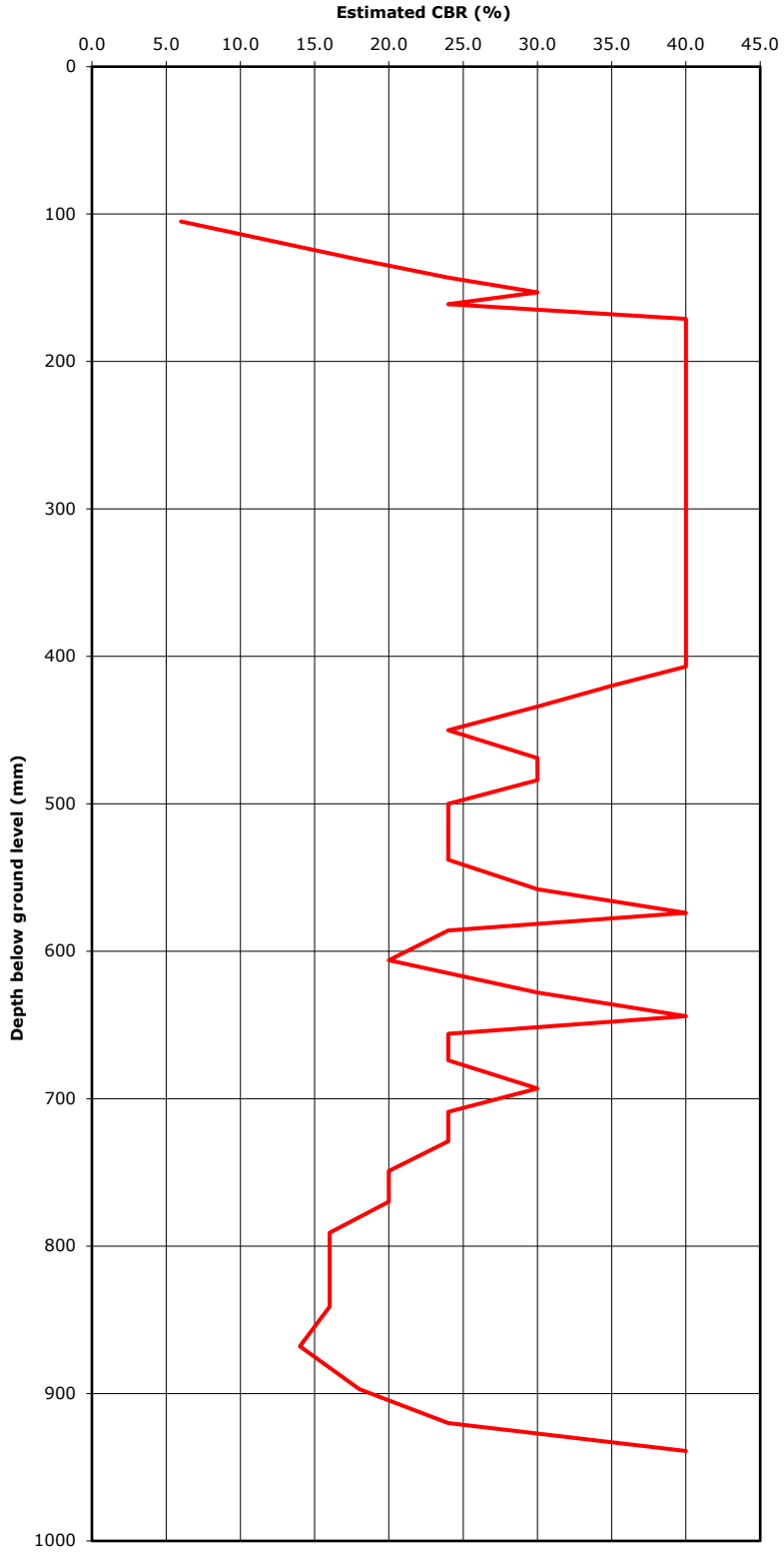
Soil Consultants

Site & Location	Sonning Golf Club (Housing) Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ	TRL Probe No:	TRL 06
Client:	Sonning Golf Club Ltd	(Sheet 1 of 1)	
Engineers:	Aventus Design Ltd	Report No:	11043a/CA

TRL Dynamic Cone Penetration test result

Blow Count	Depth (mm)	mm per blow	CBR (%)
Commencement Depth	105	26	6.0
1	131	12	18.0
2	143	10	24.0
3	153	8	30.0
4	161	10	24.0
5	171	5	40.0
6	176	6	40.0
8	188	5	40.0
10	197	6	40.0
12	209	4	40.0
16	226	6	40.0
18	238	5	40.0
22	259	6	40.0
24	271	6	40.0
28	293	7	40.0
30	306	5	40.0
34	324	7	40.0
36	337	6	40.0
38	348	6	40.0
40	360	4	40.0
42	368	5	40.0
44	377	4	40.0
46	384	6	40.0
48	396	6	40.0
50	407	7	40.0
52	420	7	35.0
54	434	8	30.0
56	450	10	24.0
58	469	8	30.0
60	484	8	30.0
62	500	10	24.0
64	519	10	24.0
66	538	10	24.0
68	558	8	30.0
70	574	6	40.0
72	586	10	24.0
74	606	11	20.0
76	628	8	30.0
78	644	6	40.0
80	656	9	24.0
82	674	10	24.0
84	693	8	30.0
86	709	10	24.0
88	729	10	24.0
90	749	11	20.0
92	770	11	20.0
94	791	13	16.0
96	816	13	16.0
98	841	14	16.0
100	868	15	14.0
102	897	12	18.0
104	920	10	24.0
106	939	0	40.0

PLOT OF CBR VS DEPTH



Date of test: 24/07/25

Note:
CBR value plots at top of the drive increment

Remarks:

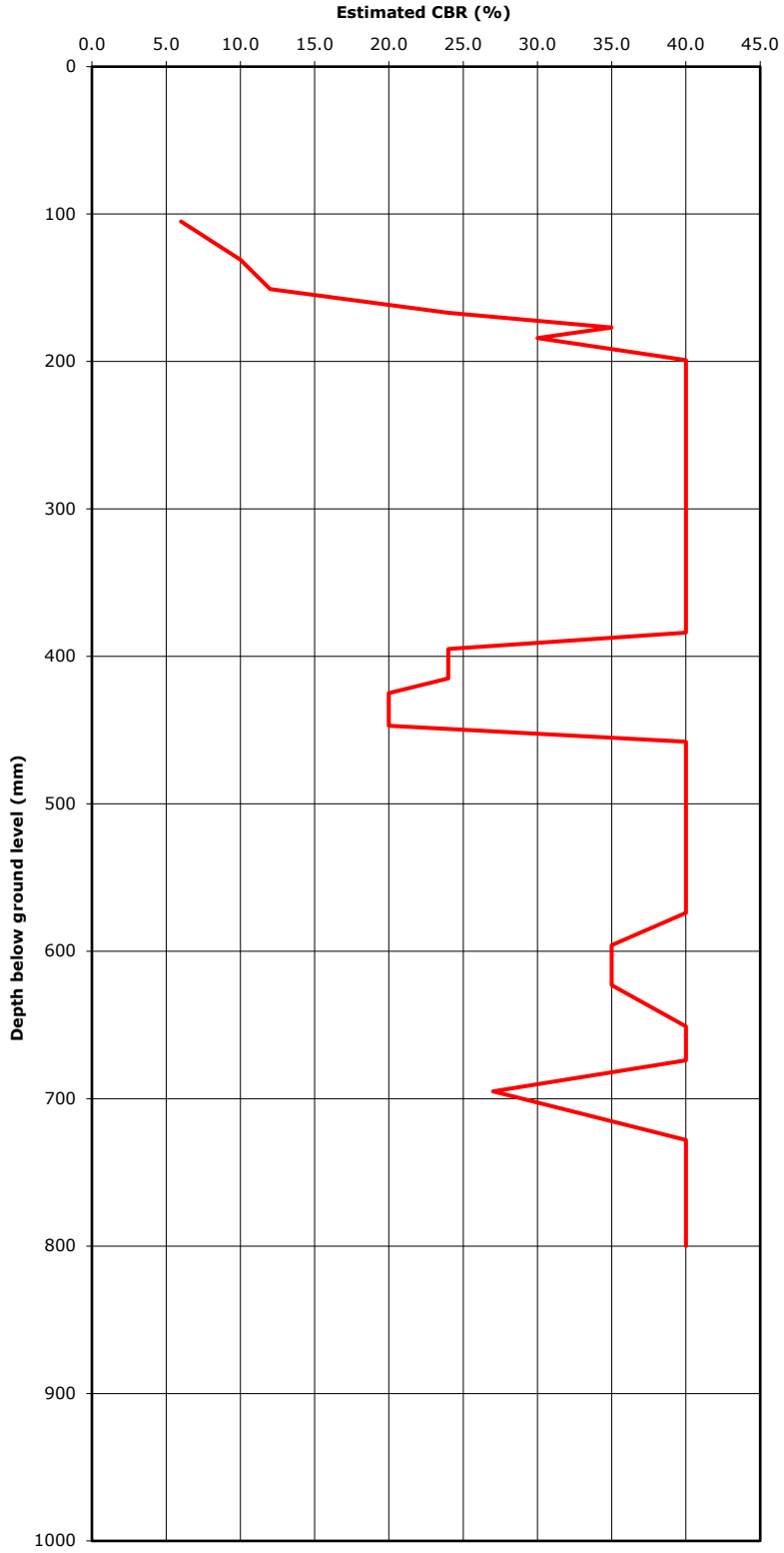
Soil Consultants

Site & Location	Sonning Golf Club (Housing) Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ	TRL Probe No:	TRL 07
Client:	Sonning Golf Club Ltd	(Sheet 1 of 1)	
Engineers:	Aventus Design Ltd	Report No:	11043a/CA

TRL Dynamic Cone Penetration test result

Blow Count	Depth (mm)	mm per blow	CBR (%)
Commencement Depth	105	26	6.0
1	131	20	10.0
2	151	16	12.0
3	167	10	24.0
4	177	7	35.0
5	184	8	30.0
7	199	5	40.0
8	204	5	40.0
10	214	5	40.0
12	224	5	40.0
14	233	4	40.0
17	245	3	40.0
20	255	3	40.0
23	265	2	40.0
26	270	2	40.0
30	278	2	40.0
35	286	4	40.0
45	326	5	40.0
50	350	5	40.0
52	360	6	40.0
54	371	7	40.0
56	384	6	40.0
58	395	10	24.0
60	415	10	24.0
61	425	11	20.0
62	436	11	20.0
63	447	11	20.0
64	458	6	40.0
65	464	7	40.0
67	477	6	40.0
68	483	6	40.0
70	494	6	40.0
72	506	6	40.0
74	517	5	40.0
76	527	5	40.0
78	537	6	40.0
80	549	6	40.0
84	574	6	40.0
88	596	7	35.0
92	623	7	35.0
96	651	6	40.0
100	674	5	40.0
104	695	8	27.0
108	728	5	40.0
112	748	4	40.0
114	755	4	40.0
116	763	3	40.0
119	771	3	40.0
122	781	1	40.0
125	784	1	40.0
129	787	3	40.0
134	800	0	40.0
139	800	0	40.0

PLOT OF CBR VS DEPTH



Date of test: 24/07/25

Note:
CBR value plots at top of the drive increment

Remarks:

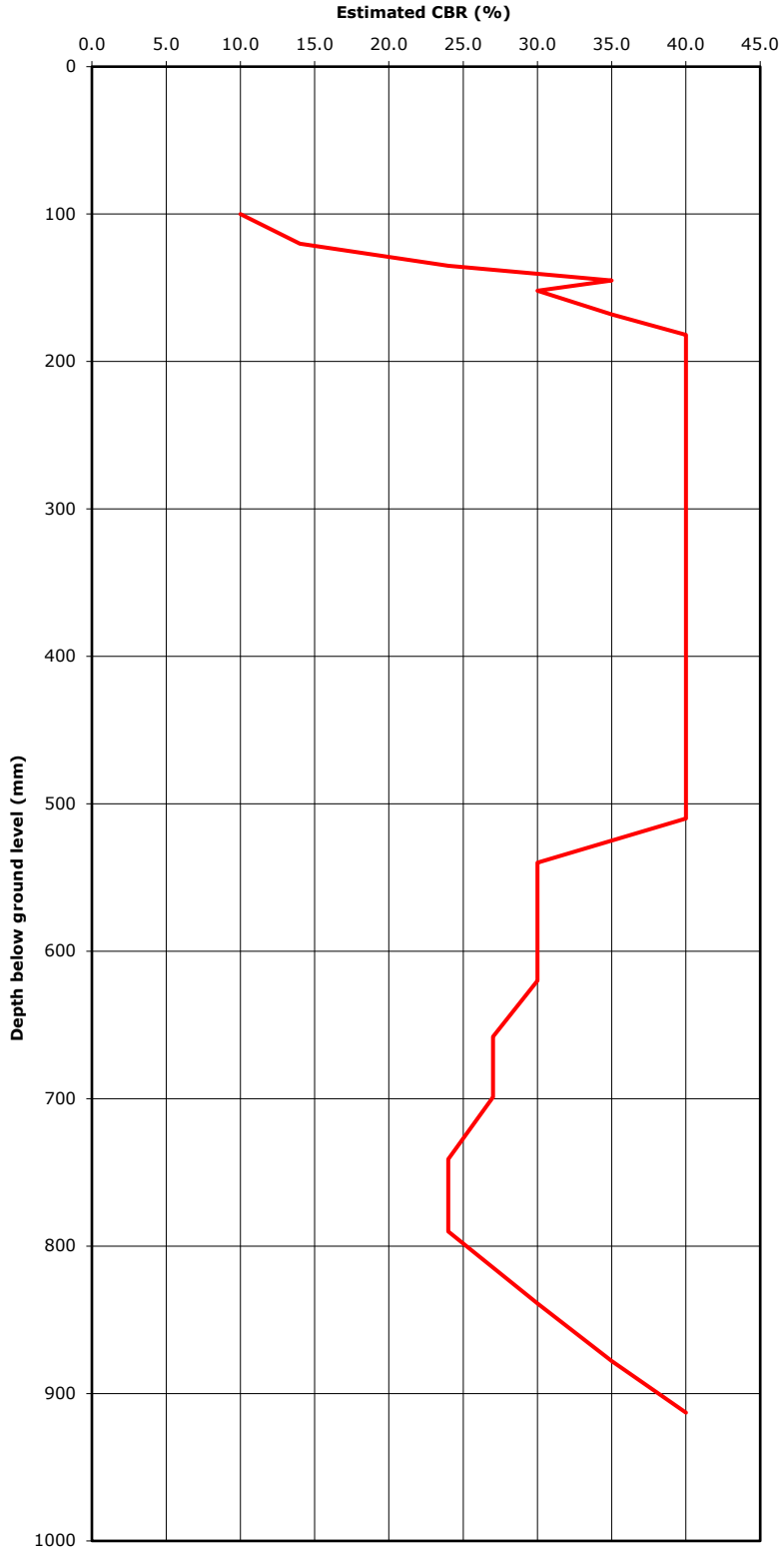
Soil Consultants

Site & Location	**Sonning Golf Club (Housing)** **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**	TRL Probe No:	**TRL 08**
Client:	**Sonning Golf Club Ltd**	(Sheet 1 of 1)	
Engineers:	**Aventus Design Ltd**	Report No:	**11043a/CA**

TRL Dynamic Cone Penetration test result

Blow Count	Depth (mm)	mm per blow	CBR (%)
Commencement Depth	100	20	10.0
1	120	15	14.0
2	135	10	24.0
3	145	7	35.0
4	152	8	30.0
6	168	7	35.0
8	182	3	40.0
10	188	5	40.0
12	198	4	40.0
14	205	3	40.0
16	210	4	40.0
21	228	3	40.0
26	241	3	40.0
31	258	3	40.0
36	273	4	40.0
41	291	3	40.0
46	307	3	40.0
51	323	4	40.0
56	343	4	40.0
61	361	4	40.0
66	382	5	40.0
71	405	4	40.0
76	426	5	40.0
81	450	6	40.0
86	481	6	40.0
91	510	6	40.0
96	540	8	30.0
101	580	8	30.0
106	620	8	30.0
111	658	8	27.0
116	699	8	27.0
121	741	10	24.0
126	790	10	24.0
131	839	8	30.0
136	878	7	35.0
141	913	5	40.0

PLOT OF CBR VS DEPTH



Date of test: **24/07/25**

Note:
CBR value plots at top of the drive increment

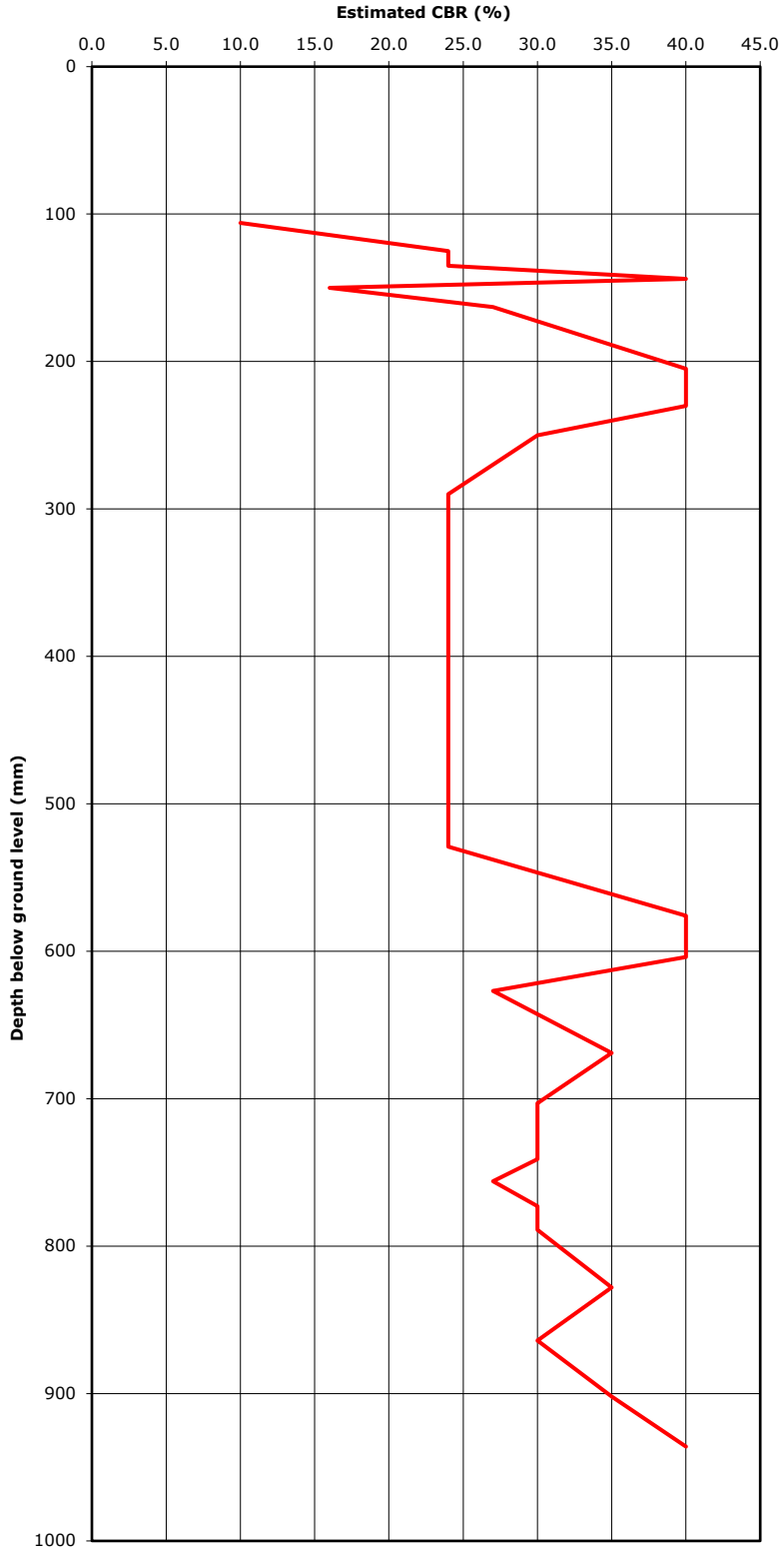
Remarks:

Site & Location	**Sonning Golf Club (Housing)** **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**	TRL Probe No:	**TRL 09**
Client:	**Sonning Golf Club Ltd**	(Sheet 1 of 1)	
Engineers:	**Aventus Design Ltd**	Report No:	**11043a/CA**

TRL Dynamic Cone Penetration test result

Blow Count	Depth (mm)	mm per blow	CBR (%)
Commencement Depth	106	19	10.0
1	125	10	24.0
2	135	9	24.0
3	144	6	40.0
4	150	13	16.0
5	163	8	27.0
10	205	5	40.0
15	230	4	40.0
20	250	8	30.0
25	290	9	24.0
30	335	10	24.0
35	385	9	24.0
40	432	10	24.0
45	481	10	24.0
50	529	9	24.0
55	576	6	40.0
60	604	5	40.0
65	627	8	27.0
70	669	7	35.0
75	703	8	30.0
80	741	8	30.0
82	756	9	27.0
84	773	8	30.0
86	789	8	30.0
91	828	7	35.0
96	864	8	30.0
101	902	7	35.0
106	936	4	40.0

PLOT OF CBR VS DEPTH



Date of test: **24/07/25**

Note:
CBR value plots at top of the drive increment

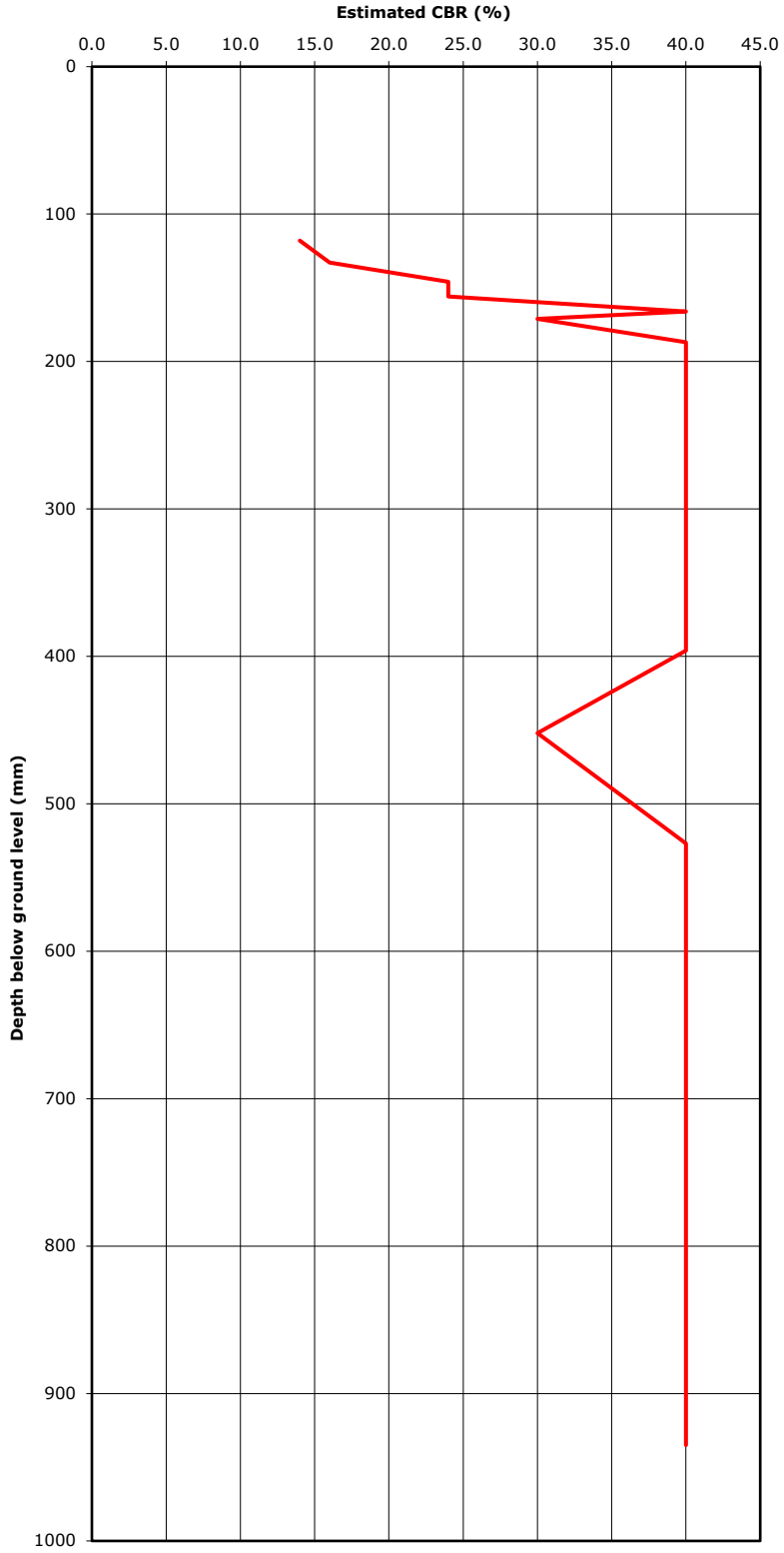
Remarks:

Site & Location	**Sonning Golf Club (Housing)** **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**	TRL Probe No:	**TRL 10**
Client:	**Sonning Golf Club Ltd**	(Sheet 1 of 1)	
Engineers:	**Aventus Design Ltd**	Report No:	**11043a/CA**

TRL Dynamic Cone Penetration test result

Blow Count	Depth (mm)	mm per blow	CBR (%)
Commencement Depth	118	15	14.0
1	133	13	16.0
2	146	10	24.0
3	156	10	24.0
4	166	5	40.0
5	171	8	30.0
7	187	7	40.0
9	200	5	40.0
11	210	5	40.0
13	220	4	40.0
15	228	4	40.0
20	247	3	40.0
25	260	3	40.0
30	274	1	40.0
35	280	2	40.0
40	291	1	40.0
45	298	2	40.0
55	314	3	40.0
65	347	2	40.0
75	366	1	40.0
85	378	2	40.0
95	396	6	40.0
105	452	8	30.0
115	527	6	40.0
125	590	6	40.0
135	649	4	40.0
145	688	3	40.0
155	716	4	40.0
165	759	5	40.0
175	808	7	40.0
185	874	6	40.0
195	935	2	40.0

PLOT OF CBR VS DEPTH



Date of test: **24/07/25**

Note:
CBR value plots at top of the drive increment

Remarks:

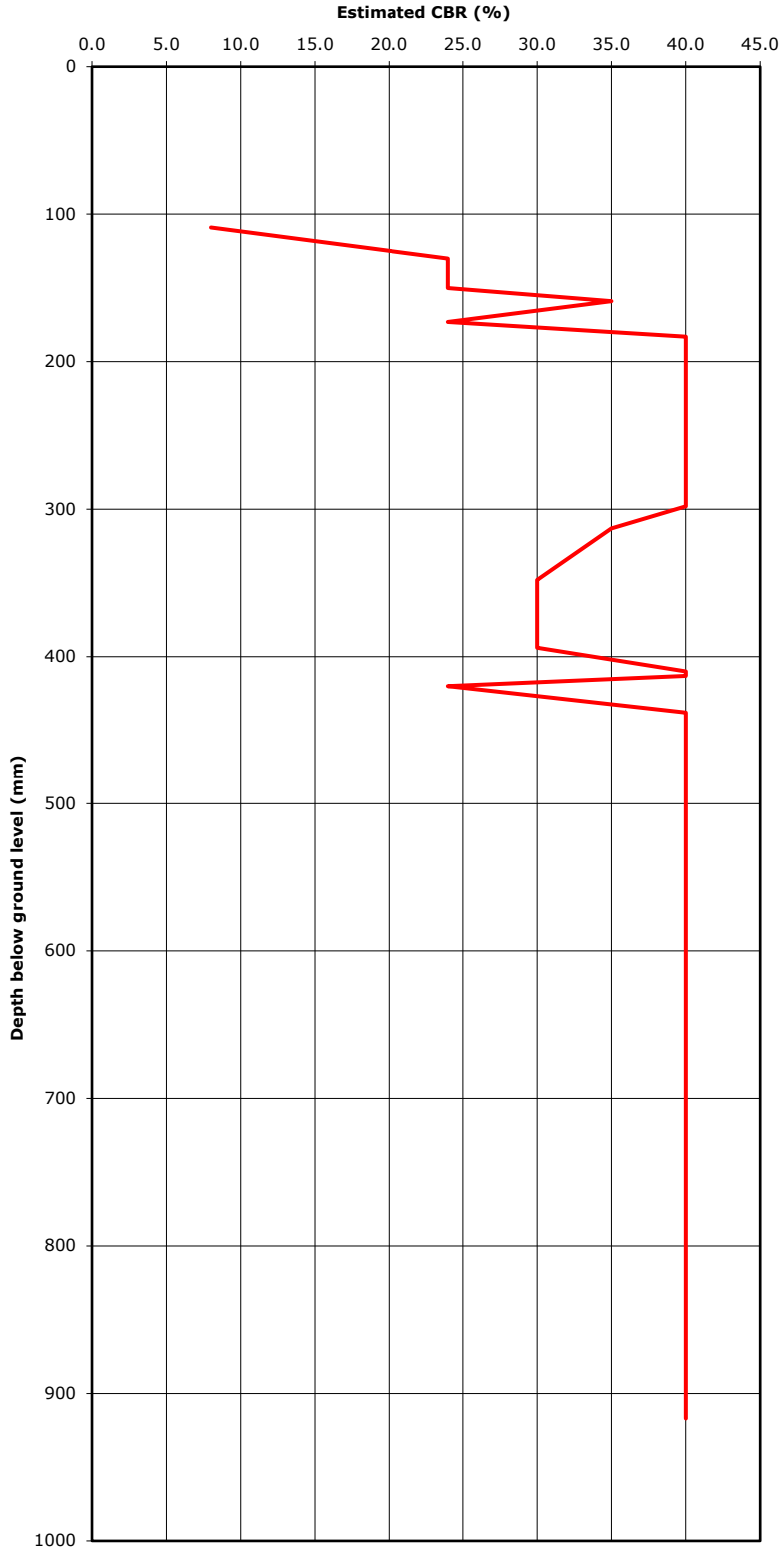
Soil Consultants

Site & Location	**Sonning Golf Club (Housing)** **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**	TRL Probe No: **TRL 11**
Client:	**Sonning Golf Club Ltd**	(Sheet 1 of 1)
Engineers:	**Aventus Design Ltd**	Report No: **11043a/CA**

TRL Dynamic Cone Penetration test result

Blow Count	Depth (mm)	mm per blow	CBR (%)
Commencement Depth	109	21	8.0
1	130	10	24.0
2	140	10	24.0
3	150	9	24.0
4	159	7	35.0
6	173	10	24.0
7	183	6	40.0
8	189	6	40.0
10	200	5	40.0
11	205	5	40.0
13	214	4	40.0
18	234	3	40.0
23	249	3	40.0
28	265	4	40.0
33	283	3	40.0
38	298	3	40.0
43	313	7	35.0
48	348	8	30.0
50	363	8	30.0
52	378	8	30.0
54	394	8	30.0
56	410	2	40.0
58	413	4	40.0
60	420	9	24.0
62	438	5	40.0
64	448	3	40.0
66	454	2	40.0
71	466	3	40.0
76	482	3	40.0
81	498	4	40.0
91	535	4	40.0
101	579	4	40.0
111	622	4	40.0
116	644	4	40.0
121	666	3	40.0
126	680	4	40.0
131	699	6	40.0
136	727	6	40.0
141	758	6	40.0
146	787	6	40.0
151	816	2	40.0
156	828	2	40.0
166	846	3	40.0
176	874	4	40.0
186	917	3	40.0

PLOT OF CBR VS DEPTH



Date of test: **24/07/25**

Note:
CBR value plots at top of the drive increment

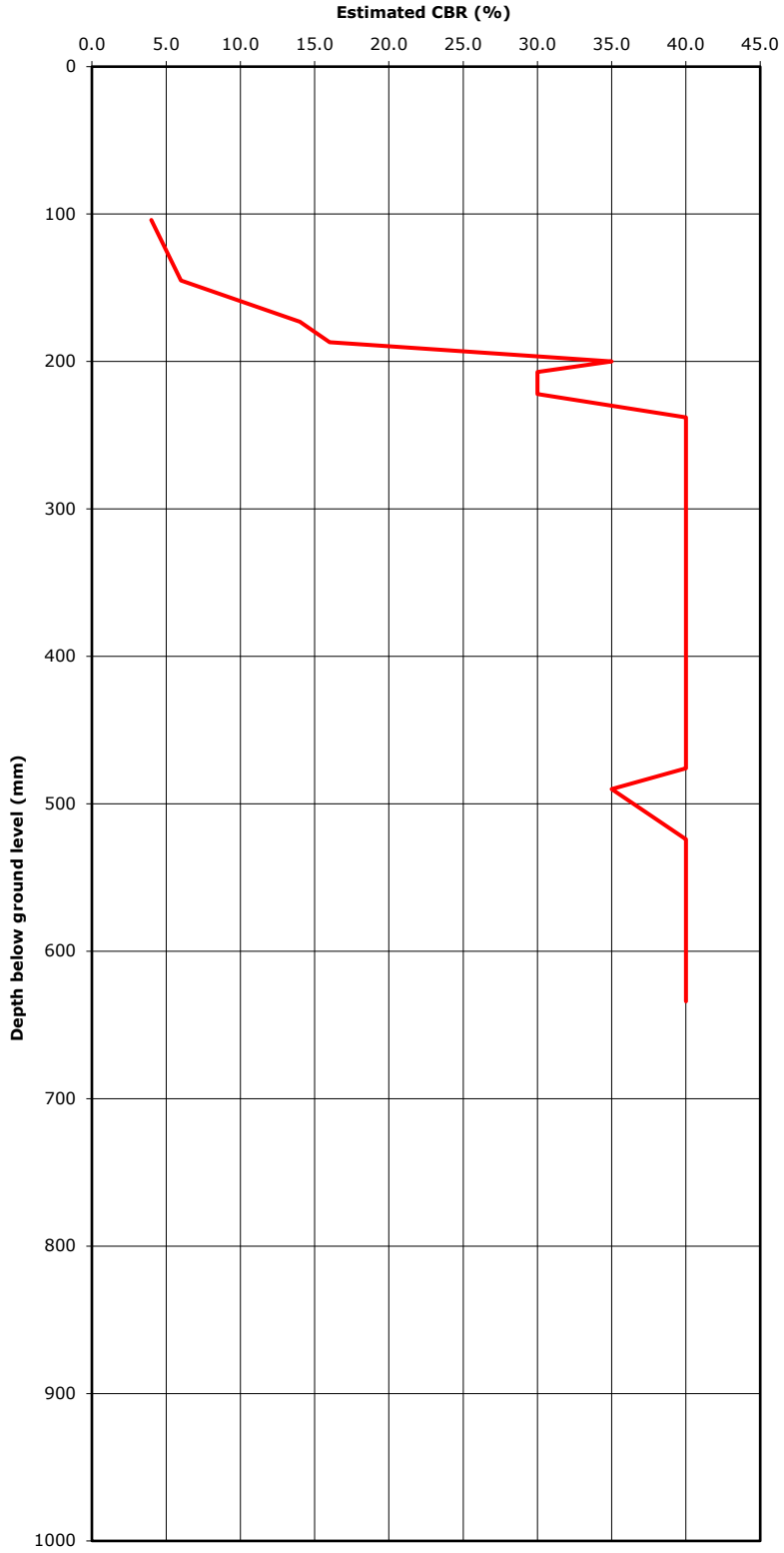
Remarks:

Site & Location	**Sonning Golf Club (Housing)** **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**	TRL Probe No: **TRL 12**
Client:	**Sonning Golf Club Ltd**	(Sheet 1 of 1)
Engineers:	**Aventus Design Ltd**	Report No: **11043a/CA**

TRL Dynamic Cone Penetration test result

Blow Count	Depth (mm)	mm per blow	CBR (%)
Commencement Depth	104	41	4.0
1	145	28	6.0
2	173	14	14.0
3	187	13	16.0
4	200	7	35.0
5	207	8	30.0
7	222	8	30.0
9	238	6	40.0
11	250	4	40.0
13	257	4	40.0
18	275	3	40.0
23	290	2	40.0
28	301	2	40.0
33	310	2	40.0
38	318	4	40.0
48	353	4	40.0
58	397	5	40.0
63	420	6	40.0
68	448	6	40.0
73	476	3	40.0
78	490	7	35.0
83	524	3	40.0
88	538	2	40.0
93	548	2	40.0
98	556	2	40.0
108	571	1	40.0
118	581	1	40.0
128	591	1	40.0
138	604	0	40.0
153	610	0	40.0
168	613	0	40.0
188	620	1	40.0
208	630	0	40.0
228	634	0	40.0

PLOT OF CBR VS DEPTH



Date of test: **24/07/25**

Note:
CBR value plots at top of the drive increment

Remarks:

Site & Location	Sonning Golf Club (Housing) Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ	Report No:	11043a/CA

Trial pit soakage test results

TP No: TP01 **Depth:** 1.45 m **Test No:** 1

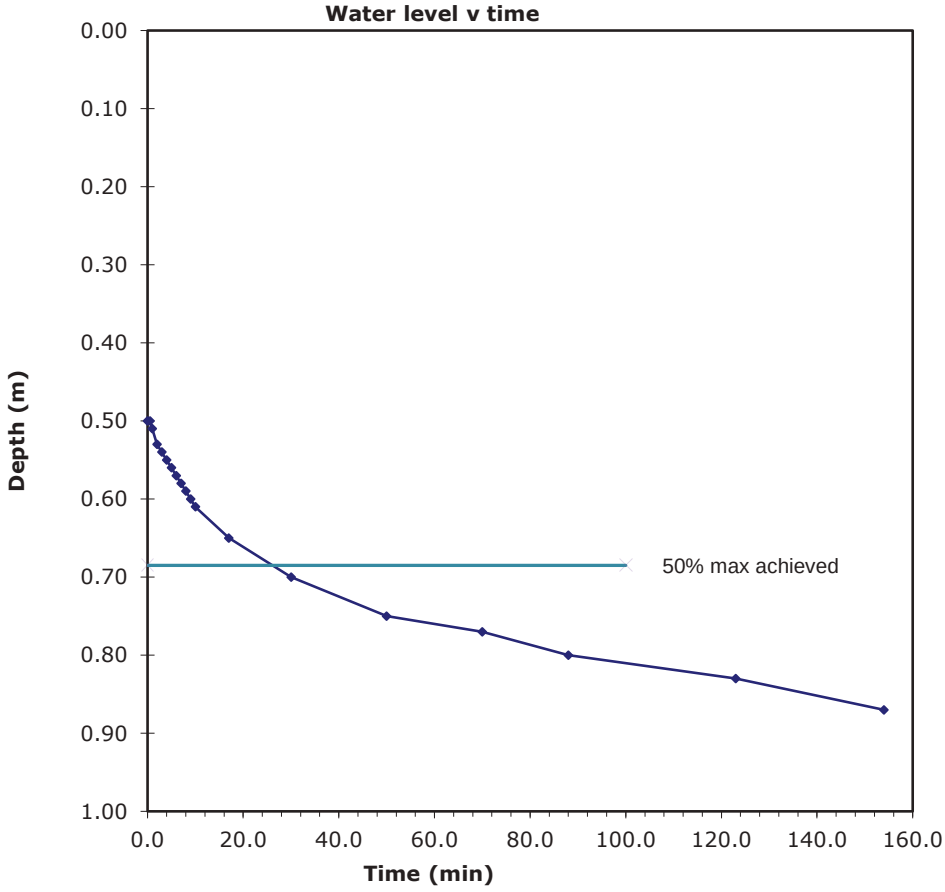
Dimensions:
Width = 0.50 m
Length = 1.40 m
Pit filled with gravel (Y/N) No
Voids Ratio

Ground sequence:

GL	-	0.10	TOPSOIL
0.10	-	0.30	MADE GROUND
0.30	-	0.90	POSSIBLE MADE GROUND
0.90	-	1.50	Orangish-brown clayey silty very gravelly SAND

GW Standing at: **Dry**

Time (mins)	Depth (mBGL)
0.0	0.500
0.5	0.500
1.0	0.510
2.0	0.530
3.0	0.540
4.0	0.550
5.0	0.560
6.0	0.570
7.0	0.580
8.0	0.590
9.0	0.600
10.0	0.610
17.0	0.650
30.0	0.700
50.0	0.750
70.0	0.770
88.0	0.800
123.0	0.830
154.0	0.870



Depth of water at start of test	0.50	m
Depth of water at end of test	0.87	m
Depth at 75% full	0.59	m
Depth at 25% full	0.78	m

Comments: 400L of water added for test (2min fill time)
Pit collapse to 1.45m after addition of water

Base area of pit	0.70	m^2
Effective soakage area a_{s50}	3.61	m^2
Volume Change V_{75}-V_{25}	0.13	m^3
Time used in calculation t_{p75}	495	sec
Time used in calculation t_{p25}	4470	sec

Soil infiltration rate **9.03E-06 m/sec**

The 'soil infiltration rate' is calculated using two selected water levels (BRE DG 365: 2016 "Soakaway design")

SoilConsultants

Site & Location	Sonning Golf Club (Housing) Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ	Report No:	11043a/CA

Trial pit soakage test results

TP No: TP02 **Depth:** 1.00 m **Test No:** 1

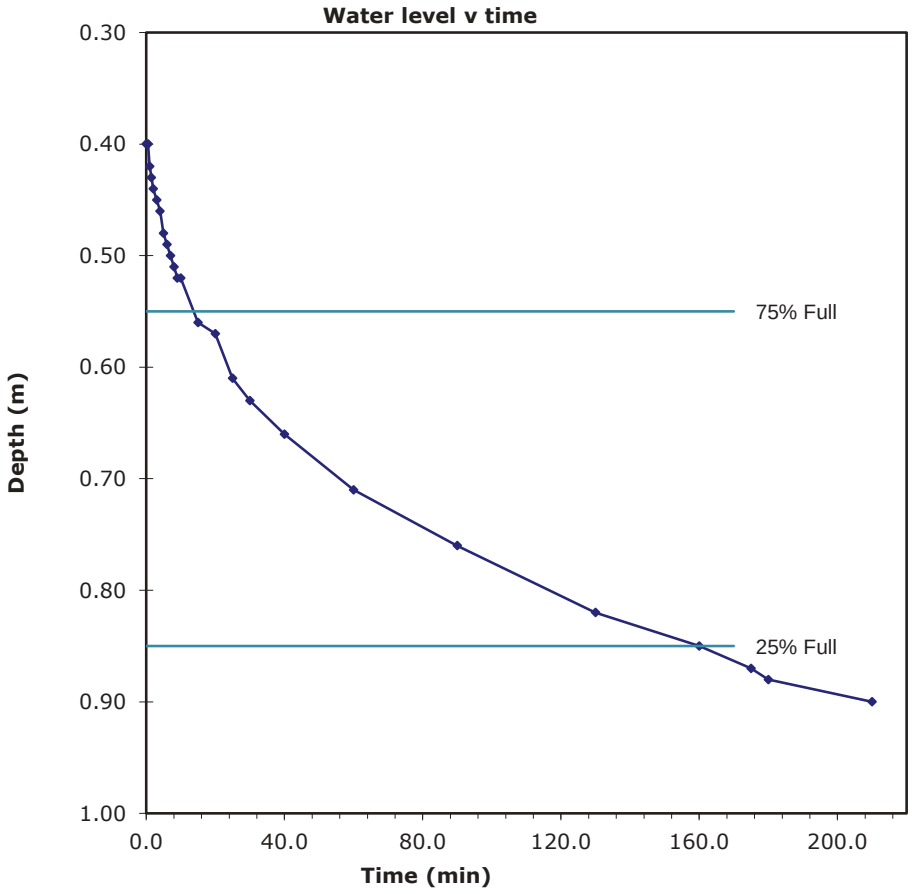
Dimensions:
Width = 0.50 m
Length = 1.35 m
Pit filled with gravel (Y/N) No
Voids Ratio

Ground sequence:

GL	-	0.30	MADE GROUND
0.30	-	0.70	POSSIBLE MADE GROUND
0.70	-	1.00	Orangish-brown silty silty very gravelly SAND

GW Standing at: **Dry**

Time (mins)	Depth (mBGL)
0.0	0.400
0.5	0.400
1.0	0.420
1.5	0.430
2.0	0.440
3.0	0.450
4.0	0.460
5.0	0.480
6.0	0.490
7.0	0.500
8.0	0.510
9.0	0.520
10.0	0.520
15.0	0.560
20.0	0.570
25.0	0.610
30.0	0.630
40.0	0.660
60.0	0.710
90.0	0.760
130.0	0.820
160.0	0.850
175.0	0.870
180.0	0.880
210.0	0.900



Depth of water at start of test	0.40	m
Depth of water at end of test	0.90	m
Depth at 75% full	0.55	m
Depth at 25% full	0.85	m
Base area of pit	0.68	m²
Effective soakage area a_{s50}	1.79	m²
Volume Change V_{75}-V_{25}	0.20	m³
Time used in calculation t_{p75}	825	sec
Time used in calculation t_{p25}	9600	sec

Comments: 300L of water added for test (1min filltime)

Soil infiltration rate **1.29E-05 m/sec**

The 'soil infiltration rate' is calculated using two selected water levels (BRE DG 365: 2016 "Soakaway design")

Soil Consultants

Site & Location	Sonning Golf Club (Housing) Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ	Report No:	11043a/CA

Trial pit soakage test results

TP No: TP03 **Depth:** 1.87 m **Test No:** 1

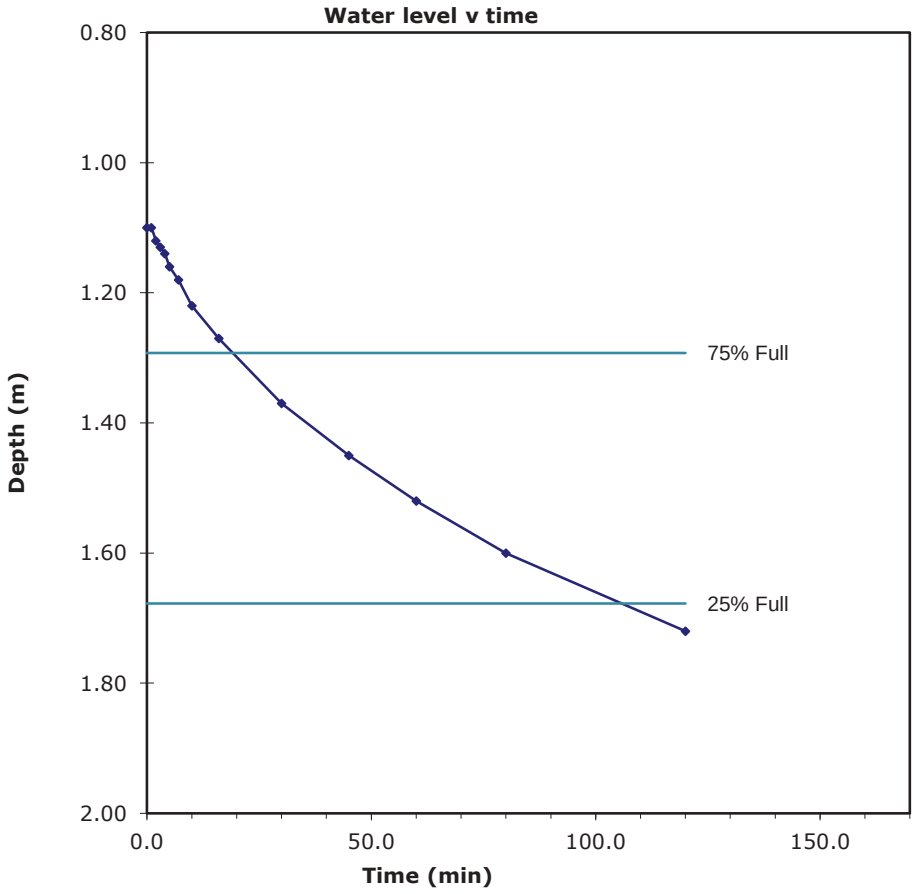
Dimensions:
Width = 0.50 m
Length = 1.75 m
Pit filled with gravel (Y/N) No
Voids Ratio

Ground sequence:

GL	-	0.10	TOPSOIL
0.10	-	0.35	POSSIBLE MADE GROUND
0.35	-	2.00	Orangish-brown silty sandy to very sandy GRAVEL

GW Standing at: **Dry**

Time (mins)	Depth (mBGL)
0.0	1.10
1.0	1.100
2.0	1.120
3.0	1.130
4.0	1.140
5.0	1.160
7.0	1.180
10.0	1.220
16.0	1.270
30.0	1.370
45.0	1.450
60.0	1.520
80.0	1.600
120.0	1.720



Depth of water at start of test	1.10	m
Depth of water at end of test	1.72	m
Depth at 75% full	1.29	m
Depth at 25% full	1.68	m

Comments: 1000L of water added for test (3min fill time)
Pit collapse to 1.87m after addition of water

Base area of pit	0.88	m^2
Effective soakage area a_{s50}	2.61	m^2
Volume Change V_{75}-V_{25}	0.34	m^3
Time used in calculation t_{p75}	1149	sec
Time used in calculation t_{p25}	6350	sec

Soil infiltration rate **2.48E-05 m/sec**

The 'soil infiltration rate' is calculated using two selected water levels (BRE DG 365: 2016 "Soakaway design")

Soil Consultants

Site & Location	Sonning Golf Club (Housing) Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ	Report No:	11043a/CA

Trial pit soakage test results

TP No: TP03 **Depth:** 1.87 m **Test No:** 2

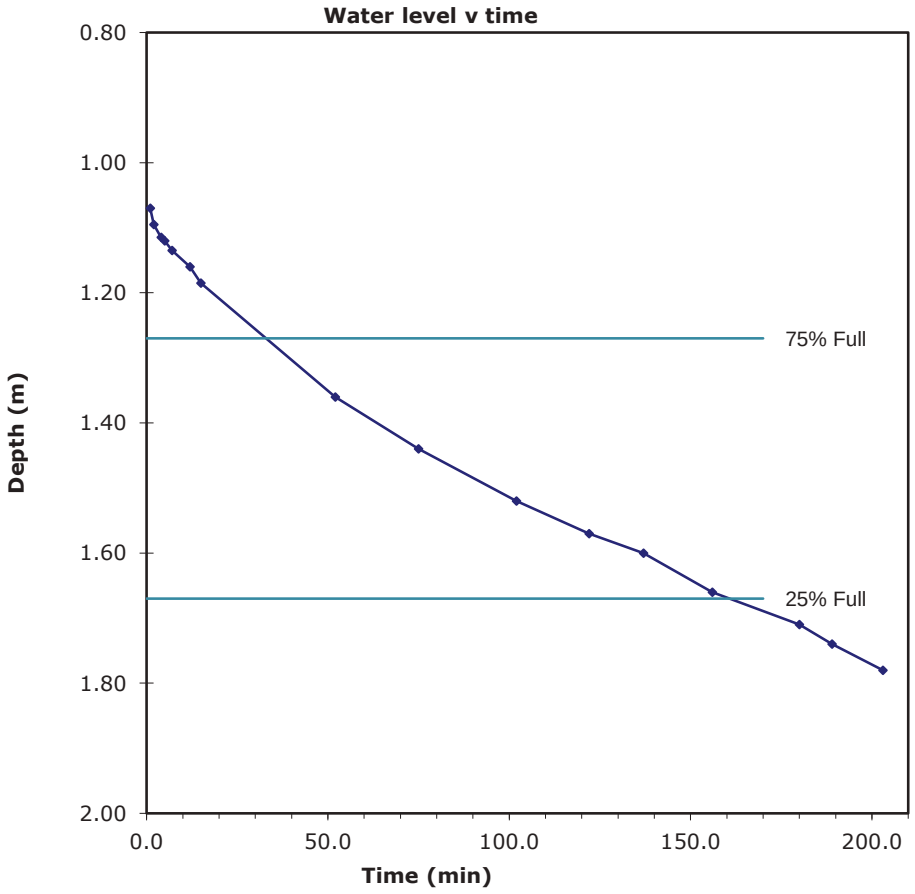
Dimensions: Width = 0.50 m
Length = 1.75 m
Pit filled with gravel (Y/N) No
Voids Ratio

Ground sequence:

GL	-	0.10	TOPSOIL
0.10	-	0.35	POSSIBLE MADE GROUND
0.35	-	2.00	Orangish-brown silty sandy to very sandy GRAVEL

GW Standing at: **Dry**

Time (mins)	Depth (mBGL)
1.0	1.070
2.0	1.095
4.0	1.115
5.0	1.120
7.0	1.135
12.0	1.160
15.0	1.185
52.0	1.360
75.0	1.440
102.0	1.520
122.0	1.570
137.0	1.600
156.0	1.660
180.0	1.710
189.0	1.740
203.0	1.780



Depth of water at start of test	1.07	m
Depth of water at end of test	1.78	m
Depth at 75% full	1.27	m
Depth at 25% full	1.67	m

Comments: 300L of water added for test (3min fill time)

Base area of pit	0.88	m^2
Effective soakage area a_{s50}	2.68	m^2
Volume Change V_{75}-V_{25}	0.35	m^3
Time used in calculation t_{p75}	1978	sec
Time used in calculation t_{p25}	9648	sec

Soil infiltration rate **1.71E-05 m/sec**

The 'soil infiltration rate' is calculated using two selected water levels (BRE DG 365: 2016 "Soakaway design")

SoilConsultants

Site & Location	Sonning Golf Club (Housing) Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ	Report No:	11043a/CA

Trial pit soakage test results

TP No: TP04 **Depth:** 0.98 m **Test No:** 1

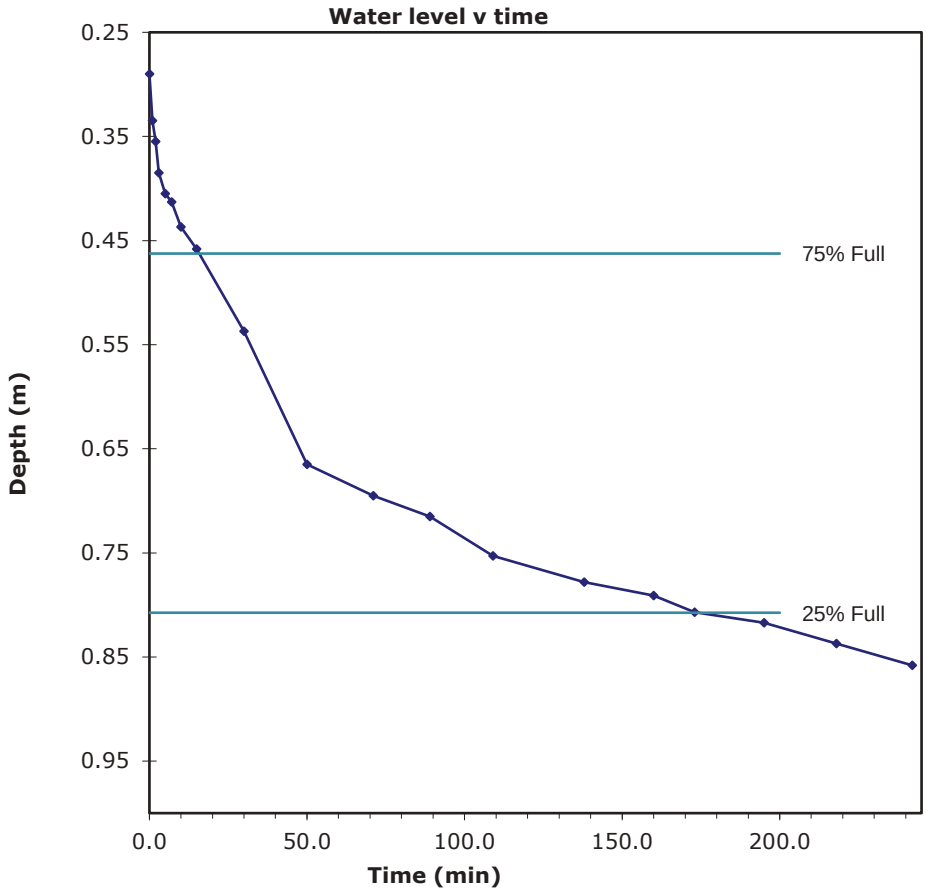
Dimensions:
Width = 0.50 m
Length = 1.30 m
Pit filled with gravel (Y/N) No
Voids Ratio

Ground sequence:

GL	-	0.05	TOPSOIL
0.05	-	0.30	POSSIBLE MADE GROUND
0.30	-	1.00	Orangish-brown silty very sandy GRAVEL

GW Standing at: **Dry**

Time (mins)	Depth (mBGL)
0.0	0.290
1.0	0.335
2.0	0.355
3.0	0.385
5.0	0.405
7.0	0.413
10.0	0.437
15.0	0.458
30.0	0.537
50.0	0.665
71.0	0.695
89.0	0.715
109.0	0.753
138.0	0.778
160.0	0.791
173.0	0.807
195.0	0.817
218.0	0.837
242.0	0.858



Depth of water at start of test	0.29	m
Depth of water at end of test	0.86	m
Depth at 75% full	0.46	m
Depth at 25% full	0.81	m
Base area of pit	0.65	m²
Effective soakage area a_{s50}	1.89	m²
Volume Change V_{75}-V_{25}	0.22	m³
Time used in calculation t_{p75}	951	sec
Time used in calculation t_{p25}	10446	sec

Comments: 200L of water added for test (1min 15sec fill time)
Pit collapse to 0.98m after addition of water

Soil infiltration rate 1.25E-05 m/sec

The 'soil infiltration rate' is calculated using two selected water levels (BRE DG 365: 2016 "Soakaway design")

Soil Consultants

Site & Location	Sonning Golf Club (Housing) Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ	Report No:	11043a/CA

Trial pit soakage test results

TP No: TP05 **Depth:** 1.54 m **Test No:** 1

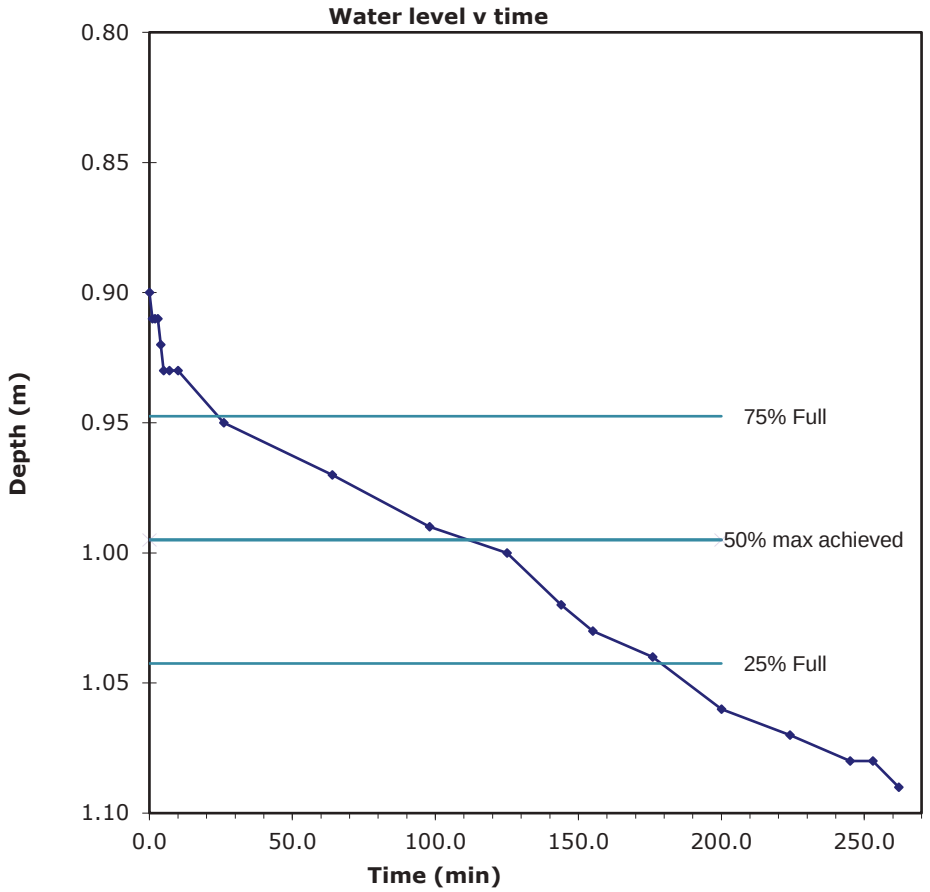
Dimensions:
Width = 0.50 m
Length = 1.60 m
Pit filled with gravel (Y/N) No
Voids Ratio

Ground sequence:

GL	-	0.05	TOPSOIL
0.05	-	0.25	POSSIBLE MADE GROUND
0.25	-	1.60	Light brown slightly silty very sandy GRAVEL

GW Standing at: **Dry**

Time (mins)	Depth (mBGL)
0.0	0.900
1.0	0.910
2.0	0.910
3.0	0.910
4.0	0.920
5.0	0.930
7.0	0.930
10.0	0.930
26.0	0.950
64.0	0.970
98.0	0.990
125.0	1.000
144.0	1.020
155.0	1.030
176.0	1.040
200.0	1.060
224.0	1.070
245.0	1.080
253.0	1.080
262.0	1.090



Depth of water at start of test	0.90	m
Depth of water at end of test	1.09	m
Depth at 75% full	0.95	m
Depth at 25% full	1.04	m
Base area of pit	0.80	m²
Effective soakage area a_{s50}	3.09	m²
Volume Change V_{75}-V_{25}	0.08	m³
Time used in calculation t_{p75}	1440	sec
Time used in calculation t_{p25}	10740	sec

Comments: 900L of water added for test (1min 15sec fill time)
Pit collapse to 1.54m after addition of water

Soil infiltration rate **2.65E-06 m/sec**

The 'soil infiltration rate' is calculated using two selected water levels (BRE DG 365: 2016 "Soakaway design")

Soil Consultants

Site & Location	Sonning Golf Club (Housing) Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ	Report No:	11043a/CA

Trial pit soakage test results

TP No: TP06 **Depth:** 1.89 m **Test No:** 1

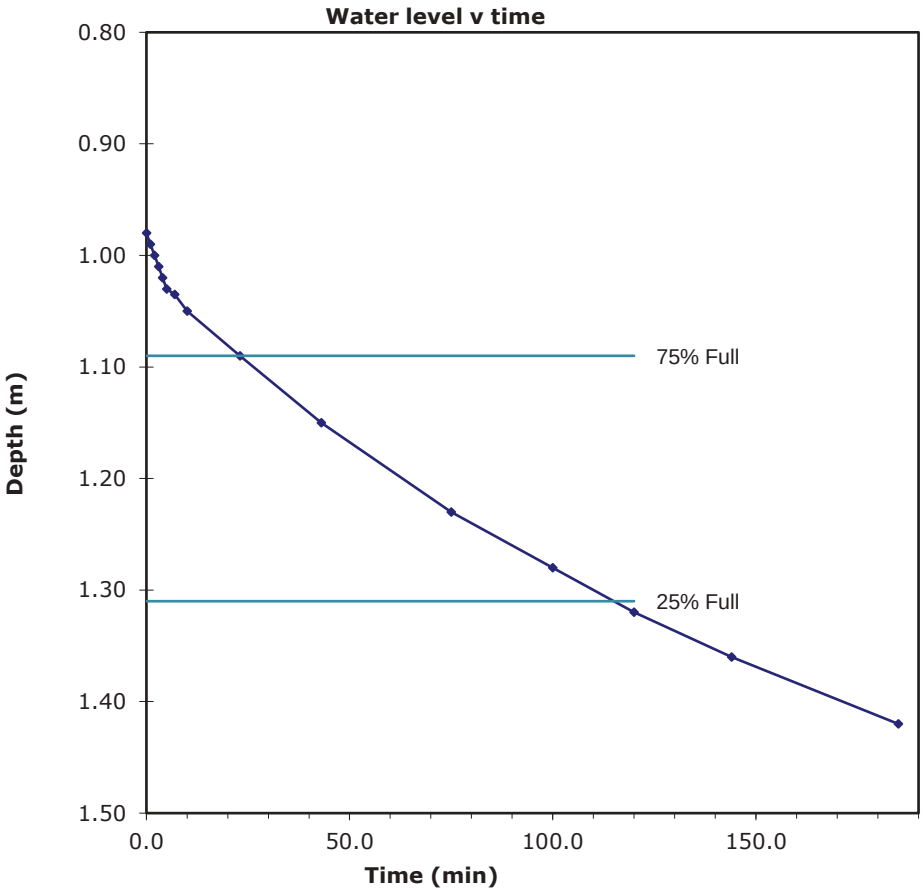
Dimensions:
Width = 0.50 m
Length = 1.90 m
Pit filled with gravel (Y/N) No
Voids Ratio

Ground sequence:

GL	-	0.08	TOPSOIL
0.08	-	0.26	POSSIBLE MADE GROUND
0.26	-	2.05	Light brown slightly silty to silty very sandy GRAVEL

GW Standing at: **Dry**

Time (mins)	Depth (mBGL)
0.0	0.980
1.0	0.990
2.0	1.000
3.0	1.010
4.0	1.020
5.0	1.030
7.0	1.035
10.0	1.050
23.0	1.090
43.0	1.150
75.0	1.230
100.0	1.280
120.0	1.320
144.0	1.360
185.0	1.420



Depth of water at start of test	0.98	m
Depth of water at end of test	1.42	m
Depth at 75% full	1.09	m
Depth at 25% full	1.31	m
Base area of pit	0.95	m^2
Effective soakage area a_{s50}	4.26	m^2
Volume Change V_{75}-V_{25}	0.21	m^3
Time used in calculation t_{p75}	1380	sec
Time used in calculation t_{p25}	6900	sec

Comments: 800L of water added for test (2min fill time)
Pit collapse to 1.89m after addition of water

Soil infiltration rate **8.88E-06 m/sec**

The 'soil infiltration rate' is calculated using two selected water levels (BRE DG 365: 2016 "Soakaway design")

Soil Consultants

Site & Location		Report No:
Sonning Golf Club (Housing) **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**		**11043a/CA**

Results of groundwater/gas monitoring

Date:	**01/08/2025**
Barometric pressure:	
a) Trend (24hrs):	**Rising**
b) At start (mB):	**1011**
Recorded by:	**OH**
Surface ground conditions:	**Dry**
Weather conditions:	**Mild**
Ambient air temp (°C):	**19**

Monitoring equipment	
Instrument:	GA5000. No. G505055
Calibration check details:	See note 2 below
Next calibration date:	May 2025

Notes:

1) Barometric pressure trend and ambient air temperature is recorded from metoffice.gov.uk website on the day of the monitoring visit

2) Calibration check is performed at start of monitoring against ambient air and also periodically with a 5% CH_4, 5% CO_2 and 6% O_2 gas mixture

3) CH_4 = methane; CO_2 = carbon dioxide; CO = carbon monoxide; O_2 = oxygen; H_2S = hydrogen sulphide

BH ID	Time (24hr)	Pipe dia (mm)	GW depth (mbgl)	Depth to pipe base (mbgl)
WS01	13:08:47	50	Dry	1.64

Time (s)	CH_4 (%)	CO_2 (%)	O_2 (%)	CO (ppm)	H_2S (ppm)	PID (ppm)
0	0.0	0.1	20.2	2	4	1.5
15	0.0	0.7	19.4	2	4	1.5
30	0.0	0.8	19.2	2	4	1.5
45	0.0	0.8	19.1	2	4	1.4
60	0.0	0.8	19.0	2	4	1.3
75	0.0	0.9	19.0	2	4	1.2
90	0.0	0.9	19.0	2	4	1.1
105	0.0	0.9	19.0	2	4	0.9
120	0.0	0.9	18.9	2	4	0.8
135	0.0	0.9	18.9	2	4	0.7
150	0.0	0.9	18.9	2	4	0.6
165	0.0	0.9	18.9	3	4	0.5
180	0.0	0.9	18.9	2	4	0.4
195	0.0	0.8	18.9	2	4	0.4

Max CH_4 (%)	0.0
Max CO_2 (%)	0.9
Min O_2 (%)	18.9
Max CO (ppm)	3
Max H_2S (ppm)	4
Max PID (ppm)	1.5

Flow rate (l/hr)			Relative pressure (mb)
Initial	Mean	Max	
0.2	0.2	0.2	-0.02

Site & Location	Report No:
Sonning Golf Club (Housing) **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**	**11043a/CA**

Results of groundwater/gas monitoring

Date:	**01/08/2025**
Barometric pressure: a) Trend (24hrs): b) At start (mB):	**Rising** **1011**
Recorded by:	**OH**
Surface ground conditions: Weather conditions: Ambient air temp (°C):	**Dry** **Mild** **19**

Monitoring equipment	
Instrument:	GA5000. No. G505055
Calibration check details:	See note 2 below
Next calibration date:	May 2025

Notes:

1) Barometric pressure trend and ambient air temperature is recorded from metoffice.gov.uk website on the day of the monitoring visit

2) Calibration check is performed at start of monitoring against ambient air and also periodically with a 5% CH_4, 5% CO_2 and 6% O_2 gas mixture

3) CH_4 = methane; CO_2 = carbon dioxide; CO = carbon monoxide; O_2 = oxygen; H_2S = hydrogen sulphide

BH ID	Time (24hr)	Pipe dia (mm)	GW depth (mbgl)	Depth to pipe base (mbgl)
WS05	13:19:44	50	Dry	2.47

Time (s)	CH_4 (%)	CO_2 (%)	O_2 (%)	CO (ppm)	H_2S (ppm)	PID (ppm)
0	0.0	0.1	20.1	2	4	2.5
15	0.0	1.1	19.5	3	4	2.5
30	0.0	1.1	19.4	2	3	3.9
45	0.0	1.1	19.4	2	3	4.1
60	0.0	1.1	19.4	2	3	4.1
75	0.0	1.1	19.4	2	3	4.1
90	0.0	1.1	19.4	2	3	4.1
105	0.0	1.1	19.4	1	3	3.9
120	0.0	1.2	19.4	2	3	3.8
135	0.0	1.2	19.5	2	3	3.7
150	0.0	1.2	19.5	2	3	3.5
165	0.0	1.2	19.5	2	2	3.3
180	0.0	1.2	19.5	2	2	3.1
195	0.0	1.2	19.5	3	1	3.1

Max CH_4 (%)	0.0
Max CO_2 (%)	1.2
Min O_2 (%)	19.4
Max CO (ppm)	3
Max H_2S (ppm)	4
Max PID (ppm)	4.1

Flow rate (l/hr)			Relative pressure (mb)
Initial	Mean	Max	
0.5	0.4	0.5	0.05

Site & Location		Report No:
Sonning Golf Club (Housing) **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**		**11043a/CA**

Results of groundwater/gas monitoring

Date:	**01/08/2025**
Barometric pressure:	
a) Trend (24hrs):	**Rising**
b) At start (mB):	**1011**
Recorded by:	**OH**
Surface ground conditions:	**Dry**
Weather conditions:	**Mild**
Ambient air temp (°C):	**19**

Monitoring equipment	
Instrument:	GA5000. No. G505055
Calibration check details:	See note 2 below
Next calibration date:	May 2025

Notes:

1) Barometric pressure trend and ambient air temperature is recorded from metoffice.gov.uk website on the day of the monitoring visit

2) Calibration check is performed at start of monitoring against ambient air and also periodically with a 5% CH_4, 5% CO_2 and 6% O_2 gas mixture

3) CH_4 = methane; CO_2 = carbon dioxide; CO = carbon monoxide; O_2 = oxygen; H_2S = hydrogen sulphide

BH ID	Time (24hr)	Pipe dia (mm)	GW depth (mbgl)	Depth to pipe base (mbgl)
WS06	13:36:44	19	Dry	1.72

Time (s)	CH_4 (%)	CO_2 (%)	O_2 (%)	CO (ppm)	H_2S (ppm)	PID (ppm)
0	0.0	0.1	20.4	4	0	0.4
15	0.0	0.8	19.1	5	0	0.4
30	0.0	1.1	18.5	4	0	0.4
45	0.0	1.2	18.3	3	0	0.3
60	0.0	1.3	18.2	3	0	0.3
75	0.0	1.3	18.2	4	0	0.2
90	0.0	1.3	18.2	4	0	0.2
105	0.0	1.3	18.1	4	0	0.1
120	0.0	1.3	18.1	4	0	0.1
135	0.0	1.3	18.1	4	0	0.1
150	0.0	1.3	18.0	4	0	0.1
165	0.0	1.3	18.0	3	0	0.1
180	0.0	1.3	18.0	3	0	0.0
195	0.0	1.3	18.0	3	1	0.0

Max CH_4 (%)	0.0
Max CO_2 (%)	1.3
Min O_2 (%)	18.0
Max CO (ppm)	5
Max H_2S (ppm)	1
Max PID (ppm)	0.4

Flow rate (l/hr)			Relative pressure (mb)
Initial	Mean	Max	
0.4	0.3	0.4	0.05

Site & Location		Report No:
Sonning Golf Club (Housing) **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**		**11043a/CA**

Results of groundwater/gas monitoring

Date:	**01/08/2025**
Barometric pressure: a) Trend (24hrs): b) At start (mB):	 **Rising** **1011**
Recorded by:	**OH**
Surface ground conditions: Weather conditions: Ambient air temp (°C):	**Dry** **Mild** **19**

Monitoring equipment	
Instrument:	GA5000. No. G505055
Calibration check details:	See note 2 below
Next calibration date:	May 2025

Notes:

1) Barometric pressure trend and ambient air temperature is recorded from metoffice.gov.uk website on the day of the monitoring visit

2) Calibration check is performed at start of monitoring against ambient air and also periodically with a 5% CH_4, 5% CO_2 and 6% O_2 gas mixture

3) CH_4 = methane; CO_2 = carbon dioxide; CO = carbon monoxide; O_2 = oxygen; H_2S = hydrogen sulphide

BH ID	Time (24hr)	Pipe dia (mm)	GW depth (mbgl)	Depth to pipe base (mbgl)
WS07	13:46:52	19	Dry	1.59

Time (s)	CH_4 (%)	CO_2 (%)	O_2 (%)	CO (ppm)	H_2S (ppm)	PID (ppm)
0	0.0	0.1	20.4	3	1	0.3
15	0.0	0.7	19.8	2	1	0.3
30	0.0	0.7	19.7	2	1	0.2
45	0.0	0.7	19.7	1	1	0.2
60	0.0	0.7	19.7	1	1	0.2
75	0.0	0.7	19.7	1	1	0.2
90	0.0	0.7	19.7	1	2	0.2
105	0.0	0.7	19.7	1	2	0.2
120	0.0	0.7	19.7	1	2	0.2
135	0.0	0.7	19.7	2	2	0.1
150	0.0	0.7	19.7	1	2	0.1
165	0.0	0.7	19.7	1	2	0.1
180	0.0	0.7	19.8	1	2	0.1
195	0.0	0.7	19.7	1	2	0.1

Max CH_4 (%)	0.0
Max CO_2 (%)	0.7
Min O_2 (%)	19.7
Max CO (ppm)	3
Max H_2S (ppm)	2
Max PID (ppm)	0.3

Flow rate (l/hr)			Relative pressure (mb)
Initial	Mean	Max	
0.3	0.3	0.3	-0.03

Site & Location		Report No:
Sonning Golf Club (Housing) **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**		**11043a/CA**

Results of groundwater/gas monitoring

Date:	**01/08/2025**
Barometric pressure:	
a) Trend (24hrs):	**Rising**
b) At start (mB):	**1011**
Recorded by:	**OH**
Surface ground conditions:	**Dry**
Weather conditions:	**Mild**
Ambient air temp (°C):	**19**

Monitoring equipment	
Instrument:	GA5000. No. G505055
Calibration check details:	See note 2 below
Next calibration date:	May 2025

Notes:

1) Barometric pressure trend and ambient air temperature is recorded from metoffice.gov.uk website on the day of the monitoring visit

2) Calibration check is performed at start of monitoring against ambient air and also periodically with a 5% CH_4, 5% CO_2 and 6% O_2 gas mixture

3) CH_4 = methane; CO_2 = carbon dioxide; CO = carbon monoxide; O_2 = oxygen; H_2S = hydrogen sulphide

BH ID	Time (24hr)	Pipe dia (mm)	GW depth (mbgl)	Depth to pipe base (mbgl)
WS08	13:56:46	50	Dry	1.60

Time (s)	CH_4 (%)	CO_2 (%)	O_2 (%)	CO (ppm)	H_2S (ppm)	PID (ppm)
0	0.0	0.1	20.5	1	3	2.0
15	0.0	0.4	20.2	3	3	2.0
30	0.0	0.4	20.0	1	2	2.6
45	0.0	0.4	20.0	0	3	2.4
60	0.0	0.4	20.0	0	3	2.2
75	0.0	0.4	20.0	0	3	2.0
90	0.0	0.4	20.0	0	3	1.8
105	0.0	0.4	20.0	0	3	1.6
120	0.0	0.4	20.0	0	2	1.3
135	0.0	0.4	20.0	0	2	1.1
150	0.0	0.4	20.0	1	2	0.9
165	0.0	0.4	20.0	1	2	0.7
180	0.0	0.4	20.0	1	2	0.6
195	0.0	0.4	19.9	2	2	0.6

Max CH_4 (%)	0.0
Max CO_2 (%)	0.4
Min O_2 (%)	19.9
Max CO (ppm)	3
Max H_2S (ppm)	3
Max PID (ppm)	2.6

Flow rate (l/hr)			Relative pressure (mb)
Initial	Mean	Max	
0.3	0.3	0.3	0.02

Site & Location	Report No:
Sonning Golf Club (Housing) **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**	**11043a/CA**

Results of groundwater/gas monitoring

Date:	**01/08/2025**
Barometric pressure:	
a) Trend (24hrs):	**Rising**
b) At start (mB):	**1011**
Recorded by:	**OH**
Surface ground conditions:	**Dry**
Weather conditions:	**Mild**
Ambient air temp (°C):	**19**

Monitoring equipment	
Instrument:	GA5000. No. G505055
Calibration check details:	See note 2 below
Next calibration date:	May 2025

Notes:

1) Barometric pressure trend and ambient air temperature is recorded from metoffice.gov.uk website on the day of the monitoring visit

2) Calibration check is performed at start of monitoring against ambient air and also periodically with a 5% CH_4, 5% CO_2 and 6% O_2 gas mixture

3) CH_4 = methane; CO_2 = carbon dioxide; CO = carbon monoxide; O_2 = oxygen; H_2S = hydrogen sulphide

BH ID	Time (24hr)	Pipe dia (mm)	GW depth (mbgl)	Depth to pipe base (mbgl)
WS10	14:08:09	50	Dry	1.65

Time (s)	CH_4 (%)	CO_2 (%)	O_2 (%)	CO (ppm)	H_2S (ppm)	PID (ppm)
0	0.0	0.0	20.3	1	2	1.4
15	0.0	0.9	19.3	2	2	1.4
30	0.0	0.9	19.1	1	2	1.8
45	0.0	0.9	19.1	1	2	1.8
60	0.0	0.9	19.0	0	2	1.8
75	0.0	0.9	19.0	1	2	1.8
90	0.0	0.9	19.0	0	2	1.7
105	0.0	0.9	19.0	0	2	1.5
120	0.0	0.9	19.0	0	2	1.3
135	0.0	0.9	19.0	0	2	1.1
150	0.0	0.9	19.0	1	2	0.9
165	0.0	0.9	19.0	1	2	0.7
180	0.0	1.0	19.0	0	2	0.6
195	0.0	0.8	19.3	1	3	0.6

Max CH_4 (%)	0.0
Max CO_2 (%)	1.0
Min O_2 (%)	19.0
Max CO (ppm)	2
Max H_2S (ppm)	3
Max PID (ppm)	1.8

Flow rate (l/hr)			Relative pressure (mb)
Initial	Mean	Max	
-0.1	-0.1	-0.1	0.07

Site & Location		Report No:
Sonning Golf Club (Housing) **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**		**11043a/CA**

Results of groundwater/gas monitoring

Date:	**01/08/2025**
Barometric pressure:	
a) Trend (24hrs):	**Rising**
b) At start (mB):	**1011**
Recorded by:	**OH**
Surface ground conditions:	**Dry**
Weather conditions:	**Mild**
Ambient air temp (°C):	**19**

Monitoring equipment	
Instrument:	GA5000. No. G505055
Calibration check details:	See note 2 below
Next calibration date:	May 2025

Notes:

1) Barometric pressure trend and ambient air temperature is recorded from metoffice.gov.uk website on the day of the monitoring visit

2) Calibration check is performed at start of monitoring against ambient air and also periodically with a 5% CH_4, 5% CO_2 and 6% O_2 gas mixture

3) CH_4 = methane; CO_2 = carbon dioxide; CO = carbon monoxide; O_2 = oxygen; H_2S = hydrogen sulphide

BH ID	Time (24hr)	Pipe dia (mm)	GW depth (mbgl)	Depth to pipe base (mbgl)
WS12	14:53:52	50	Dry	0.76

Time (s)	CH_4 (%)	CO_2 (%)	O_2 (%)	CO (ppm)	H_2S (ppm)	PID (ppm)
0	0.0	0.1	20.8	0	3	0.8
15	0.0	0.7	20.3	0	3	0.8
30	0.0	0.7	20.1	0	3	0.8
45	0.0	0.7	20.1	0	3	0.7
60	0.0	0.7	20.1	0	3	0.7
75	0.0	0.7	20.1	0	3	0.6
90	0.0	0.6	20.1	0	3	0.6
105	0.0	0.6	20.1	0	3	0.6
120	0.0	0.6	20.1	0	3	0.5
135	0.0	0.6	20.1	0	3	0.5
150	0.0	0.6	20.2	0	3	0.5
165	0.0	0.6	20.2	0	3	0.5
180	0.0	0.5	20.2	0	3	0.4
195	0.0	0.5	20.2	1	3	0.4

Max CH_4 (%)	0.0
Max CO_2 (%)	0.7
Min O_2 (%)	20.1
Max CO (ppm)	1
Max H_2S (ppm)	3
Max PID (ppm)	0.8

Flow rate (l/hr)			Relative pressure (mb)
Initial	Mean	Max	
0.2	0.2	0.2	-0.09

Site & Location		Report No:
Sonning Golf Club (Housing) **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**		**11043a/CA**

Results of groundwater/gas monitoring

Date:	**01/08/2025**
Barometric pressure:	
a) Trend (24hrs):	**Rising**
b) At start (mB):	**1011**
Recorded by:	**OH**
Surface ground conditions:	**Dry**
Weather conditions:	**Mild**
Ambient air temp (°C):	**19**

Monitoring equipment	
Instrument:	GA5000. No. G505055
Calibration check details:	See note 2 below
Next calibration date:	May 2025

Notes:

1) Barometric pressure trend and ambient air temperature is recorded from metoffice.gov.uk website on the day of the monitoring visit

2) Calibration check is performed at start of monitoring against ambient air and also periodically with a 5% CH_4, 5% CO_2 and 6% O_2 gas mixture

3) CH_4 = methane; CO_2 = carbon dioxide; CO = carbon monoxide; O_2 = oxygen; H_2S = hydrogen sulphide

BH ID	Time (24hr)	Pipe dia (mm)	GW depth (mbgl)	Depth to pipe base (mbgl)
WS14	14:38:34	50	Dry	0.90

Time (s)	CH_4 (%)	CO_2 (%)	O_2 (%)	CO (ppm)	H_2S (ppm)	PID (ppm)
0	0.0	0.1	20.7	1	3	0.7
15	0.0	1.8	18.3	1	3	0.7
30	0.0	1.9	18.0	0	3	0.8
45	0.0	1.9	17.9	0	3	0.7
60	0.0	2.0	17.8	0	3	0.7
75	0.0	2.0	17.8	0	3	0.6
90	0.0	2.0	17.7	0	3	0.5
105	0.0	2.0	17.8	0	3	0.5
120	0.0	2.0	17.8	0	3	0.4
135	0.0	2.0	17.9	0	3	0.4
150	0.0	1.9	18.0	0	3	0.4
165	0.0	1.9	18.1	0	3	0.3
180	0.0	1.8	18.1	0	3	0.3
195	0.0	1.6	18.5	0	3	0.3

Max CH_4 (%)	0.0
Max CO_2 (%)	2.0
Min O_2 (%)	17.7
Max CO (ppm)	1
Max H_2S (ppm)	3
Max PID (ppm)	0.8

Flow rate (l/hr)			Relative pressure (mb)
Initial	Mean	Max	
0.3	0.2	0.3	-0.05

Site & Location		Report No:
Sonning Golf Club (Housing) **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**		**11043a/CA**

Results of groundwater/gas monitoring

Date:	**01/08/2025**
Barometric pressure:	
a) Trend (24hrs):	**Rising**
b) At start (mB):	**1011**
Recorded by:	**OH**
Surface ground conditions:	**Dry**
Weather conditions:	**Mild**
Ambient air temp (°C):	**19**

Monitoring equipment	
Instrument:	GA5000. No. G505055
Calibration check details:	See note 2 below
Next calibration date:	May 2025

Notes:

1) Barometric pressure trend and ambient air temperature is recorded from metoffice.gov.uk website on the day of the monitoring visit

2) Calibration check is performed at start of monitoring against ambient air and also periodically with a 5% CH_4, 5% CO_2 and 6% O_2 gas mixture

3) CH_4 = methane; CO_2 = carbon dioxide; CO = carbon monoxide; O_2 = oxygen; H_2S = hydrogen sulphide

BH ID	Time (24hr)	Pipe dia (mm)	GW depth (mbgl)	Depth to pipe base (mbgl)
WS15	14:28:25	50	Dry	1.44

Time (s)	CH_4 (%)	CO_2 (%)	O_2 (%)	CO (ppm)	H_2S (ppm)	PID (ppm)
0	0.0	0.1	20.6	1	3	1.3
15	0.0	1.0	19.6	1	3	1.3
30	0.0	1.0	19.4	0	3	1.6
45	0.0	1.0	19.3	0	3	1.4
60	0.0	1.0	19.3	0	3	1.3
75	0.0	1.0	19.3	0	3	1.0
90	0.0	1.0	19.3	0	3	0.9
105	0.0	1.0	19.3	0	3	0.7
120	0.0	1.1	19.3	0	3	0.6
135	0.0	1.1	19.3	0	3	0.5
150	0.0	1.1	19.3	0	3	0.4
165	0.0	1.1	19.3	0	3	0.3
180	0.0	1.1	19.3	0	3	0.3
195	0.0	1.1	19.3	1	3	0.3

Max CH_4 (%)	0.0
Max CO_2 (%)	1.1
Min O_2 (%)	19.3
Max CO (ppm)	1
Max H_2S (ppm)	3
Max PID (ppm)	1.6

Flow rate (l/hr)			Relative pressure (mb)
Initial	Mean	Max	
-0.1	-0.1	-0.1	0.03

Site & Location		Report No:
Sonning Golf Club (Housing) **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**		**11043a/CA**

Results of groundwater/gas monitoring

Date:	**18/08/2025**
Barometric pressure:	
a) Trend (24hrs):	**Falling**
b) At start (mB):	**1022**
Recorded by:	**CA/ OH**
Surface ground conditions:	**Dry**
Weather conditions:	**Mild**
Ambient air temp (°C):	**19**

Monitoring equipment	
Instrument:	GA5000. No. G505055
Calibration check details:	See note 2 below
Next calibration date:	May 2025

Notes:

1) Barometric pressure trend and ambient air temperature is recorded from metoffice.gov.uk website on the day of the monitoring visit

2) Calibration check is performed at start of monitoring against ambient air and also periodically with a 5% CH_4, 5% CO_2 and 6% O_2 gas mixture

3) CH_4 = methane; CO_2 = carbon dioxide; CO = carbon monoxide; O_2 = oxygen; H_2S = hydrogen sulphide

BH ID	Time (24hr)	Pipe dia (mm)	GW depth (mbgl)	Depth to pipe base (mbgl)
WS01	10:09:08	50	Dry	1.65

Time (s)	CH_4 (%)	CO_2 (%)	O_2 (%)	CO (ppm)	H_2S (ppm)	PID (ppm)
0	0.0	0.1	21.2	0	0	0.5
15	0.0	0.9	20.9	0	0	0.5
30	0.0	0.9	20.7	0	0	0.6
45	0.0	0.9	20.6	0	0	0.6
60	0.0	0.9	20.6	0	0	0.5
75	0.0	0.9	20.6	0	0	0.4
90	0.0	0.9	20.6	0	0	0.4
105	0.0	0.9	20.5	0	0	0.2
120	0.0	0.9	20.5	0	0	0.1
135	0.0	0.9	20.5	0	0	0.1
150	0.0	0.8	20.5	0	0	0.0
165	0.0	0.8	20.5	0	0	0.0
180	0.0	0.8	20.6	0	0	0.0
195	0.0	0.8	20.5	0	0	0.0

Max CH_4 (%)	0.0
Max CO_2 (%)	0.9
Min O_2 (%)	20.5
Max CO (ppm)	0
Max H_2S (ppm)	0
Max PID (ppm)	0.6

Flow rate (l/hr)			Relative pressure (mb)
Initial	Mean	Max	
0.1	0.1	0.1	-10.48

Site & Location	Sonning Golf Club (Housing) Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ	Report No: 11043a/CA

Results of groundwater/gas monitoring

Date:	**18/08/2025**	Monitoring equipment	
Barometric pressure:		Instrument:	GA5000. No. G505055
a) Trend (24hrs):	**Falling**	Calibration check details:	See note 2 below
b) At start (mB):	**1022**	Next calibration date:	May 2025
Recorded by:	**CA/ OH**		
Surface ground conditions:	**Dry**		
Weather conditions:	**Mild**		
Ambient air temp (°C):	**19**		

Notes:

1) Barometric pressure trend and ambient air temperature is recorded from metoffice.gov.uk website on the day of the monitoring visit

2) Calibration check is performed at start of monitoring against ambient air and also periodically with a 5% CH_4, 5% CO_2 and 6% O_2 gas mixture

3) CH_4 = methane; CO_2 = carbon dioxide; CO = carbon monoxide; O_2 = oxygen; H_2S = hydrogen sulphide

BH ID	Time (24hr)	Pipe dia (mm)	GW depth (mbgl)	Depth to pipe base (mbgl)
WS05	10:20:57	50	Dry	2.46

Time (s)	CH_4 (%)	CO_2 (%)	O_2 (%)	CO (ppm)	H_2S (ppm)	PID (ppm)
0	0.0	0.2	20.9	0	0	3.5
15	0.0	1.1	20.6	0	0	3.5
30	0.0	1.1	20.5	0	0	3.6
45	0.0	1.1	20.5	0	0	3.7
60	0.0	1.1	20.5	0	0	3.6
75	0.0	1.1	20.4	0	0	3.5
90	0.0	1.1	20.4	0	0	3.0
105	0.0	1.1	20.4	0	0	2.8
120	0.0	1.2	20.4	0	0	2.5
135	0.0	1.2	20.4	0	0	2.2
150	0.0	1.2	20.4	0	0	2.2
165	0.0	1.2	20.4	0	0	2.0
180	0.0	1.2	20.4	0	0	1.9
195	0.0	1.2	20.4	0	0	1.9

Max CH_4 (%)	0.0
Max CO_2 (%)	1.2
Min O_2 (%)	20.4
Max CO (ppm)	0
Max H_2S (ppm)	0
Max PID (ppm)	3.7

Flow rate (l/hr)			Relative pressure (mb)
Initial	Mean	Max	
0.1	0.1	0.1	-6.38

Site & Location		Report No:
Sonning Golf Club (Housing) **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**		**11043a/CA**

Results of groundwater/gas monitoring

Date:	**18/08/2025**
Barometric pressure:	
a) Trend (24hrs):	**Falling**
b) At start (mB):	**1022**
Recorded by:	**CA/ OH**
Surface ground conditions:	**Dry**
Weather conditions:	**Mild**
Ambient air temp (°C):	**19**

Monitoring equipment	
Instrument:	GA5000. No. G505055
Calibration check details:	See note 2 below
Next calibration date:	May 2025

Notes:

1) Barometric pressure trend and ambient air temperature is recorded from metoffice.gov.uk website on the day of the monitoring visit

2) Calibration check is performed at start of monitoring against ambient air and also periodically with a 5% CH_4, 5% CO_2 and 6% O_2 gas mixture

3) CH_4 = methane; CO_2 = carbon dioxide; CO = carbon monoxide; O_2 = oxygen; H_2S = hydrogen sulphide

BH ID	Time (24hr)	Pipe dia (mm)	GW depth (mbgl)	Depth to pipe base (mbgl)
WS06	10:29:10	19	Dry	1.71

Time (s)	CH_4 (%)	CO_2 (%)	O_2 (%)	CO (ppm)	H_2S (ppm)	PID (ppm)
0	0.0	0.1	20.8	1	0	0.2
15	0.0	0.9	20.6	1	0	0.2
30	0.0	1.0	20.4	0	0	0.1
45	0.0	1.0	20.3	1	0	0.0
60	0.0	1.0	20.3	0	0	0.0
75	0.0	1.0	20.3	1	0	0.0
90	0.0	0.9	20.3	0	0	0.0
105	0.0	0.9	20.3	1	0	0.0
120	0.0	0.9	20.4	1	0	0.0
135	0.0	0.8	20.4	1	0	0.0
150	0.0	0.8	20.4	1	0	0.0
165	0.0	0.8	20.4	0	0	0.0
180	0.0	0.7	20.4	1	0	0.0
195	0.0	0.7	20.4	1	0	0.0

Max CH_4 (%)	0.0
Max CO_2 (%)	1.0
Min O_2 (%)	20.3
Max CO (ppm)	1
Max H_2S (ppm)	0
Max PID (ppm)	0.2

Flow rate (l/hr)			Relative pressure (mb)
Initial	Mean	Max	
0.0	0.0	0.0	-10.70

SoilConsultants

Site & Location		Report No:
Sonning Golf Club (Housing) **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**		**11043a/CA**

Results of groundwater/gas monitoring

Date:	**18/08/2025**
Barometric pressure:	
a) Trend (24hrs):	**Falling**
b) At start (mB):	**1022**
Recorded by:	**CA/ OH**
Surface ground conditions:	**Dry**
Weather conditions:	**Mild**
Ambient air temp (°C):	**19**

Monitoring equipment	
Instrument:	GA5000. No. G505055
Calibration check details:	See note 2 below
Next calibration date:	May 2025

Notes:

1) Barometric pressure trend and ambient air temperature is recorded from metoffice.gov.uk website on the day of the monitoring visit

2) Calibration check is performed at start of monitoring against ambient air and also periodically with a 5% CH_4, 5% CO_2 and 6% O_2 gas mixture

3) CH_4 = methane; CO_2 = carbon dioxide; CO = carbon monoxide; O_2 = oxygen; H_2S = hydrogen sulphide

BH ID	Time (24hr)	Pipe dia (mm)	GW depth (mbgl)	Depth to pipe base (mbgl)
WS07	10:49:20	19	Dry	1.59

Time (s)	CH_4 (%)	CO_2 (%)	O_2 (%)	CO (ppm)	H_2S (ppm)	PID (ppm)
0	0.0	0.1	20.8	0	0	0.2
15	0.0	0.4	20.8	0	0	0.2
30	0.0	0.4	20.6	0	0	0.0
45	0.0	0.4	20.6	0	0	0.0
60	0.0	0.4	20.6	0	0	0.0
75	0.0	0.4	20.6	0	0	0.0
90	0.0	0.4	20.6	0	0	0.0
105	0.0	0.4	20.6	0	0	0.0
120	0.0	0.4	20.6	0	0	0.0
135	0.0	0.4	20.6	0	0	0.0
150	0.0	0.4	20.6	0	0	0.0
165	0.0	0.4	20.6	0	0	0.0
180	0.0	0.4	20.6	0	0	0.0
195	0.0	0.4	20.6	0	0	0.0

Max CH_4 (%)	0.0
Max CO_2 (%)	0.4
Min O_2 (%)	20.6
Max CO (ppm)	0
Max H_2S (ppm)	0
Max PID (ppm)	0.2

Flow rate (l/hr)			Relative pressure (mb)
Initial	Mean	Max	
0.0	0.0	0.0	1.30

Site & Location		Report No:
Sonning Golf Club (Housing) **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**		**11043a/CA**

Results of groundwater/gas monitoring

Date:	**18/08/2025**
Barometric pressure:	
a) Trend (24hrs):	**Falling**
b) At start (mB):	**1022**
Recorded by:	**CA/ OH**
Surface ground conditions:	**Dry**
Weather conditions:	**Mild**
Ambient air temp (°C):	**19**

Monitoring equipment	
Instrument:	GA5000. No. G505055
Calibration check details:	See note 2 below
Next calibration date:	May 2025

Notes:

1) Barometric pressure trend and ambient air temperature is recorded from metoffice.gov.uk website on the day of the monitoring visit

2) Calibration check is performed at start of monitoring against ambient air and also periodically with a 5% CH_4, 5% CO_2 and 6% O_2 gas mixture

3) CH_4 = methane; CO_2 = carbon dioxide; CO = carbon monoxide; O_2 = oxygen; H_2S = hydrogen sulphide

BH ID	Time (24hr)	Pipe dia (mm)	GW depth (mbgl)	Depth to pipe base (mbgl)
WS08	10:37:52	50	Dry	1.60

Time (s)	CH_4 (%)	CO_2 (%)	O_2 (%)	CO (ppm)	H_2S (ppm)	PID (ppm)
0	0.0	0.1	20.8	0	0	2.0
15	0.0	0.4	20.7	1	0	2.0
30	0.0	0.4	20.6	1	0	2.3
45	0.0	0.4	20.5	0	0	2.2
60	0.0	0.4	20.5	0	0	2.0
75	0.0	0.4	20.5	0	0	1.6
90	0.0	0.4	20.5	0	0	1.4
105	0.0	0.4	20.5	0	0	1.1
120	0.0	0.4	20.5	0	0	0.8
135	0.0	0.4	20.5	0	0	0.5
150	0.0	0.4	20.5	0	0	0.3
165	0.0	0.4	20.5	0	0	0.2
180	0.0	0.4	20.5	0	0	0.1
195	0.0	0.4	20.5	0	0	0.1

Max CH_4 (%)	0.0
Max CO_2 (%)	0.4
Min O_2 (%)	20.5
Max CO (ppm)	1
Max H_2S (ppm)	0
Max PID (ppm)	2.3

Flow rate (l/hr)			Relative pressure (mb)
Initial	Mean	Max	
0.0	0.0	0.0	-10.68

SoilConsultants

Site & Location		Report No:
Sonning Golf Club (Housing) **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**		**11043a/CA**

Results of groundwater/gas monitoring

Date:	**18/08/2025**
Barometric pressure:	
a) Trend (24hrs):	**Falling**
b) At start (mB):	**1022**
Recorded by:	**CA/ OH**
Surface ground conditions:	**Dry**
Weather conditions:	**Mild**
Ambient air temp (°C):	**19**

Monitoring equipment	
Instrument:	GA5000. No. G505055
Calibration check details:	See note 2 below
Next calibration date:	May 2025

Notes:

1) Barometric pressure trend and ambient air temperature is recorded from metoffice.gov.uk website on the day of the monitoring visit

2) Calibration check is performed at start of monitoring against ambient air and also periodically with a 5% CH_4, 5% CO_2 and 6% O_2 gas mixture

3) CH_4 = methane; CO_2 = carbon dioxide; CO = carbon monoxide; O_2 = oxygen; H_2S = hydrogen sulphide

BH ID	Time (24hr)	Pipe dia (mm)	GW depth (mbgl)	Depth to pipe base (mbgl)
WS10	10:57:44	50	Dry	1.65

Time (s)	CH_4 (%)	CO_2 (%)	O_2 (%)	CO (ppm)	H_2S (ppm)	PID (ppm)
0	0.0	0.1	20.9	0	0	1.6
15	0.0	0.5	20.7	0	0	1.6
30	0.0	0.5	20.6	0	0	2.3
45	0.0	0.5	20.5	0	0	2.2
60	0.0	0.5	20.5	0	0	2.1
75	0.0	0.5	20.5	0	0	1.9
90	0.0	0.5	20.5	0	0	1.6
105	0.0	0.5	20.5	0	0	1.3
120	0.0	0.5	20.5	0	0	1.0
135	0.0	0.5	20.6	0	0	0.7
150	0.0	0.5	20.6	0	0	0.5
165	0.0	0.5	20.6	0	0	0.4
180	0.0	0.5	20.6	0	0	0.3
195	0.0	0.5	20.6	0	0	0.2

Max CH_4 (%)	0.0
Max CO_2 (%)	0.5
Min O_2 (%)	20.5
Max CO (ppm)	0
Max H_2S (ppm)	0
Max PID (ppm)	2.3

Flow rate (l/hr)			Relative pressure (mb)
Initial	Mean	Max	
-0.1	-0.1	0.0	-10.77

Site & Location		Report No:
Sonning Golf Club (Housing) **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**		**11043a/CA**

Results of groundwater/gas monitoring

Date:	**18/08/2025**
Barometric pressure: a) Trend (24hrs): b) At start (mB):	 **Falling** **1022**
Recorded by:	**CA/ OH**
Surface ground conditions: Weather conditions: Ambient air temp (°C):	**Dry** **Mild** **19**

Monitoring equipment	
Instrument:	GA5000. No. G505055
Calibration check details:	See note 2 below
Next calibration date:	May 2025

Notes:

1) Barometric pressure trend and ambient air temperature is recorded from metoffice.gov.uk website on the day of the monitoring visit

2) Calibration check is performed at start of monitoring against ambient air and also periodically with a 5% CH_4, 5% CO_2 and 6% O_2 gas mixture

3) CH_4 = methane; CO_2 = carbon dioxide; CO = carbon monoxide; O_2 = oxygen; H_2S = hydrogen sulphide

BH ID	Time (24hr)	Pipe dia (mm)	GW depth (mbgl)	Depth to pipe base (mbgl)
WS12	11:06:05	50	Dry	0.77

Time (s)	CH_4 (%)	CO_2 (%)	O_2 (%)	CO (ppm)	H_2S (ppm)	PID (ppm)
0	0.0	0.1	21.0	0	0	0.4
15	0.0	0.2	21.0	0	0	0.4
30	0.0	0.2	20.8	0	0	0.3
45	0.0	0.3	20.8	0	0	0.3
60	0.0	0.3	20.8	0	0	0.2
75	0.0	0.2	20.8	0	0	0.2
90	0.0	0.2	20.8	0	0	0.2
105	0.0	0.2	20.8	0	0	0.2
120	0.0	0.2	20.8	0	0	0.1
135	0.0	0.2	20.8	0	0	0.1
150	0.0	0.2	20.8	0	0	0.1
165	0.0	0.2	20.8	0	0	0.1
180	0.0	0.2	20.8	0	0	0.1
195	0.0	0.2	20.8	0	0	0.1

Max CH_4 (%)	0.0
Max CO_2 (%)	0.3
Min O_2 (%)	20.8
Max CO (ppm)	0
Max H_2S (ppm)	0
Max PID (ppm)	0.4

Flow rate (l/hr)			Relative pressure (mb)
Initial	Mean	Max	
0.0	0.0	0.0	-0.10

Site & Location		Report No:
Sonning Golf Club (Housing) **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**		**11043a/CA**

Results of groundwater/gas monitoring

Date:	**18/08/2025**
Barometric pressure: a) Trend (24hrs): b) At start (mB):	**Falling** **1022**
Recorded by:	**CA/ OH**
Surface ground conditions: Weather conditions: Ambient air temp (°C):	**Dry** **Mild** **19**

Monitoring equipment	
Instrument:	GA5000. No. G505055
Calibration check details:	See note 2 below
Next calibration date:	May 2025

Notes:

1) Barometric pressure trend and ambient air temperature is recorded from metoffice.gov.uk website on the day of the monitoring visit

2) Calibration check is performed at start of monitoring against ambient air and also periodically with a 5% CH_4, 5% CO_2 and 6% O_2 gas mixture

3) CH_4 = methane; CO_2 = carbon dioxide; CO = carbon monoxide; O_2 = oxygen; H_2S = hydrogen sulphide

BH ID	Time (24hr)	Pipe dia (mm)	GW depth (mbgl)	Depth to pipe base (mbgl)
WS14	11:22:56	50	Dry	0.90

Time (s)	CH_4 (%)	CO_2 (%)	O_2 (%)	CO (ppm)	H_2S (ppm)	PID (ppm)
0	0.0	0.0	21.1	0	0	0.5
15	0.0	0.3	21.0	0	0	0.5
30	0.0	0.3	20.8	0	0	0.4
45	0.0	0.3	20.8	0	0	0.4
60	0.0	0.3	20.8	0	0	0.3
75	0.0	0.3	20.8	0	0	0.2
90	0.0	0.3	20.8	0	0	0.2
105	0.0	0.3	20.8	0	0	0.2
120	0.0	0.3	20.8	0	0	0.2
135	0.0	0.3	20.8	0	0	0.1
150	0.0	0.3	20.8	0	0	0.1
165	0.0	0.3	20.8	0	0	0.1
180	0.0	0.3	20.8	0	0	0.1
195	0.0	0.3	20.8	0	0	0.1

Max CH_4 (%)	0.0
Max CO_2 (%)	0.3
Min O_2 (%)	20.8
Max CO (ppm)	0
Max H_2S (ppm)	0
Max PID (ppm)	0.5

Flow rate (l/hr)			Relative pressure (mb)
Initial	Mean	Max	
-0.1	-0.1	0.0	10.08

SoilConsultants

Site & Location		Report No:
Sonning Golf Club (Housing) **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**		**11043a/CA**

Results of groundwater/gas monitoring

Date:	**18/08/2025**	Monitoring equipment	
Barometric pressure:		Instrument:	GA5000. No. G505055
a) Trend (24hrs):	**Falling**	Calibration check details:	See note 2 below
b) At start (mB):	**1022**	Next calibration date:	May 2025
Recorded by:	**CA/ OH**		
Surface ground conditions:	**Dry**		
Weather conditions:	**Mild**		
Ambient air temp (°C):	**19**		

Notes:

1) Barometric pressure trend and ambient air temperature is recorded from metoffice.gov.uk website on the day of the monitoring visit

2) Calibration check is performed at start of monitoring against ambient air and also periodically with a 5% CH_4, 5% CO_2 and 6% O_2 gas mixture

3) CH_4 = methane; CO_2 = carbon dioxide; CO = carbon monoxide; O_2 = oxygen; H_2S = hydrogen sulphide

BH ID	Time (24hr)	Pipe dia (mm)	GW depth (mbgl)	Depth to pipe base (mbgl)
WS15	11:13:51	50	Dry	1.44

Time (s)	CH_4 (%)	CO_2 (%)	O_2 (%)	CO (ppm)	H_2S (ppm)	PID (ppm)
0	0.0	0.1	21.0	0	0	0.7
15	0.0	0.4	20.8	0	0	0.7
30	0.0	0.4	20.7	0	0	0.7
45	0.0	0.4	20.8	0	0	1.3
60	0.0	0.4	20.7	0	0	1.1
75	0.0	0.4	20.7	0	0	0.8
90	0.0	0.4	20.7	0	0	0.5
105	0.0	0.4	20.7	0	0	0.3
120	0.0	0.4	20.7	0	0	0.1
135	0.0	0.4	20.7	0	0	0.0
150	0.0	0.4	20.7	0	0	0.0
165	0.0	0.4	20.7	0	0	0.0
180	0.0	0.4	20.7	0	0	0.0
195	0.0	0.4	20.7	0	0	0.0

Max CH_4 (%)	0.0
Max CO_2 (%)	0.4
Min O_2 (%)	20.7
Max CO (ppm)	0
Max H_2S (ppm)	0
Max PID (ppm)	1.3

Flow rate (l/hr)			Relative pressure (mb)
Initial	Mean	Max	
0.0	0.0	0.0	9.85

Site & Location	**Sonning Golf Club (Housing)** **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**	Report No:	**11043a/CA**

Summary of classification test results

BH ID	Depth (m)	Type	w (%)	w_L (%)	w_P (%)	Pass 425 (%)	I_P (%)	Mod I_P (%)	I_L (%)	LOI (%)	Description
TP01	1.30	D	11	28	14	59	14	8	-0.22		Light grey very sandy clay
TP03	1.30	D	15	33	16	57	17	10	-0.06		Light grey very sandy clay

Testing in accordance with BS EN ISO 17892 unless specified otherwise

Date: 26 Aug 25

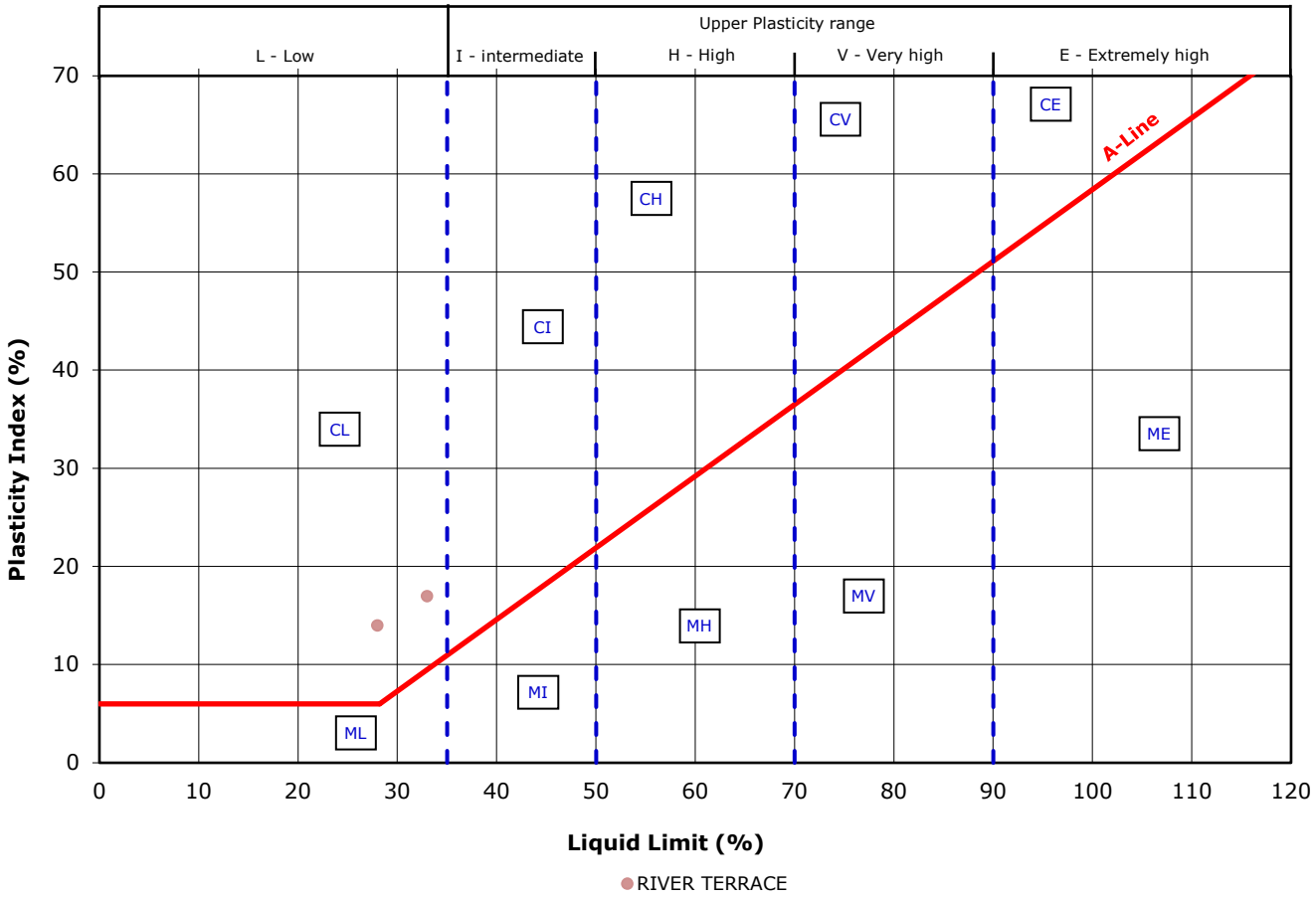
Modified Plasticity Index calculated in accordance with NHBC Standards Chapter 4.2 (reported if %passing 425mm <95%)

Percent passing 425μm: by estimation, by hand* or by sieving**

Soil Consultants

Site & Location	**Sonning Golf Club (Housing)** **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**	Report No:	**11043a/CA**

Plasticity Chart



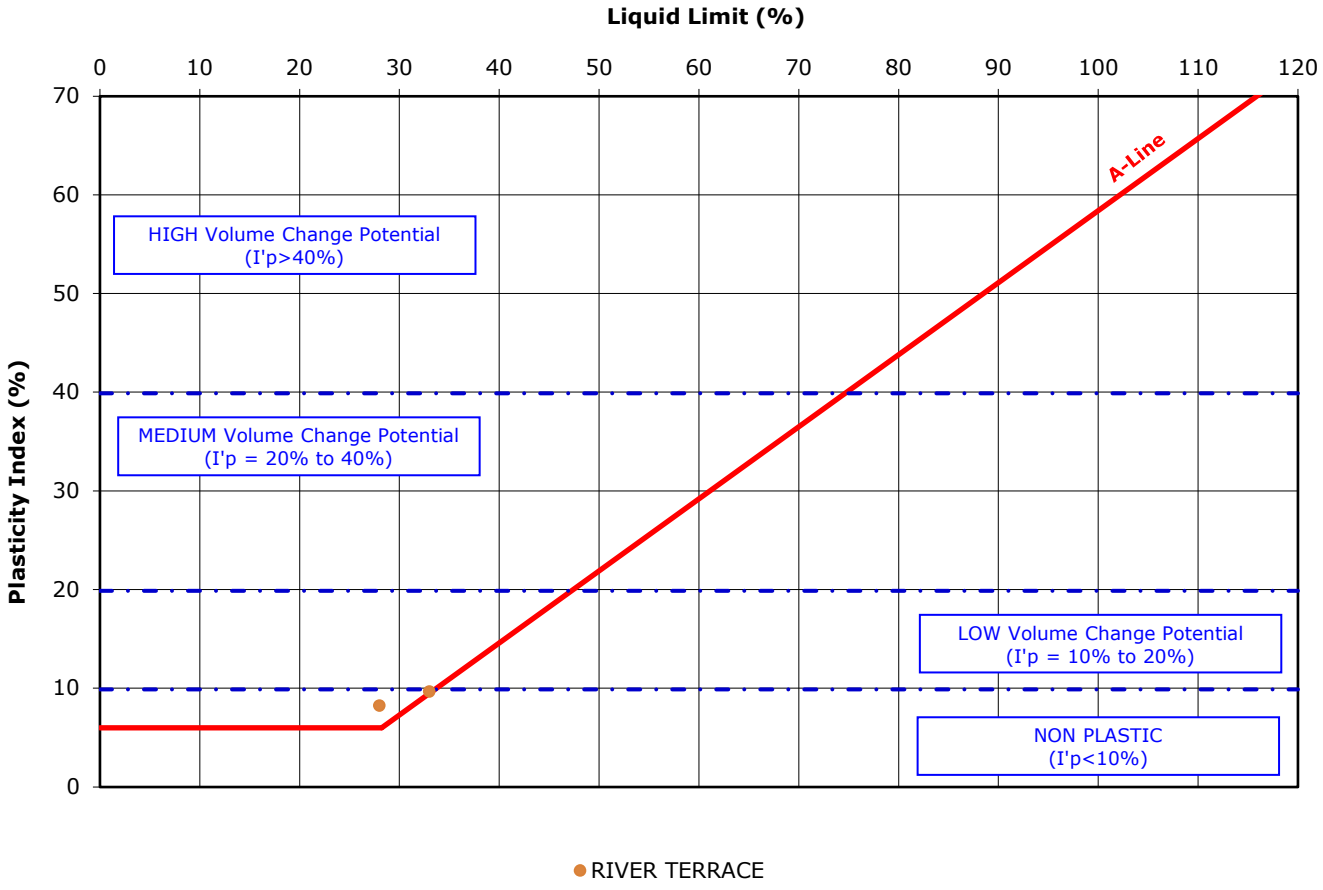
M - SILT [plots below the A-Line}
C - CLAY [plots above the A-Line]

Classification in accordance with BS5930:2015 "Code of practice for site investigations"

Soil Consultants

Site & Location	**Sonning Golf Club (Housing)** **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**	Report No:	**11043a/CA**

Plasticity Chart



Modified Plasticity Index, I'p:

$$I'p = \frac{Ip \times (\%\ \text{passing 425mm})}{100\%}$$

(where Ip = Plasticity Index)

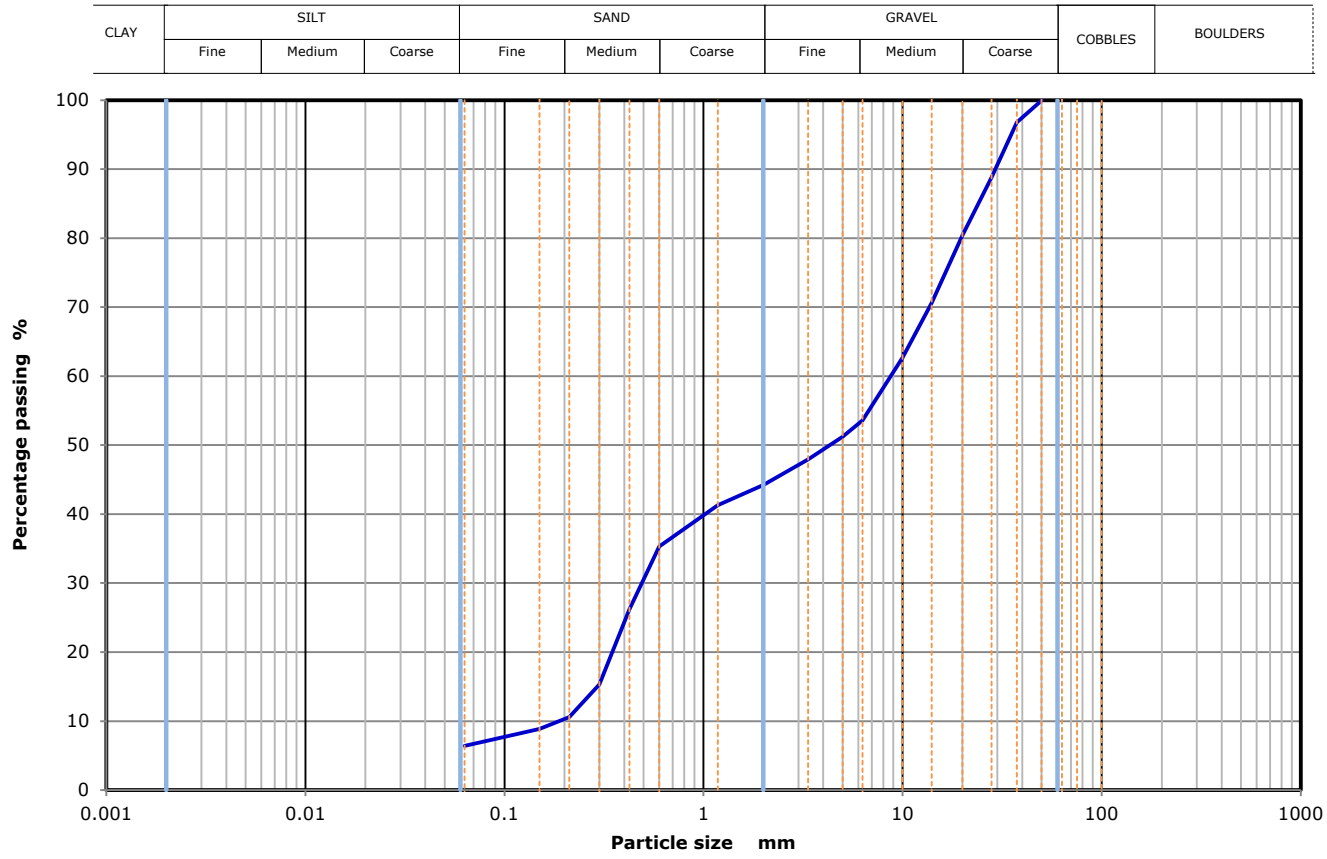
Classification in accordance with NHBC Standards, Part 4 'Foundations', Chapter 4.2 'Building near trees'

Soil Consultants

Site & Location	**Sonning Golf Club (Housing)** **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**	Report No:	**11043a/CA**

Particle size distribution

Hole ID: **TP01** Depth (m): **0.5-0.9**	Description: **Light greyish brown silty very sandy GRAVEL.**



Sieving	
Size (mm)	% passing
0	0.0
0	0.0
50	100.0
37.5	96.8
28	88.8
20	80.4
14	70.6
10	62.7
6.3	53.6
5	51.2
3.35	47.9
2	44.2
1.18	41.3
0.6	35.3
0.425	26.2
0.3	15.3
0.212	10.6
0.15	8.9
0.063	6.4

Sedimentation	
Size (μm)	% passing

Sample proportions	%
Cobbles	0
Gravel	56
Sand	38
Fines (<0.063mm)	6

Grading analysis		
D60	mm	9
D30	mm	0
D10	mm	0
Uniformity Coefficient		46
Curvature Coefficient		0

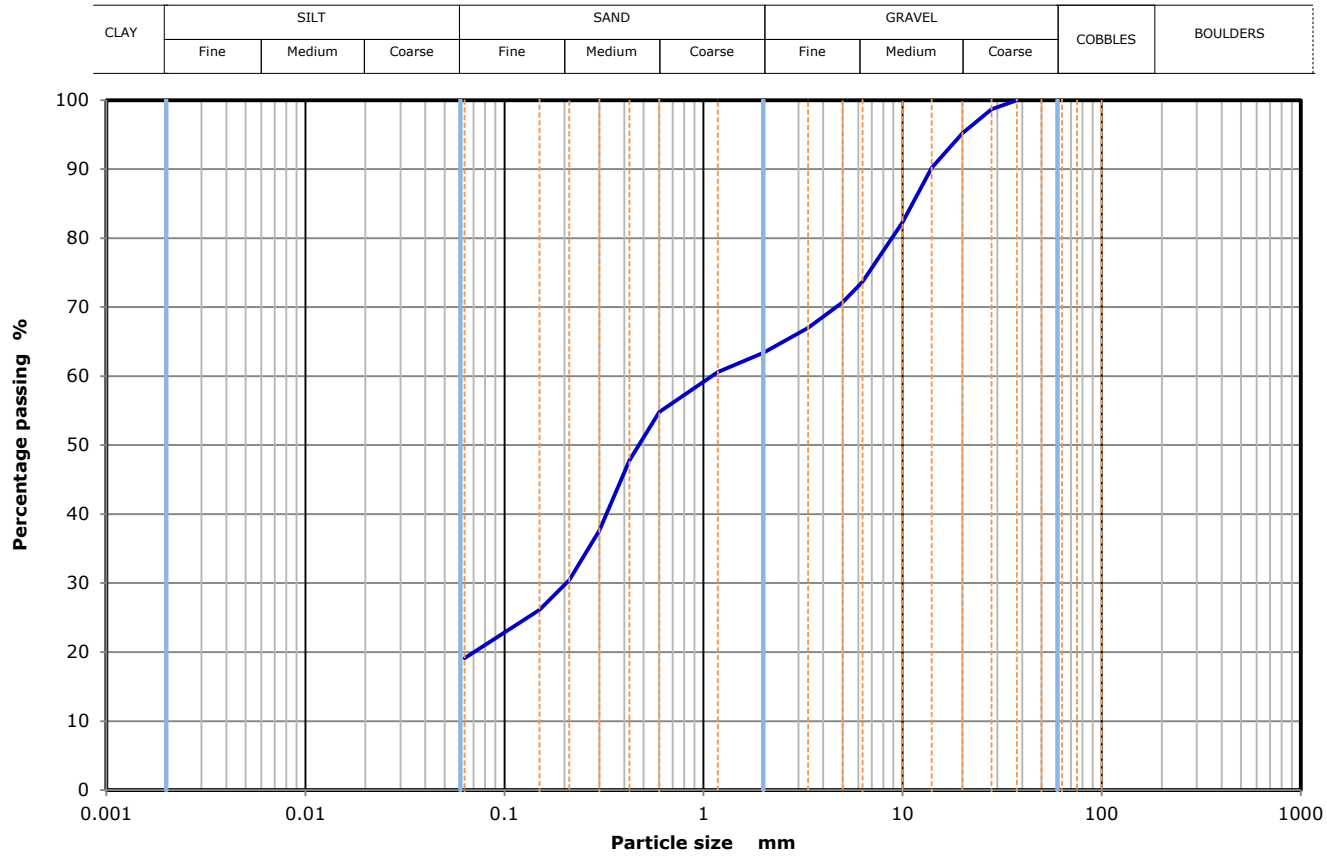
Test method and date	
Method: BS EN ISO 17892-4:2016	
- Wet sieving method	
Reporting date:	27 Aug 25

Soil Consultants

Site & Location	**Sonning Golf Club (Housing)** **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**	Report No:	**11043a/CA**

Particle size distribution

Hole ID: **TP01** Depth (m): **1.0-1.5**	Description: **Orangish-brown clayey silty very gravelly SAND.**



Sieving	
Size (mm)	% passing
0	0.0
0	0.0
0	0.0
37.5	100.0
28	98.7
20	95.2
14	90.2
10	82.3
6.3	73.7
5	70.7
3.35	67.0
2	63.4
1.18	60.6
0.6	54.8
0.425	47.8
0.3	37.6
0.212	30.4
0.15	26.1
0.063	19.1

Sedimentation	
Size (μm)	% passing

Sample proportions	%
Cobbles	0
Gravel	37
Sand	44
Fines (<0.063mm)	19

Grading analysis		
D60	mm	1
D30	mm	0
D10	mm	N/A
Uniformity Coefficient		
Curvature Coefficient		

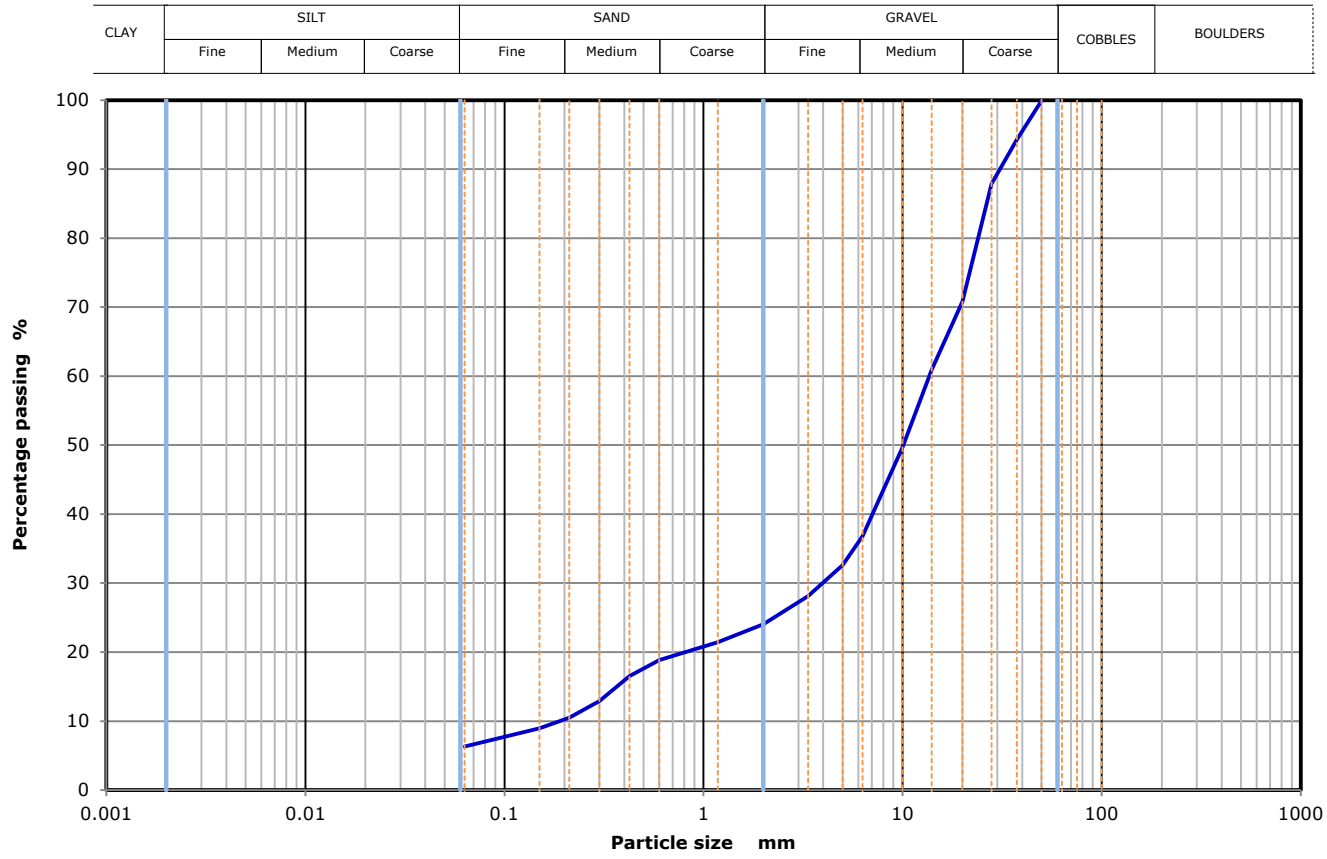
Test method and date	
Method: BS EN ISO 17892-4:2016	
- Wet sieving method	
Reporting date:	27 Aug 25

Soil Consultants

Site & Location	**Sonning Golf Club (Housing)** **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**	Report No:	**11043a/CA**

Particle size distribution

Hole ID: **TP03** Depth (m): **0.50**	Description: **Orangish-brown silty sandy to very sandy GRAVEL.**



Sieving	
Size (mm)	% passing
0	0.0
0	0.0
50	100.0
37.5	94.3
28	87.9
20	70.8
14	60.9
10	49.7
6.3	36.8
5	32.6
3.35	28.1
2	24.0
1.18	21.4
0.6	18.8
0.425	16.5
0.3	12.9
0.212	10.5
0.15	9.0
0.063	6.3

Sedimentation	
Size (μm)	% passing

Sample proportions	%
Cobbles	0
Gravel	76
Sand	18
Fines (<0.063mm)	6

Grading analysis		
D60	mm	14
D30	mm	4
D10	mm	0
Uniformity Coefficient		72
Curvature Coefficient		6

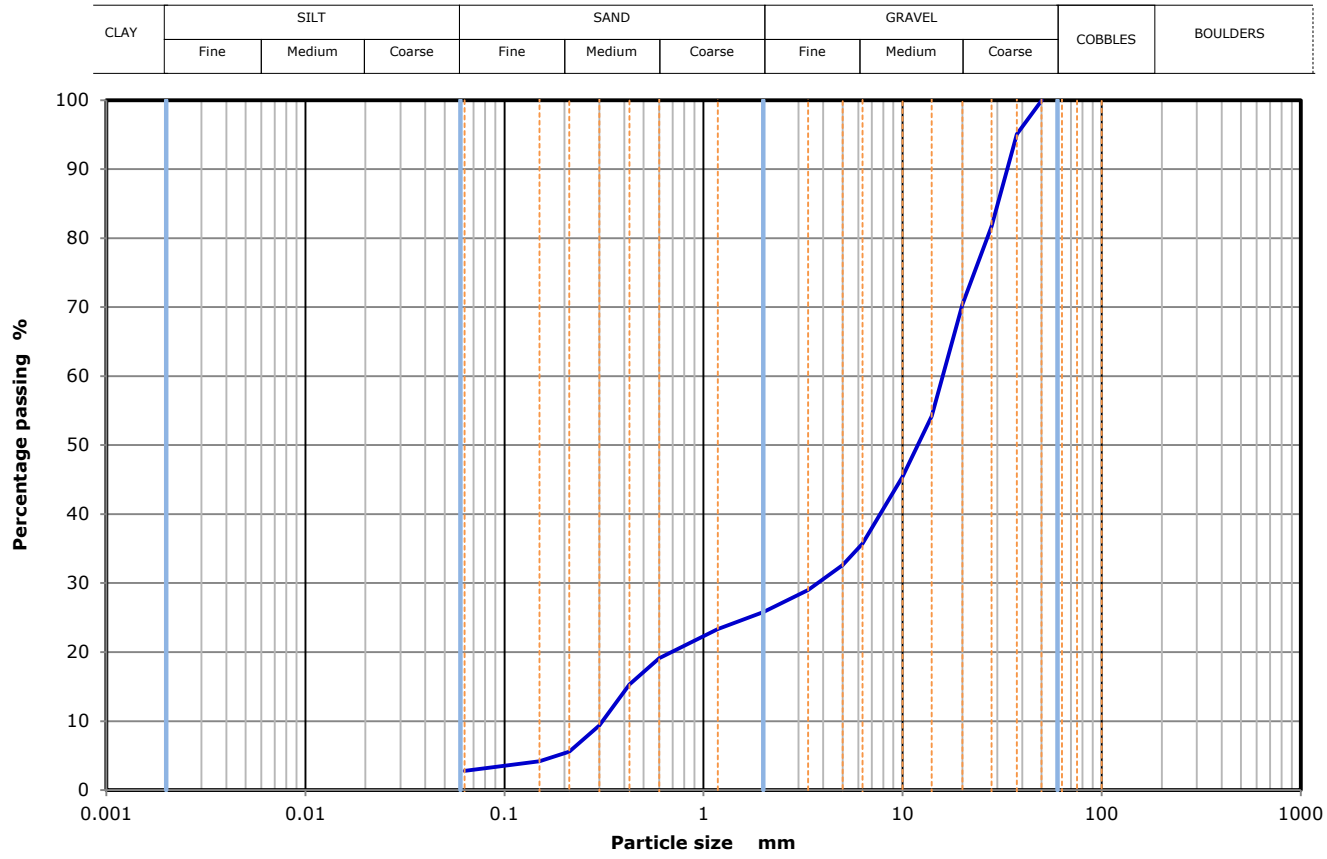
Test method and date	
Method: BS EN ISO 17892-4:2016	
- Wet sieving method	
Reporting date:	27 Aug 25

Soil Consultants

Site & Location	**Sonning Golf Club (Housing)** **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**	Report No:	**11043a/CA**

Particle size distribution

Hole ID: **TP03** Depth (m): **2.00**	Description: **Orangish-brown silty sandy to very sandy GRAVEL.**



Sieving	
Size (mm)	% passing
0	0.0
0	0.0
50	100.0
37.5	95.1
28	81.7
20	70.4
14	54.2
10	45.4
6.3	35.7
5	32.6
3.35	29.0
2	25.8
1.18	23.3
0.6	19.1
0.425	15.3
0.3	9.4
0.212	5.6
0.15	4.2
0.063	2.8

Sedimentation	
Size (μm)	% passing

Sample proportions	%
Cobbles	0
Gravel	74
Sand	23
Fines (<0.063mm)	3

Grading analysis		
D60	mm	16
D30	mm	4
D10	mm	0
Uniformity Coefficient		51
Curvature Coefficient		3

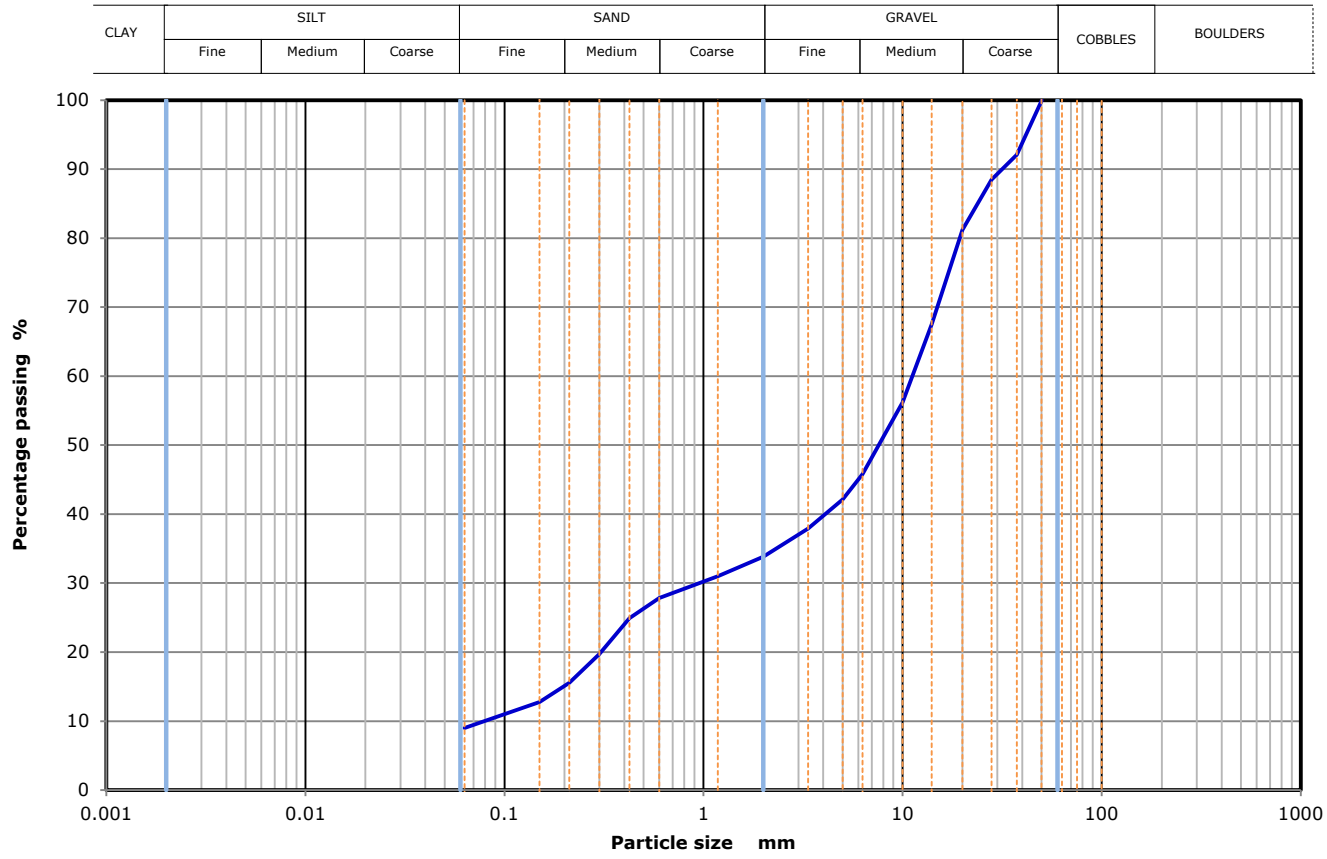
Test method and date	
Method: BS EN ISO 17892-4:2016	
- Wet sieving method	
Reporting date:	27 Aug 25

Soil Consultants

Site & Location	**Sonning Golf Club (Housing)** **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**	Report No:	**11043a/CA**

Particle size distribution

Hole ID: **TP04** Depth (m): **0.50**	Description: **Orangish-brown silty very sandy GRAVEL.**



Sieving	
Size (mm)	% passing
0	0.0
0	0.0
50	100.0
37.5	92.1
28	88.5
20	81.2
14	67.5
10	56.2
6.3	45.8
5	42.1
3.35	37.9
2	33.8
1.18	31.0
0.6	27.8
0.425	24.9
0.3	19.7
0.212	15.5
0.15	12.8
0.063	9.0

Sedimentation	
Size (μm)	% passing

Sample proportions	%
Cobbles	0
Gravel	66
Sand	25
Fines (<0.063mm)	9

Grading analysis		
D60	mm	11
D30	mm	1
D10	mm	0
Uniformity Coefficient		141
Curvature Coefficient		1

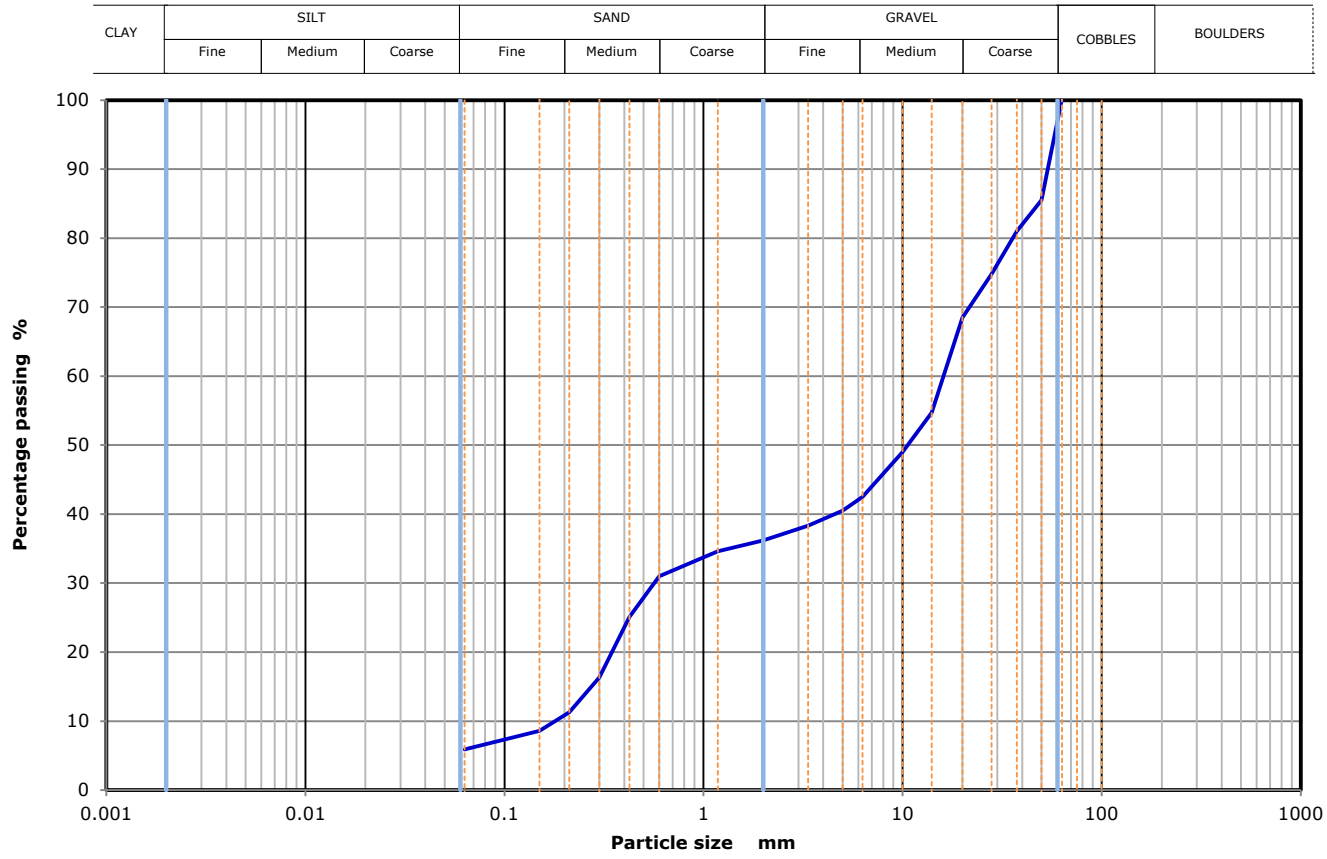
Test method and date	
Method: BS EN ISO 17892-4:2016	
- Wet sieving method	
Reporting date:	27 Aug 25

Soil Consultants

Site & Location	**Sonning Golf Club (Housing)** **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**	Report No:	**11043a/CA**

Particle size distribution

Hole ID: **TP04** Depth (m): **1.00**	Description: **Orangish-brown silty very sandy GRAVEL.**



Sieving	
Size (mm)	% passing
0	0.0
63	100.0
50	85.5
37.5	81.0
28	74.8
20	68.5
14	54.7
10	49.0
6.3	42.5
5	40.5
3.35	38.3
2	36.2
1.18	34.6
0.6	31.0
0.425	25.1
0.3	16.3
0.212	11.3
0.15	8.6
0.063	5.9

Sedimentation	
Size (μm)	% passing

Sample proportions	%
Cobbles	0
Gravel	64
Sand	30
Fines (<0.063mm)	6

Grading analysis		
D60	mm	16
D30	mm	1
D10	mm	0
Uniformity Coefficient		89
Curvature Coefficient		0

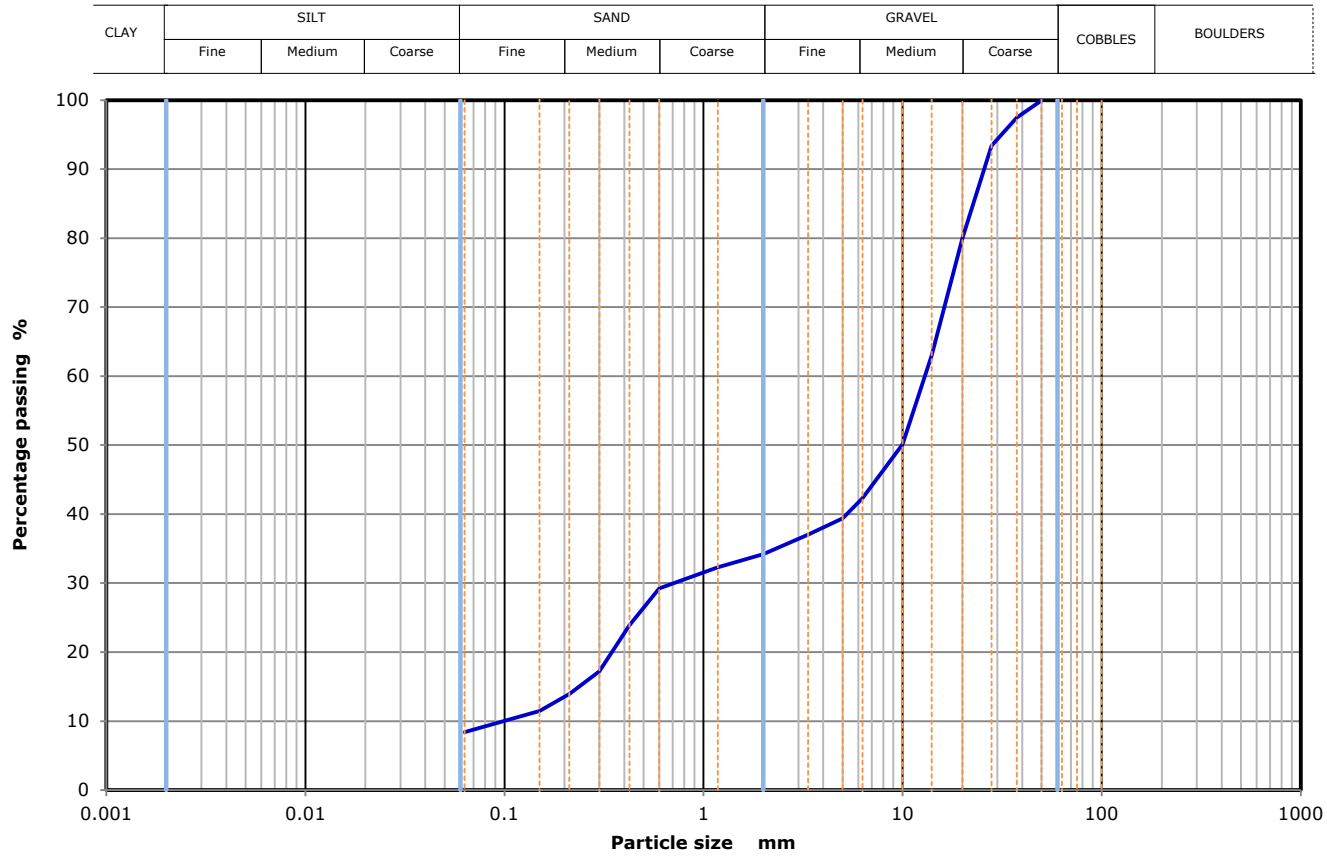
Test method and date	
Method: BS EN ISO 17892-4:2016	
- Wet sieving method	
Reporting date:	27 Aug 25

Soil Consultants

Site & Location	**Sonning Golf Club (Housing)** **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**	Report No:	**11043a/CA**

Particle size distribution

Hole ID: **TP05** Depth (m): **0.50**	Description: **Light brown silty very sandy GRAVEL.**



Sieving	
Size (mm)	% passing
0	0.0
0	0.0
50	100.0
37.5	97.5
28	93.4
20	80.0
14	63.0
10	50.1
6.3	42.3
5	39.4
3.35	37.0
2	34.2
1.18	32.3
0.6	29.2
0.425	23.9
0.3	17.2
0.212	13.9
0.15	11.5
0.063	8.4

Sedimentation	
Size (μm)	% passing

Sample proportions	%
Cobbles	0
Gravel	66
Sand	26
Fines (<0.063mm)	8

Grading analysis		
D60	mm	13
D30	mm	1
D10	mm	0
Uniformity Coefficient		131
Curvature Coefficient		0

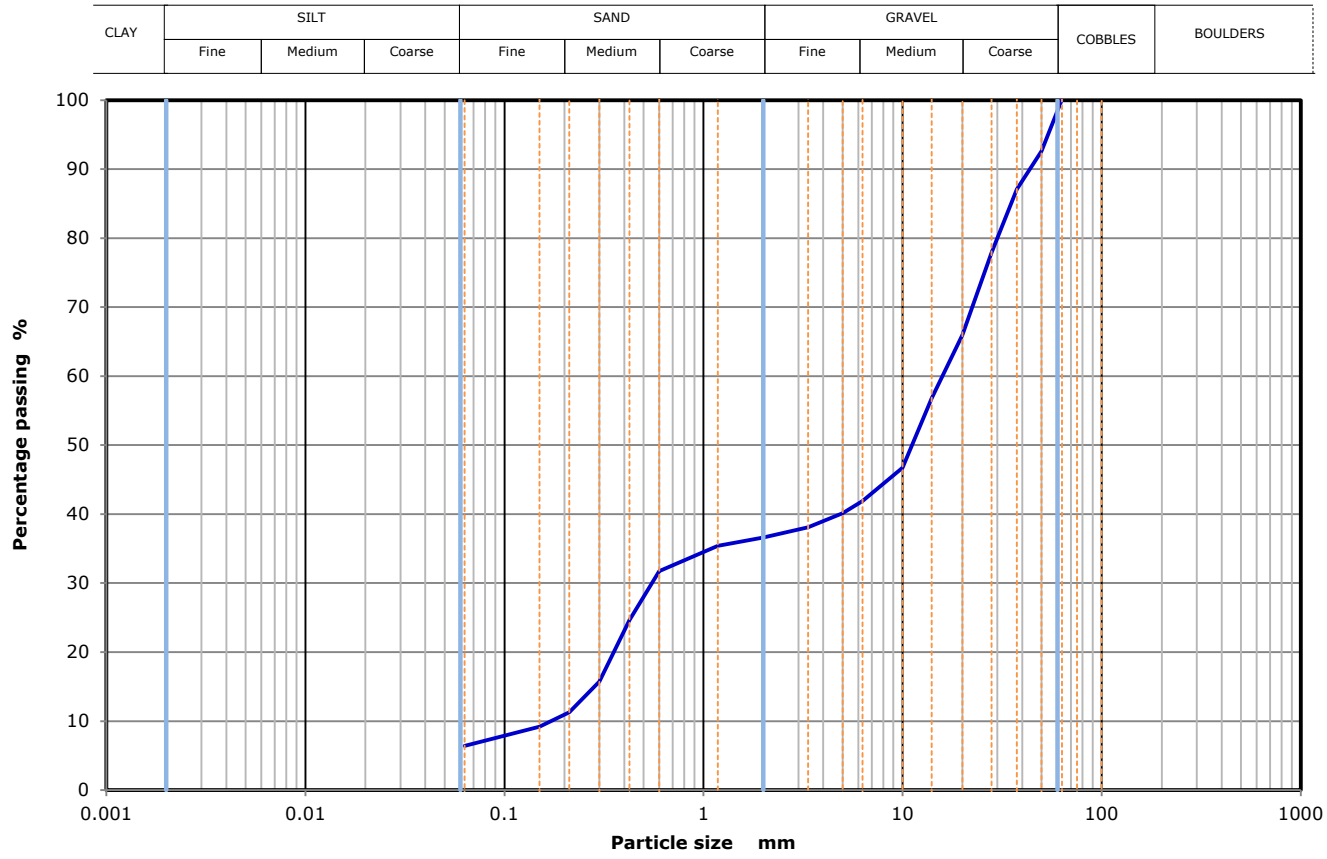
Test method and date	
Method: BS EN ISO 17892-4:2016	
- Wet sieving method	
Reporting date:	27 Aug 25

Soil Consultants

Site & Location	**Sonning Golf Club (Housing)** **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**	Report No:	**11043a/CA**

Particle size distribution

Hole ID: **TP05** Depth (m): **1.50**	Description: **Light brown silty very sandy GRAVEL.**



Sieving	
Size (mm)	% passing
0	0.0
63	100.0
50	92.6
37.5	87.1
28	77.9
20	66.0
14	56.8
10	46.7
6.3	41.9
5	40.1
3.35	38.1
2	36.6
1.18	35.4
0.6	31.7
0.425	24.6
0.3	15.7
0.212	11.3
0.15	9.2
0.063	6.4

Sedimentation	
Size (μm)	% passing

Sample proportions	%
Cobbles	0
Gravel	63
Sand	30
Fines (<0.063mm)	6

Grading analysis		
D60	mm	16
D30	mm	1
D10	mm	0
Uniformity Coefficient		93
Curvature Coefficient		0

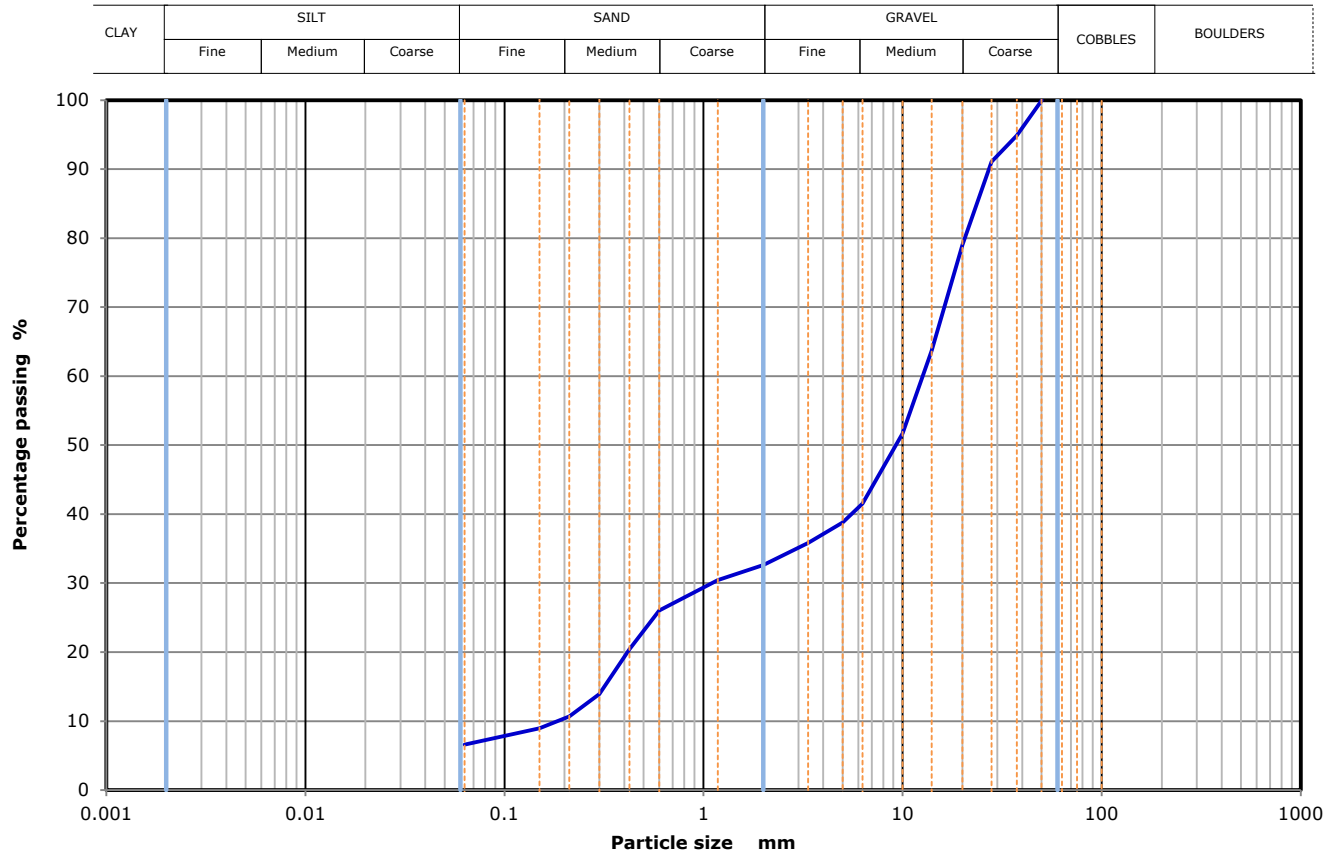
Test method and date	
Method: BS EN ISO 17892-4:2016	
- Wet sieving method	
Reporting date:	27 Aug 25

Soil Consultants

Site & Location	**Sonning Golf Club (Housing)** **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**	Report No:	**11043a/CA**

Particle size distribution

Hole ID: **TP06** Depth (m): **0.50**	Description: **Light brown silty very sandy GRAVEL.**



Sieving	
Size (mm)	% passing
0	0.0
0	0.0
50	100.0
37.5	94.9
28	91.1
20	79.0
14	63.7
10	51.7
6.3	41.5
5	38.8
3.35	35.8
2	32.6
1.18	30.4
0.6	26.0
0.425	20.4
0.3	13.9
0.212	10.7
0.15	9.0
0.063	6.6

Sedimentation	
Size (μm)	% passing

Sample proportions	%
Cobbles	0
Gravel	67
Sand	26
Fines (<0.063mm)	7

Grading analysis		
D60	mm	13
D30	mm	1
D10	mm	0
Uniformity Coefficient		69
Curvature Coefficient		1

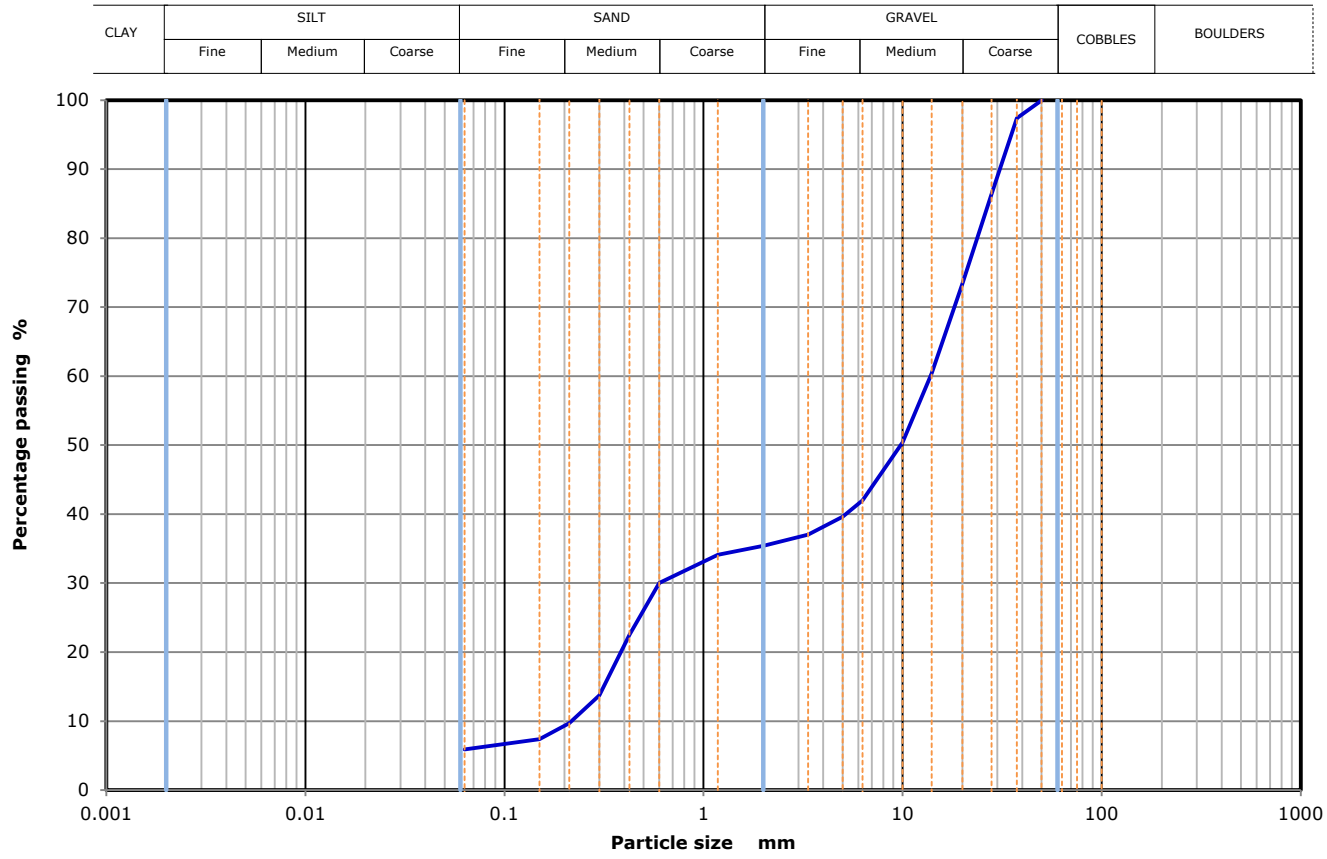
Test method and date	
Method: BS EN ISO 17892-4:2016	
- Wet sieving method	
Reporting date:	27 Aug 25

Soil Consultants

Site & Location	**Sonning Golf Club (Housing)** **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**	Report No:	**11043a/CA**

Particle size distribution

Hole ID: **TP06** Depth (m): **1.50**	Description: **Light brown silty very sandy GRAVEL.**



Sieving	
Size (mm)	% passing
0	0.0
0	0.0
50	100.0
37.5	97.4
28	86.4
20	73.4
14	60.4
10	50.4
6.3	42.0
5	39.6
3.35	37.0
2	35.4
1.18	34.1
0.6	30.0
0.425	22.5
0.3	13.7
0.212	9.7
0.15	7.4
0.063	5.9

Sedimentation	
Size (μm)	% passing

Sample proportions	%
Cobbles	0
Gravel	65
Sand	30
Fines (<0.063mm)	6

Grading analysis		
D60	mm	14
D30	mm	1
D10	mm	0
Uniformity Coefficient		63
Curvature Coefficient		0

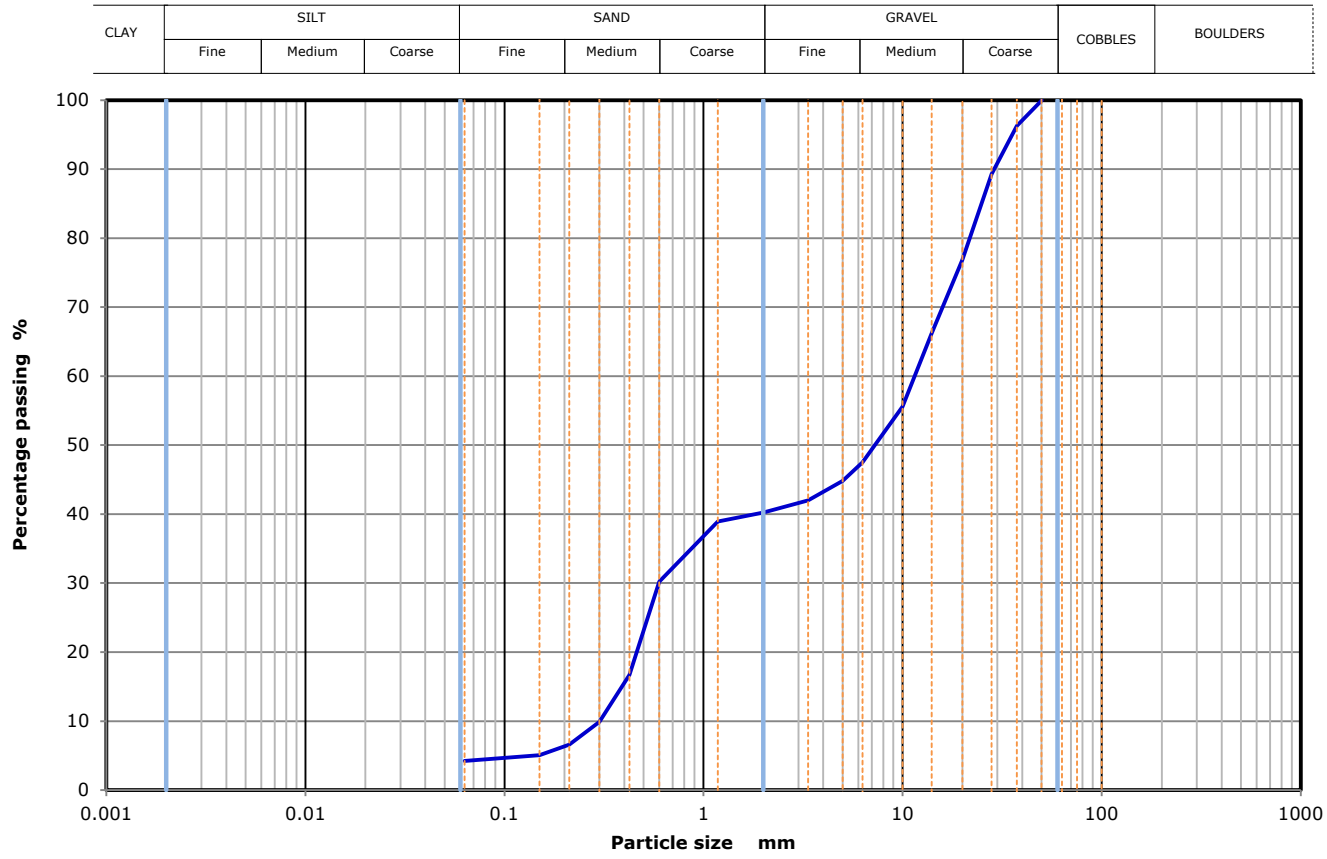
Test method and date	
Method: BS EN ISO 17892-4:2016	
- Wet sieving method	
Reporting date:	27 Aug 25

Soil Consultants

Site & Location	**Sonning Golf Club (Housing)** **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**	Report No:	**11043a/CA**

Particle size distribution

Hole ID: **TP06** Depth (m): **2.00**	Description: **Light brown slightly silty very sandy GRAVEL.**



Sieving	
Size (mm)	% passing
0	0.0
0	0.0
50	100.0
37.5	96.3
28	89.3
20	76.9
14	66.2
10	55.6
6.3	47.5
5	44.8
3.35	42.0
2	40.2
1.18	38.9
0.6	30.2
0.425	16.7
0.3	9.9
0.212	6.6
0.15	5.1
0.063	4.2

Sedimentation	
Size (μm)	% passing

Sample proportions	%
Cobbles	0
Gravel	60
Sand	36
Fines (<0.063mm)	4

Grading analysis		
D60	mm	11
D30	mm	1
D10	mm	0
Uniformity Coefficient		38
Curvature Coefficient		0

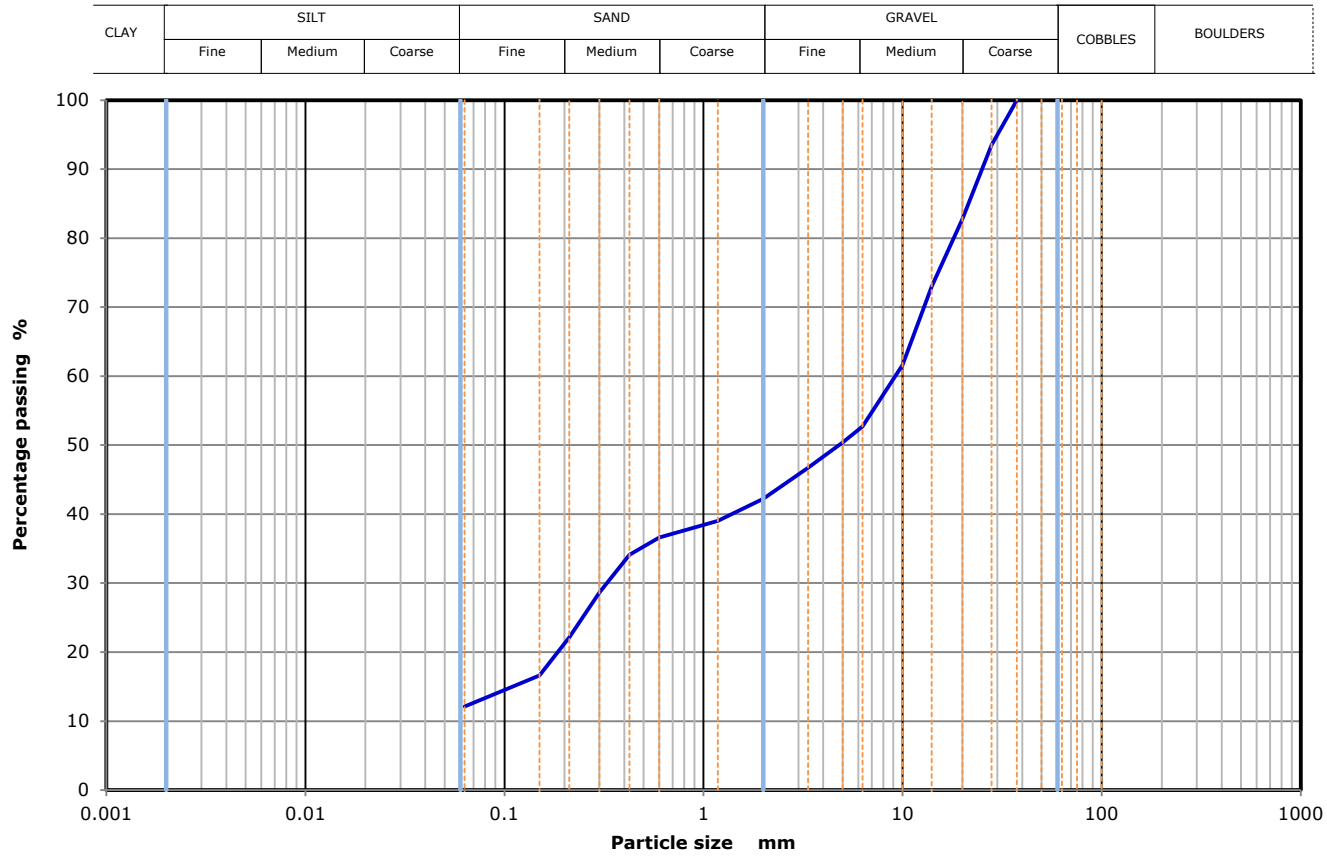
Test method and date	
Method: BS EN ISO 17892-4:2016	
- Wet sieving method	
Reporting date:	27 Aug 25

Soil Consultants

Site & Location	**Sonning Golf Club (Housing)** **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**	Report No:	**11043a/CA**

Particle size distribution

Hole ID: **WS01** Depth (m): **0.2-0.5**	Description: **Light greyish-brown, silty, very sandy GRAVEL.**



Sieving	
Size (mm)	% passing
0	0.0
0	0.0
0	0.0
37.5	100.0
28	93.5
20	82.8
14	73.0
10	61.6
6.3	52.7
5	50.4
3.35	46.7
2	42.2
1.18	39.0
0.6	36.6
0.425	34.1
0.3	28.6
0.212	22.1
0.15	16.6
0.063	12.1

Sedimentation	
Size (μm)	% passing

Sample proportions	%
Cobbles	0
Gravel	58
Sand	30
Fines (<0.063mm)	12

Grading analysis		
D60	mm	9
D30	mm	0
D10	mm	N/A
Uniformity Coefficient		
Curvature Coefficient		

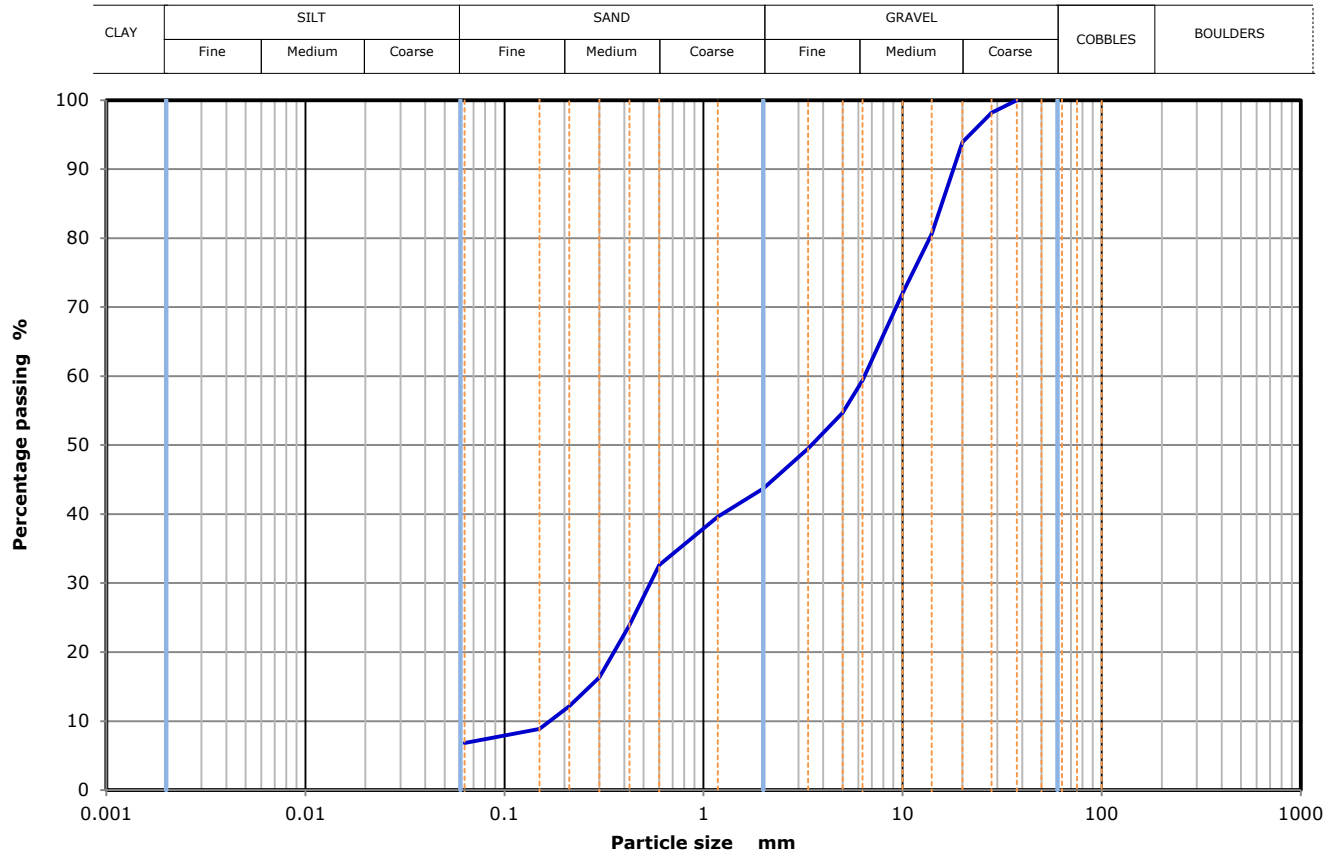
Test method and date	
Method: BS EN ISO 17892-4:2016	
- Wet sieving method	
Reporting date:	27 Aug 25

Soil Consultants

Site & Location	**Sonning Golf Club (Housing)** **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**	Report No:	**11043a/CA**

Particle size distribution

Hole ID: **WS01** Depth (m): **1.00**	Description: **Orangish-brown, silty, very sandy GRAVEL.**



Sieving	
Size (mm)	% passing
0	0.0
0	0.0
0	0.0
37.5	100.0
28	98.2
20	93.9
14	80.6
10	72.0
6.3	59.4
5	54.7
3.35	49.5
2	43.7
1.18	39.6
0.6	32.6
0.425	23.9
0.3	16.3
0.212	12.2
0.15	8.9
0.063	6.8

Sedimentation	
Size (μm)	% passing

Sample proportions	%
Cobbles	0
Gravel	56
Sand	37
Fines (<0.063mm)	7

Grading analysis		
D60	mm	6
D30	mm	1
D10	mm	0
Uniformity Coefficient		38
Curvature Coefficient		0

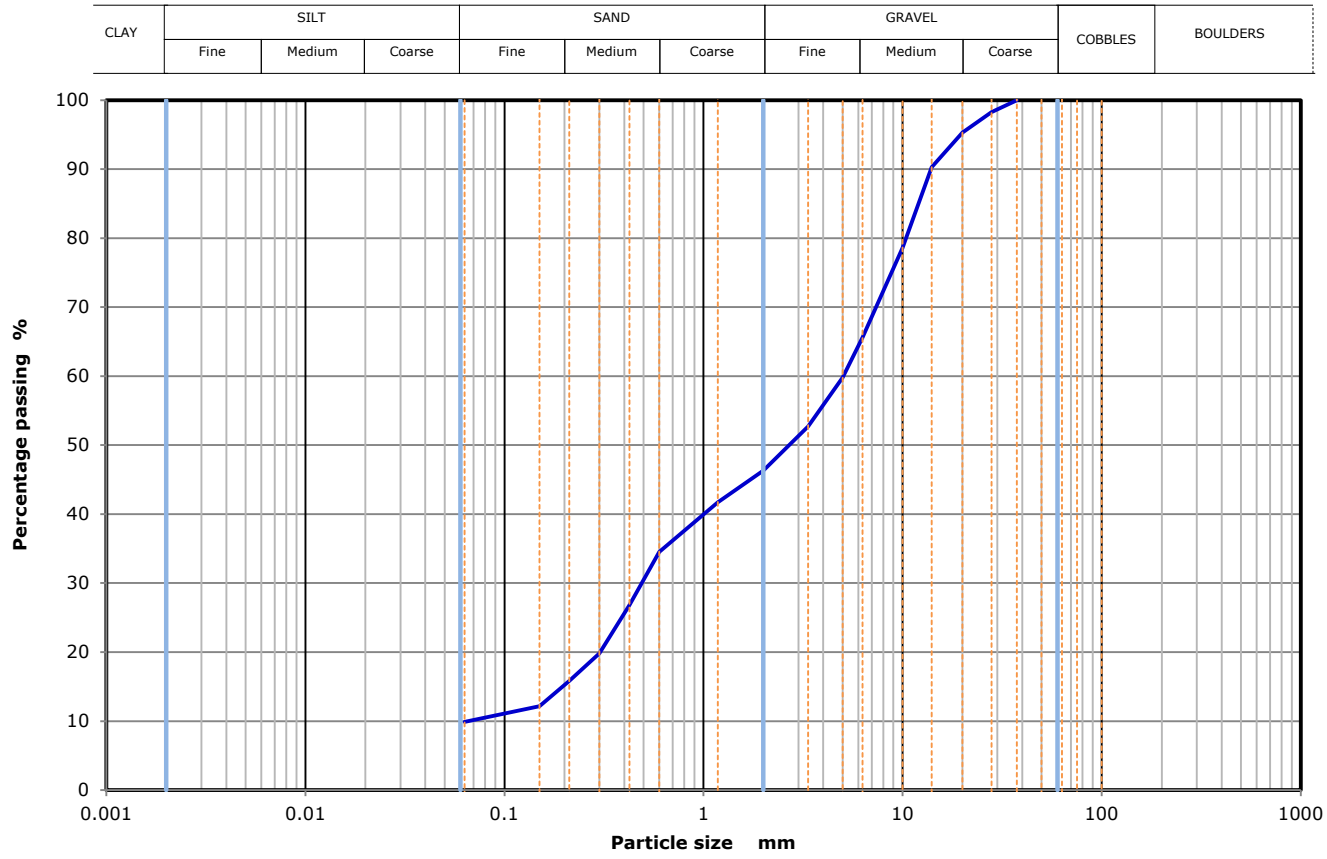
Test method and date	
Method: BS EN ISO 17892-4:2016	
- Wet sieving method	
Reporting date:	27 Aug 25

Soil Consultants

Site & Location	**Sonning Golf Club (Housing)** **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**	Report No:	**11043a/CA**

Particle size distribution

Hole ID: **WS02** Depth (m): **2.0-2.5**	Description: **Orangish-brown and dark red, silty, very sandy GRAVEL.**



Sieving	
Size (mm)	% passing
0	0.0
0	0.0
0	0.0
37.5	100.0
28	98.3
20	95.3
14	90.3
10	78.6
6.3	65.6
5	59.8
3.35	52.7
2	46.3
1.18	41.7
0.6	34.5
0.425	26.8
0.3	19.8
0.212	15.8
0.15	12.2
0.063	9.9

Sedimentation	
Size (μm)	% passing

Sample proportions	%
Cobbles	0
Gravel	54
Sand	36
Fines (<0.063mm)	10

Grading analysis		
D60	mm	5
D30	mm	0
D10	mm	0
Uniformity Coefficient		77
Curvature Coefficient		1

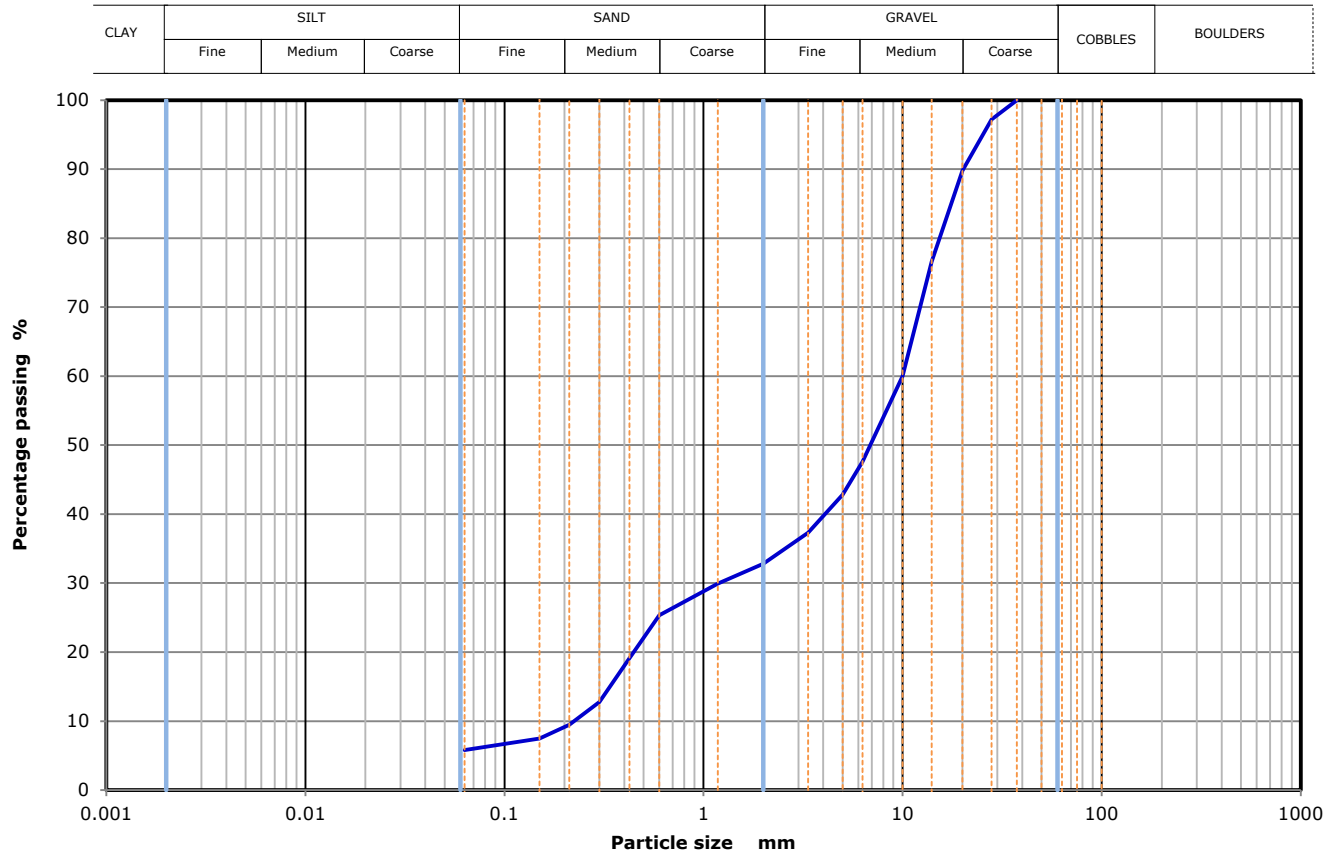
Test method and date	
Method: BS EN ISO 17892-4:2016	
- Wet sieving method	
Reporting date:	27 Aug 25

Soil Consultants

Site & Location	**Sonning Golf Club (Housing)** **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**	Report No:	**11043a/CA**

Particle size distribution

Hole ID: **WS03** Depth (m): **1.0-1.6**	Description: **Dark orangish-brown, silty, very sandy GRAVEL.**



Sieving	
Size (mm)	% passing
0	0.0
0	0.0
0	0.0
37.5	100.0
28	97.2
20	89.8
14	76.6
10	60.0
6.3	47.6
5	42.8
3.35	37.3
2	32.8
1.18	29.9
0.6	25.3
0.425	19.1
0.3	12.8
0.212	9.5
0.15	7.5
0.063	5.8

Sedimentation	
Size (μm)	% passing

Sample proportions	%
Cobbles	0
Gravel	67
Sand	27
Fines (<0.063mm)	6

Grading analysis		
D60	mm	10
D30	mm	1
D10	mm	0
Uniformity Coefficient		45
Curvature Coefficient		1

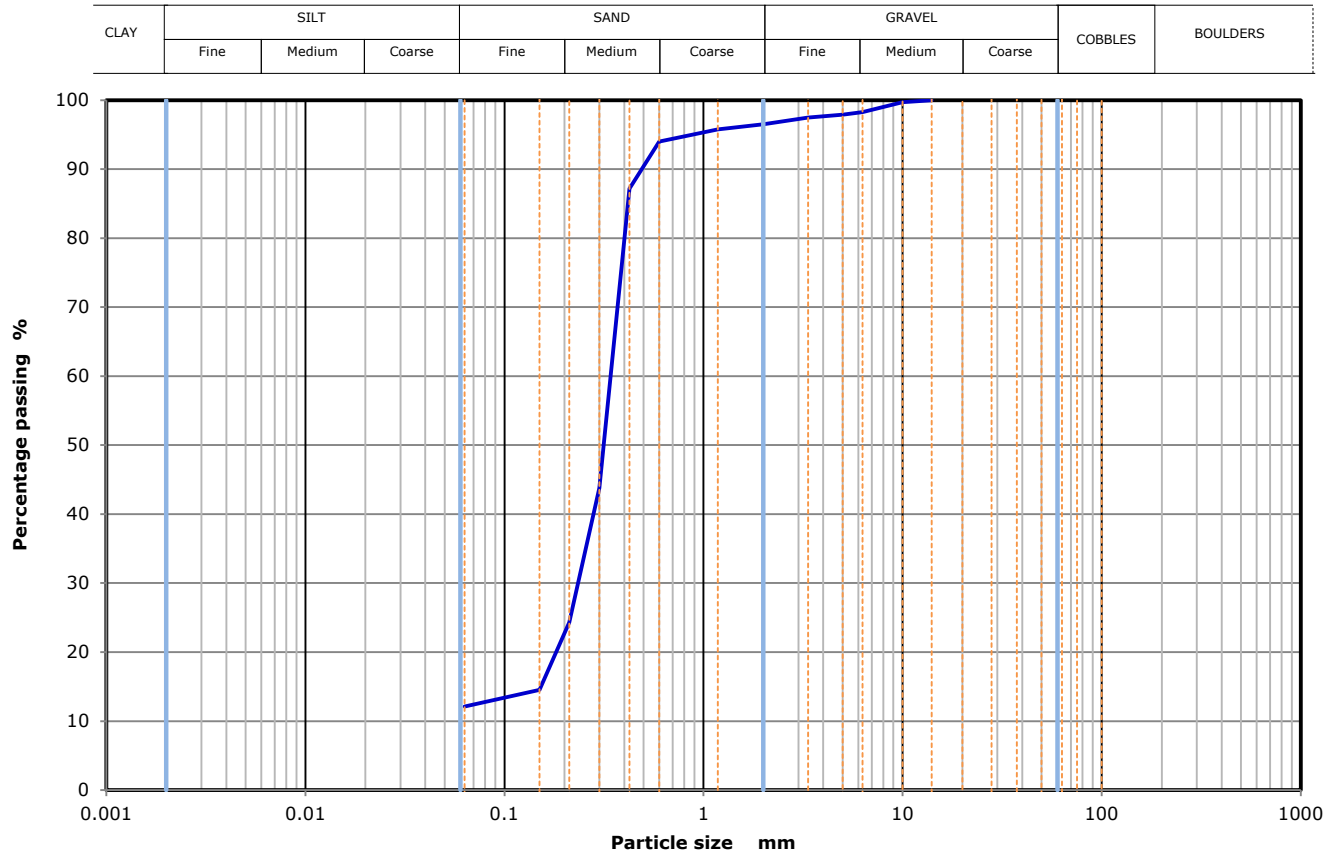
Test method and date	
Method: BS EN ISO 17892-4:2016	
- Wet sieving method	
Reporting date:	27 Aug 25

Soil Consultants

Site & Location	**Sonning Golf Club (Housing)** **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**	Report No:	**11043a/CA**

Particle size distribution

Hole ID: **WS05** Depth (m): **0.5-1.0**	Description: **Yellowish-orange, silty, slightly gravelly, fine to medium SAND.**



Sieving	
Size (mm)	% passing
0	0.0
0	0.0
0	0.0
0	0.0
0	0.0
0	0.0
14	100.0
10	99.7
6.3	98.3
5	97.9
3.35	97.5
2	96.5
1.18	95.8
0.6	94.0
0.425	87.2
0.3	43.8
0.212	24.3
0.15	14.5
0.063	12.1

Sedimentation	
Size (μm)	% passing

Sample proportions	%
Cobbles	0
Gravel	4
Sand	84
Fines (<0.063mm)	12

Grading analysis		
D60	mm	
D30	mm	
D10	mm	N/A
Uniformity Coefficient		
Curvature Coefficient		

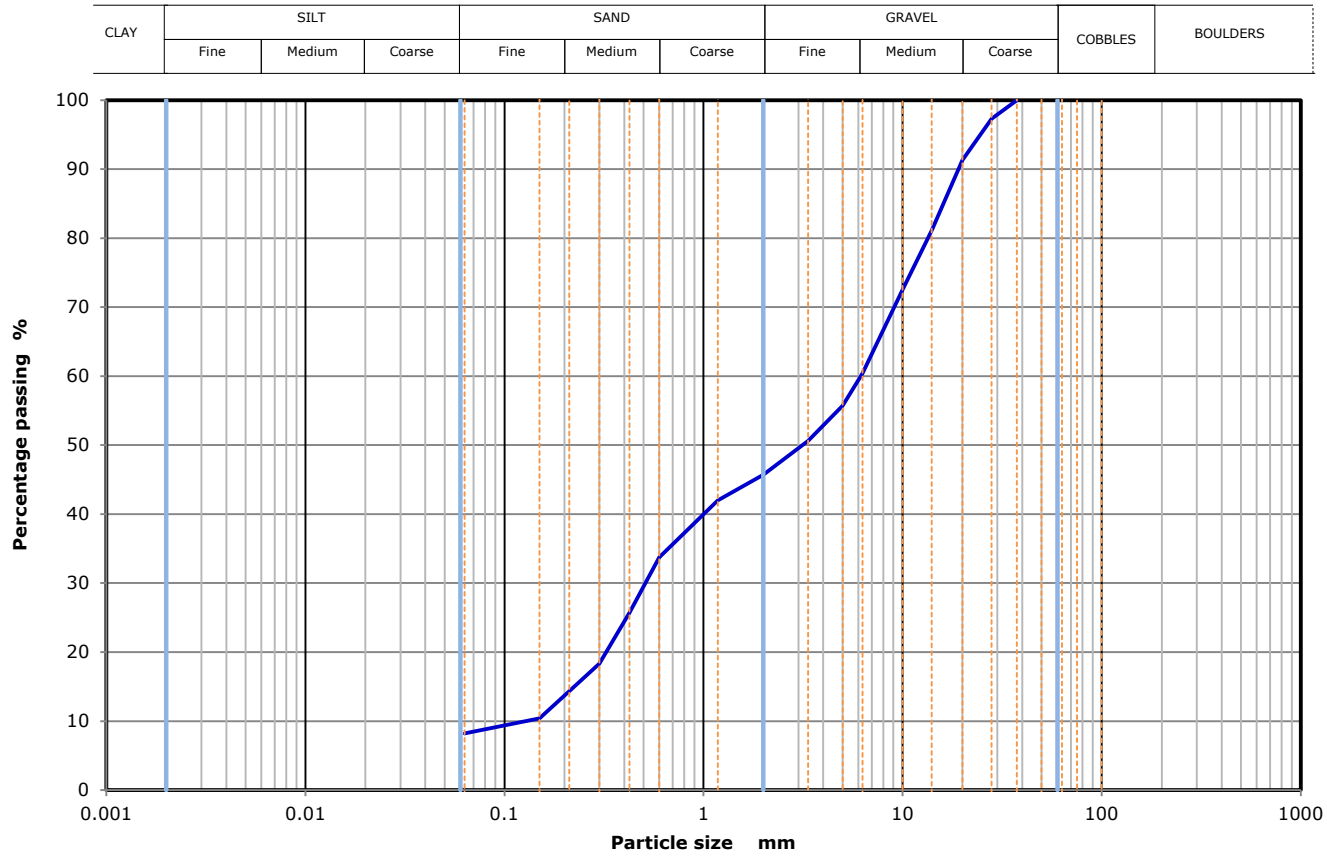
Test method and date	
Method: BS EN ISO 17892-4:2016	
Reporting date:	27 Aug 25

Soil Consultants

Site & Location	**Sonning Golf Club (Housing)** **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**	Report No:	**11043a/CA**

Particle size distribution

Hole ID: **WS05** Depth (m): **1.4-2.3**	Description: **Dark orangish-brown, silty, very sandy GRAVEL.**



Sieving	
Size (mm)	% passing
0	0.0
0	0.0
0	0.0
37.5	100.0
28	97.3
20	91.3
14	81.1
10	72.5
6.3	60.4
5	55.7
3.35	50.6
2	45.7
1.18	42.0
0.6	33.7
0.425	25.7
0.3	18.3
0.212	14.3
0.15	10.4
0.063	8.2

Sedimentation	
Size (μm)	% passing

Sample proportions	%
Cobbles	0
Gravel	54
Sand	38
Fines (<0.063mm)	8

Grading analysis		
D60	mm	6
D30	mm	1
D10	mm	0
Uniformity Coefficient		48
Curvature Coefficient		0

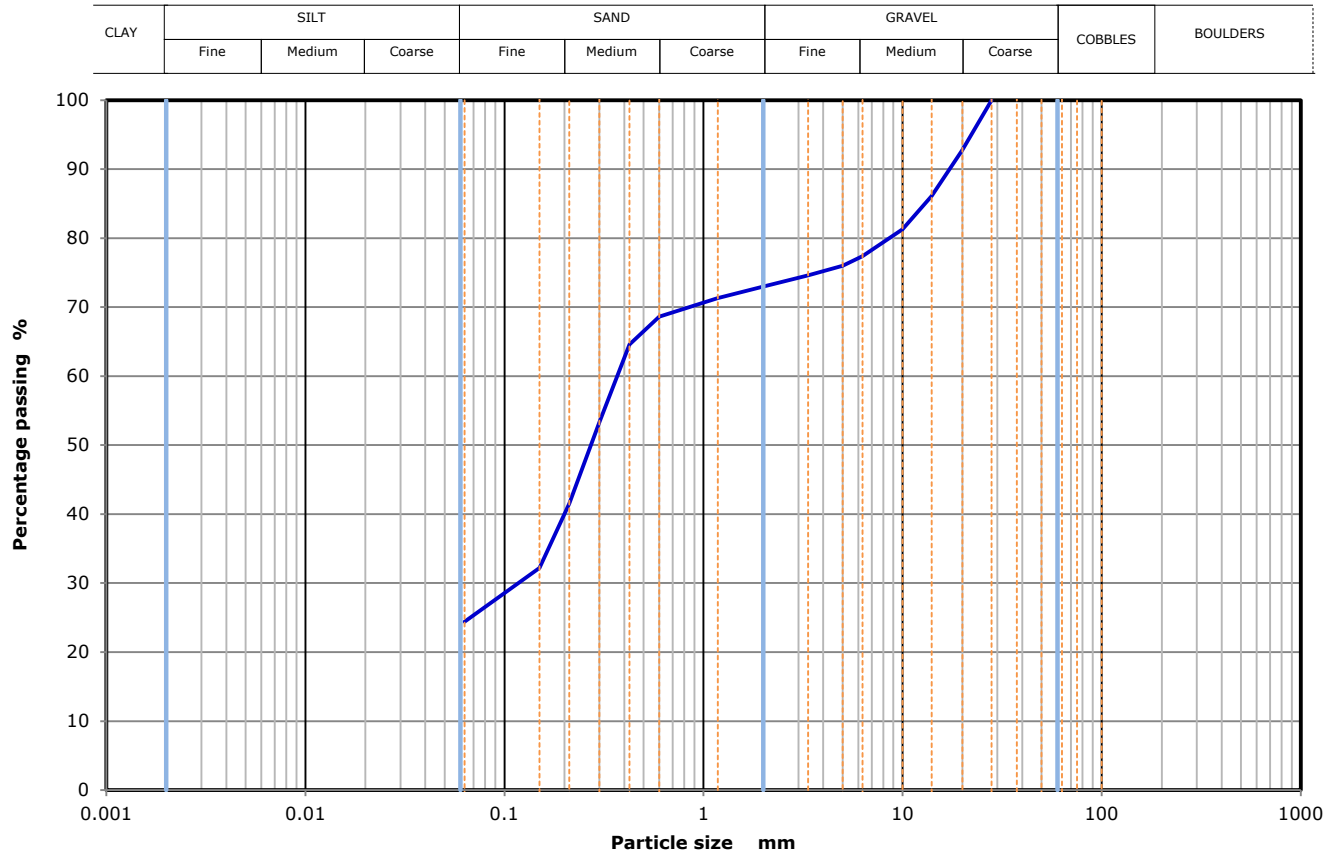
Test method and date	
Method: BS EN ISO 17892-4:2016	
- Wet sieving method	
Reporting date:	27 Aug 25

Soil Consultants

Site & Location	**Sonning Golf Club (Housing)** **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**	Report No:	**11043a/CA**

Particle size distribution

Hole ID: **WS06** Depth (m): **0.2-0.5**	Description:	**Light greyish-brown, slightly clayey, silty, very gravelly, fine to medium SAND.**



Sieving	
Size (mm)	% passing
0	0.0
0	0.0
0	0.0
0	0.0
28	100.0
20	92.8
14	86.1
10	81.3
6.3	77.4
5	76.0
3.35	74.6
2	73.0
1.18	71.3
0.6	68.6
0.425	64.6
0.3	53.3
0.212	41.5
0.15	32.2
0.063	24.4

Sedimentation	
Size (μm)	% passing

Sample proportions	%
Cobbles	0
Gravel	27
Sand	49
Fines (<0.063mm)	24

Grading analysis		
D60	mm	0
D30	mm	0
D10	mm	N/A
Uniformity Coefficient		
Curvature Coefficient		

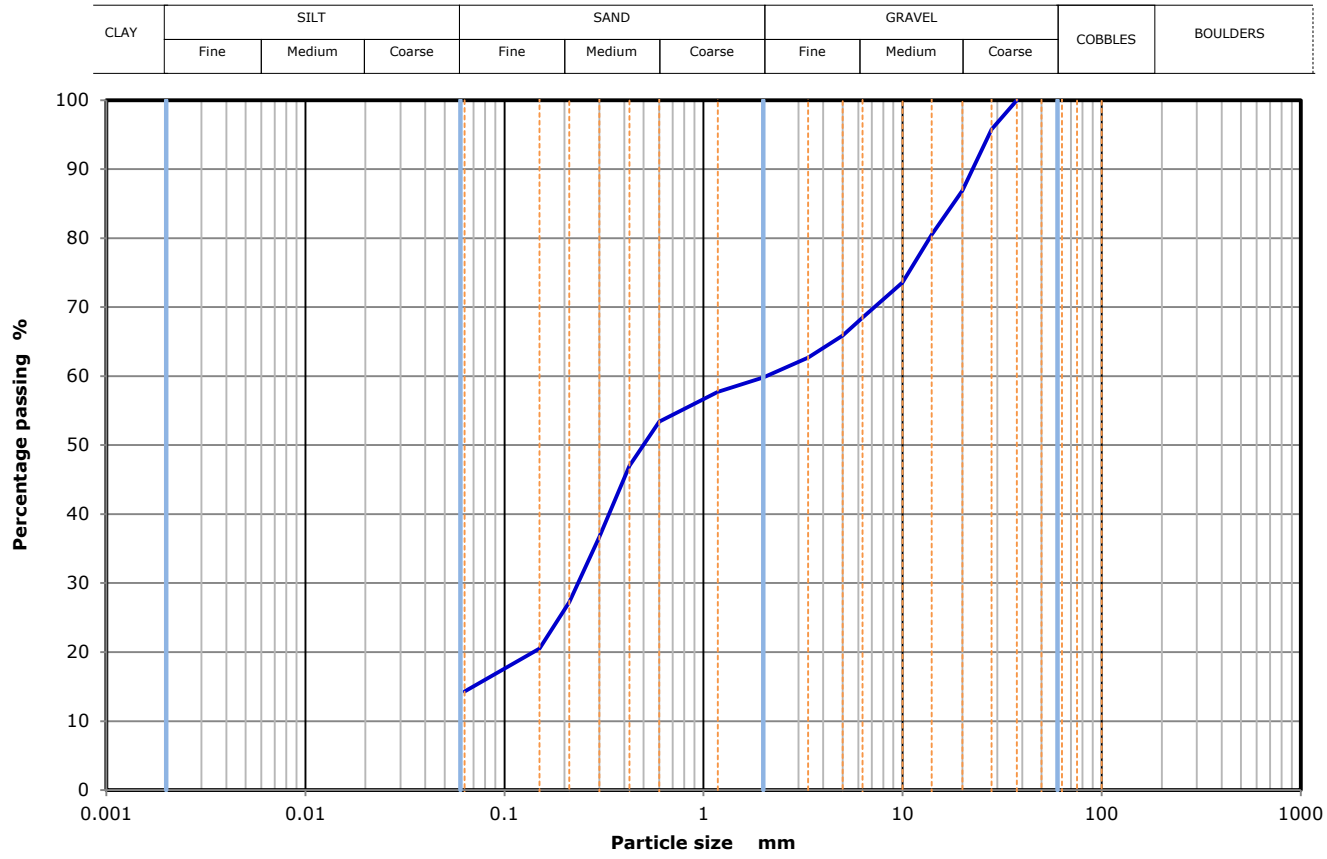
Test method and date	
Method: BS EN ISO 17892-4:2016	
- Wet sieving method	
Reporting date:	27 Aug 25

Soil Consultants

Site & Location	**Sonning Golf Club (Housing)** **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**	Report No:	**11043a/CA**

Particle size distribution

Hole ID: **WS06** Depth (m): **1.0-1.8**	Description: **Dark orangish-brown, silty, SAND and GRAVEL.**



Sieving	
Size (mm)	% passing
0	0.0
0	0.0
0	0.0
37.5	100.0
28	95.8
20	86.9
14	80.5
10	73.6
6.3	68.5
5	65.9
3.35	62.7
2	59.8
1.18	57.7
0.6	53.4
0.425	47.0
0.3	36.7
0.212	27.2
0.15	20.5
0.063	14.3

Sedimentation	
Size (μm)	% passing

Sample proportions	%
Cobbles	0
Gravel	40
Sand	46
Fines (<0.063mm)	14

Grading analysis		
D60	mm	2
D30	mm	0
D10	mm	N/A
Uniformity Coefficient		
Curvature Coefficient		

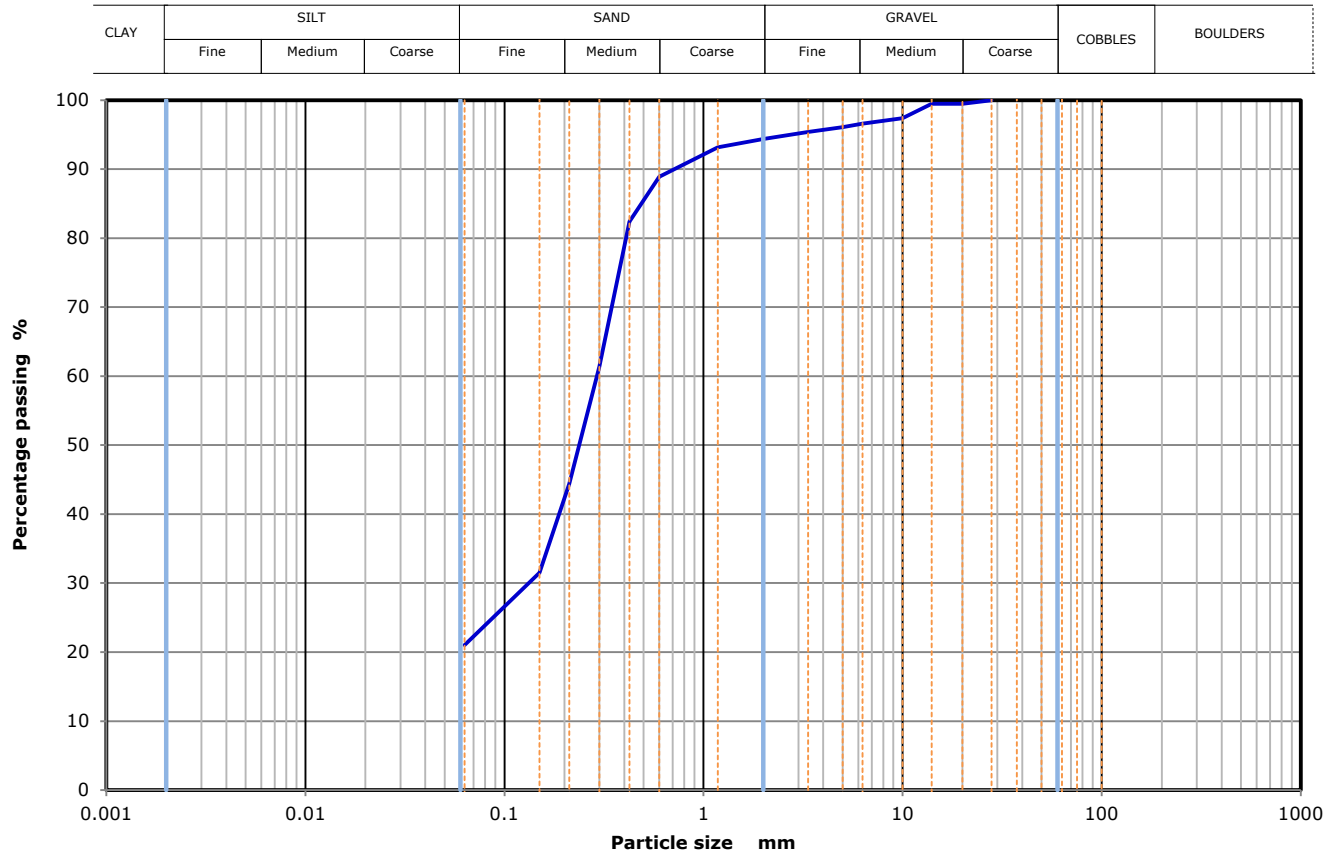
Test method and date	
Method: BS EN ISO 17892-4:2016	
- Wet sieving method	
Reporting date:	27 Aug 25

Soil Consultants

Site & Location	**Sonning Golf Club (Housing)** **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**	Report No:	**11043a/CA**

Particle size distribution

Hole ID: **WS07** Depth (m): **0.5-1.3**	Description: **Yellowish-orange, very silty, gravelly, fine to coarse SAND.**



Sieving	
Size (mm)	% passing
0	0.0
0	0.0
0	0.0
0	0.0
28	100.0
20	99.5
14	99.5
10	97.4
6.3	96.6
5	96.1
3.35	95.4
2	94.4
1.18	93.2
0.6	88.9
0.425	82.4
0.3	61.4
0.212	44.4
0.15	31.5
0.063	21.0

Sedimentation	
Size (μm)	% passing

Sample proportions	%
Cobbles	0
Gravel	6
Sand	73
Fines (<0.063mm)	21

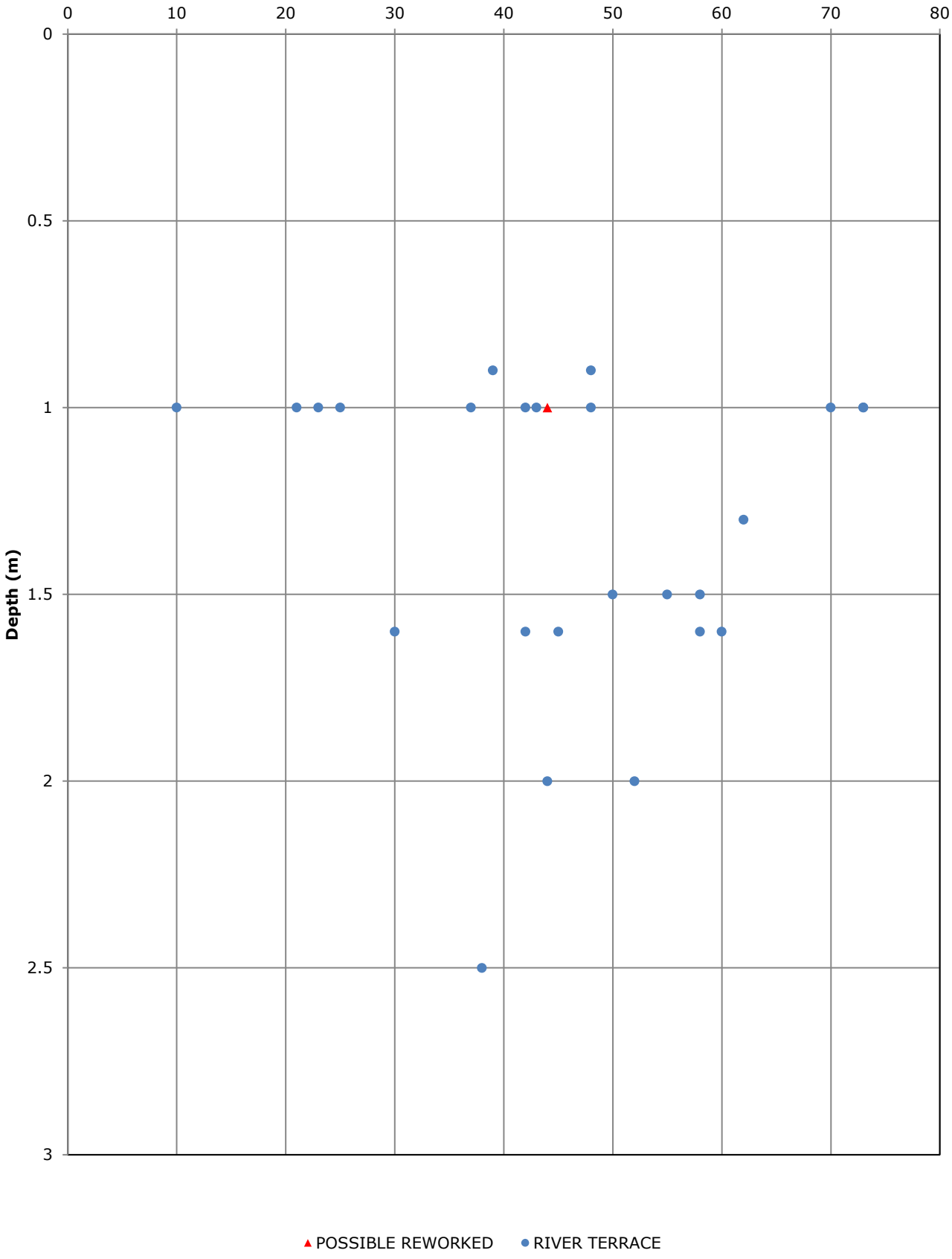
Grading analysis		
D60	mm	0
D30	mm	0
D10	mm	N/A
Uniformity Coefficient		
Curvature Coefficient		

Test method and date	
Method: BS EN ISO 17892-4:2016	
- Wet sieving method	
Reporting date:	27 Aug 25

Soil Consultants

Site & Location	Sonnin Golf Club (Housing) Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ	Report No:	11043a/CA

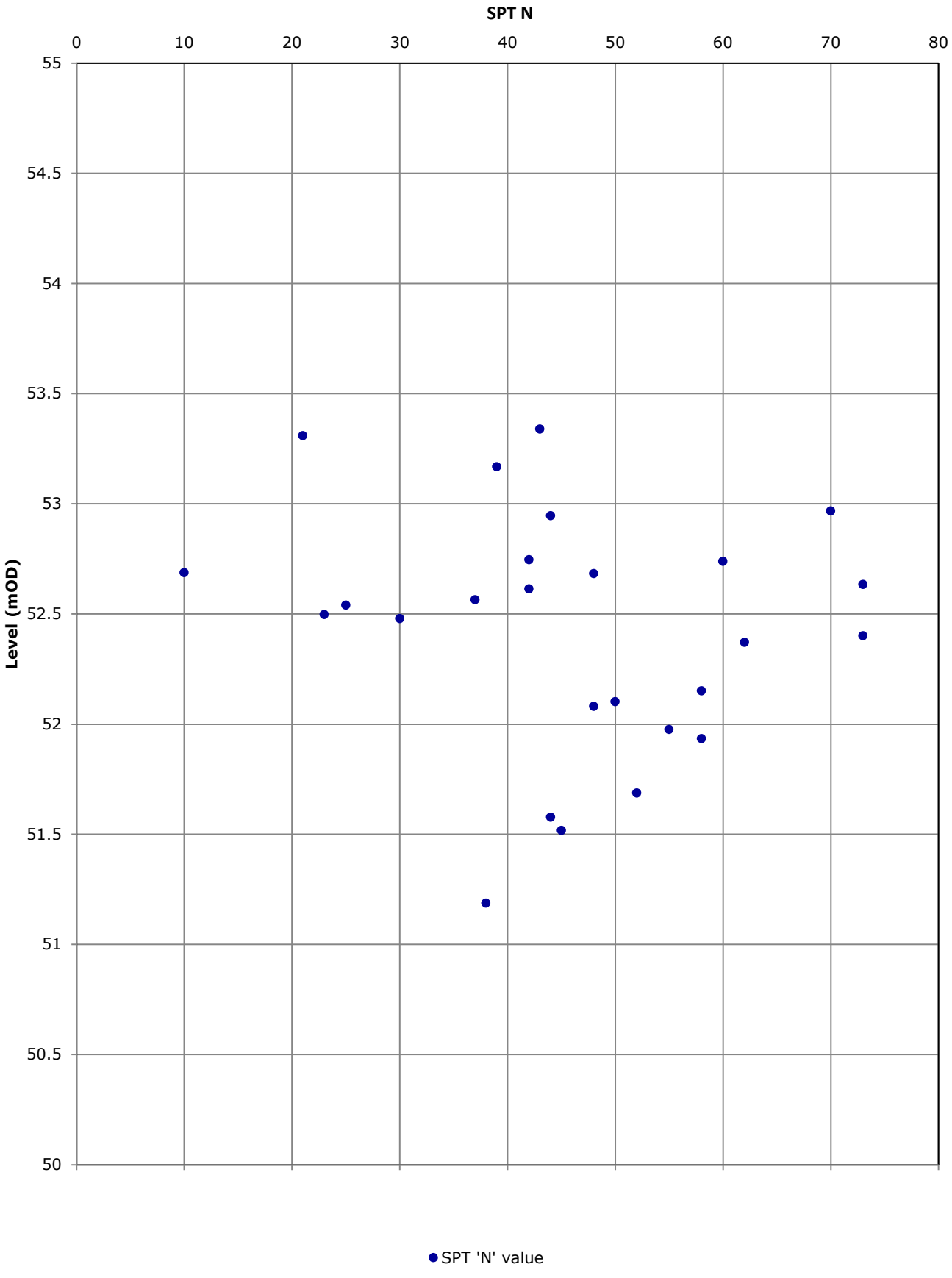
SPT-N vs depth



Soil Consultants

Site & Location	**Sonnin Golf Club (Housing)** **Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ**	Report No: **11043a/CA**

SPT-N vs level



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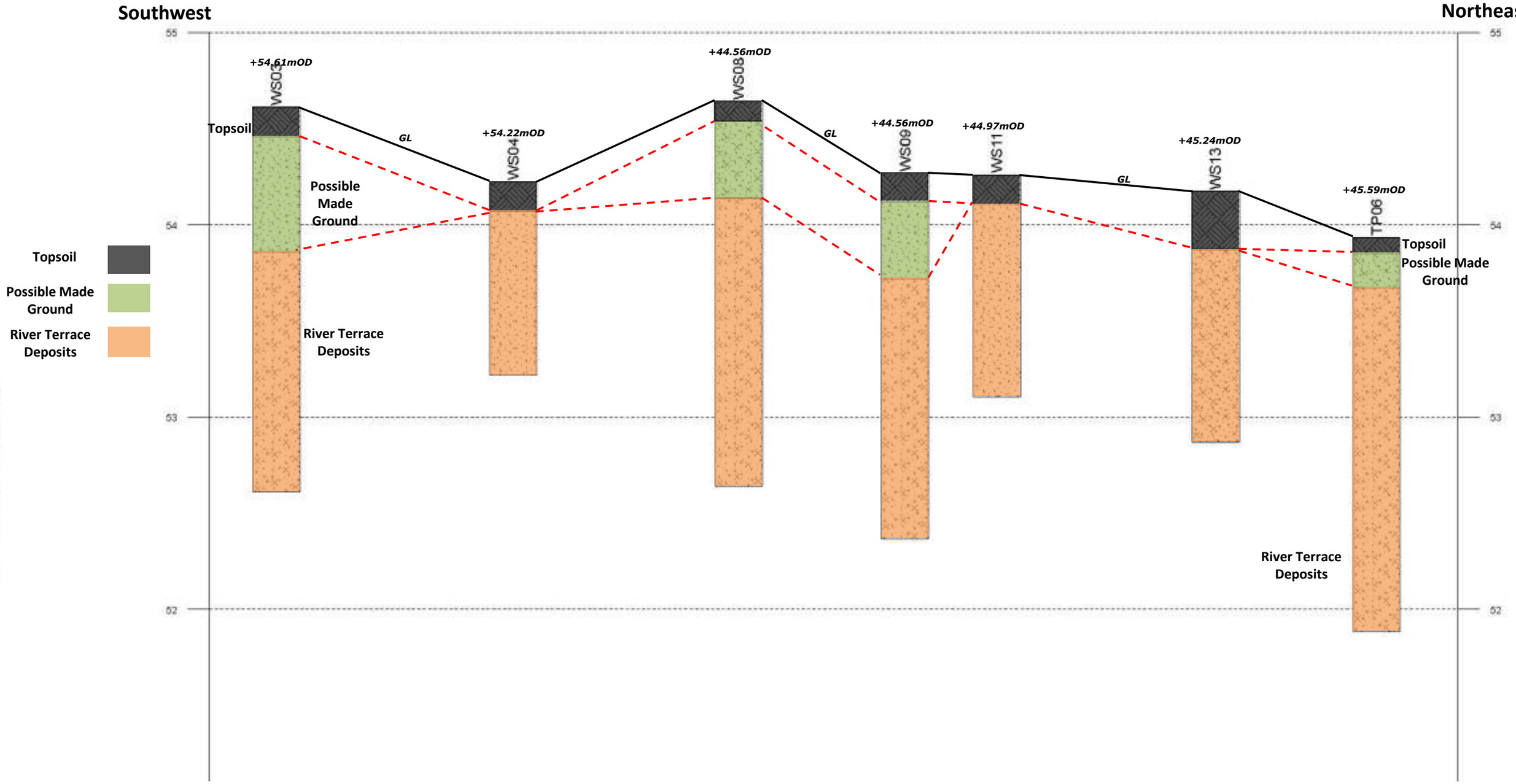
Project No: **11043a/CA**
Location: Duffield Road, Sonning, Reading Berkshire RG4 6GJ
Client: Aventus Design Ltd

Title: Sonnin Golf Club (Housing)
Engineer: Aventus Design Ltd

Scale
Vertical: 1:30
Horizontal: 1:1235

Soil Consultants

SECTION A



NOTE: Strata boundaries are indicative

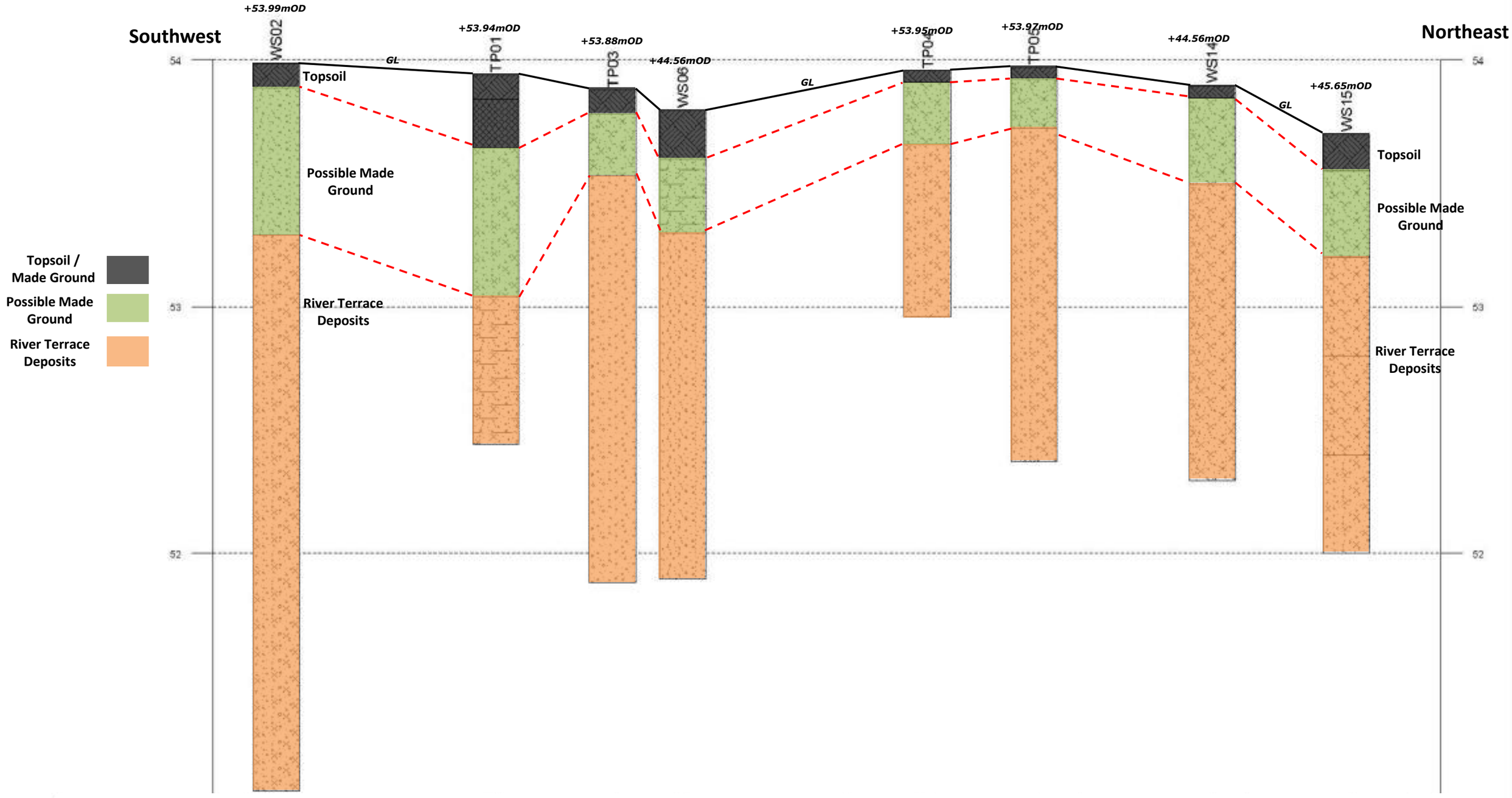
Project No: **11043a/CA**
Location: Duffield Road, Sonning, Reading Berkshire RG4 6GJ
Client: Aventus Design Ltd

Title: Sonnin Golf Club (Housing)
Engineer: Aventus Design Ltd

Scale
Vertical: 1:23
Horizontal: 1:1114

Soil Consultants

SECTION B



NOTE: Strata boundaries are indicative

FOREWORD TO CONTAMINATION TESTING AND ASSESSMENT

The following statements are designed to inform and guide the Client and other potential parties intending to rely upon this report, with the express intent of protecting them from misunderstanding as to the extent and thus the potential associated risks that may result from proceeding without further evaluations or guidance.

1] Unless otherwise stated in this report, the testing of soils and waters is based on a range of commonly occurring potential contaminants for the specific purpose of providing a general guidance evaluation for the proposed form of development. Thus, the range of potential contaminants is neither exhaustive nor specifically targeted to any previous known uses or influences upon the site.

2] The amount and scope of the testing should not be assumed to be exhaustive but has been selected, at this stage, to provide a reasonable, general view of the site ground conditions. In many cases this situation is quite sufficient for the site to be characterised for the purposes of development and related Health and Safety matters for persons involved in or directly affected by the site development works. It must be understood, however, that in certain circumstances aspects or areas of the site may require further investigation and testing in order to fully clarify and characterise contamination issues, both for regulatory compliance and for commercial reasons.

3] The scope of the contamination testing must not automatically be regarded as being sufficient to fully formulate a remediation scheme. For such a scheme it may be necessary to consider further testing to verify the effectiveness of the remedial work after the site has been treated. It must be understood that a remediation scheme which brings a site into a sufficient state for the proposed development ("fit for purpose") under current legislation and published guidance, may result in some contamination being left in-situ. It is possible that forthcoming legislation may result in a site being classified by the Local Authority and assigned a "Degree of Risk" related to previous use or known contamination.

4] The scope of the environmental investigation and contamination testing must not be automatically regarded as sufficient to satisfy the requirements in the wider environmental setting. The risks to adjacent properties and to the water environment are assessed by the regulatory authorities and there may be a requirement to carry out further exploration, testing and, possibly monitoring in the short or long term. It is not possible to sensibly predict the nature and extent of such additional requirements as these are the direct result of submissions to and liaison with the regulatory authorities. It is imperative, therefore, that such submissions and contacts are made as soon as possible, especially if there are perceived to be critical features of the site and proposed scheme, in this context.

5] New testing criteria have been implemented by the Environment Agency to enable a waste disposal classification to be made. The date of implementation of this Waste Acceptance Criteria [WAC] was July 2005. It is this testing that will be used by the waste regulatory authorities, including waste disposal sites, to designate soils for disposal in landfill sites. In certain circumstances, to satisfy the waste regulations, there may be the necessity to carry out additional testing to clarify and confirm the nature of any contamination that may be present. If commercial requirements are significant then this process may also necessitate further field operations to clarify the extent of certain features. Thus, the waste classification must be obtained from the waste regulation authorities or a licensed waste disposal site and we strongly recommend that this classification is obtained as soon as possible and certainly prior to establishing any costings or procedures for this or related aspects of the scheme.

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DETS Report No: 25-06900

Site Reference:	Sonning Golf Club (housing)
Project / Job Ref:	11043/CA/housing
Order No:	11043/CA (housing)
Sample Receipt Date:	28/07/2025
Sample Scheduled Date:	28/07/2025
Report Issue Number:	2
Reporting Date:	15/08/2025

Authorised by:

Steve Knight
Customer Support Manager

Dates of laboratory activities for each tested analyte are available upon request.

This report supersedes 25-06900, issue no.1.

Reason for reissue: Client has asked for sample 784227 WS02 to be changed as the depths are wrong. We had 0.70-0.10, but the client has asked for 0.70-1.0

Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

For Topsoil and WAC analysis the expanded uncertainty measurement should be considered while evaluating results against compliance values.

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Soil Analysis Certificate						
DETS Report No: 25-06900	**~Date Sampled**	22/07/25	23/07/25	22/07/25	22/07/25	21/07/25
Soil Consultants Ltd	**~Time Sampled**	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
~Site Reference: Sonning Golf Club (housing)	**~TP / BH No**	TP01	TP06	TP02	TP02	WS02
~Project / Job Ref: 11043/CA/housing	**~Additional Refs**	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
~Order No: 11043/CA (housing)	**~Depth (m)**	0.00 - 0.10	0.00 - 0.08	0.00 - 0.25	0.60	0.00 - 0.10
Reporting Date: 15/08/2025	**DETS Sample No**	784221	784222	784223	784224	784225

Determinand	Unit	RL	Accreditation				(n)	
Asbestos Screen (S)	N/a	N/a	ISO17025	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
pH	pH Units	N/a	MCERTS	5.3	5.2	6.2	7.6	5.6
Electrical Conductivity	uS/cm	< 5	NONE	39	28	35	29	41
Total Cyanide	mg/kg	< 1	NONE	1	1	2	< 1	1
Total Sulphate as SO_4	mg/kg	< 200	MCERTS	361	358	307	< 200	319
Total Sulphate as SO_4	%	< 0.02	MCERTS	0.04	0.04	0.03	< 0.02	0.03
W/S Sulphate as SO_4 (2:1)	mg/l	< 10	MCERTS	< 10	< 10	< 10	< 10	< 10
W/S Sulphate as SO_4 (2:1)	g/l	< 0.01	MCERTS	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Total Sulphur	%	< 0.02	NONE	0.02	0.06	0.03	< 0.02	0.02
Organic Matter (SOM)	%	< 0.1	MCERTS	3.7	3.7	4.5	1.1	3.5
Arsenic (As)	mg/kg	< 2	MCERTS	11	12	9	10	7
W/S Boron	mg/kg	< 1	NONE	< 1	< 1	< 1	< 1	< 1
Cadmium (Cd)	mg/kg	< 0.2	MCERTS	< 0.2	< 0.2	0.2	< 0.2	< 0.2
Chromium (Cr)	mg/kg	< 2	MCERTS	12	15	11	15	10
Chromium (hexavalent)	mg/kg	< 2	NONE	< 2	< 2	< 2	< 2	< 2
Copper (Cu)	mg/kg	< 4	MCERTS	8	14	8	7	7
Lead (Pb)	mg/kg	< 3	MCERTS	31	25	29	10	20
Mercury (Hg)	mg/kg	< 1	MCERTS	< 1	< 1	< 1	< 1	< 1
Nickel (Ni)	mg/kg	< 3	MCERTS	8	10	7	10	7
Selenium (Se)	mg/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
Zinc (Zn)	mg/kg	< 3	MCERTS	29	129	31	20	22
Total Phenols (monohydric)	mg/kg	< 2	NONE	< 2	< 2	< 2	< 2	< 2

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Soil Analysis Certificate						
DETS Report No: 25-06900	**~Date Sampled**	21/07/25	21/07/25	22/07/25	22/07/25	22/07/25
Soil Consultants Ltd	**~Time Sampled**	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
~Site Reference: Sonning Golf Club (housing)	**~TP / BH No**	WS02	WS02	WS06	WS06	WS06
~Project / Job Ref: 11043/CA/housing	**~Additional Refs**	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
~Order No: 11043/CA (housing)	**~Depth (m)**	0.10 - 0.60	0.70-1.00	0.00 - 0.20	0.20 - 0.50	0.50 - 1.00
Reporting Date: 15/08/2025	**DETS Sample No**	784226	784227	784228	784229	784230

Determinand	Unit	RL	Accreditation		(n)		(n)	(n)
Asbestos Screen (S)	N/a	N/a	ISO17025	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
pH	pH Units	N/a	MCERTS	5.9	6.5	6.3	6.5	6.9
Electrical Conductivity	uS/cm	< 5	NONE	16	16	61	43	22
Total Cyanide	mg/kg	< 1	NONE	< 1	< 1	1	< 1	< 1
Total Sulphate as SO_4	mg/kg	< 200	MCERTS	232	< 200	322	210	< 200
Total Sulphate as SO_4	%	< 0.02	MCERTS	0.02	< 0.02	0.03	0.02	< 0.02
W/S Sulphate as SO_4 (2:1)	mg/l	< 10	MCERTS	< 10	< 10	< 10	< 10	< 10
W/S Sulphate as SO_4 (2:1)	g/l	< 0.01	MCERTS	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Total Sulphur	%	< 0.02	NONE	< 0.02	< 0.02	0.02	< 0.02	< 0.02
Organic Matter (SOM)	%	< 0.1	MCERTS	1.6	1	2.9	2.4	0.7
Arsenic (As)	mg/kg	< 2	MCERTS	8	15	8	9	21
W/S Boron	mg/kg	< 1	NONE	< 1	< 1	< 1	< 1	< 1
Cadmium (Cd)	mg/kg	< 0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (Cr)	mg/kg	< 2	MCERTS	11	22	11	12	23
Chromium (hexavalent)	mg/kg	< 2	NONE	< 2	< 2	< 2	< 2	< 2
Copper (Cu)	mg/kg	< 4	MCERTS	8	8	6	6	8
Lead (Pb)	mg/kg	< 3	MCERTS	20	11	17	17	11
Mercury (Hg)	mg/kg	< 1	MCERTS	< 1	< 1	< 1	< 1	< 1
Nickel (Ni)	mg/kg	< 3	MCERTS	7	12	7	8	19
Selenium (Se)	mg/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
Zinc (Zn)	mg/kg	< 3	MCERTS	22	23	24	26	32
Total Phenols (monohydric)	mg/kg	< 2	NONE	< 2	< 2	< 2	< 2	< 2

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Soil Analysis Certificate						
DETS Report No: 25-06900	**~Date Sampled**	22/07/25	22/07/25	23/07/25	23/07/25	23/07/25
Soil Consultants Ltd	**~Time Sampled**	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
~Site Reference: Sonning Golf Club (housing)	**~TP / BH No**	WS08	WS11	WS14	WS14	WS14
~Project / Job Ref: 11043/CA/housing	**~Additional Refs**	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
~Order No: 11043/CA (housing)	**~Depth (m)**	1.00 - 1.60	0.15 - 0.90	0.00 - 0.05	0.05 - 0.40	0.40 - 1.00
Reporting Date: 15/08/2025	**DETS Sample No**	784231	784232	784233	784234	784235

Determinand	Unit	RL	Accreditation	(n)	(n)			(n)
Asbestos Screen (S)	N/a	N/a	ISO17025	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
pH	pH Units	N/a	MCERTS	7.0	6.5	5.2	5.5	6.5
Electrical Conductivity	uS/cm	< 5	NONE	17	9	56	19	9
Total Cyanide	mg/kg	< 1	NONE	< 1	< 1	2	1	< 1
Total Sulphate as SO_4	mg/kg	< 200	MCERTS	< 200	< 200	417	206	< 200
Total Sulphate as SO_4	%	< 0.02	MCERTS	< 0.02	< 0.02	0.04	0.02	< 0.02
W/S Sulphate as SO_4 (2:1)	mg/l	< 10	MCERTS	< 10	< 10	< 10	< 10	< 10
W/S Sulphate as SO_4 (2:1)	g/l	< 0.01	MCERTS	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Total Sulphur	%	< 0.02	NONE	< 0.02	< 0.02	0.03	< 0.02	< 0.02
Organic Matter (SOM)	%	< 0.1	MCERTS	< 0.1	0.2	4.7	1.8	< 0.1
Arsenic (As)	mg/kg	< 2	MCERTS	3	4	11	9	4
W/S Boron	mg/kg	< 1	NONE	< 1	< 1	< 1	< 1	< 1
Cadmium (Cd)	mg/kg	< 0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (Cr)	mg/kg	< 2	MCERTS	3	4	13	11	3
Chromium (hexavalent)	mg/kg	< 2	NONE	< 2	< 2	< 2	< 2	< 2
Copper (Cu)	mg/kg	< 4	MCERTS	< 4	< 4	9	7	< 4
Lead (Pb)	mg/kg	< 3	MCERTS	< 3	3	25	17	< 3
Mercury (Hg)	mg/kg	< 1	MCERTS	< 1	< 1	< 1	< 1	< 1
Nickel (Ni)	mg/kg	< 3	MCERTS	< 3	4	9	8	3
Selenium (Se)	mg/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
Zinc (Zn)	mg/kg	< 3	MCERTS	4	7	34	26	5
Total Phenols (monohydric)	mg/kg	< 2	NONE	< 2	< 2	< 2	< 2	< 2

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Soil Analysis Certificate						
DETS Report No: 25-06900	**~Date Sampled**	None Supplied	None Supplied	None Supplied	21/07/25	
Soil Consultants Ltd	**~Time Sampled**	None Supplied	None Supplied	None Supplied	None Supplied	
~Site Reference: Sonning Golf Club (housing)	**~TP / BH No**	WAC1	WAC2	WAC3	WS01	
~Project / Job Ref: 11043/CA/housing	**~Additional Refs**	None Supplied	None Supplied	None Supplied	None Supplied	
~Order No: 11043/CA (housing)	**~Depth (m)**	0.00 - 1.00	0.00 - 1.00	0.00 - 1.00	0.50 - 1.00	
Reporting Date: 15/08/2025	**DETS Sample No**	784236	784237	784238	784239	

Determinand	**Unit**	**RL**	**Accreditation**	(n)	(n)		(n)	
Asbestos Screen (S)	N/a	N/a	**ISO17025**					
pH	pH Units	N/a	**MCERTS**				6.5	
Electrical Conductivity	uS/cm	< 5	NONE					
Total Cyanide	mg/kg	< 1	NONE					
Total Sulphate as SO_4	mg/kg	< 200	**MCERTS**				< 200	
Total Sulphate as SO_4	%	< 0.02	**MCERTS**				< 0.02	
W/S Sulphate as SO_4 (2:1)	mg/l	< 10	**MCERTS**				< 10	
W/S Sulphate as SO_4 (2:1)	g/l	< 0.01	**MCERTS**				< 0.01	
Total Sulphur	%	< 0.02	NONE				< 0.02	
Organic Matter (SOM)	%	< 0.1	**MCERTS**					
Arsenic (As)	mg/kg	< 2	**MCERTS**					
W/S Boron	mg/kg	< 1	NONE					
Cadmium (Cd)	mg/kg	< 0.2	**MCERTS**					
Chromium (Cr)	mg/kg	< 2	**MCERTS**					
Chromium (hexavalent)	mg/kg	< 2	NONE					
Copper (Cu)	mg/kg	< 4	**MCERTS**					
Lead (Pb)	mg/kg	< 3	**MCERTS**					
Mercury (Hg)	mg/kg	< 1	**MCERTS**					
Nickel (Ni)	mg/kg	< 3	**MCERTS**					
Selenium (Se)	mg/kg	< 2	**MCERTS**					
Zinc (Zn)	mg/kg	< 3	**MCERTS**					
Total Phenols (monohydric)	mg/kg	< 2	NONE					

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Soil Analysis Certificate - Speciated PAHs						
DETS Report No: 25-06900	**~Date Sampled**	22/07/25	23/07/25	22/07/25	22/07/25	21/07/25
Soil Consultants Ltd	**~Time Sampled**	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
~Site Reference: Sonning Golf Club (housing)	**~TP / BH No**	TP01	TP06	TP02	TP02	WS02
~Project / Job Ref: 11043/CA/housing	**~Additional Refs**	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
~Order No: 11043/CA (housing)	**~Depth (m)**	0.00 - 0.10	0.00 - 0.08	0.00 - 0.25	0.60	0.00 - 0.10
Reporting Date: 15/08/2025	**DETS Sample No**	784221	784222	784223	784224	784225

Determinand	Unit	RL	Accreditation				(n)	
Naphthalene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Acenaphthylene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Acenaphthene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Fluorene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Phenanthrene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Anthracene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Fluoranthene	mg/kg	< 0.1	MCERTS	0.13	< 0.1	< 0.1	< 0.1	< 0.1
Pyrene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(a)anthracene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Chrysene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(b)fluoranthene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(k)fluoranthene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(a)pyrene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Indeno(1,2,3-cd)pyrene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Dibenz(a,h)anthracene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(ghi)perylene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
**Total EPA-16 PAHs	mg/kg	< 1.6	MCERTS	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6

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Soil Analysis Certificate - Speciated PAHs						
DETS Report No: 25-06900	**~Date Sampled**	21/07/25	21/07/25	22/07/25	22/07/25	22/07/25
Soil Consultants Ltd	**~Time Sampled**	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
~Site Reference: Sonning Golf Club (housing)	**~TP / BH No**	WS02	WS02	WS06	WS06	WS06
~Project / Job Ref: 11043/CA/housing	**~Additional Refs**	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
~Order No: 11043/CA (housing)	**~Depth (m)**	0.10 - 0.60	0.70-1.00	0.00 - 0.20	0.20 - 0.50	0.50 - 1.00
Reporting Date: 15/08/2025	**DETS Sample No**	784226	784227	784228	784229	784230

Determinand	Unit	RL	Accreditation		(n)		(n)	(n)
Naphthalene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Acenaphthylene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Acenaphthene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Fluorene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Phenanthrene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Anthracene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Fluoranthene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Pyrene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(a)anthracene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Chrysene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(b)fluoranthene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(k)fluoranthene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(a)pyrene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Indeno(1,2,3-cd)pyrene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Dibenz(a,h)anthracene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(ghi)perylene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
**Total EPA-16 PAHs	mg/kg	< 1.6	MCERTS	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6

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Soil Analysis Certificate - Speciated PAHs						
DETS Report No: 25-06900	**~Date Sampled**	22/07/25	22/07/25	23/07/25	23/07/25	23/07/25
Soil Consultants Ltd	**~Time Sampled**	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
~Site Reference: Sonning Golf Club (housing)	**~TP / BH No**	WS08	WS11	WS14	WS14	WS14
~Project / Job Ref: 11043/CA/housing	**~Additional Refs**	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
~Order No: 11043/CA (housing)	**~Depth (m)**	1.00 - 1.60	0.15 - 0.90	0.00 - 0.05	0.05 - 0.40	0.40 - 1.00
Reporting Date: 15/08/2025	**DETS Sample No**	784231	784232	784233	784234	784235

Determinand	Unit	RL	Accreditation	(n)	(n)			(n)
Naphthalene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Acenaphthylene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Acenaphthene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Fluorene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Phenanthrene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Anthracene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Fluoranthene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Pyrene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(a)anthracene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Chrysene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(b)fluoranthene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(k)fluoranthene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(a)pyrene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Indeno(1,2,3-cd)pyrene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Dibenz(a,h)anthracene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(ghi)perylene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
**Total EPA-16 PAHs	mg/kg	< 1.6	MCERTS	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6

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Soil Analysis Certificate - EPH Banded (Type F)						
DETS Report No: 25-06900	**~Date Sampled**	22/07/25	23/07/25	22/07/25	22/07/25	21/07/25
Soil Consultants Ltd	**~Time Sampled**	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
~Site Reference: Sonning Golf Club (housing)	**~TP / BH No**	TP01	TP06	TP02	TP02	WS02
~Project / Job Ref: 11043/CA/housing	**~Additional Refs**	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
~Order No: 11043/CA (housing)	**~Depth (m)**	0.00 - 0.10	0.00 - 0.08	0.00 - 0.25	0.60	0.00 - 0.10
Reporting Date: 15/08/2025	**DETS Sample No**	784221	784222	784223	784224	784225

Determinand	Unit	RL	Accreditation				(n)	
EPH (>C8 - C10)	mg/kg	< 1	MCERTS	< 1	< 1	< 1	< 1	< 1
EPH (>C10 - C12)	mg/kg	< 1	MCERTS	< 1	< 1	< 1	< 1	< 1
EPH (>C12 - C16)	mg/kg	< 1	MCERTS	< 1	< 1	12	< 1	< 1
EPH (>C16 - C21)	mg/kg	< 1	MCERTS	1	< 1	8	< 1	1
EPH (>C21 - C40)	mg/kg	< 6	MCERTS	36	21	50	< 6	59
EPH (C8 - C40)	mg/kg	< 6	MCERTS	37	21	70	< 6	60

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Soil Analysis Certificate - EPH Banded (Type F)						
DETS Report No: 25-06900	**~Date Sampled**	21/07/25	21/07/25	22/07/25	22/07/25	22/07/25
Soil Consultants Ltd	**~Time Sampled**	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
~Site Reference: Sonning Golf Club (housing)	**~TP / BH No**	WS02	WS02	WS06	WS06	WS06
~Project / Job Ref: 11043/CA/housing	**~Additional Refs**	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
~Order No: 11043/CA (housing)	**~Depth (m)**	0.10 - 0.60	0.70-1.00	0.00 - 0.20	0.20 - 0.50	0.50 - 1.00
Reporting Date: 15/08/2025	**DETS Sample No**	784226	784227	784228	784229	784230

Determinand	Unit	RL	Accreditation		(n)		(n)	(n)
EPH (>C8 - C10)	mg/kg	< 1	MCERTS	< 1	< 1	< 1	< 1	< 1
EPH (>C10 - C12)	mg/kg	< 1	MCERTS	< 1	< 1	< 1	< 1	< 1
EPH (>C12 - C16)	mg/kg	< 1	MCERTS	< 1	< 1	< 1	< 1	< 1
EPH (>C16 - C21)	mg/kg	< 1	MCERTS	< 1	< 1	< 1	< 1	< 1
EPH (>C21 - C40)	mg/kg	< 6	MCERTS	10	< 6	25	14	< 6
EPH (C8 - C40)	mg/kg	< 6	MCERTS	10	< 6	25	14	< 6

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Soil Analysis Certificate - EPH Banded (Type F)						
DETS Report No: 25-06900	**~Date Sampled**	22/07/25	22/07/25	23/07/25	23/07/25	23/07/25
Soil Consultants Ltd	**~Time Sampled**	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
~Site Reference: Sonning Golf Club (housing)	**~TP / BH No**	WS08	WS11	WS14	WS14	WS14
~Project / Job Ref: 11043/CA/housing	**~Additional Refs**	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
~Order No: 11043/CA (housing)	**~Depth (m)**	1.00 - 1.60	0.15 - 0.90	0.00 - 0.05	0.05 - 0.40	0.40 - 1.00
Reporting Date: 15/08/2025	**DETS Sample No**	784231	784232	784233	784234	784235

Determinand	Unit	RL	Accreditation					
EPH (>C8 - C10)	mg/kg	< 1	MCERTS	< 1	< 1	< 1	< 1	< 1 (n)
EPH (>C10 - C12)	mg/kg	< 1	MCERTS	< 1	< 1	< 1	< 1	< 1
EPH (>C12 - C16)	mg/kg	< 1	MCERTS	< 1	< 1	< 1	< 1	< 1
EPH (>C16 - C21)	mg/kg	< 1	MCERTS	< 1	< 1	1	< 1	< 1
EPH (>C21 - C40)	mg/kg	< 6	MCERTS	< 6	< 6	34	7	< 6
EPH (C8 - C40)	mg/kg	< 6	MCERTS	< 6	< 6	35	7	< 6

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Soil Analysis Certificate - TPH LQM Banded						
DETS Report No: 25-06900	**~Date Sampled**	22/07/25	22/07/25	22/07/25	22/07/25	22/07/25
Soil Consultants Ltd	**~Time Sampled**	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
~Site Reference: Sonning Golf Club (housing)	**~TP / BH No**	TP02	TP02	WS06	WS06	WS06
~Project / Job Ref: 11043/CA/housing	**~Additional Refs**	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
~Order No: 11043/CA (housing)	**~Depth (m)**	0.00 - 0.25	0.60	0.00 - 0.20	0.20 - 0.50	0.50 - 1.00
Reporting Date: 15/08/2025	**DETS Sample No**	784223	784224	784228	784229	784230

Determinand	Unit	RL	Accreditation					
				(n)			(n)	(n)
Aliphatic >C5 - C6	mg/kg	< 0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic >C6 - C8	mg/kg	< 0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aliphatic >C8 - C10	mg/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
Aliphatic >C10 - C12	mg/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
Aliphatic >C12 - C16	mg/kg	< 3	MCERTS	6	< 3	< 3	< 3	< 3
Aliphatic >C16 - C35	mg/kg	< 10	MCERTS	< 10	< 10	< 10	< 10	< 10
Aliphatic >C35 - C44	mg/kg	< 10	NONE	< 10	< 10	< 10	< 10	< 10
Aliphatic (C5 - C44)	mg/kg	< 30	NONE	< 30	< 30	< 30	< 30	< 30
Aromatic >C5 - C7	mg/kg	< 0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic >C7 - C8	mg/kg	< 0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aromatic >C8 - C10	mg/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
Aromatic >C10 - C12	mg/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
Aromatic >C12 - C16	mg/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
Aromatic >C16 - C21	mg/kg	< 3	MCERTS	< 3	< 3	< 3	< 3	< 3
Aromatic >C21 - C35	mg/kg	< 10	MCERTS	< 10	< 10	< 10	< 10	< 10
Aromatic >C35 - C44	mg/kg	< 10	NONE	< 10	< 10	< 10	< 10	< 10
Aromatic (>C5 - C44)	mg/kg	< 30	NONE	< 30	< 30	< 30	< 30	< 30
Total >C5 - C44	mg/kg	< 60	NONE	< 60	< 60	< 60	< 60	< 60

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Soil Analysis Certificate - TPH LQM Banded						
DETS Report No: 25-06900	**~Date Sampled**	23/07/25	23/07/25	23/07/25		
Soil Consultants Ltd	**~Time Sampled**	None Supplied	None Supplied	None Supplied		
~Site Reference: Sonning Golf Club (housing)	**~TP / BH No**	WS14	WS14	WS14		
~Project / Job Ref: 11043/CA/housing	**~Additional Refs**	None Supplied	None Supplied	None Supplied		
~Order No: 11043/CA (housing)	**~Depth (m)**	0.00 - 0.05	0.05 - 0.40	0.40 - 1.00		
Reporting Date: 15/08/2025	**DETS Sample No**	784233	784234	784235		

Determinand	Unit	RL	Accreditation			(n)		
Aliphatic >C5 - C6	mg/kg	< 0.01	NONE	< 0.01	< 0.01	< 0.01		
Aliphatic >C6 - C8	mg/kg	< 0.05	NONE	< 0.05	< 0.05	< 0.05		
Aliphatic >C8 - C10	mg/kg	< 2	MCERTS	< 2	< 2	< 2		
Aliphatic >C10 - C12	mg/kg	< 2	MCERTS	< 2	< 2	< 2		
Aliphatic >C12 - C16	mg/kg	< 3	MCERTS	< 3	< 3	< 3		
Aliphatic >C16 - C35	mg/kg	< 10	MCERTS	15	< 10	< 10		
Aliphatic >C35 - C44	mg/kg	< 10	NONE	< 10	< 10	< 10		
Aliphatic (C5 - C44)	mg/kg	< 30	NONE	< 30	< 30	< 30		
Aromatic >C5 - C7	mg/kg	< 0.01	NONE	< 0.01	< 0.01	< 0.01		
Aromatic >C7 - C8	mg/kg	< 0.05	NONE	< 0.05	< 0.05	< 0.05		
Aromatic >C8 - C10	mg/kg	< 2	MCERTS	< 2	< 2	< 2		
Aromatic >C10 - C12	mg/kg	< 2	MCERTS	< 2	< 2	< 2		
Aromatic >C12 - C16	mg/kg	< 2	MCERTS	< 2	< 2	< 2		
Aromatic >C16 - C21	mg/kg	< 3	MCERTS	< 3	< 3	< 3		
Aromatic >C21 - C35	mg/kg	< 10	MCERTS	< 10	< 10	< 10		
Aromatic >C35 - C44	mg/kg	< 10	NONE	< 10	< 10	< 10		
Aromatic (>C5 - C44)	mg/kg	< 30	NONE	< 30	< 30	< 30		
Total >C5 - C44	mg/kg	< 60	NONE	< 60	< 60	< 60		

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Soil Analysis Certificate - BTEX / MTBE						
DETS Report No: 25-06900	**~Date Sampled**	22/07/25	22/07/25	22/07/25	22/07/25	22/07/25
Soil Consultants Ltd	**~Time Sampled**	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
~Site Reference: Sonning Golf Club (housing)	**~TP / BH No**	TP02	TP02	WS06	WS06	WS06
~Project / Job Ref: 11043/CA/housing	**~Additional Refs**	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
~Order No: 11043/CA (housing)	**~Depth (m)**	0.00 - 0.25	0.60	0.00 - 0.20	0.20 - 0.50	0.50 - 1.00
Reporting Date: 15/08/2025	**DETS Sample No**	784223	784224	784228	784229	784230

Determinand	Unit	RL	Accreditation		(n)		(n)	(n)
Benzene	µg/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
Toluene	µg/kg	< 5	MCERTS	< 5	< 5	< 5	< 5	< 5
Ethylbenzene	µg/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
p & m-xylene	µg/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
o-xylene	µg/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
MTBE	µg/kg	< 5	MCERTS	< 5	< 5	< 5	< 5	< 5

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Soil Analysis Certificate - BTEX / MTBE						
DETS Report No: 25-06900	**~Date Sampled**	23/07/25	23/07/25	23/07/25		
Soil Consultants Ltd	**~Time Sampled**	None Supplied	None Supplied	None Supplied		
~Site Reference: Sonning Golf Club (housing)	**~TP / BH No**	WS14	WS14	WS14		
~Project / Job Ref: 11043/CA/housing	**~Additional Refs**	None Supplied	None Supplied	None Supplied		
~Order No: 11043/CA (housing)	**~Depth (m)**	0.00 - 0.05	0.05 - 0.40	0.40 - 1.00		
Reporting Date: 15/08/2025	**DETS Sample No**	784233	784234	784235		

Determinand	Unit	RL	Accreditation			(n)		
Benzene	µg/kg	< 2	MCERTS	< 2	< 2	< 2		
Toluene	µg/kg	< 5	MCERTS	< 5	< 5	< 5		
Ethylbenzene	µg/kg	< 2	MCERTS	< 2	< 2	< 2		
p & m-xylene	µg/kg	< 2	MCERTS	< 2	< 2	< 2		
o-xylene	µg/kg	< 2	MCERTS	< 2	< 2	< 2		
MTBE	µg/kg	< 5	MCERTS	< 5	< 5	< 5		

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Waste Acceptance Criteria Analytical Certificate

DETS Report No: 25-06900	**~Date Sampled**	None Supplied	
Soil Consultants Ltd	**~Time Sampled**	None Supplied	
~Site Reference: Sonning Golf Club (housing)	**~TP / BH No**	WAC1	
~Project / Job Ref: 11043/CA/housing	**~Additional Refs**	None Supplied	
~Order No: 11043/CA (housing)	**~Depth (m)**	0.00 - 1.00	
Reporting Date: 15/08/2025	**DETS Sample No**	784236	

Determinand	**Unit**	**MDL**		**Landfill Waste Acceptance Criteria Limits**		
				Inert Waste Landfill	**Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill**	**Hazardous Waste Landfill**
TOC[MU]	%	< 0.1	1.3	3%	5%	6%
Loss on Ignition[MU]	%	< 0.01	3.82	--	--	10%
BTEX[MU]	mg/kg	< 0.05	< 0.05	6	--	--
Sum of PCBs	mg/kg	< 0.1	< 0.1	1	--	--
Mineral Oil[MU]	mg/kg	< 10	< 10	500	--	--
Total PAH[MU]	mg/kg	< 1.7	< 1.7	100	--	--
pH[MU]	pH Units	N/a	6.1	--	>6	--
Acid Neutralisation Capacity	mol/kg (+/-)	< 1	< 1	--	To be evaluated	To be evaluated

Eluate Analysis	**10:1 mg/l**	**Cumulative 10:1 * mg/kg**	**Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg (mg/kg)**		
Arsenic	0.0010	0.010	0.5	2	25
Barium	0.0052	0.052	20	100	300
Cadmium	< 0.0002	< 0.002	0.04	1	5
Chromium	0.0005	0.005	0.5	10	70
Copper	0.0036	0.036	2	50	100
Mercury	< 0.00004	< 0.0004	0.01	0.2	2
Molybdenum	0.0002	0.002	0.5	10	30
Nickel	0.0007	0.007	0.4	10	40
Lead	0.0005	0.005	0.5	10	50
Antimony	< 0.0002	< 0.002	0.06	0.7	5
Selenium	< 0.0002	< 0.002	0.1	0.5	7
Zinc	0.010	0.10	4	50	200
Chloride	1.1	11	800	15000	25000
Fluoride	< 0.5	< 5	10	150	500
Sulphate	2.9	29	1000	20000	50000
TDS	16	160	4000	60000	100000
Phenol Index	< 0.01	< 0.1	1	-	-
DOC	8.4	84.3	500	800	1000
Leach Test Information					
Sample Mass (kg)	0.09				
Dry Matter (%)	96.7				
Moisture (%)	3.4				
Stage 1					
Volume Eluate L10 (litres)	0.90				

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C. The Samples Descriptions page describes if the test is performed on the dried or as-received portion
Stated limits are for guidance only and Normec DETS Limited cannot be held responsible for any discrepencies with current legislation

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Waste Acceptance Criteria Analytical Certificate

DETS Report No: 25-06900	**~Date Sampled**	None Supplied	
Soil Consultants Ltd	**~Time Sampled**	None Supplied	
~Site Reference: Sonning Golf Club (housing)	**~TP / BH No**	WAC2	
~Project / Job Ref: 11043/CA/housing	**~Additional Refs**	None Supplied	
~Order No: 11043/CA (housing)	**~Depth (m)**	0.00 - 1.00	
Reporting Date: 15/08/2025	**DETS Sample No**	784237	

Determinand	**Unit**	**MDL**		**Landfill Waste Acceptance Criteria Limits**		
				Inert Waste Landfill	**Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill**	**Hazardous Waste Landfill**
TOC[MU]	%	< 0.1	1.3	3%	5%	6%
Loss on Ignition[MU]	%	< 0.01	3.97	--	--	10%
BTEX[MU]	mg/kg	< 0.05	< 0.05	6	--	--
Sum of PCBs	mg/kg	< 0.1	< 0.1	1	--	--
Mineral Oil[MU]	mg/kg	< 10	< 10	500	--	--
Total PAH[MU]	mg/kg	< 1.7	< 1.7	100	--	--
pH[MU]	pH Units	N/a	5.9	--	**>6**	--
Acid Neutralisation Capacity	mol/kg (+/-)	< 1	< 1	--	To be evaluated	To be evaluated

Eluate Analysis	**10:1 mg/l**			**Cumulative 10:1 * mg/kg**	**Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg (mg/kg)**		
Arsenic	0.0005			0.005	0.5	2	25
Barium	0.0038			0.038	20	100	300
Cadmium	< 0.0002			< 0.002	0.04	1	5
Chromium	0.0004			0.004	0.5	10	70
Copper	0.0033			0.033	2	50	100
Mercury	< 0.00004			< 0.0004	0.01	0.2	2
Molybdenum	< 0.0002			< 0.002	0.5	10	30
Nickel	0.0007			0.007	0.4	10	40
Lead	0.0004			0.004	0.5	10	50
Antimony	< 0.0002			< 0.002	0.06	0.7	5
Selenium	< 0.0002			< 0.002	0.1	0.5	7
Zinc	0.022			0.22	4	50	200
Chloride	< 1.0			< 10	800	15000	25000
Fluoride	< 0.5			< 5	10	150	500
Sulphate	< 1.0			< 10	1000	20000	50000
TDS	10			100	4000	60000	100000
Phenol Index	< 0.01			< 0.1	1	-	-
DOC	6.3			63.3	500	800	1000
Leach Test Information							
Sample Mass (kg)	0.09						
Dry Matter (%)	98						
Moisture (%)	2						
Stage 1							
Volume Eluate L10 (litres)	0.90						

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C. The Samples Descriptions page describes if the test is performed on the dried or as-received portion
Stated limits are for guidance only and Normec DETS Limited cannot be held responsible for any discrepencies with current legislation

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Waste Acceptance Criteria Analytical Certificate

DETS Report No: 25-06900		**~Date Sampled**	None Supplied				**Landfill Waste Acceptance Criteria Limits**	
Soil Consultants Ltd		**~Time Sampled**	None Supplied				**Inert Waste Landfill**	**Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill**	**Hazardous Waste Landfill**
~Site Reference: Sonning Golf Club (housing)		**~TP / BH No**	WAC3						
~Project / Job Ref: 11043/CA/housing		**~Additional Refs**	None Supplied						
~Order No: 11043/CA (housing)		**~Depth (m)**	0.00 - 1.00						
Reporting Date: 15/08/2025		**DETS Sample No**	784238						
Determinand	**Unit**	**MDL**							
TOC[MU]	%	< 0.1	1.3				3%	5%	6%
Loss on Ignition[MU]	%	< 0.01	4.45				--	--	10%
BTEX[MU]	mg/kg	< 0.05	< 0.05				6	--	--
Sum of PCBs	mg/kg	< 0.1	< 0.1				1	--	--
Mineral Oil[MU]	mg/kg	< 10	< 10				500	--	--
Total PAH[MU]	mg/kg	< 1.7	< 1.7				100	--	--
pH[MU]	pH Units	N/a	5.9				--	**>6**	--
Acid Neutralisation Capacity	mol/kg (+/-)	< 1	< 1				--	To be evaluated	To be evaluated
Eluate Analysis			**10:1 mg/l**			**Cumulative 10:1 * mg/kg**	**Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg (mg/kg)**		
Arsenic			0.0005			0.005	0.5	2	25
Barium			0.0044			0.044	20	100	300
Cadmium			< 0.0002			< 0.002	0.04	1	5
Chromium			0.0003			0.003	0.5	10	70
Copper			0.0017			0.017	2	50	100
Mercury			< 0.00004			< 0.0004	0.01	0.2	2
Molybdenum			< 0.0002			< 0.002	0.5	10	30
Nickel			0.0004			0.004	0.4	10	40
Lead			< 0.0002			< 0.002	0.5	10	50
Antimony			< 0.0002			< 0.002	0.06	0.7	5
Selenium			< 0.0002			< 0.002	0.1	0.5	7
Zinc			0.011			0.11	4	50	200
Chloride			2.0			20	800	15000	25000
Fluoride			< 0.5			< 5	10	150	500
Sulphate			< 1.0			< 10	1000	20000	50000
TDS			15			150	4000	60000	100000
Phenol Index			< 0.01			< 0.1	1	-	-
DOC			6.9			69.5	500	800	1000
Leach Test Information									
Sample Mass (kg)			0.09						
Dry Matter (%)			95.6						
Moisture (%)			4.6						
Stage 1									
Volume Eluate L10 (litres)			0.90						

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C. The Samples Descriptions page describes if the test is performed on the dried or as-received portion
Stated limits are for guidance only and Normec DETS Limited cannot be held responsible for any discrepencies with current legislation

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Soil Analysis Certificate - Sample Descriptions	
DETS Report No: 25-06900	
Soil Consultants Ltd	
~Site Reference: Sonning Golf Club (housing)	
~Project / Job Ref: 11043/CA/housing	
~Order No: 11043/CA (housing)	
Reporting Date: 15/08/2025	

DETS Sample No	~TP / BH No	~Additional Refs	~Depth (m)	Moisture Content (%)	Sample Matrix Description
784221	TP01	None Supplied	0.00 - 0.10	4.1	Light brown sandy clay with vegetation
784222	TP06	None Supplied	0.00 - 0.08	5	Light brown sandy clay with stones
784223	TP02	None Supplied	0.00 - 0.25	2.8	Brown sandy clay with vegetation and stones
784224	TP02	None Supplied	0.60	3.1	Light brown sandy gravel with stones
784225	WS02	None Supplied	0.00 - 0.10	3.2	Light brown sandy clay with stones and vegetation
784226	WS02	None Supplied	0.10 - 0.60	2.8	Light brown sandy clay with stones
784227	WS02	None Supplied	0.70-1.00	6.8	Light brown sandy gravel with stones
784228	WS06	None Supplied	0.00 - 0.20	2.9	Light brown sandy clay with vegetation
784229	WS06	None Supplied	0.20 - 0.50	1.5	Light brown sandy gravel with stones
784230	WS06	None Supplied	0.50 - 1.00	3.8	Light brown sandy gravel with stones
784231	WS08	None Supplied	1.00 - 1.60	3.2	Light brown sandy gravel with stones
784232	WS11	None Supplied	0.15 - 0.90	0.9	Light brown sandy gravel with stones
784233	WS14	None Supplied	0.00 - 0.05	4.1	Light brown sandy clay with stones and vegetation
784234	WS14	None Supplied	0.05 - 0.40	1.4	Light brown sandy clay with stones
784235	WS14	None Supplied	0.40 - 1.00	1.3	Light brown sandy gravel with stones
^ 784236	WAC1	None Supplied	0.00 - 1.00	3.3	Brown sandy gravel with stones and vegetation
^ 784237	WAC2	None Supplied	0.00 - 1.00	1.9	Light brown sandy gravel with stones and vegetation
^ 784238	WAC3	None Supplied	0.00 - 1.00	4.4	Brown sandy clay with stones and vegetation
784239	WS01	None Supplied	0.50 - 1.00	4.1	Light brown sandy gravel with stones

Moisture content is part of procedure E003 & is not an accredited test

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Soil Analysis Certificate - Methodology & Miscellaneous Information
DETS Report No: 25-06900
Soil Consultants Ltd
~Site Reference: Sonning Golf Club (housing)
~Project / Job Ref: 11043/CA/housing
~Order No: 11043/CA (housing)
Reporting Date: 15/08/2025

Matrix	Analysed On	Determinand	Brief Method Description	Method No
Soil	D	Boron - Water Soluble	Determination of water soluble boron in soil by 2:1 hot water extract followed by ICP-OES	E012
Soil	AR	BTEX	Determination of BTEX by headspace GC-MS	E001
Soil	D	Cations	Determination of cations in soil by aqua-regia digestion followed by ICP-OES	E002
Soil	D	Chloride - Water Soluble (2:1)	Determination of chloride by extraction with water & analysed by ion chromatography	E009
Soil	AR	Chromium - Hexavalent	Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of 1,5 diphenylcarbazide followed by colorimetry	E016
Soil	AR	Cyanide - Complex	Determination of complex cyanide by distillation followed by colorimetry	E015
Soil	AR	Cyanide - Free	Determination of free cyanide by distillation followed by colorimetry	E015
Soil	AR	Cyanide - Total	Determination of total cyanide by distillation followed by colorimetry	E015
Soil	D	Cyclohexane Extractable Matter (CEM)	Gravimetrically determined through extraction with cyclohexane	E011
Soil	AR	Diesel Range Organics (C10 - C24)	Determination of hexane/acetone extractable hydrocarbons by GC-FID	E004
Soil	AR	Electrical Conductivity	Determination of electrical conductivity by addition of saturated calcium sulphate followed by electrometric measurement	E022
Soil	AR	Electrical Conductivity	Determination of electrical conductivity by addition of water followed by electrometric measurement	E023
Soil	D	Elemental Sulphur	Determination of elemental sulphur by solvent extraction followed by GC-MS	E020
Soil	AR	EPH (C10 – C40)	Determination of acetone/hexane extractable hydrocarbons by GC-FID	E004
Soil	AR	EPH Product ID	Determination of acetone/hexane extractable hydrocarbons by GC-FID	E004
Soil	AR	EPH TEXAS (C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C40)	Determination of acetone/hexane extractable hydrocarbons by GC-FID for C8 to C40. C6 to C8 by headspace GC-MS	E004
Soil	D	Fluoride - Water Soluble	Determination of Fluoride by extraction with water & analysed by ion chromatography	E009
Soil	D	Fraction Organic Carbon (FOC)	Determination of TOC by combustion analyser.	E027
Soil	D	Organic Matter (SOM)	Determination of TOC by combustion analyser.	E027
Soil	D	TOC (Total Organic Carbon)	Determination of TOC by combustion analyser.	E027
Soil	AR	Exchangeable Ammonium	Determination of ammonium by discrete analyser.	E029
Soil	D	FOC (Fraction Organic Carbon)	Determination of fraction of organic carbon by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	D	Loss on Ignition @ 450oC	Determination of loss on ignition in soil by gravimetrically with the sample being ignited in a muffle furnace	E019
Soil	D	Magnesium - Water Soluble	Determination of water soluble magnesium by extraction with water followed by ICP-OES	E025
Soil	D	Metals	Determination of metals by aqua-regia digestion followed by ICP-OES	E002
Soil	AR	Mineral Oil (C10 - C40)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge	E004
Soil	AR	Moisture Content	Moisture content; determined gravimetrically	E003
Soil	D	Nitrate - Water Soluble (2:1)	Determination of nitrate by extraction with water & analysed by ion chromatography	E009
Soil	D	Organic Matter	Determination of organic matter by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	AR	PAH - Speciated (EPA 16)	Determination of PAH compounds by extraction in acetone and hexane followed by GC-MS with the use of surrogate and internal standards	E005
Soil	AR	PCB - 7 Congeners	Determination of PCB by extraction with acetone and hexane followed by GC-MS	E008
Soil	D	Petroleum Ether Extract (PEE)	Gravimetrically determined through extraction with petroleum ether	E011
Soil	AR	pH	Determination of pH by addition of water followed by electrometric measurement	E007
Soil	AR	Phenols - Total (monohydric)	Determination of phenols by distillation followed by colorimetry	E021
Soil	D	Phosphate - Water Soluble (2:1)	Determination of phosphate by extraction with water & analysed by ion chromatography	E009
Soil	D	Sulphate (as SO4) - Total	Determination of total sulphate by extraction with 10% HCl followed by ICP-OES	E013
Soil	D	Sulphate (as SO4) - Water Soluble (2:1)	Determination of sulphate by extraction with water & analysed by ion chromatography	E009
Soil	D	Sulphate (as SO4) - Water Soluble (2:1)	Determination of water soluble sulphate by extraction with water followed by ICP-OES	E014
Soil	AR	Sulphide	Determination of sulphide by distillation followed by colorimetry	E018
Soil	D	Sulphur - Total	Determination of total sulphur by extraction with aqua-regia followed by ICP-OES	E024
Soil	AR	SVOC	Determination of semi-volatile organic compounds by extraction in acetone and hexane followed by GC-MS	E006
Soil	AR	Thiocyanate (as SCN)	Determination of thiocyanate by extraction in caustic soda followed by acidification followed by addition of ferric nitrate followed by colorimetry	E017
Soil	D	Toluene Extractable Matter (TEM)	Gravimetrically determined through extraction with toluene	E011
Soil	D	Total Organic Carbon (TOC)	Determination of organic matter by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	AR	TPH CWG (ali: C5- C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C34, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge for C8 to C35. C5 to C8 by headspace GC-MS	E004
Soil	AR	TPH LQM (ali: C5-C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C35, C35-C44, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35, C35-C44)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge for C8 to C44. C5 to C8 by headspace GC-MS	E004
Soil	AR	VOCs	Determination of volatile organic compounds by headspace GC-MS	E001
Soil	AR	VPH (C6-C8 & C8-C10)	Determination of hydrocarbons C6-C8 by headspace GC-MS & C8-C10 by GC-FID	E001

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Water Analysis Certificate - Methodology & Miscellaneous Information
DETS Report No: 25-06900
Soil Consultants Ltd
~Site Reference: Sonning Golf Club (housing)
~Project / Job Ref: 11043/CA/housing
~Order No: 11043/CA (housing)
Reporting Date: 15/08/2025

Matrix	Analysed On	Determinand	Brief Method Description	Method No
Water	UF	Alkalinity	Determination of alkalinity by titration against hydrochloric acid using bromocresol green as the end point	E103
Water	F	Ammoniacal Nitrogen	Determination of ammoniacal nitrogen by discrete analyser.	E126
Water	UF	BTEX	Determination of BTEX by headspace GC-MS	E101
Water	F	Cations	Determination of cations by filtration followed by ICP-MS	E102
Water	F	Chemical Oxygen Demand (COD)	Determination using a COD reactor followed by colorimetry	E112
Water	UF	Biological Oxygen Demand (BOD)	Determination using BOD sensors measuring the change of pressure	E133
Water	F	Chloride	Determination of chloride by filtration & analysed by ion chromatography	E109
Water	F	Chromium - Hexavalent	Determination of hexavalent chromium by acidification, addition of 1,5 diphenylcarbazide followed by	E116
Water	F	Cyanide - Complex	Determination of complex cyanide by distillation followed by colorimetry	E115
Water	F	Cyanide - Free	Determination of free cyanide by distillation followed by colorimetry	E115
Water	F	Cyanide - Total	Determination of total cyanide by distillation followed by colorimetry	E115
Water	UF	Cyclohexane Extractable Matter (CEM)	Gravimetrically determined through liquid:liquid extraction with cyclohexane	E111
Water	F	Diesel Range Organics (C10 - C24)	Determination of liquid:liquid extraction with hexane followed by GC-FID	E104
Water	F	Dissolved Organic Content (DOC)	Determination of DOC by filtration followed by low heat with persulphate addition followed by IR dete	E110
Water	UF	Electrical Conductivity	Determination of electrical conductivity by electrometric measurement	E123
Water	F	EPH (C10 – C40)	Determination of liquid:liquid extraction with hexane followed by GC-FID	E104
Water	F	EPH TEXAS (C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C40)	Determination of liquid:liquid extraction with hexane followed by GC-FID for C8 to C40. C6 to C8 by headspace GC-MS	E104
Water	F	Fluoride	Determination of Fluoride by filtration & analysed by ion chromatography	E109
Water	F	Hardness	Determination of Ca and Mg by ICP-MS followed by calculation	E102
Leachate	F	Leachate Preparation - NRA	Based on National Rivers Authority leaching test 1994	E301
Leachate	F	Leachate Preparation - WAC	Based on BS EN 12457 Pt1, 2, 3	E302
Water	F	Metals	Determination of metals by filtration followed by ICP-MS	E102
Water	F	Mineral Oil (C10 - C40)	Determination of liquid:liquid extraction with hexane followed by GI-FID	E104
Water	F	Nitrate	Determination of nitrate by filtration & analysed by ion chromatography	E109
Water	F	Monohydric Phenol	Determination of phenols by distillation followed by colorimetry	E115
Water	F	PAH - Speciated (EPA 16)	Determination of PAH compounds by concentration through SPE cartridge, collection in dichloromethane followed by GC-MS	E105
Water	F	PCB - 7 Congeners	Determination of PCB compounds by concentration through SPE cartridge, collection in dichlorometha	E108
Water	UF	Petroleum Ether Extract (PEE)	Gravimetrically determined through liquid:liquid extraction with petroleum ether	E111
Water	UF	pH	Determination of pH by electrometric measurement	E107
Water	F	Phosphate	Determination of phosphate by filtration & analysed by ion chromatography	E109
Water	UF	Redox Potential	Determination of redox potential by electrometric measurement	E113
Water	F	Sulphate (as SO4)	Determination of sulphate by filtration & analysed by ion chromatography	E109
Water	UF	Sulphide	Determination of sulphide by distillation followed by colorimetry	E118
Water	F	SVOC	Determination of semi-volatile organic compounds by concentration through SPE cartridge, collection in dichloromethane followed by GC-MS	E106
Water	UF	Toluene Extractable Matter (TEM)	Gravimetrically determined through liquid:liquid extraction with toluene	E111
Water	UF	Total Organic Carbon (TOC)	Acidification, followed by high-temperature oxidation and IR detection.	E110
Water	F	TPH CWG (ali: C5-C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C34, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35)	Determination of liquid:liquid extraction with hexane, fractionating with SPE followed by GC-FID for C8 to C35. C5 to C8 by headspace GC-MS	E104
Water	F	TPH LQM (ali: C5-C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C35, C35-C44, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35, C35-C44)	Determination of liquid:liquid extraction with hexane, fractionating with SPE followed by GC-FID for C8 to C44. C5 to C8 by headspace GC-MS	E104
Water	UF	VOCs	Determination of volatile organic compounds by headspace GC-MS	E101
Water	UF	VPH (C6-C8 & C8-C10)	Determination of hydrocarbons C6-C8 by headspace GC-MS & C8-C10 by GC-FID	E101

Parameter	Matrix Type	Expanded Uncertainity Measurement	Unit
TOC	Soil	11	%
Loss on Ignition	Soil	24	%
BTEX	Soil	11	%
Sum of PCBs	Soil	30	%
Mineral Oil	Soil	9	%
Total PAH	Soil	17	%
pH	Soil	0.2	Units
Acid Neutralisation Capacity	Soil	18	%
Clay Content	Soil	15	%
Silt Content	Soil	14	%
Sand Content	Soil	13	%
Loss on Ignition	Soil	24	%
pH	Soil	0.2	Units
Carbonate	Soil	12	%
Total Nitrogen	Soil	12	%
Phosphorus (Extractable)	Soil	24	%
Potassium (Extractable)	Soil	20	%
Magnesium (Extractable)	Soil	26	%
Zinc	Soil	26	%
Copper	Soil	24	%
Nickel	Soil	29	%
Available Sodium	Soil	23	%
Available Calcium	Soil	23	%
Electrical Conductivity	Soil	10	%

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Certificate Key

Symbol	Description
F	Filtered sample
UF	Unfiltered sample
D	Dried sample
AR	As received sample
RL	Reporting limit
~	Sample details provided by customer and can affect the validity of results
M/S	Missing Sample
*	The Dutch 10 PAH compounds consist of Naphthalene, Anthracene,Phenanthrene, Fluoranthene, Benz(a)anthracene, Chrysene, Benzo(k) fluoranthene, Benzo(a)pyrene, Benzo(g,h,i)perylene, and Indeno(1,2,3-cd)pyrene
**	Total EPA-16 PAHs consist of the following polycyclic aromatic hydrocarbons: Naphthalene, Acenaphthylene, Acenaphthene, Fluorene, Phenanthrene, Anthracene, Fluoranthene, Pyrene, Benzo(a)anthracene, Chrysene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Indeno(1,2,3-cd)pyrene, Dibenz(a,h)anthracene, and Benzo(ghi)perylene.
***	Total WAC-17 PAHs consist of the following polycyclic aromatic hydrocarbons: Naphthalene, Acenaphthylene, Acenaphthene, Fluorene, Phenanthrene, Anthracene, Fluoranthene, Pyrene, Benzo(a)anthracene, Chrysene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Indeno(1,2,3-cd)pyrene, Dibenz (a,h)anthracene, Benzo(ghi)perylene and Coronene.
^	No sampling date provided; unable to confirm if samples are within acceptable holding times
n	Please note that we are MCERTS soil accredited (UK soils only) for sand, loam, and clay, and UKAS accredited for groundwater, tap water, surface water, and generated leachates. Other matrices are outside our scope of accreditation.
S	Subcontracted analysis
M	MCERTS accredited test
U	UKAS accredited test

Normec DETS

UKAS TESTING 4480

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DETS Report No: 25-07140

Site Reference:	Sonning Golf Club (Housing)
Project / Job Ref:	11043/CA/Housing
Order No:	11043/CA (housing)
Sample Receipt Date:	07/08/2025
Sample Scheduled Date:	07/08/2025
Report Issue Number:	1
Reporting Date:	14/08/2025

Authorised by:

Steve Knight
Customer Support Manager

Dates of laboratory activities for each tested analyte are available upon request.

Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

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Soil Analysis Certificate						
DETS Report No: 25-07140	**~Date Sampled**	23/07/25	23/07/25	23/07/25	23/07/25	23/07/25
Soil Consultants Ltd	**~Time Sampled**	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
~Site Reference: Sonning Golf Club (Housing)	**~TP / BH No**	TP03	TP03	TP05	TP06	TP06
~Project / Job Ref: 11043/CA/Housing	**~Additional Refs**	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
~Order No: 11043/CA (housing)	**~Depth (m)**	1.00	1.75	1.30	1.00	1.80
Reporting Date: 14/08/2025	**DETS Sample No**	785338	785339	785340	785341	785342

Determinand	Unit	RL	Accreditation	(n)	(n)	(n)	(n)	(n)
pH	pH Units	N/a	ISO17025	6.8	6.6	6.6	6.5	6.6
Total Sulphate as SO_4	mg/kg	< 200	ISO17025	< 200	< 200	< 200	< 200	< 200
Total Sulphate as SO_4	%	< 0.02	ISO17025	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
W/S Sulphate as SO_4 (2:1)	mg/l	< 10	ISO17025	< 10	< 10	< 10	< 10	< 10
W/S Sulphate as SO_4 (2:1)	g/l	< 0.01	ISO17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Total Sulphur	%	< 0.02	NONE	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02

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Soil Analysis Certificate - Sample Descriptions	
DETS Report No: 25-07140	
Soil Consultants Ltd	
~Site Reference: Sonning Golf Club (Housing)	
~Project / Job Ref: 11043/CA/Housing	
~Order No: 11043/CA (housing)	
Reporting Date: 14/08/2025	

DETS Sample No	~TP / BH No	~Additional Refs	~Depth (m)	Moisture Content (%)	Sample Matrix Description
$ 785338	TP03	None Supplied	1.00	3.7	Light brown sandy gravel with stones
$ 785339	TP03	None Supplied	1.75	3.8	Light brown sandy gravel with stones
$ 785340	TP05	None Supplied	1.30	5.6	Light brown sandy gravel with stones
$ 785341	TP06	None Supplied	1.00	4.4	Light brown sandy gravel with stones
$ 785342	TP06	None Supplied	1.80	5.4	Light brown sandy gravel with stones

Moisture content is part of procedure E003 & is not an accredited test

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UKAS TESTING 4480

Soil Analysis Certificate - Methodology & Miscellaneous Information

DETS Report No: 25-07140

Soil Consultants Ltd

~Site Reference: Sonning Golf Club (Housing)

~Project / Job Ref: 11043/CA/Housing

~Order No: 11043/CA (housing)

Reporting Date: 14/08/2025

Matrix	Analysed On	Determinand	Brief Method Description	Method No
Soil	D	Boron - Water Soluble	Determination of water soluble boron in soil by 2:1 hot water extract followed by ICP-OES	E012
Soil	AR	BTEX	Determination of BTEX by headspace GC-MS	E001
Soil	D	Cations	Determination of cations in soil by aqua-regia digestion followed by ICP-OES	E002
Soil	D	Chloride - Water Soluble (2:1)	Determination of chloride by extraction with water & analysed by ion chromatography	E009
Soil	AR	Chromium - Hexavalent	Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of 1,5 diphenylcarbazide followed by colorimetry	E016
Soil	AR	Cyanide - Complex	Determination of complex cyanide by distillation followed by colorimetry	E015
Soil	AR	Cyanide - Free	Determination of free cyanide by distillation followed by colorimetry	E015
Soil	AR	Cyanide - Total	Determination of total cyanide by distillation followed by colorimetry	E015
Soil	D	Cyclohexane Extractable Matter (CEM)	Gravimetrically determined through extraction with cyclohexane	E011
Soil	AR	Diesel Range Organics (C10 - C24)	Determination of hexane/acetone extractable hydrocarbons by GC-FID	E004
Soil	AR	Electrical Conductivity	Determination of electrical conductivity by addition of saturated calcium sulphate followed by electrometric measurement	E022
Soil	AR	Electrical Conductivity	Determination of electrical conductivity by addition of water followed by electrometric measurement	E023
Soil	D	Elemental Sulphur	Determination of elemental sulphur by solvent extraction followed by GC-MS	E020
Soil	AR	EPH (C10 – C40)	Determination of acetone/hexane extractable hydrocarbons by GC-FID	E004
Soil	AR	EPH Product ID	Determination of acetone/hexane extractable hydrocarbons by GC-FID	E004
Soil	AR	EPH TEXAS (C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C40)	Determination of acetone/hexane extractable hydrocarbons by GC-FID for C8 to C40. C6 to C8 by headspace GC-MS	E004
Soil	D	Fluoride - Water Soluble	Determination of Fluoride by extraction with water & analysed by ion chromatography	E009
Soil	D	Fraction Organic Carbon (FOC)	Determination of TOC by combustion analyser.	E027
Soil	D	Organic Matter (SOM)	Determination of TOC by combustion analyser.	E027
Soil	D	TOC (Total Organic Carbon)	Determination of TOC by combustion analyser.	E027
Soil	AR	Exchangeable Ammonium	Determination of ammonium by discrete analyser.	E029
Soil	D	FOC (Fraction Organic Carbon)	Determination of fraction of organic carbon by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	D	Loss on Ignition @ 450oC	Determination of loss on ignition in soil by gravimetrically with the sample being ignited in a muffle furnace	E019
Soil	D	Magnesium - Water Soluble	Determination of water soluble magnesium by extraction with water followed by ICP-OES	E025
Soil	D	Metals	Determination of metals by aqua-regia digestion followed by ICP-OES	E002
Soil	AR	Mineral Oil (C10 - C40)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge	E004
Soil	AR	Moisture Content	Moisture content; determined gravimetrically	E003
Soil	D	Nitrate - Water Soluble (2:1)	Determination of nitrate by extraction with water & analysed by ion chromatography	E009
Soil	D	Organic Matter	Determination of organic matter by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	AR	PAH - Speciated (EPA 16)	Determination of PAH compounds by extraction in acetone and hexane followed by GC-MS with the use of surrogate and internal standards	E005
Soil	AR	PCB - 7 Congeners	Determination of PCB by extraction with acetone and hexane followed by GC-MS	E008
Soil	D	Petroleum Ether Extract (PEE)	Gravimetrically determined through extraction with petroleum ether	E011
Soil	AR	pH	Determination of pH by addition of water followed by electrometric measurement	E007
Soil	AR	Phenols - Total (monohydric)	Determination of phenols by distillation followed by colorimetry	E021
Soil	D	Phosphate - Water Soluble (2:1)	Determination of phosphate by extraction with water & analysed by ion chromatography	E009
Soil	D	Sulphate (as SO4) - Total	Determination of total sulphate by extraction with 10% HCl followed by ICP-OES	E013
Soil	D	Sulphate (as SO4) - Water Soluble (2:1)	Determination of sulphate by extraction with water & analysed by ion chromatography	E009
Soil	D	Sulphate (as SO4) - Water Soluble (2:1)	Determination of water soluble sulphate by extraction with water followed by ICP-OES	E014
Soil	AR	Sulphide	Determination of sulphide by distillation followed by colorimetry	E018
Soil	D	Sulphur - Total	Determination of total sulphur by extraction with aqua-regia followed by ICP-OES	E024
Soil	AR	SVOC	Determination of semi-volatile organic compounds by extraction in acetone and hexane followed by GC-MS	E006
Soil	AR	Thiocyanate (as SCN)	Determination of thiocyanate by extraction in caustic soda followed by acidification followed by addition of ferric nitrate followed by colorimetry	E017
Soil	D	Toluene Extractable Matter (TEM)	Gravimetrically determined through extraction with toluene	E011
Soil	D	Total Organic Carbon (TOC)	Determination of organic matter by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	AR	TPH CWG (ali: C5- C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C34, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge for C8 to C35. C5 to C8 by headspace GC-MS	E004
Soil	AR	TPH LQM (ali: C5-C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C35, C35-C44, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35, C35-C44)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge for C8 to C44. C5 to C8 by headspace GC-MS	E004
Soil	AR	VOCs	Determination of volatile organic compounds by headspace GC-MS	E001
Soil	AR	VPH (C6-C8 & C8-C10)	Determination of hydrocarbons C6-C8 by headspace GC-MS & C8-C10 by GC-FID	E001

Normec DETS Limited
Unit 1, Rose Lane Industrial Estate
Rose Lane
Lenham Heath
Maidstone
Kent ME17 2JN
Tel : 01622 850410

Certificate Key

Symbol	Description
F	Filtered sample
UF	Unfiltered sample
D	Dried sample
AR	As received sample
RL	Reporting limit
~	Sample details provided by customer and can affect the validity of results
M/S	Missing Sample
*	The Dutch 10 PAH compounds consist of Naphthalene, Anthracene,Phenanthrene, Fluoranthene, Benz(a)anthracene, Chrysene, Benzo(k) fluoranthene, Benzo(a)pyrene, Benzo(g,h,i)perylene, and Indeno(1,2,3-cd)pyrene
**	Total EPA-16 PAHs consist of the following polycyclic aromatic hydrocarbons: Naphthalene, Acenaphthylene, Acenaphthene, Fluorene, Phenanthrene, Anthracene, Fluoranthene, Pyrene, Benzo(a)anthracene, Chrysene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Indeno(1,2,3-cd)pyrene, Dibenz(a,h)anthracene, and Benzo(ghi)perylene.
***	Total WAC-17 PAHs consist of the following polycyclic aromatic hydrocarbons: Naphthalene, Acenaphthylene, Acenaphthene, Fluorene, Phenanthrene, Anthracene, Fluoranthene, Pyrene, Benzo(a)anthracene, Chrysene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Indeno(1,2,3-cd)pyrene, Dibenz (a,h)anthracene, Benzo(ghi)perylene and Coronene.
^	No sampling date provided; unable to confirm if samples are within acceptable holding times
n	Please note that we are MCERTS soil accredited (UK soils only) for sand, loam, and clay, and UKAS accredited for groundwater, tap water, surface water, and generated leachates. Other matrices are outside our scope of accreditation.
U	UKAS accredited test

Site & Location	Sonning Golf Club (Housing) Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ	Report No: 11043a/CA

Site photographs

Photo No 1

Description: View of driving range and wooden structure present at western end of driving range

Direction: Looking NNW

Date: 21/07/25



Photo No 2

Description: View of wooden structure present onsite

Direction: Looking SSW

Date: 21/07/25



Site & Location	Sonning Golf Club (Housing) Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ	Report No: 11043a/CA

Site photographs

Photo No 3

Description:
View of soft landscaped area of driving range in front of wooden structure

Direction:
Looking NNW

Date:
21/07/25



Photo No 4

Description:
View of soft landscaped area of driving range in front of wooden structure

Direction:
Looking SSW

Date:
21/07/25



Site & Location	Sonning Golf Club (Housing) Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ	Report No: 11043a/CA

Site photographs

Photo No 5

Description:
View of soft landscaped area of driving range in front of wooden structure

Direction:
Looking SSW

Date:
21/07/25



Photo No 6

Description:
View of soft landscaped area of driving range, with view of Rugy grounds offsite to the NW

Direction:
Looking NNW

Date:
21/07/25



Site & Location	Sonning Golf Club (Housing) Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ	Report No: 11043a/CA

Site photographs

Photo No 7

Description:
View of offsite construction site, located directly to the SW of the site boundary

Direction:
Looking NNW

Date:
21/07/25



Photo No 8

Description:
View of railway tracks located offsite approx. 230m SE

Direction:
Looking ESE

Date:
21/07/25



Site & Location	Sonning Golf Club (Housing) Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ	Report No: 11043a/CA

Site photographs

Photo No 9

Description: View of electricity substation located within the Rugy club ground, approx. 100m NW of site boundary

Direction: Looking NNW

Date: 21/07/25



Photo No 10

Description: View of Rugby club grounds

Direction: Looking NE

Date: 21/07/25





KEY

Phase 1

Phase 2

1:1000
0 5 10 20 50 100m

N

REV.	ISSUED	DESCRIPTION	DRAWN	CHECKED
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-

PROJECT	DATE	SCALE AT A1	JOB NO
Sonning Golf Club Duffield Road, Sonning	Sept '24	1:1000	24.017
DESCRIPTION	STATUS		DRAWING NO
Proposed Development Phasing Plan	Planning		PL.001
CLIENT	DRAWN	CHECKED	REV
Sonning Golf Club	ST	ST	-

SPRATLEY & PARTNERS
7 CENTENARY BUSINESS PARK, STATION ROAD, HENLEY-ON-THAMES, OXFORDSHIRE RG9 1DS . 01491 411277

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S & P



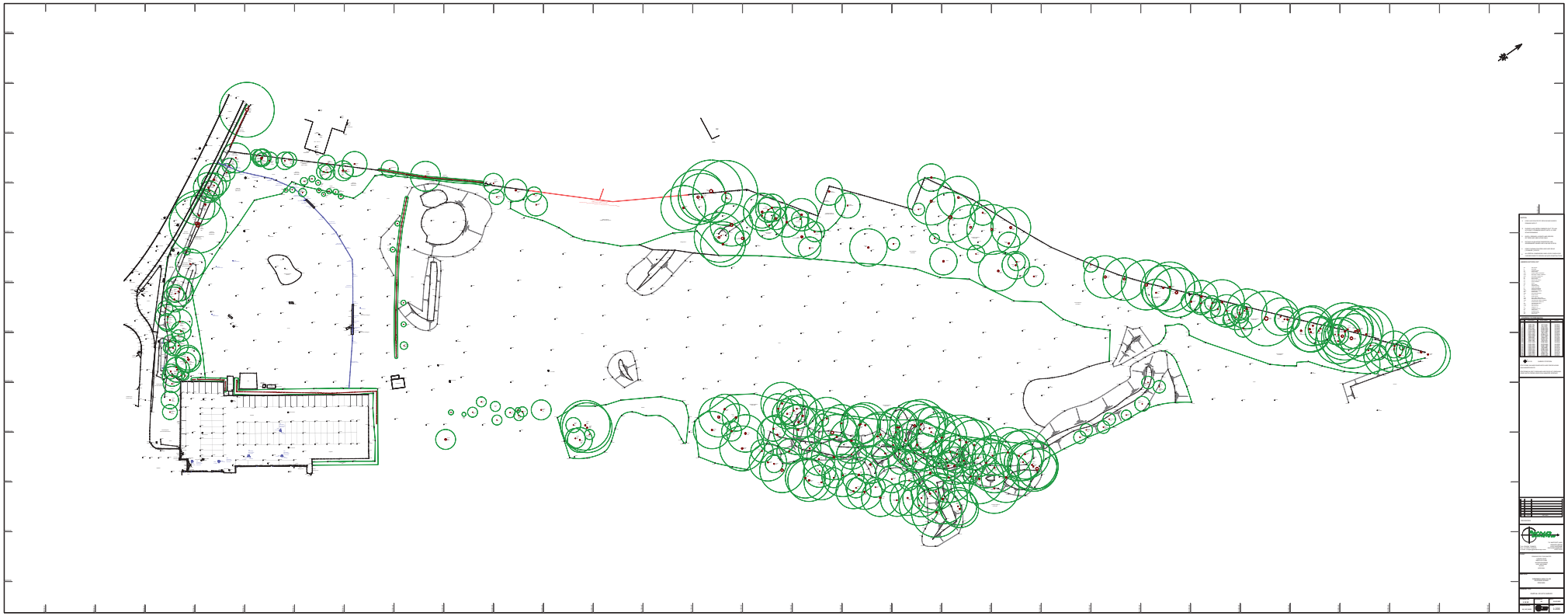
Planning

PROPOSED DEVELOPMENT AT PRACTICE GROUND ROWNEY GOLF CLUB

PROPOSED ILLUSTRATIVE SITE LAYOUT

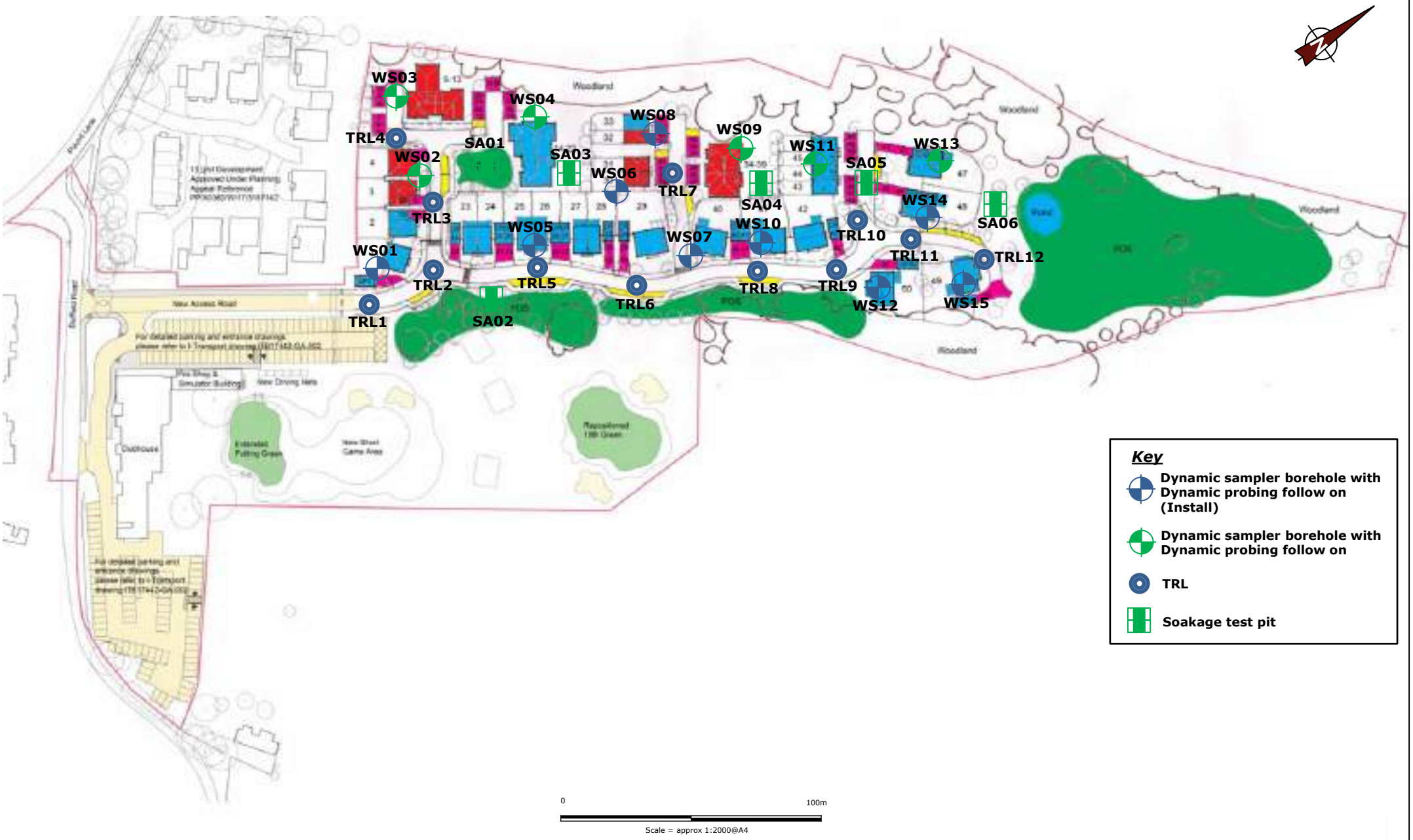
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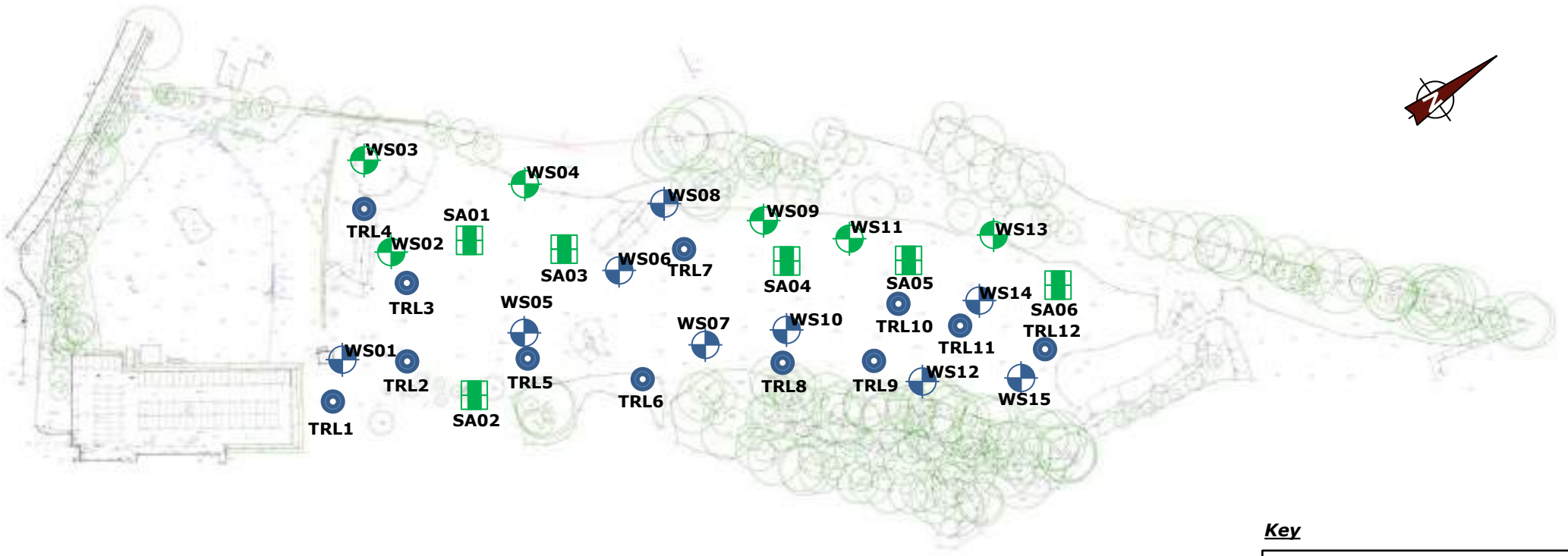
Site & Location	Sonning Golf Club (Housing) Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ	Report No: 10043a/CA

Site Plan



Site & Location	Sonning Golf Club (Housing) Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ	Report No: 10043a/CA

Site Plan



0 100m

Scale = approx 1:2000@A4

Key

- Dynamic sampler borehole with Dynamic probing follow on (Install)
- Dynamic sampler borehole with Dynamic probing follow on
- TRL
- Soakage test pit

Soil Consultants

Site & Location	Sonning Golf Club (Housing) Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ	Report No: 10043a/CA

Site Service Plan



General Notes

- 125mm HDPE Pipework c/w Signal Cable
- 90mm HPPE / MDPE Pipework c/w Signal Cable
- 63mm MDPE Pipework c/w Signal Cable
- Toro 834 / 835 Series Sprinkler
- Toro 810 Series Sprinkler
- Greens Isolation Valve Assembly
- Solenoid Valve Assembly
- Approach Valve (old) / Water Point
- Manual Watering Point (QCV / Hos Reel Connection)
- AV — Air Valve / Washout Valve
- DV — Drain Valve
- CJ — Cable Joint
- Mainline Isolation Valve Assembly
- (P) Location of Pump
- (C) Location of Controller

Signal cable ducted into control system position.

- 90mm PE PIPE - LATERALS (10.5 BAR)
- 63mm PE PIPE - LATERALS (12.5 BAR)
- APPROACH SPRINKLER(ASSUMED EXISTING LOCATION)
- TORO FLEX 5045 FAIRWAY SPRINKLER (FULL or PART CIRCLE)
- GREENS ISOLATION VALVE ASSEMBLY (EXISTING)
- MAINS ISOLATION VALVE ASSEMBLY (EXISTING)
- [illegible] SOLENOID VALVE ASSEMBLY (EXISTING)
- FAIRWAY CONNECTION POINT

Soil Consultants

Site & Location	Sonning Golf Club (Housing) Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ	Report No: 10043a/CA

Tree Survey Plan

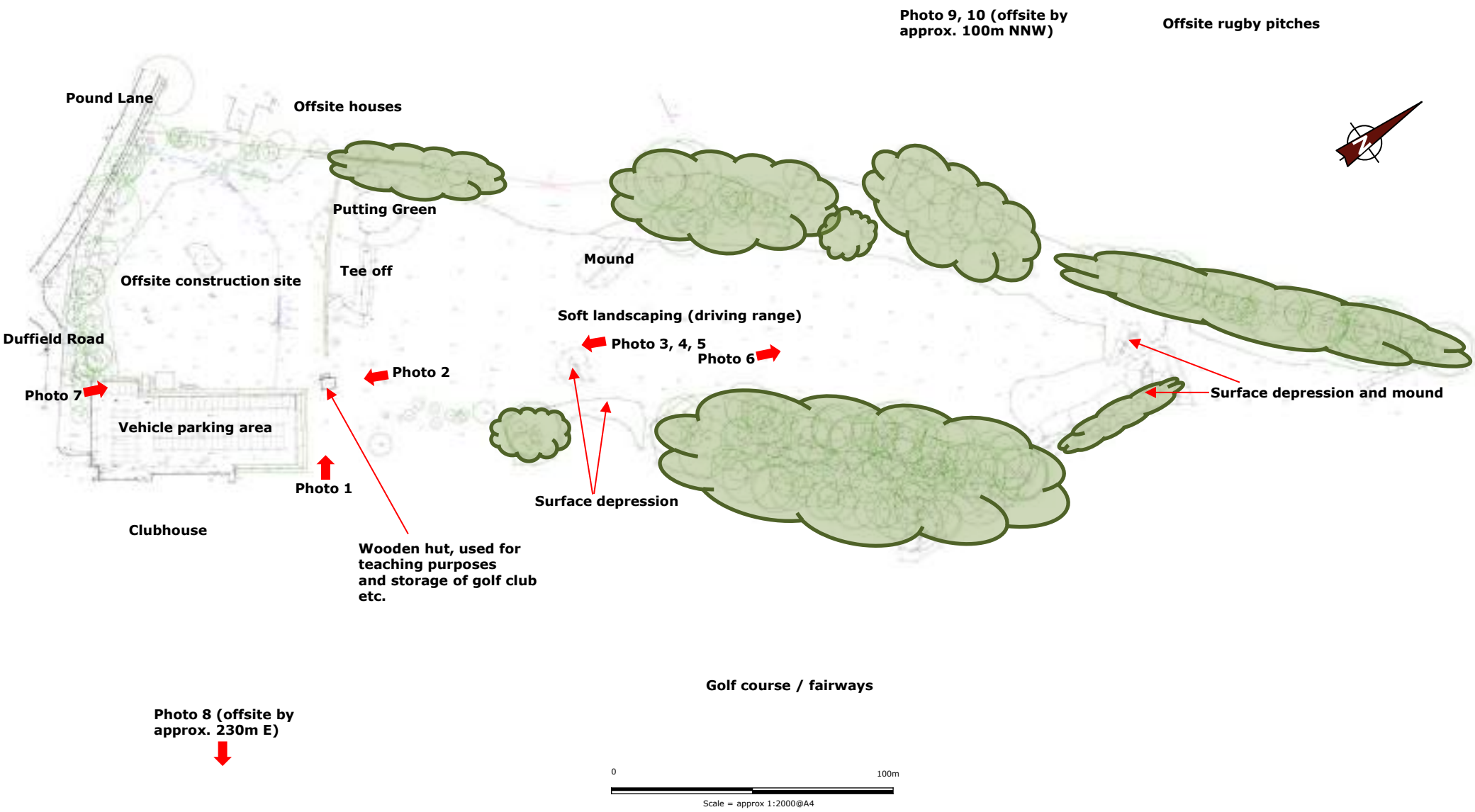


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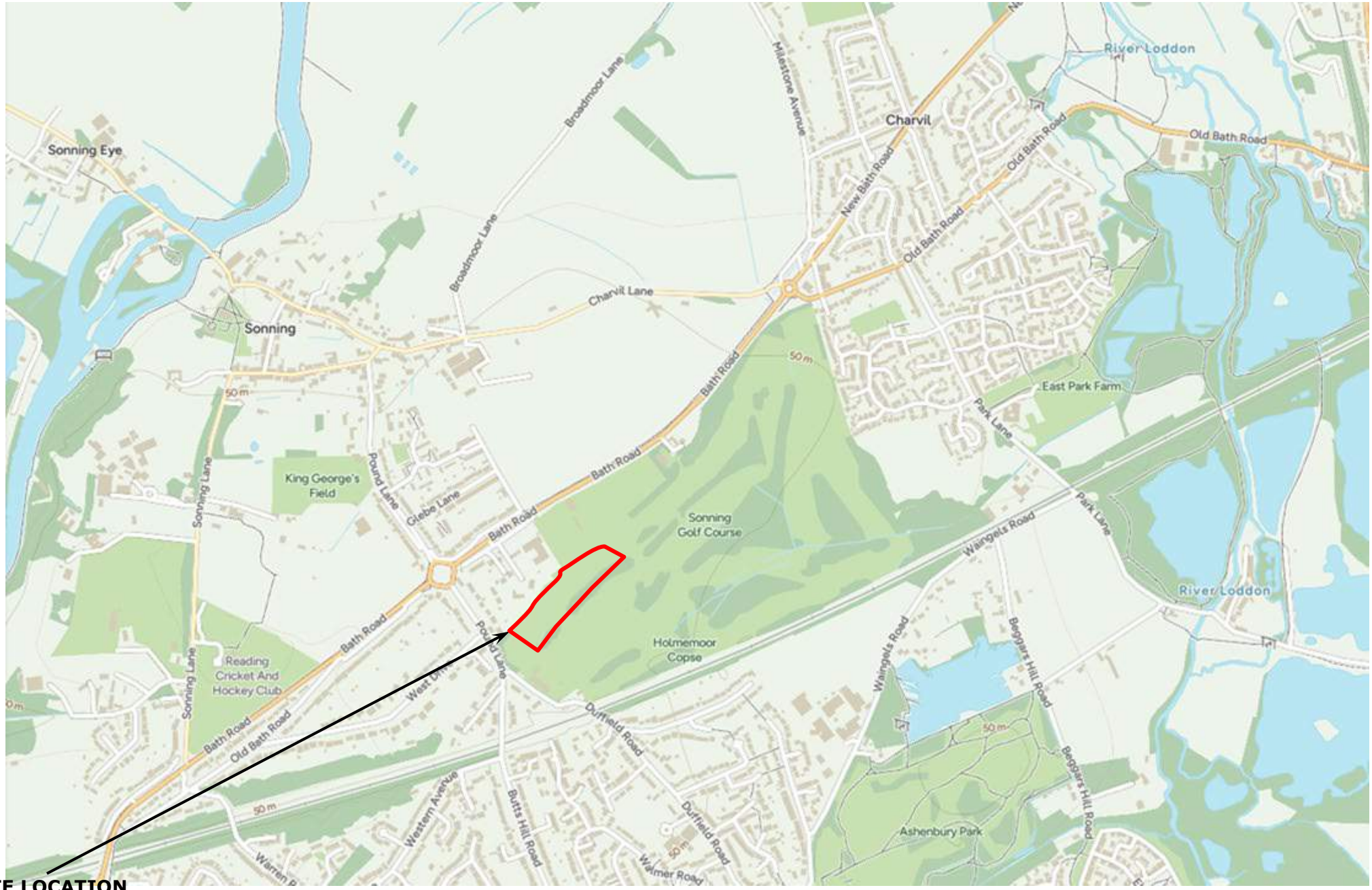
Site & Location	Sonning Golf Club (Housing) Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ	Report No: 10043a/CA

Site Walkover Plan



Site & Location	Sonning Golf Club (Housing) Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ	Report No: 10043a/CA

Site Location Map

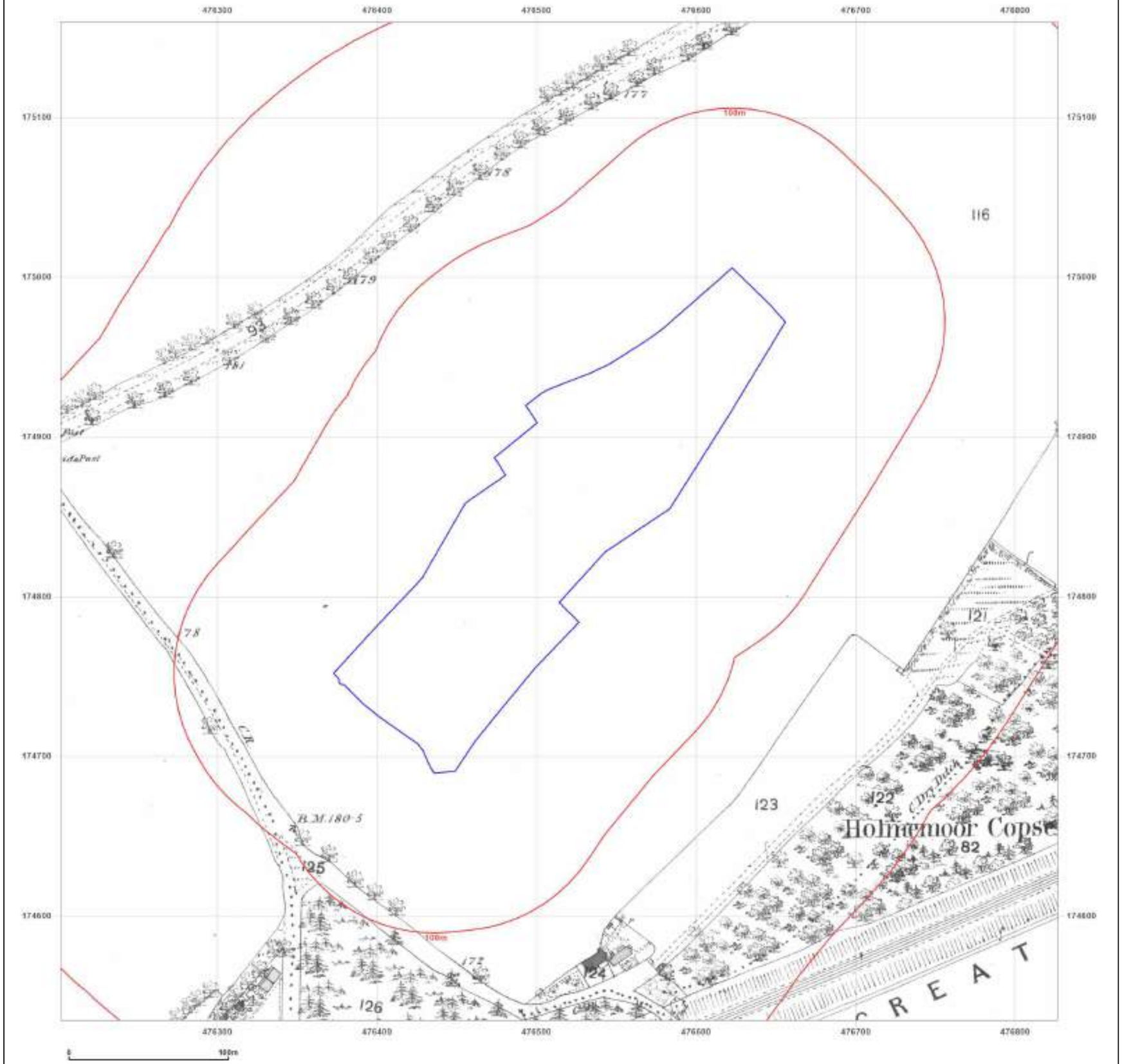


SITE LOCATION

Image taken from open-source online data

APPENDIX B

- GroundSure historical maps (Ref: SCL-37Z-4LU-5AW-28S, 10/07/25)
- GroundSure Geo+EnviroInsight Report (Ref: SCL-6ZX-IEU-HY6-55U, 10/07/25)
- Envirocheck mining and natural cavities database search (Ref: 381156499_1_1, 10/07/2025)



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Ground Investigation
Geotechnical Analysis
Contamination Assessment

Site Details:

Sonning Golf Club (Housing),
Duffield Road, Sonning, Reading,
Berkshire, RG4 6GJ

Client Ref: 11043a/CA (Housing)
Report Ref: SCL-TST-LGG-GFR-ZPJ_2500
Grid Ref: 476514, 174847

Map Name: County Series

Map date: **1872**

Scale: 1:2,500

Printed at: 1:2,500

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Surveyed 1872
Revised 1872
Edition N/A
Copyright N/A
Levelled N/A

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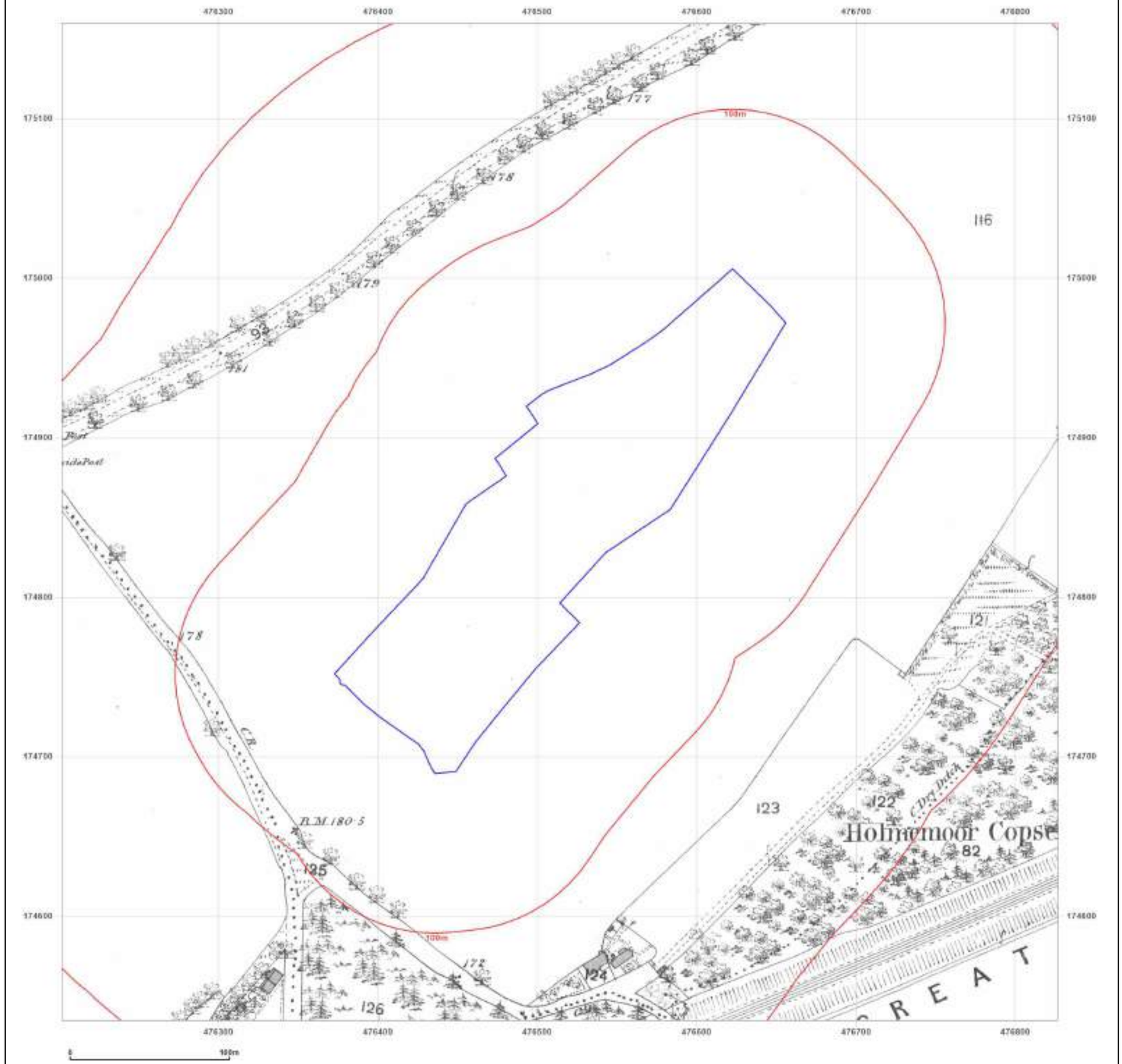
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Revised 1872
Edition N/A
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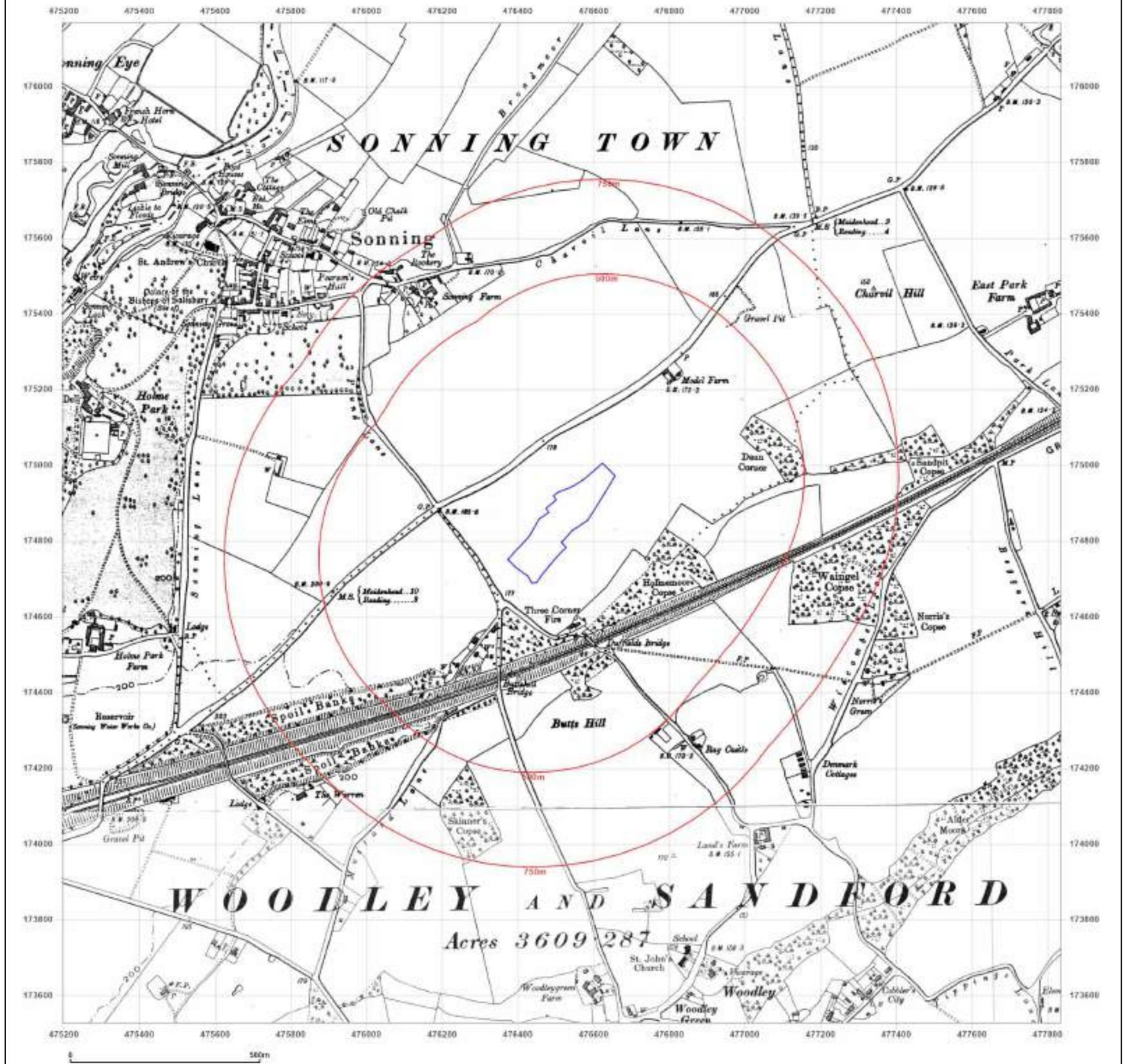
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Report Ref: SCL-TST-LGG-GFR-ZPJ
Grid Ref: 476514, 174847

Map Name: County Series

Map date: **1898-1900**

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Revised 1897
Edition 1900
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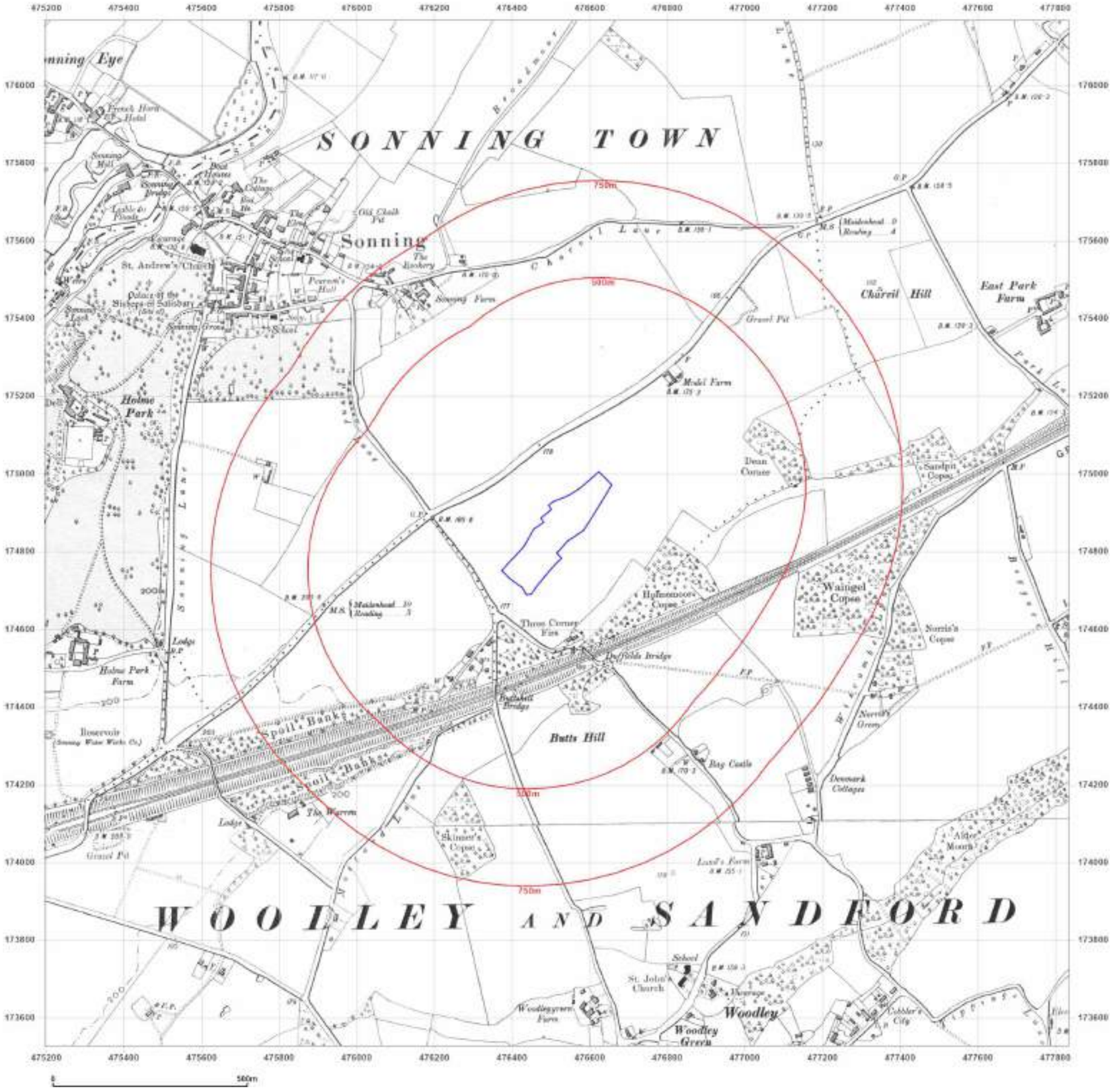
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Revised 1898
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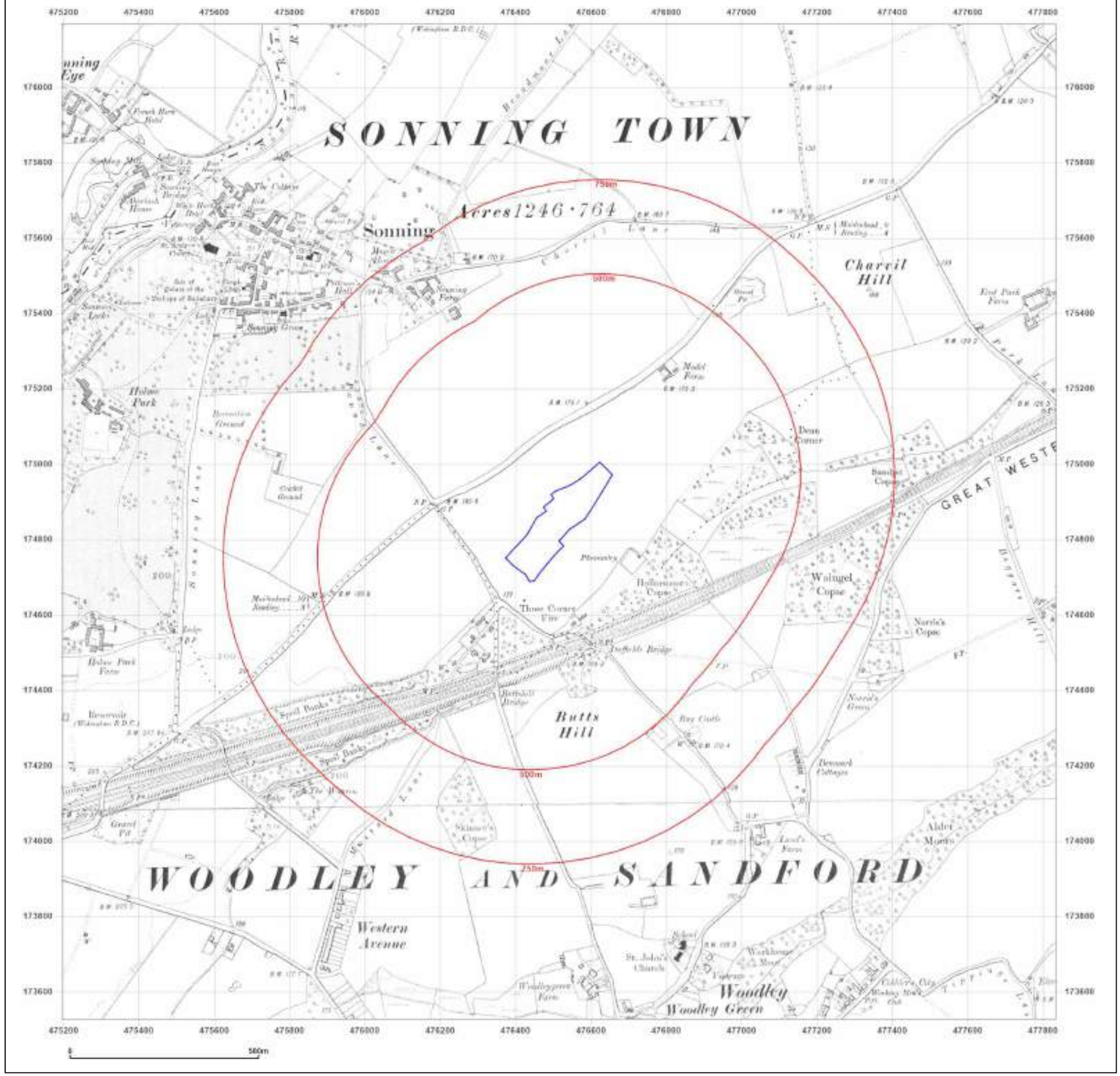
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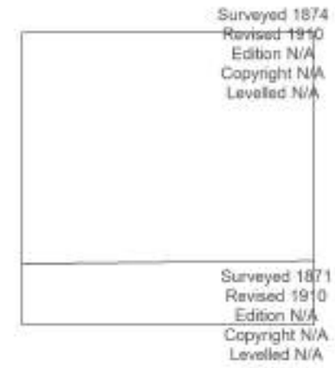
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Printed at: 1:10,560

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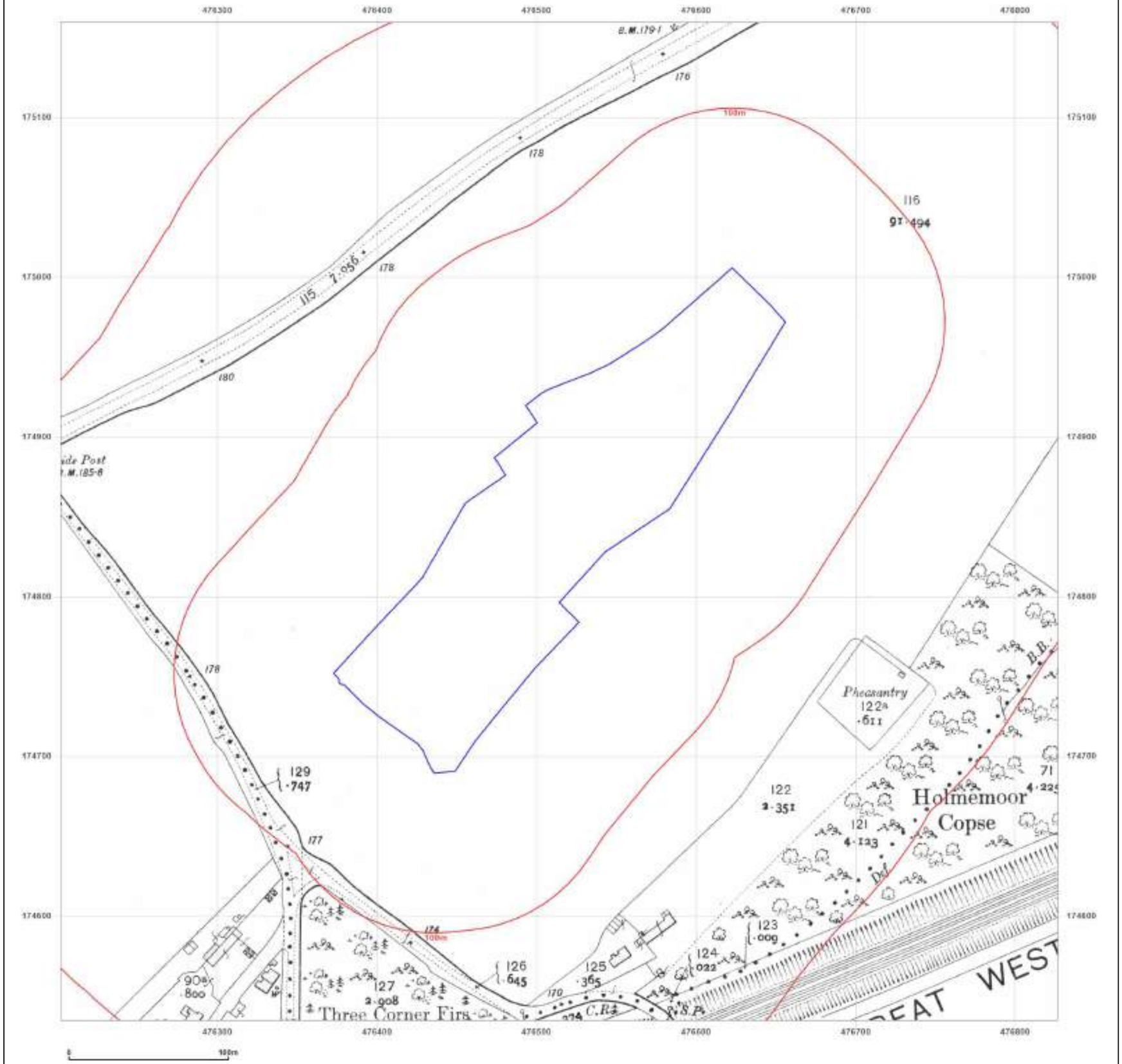
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Grid Ref: 476514, 174847

Map Name: County Series

Map date: **1913**

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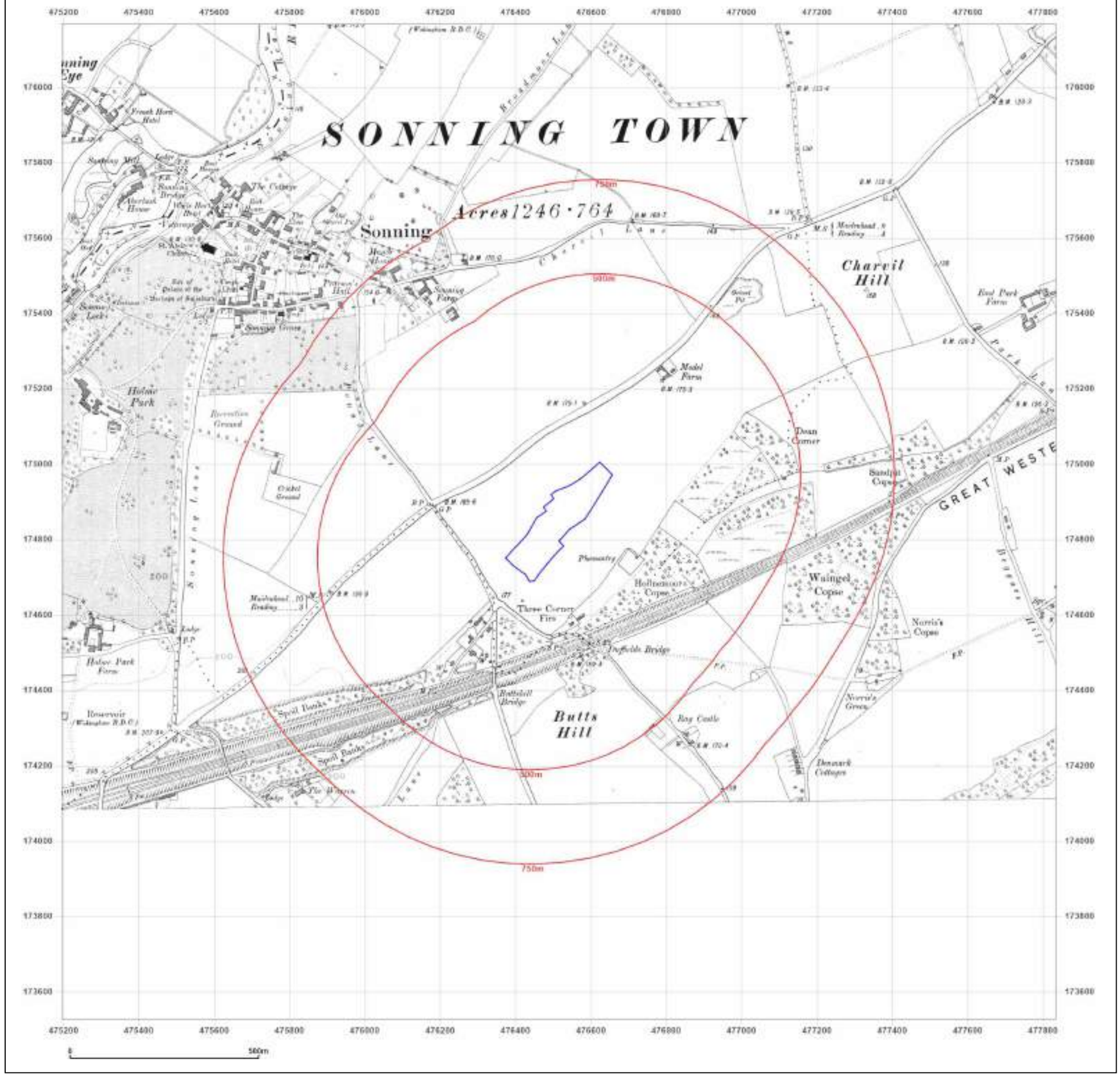
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Report Ref: SCL-TST-LGG-GFR-ZPJ
Grid Ref: 476514, 174847

Map Name: County Series

Map date: **1914**

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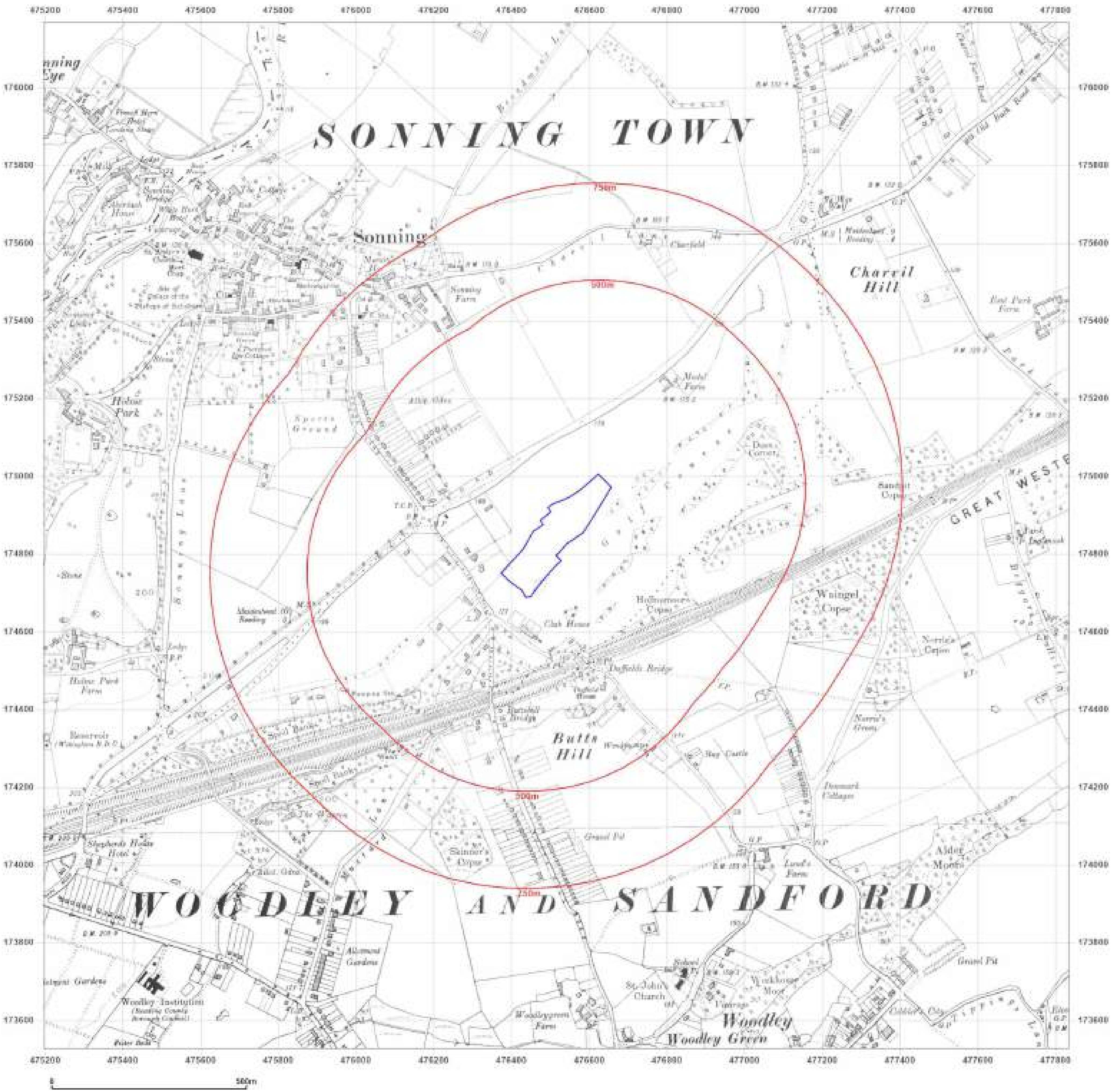
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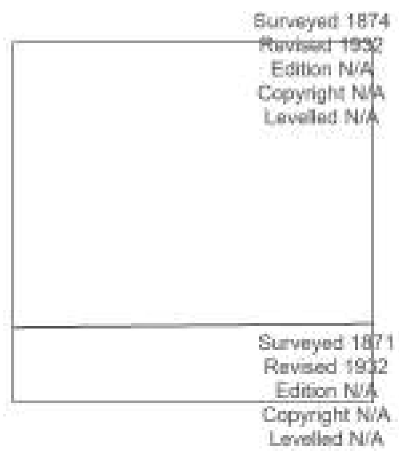
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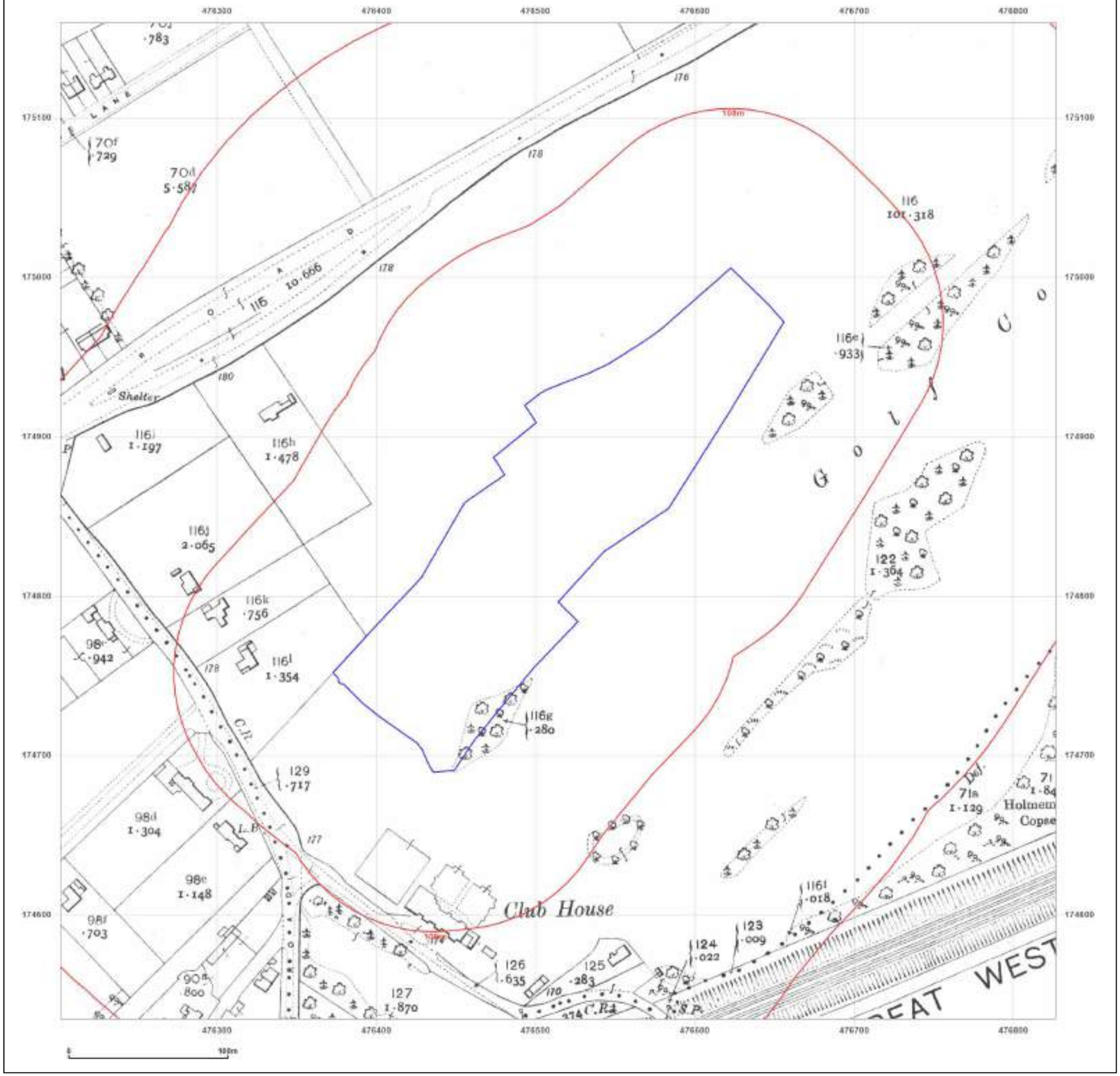
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Client Ref: 11043a/CA (Housing)
Report Ref: SCL-TST-LGG-GFR-ZPJ_2500
Grid Ref: 476514, 174847

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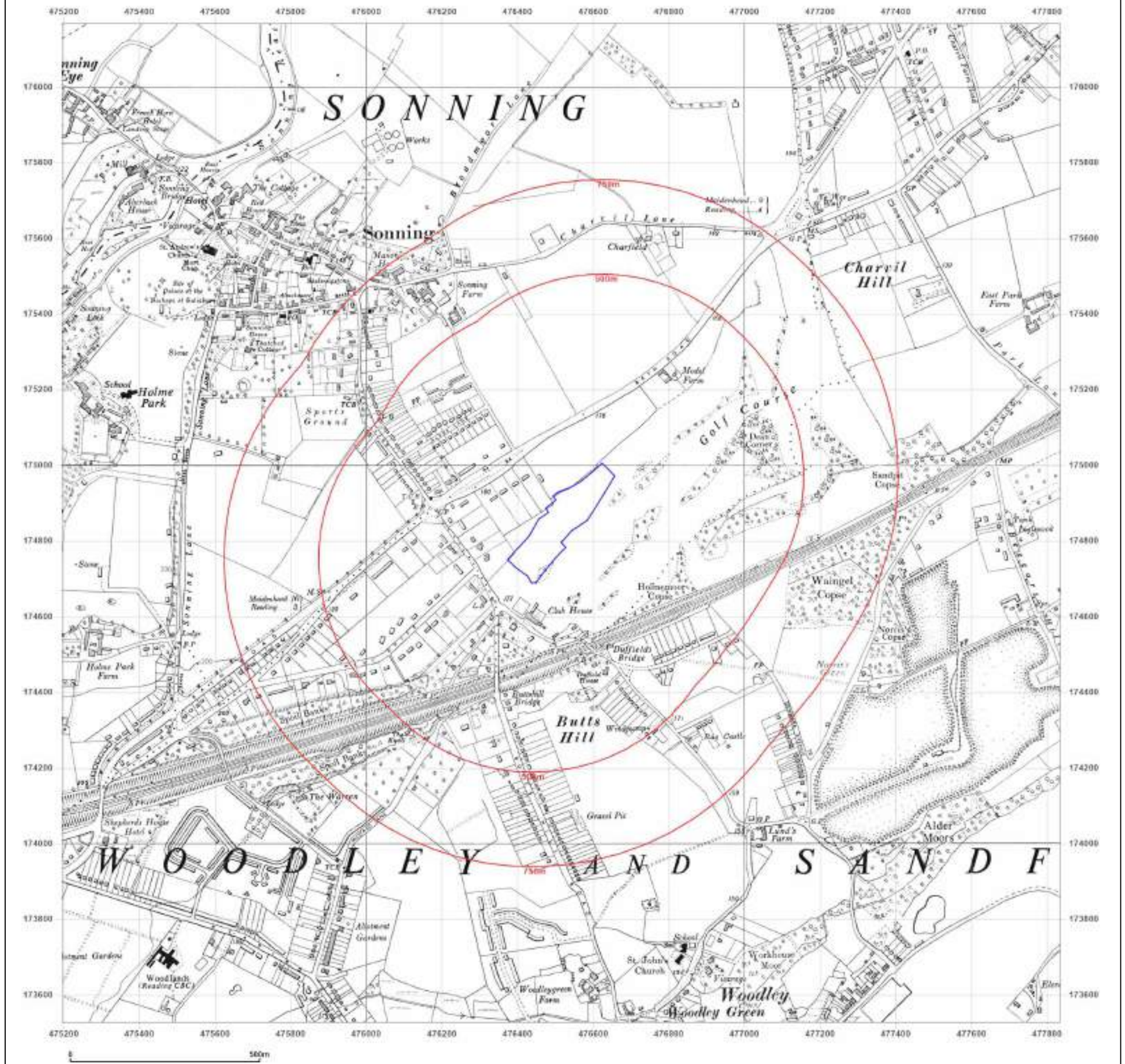
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Berkshire, RG4 6GJ

Client Ref: 11043a/CA (Housing)
Report Ref: SCL-TST-LGG-GFR-ZPJ
Grid Ref: 476514, 174847

Map Name: Provisional

Map date: **1956-1960**

Scale: 1:10,560

Printed at: 1:10,560

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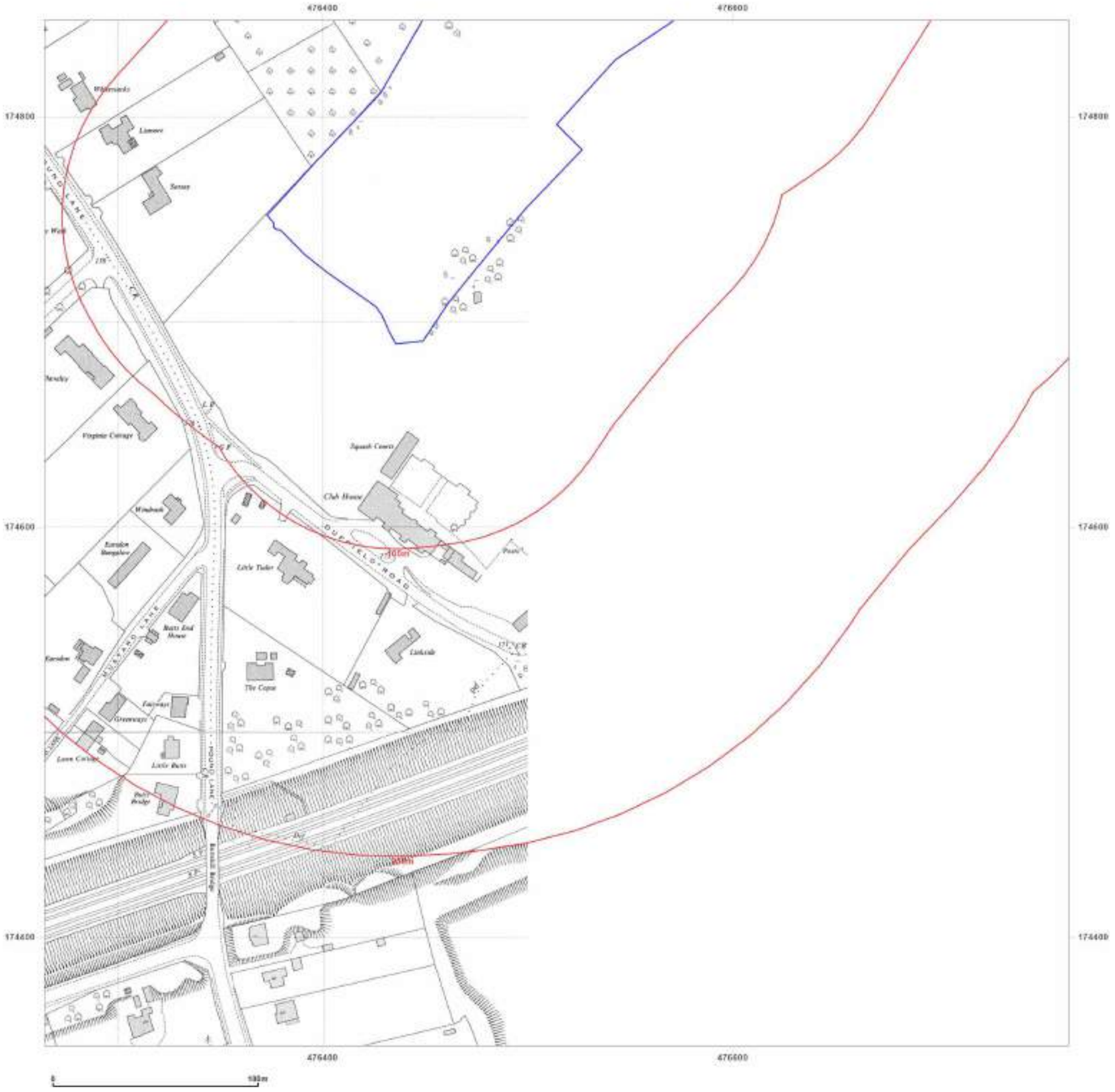
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Site Details:

Sonning Golf Club (Housing),
Duffield Road, Sonning, Reading,
Berkshire, RG4 6GJ

Client Ref: 11043a/CA (Housing)
Report Ref: SCL-TST-LGG-GFR-ZPJ_1250_1_1
Grid Ref: 476514, 174597

Map Name: National Grid
Map date: **1965**
Scale: 1:1,250
Printed at: 1:2,000

N
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Surveyed 1964
Revised 1964
Edition N/A
Copyright 1965
Levelled 1951

Surveyed 1964
Revised 1964
Edition N/A
Copyright 1965
Levelled 1951

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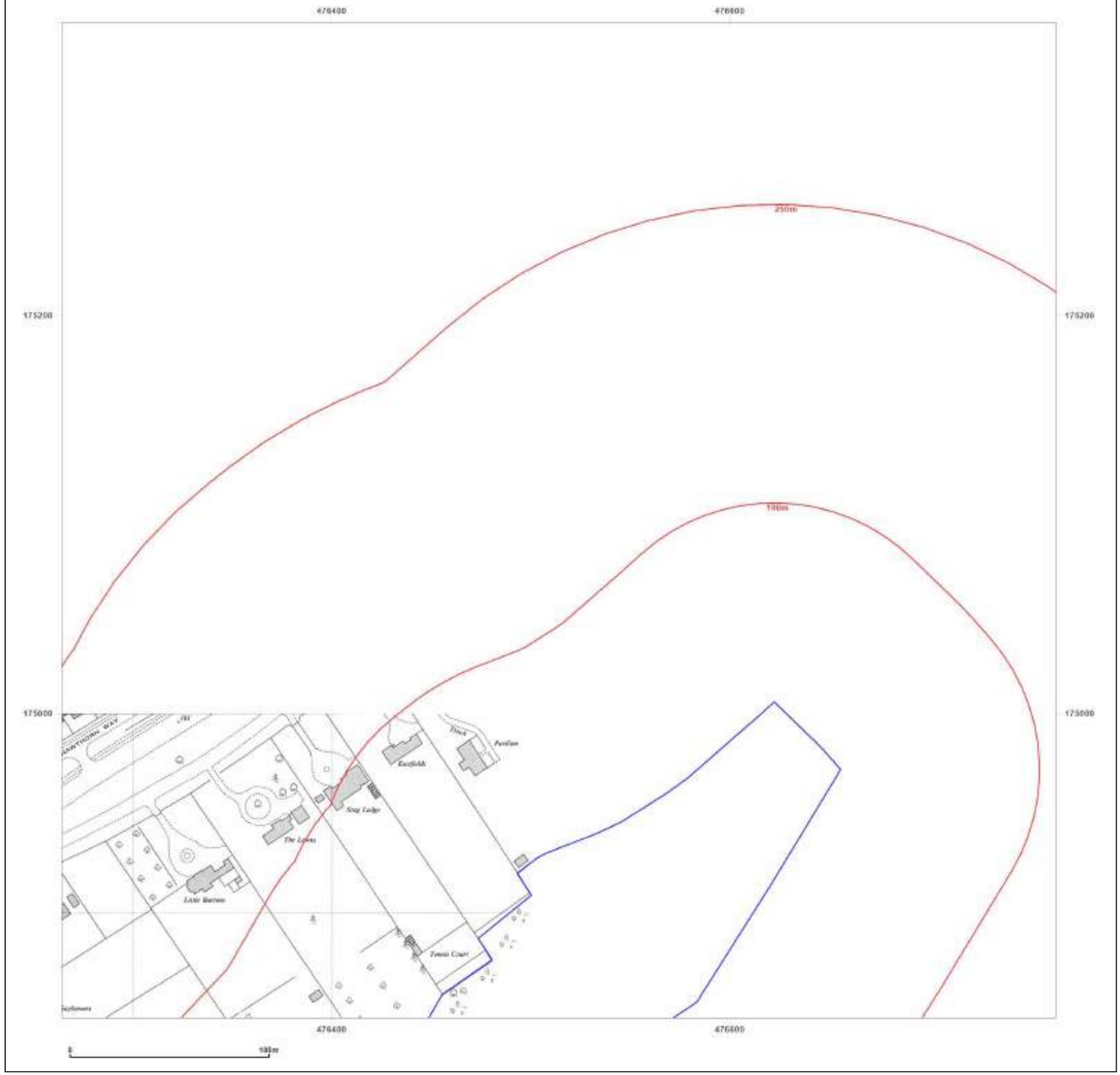
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Site Details:

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Berkshire, RG4 6GJ

Client Ref: 11043a/CA (Housing)
Report Ref: SCL-TST-LGG-GFR-ZPJ_1250_1_2
Grid Ref: 476514, 175097

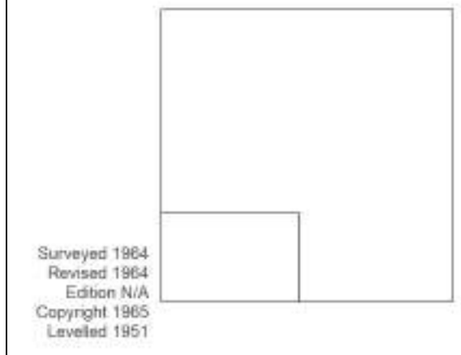
Map Name: National Grid

Map date: **1965**

Scale: 1:1,250

Printed at: 1:2,000

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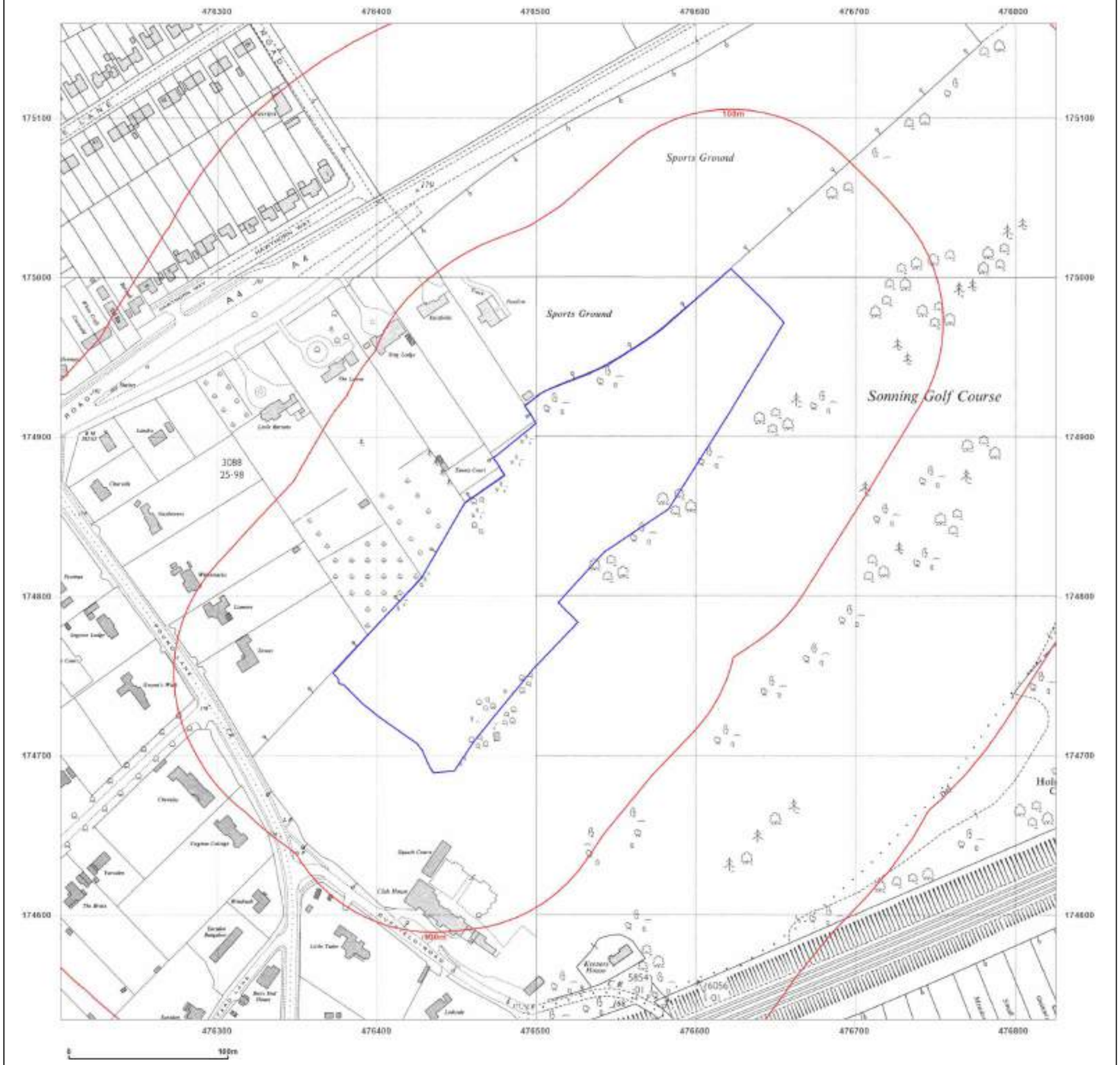
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Contamination Assessment

Site Details:

Sonning Golf Club (Housing),
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Client Ref: 11043a/CA (Housing)
Report Ref: SCL-TST-LGG-GFR-ZPJ_2500
Grid Ref: 476514, 174847

Map Name: National Grid

Map date: **1966-1968**

Scale: 1:2,500

Printed at: 1:2,500

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Surveyed 1968
Revised 1968
Edition N/A
Copyright 1968
Levelled 1951

Surveyed 1965
Revised 1965
Edition N/A
Copyright 1966
Levelled 1951

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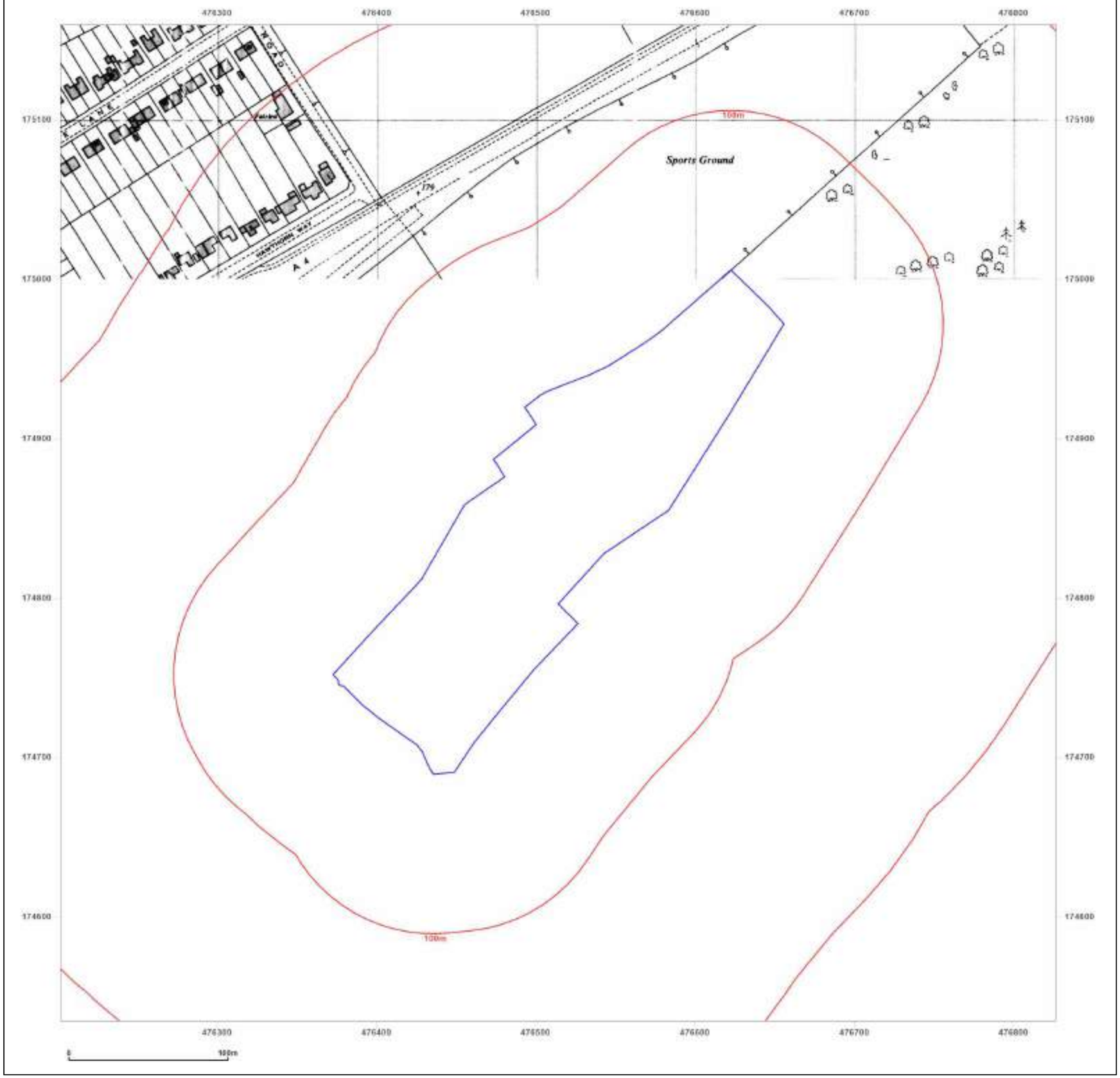
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Site Details:

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Berkshire, RG4 6GJ

Client Ref: 11043a/CA (Housing)
Report Ref: SCL-TST-LGG-GFR-ZPJ_2500
Grid Ref: 476514, 174847

Map Name: National Grid

Map date: **1968**

Scale: 1:2,500

Printed at: 1:2,500

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Surveyed N/A
Revised N/A
Edition N/A
Copyright N/A
Levelled N/A

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Site Details:

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Client Ref: 11043a/CA (Housing)
Report Ref: SCL-TST-LGG-GFR-ZPJ_1250_1_1
Grid Ref: 476514, 174597

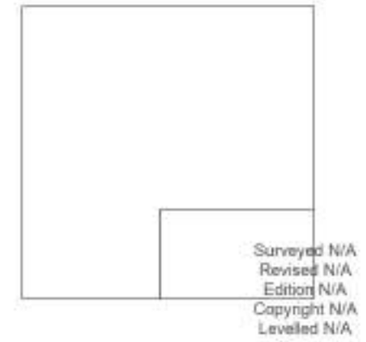
Map Name: National Grid

Map date: **1972**

Scale: 1:1,250

Printed at: 1:2,000

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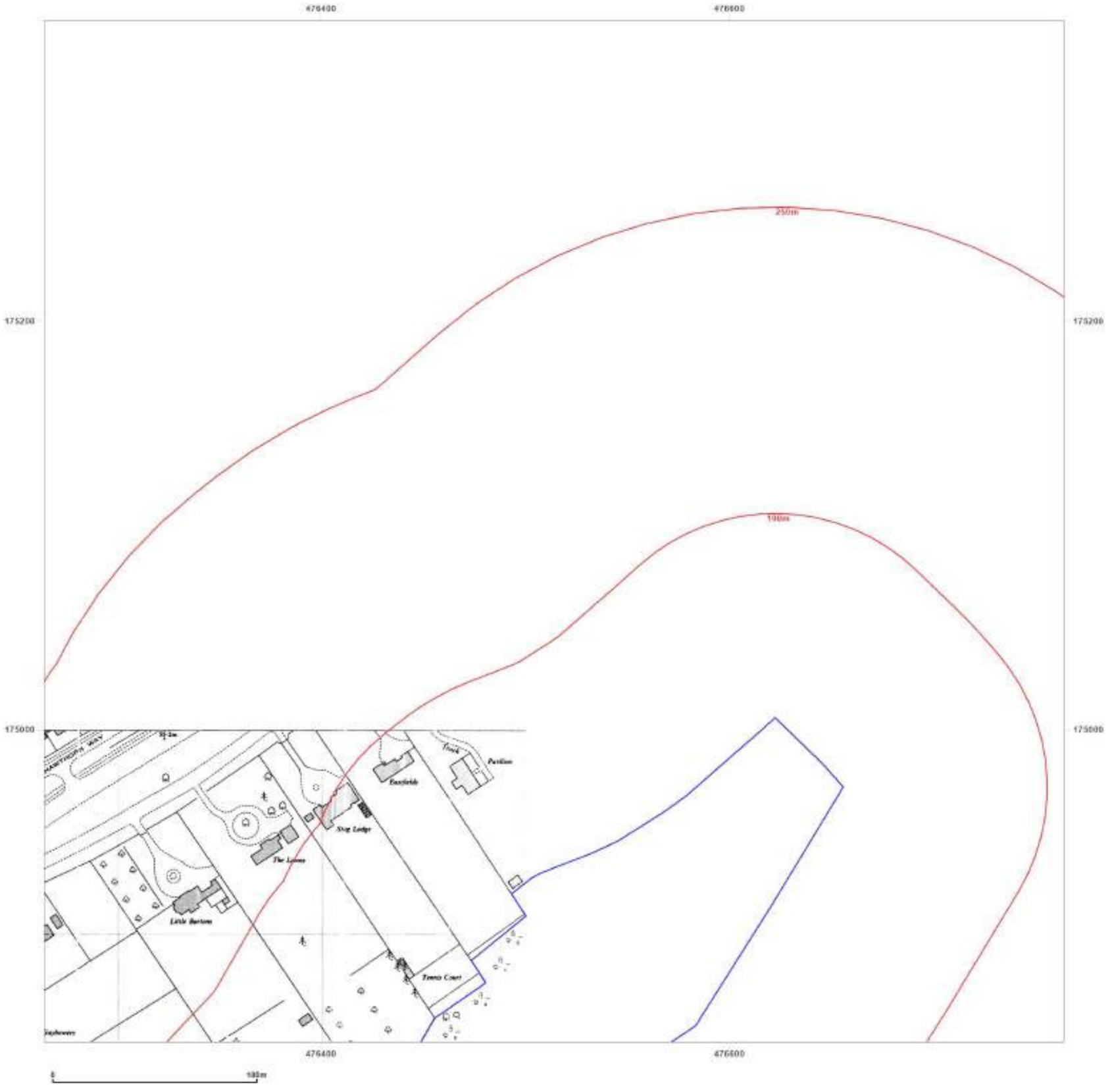
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Site Details:

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Client Ref: 11043a/CA (Housing)
Report Ref: SCL-TST-LGG-GFR-ZPJ_1250_1_2
Grid Ref: 476514, 175097

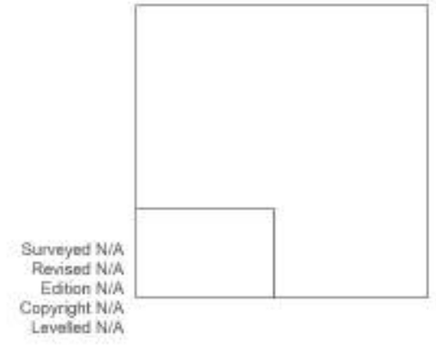
Map Name: National Grid

Map date: **1976**

Scale: 1:1,250

Printed at: 1:2,000

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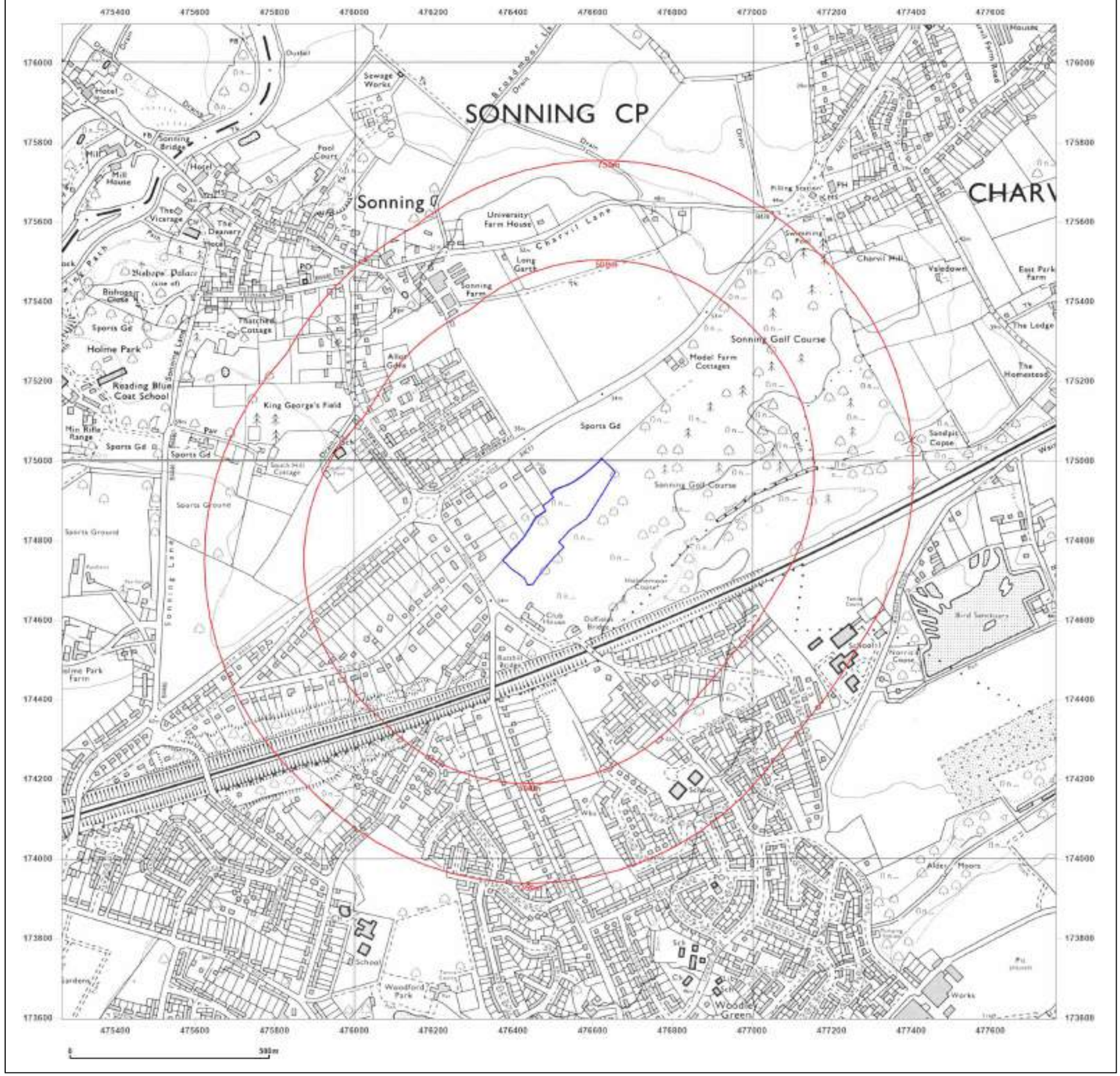
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Site Details:

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Client Ref: 11043a/CA (Housing)
Report Ref: SCL-TST-LGG-GFR-ZPJ
Grid Ref: 476514, 174847

Map Name: National Grid

Map date: **1972-1977**

Scale: 1:10,000

Printed at: 1:10,000

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Surveyed N/A
Revised 1972
Edition N/A
Copyright N/A
Levelled N/A

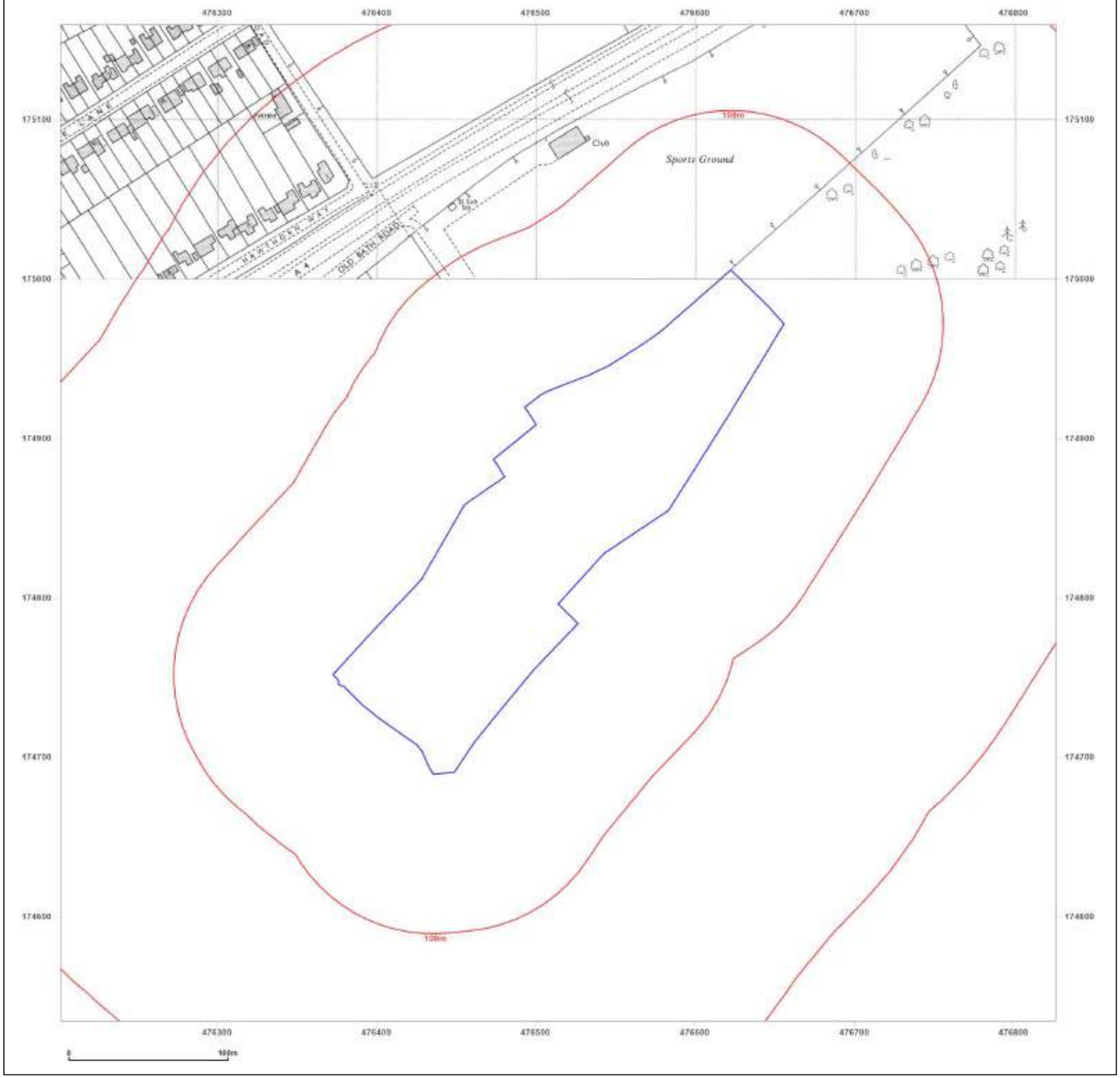
Surveyed 1975
Revised 1977
Edition N/A
Copyright 1977
Levelled 1969

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Berkshire, RG4 6GJ

Client Ref: 11043a/CA (Housing)
Report Ref: SCL-TST-LGG-GFR-ZPJ_2500
Grid Ref: 476514, 174847

Map Name: National Grid

Map date: **1977**

Scale: 1:2,500

Printed at: 1:2,500

N
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Surveyed 1976
Revised 1976
Edition N/A
Copyright 1977
Levelled 1972

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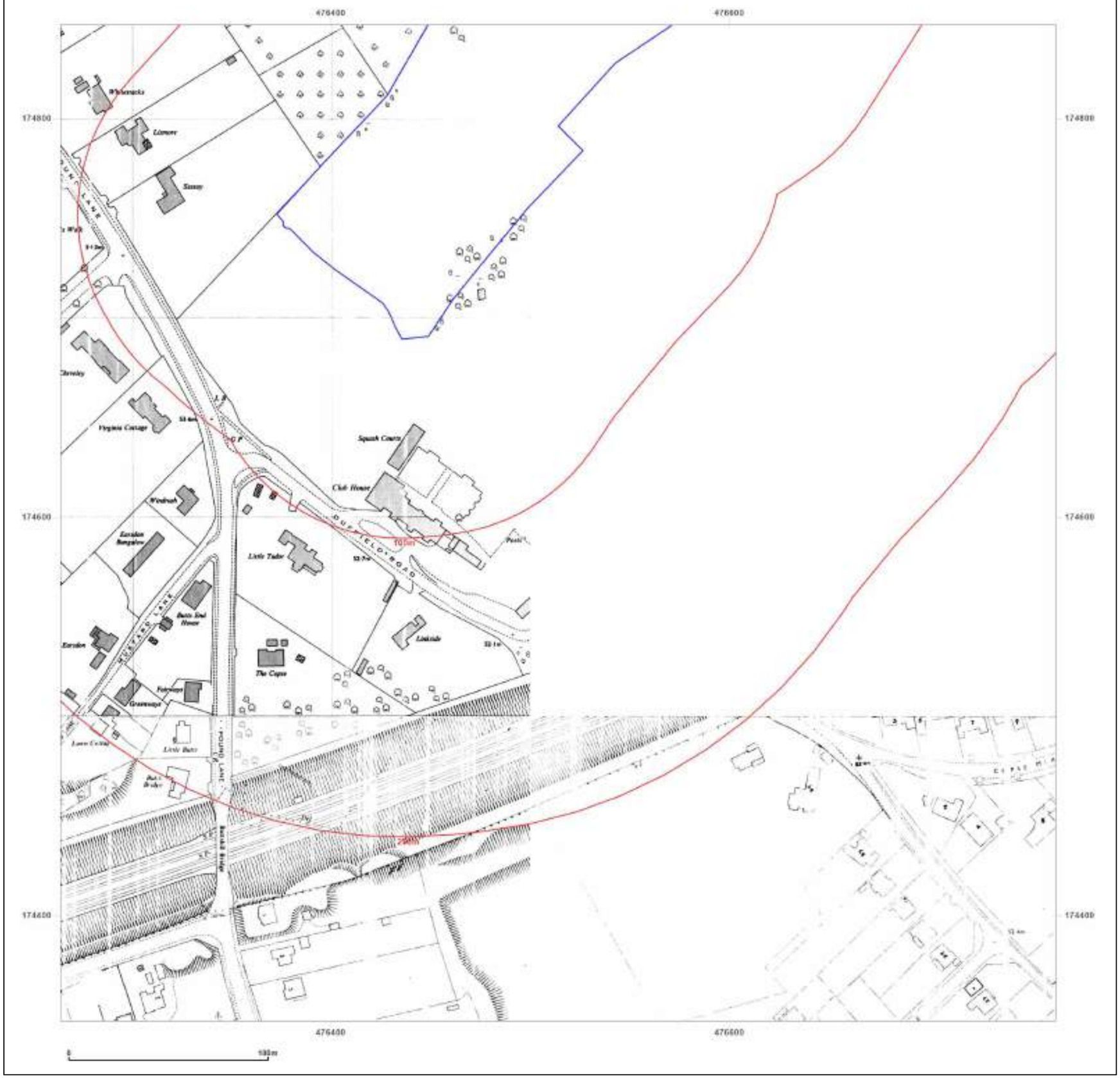
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Berkshire, RG4 6GJ

Client Ref: 11043a/CA (Housing)
Report Ref: SCL-TST-LGG-GFR-ZPJ_1250_1_1
Grid Ref: 476514, 174597

Map Name: National Grid

Map date: **1973-1978**

Scale: 1:1,250

Printed at: 1:2,000

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Surveyed N/A
Revised N/A
Edition N/A
Copyright N/A
Levelled N/A

Surveyed N/A
Revised N/A
Edition N/A
Copyright N/A
Levelled N/A

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Revised N/A
Edition N/A
Copyright N/A
Levelled N/A

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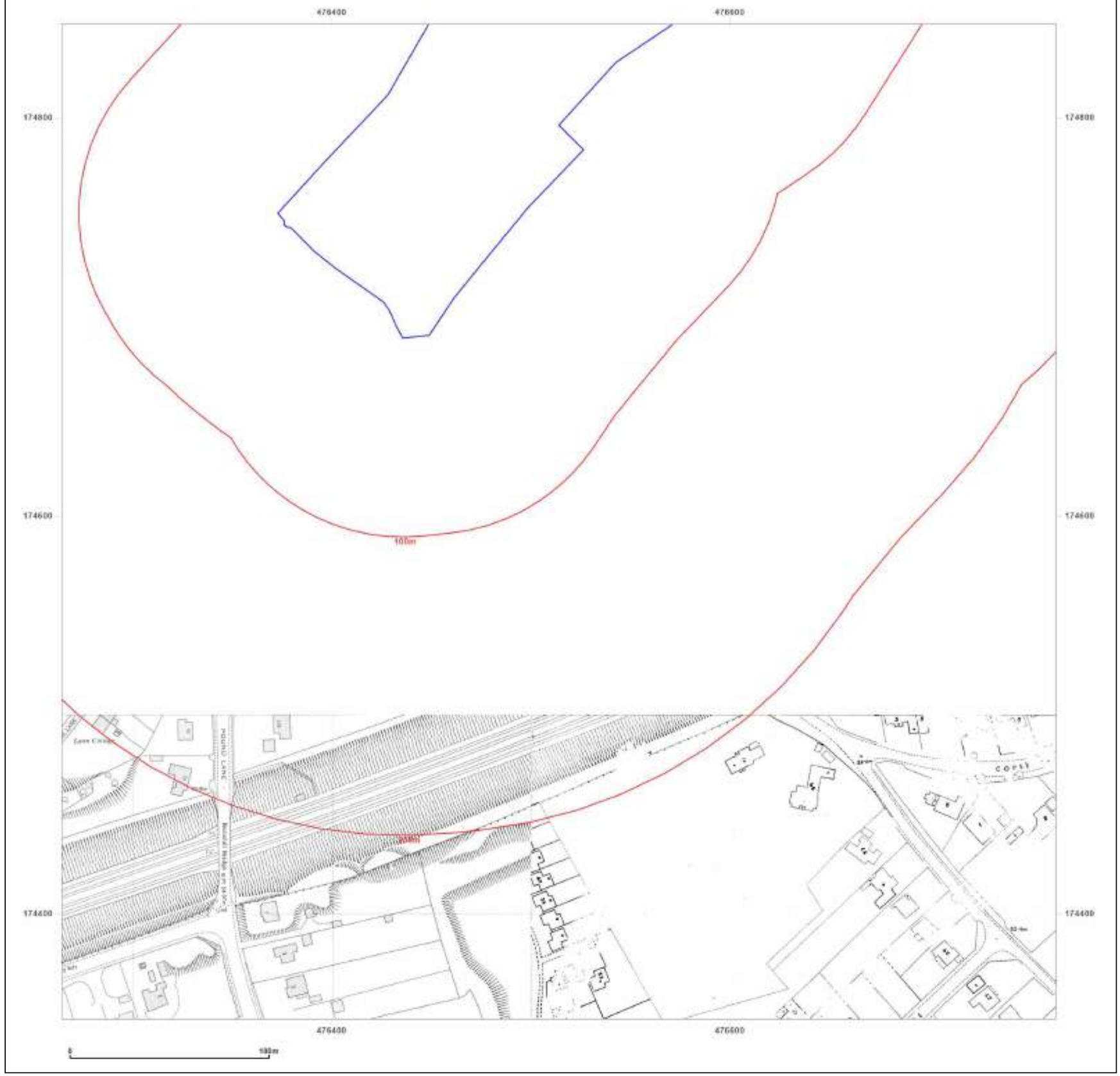
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Site Details:

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Client Ref: 11043a/CA (Housing)
Report Ref: SCL-TST-LGG-GFR-ZPJ_1250_1_1
Grid Ref: 476514, 174597

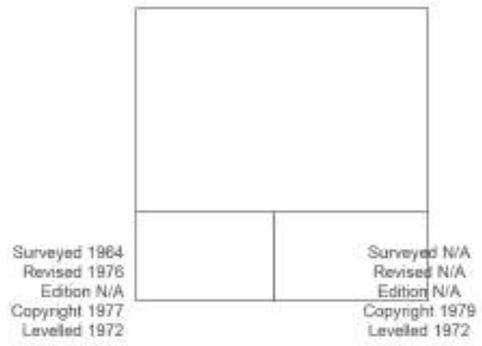
Map Name: National Grid

Map date: **1977-1979**

Scale: 1:1,250

Printed at: 1:2,000

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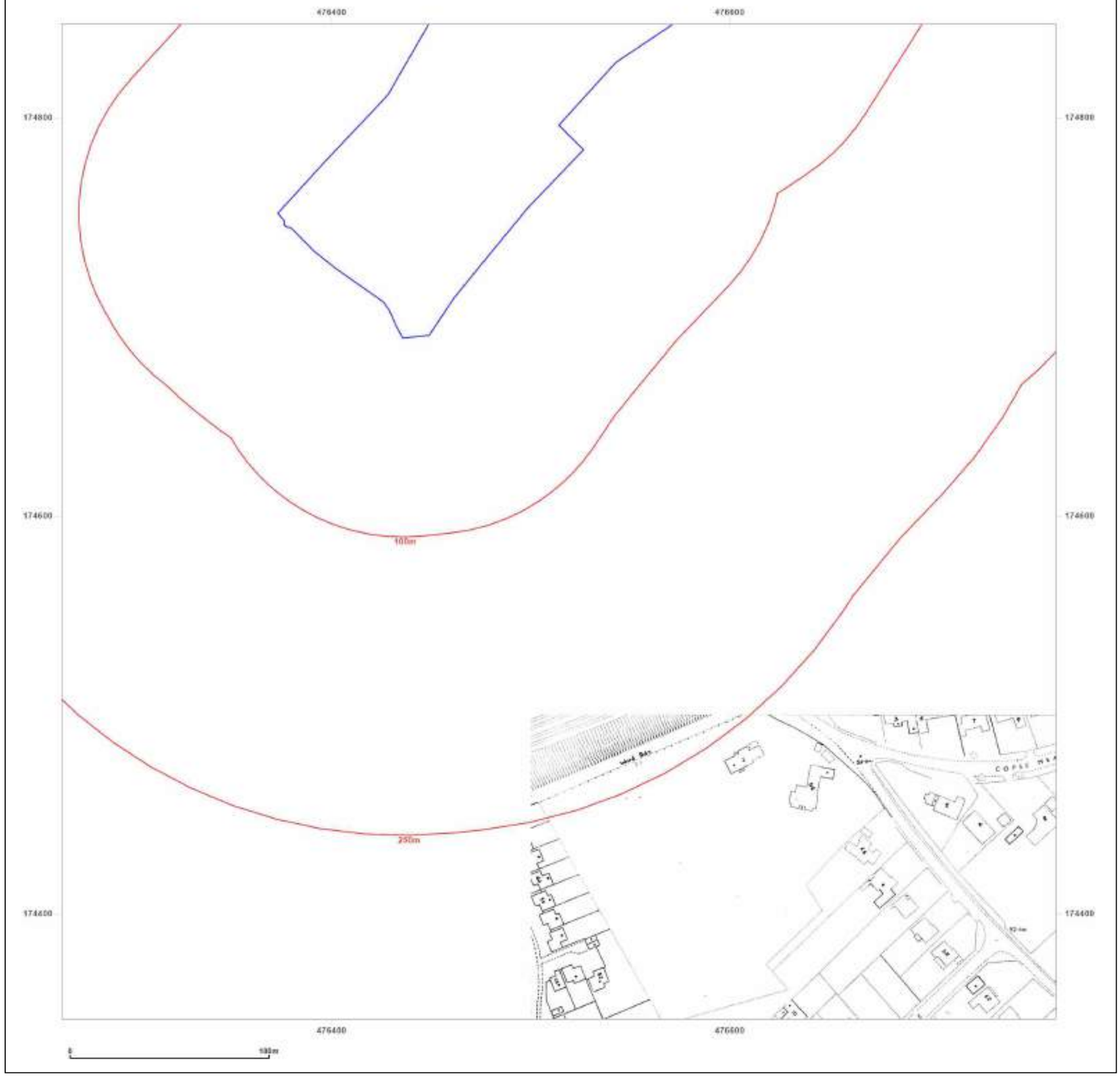
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Site Details:

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Client Ref: 11043a/CA (Housing)
Report Ref: SCL-TST-LGG-GFR-ZPJ_1250_1_1
Grid Ref: 476514, 174597

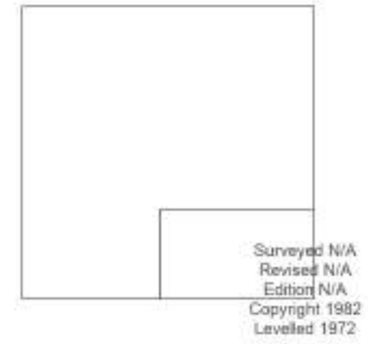
Map Name: National Grid

Map date: **1982**

Scale: 1:1,250

Printed at: 1:2,000

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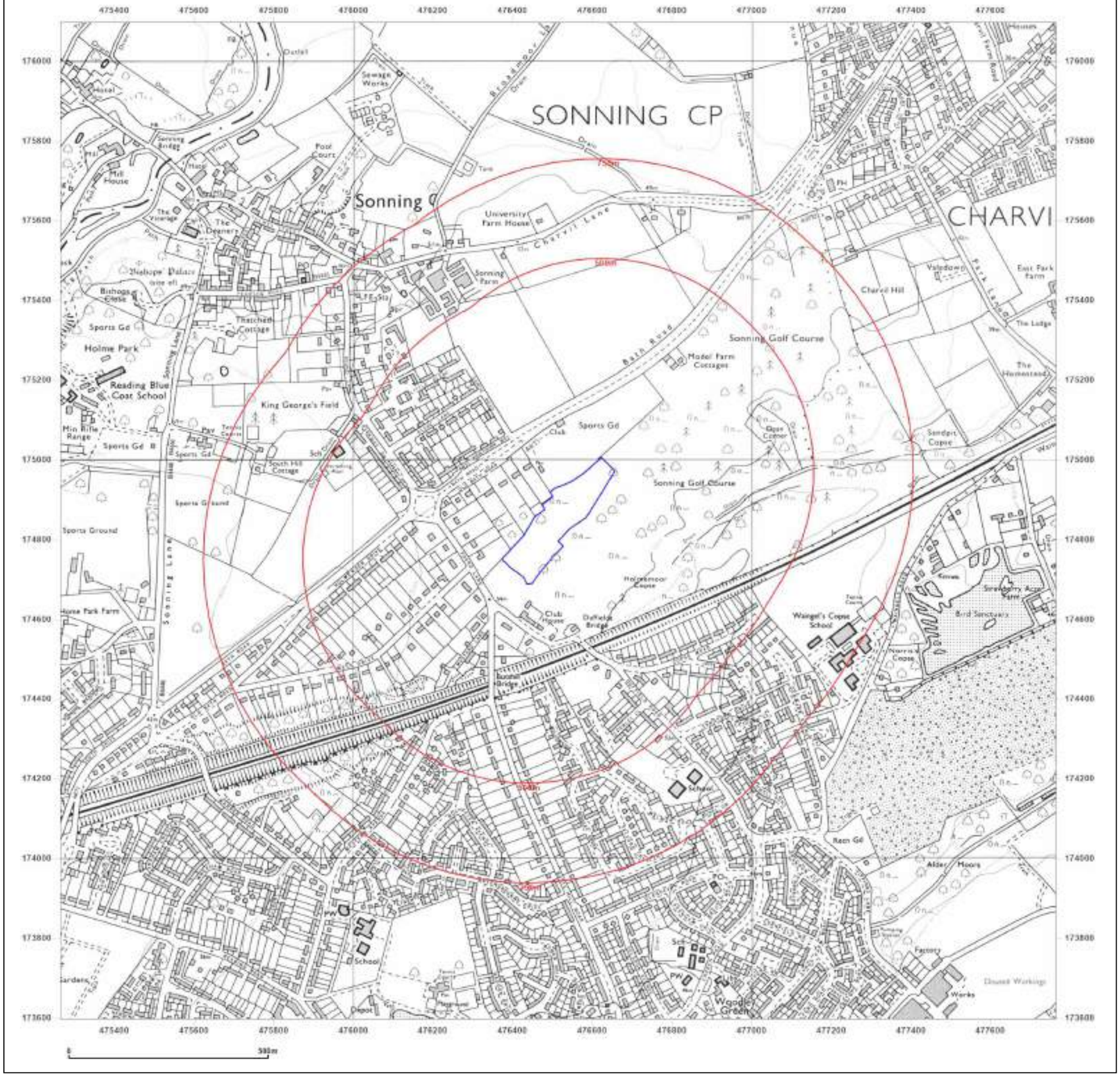
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Site Details:

Sonning Golf Club (Housing),
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Berkshire, RG4 6GJ

Client Ref: 11043a/CA (Housing)
Report Ref: SCL-TST-LGG-GFR-ZPJ
Grid Ref: 476514, 174847

Map Name: National Grid

Map date: **1981-1986**

Scale: 1:10,000

Printed at: 1:10,000

N
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Surveyed 1977
Revised 1981
Edition N/A
Copyright 1981
Levelled 1969

Surveyed 1984
Revised 1988
Edition N/A
Copyright N/A
Levelled N/A

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Site Details:

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Berkshire, RG4 6GJ

Client Ref: 11043a/CA (Housing)
Report Ref: SCL-TST-LGG-GFR-ZPJ_1250_1_1
Grid Ref: 476514, 174597

Map Name: National Grid

Map date: **1991-1993**

Scale: 1:1,250

Printed at: 1:2,000

N
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Surveyed 1993
Revised N/A
Edition N/A
Copyright 1993
Levelled N/A

Surveyed 1993
Revised 1993
Edition N/A
Copyright N/A
Levelled N/A

Surveyed N/A
Revised N/A
Edition N/A
Copyright 1991
Levelled 1972

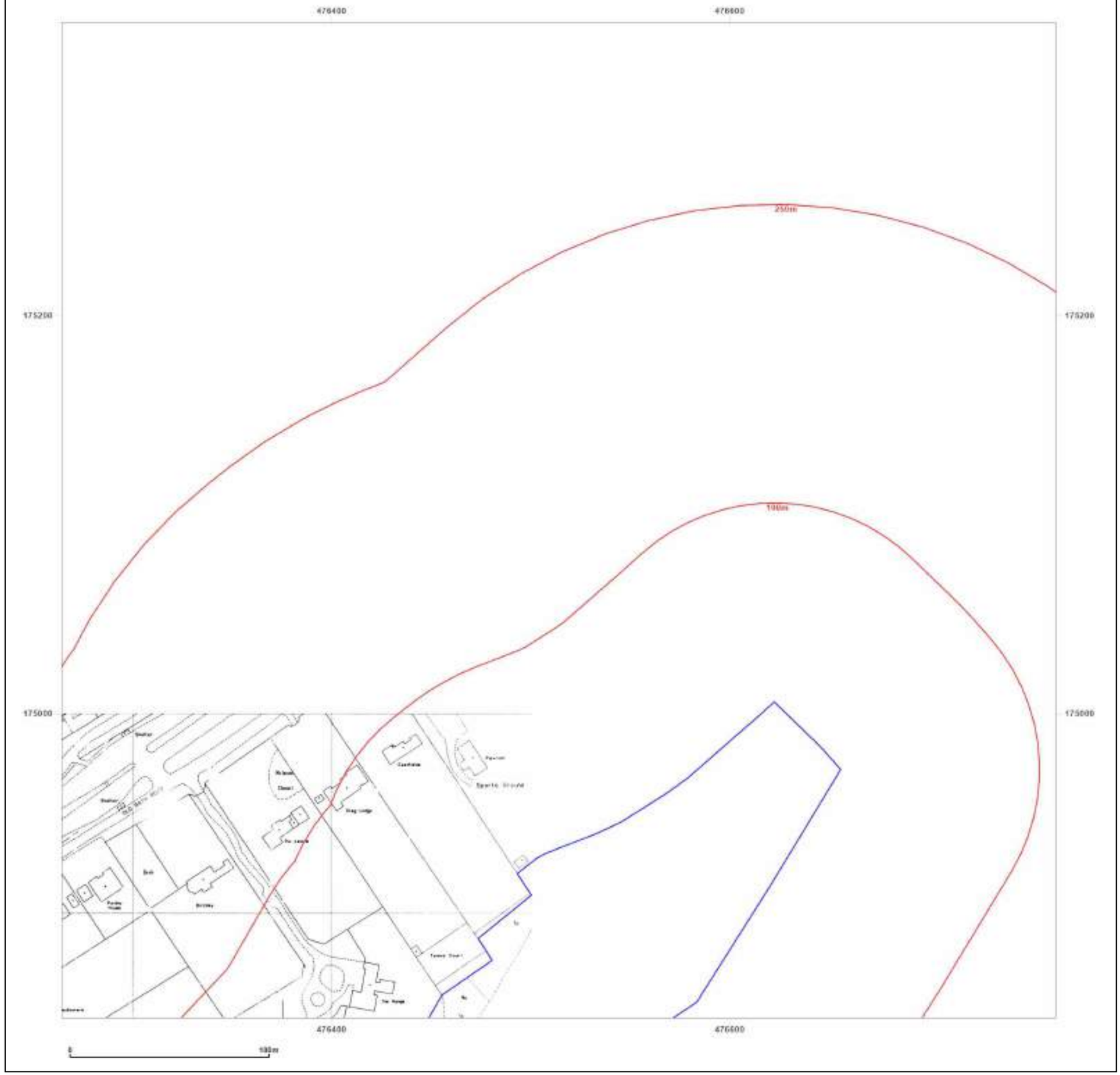
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Site Details:

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Client Ref: 11043a/CA (Housing)
Report Ref: SCL-TST-LGG-GFR-ZPJ_1250_1_2
Grid Ref: 476514, 175097

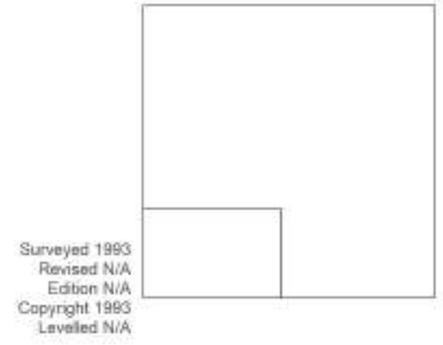
Map Name: National Grid

Map date: **1993**

Scale: 1:1,250

Printed at: 1:2,000

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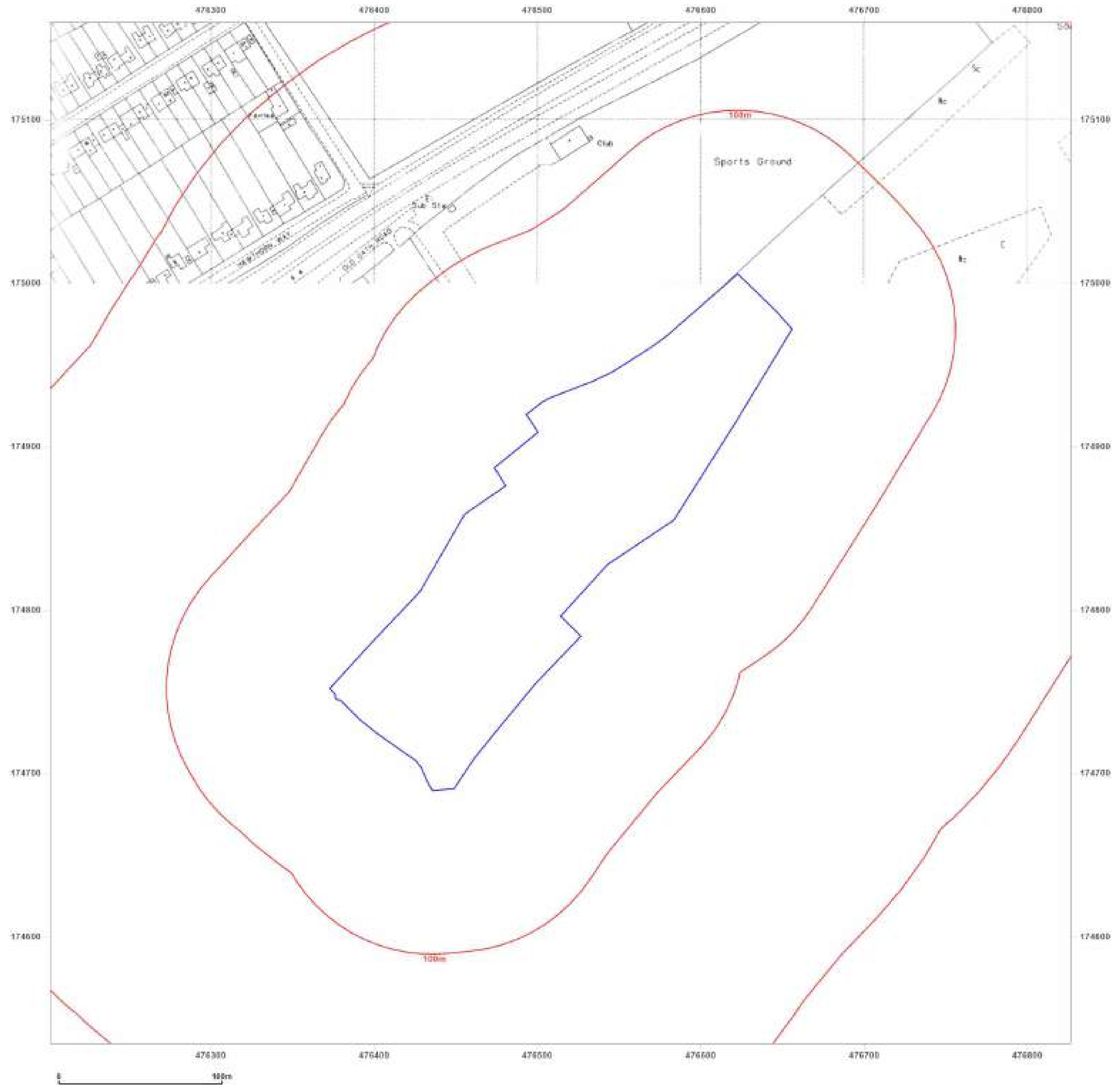


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Site Details:

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Client Ref: 11043a/CA (Housing)
Report Ref: SCL-TST-LGG-GFR-ZPJ_2500
Grid Ref: 476514, 174847

Map Name: National Grid

Map date: **1993**

Scale: 1:2,500

Printed at: 1:2,500

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W E
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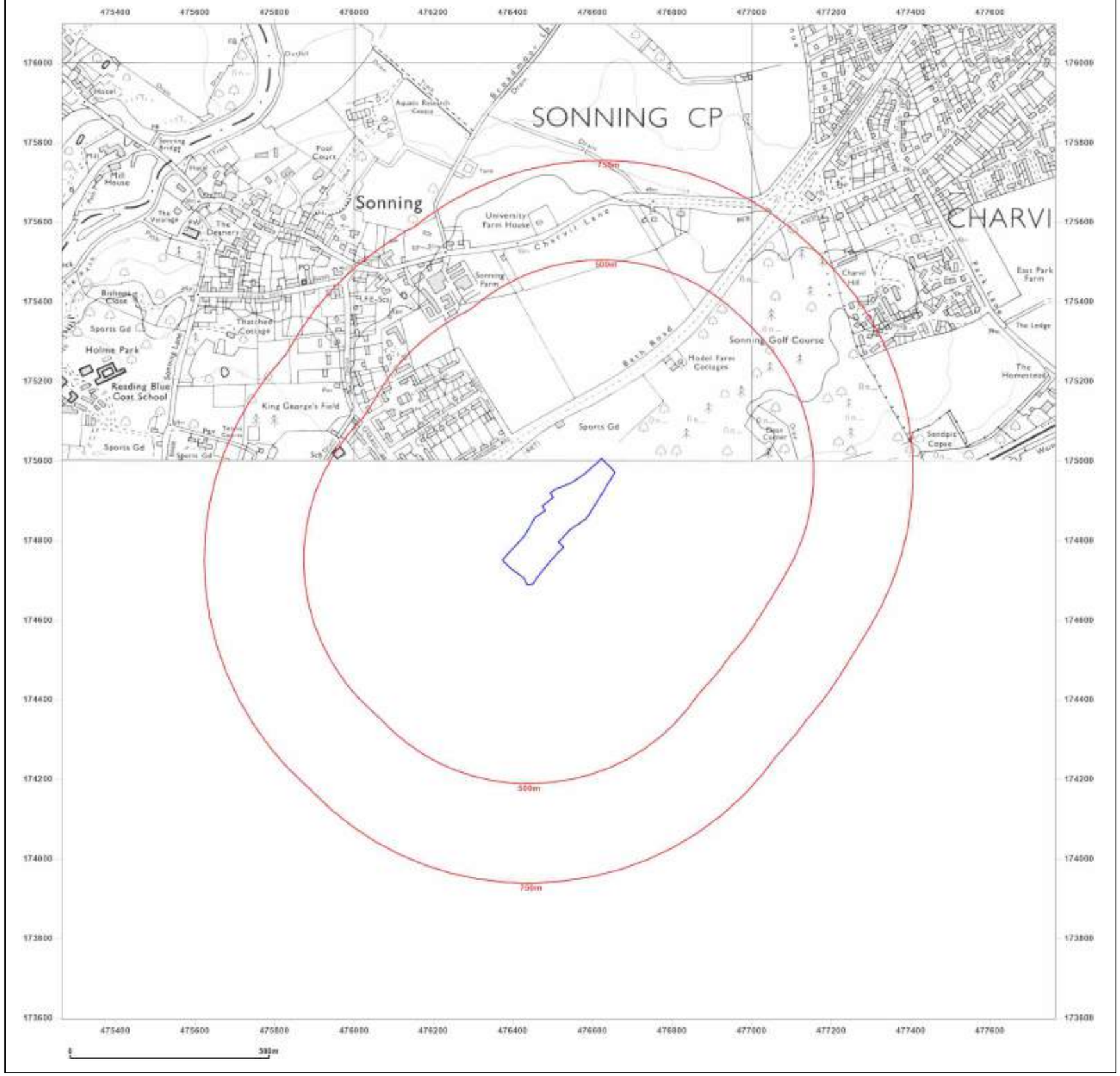
Surveyed 1993
Revised 1993
Edition N/A
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Site Details:

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Berkshire, RG4 6GJ

Client Ref: 11043a/CA (Housing)
Report Ref: SCL-TST-LGG-GFR-ZPJ
Grid Ref: 476514, 174847

Map Name: National Grid

Map date: **1994**

Scale: 1:10,000

Printed at: 1:10,000

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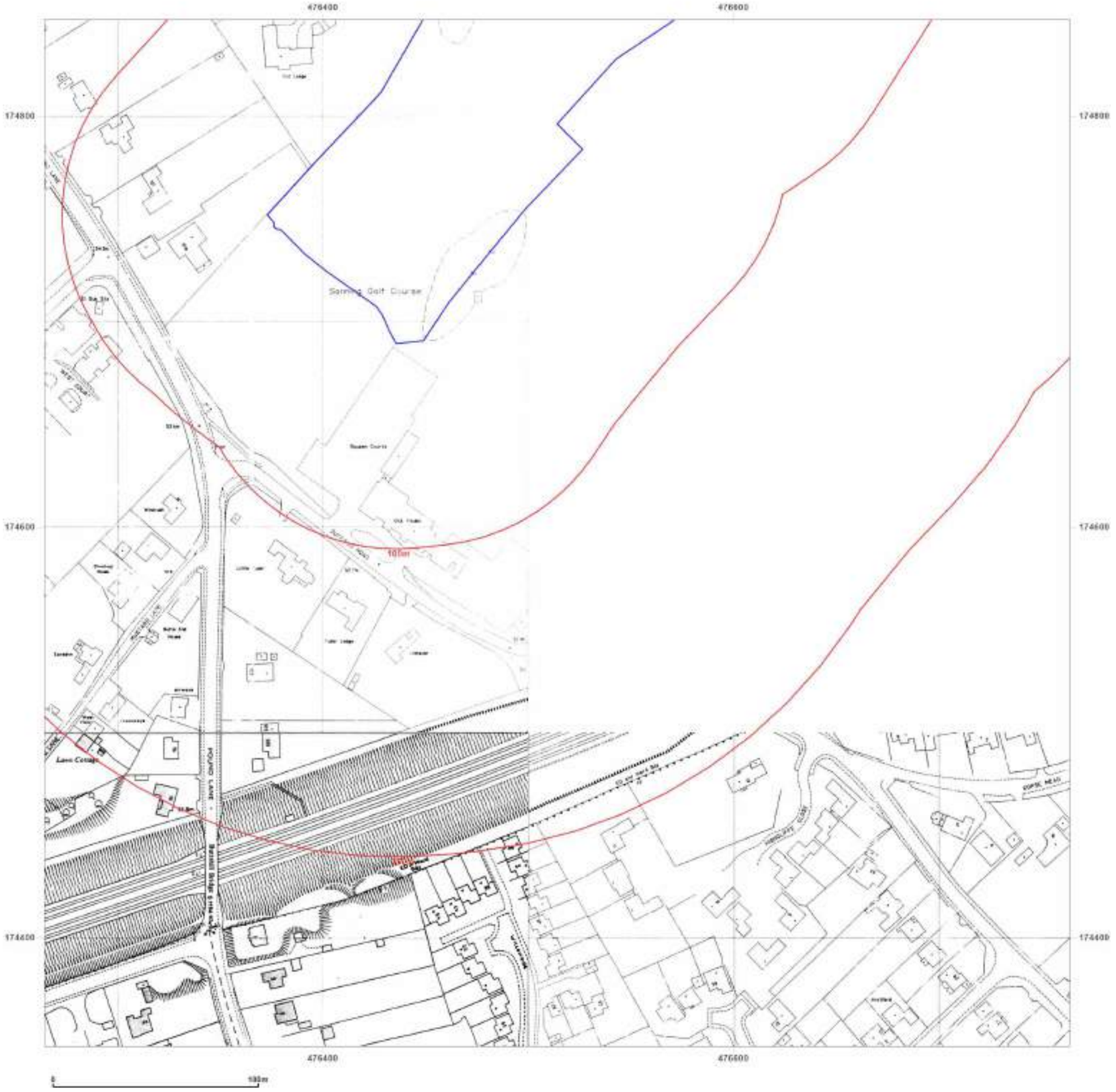
Surveyed 1977
Revised 1994
Edition N/A
Copyright N/A
Levelled N/A

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Site Details:

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Berkshire, RG4 6GJ

Client Ref: 11043a/CA (Housing)
Report Ref: SCL-TST-LGG-GFR-ZPJ_1250_1_1
Grid Ref: 476514, 174597

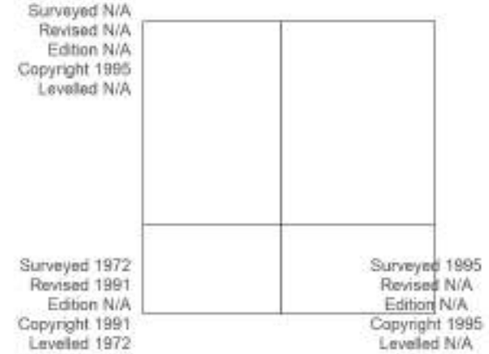
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Map date: **1991-1995**

Scale: 1:1,250

Printed at: 1:2,000

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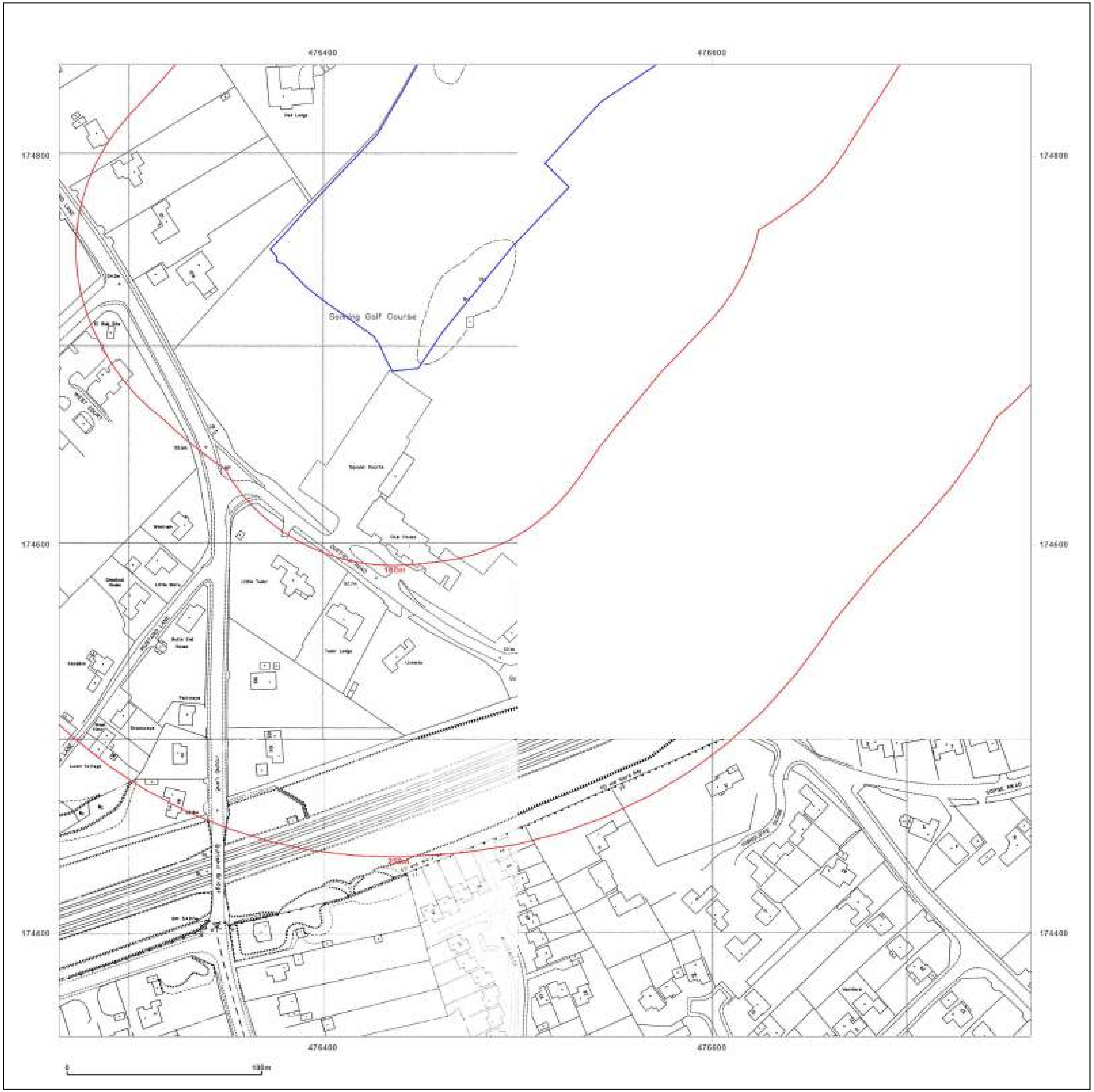
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Site Details:

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Berkshire, RG4 6GJ

Client Ref: 11043a/CA (Housing)
Report Ref: SCL-TST-LGG-GFR-ZPJ_1250_1_1
Grid Ref: 476514, 174597

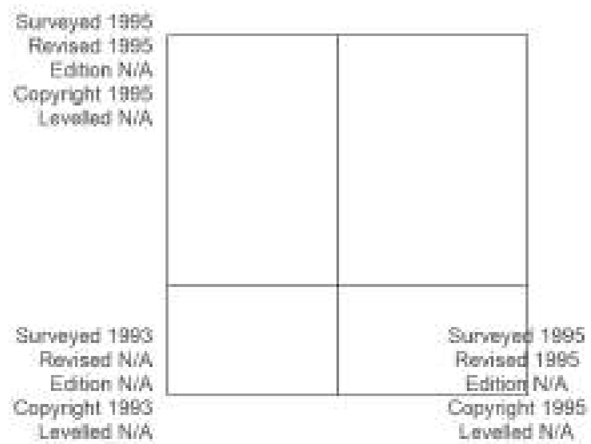
Map Name: National Grid

Map date: **1993-1995**

Scale: 1:1,250

Printed at: 1:2,000

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Ground Investigation
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Contamination Assessment

Site Details:

Sonning Golf Club (Housing),
Duffield Road, Sonning, Reading,
Berkshire, RG4 6GJ

Client Ref: 11043a/CA (Housing)
Report Ref: SCL-TST-LGG-GFR-ZPJ_1250_1_2
Grid Ref: 476514, 175097

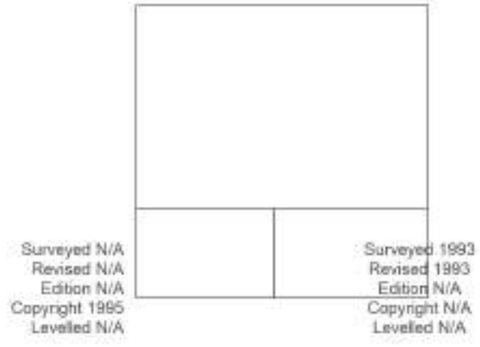
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Map date: **1993-1995**

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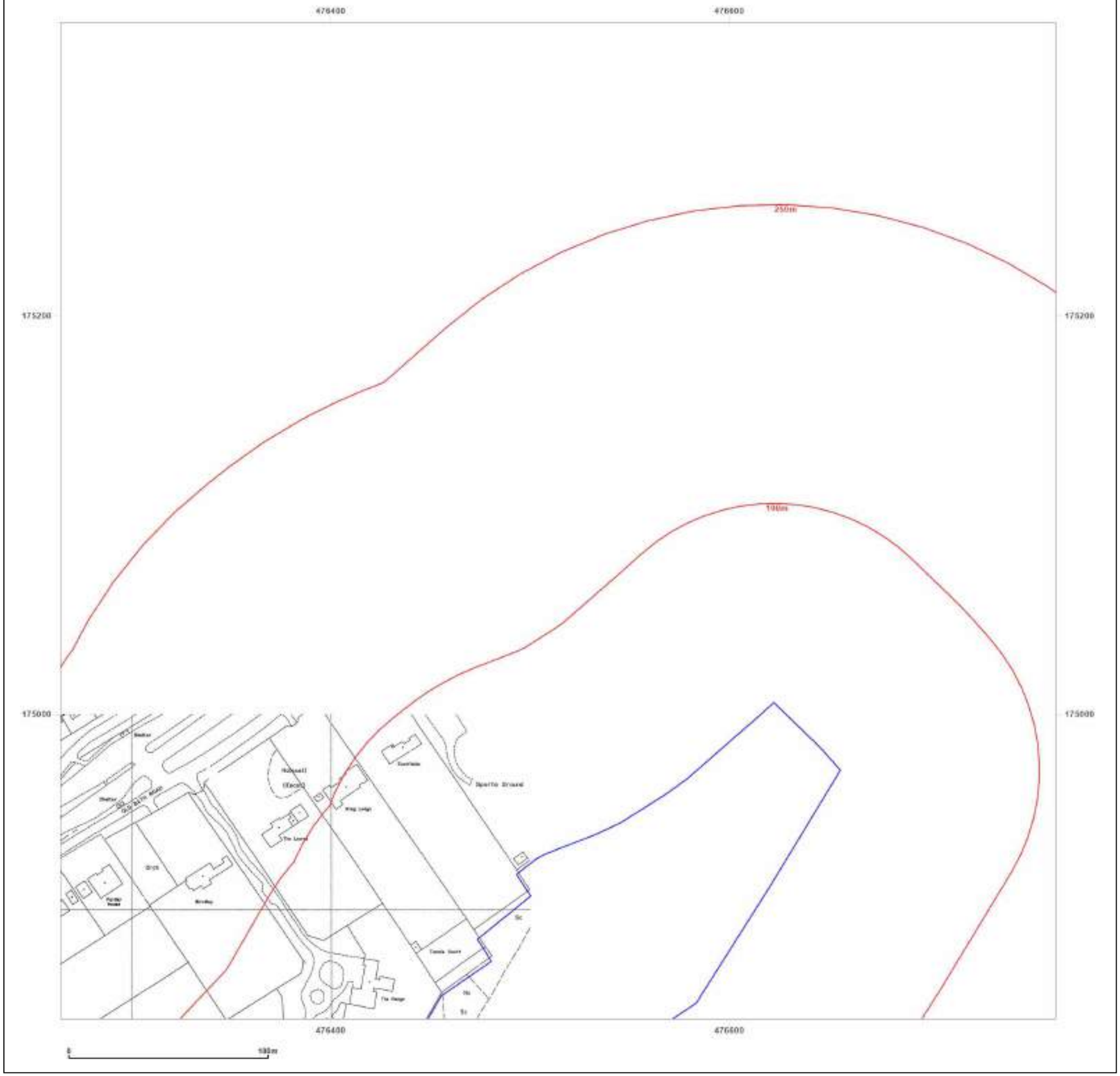
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Client Ref: 11043a/CA (Housing)
Report Ref: SCL-TST-LGG-GFR-ZPJ_1250_1_2
Grid Ref: 476514, 175097

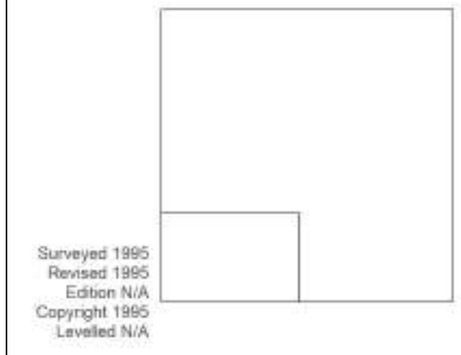
Map Name: National Grid

Map date: **1995**

Scale: 1:1,250

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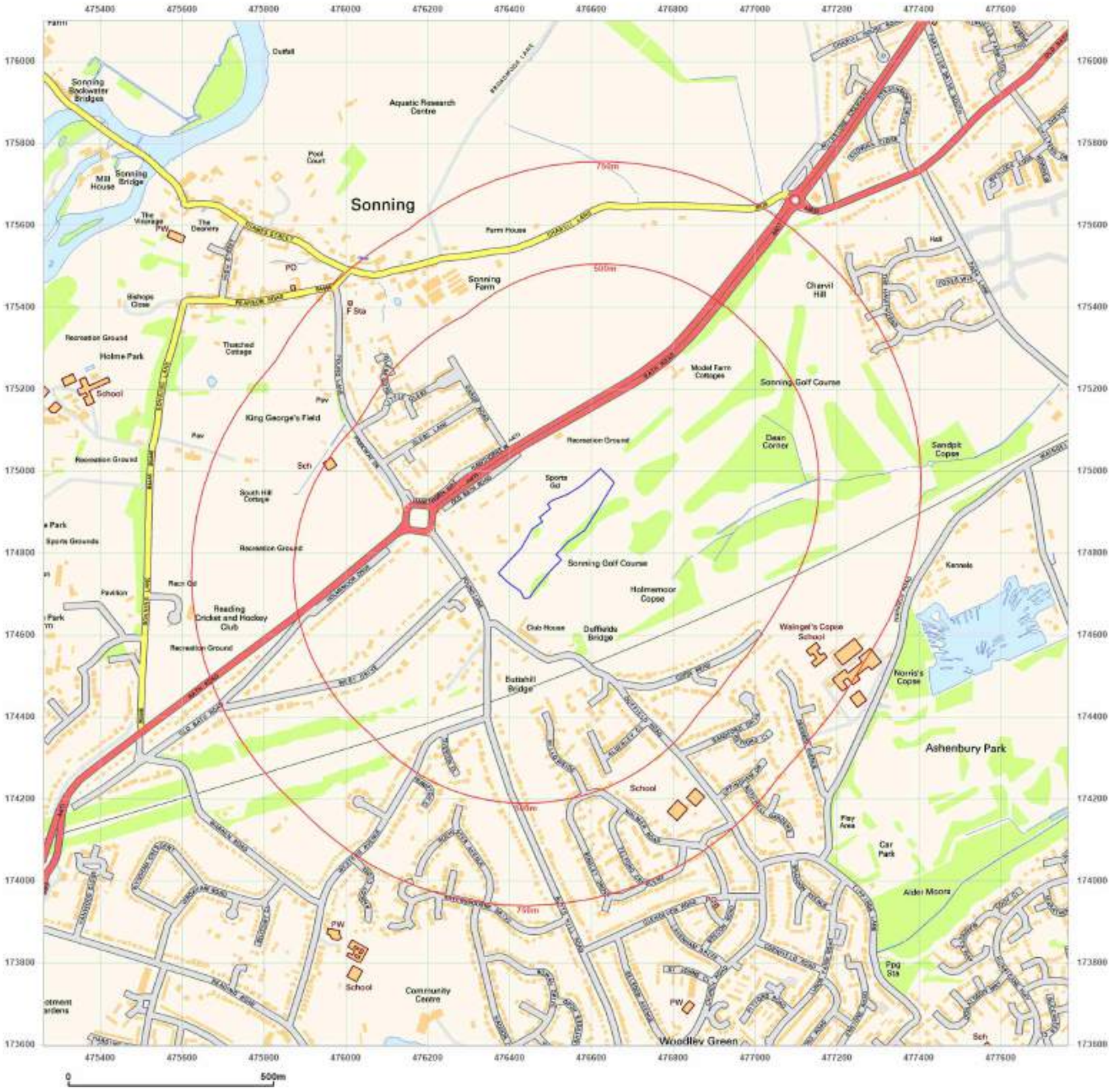
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Site Details:

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Berkshire, RG4 6GJ

Client Ref: 11043a/CA (Housing)
Report Ref: SCL-TST-LGG-GFR-ZPJ
Grid Ref: 476514, 174847

Map Name: National Grid

Map date: **2001**

Scale: 1:10,000

Printed at: 1:10,000

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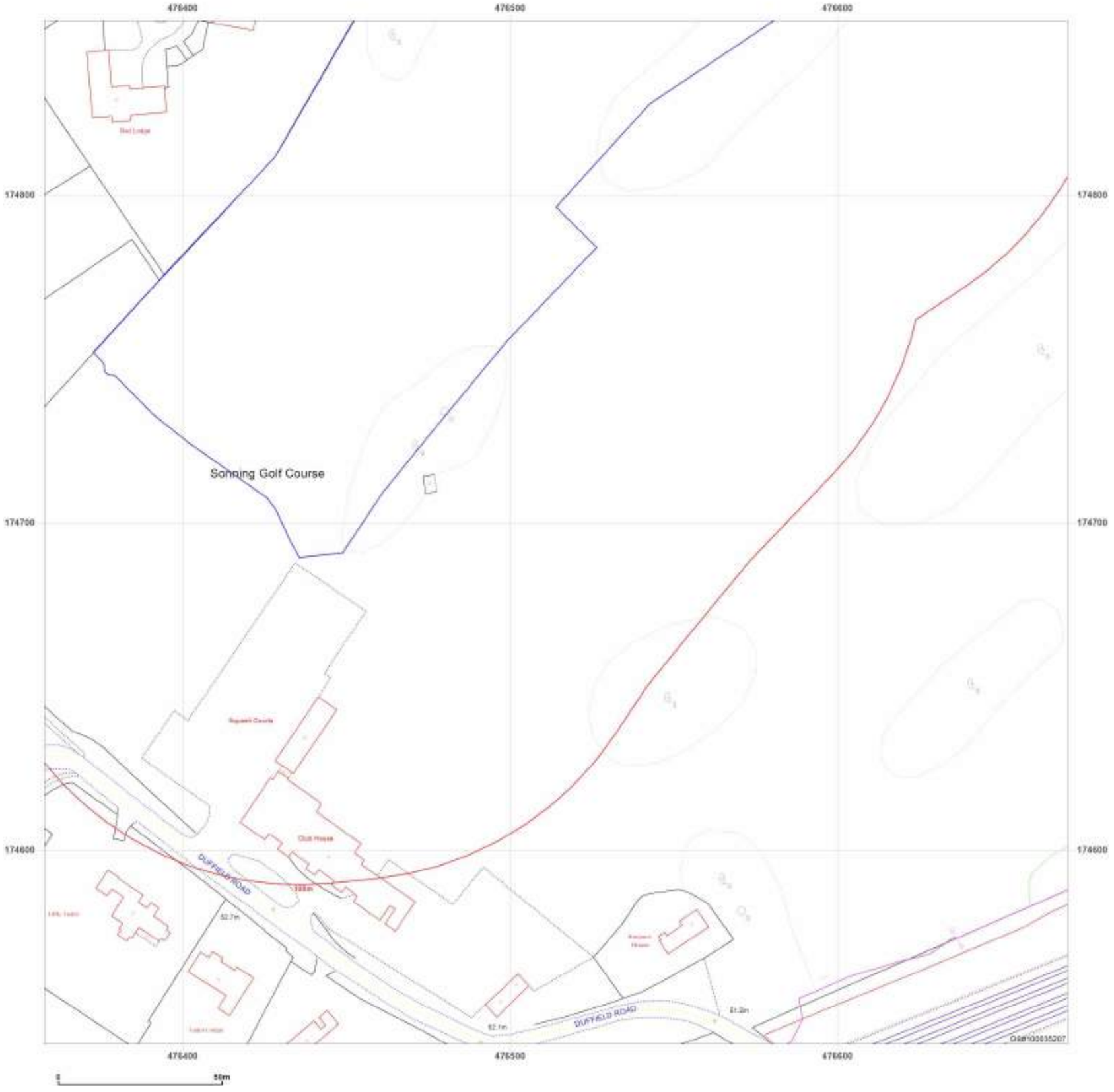
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Site Details:

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Berkshire, RG4 6GJ

Client Ref: 11043a/CA (Housing)
Report Ref: SCL-TST-LGG-GFR-ZPJ_Landline_1_1
Grid Ref: 476514, 174697

Map Name: LandLine
Map date: **2003**
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Printed at: 1:1,250

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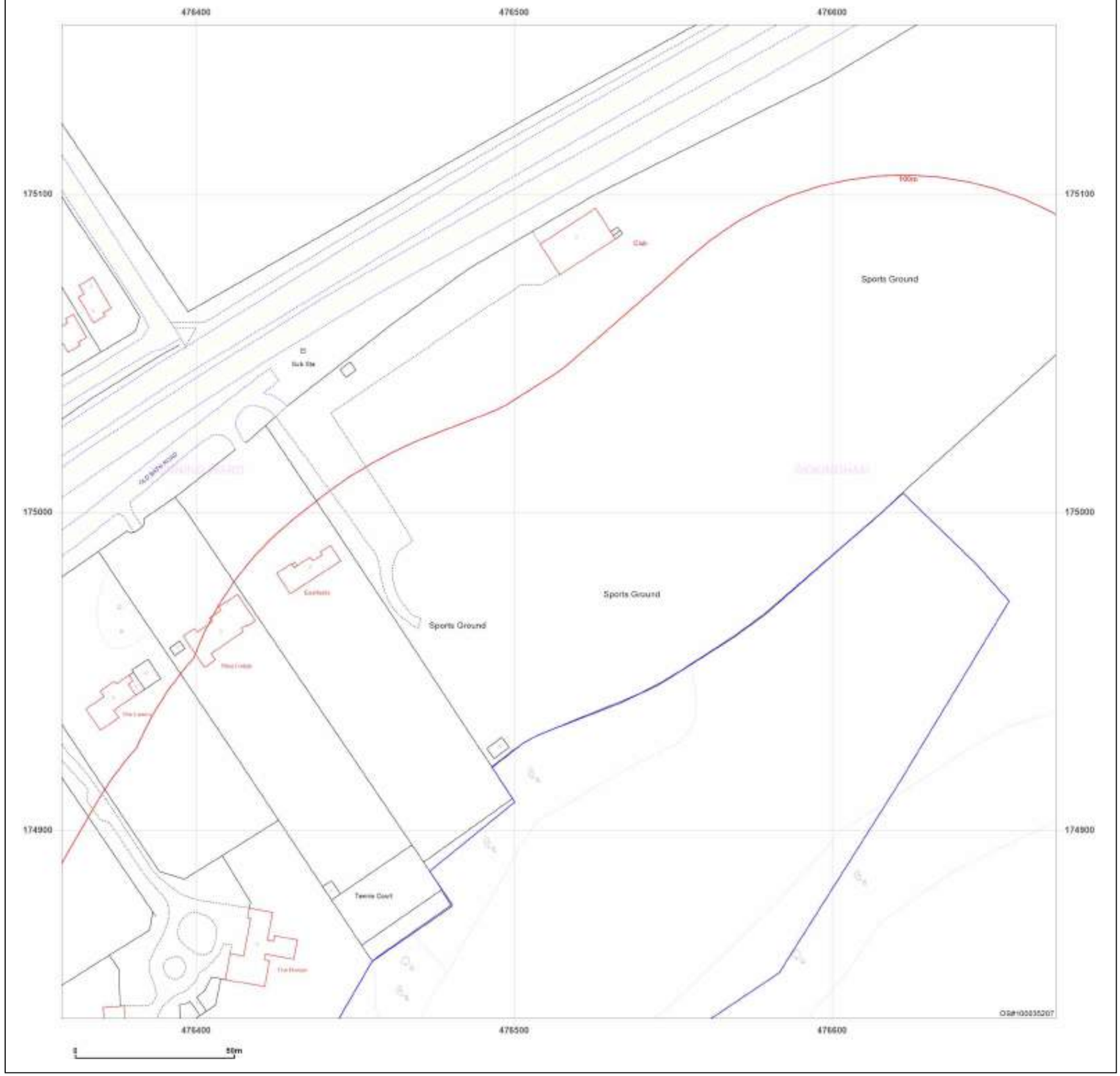
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Site Details:

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Berkshire, RG4 6GJ

Client Ref: 11043a/CA (Housing)
Report Ref: SCL-TST-LGG-GFR-ZPJ_Landline_1_2
Grid Ref: 476514, 174997

Map Name: LandLine
Map date: **2003**
Scale: 1:1,250
Printed at: 1:1,250

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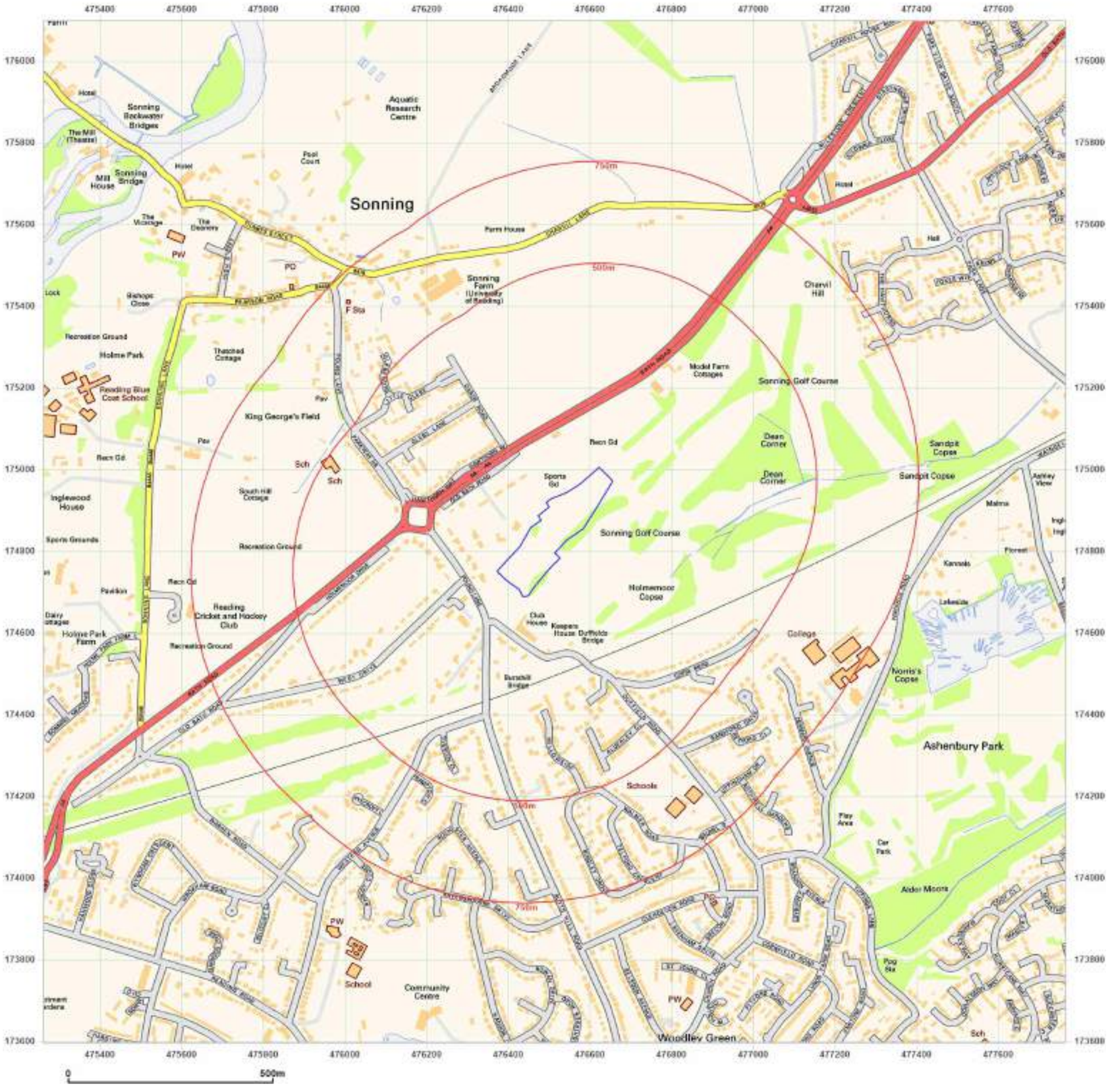
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Site Details:

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Client Ref: 11043a/CA (Housing)
Report Ref: SCL-TST-LGG-GFR-ZPJ
Grid Ref: 476514, 174847

Map Name: National Grid

Map date: **2010**

Scale: 1:10,000

Printed at: 1:10,000

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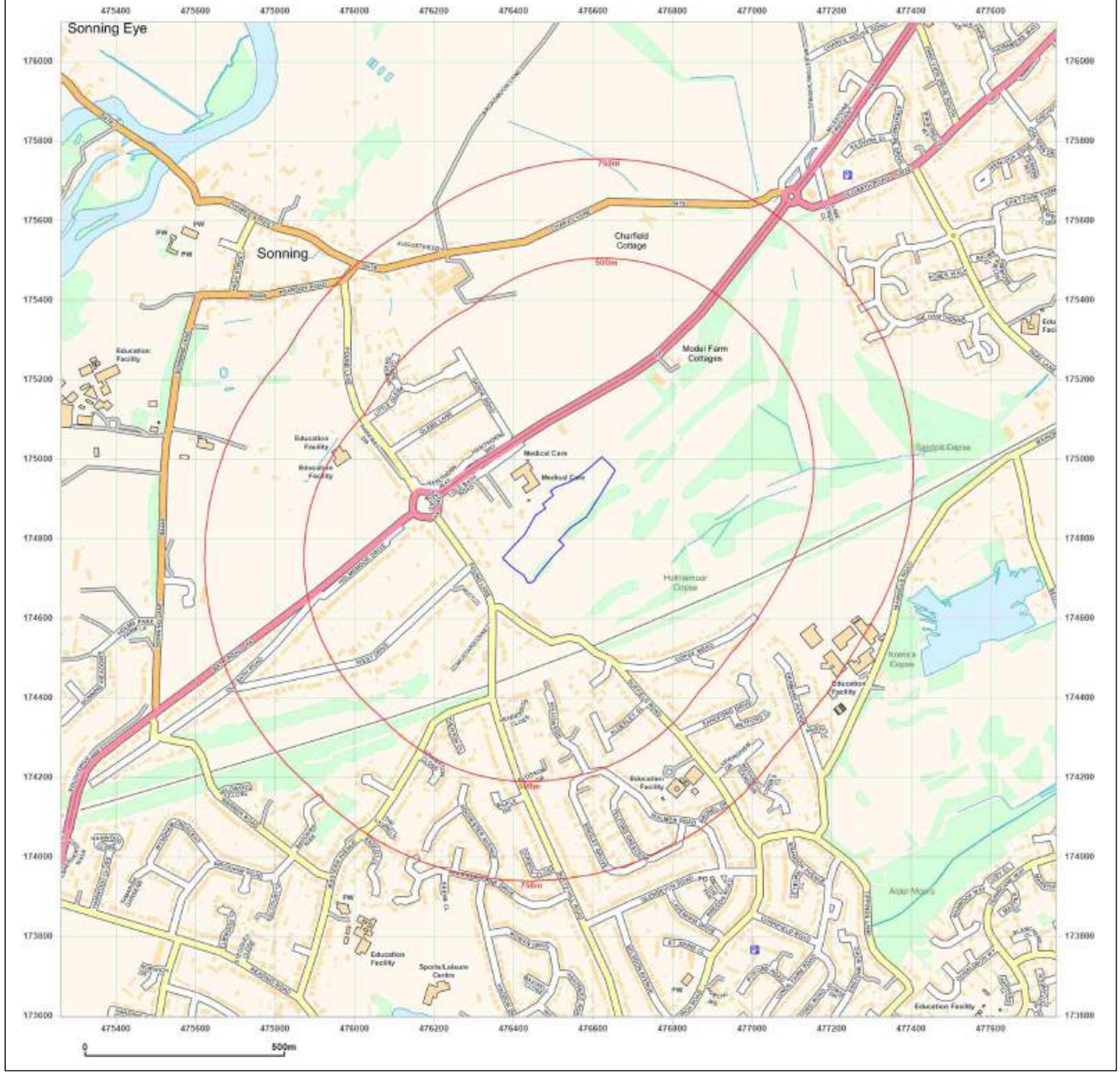
2010

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Contamination Assessment

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Berkshire, RG4 6GJ

Client Ref: 11043a/CA (Housing)
Report Ref: SCL-TST-LGG-GFR-ZPJ
Grid Ref: 476514, 174847

Map Name: National Grid

Map date: **2025**

Scale: 1:10,000

Printed at: 1:10,000

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2025

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LOCATION INTELLIGENCE

Enviro+Geo Insight

Sonning Golf Club (Housing), Duffield Road, Sonning, Reading, Berkshire, RG4 6GJ

Order Details

Date: 28/08/2025

Your ref: 11043a/CA (Housing)

Our Ref: SCL-4WS-CHJ-U2S-NXU

Site Details

Location: 476512 174847

Area: 3.02 ha

Authority: Wokingham Borough Council ↗



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Summary of findings p. 2 >

OS MasterMap site plan p.14 >

Aerial image p. 9 >

Insight User Guide ↗

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Summary of findings

Page	Section	Past land use >	On site	0-50m	50-250m	250-500m	500-2000m
15 >	1.1 >	Historical industrial land uses >	0	0	10	22	-
17 >	1.2 >	Historical tanks >	0	0	0	3	-
17 >	1.3 >	Historical energy features >	0	0	4	3	-
18	1.4	Historical petrol stations	0	0	0	0	-
18	1.5	Historical garages	0	0	0	0	-
18	1.6	Historical military land	0	0	0	0	-
Page	Section	Past land use - un-grouped >	On site	0-50m	50-250m	250-500m	500-2000m
19 >	2.1 >	Historical industrial land uses >	0	0	11	27	-
21 >	2.2 >	Historical tanks >	0	0	0	8	-
22 >	2.3 >	Historical energy features >	0	0	7	9	-
22	2.4	Historical petrol stations	0	0	0	0	-
23	2.5	Historical garages	0	0	0	0	-
Page	Section	Waste and landfill >	On site	0-50m	50-250m	250-500m	500-2000m
24	3.1	Active or recent landfill	0	0	0	0	-
24	3.2	Historical landfill (BGS records)	0	0	0	0	-
25	3.3	Historical landfill (LA/mapping records)	0	0	0	0	-
25	3.4	Historical landfill (EA/NRW records)	0	0	0	0	-
25	3.5	Historical waste sites	0	0	0	0	-
25	3.6	Licensed waste sites	0	0	0	0	-
25 >	3.7 >	Waste exemptions >	0	0	4	0	-
Page	Section	Current industrial land use >	On site	0-50m	50-250m	250-500m	500-2000m
27 >	4.1 >	Recent industrial land uses >	0	0	7	-	-
28 >	4.2 >	National Geographic Database (NGD) - Current or recent tanks >	0	0	1	-	-
28	4.3	Current or recent petrol stations	0	0	0	0	-
28	4.4	Electricity cables	0	0	0	0	-
29	4.5	Gas pipelines	0	0	0	0	-

29	4.6	Sites determined as Contaminated Land	0	0	0	0	-
29	4.7	Control of Major Accident Hazards (COMAH)	0	0	0	0	-
29	4.8	Regulated explosive sites	0	0	0	0	-
29	4.9	Hazardous substance storage/usage	0	0	0	0	-
30	4.10	Historical licensed industrial activities (IPC)	0	0	0	0	-
30	4.11	Licensed industrial activities (Part A(1))	0	0	0	0	-
30	4.12	Licensed pollutant release (Part A(2)/B)	0	0	0	0	-
30	4.13	Radioactive Substance Authorisations	0	0	0	0	-
30 >	**4.14 >**	**Licensed Discharges to controlled waters >**	0	1	0	2	-
31	4.15	Pollutant release to surface waters (Red List)	0	0	0	0	-
31	4.16	Pollutant release to public sewer	0	0	0	0	-
31	4.17	List 1 Dangerous Substances	0	0	0	0	-
32	4.18	List 2 Dangerous Substances	0	0	0	0	-
32	4.19	Pollution Incidents (EA/NRW)	0	0	0	0	-
32	4.20	Pollution inventory substances	0	0	0	0	-
32	4.21	Pollution inventory waste transfers	0	0	0	0	-
32	4.22	Pollution inventory radioactive waste	0	0	0	0	-

Page	Section	**Hydrogeology >**	On site	0-50m	50-250m	250-500m	500-2000m
33 >	**5.1 >**	**Superficial aquifer >**	Identified (within 500m)				
35 >	**5.2 >**	**Bedrock aquifer >**	Identified (within 500m)				
37 >	**5.3 >**	**Groundwater vulnerability >**	Identified (within 50m)				
38 >	**5.4 >**	**Groundwater vulnerability- soluble rock risk >**	Identified (within 0m)				
38	5.5	Groundwater vulnerability- local information	None (within 0m)				
39 >	**5.6 >**	**Groundwater abstractions >**	0	0	2	0	32
47 >	**5.7 >**	**Surface water abstractions >**	0	0	0	0	8
49 >	**5.8 >**	**Potable abstractions >**	0	0	0	0	6
51 >	**5.9 >**	**Source Protection Zones >**	1	0	0	0	-
51	5.10	Source Protection Zones (confined aquifer)	0	0	0	0	-

Page	Section	**Hydrology >**	On site	0-50m	50-250m	250-500m	500-2000m

52 >	6.1 >	Water Network (OS MasterMap) >	0	0	3	-	-
53 >	6.2 >	Surface water features >	0	0	2	-	-
53 >	6.3 >	WFD Surface water body catchments >	1	-	-	-	-
54 >	6.4 >	WFD Surface water bodies >	0	0	0	-	-
54 >	6.5 >	WFD Groundwater bodies >	1	-	-	-	-
Page	Section	River and coastal flooding	On site	0-50m	50-250m	250-500m	500-2000m
55	7.1	Risk of flooding from rivers and the sea	None (within 50m)				
55	7.2	Historical Flood Events	0	0	0	-	-
55	7.3	Flood Defences	0	0	0	-	-
56	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
56	7.5	Flood Storage Areas	0	0	0	-	-
57	7.6	Flood Zone 2	None (within 50m)				
57	7.7	Flood Zone 3	None (within 50m)				
Page	Section	Surface water flooding >					
58 >	8.1 >	Surface water flooding >	1 in 30 year, 0.3m - 1.0m (within 50m)				
Page	Section	Groundwater flooding >					
60 >	9.1 >	Groundwater flooding >	Low (within 50m)				
Page	Section	Environmental designations >	On site	0-50m	50-250m	250-500m	500-2000m
61	10.1	Sites of Special Scientific Interest (SSSI)	0	0	0	0	0
62	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
62	10.3	Special Areas of Conservation (SAC)	0	0	0	0	0
62	10.4	Special Protection Areas (SPA)	0	0	0	0	0
62	10.5	National Nature Reserves (NNR)	0	0	0	0	0
63 >	10.6 >	Local Nature Reserves (LNR) >	0	0	0	0	2
63 >	10.7 >	Designated Ancient Woodland >	0	0	0	1	15
64	10.8	Biosphere Reserves	0	0	0	0	0
64	10.9	Forest Parks	0	0	0	0	0
64	10.10	Marine Conservation Zones	0	0	0	0	0
65	10.11	Green Belt	0	0	0	0	0

65	10.12	Proposed Ramsar sites	0	0	0	0	0
65	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
65	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
65	10.15	Nitrate Sensitive Areas	0	0	0	0	0
66 >	10.16 >	Nitrate Vulnerable Zones >	1	0	0	1	2
67 >	10.17 >	SSSI Impact Risk Zones >	1	-	-	-	-
68	10.18	SSSI Units	0	0	0	0	0
Page	Section	Visual and cultural designations >	On site	0-50m	50-250m	250-500m	500-2000m
69	11.1	World Heritage Sites	0	0	0	-	-
70	11.2	Area of Outstanding Natural Beauty	0	0	0	-	-
70	11.3	National Parks	0	0	0	-	-
70 >	11.4 >	Listed Buildings >	0	0	1	-	-
71	11.5	Conservation Areas	0	0	0	-	-
71 >	11.6 >	Scheduled Ancient Monuments >	0	0	1	-	-
71	11.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	Agricultural designations >	On site	0-50m	50-250m	250-500m	500-2000m
72 >	12.1 >	Agricultural Land Classification >	Grade 2 (within 250m)				
73	12.2	Open Access Land	0	0	0	-	-
73 >	12.3 >	Tree Felling Licences >	2	1	10	-	-
74	12.4	Environmental Stewardship Schemes	0	0	0	-	-
74	12.5	Countryside Stewardship Schemes	0	0	0	-	-
Page	Section	Habitat designations >	On site	0-50m	50-250m	250-500m	500-2000m
75 >	13.1 >	Priority Habitat Inventory >	0	0	9	-	-
76	13.2	Habitat Networks	0	0	0	-	-
76	13.3	Open Mosaic Habitat	0	0	0	-	-
76	13.4	Limestone Pavement Orders	0	0	0	-	-
Page	Section	Geology 1:10,000 scale >	On site	0-50m	50-250m	250-500m	500-2000m
77 >	14.1 >	10k Availability >	Identified (within 500m)				
78 >	14.2 >	Artificial and made ground (10k) >	0	0	3	3	-

80 >	14.3 >	Superficial geology (10k) >	2	0	2	1	-
81	14.4	Landslip (10k)	0	0	0	0	-
82 >	14.5 >	Bedrock geology (10k) >	3	1	1	2	-
83 >	14.6 >	Bedrock faults and other linear features (10k) >	1	1	0	2	-
Page	Section	Geology 1:50,000 scale >	On site	0-50m	50-250m	250-500m	500-2000m
84 >	15.1 >	50k Availability >	Identified (within 500m)				
85 >	15.2 >	Artificial and made ground (50k) >	0	0	1	2	-
86	15.3	Artificial ground permeability (50k)	0	0	-	-	-
87 >	15.4 >	Superficial geology (50k) >	1	0	1	1	-
88 >	15.5 >	Superficial permeability (50k) >	Identified (within 50m)				
88	15.6	Landslip (50k)	0	0	0	0	-
88	15.7	Landslip permeability (50k)	None (within 50m)				
89 >	15.8 >	Bedrock geology (50k) >	1	0	1	2	-
90 >	15.9 >	Bedrock permeability (50k) >	Identified (within 50m)				
90 >	15.10 >	Bedrock faults and other linear features (50k) >	1	1	0	1	-
Page	Section	Boreholes >	On site	0-50m	50-250m	250-500m	500-2000m
91 >	16.1 >	BGS Boreholes >	0	5	9	-	-
Page	Section	Natural ground subsidence >					
93 >	17.1 >	Shrink swell clays >	Moderate (within 50m)				
94 >	17.2 >	Running sands >	Very low (within 50m)				
95 >	17.3 >	Compressible deposits >	Negligible (within 50m)				
96 >	17.4 >	Collapsible deposits >	Very low (within 50m)				
97 >	17.5 >	Landslides >	Very low (within 50m)				
98 >	17.6 >	Ground dissolution of soluble rocks >	Negligible (within 50m)				
Page	Section	Mining and ground workings >	On site	0-50m	50-250m	250-500m	500-2000m
100	18.1	BritPits	0	0	0	0	-
101 >	18.2 >	Surface ground workings >	0	0	11	-	-
101	18.3	Underground workings	0	0	0	0	0
101	18.4	Underground mining extents	0	0	0	0	-

102 >	18.5 >	Historical Mineral Planning Areas >	0	0	1	2	-
102 >	18.6 >	Non-coal mining >	2	0	0	0	1
103 >	18.7 >	JPB mining areas >	Identified (within 0m)				
103	18.8	The Coal Authority non-coal mining	0	0	0	0	-
103 >	18.9 >	Researched mining >	0	0	0	1	-
104	18.10	Mining record office plans	0	0	0	0	-
104	18.11	BGS mine plans	0	0	0	0	-
104	18.12	Coal mining	None (within 0m)				
104	18.13	Brine areas	None (within 0m)				
105	18.14	Gypsum areas	None (within 0m)				
105	18.15	Tin mining	None (within 0m)				
105	18.16	Clay mining	None (within 0m)				
Page	Section	Ground cavities and sinkholes	On site	0-50m	50-250m	250-500m	500-2000m
106	19.1	Natural cavities	0	0	0	0	-
106	19.2	Mining cavities	0	0	0	0	0
106	19.3	Reported recent incidents	0	0	0	0	-
106	19.4	Historical incidents	0	0	0	0	-
Page	Section	Radon >					
108 >	20.1 >	Radon >	Less than 1% (within 0m)				
Page	Section	Soil chemistry >	On site	0-50m	50-250m	250-500m	500-2000m
110 >	21.1 >	BGS Estimated Background Soil Chemistry >	3	0	-	-	-
110	21.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-
110	21.3	BGS Measured Urban Soil Chemistry	0	0	-	-	-
Page	Section	Railway infrastructure and projects >	On site	0-50m	50-250m	250-500m	500-2000m
111 >	22.1 >	Underground railways (London) >	0	0	1	-	-
112	22.2	Underground railways (Non-London)	0	0	0	-	-
112	22.3	Railway tunnels	0	0	0	-	-
112	22.4	Historical railway and tunnel features	0	0	0	-	-
112	22.5	Royal Mail tunnels	0	0	0	-	-

112	22.6	Historical railways	0	0	0	-	-
113 >	**22.7 >**	**Railways >**	0	0	6	-	-
113	22.8	Crossrail 2	0	0	0	0	-
113	22.9	HS2	0	0	0	0	-

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Capture Date: 30/04/2022

Site Area: 3.02ha

Recent site history - 2019 aerial photograph



Capture Date: 29/06/2019

Site Area: 3.02ha

Recent site history - 2015 aerial photograph



Capture Date: 20/04/2015

Site Area: 3.02ha

Recent site history - 2010 aerial photograph



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Capture Date: 22/09/2010

Site Area: 3.02ha

Recent site history - 1999 aerial photograph



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Capture Date: 04/09/1999

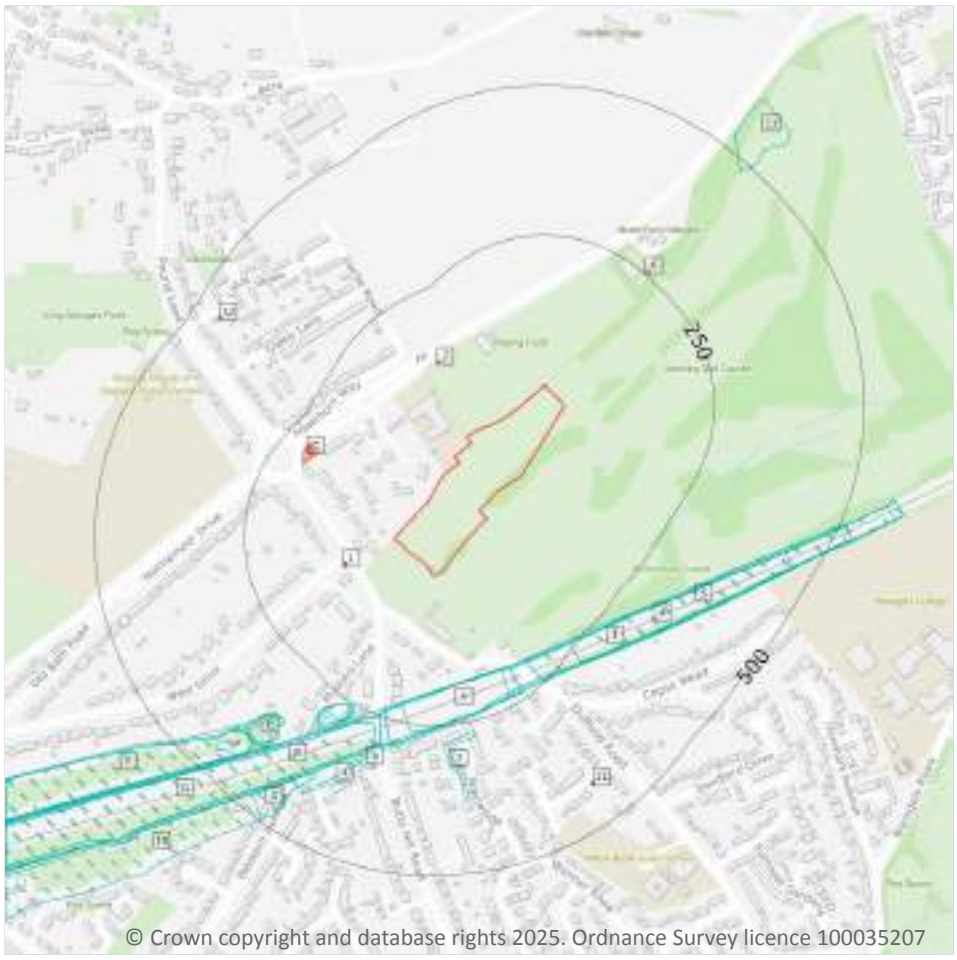
Site Area: 3.02ha

OS MasterMap site plan



Site Area: 3.02ha

1 Past land use



Site Outline

Search buffers in metres (m)

Historical industrial land uses

Historical tanks

Historical energy features

1.1 Historical industrial land uses

Records within 500m	32

Potentially contaminative land use features digitised from historical Ordnance Survey mapping at 1:10,000 and 1:10,560 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on **page 15 >**

ID	Location	Land use	Dates present	Group ID
A	181m S	Cuttings	1900	1985701

ID	Location	Land use	Dates present	Group ID
B	181m S	Cuttings	1898 - 1900	1978243
A	181m S	Cuttings	1977	1922243
A	181m S	Cuttings	1986	1930366
B	182m S	Cuttings	1910	1943357
B	182m S	Cuttings	1932	1987550
3	183m S	Cuttings	1960	1957820
4	202m SE	Cuttings	1977 - 1986	1987309
5	240m SE	Cuttings	1900	1951787
D	249m S	Cuttings	1900	1991563
B	253m SW	Unspecified Heap	1900 - 1910	1988860
B	254m SW	Unspecified Ground Workings	1986	1879772
B	256m SW	Unspecified Heap	1900	1939336
B	257m SW	Unspecified Heap	1932 - 1960	1968257
D	266m S	Cuttings	1986	1966416
D	266m S	Cuttings	1960 - 1977	1993540
7	267m S	Unspecified Ground Workings	1977	1879774
B	283m SW	Unspecified Ground Workings	1986	1879773
8	319m S	Unspecified Heap	1960	1895002
9	330m S	Unspecified Ground Workings	1960	1879771
E	345m SW	Unspecified Heap	1960 - 1977	1940285
E	345m SW	Unspecified Heap	1986	1945588
F	345m SW	Unspecified Heap	1900	1997021
E	356m SW	Unspecified Heap	1932	1958632
10	380m SW	Unspecified Heap	1900	1982037
G	393m SW	Unspecified Heap	1960	1952052
F	404m SW	Unspecified Heap	1977	1919194
F	404m SW	Unspecified Heap	1986	1926509
F	406m SW	Unspecified Heap	1960	1995577

ID	Location	Land use	Dates present	Group ID
E	407m SW	Pumping Station	1932	1910631
E	433m SW	Unspecified Pit	1986	1901787
13	483m NE	Gravel Pit	1900	1951971

This data is sourced from Ordnance Survey / Groundsure.

1.2 Historical tanks

Records within 500m	3

Tank features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on **page 15 >**

ID	Location	Land use	Dates present	Group ID
6	253m NE	Unspecified Tank	1977 - 1993	341033
E	423m SW	Unspecified Tank	1965 - 1991	329296
E	428m SW	Unspecified Tank	1932	321050

This data is sourced from Ordnance Survey / Groundsure.

1.3 Historical energy features

Records within 500m	7

Energy features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on **page 15 >**

ID	Location	Land use	Dates present	Group ID
1	89m SW	Electricity Substation	1995	228346
2	128m NW	Electricity Substation	1977 - 1993	214291

ID	Location	Land use	Dates present	Group ID
C	188m NW	Electricity Substation	1995	231324
C	198m NW	Electricity Substation	-	206819
G	408m SW	Electricity Substation	1977 - 1991	226355
11	427m SE	Electricity Substation	1979 - 1995	234401
12	451m NW	Electricity Substation	1968 - 1993	214620

This data is sourced from Ordnance Survey / Groundsure.

1.4 Historical petrol stations

Records within 500m	0

Petrol stations digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

1.5 Historical garages

Records within 500m	0

Garages digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

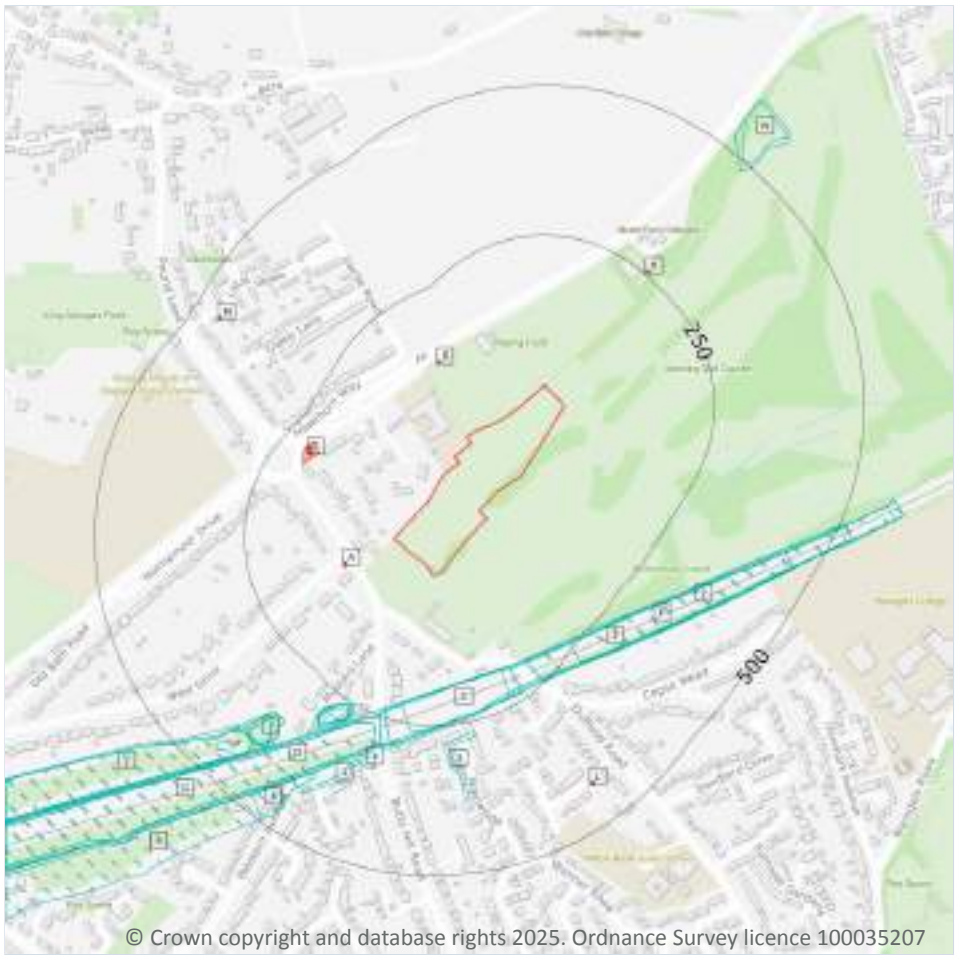
1.6 Historical military land

Records within 500m	0

Areas of military land digitised from multiple sources including the National Archives, local records, MOD records and verified other sources, intelligently grouped into contiguous features.

This data is sourced from Ordnance Survey / Groundsure / other sources.

2 Past land use - un-grouped



Site Outline

Search buffers in metres (m)

Historical industrial land uses

Historical tanks

Historical energy features

2.1 Historical industrial land uses

Records within 500m	38

Potentially contaminative land use features digitised from historical Ordnance Survey mapping at 1:10,000 and 10,560 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on **page 19 >**

ID	Location	Land Use	Date	Group ID
C	181m S	Cuttings	1900	1985701
D	181m S	Cuttings	1900	1978243
C	181m S	Cuttings	1986	1930366

ID	Location	Land Use	Date	Group ID
C	181m S	Cuttings	1977	1922243
D	182m S	Cuttings	1932	1987550
D	182m S	Cuttings	1910	1943357
1	183m S	Cuttings	1960	1957820
F	202m SE	Cuttings	1986	1987309
F	202m SE	Cuttings	1977	1987309
2	240m SE	Cuttings	1900	1951787
G	249m S	Cuttings	1900	1991563
D	253m SW	Unspecified Heap	1900	1988860
D	254m SW	Unspecified Ground Workings	1986	1879772
D	256m SW	Unspecified Heap	1900	1939336
D	257m SW	Unspecified Heap	1932	1968257
D	257m SW	Unspecified Heap	1910	1988860
D	264m SW	Unspecified Heap	1960	1968257
G	266m S	Cuttings	1960	1993540
G	266m S	Cuttings	1986	1966416
G	266m S	Cuttings	1977	1993540
3	267m S	Unspecified Ground Workings	1977	1879774
D	283m SW	Unspecified Ground Workings	1986	1879773
4	319m S	Unspecified Heap	1960	1895002
5	330m S	Unspecified Ground Workings	1960	1879771
I	345m SW	Unspecified Heap	1986	1945588
I	345m SW	Unspecified Heap	1977	1940285
J	345m SW	Unspecified Heap	1900	1997021
I	356m SW	Unspecified Heap	1932	1958632
I	364m SW	Unspecified Heap	1960	1940285
6	380m SW	Unspecified Heap	1900	1982037
K	393m SW	Unspecified Heap	1960	1952052

ID	Location	Land Use	Date	Group ID
J	404m SW	Unspecified Heap	1986	1926509
J	404m SW	Unspecified Heap	1977	1919194
J	406m SW	Unspecified Heap	1960	1995577
I	407m SW	Pumping Station	1932	1910631
I	433m SW	Unspecified Pit	1986	1901787
N	483m NE	Gravel Pit	1900	1951971
N	497m NE	Gravel Pit	1900	1951971

This data is sourced from Ordnance Survey / Groundsure.

2.2 Historical tanks

Records within 500m	**8**

Tank features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on **page 19 >**

ID	Location	Land Use	Date	Group ID
H	253m NE	Unspecified Tank	1993	341033
H	255m NE	Unspecified Tank	1977	341033
I	423m SW	Unspecified Tank	1966	329296
I	423m SW	Unspecified Tank	1965	329296
I	423m SW	Unspecified Tank	1977	329296
I	423m SW	Unspecified Tank	1991	329296
I	423m SW	Unspecified Tank	1991	329296
I	428m SW	Unspecified Tank	1932	321050

This data is sourced from Ordnance Survey / Groundsure.

2.3 Historical energy features

Records within 500m	16

Energy features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on **page 19 >**

ID	Location	Land Use	Date	Group ID
A	89m SW	Electricity Substation	1995	228346
A	91m SW	Electricity Substation	1995	228346
B	128m NW	Electricity Substation	1977	214291
B	129m NW	Electricity Substation	1993	214291
E	188m NW	Electricity Substation	1995	231324
E	198m NW	Electricity Substation	1995	231324
E	198m NW	Electricity Substation	-	206819
K	408m SW	Electricity Substation	1977	226355
K	408m SW	Electricity Substation	1991	226355
K	408m SW	Electricity Substation	1991	226355
L	427m SE	Electricity Substation	1995	234401
L	429m SE	Electricity Substation	1979	234401
L	429m SE	Electricity Substation	1982	234401
M	451m NW	Electricity Substation	1968	214620
M	451m NW	Electricity Substation	1977	214620
M	452m NW	Electricity Substation	1993	214620

This data is sourced from Ordnance Survey / Groundsure.

2.4 Historical petrol stations

Records within 500m	0

Petrol stations digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

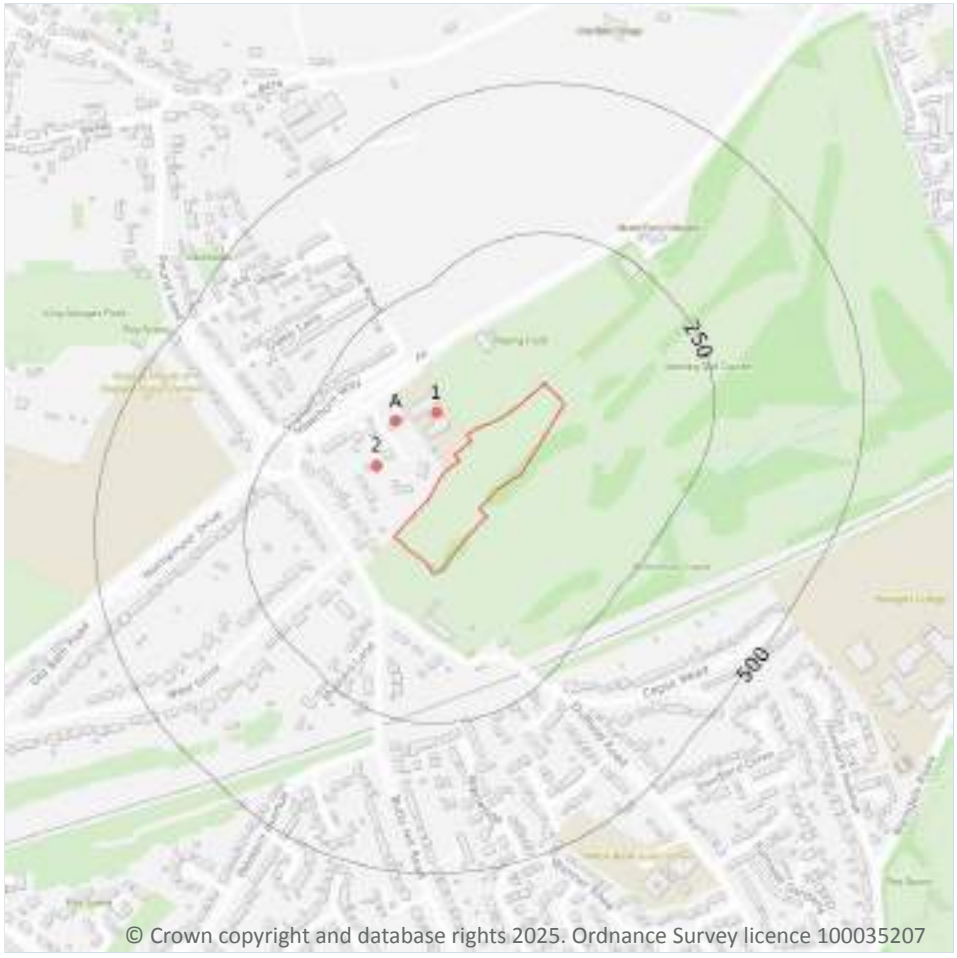
2.5 Historical garages

Records within 500m	0

Garages digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

3 Waste and landfill



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Site Outline

Search buffers in metres (m)

Waste exemptions

3.1 Active or recent landfill

Records within 500m	0

Active or recently closed landfill sites under Environment Agency/Natural Resources Wales regulation.

This data is sourced from the Environment Agency and Natural Resources Wales.

3.2 Historical landfill (BGS records)

Records within 500m	0

Landfill sites identified on a survey carried out on behalf of the DoE in 1973. These sites may have been closed or operational at this time.

This data is sourced from the British Geological Survey.

3.3 Historical landfill (LA/mapping records)

Records within 500m	0

Landfill sites identified from Local Authority records and high detail historical mapping.

This data is sourced from the Ordnance Survey/Groundsure and Local Authority records.

3.4 Historical landfill (EA/NRW records)

Records within 500m	0

Known historical (closed) landfill sites (e.g. sites where there is no PPC permit or waste management licence currently in force). This includes sites that existed before the waste licensing regime and sites that have been licensed in the past but where a licence has been revoked, ceased to exist or surrendered and a certificate of completion has been issued.

This data is sourced from the Environment Agency and Natural Resources Wales.

3.5 Historical waste sites

Records within 500m	0

Waste site records derived from Local Authority planning records and high detail historical mapping.

This data is sourced from Ordnance Survey/Groundsure and Local Authority records.

3.6 Licensed waste sites

Records within 500m	0

Active or recently closed waste sites under Environment Agency/Natural Resources Wales regulation.

This data is sourced from the Environment Agency and Natural Resources Wales.

3.7 Waste exemptions

Records within 500m	4

Activities involving the storage, treatment, use or disposal of waste that are exempt from needing a permit. Exemptions have specific limits and conditions that must be adhered to.

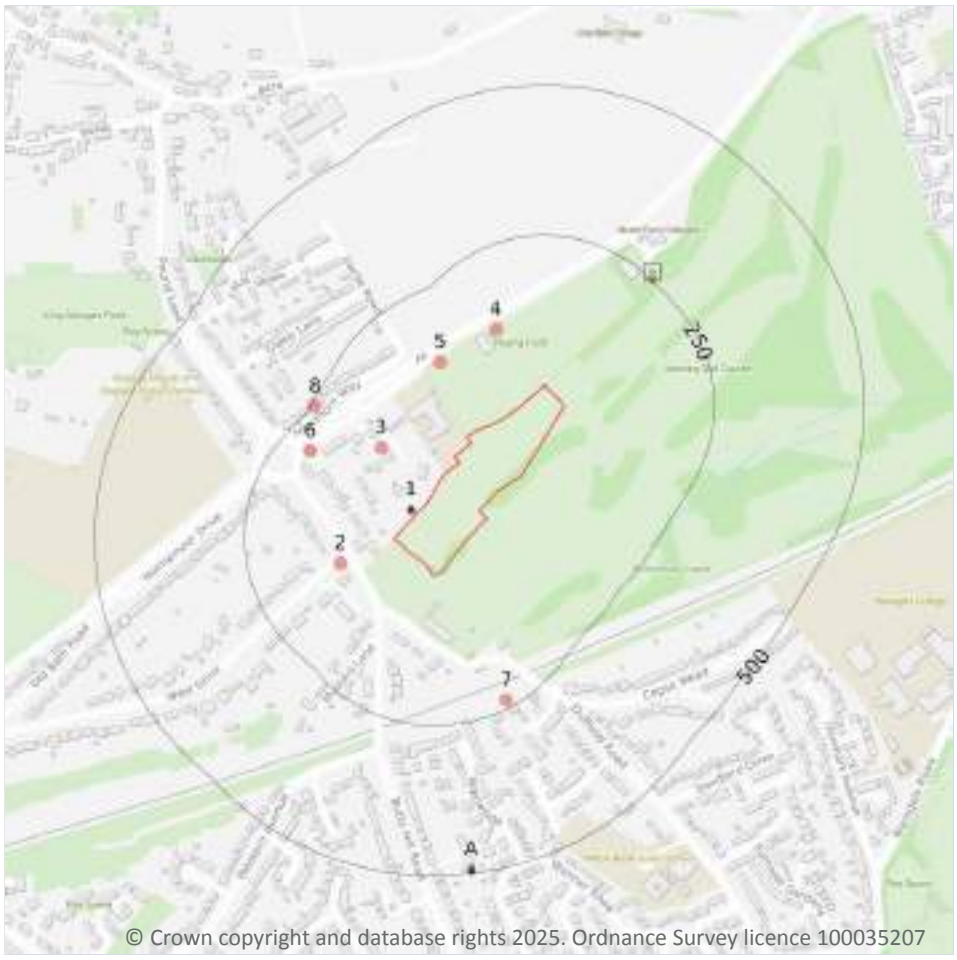
Features are displayed on the Waste and landfill map on **page 24 >**

ID	Location	Site	Reference	Category	Sub-Category	Description
1	64m NW	Old Bath Road, Sonning, Reading, Rg4 6tq	WEX395226	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal

ID	Location	Site	Reference	Category	Sub-Category	Description
2	102m NW	Signature At Sonning, Old Bath Road, Sonning, Reading, Berkshire, Rg4 6tq	WEX315325	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal
A	113m NW	Old Bath Road, Sonning, Reading, Rg4 6tq	WEX424179	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal
A	113m NW	Old Bath Road, Sonning, Reading, Rg4 6tq	WEX424176	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal

This data is sourced from the Environment Agency and Natural Resources Wales.

4 Current industrial land use



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Site Outline

Search buffers in metres (m)

Recent industrial land uses

NGD current or recent tanks

Licensed Discharges to controlled waters

4.1 Recent industrial land uses

Records within 250m	7

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on **page 27 >**

ID	Location	Company	Address	Activity	Category
2	100m SW	Electricity Sub Station	Berkshire, RG4	Electrical Features	Infrastructure and Facilities
3	113m NW	Pump	Berkshire, RG4	Water Pumping Stations	Industrial Features
4	124m NW	Mast	Berkshire, RG4	Telecommunications Features	Infrastructure and Facilities

ID	Location	Company	Address	Activity	Category
5	130m NW	Electricity Sub Station	Berkshire, RG4	Electrical Features	Infrastructure and Facilities
6	202m NW	Electricity Sub Station	Berkshire, RG4	Electrical Features	Infrastructure and Facilities
7	237m SE	Electricity Sub Station	Berkshire, RG5	Electrical Features	Infrastructure and Facilities
8	243m NW	Telephone Exchange	Berkshire, RG4	Telecommunications Features	Infrastructure and Facilities

This data is sourced from Ordnance Survey.

4.2 National Geographic Database (NGD) - Current or recent tanks

Records within 250m	**1**

Current or recent tanks identified from the Ordnance Survey NGD.

Features are displayed on the Current industrial land use map on **page 27 >**

ID	Location	Tank description	Activity	Date first identified
9	247m NE	Roofed Storage Tank	Commercial Activity: Distribution Or Storage	20/06/2014

This data is sourced from Ordnance Survey.

4.3 Current or recent petrol stations

Records within 500m	**0**

Open, closed, under development and obsolete petrol stations.

This data is sourced from Experian.

4.4 Electricity cables

Records within 500m	**0**

High voltage underground electricity transmission cables.

This data is sourced from National Grid.

4.5 Gas pipelines

Records within 500m	0

High pressure underground gas transmission pipelines.

This data is sourced from National Grid.

4.6 Sites determined as Contaminated Land

Records within 500m	0

Contaminated Land Register of sites designated under Part 2a of the Environmental Protection Act 1990.

This data is sourced from Local Authority records.

4.7 Control of Major Accident Hazards (COMAH)

Records within 500m	0

Control of Major Accident Hazards (COMAH) sites. This data includes upper and lower tier sites, and includes a historical archive of COMAH sites and Notification of Installations Handling Hazardous Substances (NIHHS) records.

This data is sourced from the Health and Safety Executive.

4.8 Regulated explosive sites

Records within 500m	0

Sites registered and licensed by the Health and Safety Executive under the Manufacture and Storage of Explosives Regulations 2005 (MSER). The last update to this data was in April 2011.

This data is sourced from the Health and Safety Executive.

4.9 Hazardous substance storage/usage

Records within 500m	0

Consents granted for a site to hold certain quantities of hazardous substances at or above defined limits in accordance with the Planning (Hazardous Substances) Regulations 2015.

This data is sourced from Local Authority records.

4.10 Historical licensed industrial activities (IPC)

Records within 500m	0

Integrated Pollution Control (IPC) records of substance releases to air, land and water. This data represents a historical archive as the IPC regime has been superseded.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.11 Licensed industrial activities (Part A(1))

Records within 500m	0

Records of Part A(1) installations regulated under the Environmental Permitting (England and Wales) Regulations 2016 for the release of substances to the environment.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.12 Licensed pollutant release (Part A(2)/B)

Records within 500m	0

Records of Part A(2) and Part B installations regulated under the Environmental Permitting (England and Wales) Regulations 2016 for the release of substances to the environment.

This data is sourced from Local Authority records.

4.13 Radioactive Substance Authorisations

Records within 500m	0

Records of the storage, use, accumulation and disposal of radioactive substances regulated under the Radioactive Substances Act 1993.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.14 Licensed Discharges to controlled waters

Records within 500m	3

Discharges of treated or untreated effluent to controlled waters under the Water Resources Act 1991.

Features are displayed on the Current industrial land use map on **page 27 >**

ID	Location	Address	Details	
1	12m NW	REAR OF THE LAWNS & BIRCHLEY, OLD B, REAR OF THE LAWNS & BIRCHLEY, OL, D BATH ROAD, SONNING, BERKS	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: CTWC.0117 Permit Version: 1 Receiving Water: GRAVEL	Status: LAPSED UNDER SCHEDULE 23 ENVIRONMENT ACT 1995 Issue date: 24/05/1985 Effective Date: 24/05/1985 Revocation Date: 01/10/1996
A	494m S	Willowside, Willowside	Effluent Type: SEWAGE DISCHARGES - PUMPING STATION - WATER COMPANY Permit Number: TEMP.2266 Permit Version: 2 Receiving Water: River Loddon	Status: SURRENDERED UNDER EPR 2010 Issue date: 03/09/2010 Effective Date: 03/09/2010 Revocation Date: 19/08/2014
A	494m S	Willowside, Willowside	Effluent Type: SEWAGE DISCHARGES - PUMPING STATION - WATER COMPANY Permit Number: TEMP.2266 Permit Version: 1 Receiving Water: RIVER LODDON	Status: TEMPORARY CONSENTS (WATER ACT 1989, SECTION 113) Issue date: 02/11/1989 Effective Date: 02/11/1989 Revocation Date: 02/09/2010

This data is sourced from the Environment Agency and Natural Resources Wales.

4.15 Pollutant release to surface waters (Red List)

Records within 500m	0

Discharges of specified substances under the Environmental Protection (Prescribed Processes and Substances) Regulations 1991.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.16 Pollutant release to public sewer

Records within 500m	0

Discharges of Special Category Effluents to the public sewer.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.17 List 1 Dangerous Substances

Records within 500m	0

Discharges of substances identified on List I of European Directive E 2006/11/EC, and regulated under the Environmental Damage (Prevention and Remediation) Regulations 2015.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.18 List 2 Dangerous Substances

Records within 500m	0

Discharges of substances identified on List II of European Directive E 2006/11/EC, and regulated under the Environmental Damage (Prevention and Remediation) Regulations 2015.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.19 Pollution Incidents (EA/NRW)

Records within 500m	0

Records of substantiated pollution incidents. Since 2006 this data has only included category 1 (major) and 2 (significant) pollution incidents.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.20 Pollution inventory substances

Records within 500m	0

The pollution inventory (substances) includes reporting on annual emissions of certain regulated substances to air, controlled waters and land. A reporting threshold for each substance is also included. Where emissions fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.

4.21 Pollution inventory waste transfers

Records within 500m	0

The pollution inventory (waste transfers) includes reporting on annual transfers and recovery/disposal of controlled wastes from a site. A reporting threshold for each waste type is also included. Where releases fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.

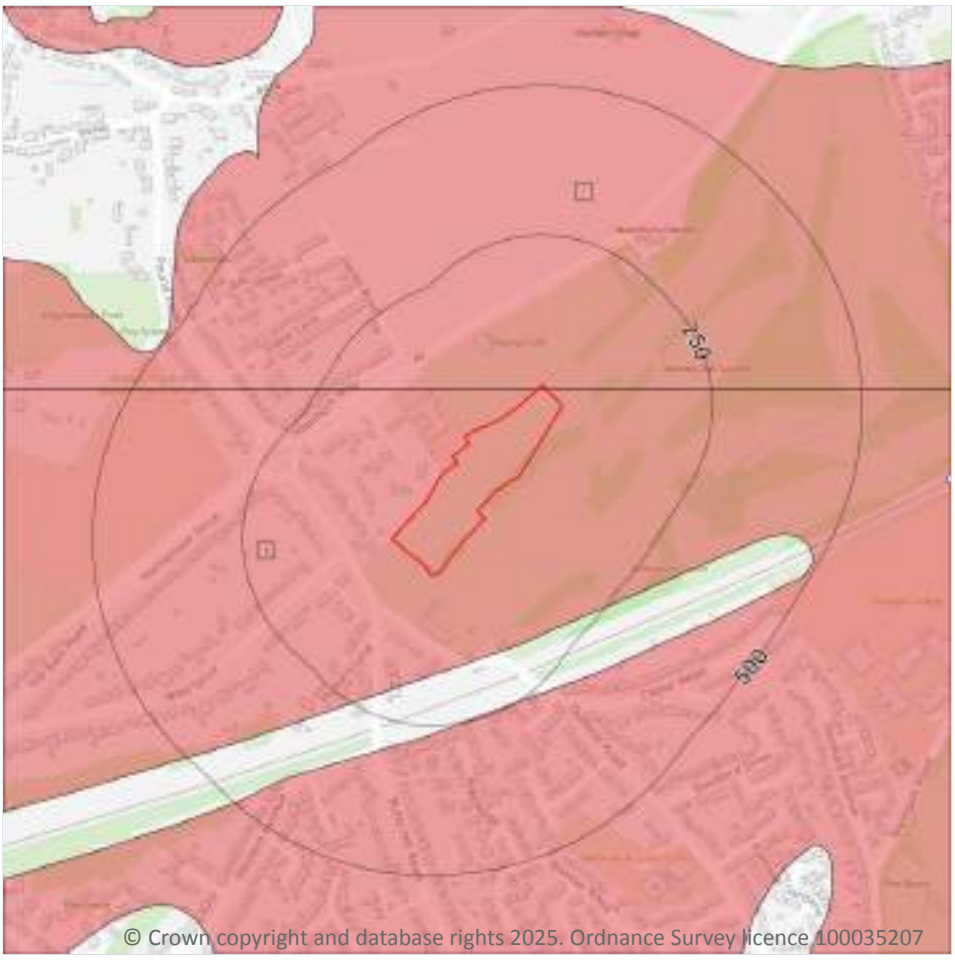
4.22 Pollution inventory radioactive waste

Records within 500m	0

The pollution inventory (radioactive wastes) includes reporting on annual releases of radioactive substances from a site, including the means of release. Where releases fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.

5 Hydrogeology - Superficial aquifer



Site Outline

Search buffers in metres (m)

- Principal
- Secondary A
- Secondary B
- Secondary Undifferentiated
- Unproductive
- Unknown

5.1 Superficial aquifer

Records within 500m	2

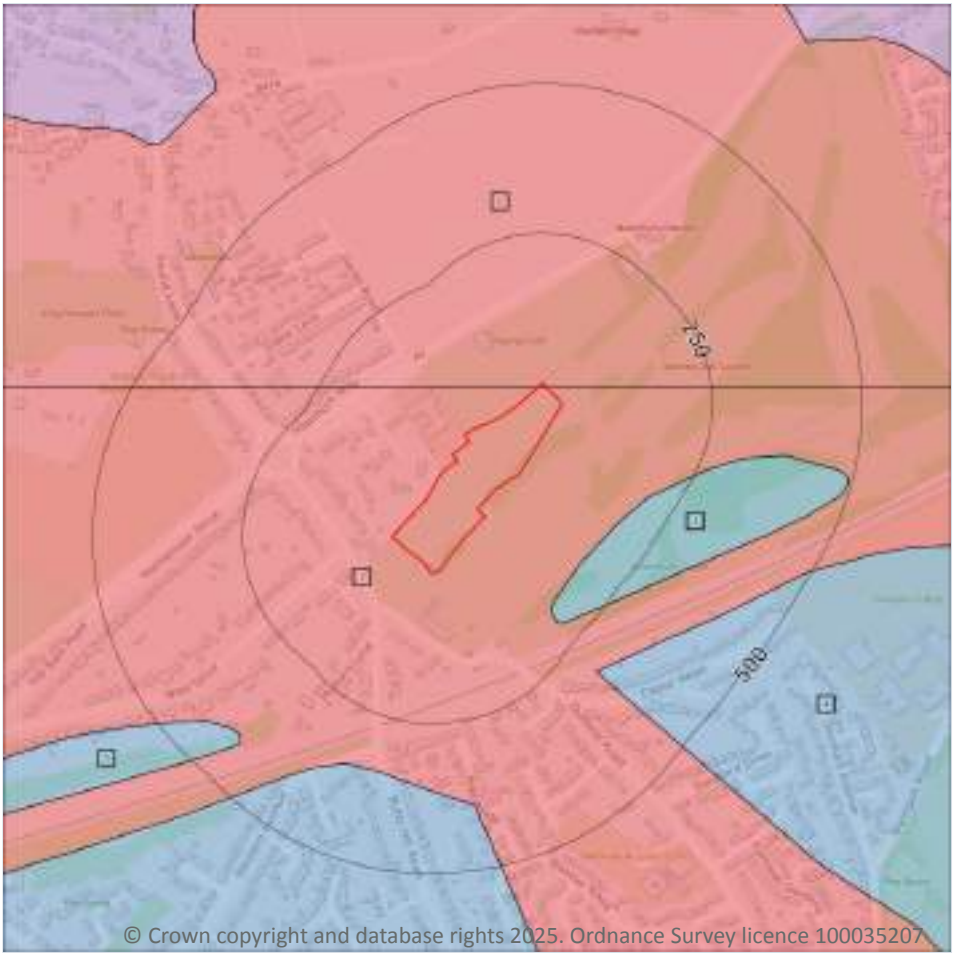
Aquifer status of groundwater held within superficial geology.

Features are displayed on the Hydrogeology map on **page 33 >**

ID	Location	Designation	Description
1	On site	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
2	On site	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers

This data is sourced from the British Geological Survey, the Environment Agency and Natural Resources Wales.

Bedrock aquifer



Site Outline

Search buffers in metres (m)

- Principal
- Secondary A
- Secondary B
- Secondary Undifferentiated
- Unproductive

5.2 Bedrock aquifer

Records within 500m	5

Aquifer status of groundwater held within bedrock geology.

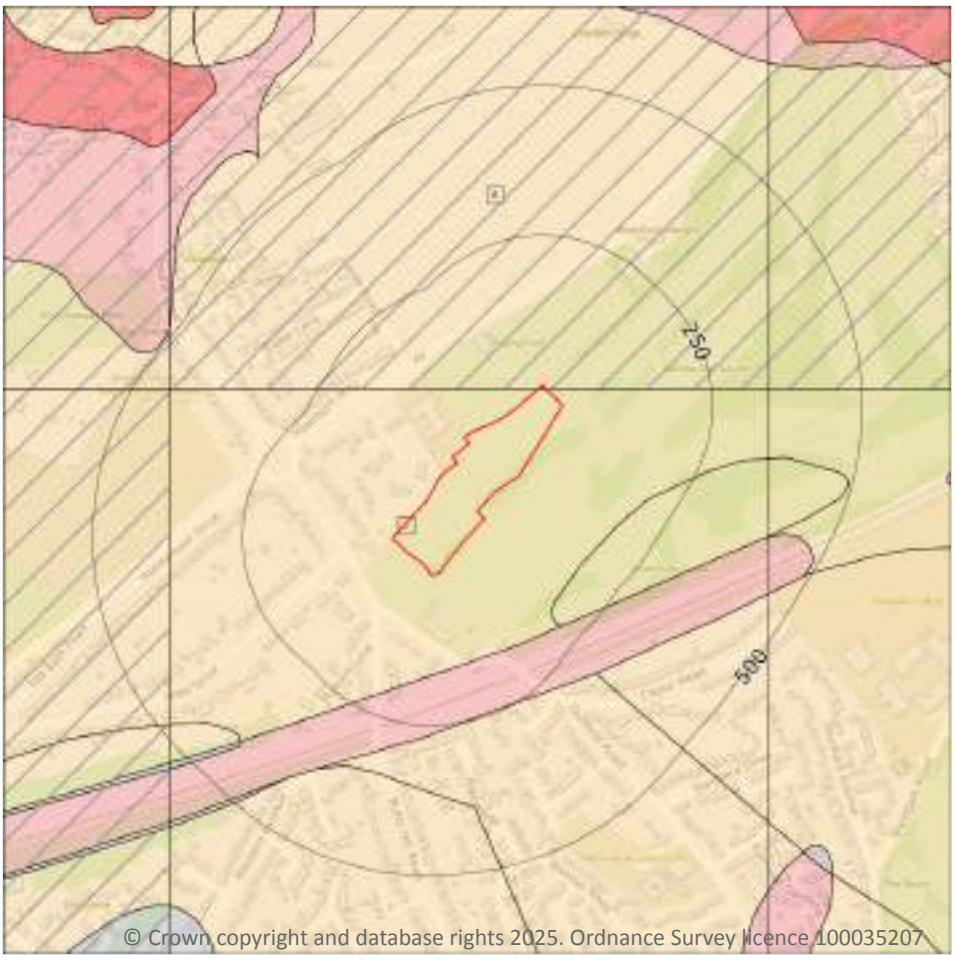
Features are displayed on the Bedrock aquifer map on **page 35 >**

ID	Location	Designation	Description
1	On site	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
2	On site	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers

ID	Location	Designation	Description
3	176m SE	Unproductive	These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow
4	310m SE	Unproductive	These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow
5	415m SW	Unproductive	These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow

This data is sourced from the British Geological Survey, the Environment Agency and Natural Resources Wales.

Groundwater vulnerability



Site Outline

Search buffers in metres (m)

Superficial vulnerability

- Principal superficial aquifer, high vulnerability
- Secondary superficial aquifer, high vulnerability
- Principal superficial aquifer, medium vulnerability
- Secondary superficial aquifer, medium vulnerability
- Principal superficial aquifer, low vulnerability
- Secondary superficial aquifer, low vulnerability

Bedrock vulnerability

- Principal bedrock aquifer, high vulnerability
- Secondary bedrock aquifer, high vulnerability
- Principal bedrock aquifer, medium vulnerability
- Secondary bedrock aquifer, medium vulnerability
- Principal bedrock aquifer, low vulnerability
- Secondary bedrock aquifer, low vulnerability

Other information

- Unproductive aquifer
- Soluble rock risk
- Local information

5.3 Groundwater vulnerability

Records within 50m	2

An assessment of the vulnerability of groundwater to a pollutant discharged at ground level based on the hydrological, geological, hydrogeological and soil properties within a one kilometre square grid. Groundwater vulnerability is described as High, Medium or Low as follows:

- High - Areas able to easily transmit pollution to groundwater. They are likely to be characterised by high leaching soils and the absence of low permeability superficial deposits.
- Medium - Intermediate between high and low vulnerability.
- Low - Areas that provide the greatest protection from pollution. They are likely to be characterised by low leaching soils and/or the presence of superficial deposits characterised by a low permeability.

Features are displayed on the Groundwater vulnerability map on **page 37 >**

ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
1	On site	Summary Classification: Secondary superficial aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: High Infiltration value: >70% Dilution value: <300mm/year	Vulnerability: High Aquifer type: Secondary Thickness: <3m Patchiness value: <90% Recharge potential: High	Vulnerability: High Aquifer type: Secondary Flow mechanism: Mixed
A	On site	Summary Classification: Secondary superficial aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: High Infiltration value: >70% Dilution value: <300mm/year	Vulnerability: High Aquifer type: Secondary Thickness: <3m Patchiness value: <90% Recharge potential: High	Vulnerability: High Aquifer type: Secondary Flow mechanism: Well connected fractures

This data is sourced from the British Geological Survey, the Environment Agency and Natural Resources Wales.

5.4 Groundwater vulnerability- soluble rock risk

Records on site	1

This dataset identifies areas where solution features that enable rapid movement of a pollutant may be present within a 1km grid square.

ID	Maximum soluble risk category	Percentage of grid square covered by maximum risk
A	**Very significant soluble rocks are likely to be present with a high possibility of localised subsidence or dissolution-related degradation of bedrock occurring naturally, especially in adverse conditions such as concentrated surface or subsurface water flow.**	**5.0%**

This data is sourced from the British Geological Survey and the Environment Agency.

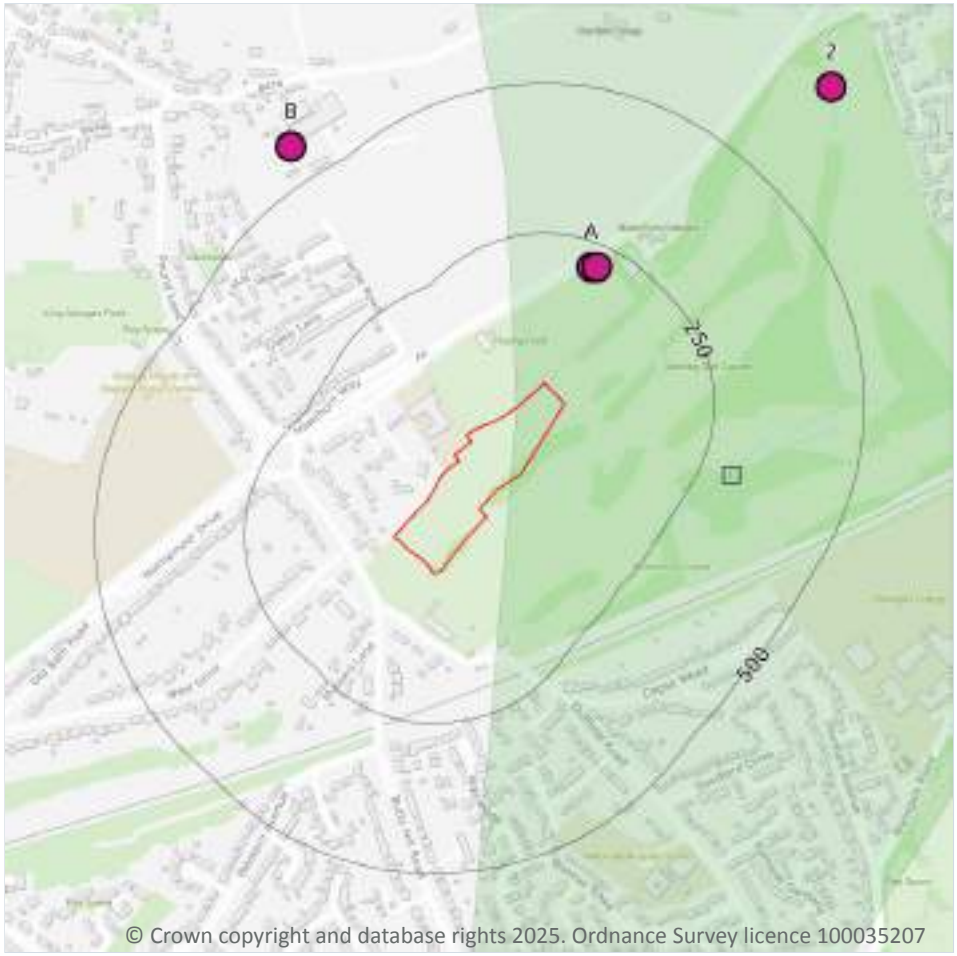
5.5 Groundwater vulnerability- local information

Records on site	0

This dataset identifies areas where additional local information affecting vulnerability is held by the Environment Agency. Further information can be obtained by contacting the Environment Agency local Area groundwater team through the Environment Agency National Customer Call Centre on 03798 506 506 or by email on enquiries@environment-agency.gov.uk ↗.

This data is sourced from the British Geological Survey and the Environment Agency.

Abstractions and Source Protection Zones



Site Outline

Search buffers in metres (m)

- Source Protection Zone 1 — Inner catchment
- Source Protection Zone 2 — Outer catchment
- Source Protection Zone 3 — Total catchment
- Source Protection Zone 4 — Zone of Special Interest
- Source Protection Zone 1c — Inner catchment - confined aquifer
- Source Protection Zone 2c — Outer catchment - confined aquifer
- Source Protection Zone 3c — Total catchment - confined aquifer
- Drinking water abstraction licences
- Drinking water abstraction licences — Polygon features
- Drinking water abstraction licences — Linear features
- Groundwater abstraction licence (point)
- Groundwater abstraction licence (area)
- Groundwater abstraction licence (linear)
- Surface Water Abstractions (point)
- Surface Water Abstractions (area)
- Surface Water Abstractions (linear)

5.6 Groundwater abstractions

Records within 2000m	34

Licensed groundwater abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, between two points (line data) or a larger area.

Features are displayed on the Abstractions and Source Protection Zones map on **page 39 >**

ID	Location	Details	
A	209m N	Status: Historical Licence No: 28/39/24/0070 Details: Spray Irrigation - Direct Direct Source: THAMES GROUNDWATER Point: SONNING GOLF CLUB, MODEL FARM, BATH RD, SONNING - BOREHOLE Data Type: Point Name: SONNING GOLF CLUB LTD Easting: 476700 Northing: 175200	Annual Volume (m^3): 37890 Max Daily Volume (m^3): 345 Original Application No: - Original Start Date: 14/11/1966 Expiry Date: - Issue No: 101 Version Start Date: 20/12/2006 Version End Date: -
A	213m NE	Status: Active Licence No: 28/39/24/0070 Details: Spray Irrigation - Direct Direct Source: THAMES GROUNDWATER Point: SONNING GOLF CLUB, MODEL FARM, BATH RD, SONNING - BOREHOLE Data Type: Point Name: SONNING GOLF CLUB LTD Easting: 476710 Northing: 175200	Annual Volume (m^3): 37890 Max Daily Volume (m^3): 345 Original Application No: NPS/WR/019276 Original Start Date: 14/11/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/04/2016 Version End Date: -
B	561m NW	Status: Active Licence No: 28/39/23/0154 Details: Spray Irrigation - Direct Direct Source: THAMES GROUNDWATER Point: SONNING FARM, SONNING (A) Data Type: Point Name: UNIVERSITY OF READING Easting: 476200 Northing: 175400	Annual Volume (m^3): 43188 Max Daily Volume (m^3): 727.46 Original Application No: WR.A/348/12 Original Start Date: 25/09/1980 Expiry Date: - Issue No: 100 Version Start Date: 25/09/1980 Version End Date: -
B	561m NW	Status: Active Licence No: 28/39/23/0154 Details: General Farming & Domestic Direct Source: THAMES GROUNDWATER Point: SONNING FARM, SONNING (A) Data Type: Point Name: UNIVERSITY OF READING Easting: 476200 Northing: 175400	Annual Volume (m^3): 43188 Max Daily Volume (m^3): 727.46 Original Application No: WR.A/348/12 Original Start Date: 25/09/1980 Expiry Date: - Issue No: 100 Version Start Date: 25/09/1980 Version End Date: -
B	561m NW	Status: Historical Licence No: 28/39/23/0072 Details: General Farming & Domestic Direct Source: THAMES GROUNDWATER Point: SONNING FARM, SONNING (A) Data Type: Point Name: UNIVERSITY OF READING Easting: 476200 Northing: 175400	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 09/01/1967 Expiry Date: - Issue No: 100 Version Start Date: 09/01/1967 Version End Date: -

ID	Location	Details	
2	687m NE	Status: Historical Licence No: 28/39/24/0070 Details: Spray Irrigation - Direct Direct Source: THAMES GROUNDWATER Point: SONNING GOLF CLUB BOREHOLE Data Type: Point Name: SONNING GOLF CLUB LTD Easting: 477100 Northing: 175500	Annual Volume (m^3): 18184 Max Daily Volume (m^3): 220 Original Application No: - Original Start Date: 14/11/1966 Expiry Date: - Issue No: 100 Version Start Date: 15/04/1991 Version End Date: -
-	994m N	Status: Active Licence No: 28/39/23/0153 Details: Spray Irrigation - Direct Direct Source: THAMES GROUNDWATER Point: SONNING FARM, SONNING, BERKSHIRE Data Type: Point Name: UNIVERSITY OF READING Easting: 476600 Northing: 176000	Annual Volume (m^3): 13638 Max Daily Volume (m^3): 227.3 Original Application No: WR.A/348/13 Original Start Date: 25/09/1980 Expiry Date: - Issue No: 100 Version Start Date: 25/09/1980 Version End Date: -
-	1089m NW	Status: Historical Licence No: 28/39/23/0157 Details: General use relating to Secondary Category (Very Low Loss) Direct Source: THAMES GROUNDWATER Point: SONNING, BERKSHIRE Data Type: Point Name: UNIVERSITY OF BRISTOL Easting: 476000 Northing: 175900	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 13/04/1984 Expiry Date: - Issue No: 100 Version Start Date: 16/09/1988 Version End Date: -
-	1125m NW	Status: Historical Licence No: 28/39/23/0157 Details: General use relating to Secondary Category (Very Low Loss) Direct Source: THAMES GROUNDWATER Point: SONNING, BERKSHIRE Data Type: Point Name: ROTHAMSTED EXPERIMENTAL Easting: 476010 Northing: 175950	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 13/04/1984 Expiry Date: - Issue No: 101 Version Start Date: 01/04/2002 Version End Date: -

ID	Location	Details	
-	1156m NE	Status: Historical Licence No: 28/39/24/0205 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Household Direct Source: THAMES GROUNDWATER Point: WELL & BOREHOLES AT 36 OLD BATH ROAD, CHARVIL Data Type: Point Name: HUNT Easting: 477520 Northing: 175740	Annual Volume (m^3): 21400 Max Daily Volume (m^3): 100 Original Application No: WRA/5926 Original Start Date: 01/04/1991 Expiry Date: - Issue No: 100 Version Start Date: 02/04/1997 Version End Date: -
-	1343m NW	Status: Historical Licence No: 28/39/23/0148 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: THAMES GROUNDWATER Point: THE MILL, SONNING EYE, OXON Data Type: Point Name: R D RICHARDS & CO (MAIDENHEAD) LTD Easting: 475400 Northing: 175700	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 03/10/1979 Expiry Date: - Issue No: 100 Version Start Date: 07/09/1993 Version End Date: -
-	1360m NW	Status: Active Licence No: TH/039/0023/020 Details: Heat Pump Direct Source: THAMES GROUNDWATER Point: BOREHOLE AT THE MILL AT SONNING THEATRE Data Type: Point Name: Mill at Sonning (Theatre) Limited (The) Easting: 475435 Northing: 175775	Annual Volume (m^3): 102930 Max Daily Volume (m^3): 282 Original Application No: NPS/WR/018591 Original Start Date: 15/01/2016 Expiry Date: 31/03/2028 Issue No: 1 Version Start Date: 15/01/2016 Version End Date: -
-	1496m S	Status: Historical Licence No: 28/39/24/0043 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: THAMES GROUNDWATER Point: HEADLEY ROAD EAST, WOODLEY- BOREHOLE Data Type: Point Name: ADWEST STEERING LTD Easting: 477000 Northing: 173300	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 09/05/1966 Expiry Date: - Issue No: 100 Version Start Date: 11/06/1997 Version End Date: -

ID	Location	Details	
-	1496m S	Status: Historical Licence No: 28/39/24/0043 Details: Process water Direct Source: THAMES GROUNDWATER Point: HEADLEY ROAD EAST, WOODLEY- BOREHOLE Data Type: Point Name: ADWEST STEERING LTD Easting: 477000 Northing: 173300	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 09/05/1966 Expiry Date: - Issue No: 100 Version Start Date: 11/06/1997 Version End Date: -
-	1496m S	Status: Historical Licence No: 28/39/24/0043 Details: Heat Pump Direct Source: THAMES GROUNDWATER Point: HEADLEY ROAD EAST, WOODLEY- BOREHOLE Data Type: Point Name: ADWEST STEERING LTD Easting: 477000 Northing: 173300	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 09/05/1966 Expiry Date: - Issue No: 100 Version Start Date: 11/06/1997 Version End Date: -
-	1496m S	Status: Historical Licence No: 28/39/24/0043 Details: Non-Evaporative Cooling Direct Source: THAMES GROUNDWATER Point: HEADLEY ROAD EAST, WOODLEY- BOREHOLE Data Type: Point Name: ADWEST STEERING LTD Easting: 477000 Northing: 173300	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 09/05/1966 Expiry Date: - Issue No: 100 Version Start Date: 11/06/1997 Version End Date: -
-	1500m S	Status: Historical Licence No: 28/39/24/0043 Details: Heat Pump Direct Source: THAMES GROUNDWATER Point: HEADLEY ROAD EAST, WOODLEY- BOREHOLE Data Type: Point Name: WESTERN THOMSON CONTROLS LTD Easting: 477010 Northing: 173300	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 09/05/1966 Expiry Date: - Issue No: 102 Version Start Date: 22/12/2003 Version End Date: -
-	1500m S	Status: Historical Licence No: 28/39/24/0043 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: THAMES GROUNDWATER Point: HEADLEY ROAD EAST, WOODLEY- BOREHOLE Data Type: Point Name: WESTERN THOMSON CONTROLS LTD Easting: 477010 Northing: 173300	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 09/05/1966 Expiry Date: - Issue No: 102 Version Start Date: 22/12/2003 Version End Date: -

ID	Location	Details	
-	1500m S	Status: Historical Licence No: 28/39/24/0043 Details: Non-Evaporative Cooling Direct Source: THAMES GROUNDWATER Point: HEADLEY ROAD EAST, WOODLEY- BOREHOLE Data Type: Point Name: WESTERN THOMSON CONTROLS LTD Easting: 477010 Northing: 173300	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 09/05/1966 Expiry Date: - Issue No: 102 Version Start Date: 22/12/2003 Version End Date: -
-	1500m S	Status: Historical Licence No: 28/39/24/0043 Details: Process water Direct Source: THAMES GROUNDWATER Point: HEADLEY ROAD EAST, WOODLEY- BOREHOLE Data Type: Point Name: WESTERN THOMSON CONTROLS LTD Easting: 477010 Northing: 173300	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 09/05/1966 Expiry Date: - Issue No: 102 Version Start Date: 22/12/2003 Version End Date: -
-	1563m NW	Status: Historical Licence No: 28/39/23/0172 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: THAMES GROUNDWATER Point: FOLLEY GRAVEL PIT, SONNING EYE Data Type: Point Name: READING SAILING CLUB Easting: 475000 Northing: 175500	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 18/02/1994 Expiry Date: - Issue No: 101 Version Start Date: 01/04/2004 Version End Date: -
-	1565m S	Status: Historical Licence No: 28/39/24/0043 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: THAMES GROUNDWATER Point: HEADLEY ROAD EAST, WOODLEY, READING- BOREHOLE Data Type: Point Name: Magal AWT Limited Easting: 477010 Northing: 173230	Annual Volume (m^3): 136378 Max Daily Volume (m^3): 375 Original Application No: NPS/WR/026344 Original Start Date: 09/05/1966 Expiry Date: - Issue No: 105 Version Start Date: 15/06/2017 Version End Date: -

ID	Location	Details	
-	1565m S	Status: Historical Licence No: 28/39/24/0043 Details: Heat Pump Direct Source: THAMES GROUNDWATER Point: HEADLEY ROAD EAST, WOODLEY, READING-BOREHOLE Data Type: Point Name: Magal AWT Limited Easting: 477010 Northing: 173230	Annual Volume (m^3): 136378 Max Daily Volume (m^3): 375 Original Application No: NPS/WR/026344 Original Start Date: 09/05/1966 Expiry Date: - Issue No: 105 Version Start Date: 15/06/2017 Version End Date: -
-	1565m S	Status: Historical Licence No: 28/39/24/0043 Details: Process Water Direct Source: THAMES GROUNDWATER Point: HEADLEY ROAD EAST, WOODLEY, READING-BOREHOLE Data Type: Point Name: Magal AWT Limited Easting: 477010 Northing: 173230	Annual Volume (m^3): 136378 Max Daily Volume (m^3): 375 Original Application No: NPS/WR/026344 Original Start Date: 09/05/1966 Expiry Date: - Issue No: 105 Version Start Date: 15/06/2017 Version End Date: -
-	1565m S	Status: Historical Licence No: 28/39/24/0043 Details: Non-Evaporative Cooling Direct Source: THAMES GROUNDWATER Point: HEADLEY ROAD EAST, WOODLEY, READING-BOREHOLE Data Type: Point Name: Magal AWT Limited Easting: 477010 Northing: 173230	Annual Volume (m^3): 136378 Max Daily Volume (m^3): 375 Original Application No: NPS/WR/026344 Original Start Date: 09/05/1966 Expiry Date: - Issue No: 105 Version Start Date: 15/06/2017 Version End Date: -
-	1623m NW	Status: Historical Licence No: 28/39/23/0036 Details: General Farming & Domestic Direct Source: THAMES GROUNDWATER Point: SONNING EYE, DUNSDEN (C) Data Type: Point Name: TRUSTEES OF PHILLIMORE FARMS Easting: 475200 Northing: 175900	Annual Volume (m^3): 5591 Max Daily Volume (m^3): 22.73 Original Application No: - Original Start Date: 11/07/1966 Expiry Date: - Issue No: 100 Version Start Date: 05/04/1992 Version End Date: -
-	1763m SE	Status: Historical Licence No: 28/39/24/0212 Details: Mineral Washing Direct Source: THAMES GROUNDWATER Point: WET PIT AT SANDFORD FARM, WOODLEY Data Type: Point Name: SUMMERLEAZE LIMITED Easting: 478240 Northing: 174200	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 09/07/1992 Expiry Date: 31/12/2004 Issue No: 100 Version Start Date: 23/04/1993 Version End Date: -

ID	Location	Details	
-	1763m SE	Status: Historical Licence No: 28/39/24/0246 Details: General Washing/Process Washing Direct Source: THAMES GROUNDWATER Point: SANDFORD FARM, WOODLEY, BERKS - WET PIT 'A' Data Type: Point Name: SUMMERLEAZE LIMITED Easting: 478240 Northing: 174200	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 05/08/2004 Expiry Date: 31/12/2005 Issue No: 1 Version Start Date: 05/08/2004 Version End Date: -
-	1763m SE	Status: Historical Licence No: 28/39/24/0246 Details: Make-Up or Top Up Water Direct Source: THAMES GROUNDWATER Point: SANDFORD FARM, WOODLEY, BERKS - WET PIT 'A' Data Type: Point Name: SUMMERLEAZE LIMITED Easting: 478240 Northing: 174200	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 05/08/2004 Expiry Date: 31/12/2005 Issue No: 1 Version Start Date: 05/08/2004 Version End Date: -
-	1763m SE	Status: Historical Licence No: 28/39/24/0246 Details: Mineral Washing Direct Source: THAMES GROUNDWATER Point: SANDFORD FARM, WOODLEY, BERKS - WET PIT 'A' Data Type: Point Name: SUMMERLEAZE LIMITED Easting: 478240 Northing: 174200	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 05/08/2004 Expiry Date: 31/12/2005 Issue No: 1 Version Start Date: 05/08/2004 Version End Date: -
-	1763m SE	Status: Historical Licence No: 28/39/24/0216 Details: Process Water Direct Source: THAMES GROUNDWATER Point: MOHAWK WAY, WOODLEY Data Type: Point Name: RMC MATERIALS LIMITED Easting: 478240 Northing: 174200	Annual Volume (m^3): 25000 Max Daily Volume (m^3): 120 Original Application No: - Original Start Date: 23/04/1993 Expiry Date: 31/12/2008 Issue No: 102 Version Start Date: 20/04/2005 Version End Date: -
-	1786m NW	Status: Historical Licence No: 28/39/23/0036 Details: General Farming & Domestic Direct Source: THAMES GROUNDWATER Point: SONNING EYE, DUNSDEN (B) Data Type: Point Name: TRUSTEES OF PHILLIMORE FARMS Easting: 475000 Northing: 175900	Annual Volume (m^3): 5591 Max Daily Volume (m^3): 22.73 Original Application No: - Original Start Date: 11/07/1966 Expiry Date: - Issue No: 100 Version Start Date: 05/04/1992 Version End Date: -

ID	Location	Details	
-	1855m NE	Status: Historical Licence No: 28/39/24/0185 Details: General Washing/Process Washing Direct Source: THAMES GROUNDWATER Point: OLD BATH ROAD, TWYFORD - BOREHOLE Data Type: Point Name: HANSON QUARRY PROD EUROPE LTD Easting: 478200 Northing: 176000	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 23/01/1982 Version End Date: -
-	1855m NE	Status: Historical Licence No: 28/39/24/0185 Details: Process water Direct Source: THAMES GROUNDWATER Point: OLD BATH ROAD, TWYFORD - BOREHOLE Data Type: Point Name: HANSON QUARRY PROD EUROPE LTD Easting: 478200 Northing: 176000	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 23/01/1982 Version End Date: -

This data is sourced from the Environment Agency and Natural Resources Wales.

5.7 Surface water abstractions

Records within 2000m	**8**

Licensed surface water abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, a stretch of watercourse or a larger area.

Features are displayed on the Abstractions and Source Protection Zones map on **page 39 >**

ID	Location	Details	
-	1200m NW	Status: Historical Licence No: 28/39/23/0073 Details: Spray Irrigation - Direct Direct Source: THAMES SURFACE WATER - NON TIDAL Point: SONNING FARM, SONNING, BERKSHIRE Data Type: Line Name: UNIVERSITY OF READING Easting: 475800 Northing: 175900	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 09/01/1967 Expiry Date: - Issue No: 100 Version Start Date: 09/01/1967 Version End Date: -

ID	Location	Details	
-	1200m NW	Status: Historical Licence No: 28/39/23/0073 Details: Spray Irrigation - Direct Direct Source: THAMES SURFACE WATER - NON TIDAL Point: RIVER THAMES AT SONNING FARM, SONNING, BERKSHIRE Data Type: Line Name: UNIVERSITY OF READING Easting: 475800 Northing: 175900	Annual Volume (m^3): 6000 Max Daily Volume (m^3): 590.98 Original Application No: WR.A/348/4 Original Start Date: 09/01/1967 Expiry Date: - Issue No: 100 Version Start Date: 09/01/1967 Version End Date: -
-	1254m NW	Status: Historical Licence No: 28/39/23/0038 Details: Spray Irrigation - Direct Direct Source: THAMES SURFACE WATER - NON TIDAL Point: SONNING EYE, - RIVER THAMES, POINTS 'K' TO 'L' Data Type: Line Name: TRUSTEES OF PHILLIMORE FARMS Easting: 475600 Northing: 175800	Annual Volume (m^3): 45460 Max Daily Volume (m^3): 636.44 Original Application No: - Original Start Date: 11/07/1966 Expiry Date: - Issue No: 100 Version Start Date: 05/04/1992 Version End Date: -
-	1412m NW	Status: Historical Licence No: TH/039/0023/004 Details: Hydroelectric Power Generation Direct Source: THAMES SURFACE WATER - NON TIDAL Point: RIVER THAMES AT SONNING MILL ISLAND Data Type: Point Name: Pridewater Estates Limited Easting: 475218 Northing: 175564	Annual Volume (m^3): 340588800 Max Daily Volume (m^3): 933120 Original Application No: NPS/WR/025319 Original Start Date: 30/01/2017 Expiry Date: 31/03/2028 Issue No: 5 Version Start Date: 31/07/2017 Version End Date: -
-	1428m NW	Status: Historical Licence No: 28/39/23/0038 Details: Spray Irrigation - Direct Direct Source: THAMES SURFACE WATER - NON TIDAL Point: SONNING EYE, - RIVER THAMES, POINTS 'H' TO 'J' Data Type: Line Name: TRUSTEES OF PHILLIMORE FARMS Easting: 475100 Northing: 175400	Annual Volume (m^3): 45460 Max Daily Volume (m^3): 636.44 Original Application No: - Original Start Date: 11/07/1966 Expiry Date: - Issue No: 100 Version Start Date: 05/04/1992 Version End Date: -

ID	Location	Details	
-	1673m W	Status: Historical Licence No: 28/39/23/0038 Details: Spray Irrigation - Direct Direct Source: THAMES SURFACE WATER - NON TIDAL Point: SONNING EYE - RIVER THAMES, POINTS 'F' TO 'G' Data Type: Line Name: TRUSTEES OF PHILLIMORE FARMS Easting: 474500 Northing: 174800	Annual Volume (m^3): 45460 Max Daily Volume (m^3): 636.44 Original Application No: - Original Start Date: 11/07/1966 Expiry Date: - Issue No: 100 Version Start Date: 05/04/1992 Version End Date: -
-	1875m NW	Status: Historical Licence No: 28/39/23/0038 Details: Spray Irrigation - Direct Direct Source: THAMES SURFACE WATER - NON TIDAL Point: SONNING EYE - FLOODED GRAVEL PIT, POINT 'R' Data Type: Point Name: TRUSTEES OF PHILLIMORE FARMS Easting: 474700 Northing: 175600	Annual Volume (m^3): 45460 Max Daily Volume (m^3): 636.44 Original Application No: - Original Start Date: 11/07/1966 Expiry Date: - Issue No: 100 Version Start Date: 05/04/1992 Version End Date: -
-	1899m N	Status: Historical Licence No: 28/39/23/0058 Details: Spray Irrigation - Direct Direct Source: THAMES SURFACE WATER - NON TIDAL Point: SHIPLAKE, OXON, BETWEEN POINTS B AND C Data Type: Line Name: F E Doble And Son Easting: 476600 Northing: 177500	Annual Volume (m^3): 31367 Max Daily Volume (m^3): 818.28 Original Application No: - Original Start Date: 14/11/1966 Expiry Date: - Issue No: 101 Version Start Date: 04/10/2010 Version End Date: -

This data is sourced from the Environment Agency and Natural Resources Wales.

5.8 Potable abstractions

Records within 2000m	**6**

Licensed potable water abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, a stretch of watercourse or a larger area.

Features are displayed on the Abstractions and Source Protection Zones map on **page 39 >**

ID	Location	Details	
-	1156m NE	Status: Historical Licence No: 28/39/24/0205 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Household Direct Source: THAMES GROUNDWATER Point: WELL & BOREHOLES AT 36 OLD BATH ROAD, CHARVIL Data Type: Point Name: HUNT Easting: 477520 Northing: 175740	Annual Volume (m^3): 21400 Max Daily Volume (m^3): 100 Original Application No: WRA/5926 Original Start Date: 01/04/1991 Expiry Date: - Issue No: 100 Version Start Date: 02/04/1997 Version End Date: -
-	1343m NW	Status: Historical Licence No: 28/39/23/0148 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: THAMES GROUNDWATER Point: THE MILL, SONNING EYE, OXON Data Type: Point Name: R D RICHARDS & CO (MAIDENHEAD) LTD Easting: 475400 Northing: 175700	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 03/10/1979 Expiry Date: - Issue No: 100 Version Start Date: 07/09/1993 Version End Date: -
-	1496m S	Status: Historical Licence No: 28/39/24/0043 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: THAMES GROUNDWATER Point: HEADLEY ROAD EAST, WOODLEY- BOREHOLE Data Type: Point Name: ADWEST STEERING LTD Easting: 477000 Northing: 173300	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 09/05/1966 Expiry Date: - Issue No: 100 Version Start Date: 11/06/1997 Version End Date: -
-	1500m S	Status: Historical Licence No: 28/39/24/0043 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: THAMES GROUNDWATER Point: HEADLEY ROAD EAST, WOODLEY- BOREHOLE Data Type: Point Name: WESTERN THOMSON CONTROLS LTD Easting: 477010 Northing: 173300	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 09/05/1966 Expiry Date: - Issue No: 102 Version Start Date: 22/12/2003 Version End Date: -

ID	Location	Details	
-	1563m NW	Status: Historical Licence No: 28/39/23/0172 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: THAMES GROUNDWATER Point: FOLLEY GRAVEL PIT, SONNING EYE Data Type: Point Name: READING SAILING CLUB Easting: 475000 Northing: 175500	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 18/02/1994 Expiry Date: - Issue No: 101 Version Start Date: 01/04/2004 Version End Date: -
-	1565m S	Status: Historical Licence No: 28/39/24/0043 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: THAMES GROUNDWATER Point: HEADLEY ROAD EAST, WOODLEY, READING-BOREHOLE Data Type: Point Name: Magal AWT Limited Easting: 477010 Northing: 173230	Annual Volume (m^3): 136378 Max Daily Volume (m^3): 375 Original Application No: NPS/WR/026344 Original Start Date: 09/05/1966 Expiry Date: - Issue No: 105 Version Start Date: 15/06/2017 Version End Date: -

This data is sourced from the Environment Agency and Natural Resources Wales.

5.9 Source Protection Zones

Records within 500m	**1**

Source Protection Zones define the sensitivity of an area around a potable abstraction site to contamination.

Features are displayed on the Abstractions and Source Protection Zones map on **page 39 >**

ID	Location	Type	Description
1	**On site**	**3**	**Total catchment**

This data is sourced from the Environment Agency and Natural Resources Wales.

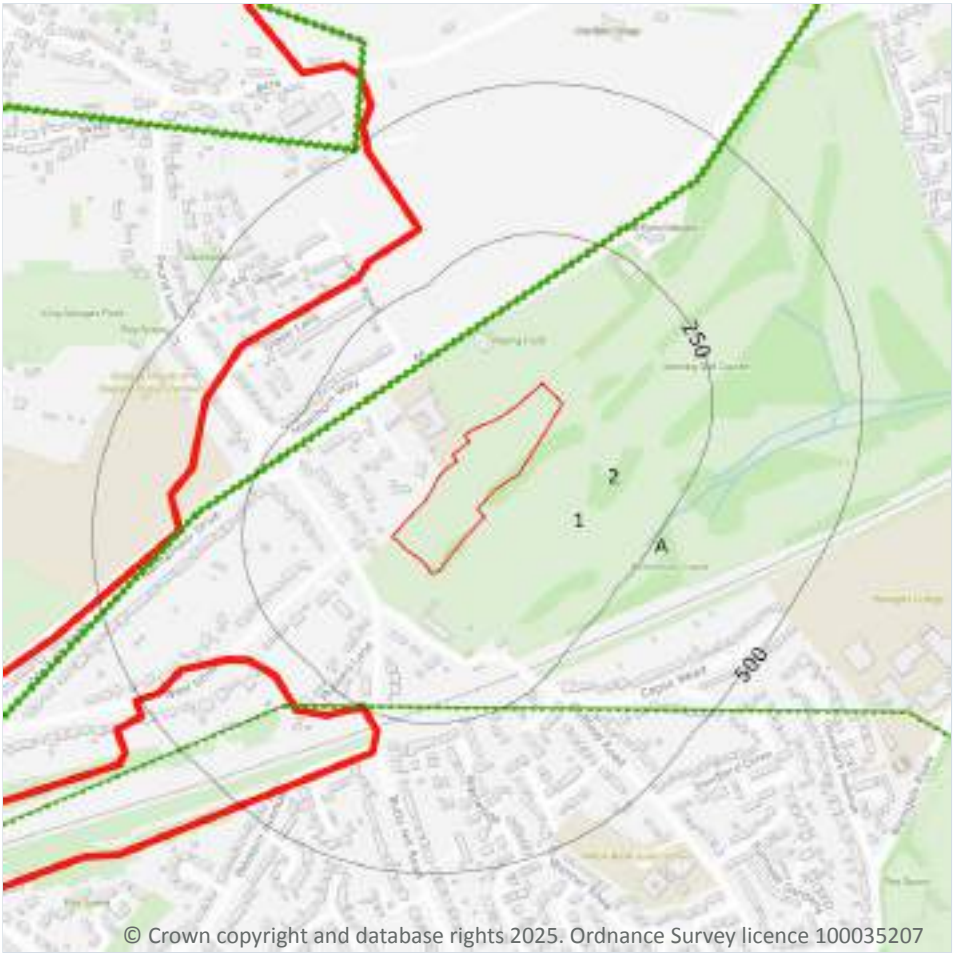
5.10 Source Protection Zones (confined aquifer)

Records within 500m	**0**

Source Protection Zones in the confined aquifer define the sensitivity around a deep groundwater abstraction to contamination. A confined aquifer would normally be protected from contamination by overlying geology and is only considered a sensitive resource if deep excavation/drilling is taking place.

This data is sourced from the Environment Agency and Natural Resources Wales.

6 Hydrology



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Site Outline

Search buffers in metres (m)

Water Network (OS MasterMap)

Surface water features (wider than 5m)

Surface water features (narrower than 5m)

WFD River, canal and surface water transfer water bodies

WFD Lake water bodies

WFD Transitional and coastal water bodies

WFD Surface water body catchments boundaries

WFD Groundwater body boundaries

6.1 Water Network (OS MasterMap)

Records within 250m **3**

Detailed water network of Great Britain showing the flow and precise central course of every river, stream, lake and canal.

Features are displayed on the Hydrology map on **page 52 >**

ID	Location	Type of water feature	Ground level	Permanence	Name
A	245m SE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-

ID	Location	Type of water feature	Ground level	Permanence	Name
A	248m SE	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
A	248m SE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-

This data is sourced from the Ordnance Survey.

6.2 Surface water features

Records within 250m	**2**

Covering rivers, streams and lakes (some overlap with OS MasterMap Water Network data in previous section) but additionally covers smaller features such as ponds. Rivers and streams narrower than 5m are represented as a single line. Lakes, ponds and rivers or streams wider than 5m are represented as polygons.

Features are displayed on the Hydrology map on **page 52 >**

This data is sourced from the Ordnance Survey.

6.3 WFD Surface water body catchments

Records on site	**1**

The Water Framework Directive is an EU-led framework for the protection of inland surface waters, estuaries, coastal waters and groundwater through river basin-level management planning. In terms of surface water, these basins are broken down into smaller units known as management, operational and water body catchments.

Features are displayed on the Hydrology map on **page 52 >**

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
1	**On site**	**River**	**Loddon (Swallowfield to River Thames confluence)**	**GB106039023160**	**Loddon**	**Loddon and Trib**

This data is sourced from the Environment Agency and Natural Resources Wales.

6.4 WFD Surface water bodies

Records identified	1

Surface water bodies under the Directive may be rivers, lakes, estuary or coastal. To achieve the purpose of the Directive, environmental objectives have been set and are reported on for each water body. The progress towards delivery of the objectives is then reported on by the relevant competent authorities at the end of each six-year cycle. The river water body directly associated with the catchment listed in the previous section is detailed below, along with any lake, canal, coastal or artificial water body within 250m of the site. Click on the water body ID in the table to visit the EA Catchment Explorer to find out more about each water body listed.

Features are displayed on the Hydrology map on **page 52 >**

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
-	2104m NE	River	Loddon (Swallowfield to River Thames confluence)	GB106039023160 ↗	Moderate	Fail	Moderate	2019

This data is sourced from the Environment Agency and Natural Resources Wales.

6.5 WFD Groundwater bodies

Records on site	1

Groundwater bodies are also covered by the Directive and the same regime of objectives and reporting detailed in the previous section is in place. Click on the water body ID in the table to visit the EA Catchment Explorer to find out more about each groundwater body listed.

Features are displayed on the Hydrology map on **page 52 >**

ID	Location	Name	Water body ID	Overall rating	Chemical rating	Quantitative	Year
2	**On site**	**Twyford Tertiaries**	**GB40602G602700 ↗**	**Good**	**Good**	**Good**	**2019**

This data is sourced from the Environment Agency and Natural Resources Wales.

7 River and coastal flooding

7.1 Risk of flooding from rivers and the sea

Records within 50m	0

The chance of flooding from rivers and/or the sea in any given year, based on cells of 50m within the Risk of Flooding from Rivers and Sea (RoFRaS)/Flood Risk Assessment Wales (FRAW) models. Each cell is allocated one of four flood risk categories, taking into account flood defences and their condition. The risk categories for RoFRaS for rivers and the sea and FRAW for rivers are; Very low (less than 1 in 1000 chance in any given year), Low (less than 1 in 100 but greater than or equal to 1 in 1000 chance), Medium (less than 1 in 30 but greater than or equal to 1 in 100 chance) or High (greater than or equal to 1 in 30 chance). The risk categories for FRAW for the sea are; Very low (less than 1 in 1000 chance in any given year), Low (less than 1 in 200 but greater than or equal to 1 in 1000 chance), Medium (less than 1 in 30 but greater than or equal to 1 in 200 chance) or High (greater than or equal to 1 in 30 chance).

This data is sourced from the Environment Agency and Natural Resources Wales.

7.2 Historical Flood Events

Records within 250m	0

Records of historic flooding from rivers, the sea, groundwater and surface water. Records began in 1946 when predecessor bodies started collecting detailed information about flooding incidents, although limited details may be included on flooding incidents prior to this date. Takes into account the presence of defences, structures, and other infrastructure where they existed at the time of flooding, and includes flood extents that may have been affected by overtopping, breaches or blockages.

This data is sourced from the Environment Agency and Natural Resources Wales.

7.3 Flood Defences

Records within 250m	0

Records of flood defences owned, managed or inspected by the Environment Agency and Natural Resources Wales. Flood defences can be structures, buildings or parts of buildings. Typically these are earth banks, stone and concrete walls, or sheet-piling that is used to prevent or control the extent of flooding.

This data is sourced from the Environment Agency and Natural Resources Wales.

7.4 Areas Benefiting from Flood Defences

Records within 250m	0

Areas that would benefit from the presence of flood defences in a 1 in 100 (1%) chance of flooding each year from rivers or 1 in 200 (0.5%) chance of flooding each year from the sea.

This data is sourced from the Environment Agency and Natural Resources Wales.

7.5 Flood Storage Areas

Records within 250m	0

Areas that act as a balancing reservoir, storage basin or balancing pond to attenuate an incoming flood peak to a flow level that can be accepted by the downstream channel or to delay the timing of a flood peak so that its volume is discharged over a longer period.

This data is sourced from the Environment Agency and Natural Resources Wales.

River and coastal flooding - Flood Zones

7.6 Flood Zone 2

Records within 50m	0

Areas of land at risk of flooding, when the presence of flood defences are ignored. Covering land between Flood Zone 3 (see next section) and the extent of the flooding from rivers or the sea with a 1 in 1000 (0.1%) chance of flooding each year.

This data is sourced from the Environment Agency and Natural Resources Wales.

7.7 Flood Zone 3

Records within 50m	0

Areas of land at risk of flooding, when the presence of flood defences are ignored. Covering land with a 1 in 100 (1%) or greater chance of flooding each year from rivers or a 1 in 200 (0.5%) or greater chance of flooding each year from the sea.

This data is sourced from the Environment Agency and Natural Resources Wales.

8 Surface water flooding



Site Outline
Search buffers in metres (m)

1 in 1000 return period
- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 250 return period
- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 100 return period
- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 30 return period
- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

8.1 Surface water flooding

Highest risk on site	**1 in 30 year, 0.3m - 1.0m**
Highest risk within 50m	**1 in 30 year, 0.3m - 1.0m**

Ambiental Risk Analytics surface water (pluvial) FloodMap identifies areas likely to flood as a result of extreme rainfall events, i.e. land naturally vulnerable to surface water ponding or flooding. This data set was produced by simulating 1 in 30 year, 1 in 100 year, 1 in 250 year and 1 in 1,000 year rainfall events. Modern urban drainage systems are typically built to cope with rainfall events between 1 in 20 and 1 in 30 years, though some older ones may flood in a 1 in 5 year rainfall event.

Features are displayed on the Surface water flooding map on **page 58 >**

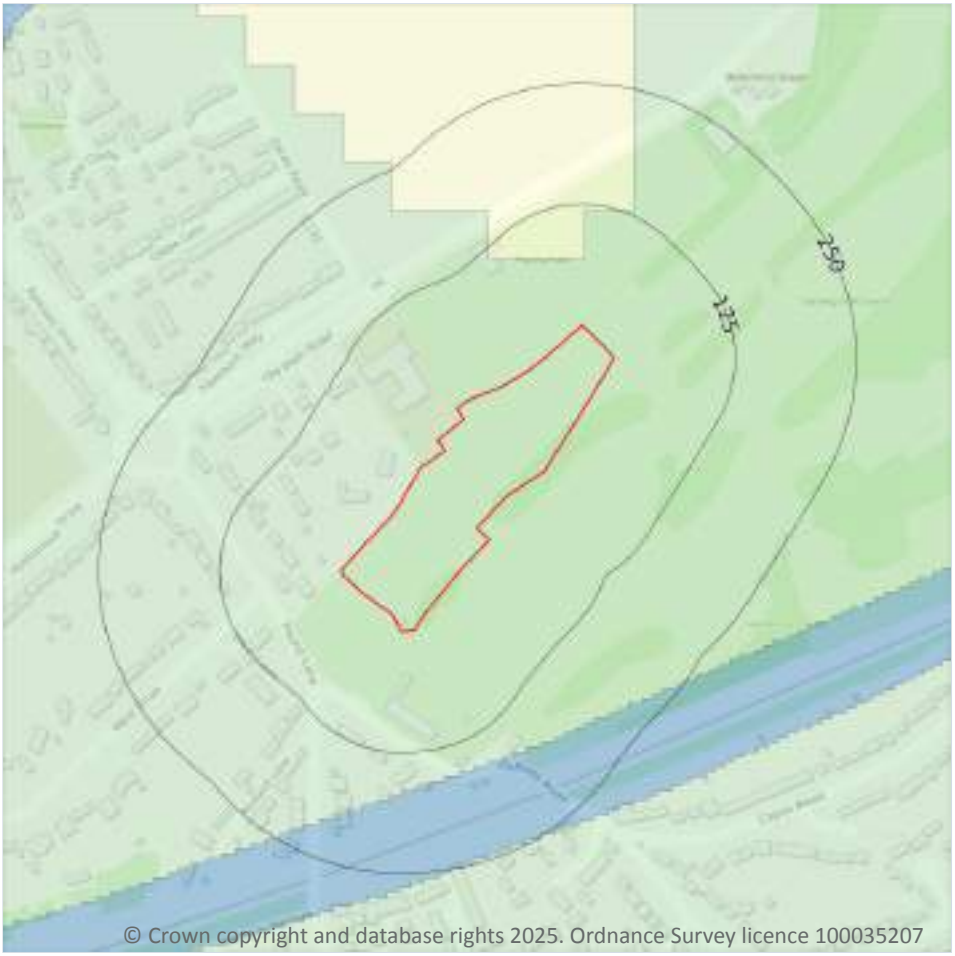
The data shown on the map and in the table above shows the highest likelihood of flood events happening at the site. Lower likelihood events may have greater flood depths and hence a greater potential impact on a site.

The table below shows the maximum flood depths for a range of return periods for the site.

Return period	Maximum modelled depth
1 in 1000 year	Between 0.3m and 1.0m
1 in 250 year	Between 0.3m and 1.0m
1 in 100 year	Between 0.3m and 1.0m
1 in 30 year	Between 0.3m and 1.0m

This data is sourced from Ambiental Risk Analytics.

9 Groundwater flooding



Site Outline

Search buffers in metres (m)

High

Moderate - High

Moderate

Low

Negligible

9.1 Groundwater flooding

Highest risk on site	**Low**
Highest risk within 50m	**Low**

Groundwater flooding is caused by unusually high groundwater levels. It occurs when the water table rises above the ground surface or within underground structures such as basements or cellars. Groundwater flooding tends to exhibit a longer duration than surface water flooding, possibly lasting for weeks or months, and as a result it can cause significant damage to property. This risk assessment is based on a 1 in 100 year return period and a 5m Digital Terrain Model (DTM).

Features are displayed on the Groundwater flooding map on **page 60 >**

This data is sourced from Ambiental Risk Analytics.

10 Environmental designations



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Site Outline

Search buffers in metres (m)

Local Nature Reserves (LNR)

Designated Ancient Woodland

10.1 Sites of Special Scientific Interest (SSSI)

Records within 2000m	0

Sites providing statutory protection for the best examples of UK flora, fauna, or geological or physiographical features. Originally notified under the National Parks and Access to the Countryside Act 1949, SSSIs were re-notified under the Wildlife and Countryside Act 1981. Improved provisions for the protection and management of SSSIs were introduced by the Countryside and Rights of Way Act 2000 (in England and Wales) and (in Scotland) by the Nature Conservation (Scotland) Act 2004 and the Wildlife and Natural Environment (Scotland) Act 2010.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.2 Conserved wetland sites (Ramsar sites)

Records within 2000m	0

Ramsar sites are designated under the Convention on Wetlands of International Importance, agreed in Ramsar, Iran, in 1971. They cover all aspects of wetland conservation and wise use, recognizing wetlands as ecosystems that are extremely important for biodiversity conservation in general and for the well-being of human communities. These sites cover a broad definition of wetland; marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, and even some marine areas.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.3 Special Areas of Conservation (SAC)

Records within 2000m	0

Areas which have been identified as best representing the range and variety within the European Union of habitats and (non-bird) species listed on Annexes I and II to the Directive. SACs are designated under the EC Habitats Directive.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.4 Special Protection Areas (SPA)

Records within 2000m	0

Sites classified by the UK Government under the EC Birds Directive, SPAs are areas of the most important habitat for rare (listed on Annex I to the Directive) and migratory birds within the European Union.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.5 National Nature Reserves (NNR)

Records within 2000m	0

Sites containing examples of some of the most important natural and semi-natural terrestrial and coastal ecosystems in Great Britain. They are managed to conserve their habitats, provide special opportunities for scientific study or to provide public recreation compatible with natural heritage interests.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.6 Local Nature Reserves (LNR)

Records within 2000m	2

Sites managed for nature conservation, and to provide opportunities for research and education, or simply enjoying and having contact with nature. They are declared by local authorities under the National Parks and Access to the Countryside Act 1949 after consultation with the relevant statutory nature conservation agency.

Features are displayed on the Environmental designations map on **page 61 >**

ID	Location	Name	Data source
2	756m NW	Ali's Pond	Natural England
B	1110m SE	Alder Moors	Natural England

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.7 Designated Ancient Woodland

Records within 2000m	16

Ancient woodlands are classified as areas which have been wooded continuously since at least 1600 AD. This includes semi-natural woodland and plantations on ancient woodland sites. 'Wooded continuously' does not mean there is or has previously been continuous tree cover across the whole site, and not all trees within the woodland have to be old.

Features are displayed on the Environmental designations map on **page 61 >**

ID	Location	Name	Woodland Type
1	271m SE	Holmemoor Copse	Ancient & Semi-Natural Woodland
A	747m E	Sandpit Copse (Epo2-3: Sandpit Copse)	Ancient & Semi-Natural Woodland
A	762m E	Sandpit Copse(tithe:salt Hill Moor)	Ancient & Semi-Natural Woodland
A	773m E	Sandpit Copse (Epo2-3: Sandpit Copse)	Ancient & Semi-Natural Woodland
A	779m E	Waingel Copse	Ancient & Semi-Natural Woodland
3	779m E	Norris's Copse(tithe:wiscomb Coppice)	Ancient & Semi-Natural Woodland
A	783m E	Sandpit Copse (Epo2-3: Sandpit Copse)	Ancient & Semi-Natural Woodland
B	1153m SE	Alder Moors(tithe:alder Moors)	Ancient & Semi-Natural Woodland
4	1215m SE	Alder Moors(tithe:alder Moors)	Ancient & Semi-Natural Woodland
C	1224m SE	Alder Moors(tithe:ridges Coppice)	Ancient & Semi-Natural Woodland
B	1272m SE	Alder Moors(tithe:alder Moors)	Ancient & Semi-Natural Woodland

ID	Location	Name	Woodland Type
B	1272m SE	Alder Moors(tithe:alder Moors)	Ancient & Semi-Natural Woodland
C	1405m SE	Alder Moors	Ancient & Semi-Natural Woodland
D	1665m SW	(Tithe:colcrafts Coppice)	Ancient & Semi-Natural Woodland
D	1687m SW	(Tithe:great Bramleys Park)	Ancient & Semi-Natural Woodland
-	1803m SW	(Tithe:great Bramleys Park)	Ancient & Semi-Natural Woodland

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.8 Biosphere Reserves

Records within 2000m	0

Biosphere Reserves are internationally recognised by UNESCO as sites of excellence to balance conservation and socioeconomic development between nature and people. They are recognised under the Man and the Biosphere (MAB) Programme with the aim of promoting sustainable development founded on the work of the local community.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.9 Forest Parks

Records within 2000m	0

These are areas managed by the Forestry Commission designated on the basis of recreational, conservation or scenic interest.

This data is sourced from the Forestry Commission.

10.10 Marine Conservation Zones

Records within 2000m	0

A type of marine nature reserve in UK waters established under the Marine and Coastal Access Act (2009). They are designated with the aim to protect nationally important, rare or threatened habitats and species.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.11 Green Belt

Records within 2000m	0

Areas designated to prevent urban sprawl by keeping land permanently open.

This data is sourced from the Ministry of Housing, Communities and Local Government.

10.12 Proposed Ramsar sites

Records within 2000m	0

Ramsar sites are areas listed as a Wetland of International Importance under the Convention on Wetlands of International Importance especially as Waterfowl Habitat (the Ramsar Convention) 1971. The sites here supplied have a status of 'Proposed' having been identified for potential adoption under the framework.

This data is sourced from Natural England.

10.13 Possible Special Areas of Conservation (pSAC)

Records within 2000m	0

Special Areas of Conservation are areas which have been identified as best representing the range and variety within the European Union of habitats and (non-bird) species listed on Annexes I and II to the Directive. SACs are designated under the EC Habitats Directive. Those sites supplied here are those with a status of 'Possible' having been identified for potential adoption under the framework.

This data is sourced from Natural England and Natural Resources Wales.

10.14 Potential Special Protection Areas (pSPA)

Records within 2000m	0

Special Protection Areas (SPAs) are areas designated (or 'classified') under the European Union Wild Birds Directive for the protection of nationally and internationally important populations of wild birds. Those sites supplied here are those with a status of 'Potential' having been identified for potential adoption under the framework.

This data is sourced from Natural England.

10.15 Nitrate Sensitive Areas

Records within 2000m	0

Areas where nitrate concentrations in drinking water sources exceeded or was at risk of exceeding the limit of 50 mg/l set by the 1980 EC Drinking Water Directive. Voluntary agricultural measures as a means of reducing the levels of nitrate were introduced by DEFRA as MAFF, with payments being made to farmers who complied. The scheme was started as a pilot in 1990 in ten areas, later implemented within 32 areas. The scheme was

closed to further new entrants in 1998, although existing agreements continued for their full term. All Nitrate Sensitive Areas fell within the areas designated as Nitrate Vulnerable Zones (NVZs) in 1996 under the EC Nitrate Directive (91/676/EEC).

This data is sourced from Natural England.

10.16 Nitrate Vulnerable Zones

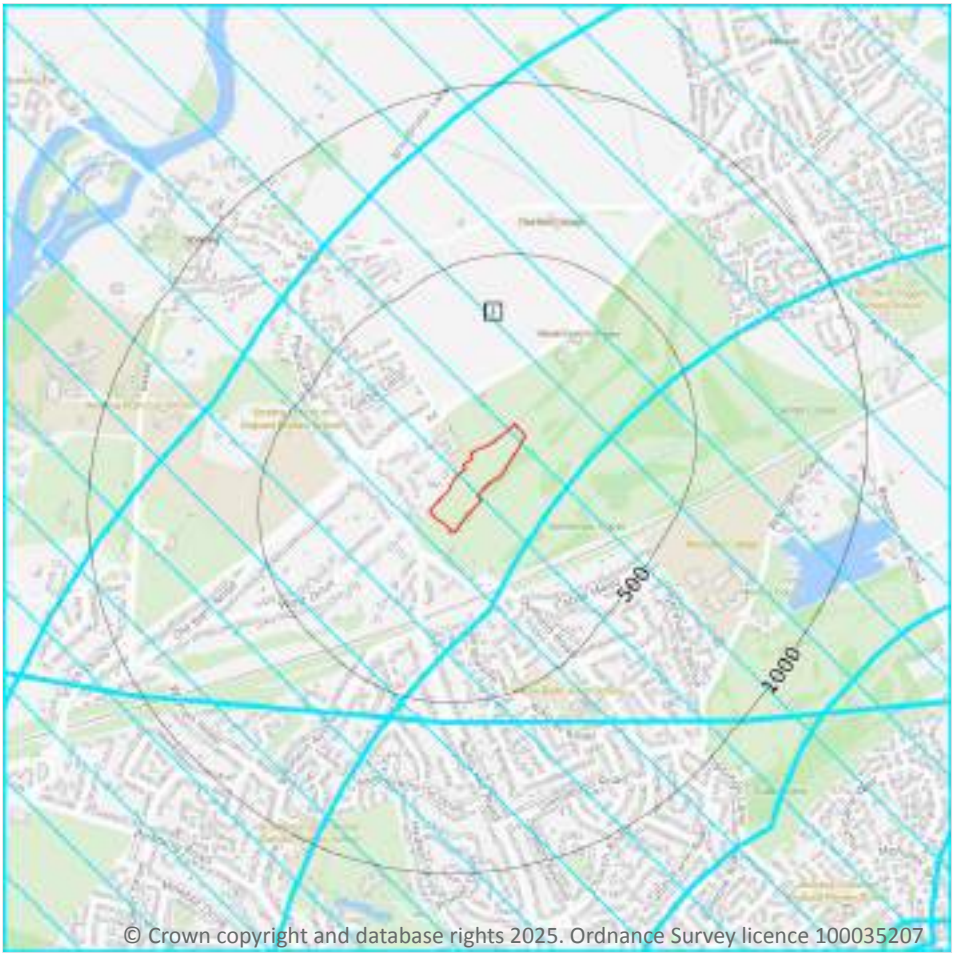
Records within 2000m	**4**

Areas at risk from agricultural nitrate pollution designated under the EC Nitrate Directive (91/676/EEC). These are areas of land that drain into waters polluted by nitrates. Farmers operating within these areas have to follow mandatory rules to tackle nitrate loss from agriculture.

Location	Name	Type	NVZ ID	Status
On site	**Sheeplands**	**Groundwater**	**88**	**Existing**
469m W	Sheeplands	Groundwater	88	Existing
976m N	Sheeplands	Groundwater	88	Existing
1802m NW	Sheeplands	Groundwater	88	Existing

This data is sourced from Natural England and Natural Resources Wales.

SSSI Impact Zones and Units



Site Outline

Search buffers in metres (m)

SSSI Impact Risk Zones

SSSI Units

- Not recorded
- Favourable
- Unfavourable - Recovering
- Unfavourable - No change
- Unfavourable - Declining
- Partially destroyed
- Destroyed

10.17 SSSI Impact Risk Zones

Records on site	1

Developed to allow rapid initial assessment of the potential risks to SSSIs posed by development proposals. They define zones around each SSSI which reflect the particular sensitivities of the features for which it is notified and indicate the types of development proposal which could potentially have adverse impacts.

Features are displayed on the SSSI Impact Zones and Units map on **page 67 >**

ID	Location	Type of developments requiring consultation
1	**On site**	**https://irz.geodata.org.uk/IRZ/step2.html?irzcode=0301000500050&notes=&location=476719,175387%20(IRZ%20polygon%20centre)**

This data is sourced from Natural England.

10.18 SSSI Units

Records within 2000m	0

Divisions of SSSIs used to record management and condition details. Units are the smallest areas for which Natural England gives a condition assessment, however, the size of units varies greatly depending on the types of management and the conservation interest.

This data is sourced from Natural England and Natural Resources Wales.

11 Visual and cultural designations



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Site Outline

Search buffers in metres (m)

Listed buildings

Conservation areas

Conservation areas - no data

National Parks

Areas of Outstanding Natural Beauty

Registered parks and gardens

Scheduled Monuments

World Heritage Sites

11.1 World Heritage Sites

Records within 250m	0

Sites designated for their globally important cultural or natural interest requiring appropriate management and protection measures. World Heritage Sites are designated to meet the UK's commitments under the World Heritage Convention.

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

11.2 Area of Outstanding Natural Beauty

Records within 250m	0

Areas of Outstanding Natural Beauty (AONB) are conservation areas, chosen because they represent 18% of the finest countryside. Each AONB has been designated for special attention because of the quality of their flora, fauna, historical and cultural associations, and/or scenic views. The National Parks and Access to the Countryside Act of 1949 created AONBs and the Countryside and Rights of Way Act, 2000 added further regulation and protection. There are likely to be restrictions to some developments within these areas.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

11.3 National Parks

Records within 250m	0

In England and Wales, the purpose of National Parks is to conserve and enhance landscapes within the countryside whilst promoting public enjoyment of them and having regard for the social and economic well-being of those living within them. In Scotland National Parks have the additional purpose of promoting the sustainable use of the natural resources of the area and the sustainable social and economic development of its communities. The National Parks and Access to the Countryside Act 1949 established the National Park designation in England and Wales, and The National Parks (Scotland) Act 2000 in Scotland.

This data is sourced from Natural England, Natural Resources Wales and the Scottish Government.

11.4 Listed Buildings

Records within 250m	1

Buildings listed for their special architectural or historical interest. Building control in the form of 'listed building consent' is required in order to make any changes to that building which might affect its special interest. Listed buildings are graded to indicate their relative importance, however building controls apply to all buildings equally, irrespective of their grade, and apply to the interior and exterior of the building in its entirety, together with any curtilage structures.

Features are displayed on the Visual and cultural designations map on **page 69 >**

ID	Location	Name	Grade	Reference Number	Listed date
2	157m SE	Keepers Cottage	II	1393434	11/09/2009

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

11.5 Conservation Areas

Records within 250m	0

Local planning authorities are obliged to designate as conservation areas any parts of their own area that are of special architectural or historic interest, the character and appearance of which it is desirable to preserve or enhance. Designation of a conservation area gives broader protection than the listing of individual buildings. All the features within the area, listed or otherwise, are recognised as part of its character. Conservation area designation is the means of recognising the importance of all factors and of ensuring that planning decisions address the quality of the landscape in its broadest sense.

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

11.6 Scheduled Ancient Monuments

Records within 250m	1

A scheduled monument is an historic building or site that is included in the Schedule of Monuments kept by the Secretary of State for Digital, Culture, Media and Sport. The regime is set out in the Ancient Monuments and Archaeological Areas Act 1979. The Schedule of Monuments has c.20,000 entries and includes sites such as Roman remains, burial mounds, castles, bridges, earthworks, the remains of deserted villages and industrial sites. Monuments are not graded, but all are, by definition, considered to be of national importance.

Features are displayed on the Visual and cultural designations map on **page 69 >**

ID	Location	Ancient monument name	Reference number
1	153m NW	Cropmark complex S of Charvil Lane	1006960

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

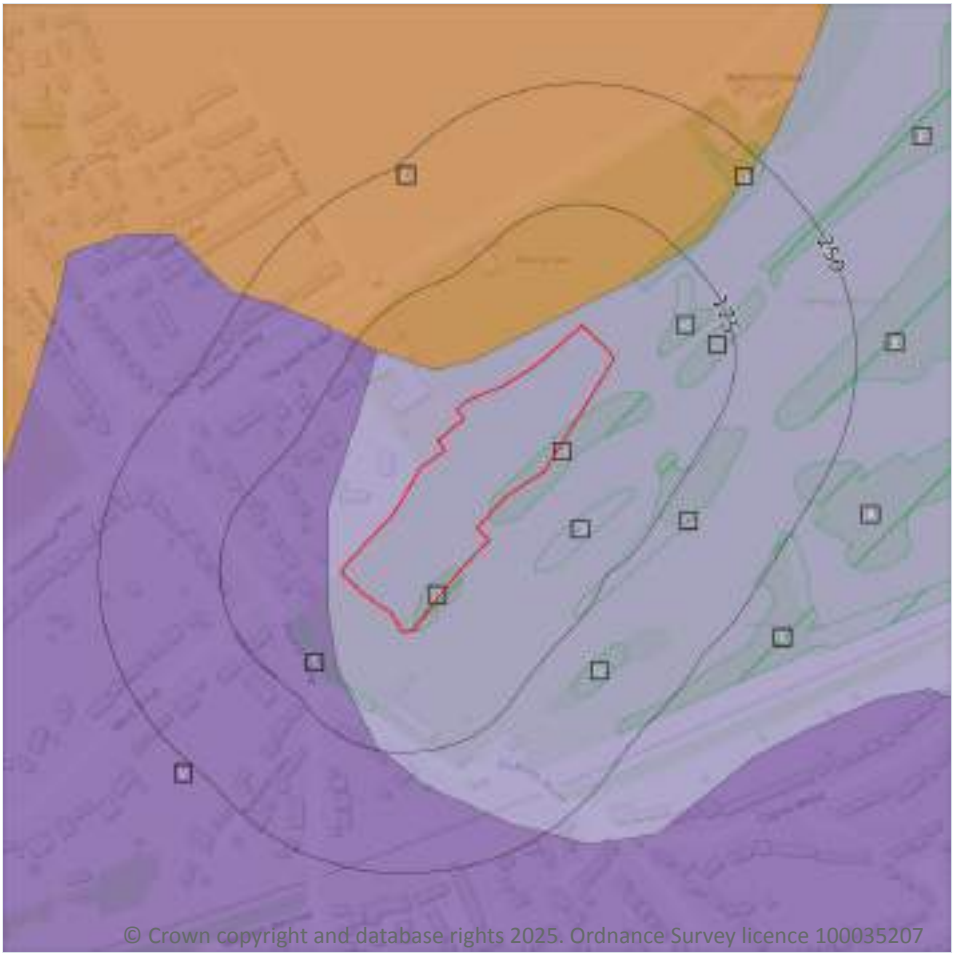
11.7 Registered Parks and Gardens

Records within 250m	0

Parks and gardens assessed to be of particular interest and of special historic interest. The emphasis being on 'designed' landscapes, rather than on planting or botanical importance. Registration is a 'material consideration' in the planning process, meaning that planning authorities must consider the impact of any proposed development on the special character of the landscape.

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

12 Agricultural designations



12.1 Agricultural Land Classification

Records within 250m	3

Classification of the quality of agricultural land taking into consideration multiple factors including climate, physical geography and soil properties. It should be noted that the categories for the grading of agricultural land are not consistent across England, Wales and Scotland.

Features are displayed on the Agricultural designations map on **page 72 >**

ID	Location	Classification	Description
A	**On site**	**Non Agricultural**	**Non-agricultural/no quality assigned**
3	13m W	Urban	Non-agricultural/no quality assigned

ID	Location	Classification	Description
4	18m NW	Grade 2	Very good quality agricultural land. Land with minor limitations which affect crop yield, cultivations or harvesting. A wide range of agricultural and horticultural crops can usually be grown but on some land in the grade there may be reduced flexibility due to difficulties with the production of the more demanding crops such as winter harvested vegetables and arable root crops. The level of yield is generally high but may be lower or more variable than Grade 1.

This data is sourced from Natural England.

12.2 Open Access Land

Records within 250m	**0**

The Countryside and Rights of Way Act 2000 (CROW Act) gives a public right of access to land without having to use paths. Access land includes mountains, moors, heaths and downs that are privately owned. It also includes common land registered with the local council and some land around the England Coast Path. Generally permitted activities on access land are walking, running, watching wildlife and climbing.

This data is sourced from Natural England and Natural Resources Wales.

12.3 Tree Felling Licences

Records within 250m	**13**

Felling Licence Application (FLA) areas approved by Forestry Commission England. Anyone wishing to fell trees must ensure that a licence or permission under a grant scheme has been issued by the Forestry Commission before any felling is carried out or that one of the exceptions apply.

Features are displayed on the Agricultural designations map on **page 72 >**

ID	Location	Description	Reference	Application date
1	**On site**	**Clear Fell (Conditional)**	**019/240/08-09**	**19/11/2008**
2	**On site**	**Selective Fell/Thin (Conditional)**	**019/240/08-09**	**19/11/2008**
5	46m E	Selective Fell/Thin (Conditional)	019/240/08-09	19/11/2008
6	54m SE	Clear Fell (Conditional)	019/240/08-09	19/11/2008
7	61m SW	Selective Fell/Thin (Conditional)	019/240/08-09	19/11/2008
8	67m E	Selective Fell/Thin (Conditional)	019/240/08-09	19/11/2008
9	70m NE	Selective Fell/Thin (Conditional)	019/240/08-09	19/11/2008
A	94m SE	Selective Fell/Thin (Conditional)	019/240/08-09	19/11/2008
10	165m SE	Selective Fell/Thin (Conditional)	019/240/08-09	19/11/2008

ID	Location	Description	Reference	Application date
11	177m E	Selective Fell/Thin (Conditional)	019/240/08-09	19/11/2008
12	178m NE	Selective Fell/Thin (Conditional)	019/240/08-09	19/11/2008
13	223m SE	Selective Fell/Thin (Conditional)	019/240/08-09	19/11/2008
14	228m SE	Selective Fell/Thin (Conditional)	019/240/08-09	19/11/2008

This data is sourced from the Forestry Commission.

12.4 Environmental Stewardship Schemes

Records within 250m	**0**

Environmental Stewardship covers a range of schemes that provide financial incentives to farmers, foresters and land managers to look after and improve the environment. The schemes identified may be historical schemes that have now expired, or may still be active.

This data is sourced from Natural England.

12.5 Countryside Stewardship Schemes

Records within 250m	**0**

Countryside Stewardship covers a range of schemes that provide financial incentives to farmers, foresters and land managers to look after and improve the environment. Main objectives are to improve the farmed environment for wildlife and to reduce diffuse water pollution.

This data is sourced from Natural England.

13 Habitat designations



Site Outline

Search buffers in metres (m)

Priority Habitat Inventory
Open Mosaic Habitat
Limestone Pavement Orders

Habitat Networks
Primary Habitat
Restorable Habitat
Associated Habitats
Habitat Restoration-Creation
Network Enhancement Zone 1
Network Enhancement Zone 2

13.1 Priority Habitat Inventory

Records within 250m	9

Habitats of principal importance as named under Natural Environment and Rural Communities Act (2006) Section 41.

Features are displayed on the Habitat designations map on **page 75 >**

ID	Location	Main Habitat	Other habitats
1	94m SE	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
2	159m S	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
3	163m W	Traditional orchard	Overruled by Traditional Orchards HAP Inventory dataset
4	177m S	Deciduous woodland	Main habitat: DWOOD (INV > 50%)

ID	Location	Main Habitat	Other habitats
5	177m E	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
6	223m SE	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
7	228m SE	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
8	234m SE	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
9	247m SW	Deciduous woodland	Main habitat: DWOOD (INV > 50%)

This data is sourced from Natural England.

13.2 Habitat Networks

Records within 250m	0

Habitat networks for 18 priority habitat networks (based primarily, but not exclusively, on the priority habitat inventory) and areas suitable for the expansion of networks through restoration and habitat creation.

This data is sourced from Natural England.

13.3 Open Mosaic Habitat

Records within 250m	0

Sites verified as Open Mosaic Habitat. Mosaic habitats are brownfield sites that are identified under the UK Biodiversity Action Plan as a priority habitat due to the habitat variation within a single site, supporting an array of invertebrates.

This data is sourced from Natural England.

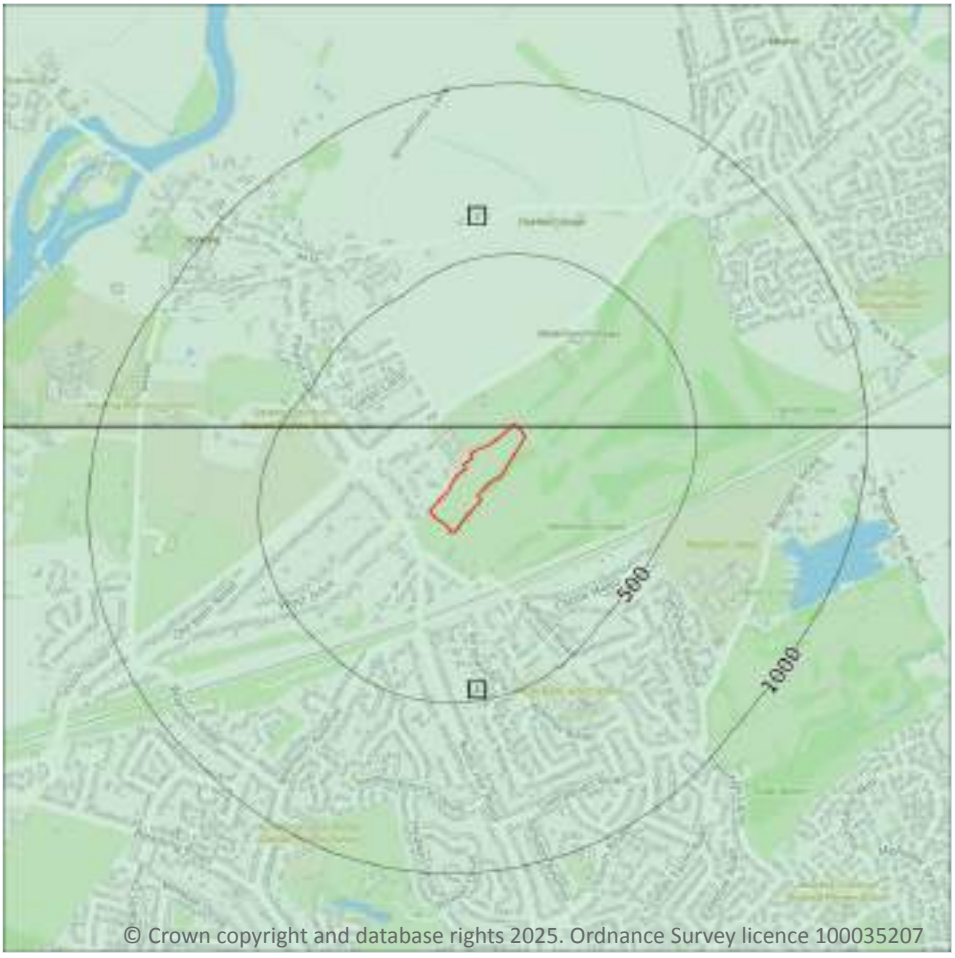
13.4 Limestone Pavement Orders

Records within 250m	0

Limestone pavements are outcrops of limestone where the surface has been worn away by natural means over millennia. These rocks have the appearance of paving blocks, hence their name. Not only do they have geological interest, they also provide valuable habitats for wildlife. These habitats are threatened due to their removal for use in gardens and water features. Many limestone pavements have been designated as SSSIs which affords them some protection. In addition, Section 34 of the Wildlife and Countryside Act 1981 gave them additional protection via the creation of Limestone Pavement Orders, which made it a criminal offence to remove any part of the outcrop. The associated Limestone Pavement Priority Habitat is part of the UK Biodiversity Action Plan priority habitat in England.

This data is sourced from Natural England.

14 Geology 1:10,000 scale - Availability



Site Outline

Search buffers in metres (m)

Full coverage

Partial coverage

No coverage

14.1 10k Availability

Records within 500m	2

An indication on the coverage of 1:10,000 scale geology data for the site, the most detailed dataset provided by the British Geological Survey. Either 'Full', 'Partial' or 'No coverage' for each geological theme.

Features are displayed on the Geology 1:10,000 scale - Availability map on **page 77 >**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	**On site**	**Full**	**Full**	**Full**	**No coverage**	**SU77SE**
2	**On site**	**Full**	**Full**	**Full**	**No coverage**	**SU77NE**

This data is sourced from the British Geological Survey.

Geology 1:10,000 scale - Artificial and made ground



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Site Outline

Search buffers in metres (m)

- Reclaimed ground
- Made ground
- Worked ground
- Infilled ground
- Disturbed ground
- Landscaped ground

14.2 Artificial and made ground (10k)

Records within 500m	6

Details of made, worked, infilled, disturbed and landscaped ground at 1:10,000 scale. Artificial ground can be associated with potentially contaminated material, unpredictable engineering conditions and instability.

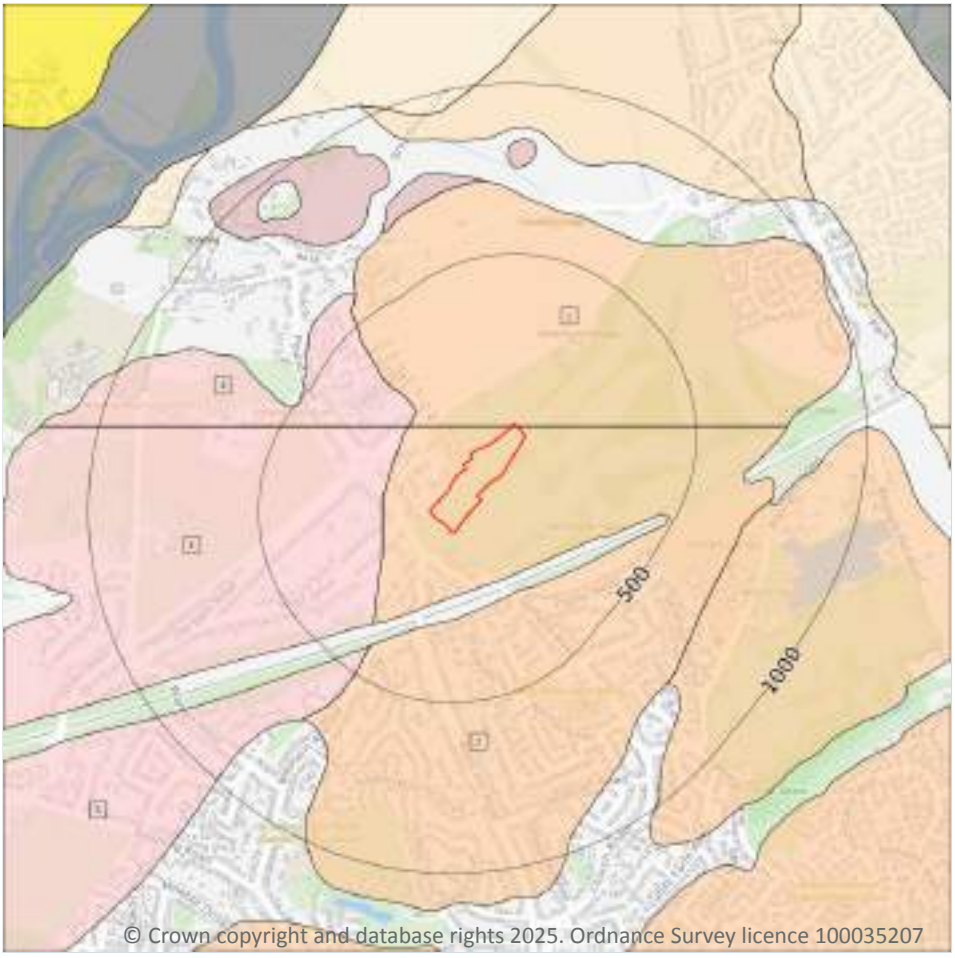
Features are displayed on the Geology 1:10,000 scale - Artificial and made ground map on **page 78 >**

ID	Location	LEX Code	Description	Rock description
A	178m S	WGR-VOID	Worked Ground (Undivided)	Void
1	239m S	WGR-VOID	Worked Ground (Undivided)	Void
2	249m SW	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
A	329m SW	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit

ID	Location	LEX Code	Description	Rock description
3	447m NE	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
4	466m SW	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit

This data is sourced from the British Geological Survey.

Geology 1:10,000 scale - Superficial



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Site Outline

Search buffers in metres (m)

Landslip (10k)

Superficial geology (10k)
Please see table for more details.

14.3 Superficial geology (10k)

Records within 500m **5**

Superficial geological deposits at 1:10,000 scale. Also known as 'drift', these are the youngest geological deposits, formed during the Quaternary. They rest on older deposits or rocks referred to as bedrock.

Features are displayed on the Geology 1:10,000 scale - Superficial map on **page 80 >**

ID	Location	LEX Code	Description	Rock description
1	**On site**	**RTD4-XSV**	**River Terrace Deposits, 4 - Sand And Gravel**	**Sand And Gravel**
2	**On site**	**RTD4-XSV**	**River Terrace Deposits, 4 - Sand And Gravel**	**Sand And Gravel**
3	136m W	BHT-XSV	Boyn Hill Gravel Member - Sand And Gravel	Sand And Gravel
4	196m NW	BHT-XSV	Boyn Hill Gravel Member - Sand And Gravel	Sand And Gravel

ID	Location	LEX Code	Description	Rock description
5	409m SW	BHT-XSV	Boyn Hill Gravel Member - Sand And Gravel	Sand And Gravel

This data is sourced from the British Geological Survey.

14.4 Landslip (10k)

Records within 500m	**0**

Mass movement deposits on BGS geological maps at 1:10,000 scale. Primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground.

This data is sourced from the British Geological Survey.

Geology 1:10,000 scale - Bedrock



Site Outline

Search buffers in metres (m)

Bedrock faults and other linear features (10k)

Bedrock geology (10k)
Please see table for more details.

14.5 Bedrock geology (10k)

Records within 500m	7

Bedrock geology at 1:10,000 scale. The main mass of rocks forming the Earth and present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

Features are displayed on the Geology 1:10,000 scale - Bedrock map on **page 82 >**

ID	Location	LEX Code	Description	Rock age
1	**On site**	**LMBE-CLSISA**	**Lambeth Group - Clay, Silt And Sand**	**Paleocene Epoch**
2	**On site**	**LMBE-CLSISA**	**Lambeth Group - Clay, Silt And Sand**	**Paleocene Epoch**

ID	Location	LEX Code	Description	Rock age
3	**On site**	**LMBE-CLSISA**	**Lambeth Group - Clay, Silt And Sand**	**Paleocene Epoch**
5	36m W	LMBE-CLSISA	Lambeth Group - Clay, Silt And Sand	Paleocene Epoch
7	196m SE	LC-CLSISA	London Clay Formation - Clay, Silt And Sand	Eocene Epoch
9	263m NW	LMBE-CLSISA	Lambeth Group - Clay, Silt And Sand	Paleocene Epoch
11	427m SW	LC-CLSISA	London Clay Formation - Clay, Silt And Sand	Eocene Epoch

This data is sourced from the British Geological Survey.

14.6 Bedrock faults and other linear features (10k)

Records within 500m	**4**

Linear features at the ground or bedrock surface at 1:10,000 scale of six main types; rock, fault, fold axis, mineral vein, alteration area or landform. Features are either observed or inferred, and relate primarily to bedrock.

Features are displayed on the Geology 1:10,000 scale - Bedrock map on **page 82 >**

ID	Location	Category	Description
4	**On site**	**FAULT**	**Normal fault, inferred**
6	36m W	FAULT	Normal fault, inferred
8	258m NW	FAULT	Normal fault, inferred
10	263m NW	FAULT	Normal fault, inferred

This data is sourced from the British Geological Survey.

15 Geology 1:50,000 scale - Availability



Site Outline

Search buffers in metres (m)

Geological map tile

15.1 50k Availability

Records within 500m	1

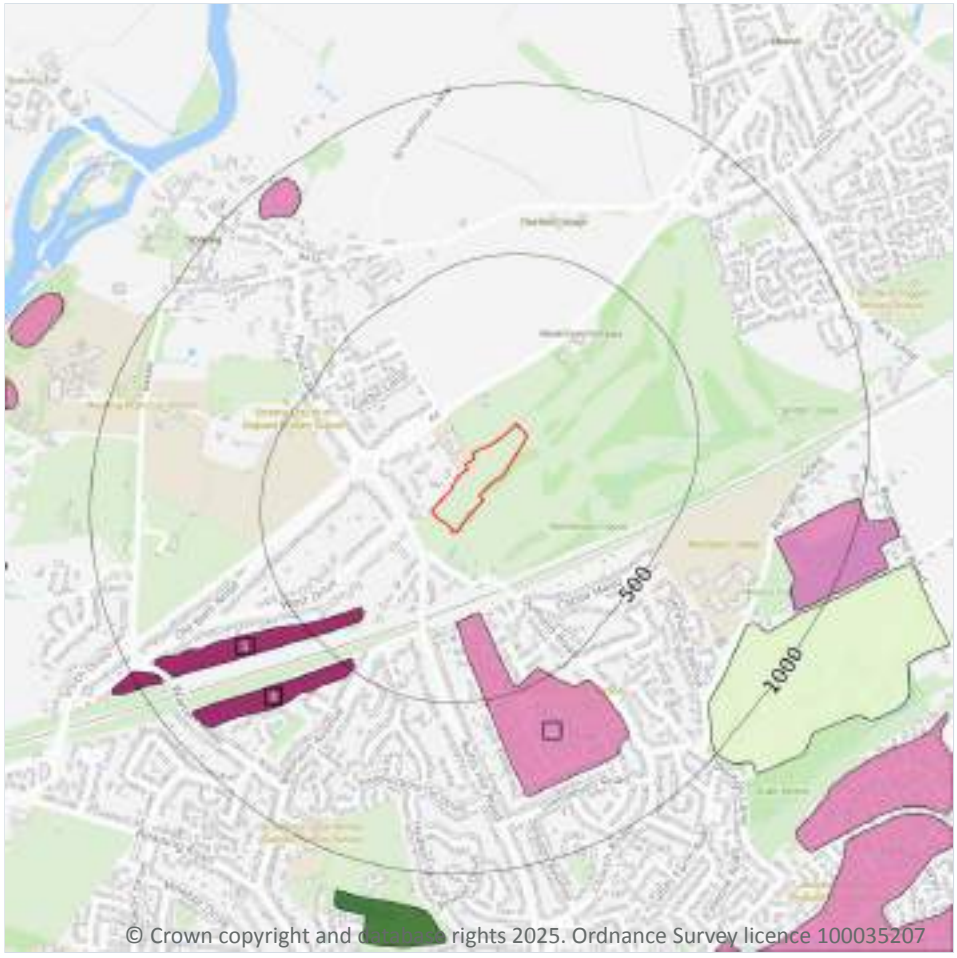
An indication on the coverage of 1:50,000 scale geology data for the site. Either 'Full' or 'No coverage' for each geological theme.

Features are displayed on the Geology 1:50,000 scale - Availability map on **page 84 >**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	**On site**	**Full**	**Full**	**Full**	**No coverage**	**EW268_reading_v4**

This data is sourced from the British Geological Survey.

Geology 1:50,000 scale - Artificial and made ground



Site Outline

Search buffers in metres (m)

- Made ground
- Worked ground
- Infilled ground
- Disturbed ground
- Landscaped ground

15.2 Artificial and made ground (50k)

Records within 500m	3

Details of made, worked, infilled, disturbed and landscaped ground at 1:50,000 scale. Artificial ground can be associated with potentially contaminated material, unpredictable engineering conditions and instability.

Features are displayed on the Geology 1:50,000 scale - Artificial and made ground map on **page 85 >**

ID	Location	LEX Code	Description	Rock description
1	246m S	WGR-VOID	WORKED GROUND (UNDIVIDED)	VOID
2	348m SW	MGR-ARTDP	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT
3	476m SW	MGR-ARTDP	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT

This data is sourced from the British Geological Survey.

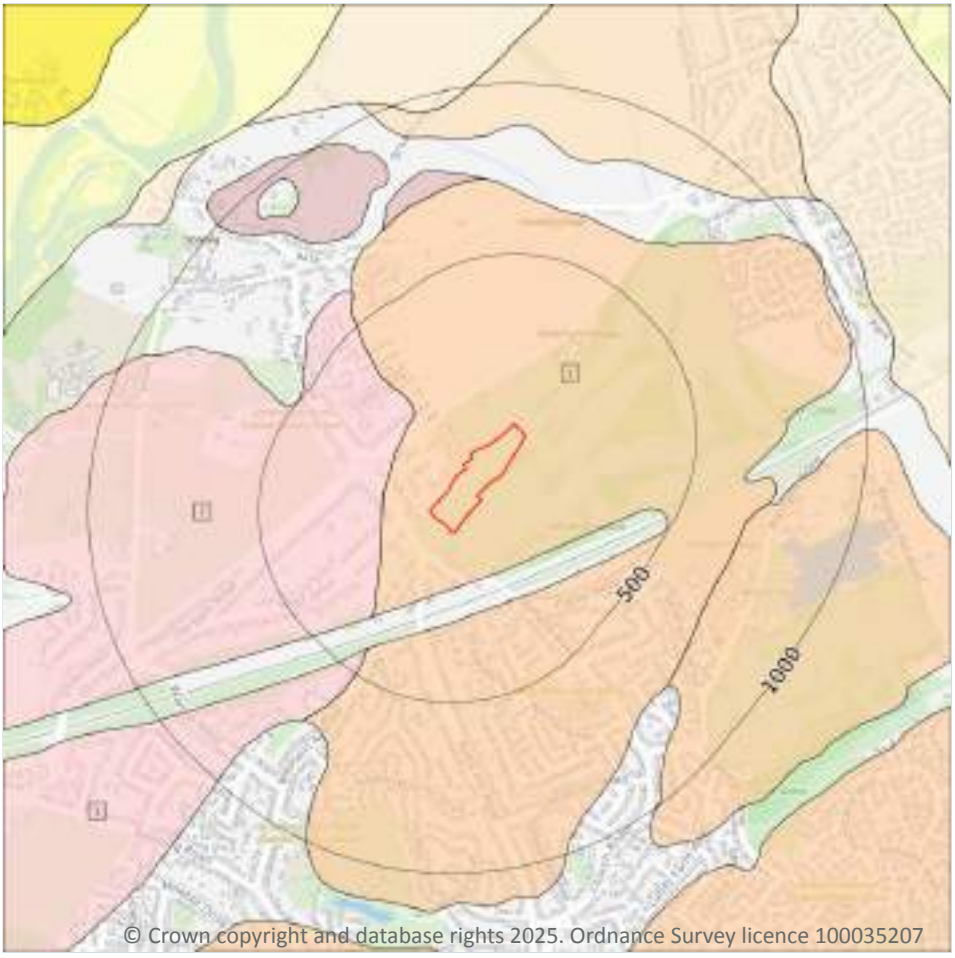
15.3 Artificial ground permeability (50k)

Records within 50m	0

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any artificial deposits (the zone between the land surface and the water table).

This data is sourced from the British Geological Survey.

Geology 1:50,000 scale - Superficial



Site Outline

Search buffers in metres (m)

Landslip (50k)

Superficial geology (50k)
Please see table for more details.

15.4 Superficial geology (50k)

Records within 500m **3**

Superficial geological deposits at 1:50,000 scale. Also known as 'drift', these are the youngest geological deposits, formed during the Quaternary. They rest on older deposits or rocks referred to as bedrock.

Features are displayed on the Geology 1:50,000 scale - Superficial map on **page 87 >**

ID	Location	LEX Code	Description	Rock description
1	**On site**	**RTD4-XSV**	**RIVER TERRACE DEPOSITS, 4**	**SAND AND GRAVEL**
2	137m W	BHT-XSV	BOYN HILL GRAVEL MEMBER	SAND AND GRAVEL
3	418m SW	BHT-XSV	BOYN HILL GRAVEL MEMBER	SAND AND GRAVEL

This data is sourced from the British Geological Survey.

15.5 Superficial permeability (50k)

Records within 50m	1

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any superficial deposits (the zone between the land surface and the water table).

Location	Flow type	Maximum permeability	Minimum permeability
On site	**Intergranular**	**Very High**	**High**

This data is sourced from the British Geological Survey.

15.6 Landslip (50k)

Records within 500m	0

Mass movement deposits on BGS geological maps at 1:50,000 scale. Primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground.

This data is sourced from the British Geological Survey.

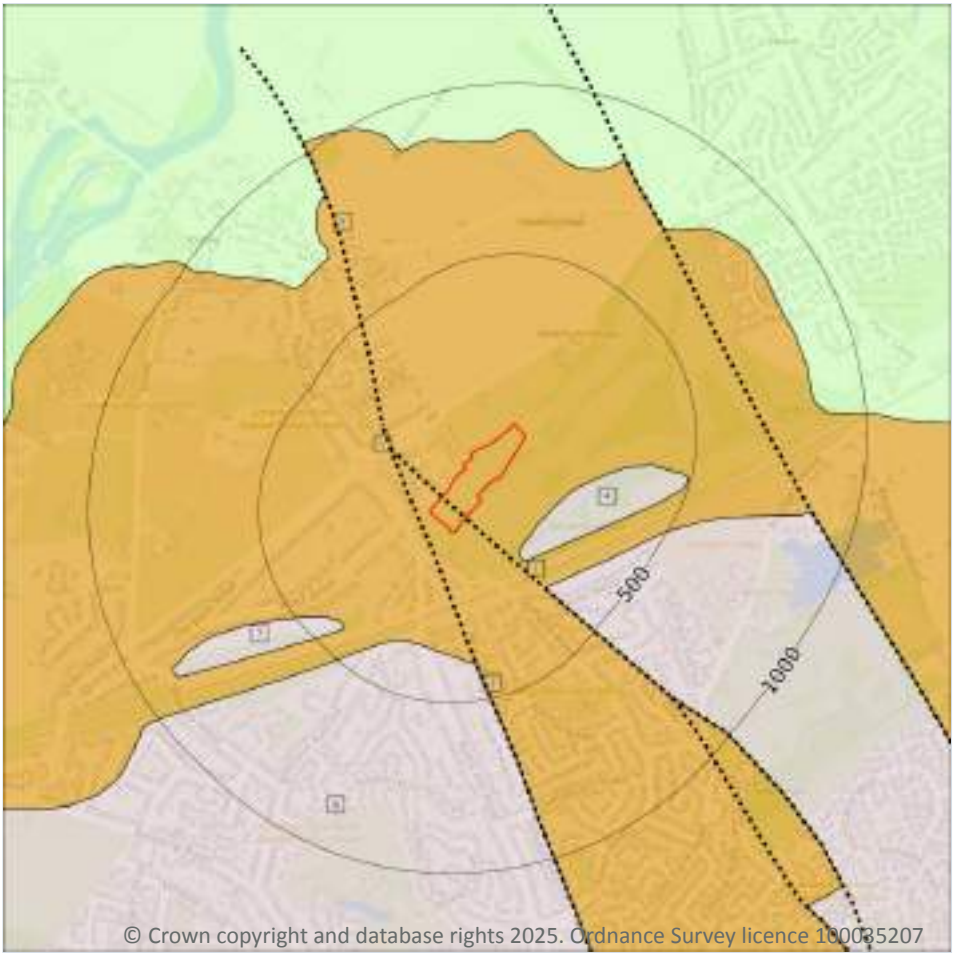
15.7 Landslip permeability (50k)

Records within 50m	0

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any landslip deposits (the zone between the land surface and the water table).

This data is sourced from the British Geological Survey.

Geology 1:50,000 scale - Bedrock



Site Outline

Search buffers in metres (m)

Bedrock faults and other linear features (50k)

Bedrock geology (50k)
Please see table for more details.

15.8 Bedrock geology (50k)

Records within 500m **4**

Bedrock geology at 1:50,000 scale. The main mass of rocks forming the Earth and present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

Features are displayed on the Geology 1:50,000 scale - Bedrock map on **page 89 >**

ID	Location	LEX Code	Description	Rock age
1	**On site**	**LMBE-XCZS**	**LAMBETH GROUP - CLAY, SILT AND SAND**	**THANETIAN**
4	176m SE	LC-XCZS	LONDON CLAY FORMATION - CLAY, SILT AND SAND	YPRESIAN
6	310m SE	LC-XCZS	LONDON CLAY FORMATION - CLAY, SILT AND SAND	YPRESIAN
7	415m SW	LC-XCZS	LONDON CLAY FORMATION - CLAY, SILT AND SAND	YPRESIAN

This data is sourced from the British Geological Survey.

15.9 Bedrock permeability (50k)

Records within 50m	1

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of bedrock (the zone between the land surface and the water table).

Location	Flow type	Maximum permeability	Minimum permeability
On site	**Mixed**	**Moderate**	**Very Low**

This data is sourced from the British Geological Survey.

15.10 Bedrock faults and other linear features (50k)

Records within 500m	3

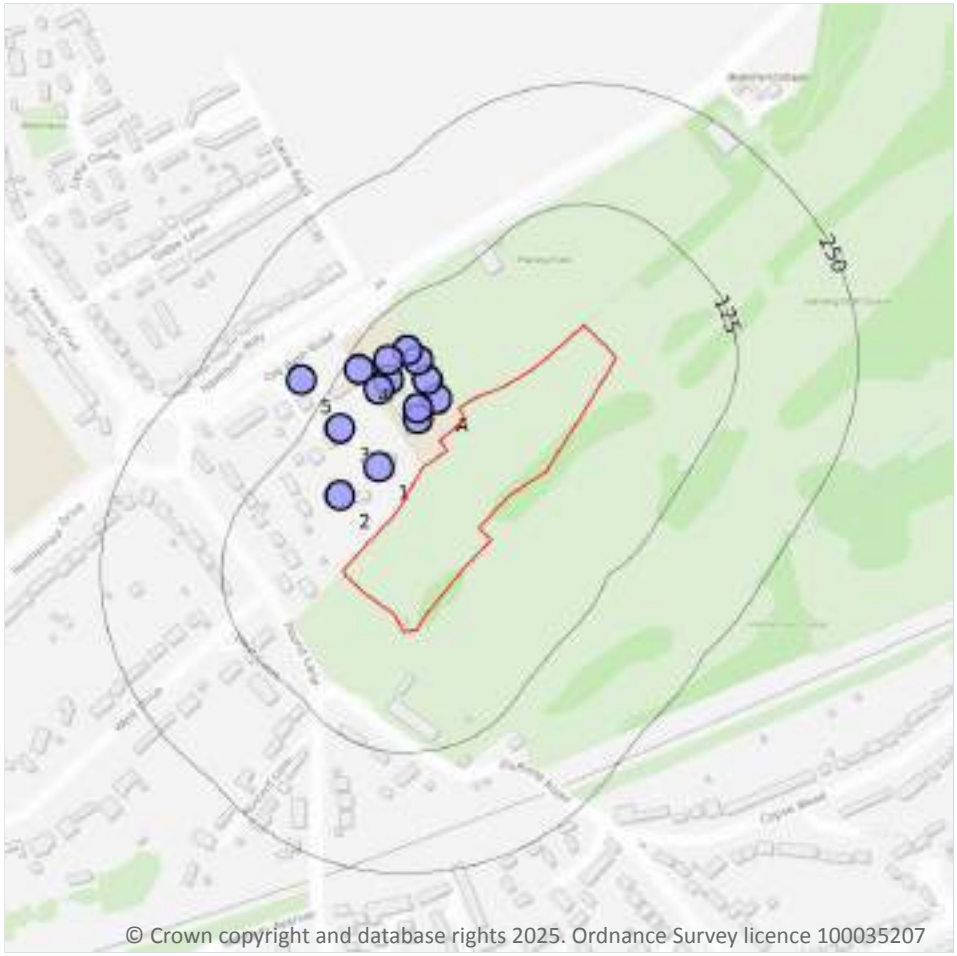
Linear features at the ground or bedrock surface at 1:50,000 scale of six main types; rock, fault, fold axis, mineral vein, alteration area or landform. Features are either observed or inferred, and relate primarily to bedrock.

Features are displayed on the Geology 1:50,000 scale - Bedrock map on **page 89 >**

ID	Location	Category	Description
2	**On site**	**FAULT**	**Fault, inferred**
3	37m SW	FAULT	Fault, inferred
5	260m NW	FAULT	Fault, inferred

This data is sourced from the British Geological Survey.

16 Boreholes



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Site Outline

Search buffers in metres (m)

Confidential

0 - 10m

10 - 30m

30m+

Unknown

16.1 BGS Boreholes

Records within 250m	14

The Single Onshore Boreholes Index (SOBI); an index of over one million records of boreholes, shafts and wells from all forms of drilling and site investigation work held by the British Geological Survey. Covering onshore and nearshore boreholes dating back to at least 1790 and ranging from one to several thousand metres deep.

Features are displayed on the Boreholes map on **page 91 >**

ID	Location	Grid reference	Name	Length	Confidential	Web link
A	25m NW	476470 174930	OLD BATH ROAD SONNING READING WS11	2.0	N	18375518 ↗
A	33m NW	476450 174910	OLD BATH ROAD SONNING READING WS8	2.0	N	18375515 ↗

ID	Location	Grid reference	Name	Length	Confidential	Web link
1	40m NW	476410 174860	OLD BATH ROAD SONNING TP3	1.1	N	12832649 ↗
A	40m NW	476450 174920	OLD BATH ROAD SONNING READING 1	3.45	N	18375509 ↗
A	45m NW	476460 174950	OLD BATH ROAD SONNING READING WS10	2.0	N	18375517 ↗
2	55m NW	476370 174830	OLD BATH ROAD SONNING TP4	0.9	N	12832650 ↗
A	66m NW	476450 174970	OLD BATH ROAD SONNING READING WS9	2.0	N	18375516 ↗
A	79m W	476420 174950	OLD BATH ROAD SONNING READING WS7	2.0	N	18375514 ↗
A	80m NW	476440 174980	OLD BATH ROAD SONNING READING 3	7.0	N	18375510 ↗
A	83m NW	476410 174940	OLD BATH ROAD SONNING READING WS6	2.0	N	18375513 ↗
A	89m NW	476420 174970	OLD BATH ROAD SONNING READING 4	3.45	N	18375511 ↗
3	94m NW	476370 174900	OLD BATH ROAD SONNING TP2	0.9	N	12832648 ↗
4	111m W	476390 174960	OLD BATH ROAD SONNING READING 5	7.0	N	18375512 ↗
5	155m NW	476330 174950	OLD BATH ROAD SONNING TP1	1.0	N	12832647 ↗

This data is sourced from the British Geological Survey.

17 Natural ground subsidence - Shrink swell clays



Site Outline

Search buffers in metres (m)

- No data
- Negligible
- Very low
- Low
- Moderate
- High

17.1 Shrink swell clays

Records within 50m	1

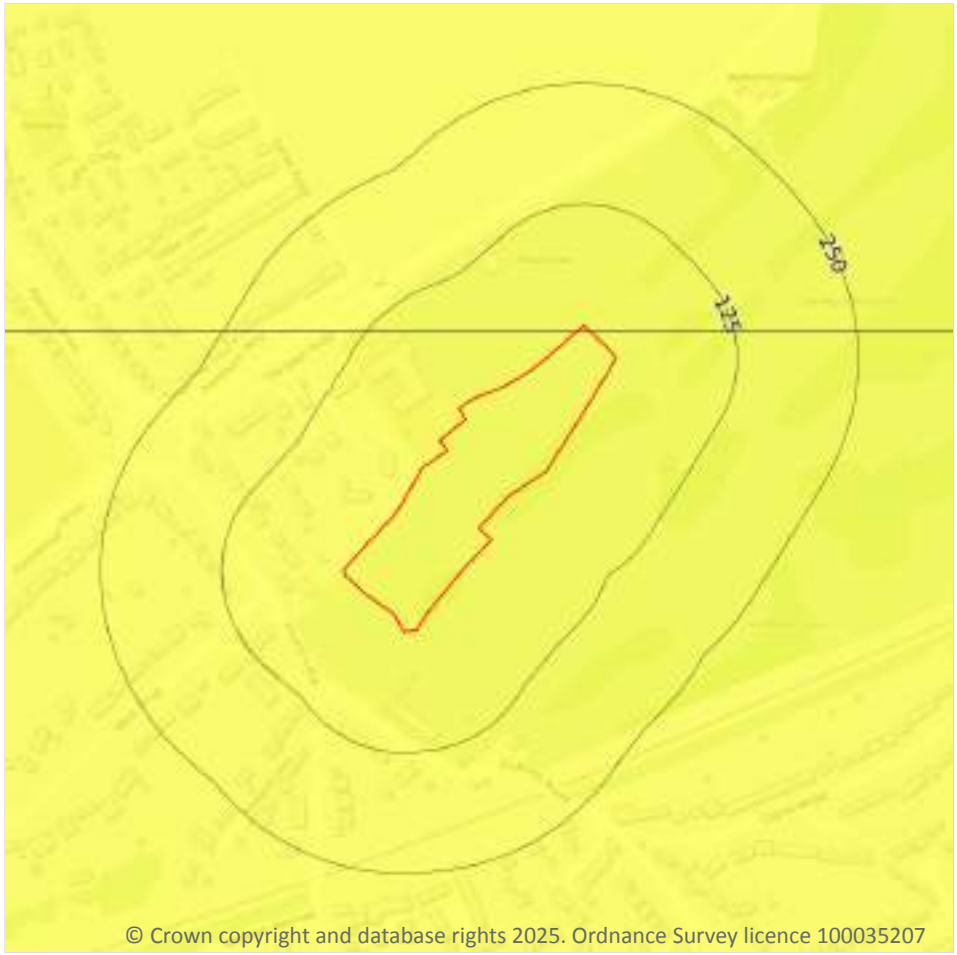
The potential hazard presented by soils that absorb water when wet (making them swell), and lose water as they dry (making them shrink). This shrink-swell behaviour is controlled by the type and amount of clay in the soil, and by seasonal changes in the soil moisture content (related to rainfall and local drainage).

Features are displayed on the Natural ground subsidence - Shrink swell clays map on **page 93 >**

Location	Hazard rating	Details
On site	**Moderate**	**Ground conditions predominantly high plasticity.**

This data is sourced from the British Geological Survey.

Natural ground subsidence - Running sands



Site Outline

Search buffers in metres (m)

- No data
- Negligible
- Very low
- Low
- Moderate
- High

17.2 Running sands

Records within 50m	1

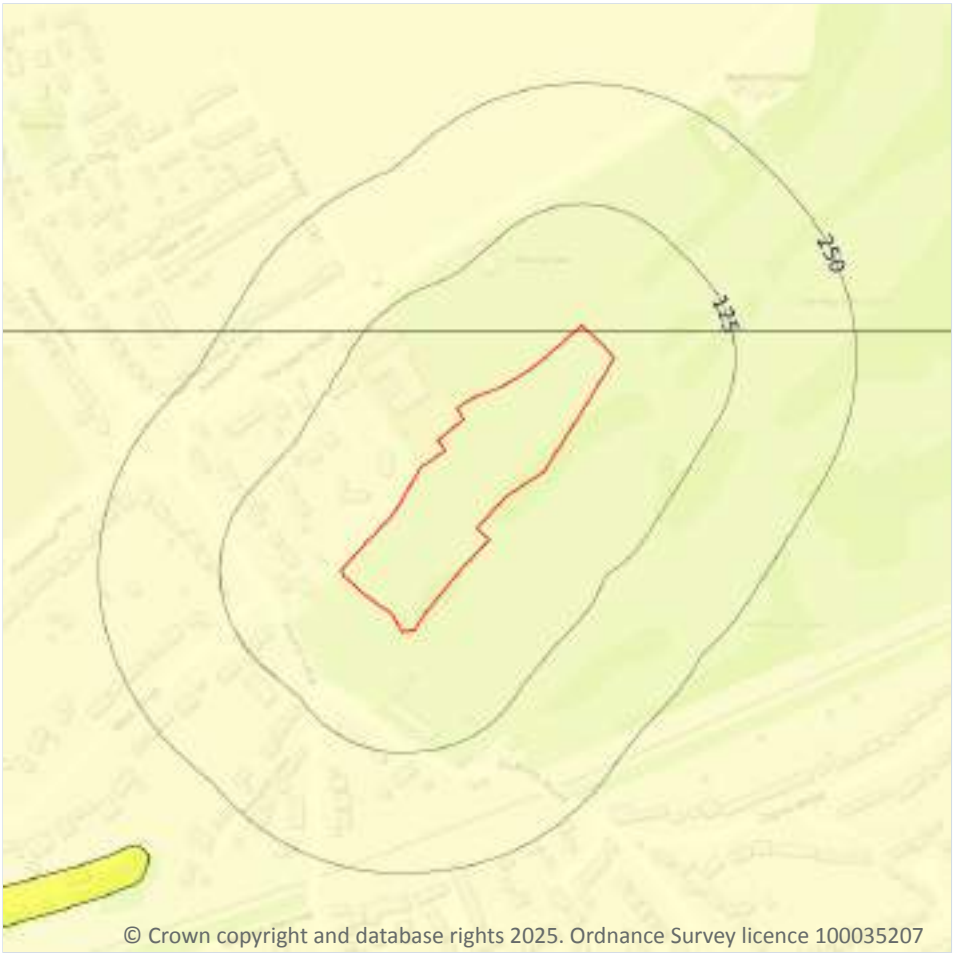
The potential hazard presented by rocks that can contain loosely-packed sandy layers that can become fluidised by water flowing through them. Such sands can 'run', removing support from overlying buildings and causing potential damage.

Features are displayed on the Natural ground subsidence - Running sands map on **page 94 >**

Location	Hazard rating	Details
On site	**Very low**	**Running sand conditions are unlikely. No identified constraints on land use due to running conditions unless water table rises rapidly.**

This data is sourced from the British Geological Survey.

Natural ground subsidence - Compressible deposits



Site Outline

Search buffers in metres (m)

- No data
- Negligible
- Very low
- Low
- Moderate
- High

17.3 Compressible deposits

Records within 50m	1

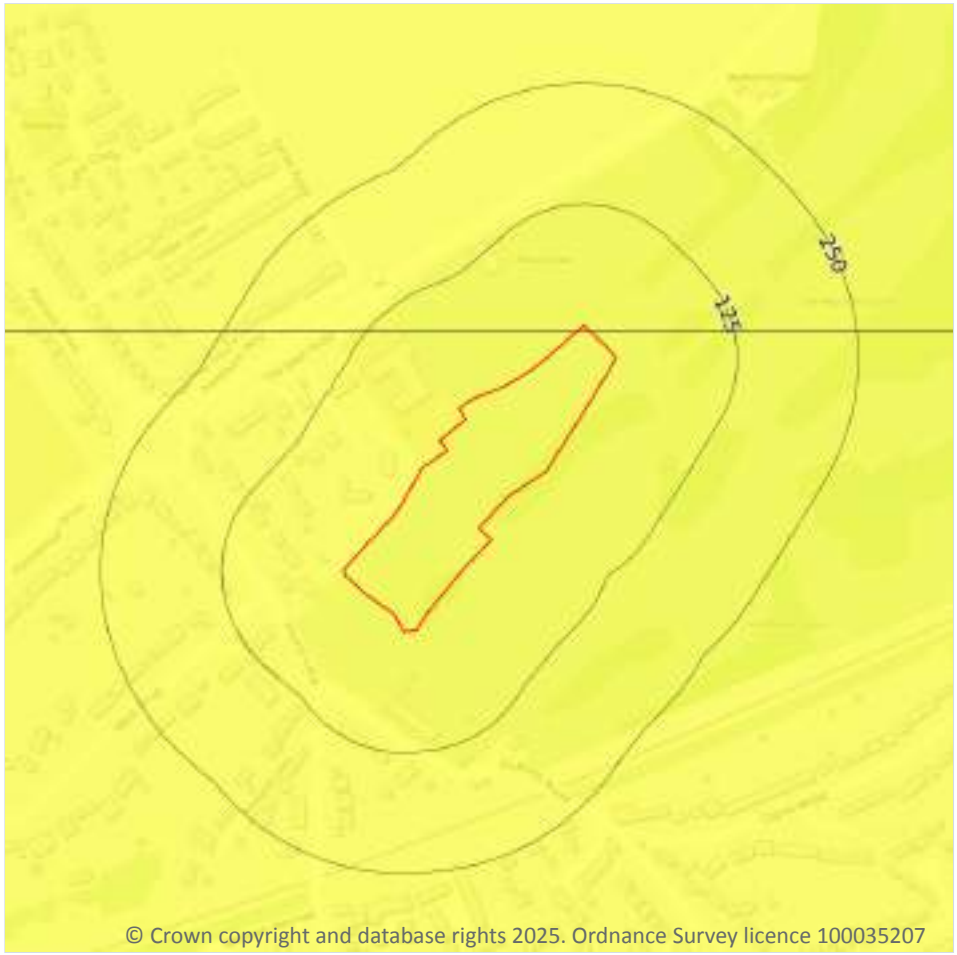
The potential hazard presented by types of ground that may contain layers of very soft materials like clay or peat and may compress if loaded by overlying structures, or if the groundwater level changes, potentially resulting in depression of the ground and disturbance of foundations.

Features are displayed on the Natural ground subsidence - Compressible deposits map on **page 95 >**

Location	Hazard rating	Details
On site	**Negligible**	**Compressible strata are not thought to occur.**

This data is sourced from the British Geological Survey.

Natural ground subsidence - Collapsible deposits



Site Outline

Search buffers in metres (m)

- No data
- Negligible
- Very low
- Low
- Moderate
- High

17.4 Collapsible deposits

Records within 50m	1

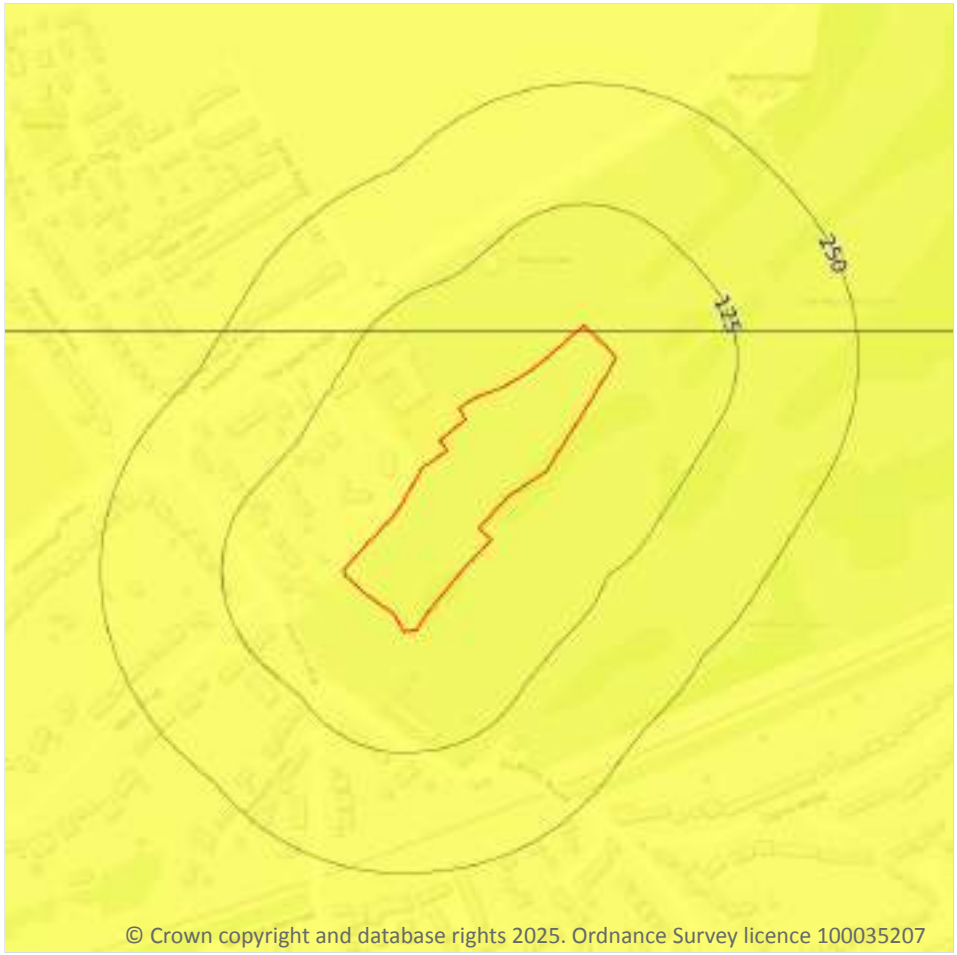
The potential hazard presented by natural deposits that could collapse when a load (such as a building) is placed on them or they become saturated with water.

Features are displayed on the Natural ground subsidence - Collapsible deposits map on **page 96 >**

Location	Hazard rating	Details
On site	**Very low**	**Deposits with potential to collapse when loaded and saturated are unlikely to be present.**

This data is sourced from the British Geological Survey.

Natural ground subsidence - Landslides



Site Outline

Search buffers in metres (m)

- No data
- Negligible
- Very low
- Low
- Moderate
- High

17.5 Landslides

Records within 50m	1

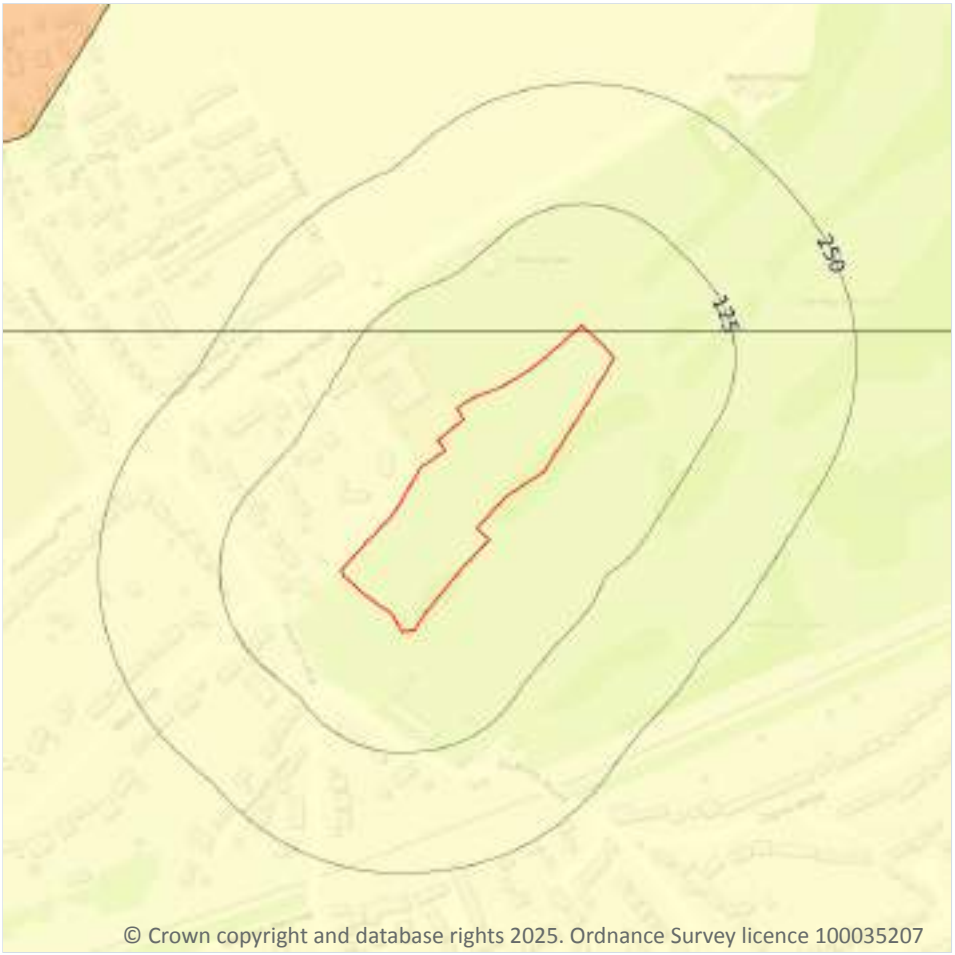
The potential for landsliding (slope instability) to be a hazard assessed using 1:50,000 scale digital maps of superficial and bedrock deposits, combined with information from the BGS National Landslide Database and scientific and engineering reports.

Features are displayed on the Natural ground subsidence - Landslides map on **page 97 >**

Location	Hazard rating	Details
On site	**Very low**	**Slope instability problems are not likely to occur but consideration to potential problems of adjacent areas impacting on the site should always be considered.**

This data is sourced from the British Geological Survey.

Natural ground subsidence - Ground dissolution of soluble rocks



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Site Outline

Search buffers in metres (m)

- No data
- Negligible
- Very low
- Low
- Moderate
- High

17.6 Ground dissolution of soluble rocks

Records within 50m	1

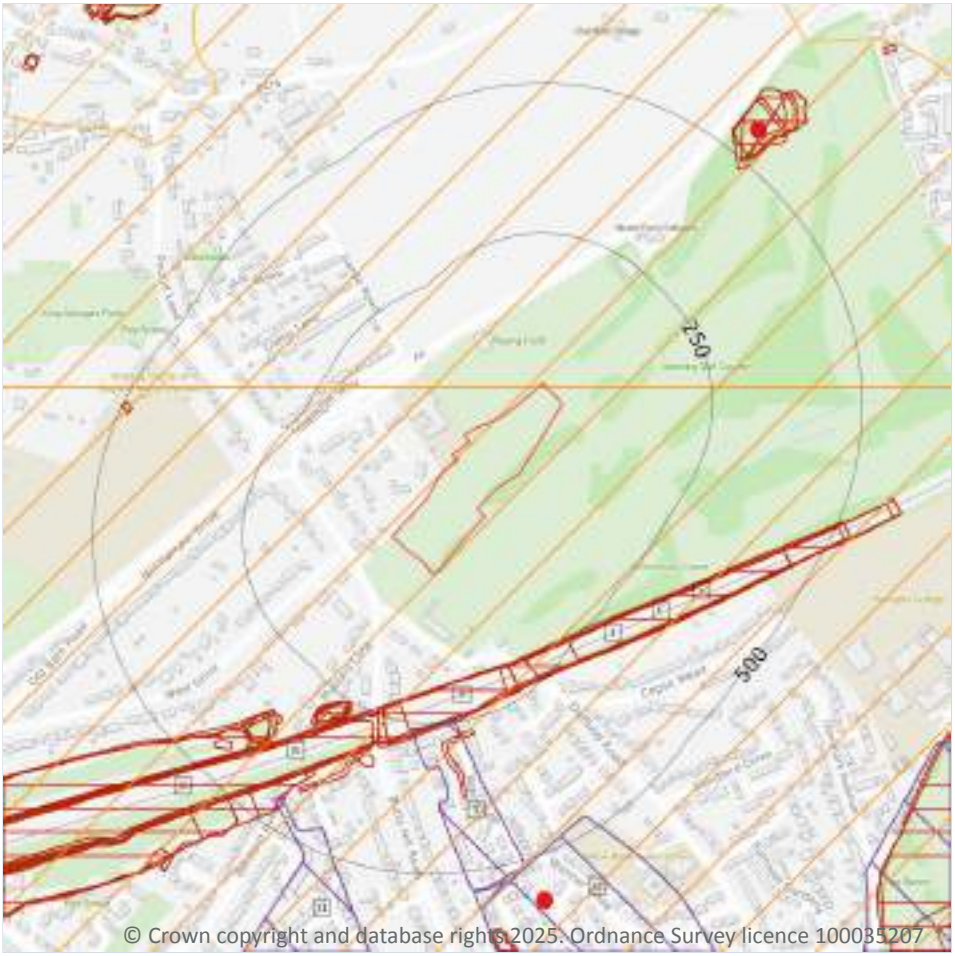
The potential hazard presented by ground dissolution, which occurs when water passing through soluble rocks produces underground cavities and cave systems. These cavities reduce support to the ground above and can cause localised collapse of the overlying rocks and deposits.

Features are displayed on the Natural ground subsidence - Ground dissolution of soluble rocks map on **page 98 >**

Location	Hazard rating	Details
On site	**Negligible**	**Soluble rocks are either not thought to be present within the ground, or not prone to dissolution. Dissolution features are unlikely to be present.**

This data is sourced from the British Geological Survey.

18 Mining and ground workings



Site Outline

Search buffers in metres (m)

- BritPits
- Surface ground workings
- Underground workings
- Underground mining extents
- Historical mineral planning areas
- TCA non-coal mining

Non Coal Mining

- Sporadic underground mining of restricted extent possible
- Localised small scale underground mining possible
- Small scale mining possible
- Underground mining known or likely within or in close proximity
- Underground mining known within or in very close proximity

18.1 BritPits

Records within 500m	0

BritPits (an abbreviation of British Pits) is a database maintained by the British Geological Survey of currently active and closed surface and underground mineral workings. Details of major mineral handling sites, such as wharfs and rail depots are also held in the database.

This data is sourced from the British Geological Survey.

18.2 Surface ground workings

Records within 250m	11

Historical land uses identified from Ordnance Survey mapping that involved ground excavation at the surface. These features may or may not have been subsequently backfilled.

Features are displayed on the Mining and ground workings map on **page 100 >**

ID	Location	Land Use	Year of mapping	Mapping scale
A	181m S	Cuttings	1900	1:10560
B	181m S	Cuttings	1900	1:10560
A	181m S	Cuttings	1986	1:10000
A	181m S	Cuttings	1977	1:10000
B	182m S	Cuttings	1932	1:10560
B	182m S	Cuttings	1910	1:10560
3	183m S	Cuttings	1960	1:10560
C	202m SE	Cuttings	1986	1:10000
C	202m SE	Cuttings	1977	1:10000
4	240m SE	Cuttings	1900	1:10560
D	249m S	Cuttings	1900	1:10560

This is data is sourced from Ordnance Survey/Groundsure.

18.3 Underground workings

Records within 1000m	0

Historical land uses identified from Ordnance Survey mapping that indicate the presence of underground workings e.g. mine shafts.

This is data is sourced from Ordnance Survey/Groundsure.

18.4 Underground mining extents

Records within 500m	0

This data identifies underground mine workings that could present a potential risk, including adits and seam workings. These features have been identified from BGS Geological mapping and mine plans sourced from the BGS and various collections and sources.

This data is sourced from Groundsure.

18.5 Historical Mineral Planning Areas

Records within 500m	3

Boundaries of mineral planning permissions for England and Wales. This data was collated between the 1940s (and retrospectively to the 1930s) and the mid 1980s. The data includes permitted, withdrawn and refused permissions.

Features are displayed on the Mining and ground workings map on **page 100 >**

ID	Location	Site Name	Mineral	Type	Planning Status	Planning Status Date
5	246m S	Butts Hill	Sand and gravel	Surface mineral working	Valid	28/04/59
11	447m SW	Wheelers Green	Sand and gravel	Surface mineral working	Refused	Not available
12	475m SE	Butts Hill	Sand and gravel	Surface mineral working	Valid	Not available

This data is sourced from the British Geological Survey.

18.6 Non-coal mining

Records within 1000m	3

The potential for historical non-coal mining to have affected an area. The assessment is drawn from expert knowledge and literature in addition to the digital geological map of Britain. Mineral commodities may be divided into seven general categories - vein minerals, chalk, oil shale, building stone, bedded ores, evaporites and 'other' commodities (including ball clay, jet, black marble, graphite and chert).

Features are displayed on the Mining and ground workings map on **page 100 >**

ID	Location	Name	Commodity	Class	Likelihood
1	**On site**	**Not available**	**Chalk**	**C**	**Underground mine workings may have occurred in the past, or current mines may be operating to modern engineering standards. Potential for difficult ground conditions should be considered.**
2	**On site**	**Not available**	**Chalk**	**C**	**Underground mine workings may have occurred in the past, or current mines may be operating to modern engineering standards. Potential for difficult ground conditions should be considered.**

ID	Location	Name	Commodity	Class	Likelihood
15	701m NW	Not available	Chalk	B	Underground mine workings may have occurred in the past or current mines may be working at significant depth to modern engineering standards. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.

This data is sourced from the British Geological Survey.

18.7 JPB mining areas

Records on site	**1**

Areas which could be affected by former coal and other mining. This data includes some mine plans unavailable to the Coal Authority.

Location	Details
On site	**Whilst outside of an area where The Coal Authority have information on coal mining activities, Johnson Poole & Bloomer (JPB) may have information such as mining plans and maps held within their archive that have occurred within 1km of this property. Please note, the plans held by JPB may also relate to non-mining records. Further details and a quote for services (if appropriate) can be obtained by emailing this report to enquiries.gs@jpb.co.uk ↗.**

This data is sourced from Johnson Poole and Bloomer.

18.8 The Coal Authority non-coal mining

Records within 500m	**0**

This data provides an indication of the potential zone of influence of recorded underground non-coal mining workings. Any and all analysis and interpretation of Coal Authority Data in this report is made by Groundsure, and is in no way supported, endorsed or authorised by the Coal Authority. The use of the data is restricted to the terms and provisions contained in this report. Data reproduced in this report may be the copyright of the Coal Authority and permission should be sought from Groundsure prior to any re-use.

This data is sourced from The Coal Authority.

18.9 Researched mining

Records within 500m	**1**

This data indicates areas of potential mining identified from alternative or archival sources, including; BGS Geological paper maps, Lidar data, aerial photographs (from World War II onwards), archaeological data services, websites, Tithe maps, and various text/plans from collected books and reports. Some of this data is approximate and Groundsure have interpreted the resultant risk area and, where possible, specific areas of risk have been captured.

Location	Mineral type
451m NW	Stone

This data is sourced from Groundsure.

18.10 Mining record office plans

Records within 500m	0

This dataset is representative of Mining Record Office and/or plan extents held by Groundsure and should be considered approximate. Where possible, plans have been located and any specific areas of risk they depict have been captured.

This data is sourced from Groundsure.

18.11 BGS mine plans

Records within 500m	0

This dataset is representative of BGS mine plans held by Groundsure and should be considered approximate. Where possible, plans have been located and any specific areas of risk they depict have been captured.

This data is sourced from Groundsure.

18.12 Coal mining

Records on site	0

Areas which could be affected by past, current or future coal mining.

This data is sourced from the Coal Authority.

18.13 Brine areas

Records on site	0

The Cheshire Brine Compensation District indicates areas that may be affected by salt and brine extraction in Cheshire and where compensation would be available where damage from this mining has occurred. Damage from salt and brine mining can still occur outside this district, but no compensation will be available.

This data is sourced from the Cheshire Brine Subsidence Compensation Board.

18.14 Gypsum areas

Records on site	0

Generalised areas that may be affected by gypsum extraction.

This data is sourced from British Gypsum.

18.15 Tin mining

Records on site	0

Generalised areas that may be affected by historical tin mining.

This data is sourced from Groundsure.

18.16 Clay mining

Records on site	0

Generalised areas that may be affected by kaolin and ball clay extraction.

This data is sourced from the Kaolin and Ball Clay Association (UK).

19 Ground cavities and sinkholes

19.1 Natural cavities

Records within 500m	0

Industry recognised national database of natural cavities. Sinkholes and caves are formed by the dissolution of soluble rock, such as chalk and limestone, gulls and fissures by cambering. Ground instability can result from movement of loose material contained within these cavities, often triggered by water.

This data is sourced from Stantec UK Ltd.

19.2 Mining cavities

Records within 1000m	0

Industry recognised national database of mining cavities. Degraded mines may result in hazardous subsidence (crown holes). Climatic conditions and water escape can also trigger subsidence over mine entrances and workings.

This data is sourced from Stantec UK Ltd.

19.3 Reported recent incidents

Records within 500m	0

This data identifies sinkhole information gathered from media reports and Groundsure's own records. This data goes back to 2014 and includes relative accuracy ratings for each event and links to the original data sources. The data is updated on a regular basis and should not be considered a comprehensive catalogue of all sinkhole events. The absence of data in this database does not mean a sinkhole definitely has not occurred during this time.

This data is sourced from Groundsure.

19.4 Historical incidents

Records within 500m	0

This dataset comprises an extract of 1:10,560, 1:10,000, 1:2,500 and 1:1,250 scale historical Ordnance Survey maps held by Groundsure, dating back to the 1840s. It shows shakeholes, deneholes and other 'holes' as noted on these maps. Dene holes are medieval chalk extraction pits, usually comprising a narrow shaft with a number of chambers at the base of the shaft. Shakeholes are an alternative name for suffusion sinkholes, most commonly found in the limestone landscapes of North Yorkshire but also extensively noted around the Brecon Beacons National Park.

Not all 'holes' noted on Ordnance Survey mapping will necessarily be present within this dataset.

This data is sourced from Groundsure.

20 Radon



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Site Outline

Search buffers in metres (m)

Greater than 30%

Between 10% and 30%

Between 5% and 10%

Between 3% and 5%

Between 1% and 3%

Less than 1%

20.1 Radon

Records on site	1

The Radon Potential data classifies areas based on their likelihood of a property having a radon level at or above the Action Level in Great Britain. The dataset is intended for use at 1:50,000 scale and was derived from both geological assessments and indoor radon measurements (more than 560,000 records). A minimum 50m buffer should be considered when searching the maps, as the smallest detectable feature at this scale is 50m. The findings of this section should supersede any estimations derived from the Indicative Atlas of Radon in Great Britain (1:100,000 scale).

Features are displayed on the Radon map on **page 108 >**

Location	Estimated properties affected	Radon Protection Measures required
On site	**Less than 1%**	**None**

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

21 Soil chemistry

21.1 BGS Estimated Background Soil Chemistry

Records within 50m	3

The estimated values provide the likely background concentration of the potentially harmful elements Arsenic, Cadmium, Chromium, Lead and Nickel in topsoil. The values are estimated primarily from rural topsoil data collected at a sample density of approximately 1 per 2 km^2. In areas where rural soil samples are not available, estimation is based on stream sediment data collected from small streams at a sampling density of 1 per 2.5 km^2; this is the case for most of Scotland, Wales and southern England. The stream sediment data are converted to soil-equivalent concentrations prior to the estimation.

Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
On site	**15 - 25 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**15 - 30 mg/kg**
On site	**15 - 25 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**15 - 30 mg/kg**
On site	**15 - 25 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**15 - 30 mg/kg**

This data is sourced from the British Geological Survey.

21.2 BGS Estimated Urban Soil Chemistry

Records within 50m	0

Estimated topsoil chemistry of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc and bioaccessible Arsenic and Lead in 23 urban centres across Great Britain. These estimates are derived from interpolation of the measured urban topsoil data referred to above and provide information across each city between the measured sample locations (4 per km^2).

This data is sourced from the British Geological Survey.

21.3 BGS Measured Urban Soil Chemistry

Records within 50m	0

The locations and measured total concentrations (mg/kg) of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc in urban topsoil samples from 23 urban centres across Great Britain. These are collected at a sample density of 4 per km^2.

This data is sourced from the British Geological Survey.

22 Railway infrastructure and projects



Site Outline

Search buffers in metres (m)

- Crossrail 2 Stations
- Crossrail 2 Route
- Crossrail 2 Worksites
- Crossrail 2 Safeguarding
- Crossrail 2 Headhouses
- Railway stations
- Active railways
- Active tunnels
- Abandoned railways
- Historic railways
- Historic tunnels
- Underground stations
- Underground Lines
- Royal Mail tunnels
- HS2 optimised route
- HS2 Stations
- HS2 Depots
- HS2 Surface Safeguarding
- HS2 Subsurface Safeguarding

22.1 Underground railways (London)

Records within 250m	1

Details of all active London Underground lines, including approximate tunnel roof depth and operational hours.

Features are displayed on the Railway infrastructure and projects map on **page 111 >**

Location	Line Name	Line Section	Track Type	Depth (m bgl)	Operational hours
207m S	Elizabeth Line	Elizabeth Line	Surface Track	0	Mon-Thu: Early 0500 Late 0111, Fri: Early 0523 then a 24h service until Sun, Sun: Late 0001

This data is sourced from publicly available information by Groundsure.

22.2 Underground railways (Non-London)

Records within 250m	0

Details of the Merseyrail system, the Tyne and Wear Metro and the Glasgow Subway. Not all parts of all systems are located underground. The data contains location information only and does not include a depth assessment.

This data is sourced from publicly available information by Groundsure.

22.3 Railway tunnels

Records within 250m	0

Railway tunnels taken from contemporary Ordnance Survey mapping.

This data is sourced from the Ordnance Survey.

22.4 Historical railway and tunnel features

Records within 250m	0

Railways and tunnels digitised from historical Ordnance Survey mapping as scales of 1:1,250, 1:2,500, 1:10,000 and 1:10,560.

This data is sourced from Ordnance Survey/Groundsure.

22.5 Royal Mail tunnels

Records within 250m	0

The Post Office Railway, otherwise known as the Mail Rail, is an underground railway running through Central London from Paddington Head District Sorting Office to Whitechapel Eastern Head Sorting Office. The line is 10.5km long. The data includes details of the full extent of the tunnels, the depth of the tunnel, and the depth to track level.

This data is sourced from Groundsure/the Postal Museum.

22.6 Historical railways

Records within 250m	0

Former railway lines, including dismantled lines, abandoned lines, disused lines, historic railways and razed lines.

This data is sourced from OpenStreetMap.

22.7 Railways

Records within 250m	6

Currently existing railway lines, including standard railways, narrow gauge, funicular, trams and light railways.

Features are displayed on the Railway infrastructure and projects map on **page 111 >**

Location	Name	Type
199m S	Great Western Main Line	rail
203m S	Great Western Main Line	rail
205m S	Not given	Multi Track
208m S	Great Western Main Line	rail
211m S	Great Western Main Line	rail
221m SE	Not given	Multi Track

This data is sourced from Ordnance Survey and OpenStreetMap.

22.8 Crossrail 2

Records within 500m	0

Crossrail 2 is a proposed railway linking the national rail networks in Surrey and Hertfordshire via an underground tunnel through London.

This data is sourced from publicly available information by Groundsure.

22.9 HS2

Records within 500m	0

HS2 is a proposed high speed rail network running from London to Manchester and Leeds via Birmingham. Main civils construction on Phase 1 (London to Birmingham) of the project began in 2019, and it is currently anticipated that this phase will be fully operational by 2026. Construction on Phase 2a (Birmingham to Crewe) is anticipated to commence in 2021, with the service fully operational by 2027. Construction on Phase 2b (Crewe to Manchester and Birmingham to Leeds) is scheduled to begin in 2023 and be operational by 2033.

This data is sourced from HS2 ltd.

Data providers

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

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