



Lucion Ground Engineering Limited
Newark Road
Peterborough
PE1 5UA
Registered in England No 6929574
01733 566566
geadmin@luciongroup.com

REPORT ON A SITE INVESTIGATION

505-511 ARCHWAY ROAD

LONDON N6

Report Reference 151840

On behalf of:

Alexander James Contracts Limited

Suite D Tower House
Latimer Park Farm
Little Chalfont
HHP5 1TY

August 2026

151840 – 505-511 Archway Road, London N6

CONTENTS

Introduction	Page 1
Location, Topography and Geology of the Site	Page 2
Site History	Page 3
Summary of Environmental Data	Page 7
Preliminary Risk Assessment	Page 10
Site Work	Page 13
Geotechnical Laboratory Testing	Page 16
Chemical Laboratory Testing	Page 18
Ground Conditions	Page 19
Comments on the Ground Conditions in Relation to Foundation Design and Construction	Page 21
Comments on Soil Chemical Testing	Page 26
Soil Gas	Page 32
Updated Conceptual Model	Page 33
Comments on Ground Contamination in Relation to Proposed Residential Usage	Page 35

FIGURES & PHOTOGRAPHS

Site Location Plan	Figure 1
Exploratory Hole Location Plan	Figure 2

APPENDICES

Historical Maps	Appendix 1
Database Information	Appendix 2
Records of Exploratory Holes	Appendix 3
Laboratory Geotechnical Test Results	Appendix 4
Laboratory Chemical Test Results	Appendix 5
Concrete Requirements Against Sulphate Attack	Appendix 6

ALEXANDER JAMES CONTRACTS LIMITED

REPORT ON A SITE INVESTIGATION

505-511 ARCHWAY ROAD

LONDON N6

Report Reference No. 151840

August 2026

INTRODUCTION

Lucion Ground Engineering Limited was instructed by the client, Alexander James Contracts Limited, to carry out a Phase 1 desk study followed by an intrusive ground investigation to establish the ground conditions within commercial premises located at 505-511 Archway Road on the corner of Baker's Lane, London N6. These works were scheduled by the client, in advance of proposed residential development.

The Phase 1 desk study references historical maps and environmental database information and provides an overview of potential environmental, geological, and contamination risks. The scope of the intrusive investigation comprised two cable percussion boreholes and four window sample boreholes with chemical and geotechnical testing on recovered samples to determine the nature of the near surface soil.

This report combines the findings of the desk study research, the exploratory holes and the results of laboratory testing, and makes recommendations for the design of foundations together with an assessment of whether soil contamination is likely to affect the proposed residential development.

LOCATION, TOPOGRAPHY AND GEOLOGY OF THE SITE

The 25m wide by 40m long site comprised 505-511 Archway Road (A1), a hand car wash and auto repair centre located on the corner of Bakers Lane, London N6 as shown in Figure 1. The site was situated at National Grid Reference TQ 27941 88498.

Access to the site was off Archway Road, to the north-east and the hand car wash and auto repair centre were housed in single storey industrial units located at the north-western and south-eastern ends of the site with a concrete surfaced vehicle forecourt in between.

Directly to the north-west of the site is a petrol filling station and car wash; to the north-east, on the opposite side of Archway Road, is a Builder's Merchant and railway sidings; to the south-west are dwellings along North Hill; and to the south-east is Baker's Lane. There are some mature deciduous and coniferous trees located in the gardens of the dwellings to the west of the site.

The flat site, which stood at about 93mOD was situated between two areas of relatively high ground, Highgate (110mOD) to the south, and Highgate Wood (103mOD) to the north-east.

The BGS 1:50,000 geological map Sheets 256 and the BGS Geology Viewer indicates that the site lies within an area directly underlain by the London Clay Formation. No drift deposits are indicated to overlie the site.

SITE HISTORY

Research into the history of the site involved reference to historical Ordnance Survey (OS) maps, aerial photographs, and internet research. Selected extracts are presented in Appendix 1 and described below:

<i>OS Map Extract</i>	<i>Description</i>
1864-65 OS County Series Scale 1:2500 Figure A 1873 OS County Series Scale 1:10,560 Figure B	The rural site is situated within the fork of two roads, which join to the north-west of the Wellington Inn and a house. The site is set out as gardens, possibly belonging to the latter house. There are some dwellings shown directly to the south of the site. Manor Farm is located to the north; Gravel Pit Wood to the north-east; North Hill to the south; and fields to the west. There is a large pond located about 100m to the west of the site and an open section of an old river channel some 125m to the south (by Springfield House). Whilst not shown in the 1864-65 map a railway line is shown in the 1873 map about 75m to the north-east.
1894/96 OS County Series Scale 1:10,560 Figure C 1896 OS County Series Scale 1:1065 Figure D 1896 OS County Series Scale 1:2500 Figure E	The site is occupied by four dwellings, with Mansfield Cottages located to the west, with Baker's Lane to the south beyond which more dwellings fill the land to North Hill Avenue. A school is situated about 120m to the south-west of the site. The public house to the north is still denoted, and the adjoining house appears to have been extended. About 50m to the west is the Highgate Depot and Museum of Sanitary Appliances. Within a 50m distance to the north are railway sidings and a carriage shed, and to the east a railway junction.
1913/14 OS County Series Scale 1:2500 Figure F 1920 OS County Series Scale 1:10,560 Figure G	With the exception of some new outbuildings, the site and immediate surroundings remain as shown previously. There are tram lines shown along the road to the north-east. The Highgate Depot is now denoted as Western Highways Depot. Further residential development is shown to the south-west of the site.

<i>OS Map Extract</i>	<i>Description</i>
1935 OS County Series Scale 1:2500 Figure H 1936/38 OS County Series Scale 1:10,560 Figure I	The site and immediate surroundings appear as shown in the previous maps.
1950 OS Sheet TQ2788NE/SE Scale 1:1250 Figure J 1951 OS Sheet TQ28NE Scale 1:10,560 Figure K	The site and immediate surroundings generally appear as shown in the previous maps. The dwellings on site are numbered 505, 507, 509 and 511. A large open sided structure and yard occupies the former garden of 507. There is a garage between the site and the Wellington Hotel (public house) to the north. The road fork to the east is called Archway Road, and the road to the west is called North Hill. There is significant new residential within the wider surrounding area.
1960 OS Sheet TQ2788NE/SE Scale 1:1250 Figure L 1965 OS Sheet TQ28NE Scale 1:10,560 Figure M	The site and immediate surroundings generally appear as shown in the previous maps.
1970 OS Sheet TQ2788 Scale 1:2500 Figure N 1973/74 OS Sheet TQ2788NE/SE Scale 1:1250 Figure O 1974 OS Sheet TQ28NE Scale 1:10,000 Figure P	The site and immediate surroundings generally appear as shown in the previous maps.

<i>OS Map Extract</i>	<i>Description</i>
1981 OS Sheet TQ2788SE Scale 1:1250 Figure Q	This map shows the southern part of the site, which appears to have been redeveloped with a new building.
1999 Aerial Photograph on Page 13, Appendix 2	This aerial photograph shows the site to be occupied by commercial buildings.
2001 OS Sheet TQ2788SE Scale 1:1250 Figure R	The site appears as shown in the 1999 aerial photograph.
2010 OS Sheet TQ28NE Scale 1:10,000 Figure S	The site layout appears as shown in the 1999 aerial photograph.
2013 & 2016 Aerial Photograph on Pages 11 & 12 Appendix 2	This shows the site to be occupied by commercial buildings as shown in the 1999 aerial photograph.
2021 & 2022 Aerial Photograph on Pages 9 and 10 Appendix 2	The site layout appears as shown in the 1999 aerial photograph.
2025 OS Sheet TQ28NE Scale 1:10,000 Figure T	This shows the site to be occupied by commercial buildings as shown in the 1999 aerial photograph and as it was at the time of the investigation.

Historical Summary

In 1886 the site was occupied by gardens, situated within the fork of two roads, between the Wellington Inn and a house, to the north, and some dwellings to the south of the site. A large pond and a small section of river channel provide evidence that a river/stream flowed across the land to the south of the site, prior to being infilled/culverted by 1896.

By about 1896 the site had been developed with four dwellings with rear gardens. Apart from the addition of some outbuildings, the dwellings generally remained unchanged in appearance from the 1950s when they were numbered 507 to 511. During this period, an open sided building was constructed in the rear garden of No. 507, apparently accessed via a yard to the north. The environmental database indicates that this building operated as a garage during the period between 1950 to 1963.

The dwellings were demolished in the late 1970s/early 1980s and subsequently replaced with commercial units believed to have been used as a vehicle maintenance and repair garage. From the early 2000s through to the time of this survey the site has been used for both vehicle maintenance, and hand car washing and valeting services.

SUMMARY OF ENVIRONMENTAL DATA

Appendix 2 contains information derived from Environmental Databases for a radius of up to 2000m from the site. The information covers datasets held by the Groundsure with contributors including the local authority, the Environment Agency, British Geological Survey, Ordnance Survey and the Coal Authority and the results, within a radius of 250m, are summarised below:

Historical Industrial Sites	On Site	0-50m	51 - 250m
Historical Industrial Land Uses	0	19	30
Historical Tanks	0	1	1
Historical Energy Features Database	0	0	6
Historical Petrol and Fuel Site Database	0	0	0
Historical Garages	1	1	7
Historical Military Land	0	0	0
Landfill and Other Waste Sites	On Site	0-50m	51 - 250m
Landfill Sites	0	0	0
Waste Sites	0	0	0
Waste Exemptions	0	0	3
Current Industrial Land Uses	On Site	0-50m	51 - 250m
Recent Industrial Land Uses	1	2	2
Current or Recent Petrol Stations	0	0	1
Sites Determined as Contaminated Land	0	0	0
Permits/Authorisations	0	2	2
Pollution Discharge	0	0	0
Dangerous Substances	0	0	0
Pollution Incidents	0	0	0
Pollutions Inventories	0	0	0
Hydrogeology	On Site	0-50m	51 - 250m
Superficial Aquifer	None (within 500m)		
Bedrock Aquifer	Identified (within 500m)		
Groundwater Vulnerability	Identified (within 50m)		
Groundwater Vulnerability-soluble rock risk	None (within 0m)		
Groundwater Abstractions	0	0	0
Surface Water Abstractions	0	0	0
Potable Abstractions	0	0	0
Source Protection Zones	0	0	0
Hydrology	On Site	0-50m	51 - 250m
Water Network (OS MasterMap)	0	0	2
Surface Water Features	0	0	2

River and Coastal Flooding	On Site	0-50m	51 - 250m
Risk of Flooding from Rivers and Sea	None (within 50m)		
Historical Flood Events	0	0	0
Flood Defences	0	0	0
Areas Benefiting from Flood Defences	0	0	0
Flood storage areas	0	0	0
Flood Zone 2	None (within 50m)		
Flood Zone 3	None (within 50m)		
Surface Water Flooding			
Surface Water Flooding	1 in 30 year, 0.1m-0.3m (within 50m)		
Groundwater Flooding			
Groundwater Flooding	Negligible (within 50m)		
Designated Environmentally Sensitive Sites	On Site	0-50m	51 - 250m
Environmentally sensitive sites	0	0	2
Natural Hazards			
Hazard			
Shrinking or Swelling Clay	Moderate (within 50m)		
Running Sand	Very Low (within 50m)		
Compressible Ground	Negligible (within 50m)		
Collapsible Deposits	Very Low (within 50m)		
Landslides	Very Low (within 50m)		
Ground Dissolution of Soluble Rocks	Negligible (within 50m)		
Mining, Ground Workings & Natural Cavities	On Site	0-50m	51 - 250m
Natural Cavities	0	0	0
Surface Ground Workings	0	0	0
Underground Mining	0	0	0
Radon			
The property is not in a Radon Affected Area, as less than 1% of properties are above the action level. The site lies within an area where no radon protection measures are necessary.			

Database Summary

There are historical records of a garage (1950-1960) on the site and one current record of the existing car wash usage.

There are 49 historical land uses within 250m of the site, between 1873 and 1996, primarily relating to railway usage, depots and cuttings.

The current site usage is listed as American Carwash and there are four current uses listed within 250m of the site. These relate to the neighbouring ESSO petrol filling station and vehicle cleaning services directly to the north; an electricity substation situated 90m to the north-west; and a shaft (presumably relating to railway usage), 100m to the east of the site.

There are no landfill or waste records relating to the site. There are three waste exemptions within 250m of the site, which relate to a pharmacy.

There are no pollution incidents relating to the site and there is a licensed pollutant release relating to the neighbouring petrol filling station 30m to the north-west. There are two sewage discharge consents located 163m to the north-east within the railway depot.

The site is indicated to be underlain the solid geology of the London Clay Formation, which is unproductive in terms of aquifer classification.

There is a man made watercourse located 137m to the east of the site.

There are no records indicating that the site is at risk from flooding from rivers.

The site lies within an area that has negligible risk of surface water flooding and a 1 in 30 year risk, (0.3m-1.0m) within 50m. There is a negligible risk of groundwater rising above ground surface causing groundwater flooding.

The property is in an area where less than 1% of properties are above the action level for radon. The site lies within an area where no radon protection measures are necessary.

PRELIMINARY RISK ASSESSMENT

Potential sources of contamination present on or beneath the site would relate primarily to; the historical use of the site, the presence of contaminated soil; and the potential presence of soil gas beneath the site.

In order to assess the risks associated with the presence of ground contamination the linkages between the sources and potential receptors to contamination need to be established and evaluated. This is in accordance with the Environmental Protection Act 1990, which provides a statutory definition of Contaminated Land. To fall within this definition it is necessary that, as a result of the condition of the land, substances may be present on or under the land such that

- *Significant harm is being caused or there is a significant possibility of such harm being caused; or*
- *Pollution of controlled waters is being, or is likely to be, caused*

There are three principal factors that are assessed whilst undertaking a qualitative risk assessment for any site. These are the presence of a contamination source, the existence of migration pathways and the presence of a sensitive target(s). It should be noted that it is necessary for each element of source, pathway and target to be present in order for exposure of a human or environmental receptor to occur.

UK Government guidance on the assessment of contaminated land requires risk to human health and the environment to be reviewed using source – pathway – target relationships. If each of these elements is present, the linkage provides a potential risk to the identified targets.

Contaminants or ***potential pollutants*** identified as ***sources*** in relation to the identified previous uses are listed overleaf in Table 1.

The only potential contaminant source beneath the site is believed to comprise soil previously imported onto the site.

Table 1: Identified Potential Contaminant Sources

<i>Contaminant Source</i>	<i>Comments</i>
Drainage	Leaking drains and oil interceptors
Pollution arising from former Garage Use	Petroleum in soil and water beneath site
Soil Beneath Site	Contamination may be present within any made ground materials spread across or imported on the site.
Soil Gas	Potential soil gas generated from any made ground present.
Ground Contamination Outside Site Boundary	Ground contamination migrating from adjoining sites.

A **Pathway** is defined as one or more routes through which a receptor is being, or could be, exposed to, or affected by, a given contaminant.

Potential **Target or Receptors** fall within the categories of Human Health, Water Environment, Flora and Fauna, and Building Materials.

There are a number of possible pathways for the contaminants identified on the site to impact human and/or environmental receptors and these are summarised in Tables 2 and 3.

Table 2: Human Receptors and Pathways

<i>Human Receptor-Mechanism</i>	<i>Typical Exposure Pathway</i>
Human Inhalation	Breathing Dust and Fumes Breathing Gas emissions
Human Ingestion	Eating -contaminated soil, for example by small children -produce grown on contaminated soil Ingesting dust or soil on vegetables Drinking contaminated water
Human Contact	Direct skin contact with contamination Direct skin contact with contaminated liquids

Table 3: Water Receptors and Pathways

<i>Receptor-Water Environment</i>	<i>Typical Exposure Pathway</i>
The site is indicated to be directly underlain the solid geology of the London Clay Formation, which is Unproductive in terms of aquifer classification.	Surface infiltration of atmospheric waters into the soils beneath the site could wash or dissolve potential contaminants and migrate to underlying groundwater. Contamination leads to restriction/prevention of use as a resource, for example, drinking water, and can have secondary impacts on other resources, which depend on it.
There is a man made watercourse located 137m to the east of the site.	Surface infiltration of atmospheric waters into the soils beneath the site could wash or dissolve potential contaminants and laterally migrate. Contamination leads to a restriction/prevention of use: -as drinking water resource -for amenity use Effects on aquatic life

Preliminary Conceptual Model

Assessment of the potential linkage between ground contamination sources, human and environmental receptors have been assessed based on the desk study research documented in the preceding sections of this report.

A generalised preliminary conceptual model is presented below in Table 4.

Table 4: Preliminary Conceptual Model Relative to Proposed Commercial Development

Receptors	Pathway	Estimated Potential for Linkage with Contaminant Sources				
		Contaminant Source Drainage	Contaminant Source Pollution Arising From Former Garage Use	Contaminant Source Soil Beneath Site	Contaminant Source Soil Gas	Contaminant Source Ground Outside Site Boundary
Human Health – site and ground workers	Ingestion and Inhalation of contaminated Soil, Dust and Vapour	Low to Likely likelihood	Low to Likely likelihood	Low likelihood	Low likelihood	Low likelihood
Human Health – users of completed development	Ingestion and Inhalation of contaminated Soil, Dust and Vapour	Low to Likely likelihood	Low to Likely likelihood	Low likelihood	Low likelihood	Low likelihood
Water Environment	Migration through ground into surface water or surrounding groundwater	Low likelihood	Low likelihood	Low likelihood	Unlikely	Low likelihood
Flora	Vegetation on site growing on contaminated soil	Low likelihood	Low likelihood	Low likelihood	Unlikely	Unlikely
Building Materials	Contact with contaminated soil	Low likelihood	Low likelihood	Low likelihood	Unlikely	Unlikely
Key to Table 4 Estimated Potential for Linkage with Contaminant Source	Definition					
High likelihood	There is a pollution linkage and an event that either appears very likely in the short term and almost inevitable over the long term, or there is evidence at the receptor of harm or pollution.					
Likely	There is a pollution linkage, and all the elements are present and in the right place, which means that it is probable that an event will occur. Circumstances are such that an event is not inevitable, but possible in the short term and likely over the long term.					
Low likelihood	There is a pollution linkage and circumstances are possible under which an event could occur. However, it is by no means certain that even over a longer period such an event would take place and is less likely in the shorter term.					
Unlikely	There is a pollution linkage, but circumstances are such that it is improbable that an event would occur even in the very long term.					
NA	Not Applicable					

SITE WORK

The site work was carried out between 20 and 22 July 2026 and comprised 10m and 20m deep cable percussion boreholes (BH01 and BH02) and four window sample boreholes (WSA to WSD at locations shown in Figure 2.

The exploratory hole records have been produced in accordance with British Standard BS5930:2015+A1:2020 ‘Code of Practice for Site Investigations’ and are given in Appendix 3. The records provide the descriptions and depths of the various strata encountered, details of standpipe installations, samples taken, and the groundwater conditions observed during excavation, boring and on completion.

Service plans were consulted and a cable avoidance tool (CAT) was used to check for the absence of buried services prior to boring.

Cable Percussion Boreholes (BH01 and BH02)

Diamond drilling techniques were used to core through the surface concrete hardstanding, which covered the site. Following coring the boreholes were initially commenced using hand tools to 1.20m below ground level to ensure the absence of buried services.

The boreholes were sunk using a standard cable percussive boring rig and advanced using weighted claycutter and shell tools, working within 150mm diameter casing inserted to a depths of 2.50m and 2.80m. Boreholes BH01 and BH02 were completed at scheduled depths of 10.00m and 20.00m respectively.

Representative small disturbed samples of soil were taken from the boring tools at regular intervals throughout the depth of the boreholes. Water samples were also taken when sufficient water has entered the boreholes. Undisturbed samples 100mm in diameter were taken at regular intervals as appropriate within the clay soils. The ends of the samples were capped to maintain them in as representative condition as possible during transit to the laboratory.

The standard penetration test (SPT) was carried out in order to allow the assessment of the relative in-situ density or stiffness of the ground. The test was made by driving a split-barrel sampler (SPT(S)) into the soils at the base of the borehole by means of an automatic trip hammer weighing 63.50kg falling freely through 760mm. The penetration resistance was determined as the number of blows required to drive the tool the final 300mm of a total penetration of 450mm into the soil ahead of the borehole. The SPT blows and N values included on each borehole record.

On completion a soil gas and groundwater monitoring installation was fitted into each borehole to a depth of 5.00m. The installation comprised a standpipe fitted with a silica gravel surround up to a depth of 1.00m. A bentonite seal was inserted between 0.50m and 1.00m depth, above which the tube was sealed by a gas valve and a surface protective cover was fixed in concrete.

Below the installations the boreholes were backfilled with the arisings.

Window Sample Boreholes (WSA to WSD)

Diamond drilling techniques were used to core through the surface concrete hardstanding and floor slabs, which covered the site. Following coring the borehole positions were commenced using hand tools to 1.20m below ground level to ensure the absence of buried services.

A concrete obstruction at 0.45m in WSC prevented further progress of this borehole, which was subsequently abandoned.

The window sample boreholes WSA, WSB and WSD were formed by a small track-mounted window sampling and super heavy dynamic probing rig and taken to depths of 3.45m and 4.45m. The window sampling equipment consisted of drive-in sample tubes of specially constructed and strengthened steel, lined with a plastic core-liner. The barrels were initially of 87mm internal diameter and were reduced in diameter with successive barrels with increasing depth. Upon extraction, a continuous 'undisturbed' profile of the soil was obtained within the plastic liners. The standard penetration test (SPT) was carried out at regular intervals in order to allow

the assessment of the relative in-situ density or stiffness of the ground. The test was made by driving a split-barrel sampler (SPT(S)) into the soils at the base of the borehole by means of an automatic trip hammer weighing 63.50kg falling freely through 750mm. The penetration resistance was determined as the number of blows required to drive the tool the final 300mm of a total penetration of 450mm into the soil ahead of the borehole. The SPT blows and N values are included on each borehole record.

On completion a soil gas and groundwater monitoring installation was fitted into WSB to a depth of 3.00m. The installation comprised a standpipe fitted with a silica gravel surround up to a depth of 1.00m. A bentonite seal was inserted between 0.50m and 1.00m depth, above which the tube was sealed by a gas valve and a surface protective cover was fixed in concrete.

Return Visits to Site

Return visits to site were undertaken on 30 July, 6 and 13 August 2026 to monitor the standpipe installations for depth to groundwater and the concentrations of methane, carbon dioxide and oxygen. Measurement was carried out using a Gasdata GFM430, which also recorded the atmospheric pressure and flow rate. The monitoring results are presented on and following the borehole records in Appendix 3.

GEOTECHNICAL LABORATORY TESTING

Samples recovered from the exploratory holes were tested in accordance with the recommendations of British Standard BS1377:1990, 2016 & 2022, BS EN ISO 17892, and other industry standards. The results of testing are presented on Laboratory Summary Sheets in Appendix 4.

Soil Moisture Content

The moisture content of selected samples was determined, and the results are reported as the percentage water content with respect to the dry mass of soil.

Atterberg Limit Tests

The liquid and plastic limits, and plasticity index, were determined for selected specimens for the purpose of engineering soil classification. The results are quoted as the percentage water with respect to the dry weight of soil.

Undrained Shear Strength

Single-stage compression tests were carried out to determine the undrained shear strength of selected undisturbed samples. The moisture content, bulk and dry densities of the specimens were also determined as part of the test procedure. A plot of undrained shear strength versus depth has been presented following the laboratory test results in Appendix 4.

The results of hand vane testing have also been presented on samples unsuitable for single-stage compression tests.

Sulphate and pH Testing

Selected soil and water samples were tested to determine their pH-values and aqueous sulphate contents in order to provide advice on assessing the aggressive chemical environment in relation to buried concrete.

CBR Tests

A California Bearing Ratio (CBR) test was performed on a selected sample recompacted using a 2.5kg rammer. The test consisted of jacking into the soil a cylindrical plunger with a cross sectional area of 1935mm^2 . A force of 50N was applied initially to seat the plunger on the soil surface and then the plunger was made to penetrate the soil at a uniform rate of 1mm/min. Readings of force were taken at intervals of penetration of 0.25mm to a penetration not exceeding 7.50mm. The CBR value is the ratio of the force required to achieve 2.50mm or 5.00mm penetration to standard forces expressed as a percentage.

CHEMICAL LABORATORY TESTING

Selected soil were submitted to a UKAS Accredited Laboratory who carried out a suite of tests, which encompassed a wide range of potential contaminants outlined by the Environment Agency (EA) and National House Building Council (NHBC) document R&D 66; 2008 'Guidance for the Safe Development of Housing on Land Affected by Contamination'.

Tests were carried out to screen the samples for the following potential contaminants: total arsenic, total cadmium, total chromium, hexavalent chromium, total lead, total mercury, total selenium, water soluble boron, total copper, total nickel, total zinc, total cyanides, free cyanides, soluble sulphate, sulphides and pH-value, phenols and polyaromatic hydrocarbons (PAH), including benzo[a]pyrene, total petroleum hydrocarbons (TPH), and asbestos.

Three samples of groundwater recorded from the standpipes were tested to determine the total petroleum hydrocarbon (TPH) concentration.

The results of chemical testing are presented in Appendix 5.

GROUND CONDITIONS

The ground conditions comprised a 1.70m to 1.90m thick surface layer of made ground, which rested on Alluvium. The underlying solid geology of the London Clay Formation was encountered at 4.00m depth in BH01 and BH02 and was proven to at least 10.00m and 20.00m depth respectively in boreholes BH01 and BH02.

Made Ground

A surface layer of concrete within the central yard area was encountered with a thickness of between 0.20m and 0.25m. Boreholes WSC and WSD were located inside the building and encountered a floor slab thickness of 0.18m and 0.25m respectively.

The underlying made ground comprised brown and orange brown, sand and gravel of angular to rounded flint, quartz and concrete to depths between 0.40m and 1.40m. A concrete obstruction at 0.45m in WSC prevented further progress of this borehole, which was subsequently abandoned. In BH02 this layer was underlain by brown and black sand and gravel, of angular to rounded, flint, quartz and ash with timber fragments, between 1.40m and 1.80m.

The sand/gravel made ground in the remaining boreholes was underlain by mixtures of soft, firm and stiff, brown, dark brown and grey, slightly sandy, slightly gravelly, silty clay. The gravel fraction comprised angular to rounded flint, quartz and ash. The base of the made ground was proved at depths between 1.70m and 1.90m depth.

Alluvium

The Alluvium was present underlying the made ground at depths between 1.70m and 1.90m depth and was proved to 4.00m in BH01 and BH02. Boreholes WSA to WSD were completed within the Alluvium at 3.45m depth.

The Alluvium comprised variably soft and firm mixtures of grey brown, grey and brown mottled, silty clay and slightly sandy, slightly gravelly, silty clay, which contained dead root traces and was locally organic. The gravel fraction comprised angular to rounded flint.

London Clay Formation

The London Clay Formation, which was met at depths of 4.00m in BH01 and BH02, initially comprised firm, locally fissured, grey and dark grey, locally mottled brown, silty clay.

At a depth of 6.00m these boreholes passed into stiff, fissured, grey, silty clay and completed within this strata at 10.00m and 20.00m depth respectively.

Groundwater

Whilst the majority of the boreholes were dry during boring, a seepage was locally encountered at a depth of 3.40m, within the Alluvium close to the base of the borehole at 3.45m.

Return visits to site were undertaken on 30 July and 6 and 13 August 2026 to monitor the standpipe installations in BH01, BH02 and WSB. Standpipe water levels were found standing at depths between 1.28m and 3.61m.

Evidence of Contamination

No visual or olfactory evidence of contamination was observed.

COMMENTS ON THE GROUND CONDITIONS IN RELATION TO FOUNDATION DESIGN AND CONSTRUCTION

Ground investigation works comprising boreholes and trial pits were scheduled by the client, in advance of proposed construction of a residential development at 505-511 Archway Road, London N6. The scope of residential development comprises a four-storey apartment building and a couple of two-storey houses.

The ground conditions comprised a 1.70m to 1.90m thick surface layer of made ground, which rested on variably soft clay Alluvium. The underlying solid geology of the London Clay Formation was encountered at 4.00m depth in BH01 and BH02 and was proven to at least 20.00m depth in the deepest borehole.

Laboratory testing of the clay fill and Alluvium gave modified plasticity indices between 11% and 42%. These results indicate low to high volume change potential, according to the National House Building Council (NHBC) Standards Chapter 4.2 “Building near Trees” (2025).

The made ground is considered unsuitable as a founding stratum. Large scale processes of natural sedimentation allow a certain degree of confidence to be placed in the absence of important variation of the engineering properties of natural soils across sites. By contrast, made ground whose history is not completely known, must, despite any amount of investigation, present the possibility of conditions existing, which could not be accepted when considering the material as a bearing stratum.

The variably soft nature of the underlying Alluvium means that this stratum is also considered unsuitable as a founding stratum.

Consequently, consideration should be given to 10m or 15m long piled foundations taken the London Clay Formation.

Piled Foundations

The ground conditions are suitable for bored, CFA or driven piles although vibrations during driven piles, could cause damage to neighbouring buildings. The piles should penetrate the made ground, and Alluvium, and be taken into the underlying firm and stiff London Clay Formation.

For the purposes of preliminary pile design, the pile bearing coefficients given in Table 5, are based on the following assumptions and may be used to assess working loads for a bored pile.

1. The ultimate load on a pile would be the sum of the side friction/adhesion acting on the shaft of the pile together with the end-bearing load, ignoring any contribution from made ground.
2. The side friction/adhesion would be a function of the average cohesion of the clay into which the pile is embedded. A value of 0.5 is considered to be an appropriate adhesion factor for the London Clay Formation.
3. The end-bearing load within the clay of the London Clay Formation would be nine times the average cohesion at the level of the pile toe.
4. A factor of safety (FOS) of 2.5 should be used to assess pile working loads, although if test loading of selected piles is practical the factor of safety may be reduced to 2.0.
5. Where piles are installed in groups it will be necessary to position them at least 3.0 diameters apart, centre-to-centre, otherwise a reduction in individual working load will need to be taken into account.

<u>Table 5</u>	<u>Ultimate Pile Bearing Value</u> <u>kN/m² (Bored)</u>
<u>Item</u>	
Shaft adhesion/friction in made ground	Nil
Average shaft adhesion in Alluvium	20
Average shaft adhesion in London Clay Formation (4m-6m)	25
Average shaft adhesion in London Clay Formation (6m-8m)	35
Average shaft adhesion in London Clay Formation (8m-10m)	45
Average shaft adhesion in London Clay Formation (10m-15m)	50
End bearing in London Clay Formation (10m-15m)	900

As a preliminary guide to pile design, the following safe working loads could be expected respectively from 250mm, 450mm and 600mm diameter bored piles, end bearing at a depth of 10.00m and 15.00m within the London Clay Formation. A factor of safety of 2.5 has been used on shaft adhesion and end bearing for the examples below in Table 6.

<u>Table 6</u>	<u>Pile Length</u>	<u>Working Load for bored pile (FoS = 2.5)</u>		
		250mm Diameter	450mm Diameter	600mm Diameter
BH02	10.00m	95kN	200kN	290kN
BH02	15.00m	175kN	340kN	480kN

It should be noted that different pile lengths, or diameters, from those listed above would give different available working loads, which could be tailored to suit the working loads required. The working load obtained from a given pile will be highly dependent upon the method of installation and it is recommended that the final design of piles should be undertaken by a piling specialist.

Floor Slab

Suspended floors should also be considered in conjunction with piled foundations as this would be necessary in order to prevent differential settlement between the slab and main structure.

Foundation Excavations and Groundwater

Following preparation, the base of pile cap foundation excavations should be inspected to ensure that the condition of the soil complies with that assumed in design. Should pockets of inferior material be present they should be removed and replaced with well graded hardcore or lean mix concrete. Water should be excluded from foundation excavations; otherwise rapid and significant loss of bearing capacity may occur. The excavated surface should be protected from deterioration and a blinding layer of concrete used where foundations are not completed without delay.

Excavations should be expected to be unstable and should not be relied upon to stand unsupported even in the short term. Safety precautions should not be neglected especially where personnel are to enter excavations, when close side support will be required in order to maintain excavation stability.

Whilst the majority of the boreholes were dry during boring, a seepage was locally encountered at a depth of 3.40m, within the Alluvium close to the base of the borehole at 3.45m. Return visits to site were undertaken on 30 July and 6 and 13 August 2026 to monitor the standpipe installations in BH01, BH02 and WSB. Standpipe water levels were found standing at depths between 1.28m and 3.61m.

It is expected that shallow excavations could encounter water seepages, which would be more prevalent following periods of wet weather due to surface infiltration. It is likely that water ingress within shallow excavations in the short term could be controlled by screened sump pump techniques.

Buried Concrete

Tests on samples taken from the Alluvium and London Clay Formation to determine the risk of sulphate attack on buried concrete indicate levels that fall into Classes DS-1 and DS-4 as defined by Table C2 of BRE Special Digest 1, 2005. The pH results indicate neutral to alkaline ground conditions with pH values ranging between 7.0 and 10.8. The mean of the highest 20% of the sulphate results indicates, to the nearest 100mg/l, a characteristic value of 2600mg/l, which falls into DS-3.

For the purposes of design an Aggressive Chemical Environment for Concrete (ACEC) Class of AC-3 should be considered when specifying a Design Chemical Class (DC Class) for concrete used. An extract of Table C2, Aggressive Chemical Environment for Concrete (ACEC) site classification, from BRE Special Digest 1, 2005 is presented in Appendix 6.

Pavement Design

In selecting the design CBR value for the sub-grade, consideration must be given to the likely moisture conditions applying during construction. The following comments are applicable to the ground conditions at the time of the investigation and it should be noted that the CBR values will deteriorate if the sub-grade is allowed to get wet.

Laboratory CBR tests on recompacted samples, taken from 0.20m to 0.75m depth within the sand/gravel layer below the concrete surface layer, produced CBR values of between 11% and 48%.

A CBR design value of 10% would be considered appropriate for pavements placed directly onto the sand/gravel sub-base below the concrete.

The formation should always be proof rolled and carefully inspected ensuring that any topsoil, root infested clay and soft clay or loose spots are removed and replaced with properly compacted clean granular material if inferior CBR values are to be avoided.

COMMENTS ON SOIL CHEMICAL TESTING

The results of the laboratory chemical testing on near surface soil samples have primarily been compared to soil screening values (SSVs) produced by Land Quality Management Limited (LQM) and the Chartered Institute for Environmental Health (CIEH) presented in their document ‘The LQM/CIEH S4ULs for Human Health Risk Assessment: 2015 (Publication Number S4UL3608)’. The LQM/CIEH S4ULs are intended for use in assessing the potential risks posed to human health by contaminants in soil and are transparently-derived and cautious ‘trigger values’ above which further assessment of the risks or remedial action may be needed. The S4ULs (Suitable for Use Levels) have been derived, in accordance with UK legislation and Environment Agency policy, using a modified version of the Environment Agency CLEA 1.06 software.

Reference has also been given to AGAC soil screening values produced by Society of Brownfield Risk Assessment (SoBRA) as documented in their July 2020 publication ‘Development of Acute Generic Assessment Criteria for Assessing Risks to Human Health from Contaminants in Soil’. With the absence of a S4UL for cyanide, the SoBRA AGAC has been used as the soil screening criteria within this report because the acute dose toxicity thresholds for free cyanide are very close to the chronic dose toxicity thresholds.

In 2014 the Department for Environment Food and Rural Affairs (DEFRA) published, in their document SP1010, Category 4 Screening Levels (C4SL) for several contaminants including lead. The C4SL represent screening levels below which the land could be considered suitable for a specified use and definitely not contaminated land in respect of those determinands. With the absence of S4UL for lead the C4SL has been used as the soil screening criteria within this report.

For each contaminant the adopted soil screening criteria have been calculated for the following land uses:

- Residential use with home grown produce
- Residential use without home grown produce
- Public Open Space near Residential Housing

The intended purpose of the SSVs are as “intervention values” in the regulatory framework for assessment of human health risks in relation to land use. These values are not binding standards but are intended to inform judgements about the need for action to ensure that a new use of land does not pose any unacceptable risks to the health of the intended users.

Tables 7 to 9 compare the test results for the made ground with the SSVs in relation to the specified uses. The number of test results, which exceed these values, are also provided.

Residential soil screening criteria are considered to provide appropriately conservative screening values for proposed residential usage of the site.

Table 7: Comparison of Chemical Test Results for Near Surface Soil with Soil Screening Values (SSV)

Determinand	Number of Samples	Min Value (mg/kg)	Max Value (mg/kg)	Number of Samples Exceeding SSV for:			Measured 95 th Percentile (mg/kg)	Soil Screening Values (SSV) (1% SOM)			
				Residential with home grown produce	Residential without home grown produce	Public Open Space near Residential Housing		Assessment Method	Residential with home grown produce (mg/kg)	Residential without home grown produce (mg/kg)	Public Open Space near Residential Housing (mg/kg)
Organic matter	6	<0.1%	2.4%	-	-	-	-	-	-	-	-
Arsenic	6	15	25	0	0	0	25.31	S4UL	37	40	79
Cadmium	6	<0.1	0.2	0	0	0	0.21	S4UL	11	85	120
Total Chromium	6	15	20	0	0	0	19.51	S4UL	910	910	1500
Hexavalent Chromium	6	<1.0	<1.0	0	0	0	<1.00	S4UL	6	6	7.7
Lead	6	10	180	0	0	0	64.98	C4SL	200	310	630
Mercury	6	<0.05	0.45	0	0	0	0.25	S4UL	11	15	40
Selenium	6	<0.5	<0.5	0	0	0	<0.50	S4UL	250	430	1100
Nickel	6	15	27	0	0	0	28.45	S4UL	130	180	230
Phenols	6	<0.3	<0.3	0	0	0	<0.30	S4UL	120	440	440
Copper	6	21	42	0	0	0	35.19	S4UL	2400	7100	12,000
Zinc	6	61	94	0	0	0	89.89	S4UL	3700	40,000	81,000
Free Cyanide	6	<0.1	<0.1	0	0	0	<0.10	AGAC	24	24	24

Notes

The concentration of Trivalent Chromium is assumed to be equivalent to the Total Chromium concentration. This is because most naturally occurring chromium is in the trivalent (chromic) state.

S4UL and C4SL for metals were derived using 6% SOM. These values are not sensitive to SOM and would also be applicable for 1% SOM and 2.5% SOM

LQM/CIEH S4ULs 'Copyright Land Quality Management Limited reproduced with permission; Publication Number S4UL3608. All rights reserved'

AGAC soil screening values produced by Society of Brownfield Risk Assessment (SoBRA) as documented in their July 2020 publication 'Development of Acute Generic Assessment Criteria for Assessing Risks to Human Health from Contaminants in Soil'.

Table 8: Comparison of PAH Chemical Test Results for Near Surface Soil with Soil Screening Values (SSV)

Determinand	Number of Samples	Min Value (mg/kg)	Max Value (mg/kg)	Number of Samples Exceeding SSV for:			Measured 95 th Percentile (mg/kg)	Soil Screening Values (SSV) (1% SOM)			
				Residential with home grown produce	Residential without home grown produce	Public Open Space near Residential Housing		Assessment Method	Residential with home grown produce (mg/kg)	Residential without home grown produce (mg/kg)	Public Open Space near Residential Housing (mg/kg)
Acenaphthene	6	<0.03	1.2	0	0	0	0.62	S4UL	210	3000	15,000
Acenaphthylene	6	<0.03	1.2	0	0	0	0.62	S4UL	170	2900	15,000
Anthracene	6	<0.03	1.0	0	0	0	0.52	S4UL	2400	3100	74,000
Benzo[a]anthracene	6	<0.03	1.2	0	0	0	0.68	S4UL	7.2	11	29
Benzo[a]pyrene	6	<0.03	1.1	0	0	0	0.63	S4UL	2.2	3.2	5.7
Benzo[b]fluoranthene	6	<0.03	1.2	0	0	0	0.73	S4UL	2.6	3.9	7.1
Benzo[g,h,i]perylene	6	<0.03	1.3	0	0	0	0.70	S4UL	320	360	640
Benzo[k]fluoranthene	6	<0.03	1.1	0	0	0	0.59	S4UL	77	110	190
Chrysene	6	<0.03	1.2	0	0	0	0.67	S4UL	15	30	57
Dibenz[a,h]anthracene	6	<0.03	1.3	1	1	1	0.67	S4UL	0.24	0.31	0.57
Fluoranthene	6	<0.03	1.2	0	0	0	0.82	S4UL	280	1500	3100
Fluorene	6	<0.03	1.2	0	0	0	0.62	S4UL	170	2800	9900
Indeno[1,2,3-cd]pyrene	6	<0.03	1.5	0	0	0	0.79	S4UL	27	45	82
Naphthalene	6	<0.03	1.1	0	0	0	0.57	S4UL	2.3	2.3	4900
Phenanthrene	6	<0.03	1.1	0	0	0	0.61	S4UL	95	1300	3100
Pyrene	6	<0.03	1.2	0	0	0	0.79	S4UL	620	3700	7400
Notes LQM/CIEH S4ULs 'Copyright Land Quality Management Limited reproduced with permission; Publication Number S4UL3608. All rights reserved'											

Table 9: Comparison of TPH Chemical Test Results for Near Surface Soil with Soil Screening Values (SSV)

Determinand	Number of Samples	Min Value (mg/kg)	Max Value (mg/kg)	Number of Samples Exceeding SSV for:			Measured 95 th Percentile (mg/kg)	Soil Screening Values (SSV) (1% SOM)			
				Residential with home grown produce	Residential without home grown produce	Public Open Space near Residential Housing		Assessment Method	Residential with home grown produce (mg/kg)	Residential without home grown produce (mg/kg)	Public Open Space near Residential Housing (mg/kg)
Aliphatic 5-C6	6	<0.01	<0.01	0	0	0	<0.01	S4UL	42	42	570,000
Aliphatic C6-C8	6	<0.01	<0.01	0	0	0	<0.01	S4UL	100	100	600,000
Aliphatic C8-C10	6	<0.01	<0.01	0	0	0	<0.01	S4UL	27	27	13,000
Aliphatic C10-C12	6	<1.50	<1.50	0	0	0	<1.50	S4UL	130	130	13,000
Aliphatic C12-C16	6	<1.20	<1.20	0	0	0	<1.20	S4UL	1,100	1,100	13,000
Aliphatic C16-C35	6	<4.90	<4.90	0	0	0	<4.90	S4UL	65,000	65,000	250,000
Aromatic C5-C7	6	<0.01	<0.01	0	0	0	<0.01	S4UL	70	370	56,000
Aromatic C7-C8	6	<0.01	<0.01	0	0	0	<0.01	S4UL	130	860	56,000
Aromatic C8-C10	6	<0.01	<0.01	0	0	0	<0.01	S4UL	34	47	5,000
Aromatic C10-C12	6	<0.90	<0.90	0	0	0	<0.90	S4UL	74	250	5,000
Aromatic C12-C16	6	<0.50	<0.50	0	0	0	<0.50	S4UL	140	1,800	5,100
Aromatic C16-C21	6	<0.60	1.71	0	0	0	<1.25	S4UL	260	1,900	3,800
Aromatic C21-C35	6	<1.40	<1.40	0	0	0	<1.40	S4UL	1,100	1,900	3,800
Notes											
LQM/CIEH S4ULs 'Copyright Land Quality Management Limited reproduced with permission; Publication Number S4UL3608. All rights reserved'											

Discussion of Results

Chemical testing was undertaken on six samples of near surface made ground, taken at depths of 0.30m to 0.40m. Apart from the PAH, dibenz[a,h]anthracene, none of the determinand concentrations exceeded the SSV for most sensitive residential usage.

No asbestos was detected in the six samples screened.

Three water samples from the standpipes were also screened for petroleum hydrocarbons. The results of chemical analysis indicated TPH concentrations of 28µg/l, 190µg/l and 92µg/l respectively from BH01, BH02 and WSB. These exceed the drinking water standard of 10µg/l.

SOIL GAS

Soil gas and water monitoring of the standpipes BH01, BH02 and WSB was conducted on 30 July and 6 and 13 August 2026.

Concentrations of less than 0.1% by volume methane were encountered with carbon dioxide concentrations between 0.9% and 3.5% by volume.

Oxygen levels between 7.1% and 18.3% were also measured.

The results indicate a Gas Screening Value (GSV) of 0.00011/hr for methane and 0.00351/hr for carbon dioxide. Measured gas flow rates were all less than 0.11/hr.

The results fall into Characteristic Situation 1 as defined by BS8485:2015+A1:2019 'Code of practice for the design of protective measures for methane and carbon dioxide ground gases for new buildings.

UPDATED CONCEPTUAL MODEL

A generalised conceptual model, updated following the intrusive works, monitoring and testing, is presented below in Table 10 and follows the comparison of consequence against probability presented in CIRIA 552.

Table 10: Updated Conceptual Model & Risk Assessment Relative to Construction and Future Residential Development

<u>Table 10</u> Source	Pathway	Receptor	Probability of risk being realised	Consequence of risk being realised	Risk Classification
Contamination from Made Ground Soil Beneath Site	Ingestion and Inhalation of contaminated Soil, Dust and Vapour	Human Health Groundworkers	Low likelihood	Mild	Low Risk
		Human Health Site Users if exposed at surface	Low likelihood	Mild	Low Risk
		Human Health Site Users if present beneath permanent hardstanding/roads	Unlikely	Minor	Very Low Risk
	Migration through ground into surface water or groundwater	Water Environment	Unlikely	Minor	Very Low Risk
Soil Gas	Inhalation of Soil Gas	Human Health Groundworkers	Low likelihood	Minor	Very Low Risk
		Human Health Site Users	Low likelihood	Minor	Very Low Risk
Ground Contamination Outside Site boundary	Ingestion and Inhalation of contaminated Soil, Dust and Vapour	Human Health Groundworkers	Unlikely	Minor	Very Low Risk
		Human Health Site Users	Unlikely	Minor	Very Low Risk
	Migration through ground into surface water or groundwater	Water Environment	Unlikely	Minor	Very Low Risk

<u>Key to Table 10</u> Risk	Definition
Very High risk	There is a high probability that severe harm could arise to a designated receptor from an identified hazard, or there is evidence that severe harm to a designated receptor is currently happening. The risk, if realised, is likely to result in a substantial liability. Urgent investigation (if not undertaken already) and remediation are likely to be required.
High risk	Harm is likely to arise to a designated receptor from an identified hazard. Realisation of the risk is likely to present a substantial liability. Urgent investigation (if not undertaken already) and remedial works may be necessary in the short term and likely over the long term.
Moderate risk	It is possible that harm could arise to a designated receptor from an identified hazard. However, it is either relatively unlikely that any such harm would be severe, or if any harm were to occur it is more likely that the harm would be relatively mild.
Low risk	It is possible that harm could arise to a designated receptor from an identified hazard, but it is likely that this harm, if realised, would at worst normally be mild.
Very Low risk	There is a low possibility that harm could arise to a receptor. In the event of such harm being realised it is not likely to be severe.

COMMENTS ON GROUND CONTAMINATION IN RELATION TO PROPOSED RESIDENTIAL USAGE

The ground investigation works have been carried out in advance of proposed construction of a residential development.

This investigation may not have revealed the full depth or extent of made ground or contamination on the site and appropriate professional advice should be sought if subsequent site works reveal materials that appear to be contaminated. Additionally, a survey of the existing drainage across the site, if present, would be recommended in order to identify sections in need of repair.

Anticipated exposure scenarios relating to the site and future use, in the context of the updated conceptual model, are discussed as follows.

Contamination Risk – Made Ground

The made ground, below the concrete surface layer comprised mixtures of brown and orange brown, sand/gravel of angular to rounded flint, quartz and concrete; brown and black sand and gravel of angular to rounded, flint, quartz and ash with timber fragments; and soft, firm and stiff, brown, dark brown and grey, slightly sandy, slightly gravelly, silty clay. The gravel fraction comprised angular to rounded flint, quartz and ash.

Chemical testing was undertaken on six samples of near surface made ground, taken at depths of 0.30m to 0.40m. Apart from the PAH, dibenz[a,h]anthracene, present in the clay fill none of the determinand concentrations exceeded the SSV for most sensitive residential usage. No asbestos was detected in the six samples screened.

Whilst it is considered that the made ground presents a low risk to residential site users it would not be considered suitable as a topsoil for growing plants.

Human Health - Construction Workers

No special precautions would be required during the development of the site by workers who may come into contact with the soil during groundworks, providing standard precautions are adopted, which should generally include the procedures given by the Health and Safety Executive (The Blue Book).

For the protection of these workers during groundworks the following is recommended:

- a) Limit repeated or prolonged skin contact with soils by wearing gloves with sleeves rolled down.
- b) Washing facilities should be made available to groundworkers, so as to minimise the potential for inadvertent ingestion of soil.
- c) If any soils are revealed, which are different to those encountered by this ground investigation, the advice of a specialist should be sought in view of classifying the material and ascertaining its risk to groundworkers.

Human Health – Residential Landscaped Areas

Whilst it is considered that the made ground presents a low risk to residential site users it would not be considered suitable as a topsoil for growing plants. It is recommended that all made ground should be considered to be unsuitable for reuse within garden areas unless further testing is carried out to prove its suitability from horticultural and human health perspectives.

Unsuitable soil at the surface within gardens or landscaped areas should be replaced with a suitably thick, clean capping layer.

- For front garden and communal landscaped areas, it would be recommended that the underlying natural ground be exposed, or in deeper areas the made ground should be removed to a minimum depth of 0.60m and replaced with an equivalent thickness of clean inert soil.

- For rear gardens it is recommended that the underlying natural ground should be exposed, or in deeper areas the made ground should be removed to a minimum depth of 1.00m and replaced with an equivalent thickness of clean inert soil.

All garden and landscaped areas should be inspected prior to final capping to ensure that unsuitable materials have not been inadvertently placed in the garden or landscaped areas during the preceding stages of redevelopment works.

All imported soils will be certified 'clean' fill and should be suitable for use in accordance with UK legislation and Environment Agency policy.

Methane and Carbon Dioxide Soil Gas

The desk study indicates that there are no landfills within 250m of the site. The composition of the soil beneath the site would also suggest a very low hazard potential. This is constant with the results of gas monitoring, which measured low gas flow rates of less than 0.1l/hr and indicated Gas Screening Values (GSV) that fall into Characteristic Situation 1 as defined by BS8485:2015+A1:2019 'Code of practice for the design of protective measures for methane and carbon dioxide ground gases for new buildings.

In conclusion, for the proposed residential usage gas protection measures are not considered necessary in relation to methane and carbon dioxide soil gases.

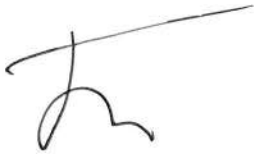
Off-Site Disposal of Soil Arisings

The results of chemical analysis are provided in Appendix 5 and can be used within the suite of information necessary for basic characterisation of the soil destined for landfill. Excavated material and excess spoil should always be classified prior to removal from site as required by 'Duty of Care' (Environmental Protection Act, 1990) legislation. This means that material has to be given a proper description and waste classification prior to removal. Basic characterisation is the responsibility of the waste producer and compliance checking and on-site

verification are generally the responsibility of the landfill operator. The landfill operator will need to liaise with the waste producer as the approach relies on the information from basic characterisation.

The clean arisings from the underlying natural soils, excluding peat and topsoil, across this site should fall under the EWC code 17 05 04 inert category.

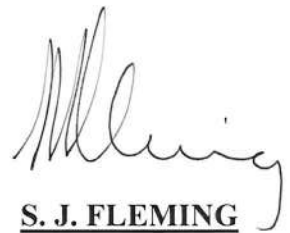
LUCION GROUND ENGINEERING LIMITED



J. H. GIBB

B.Sc.(Hons.), M.Sc.(Eng.), C.Geol., F.G.S.

Associate



S. J. FLEMING

M.Sc., M.C.S.M., C.Geol., F.G.S.

Ground Engineering Director

Figures

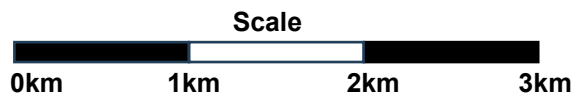
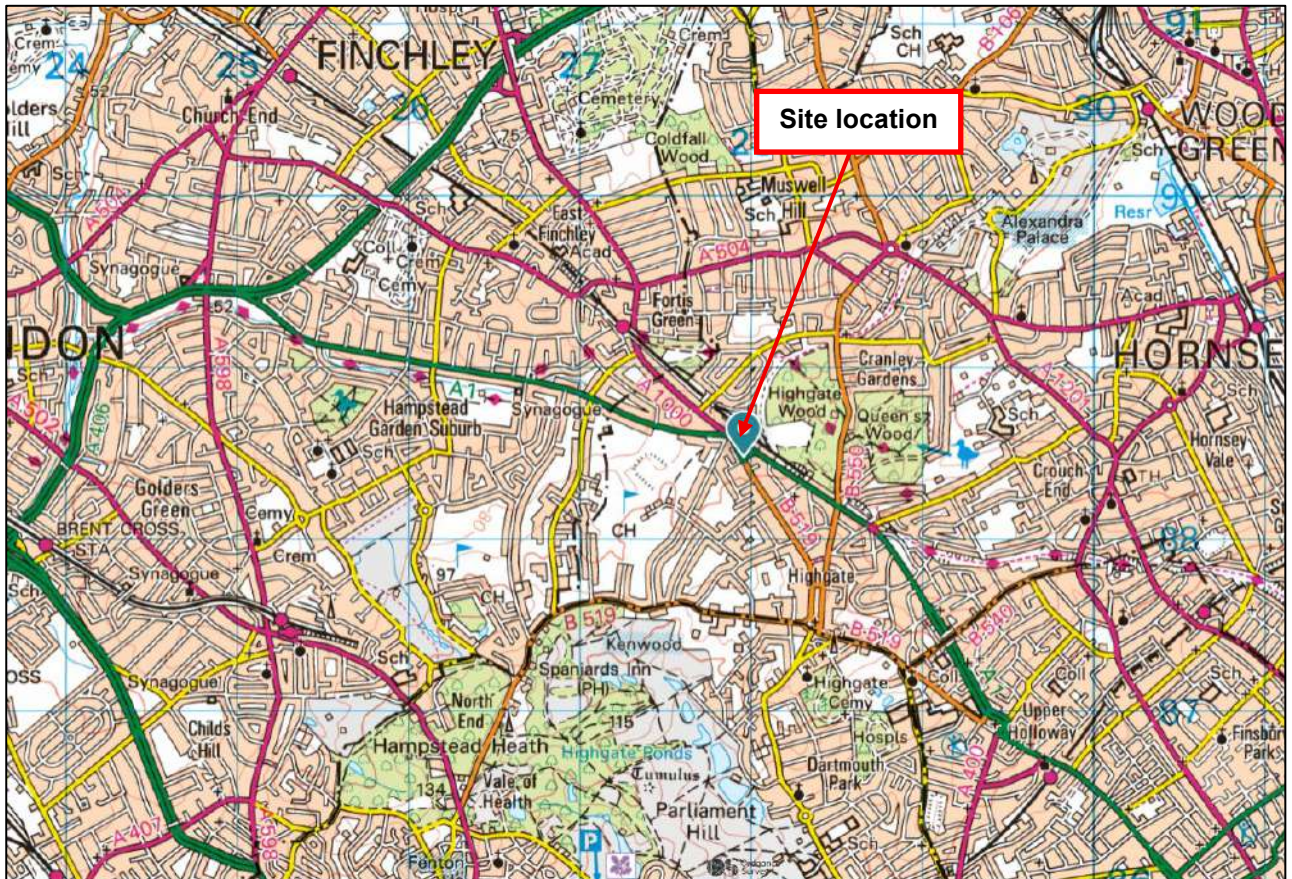
Figure 1: Site Location Plan

Figure 2: Exploratory Hole Location Plan

Site Location Plan

Figure 1

Reproduced from the Ordnance Survey
© Crown Copyright Licence number AL100005523



Project : 505 - 511 Archway Road, London N6

Client : Alexander James Contracts Limited

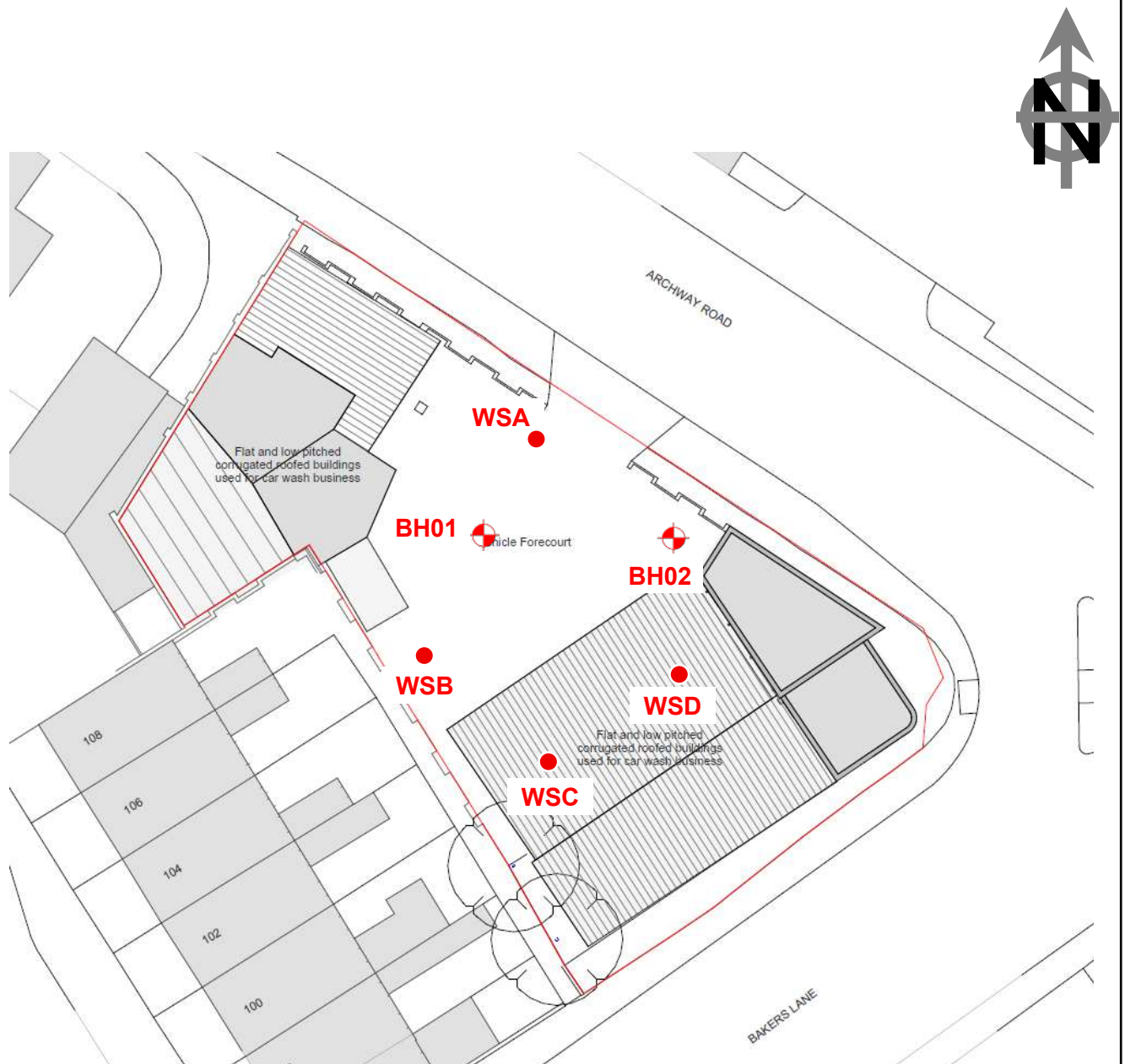


LUCION GROUND ENGINEERING LIMITED
Peterborough Tel : 01733 566566

Project No.
151840

Borehole Location Plan

Figure 2



KEY



Cable Percussion Boreholes BH01 and BH02



Window Sample Boreholes WSA to WSD

Project : 505 - 511 Archway Road, London N6

Client : Alexander James Contracts Limited

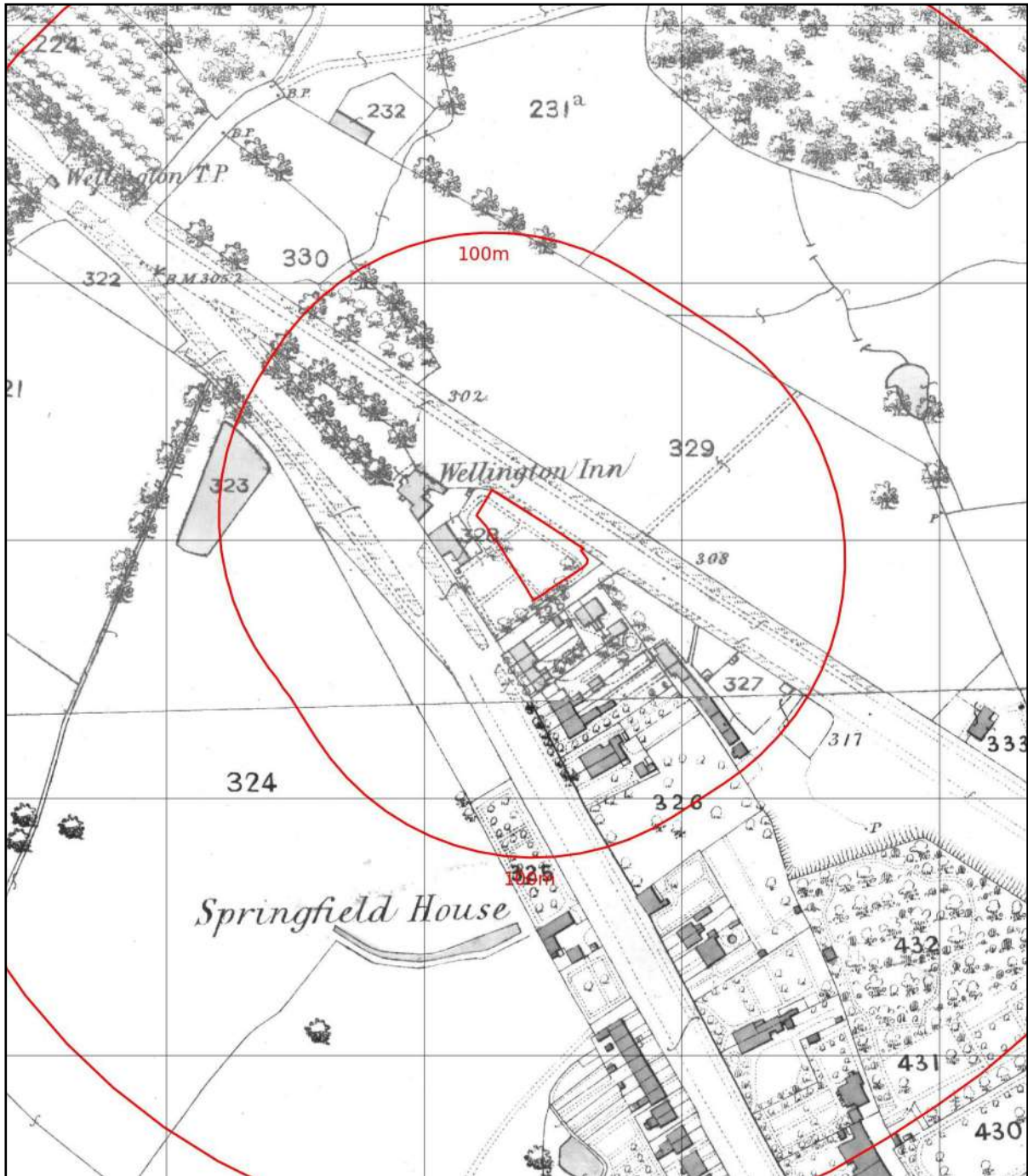
Appendix 1

Historical Maps

Site History

Figure A

Reproduced from the 1864-65 edition Ordnance Survey sheet County Series at 1:2500 scale



Project : 505-511 Archway Road, London N6

Client : Alexander James Contracts Limited



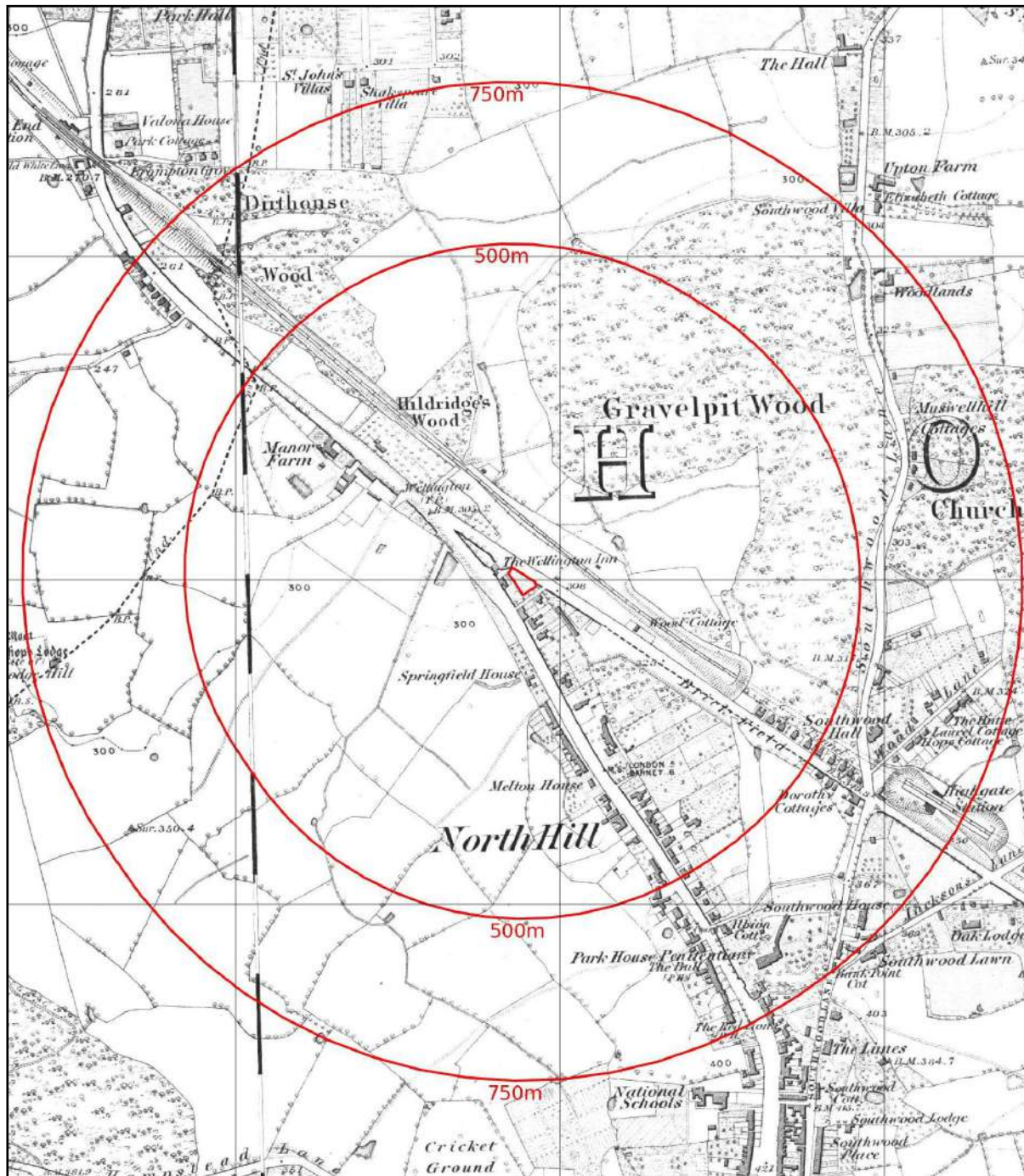
LUCION GROUND ENGINEERING LIMITED
Peterborough Tel : 01733 566566

Project No.
151840

Site History

Figure B

Reproduced from the 1873 edition Ordnance Survey sheet **County Series** at 1:10,560 scale



Project : 505-511 Archway Road, London N6

Client : Alexander James Contracts Limited



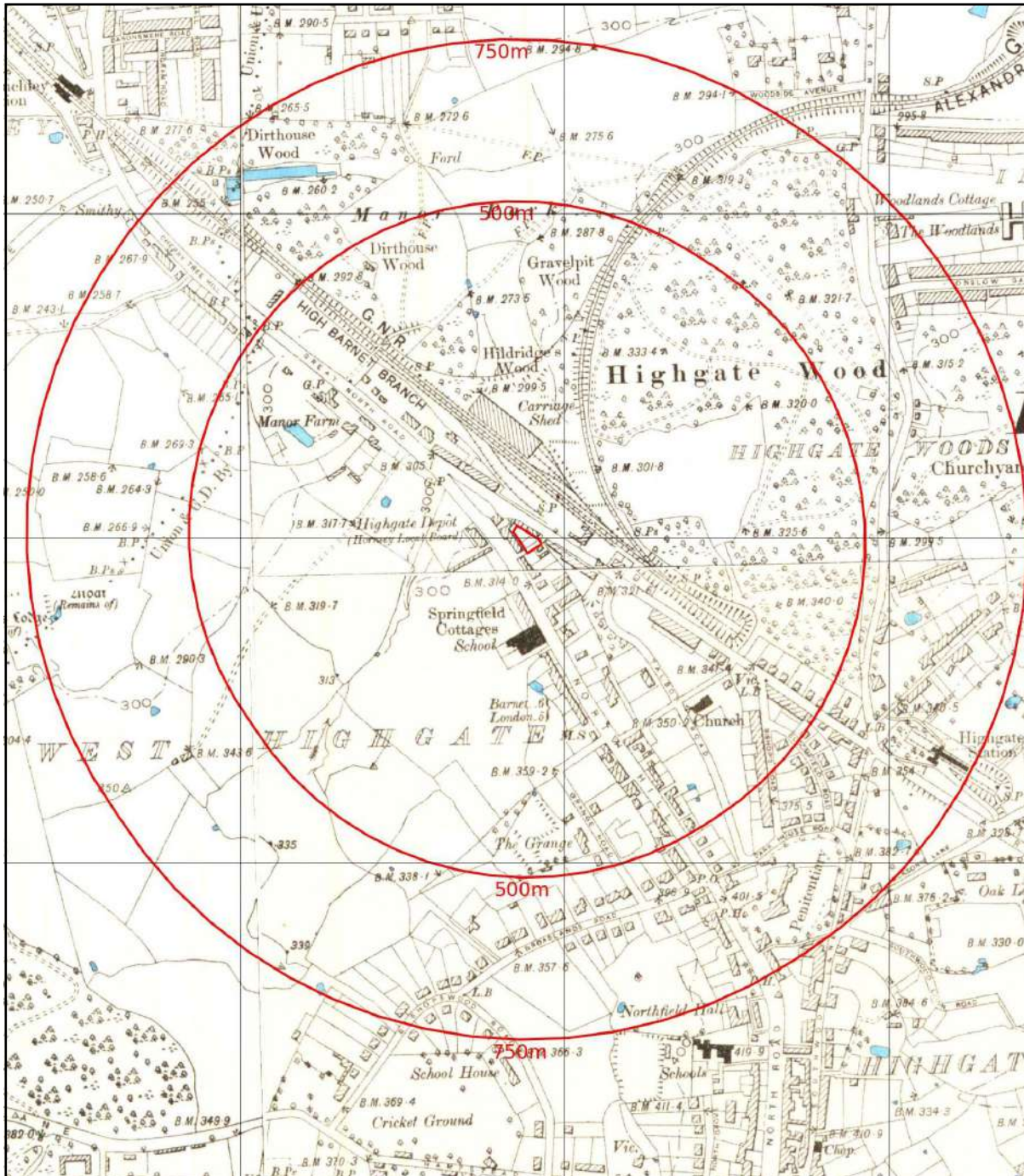
LUCION GROUND ENGINEERING LIMITED
Peterborough Tel : 01733 566566

Project No.
151840

Site History

Figure C

Reproduced from the 1894-96 edition Ordnance Survey sheet County Series at 1:10,560 scale



Project : 505-511 Archway Road, London N6

Client : Alexander James Contracts Limited



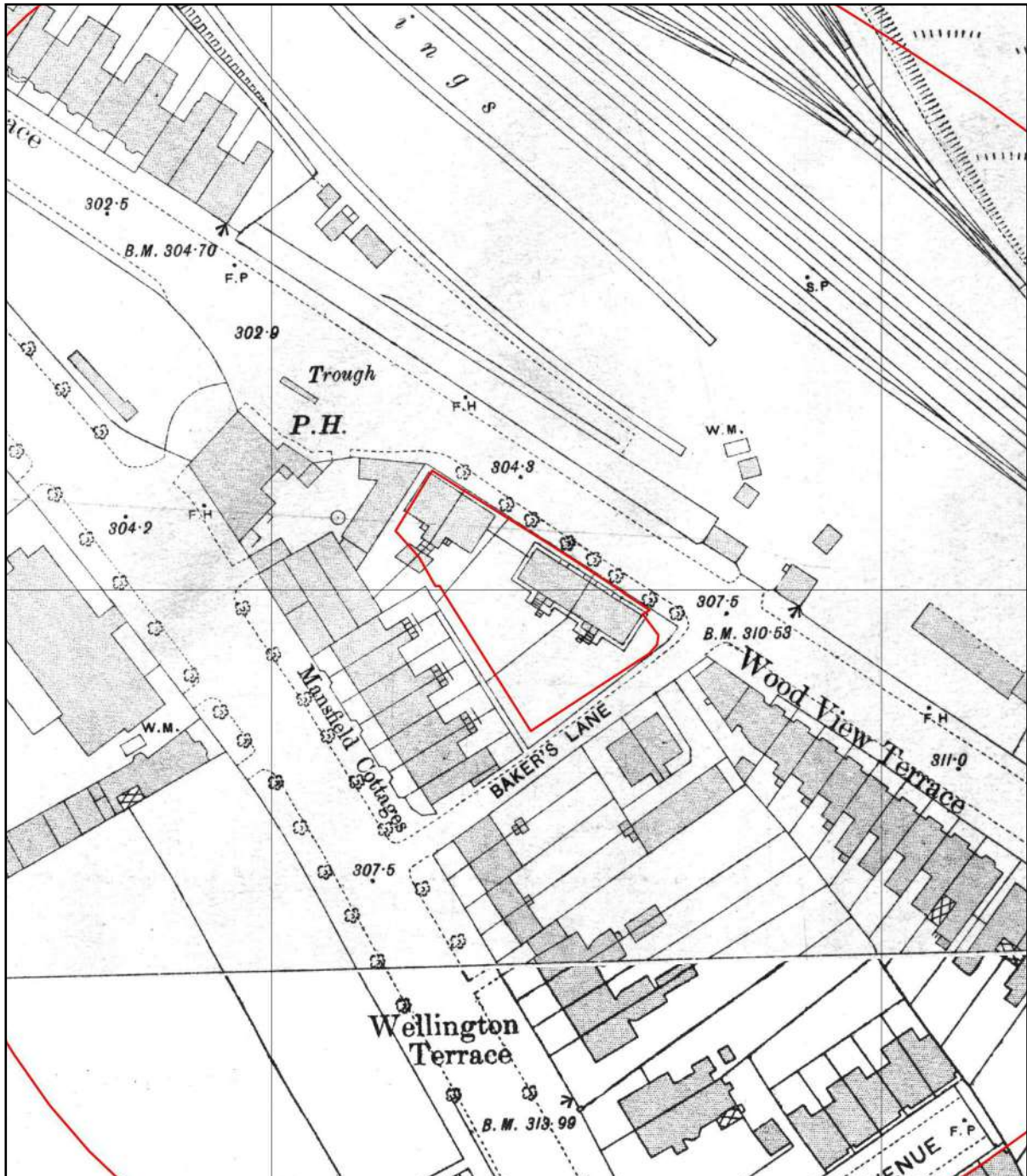
LUCION GROUND ENGINEERING LIMITED
Peterborough Tel : 01733 566566

Project No.
151840

Site History

Figure D

Reproduced from the 1896 edition Ordnance Survey sheet County Series at 1:1056 scale



Project : 505-511 Archway Road, London N6

Client : Alexander James Contracts Limited



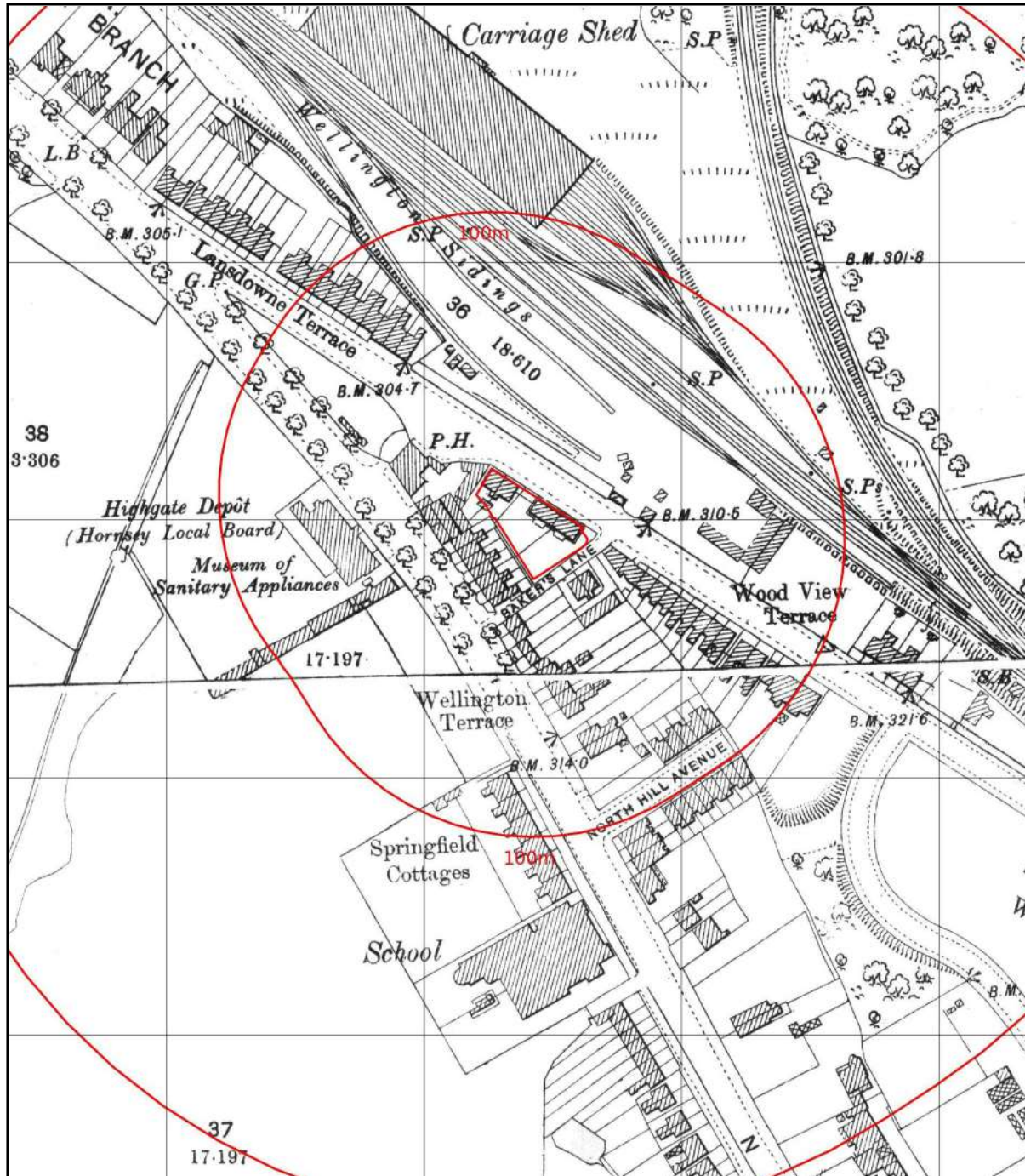
LUCION GROUND ENGINEERING LIMITED
Peterborough Tel : 01733 566566

Project No.
151840

Site History

Figure E

Reproduced from the 1896 edition Ordnance Survey sheet County Series at 1:2500 scale



Project : 505-511 Archway Road, London N6

Client : Alexander James Contracts Limited



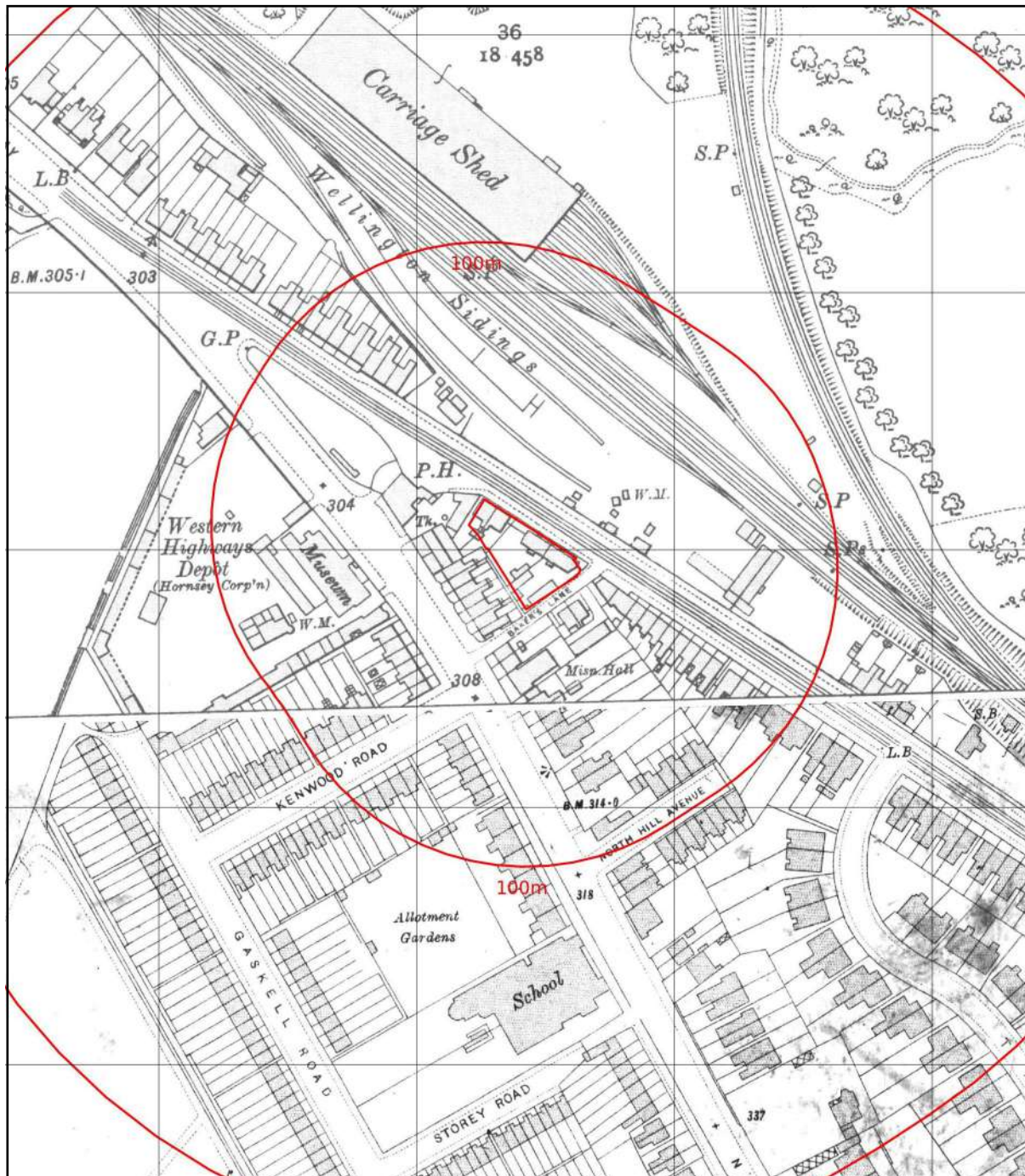
LUCION GROUND ENGINEERING LIMITED
Peterborough Tel : 01733 566566

Project No.
151840

Site History

Figure F

Reproduced from the 1913-14 edition Ordnance Survey sheet **County Series** at 1:2500 scale



Project : 505-511 Archway Road, London N6

Client : Alexander James Contracts Limited



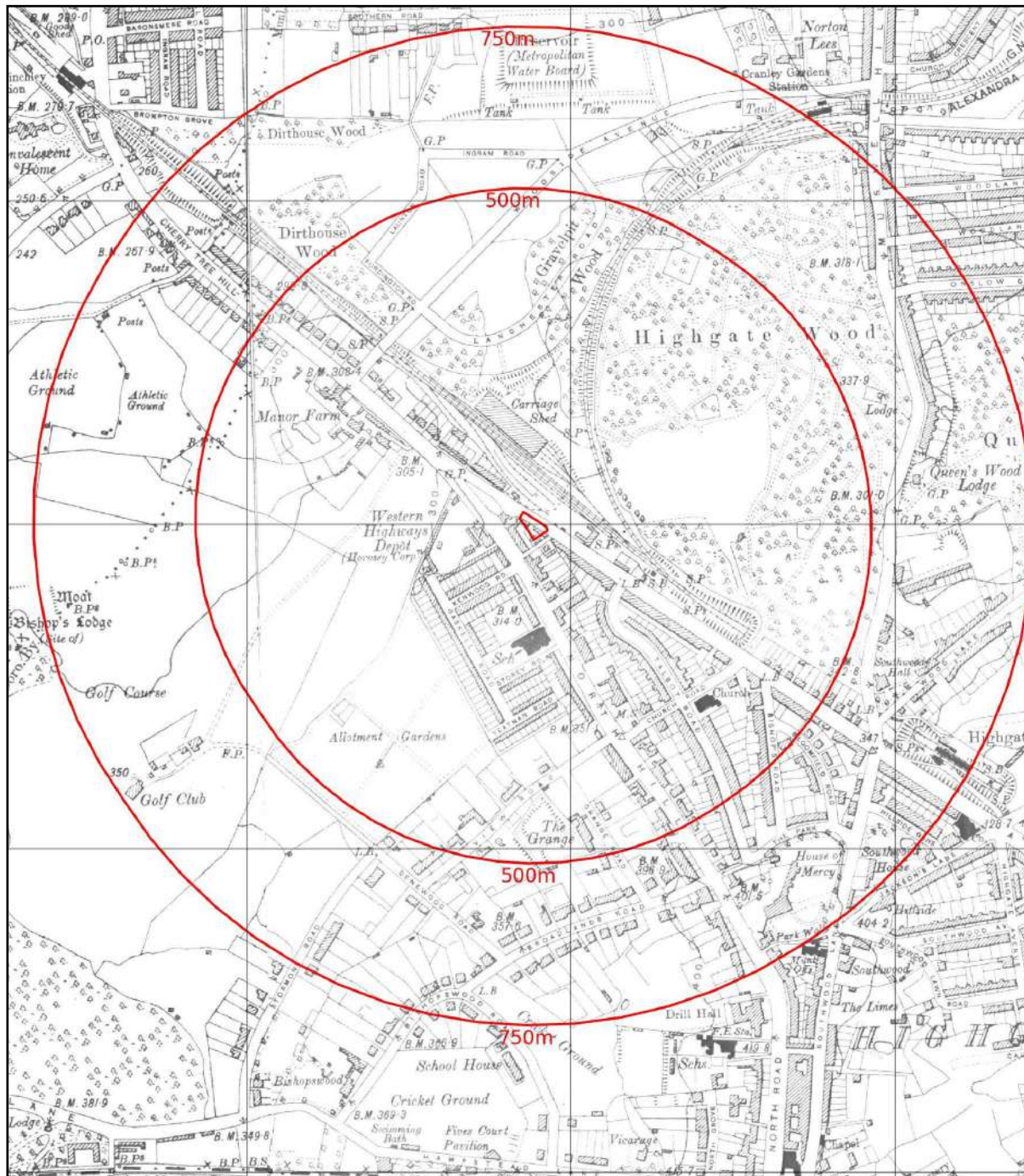
LUCION GROUND ENGINEERING LIMITED
Peterborough Tel : 01733 566566

Project No.
151840

Site History

Figure G

Reproduced from the 1920 edition Ordnance Survey sheet **County Series** at 1:10,560 scale



Project : 505-511 Archway Road, London N6

Client : Alexander James Contracts Limited



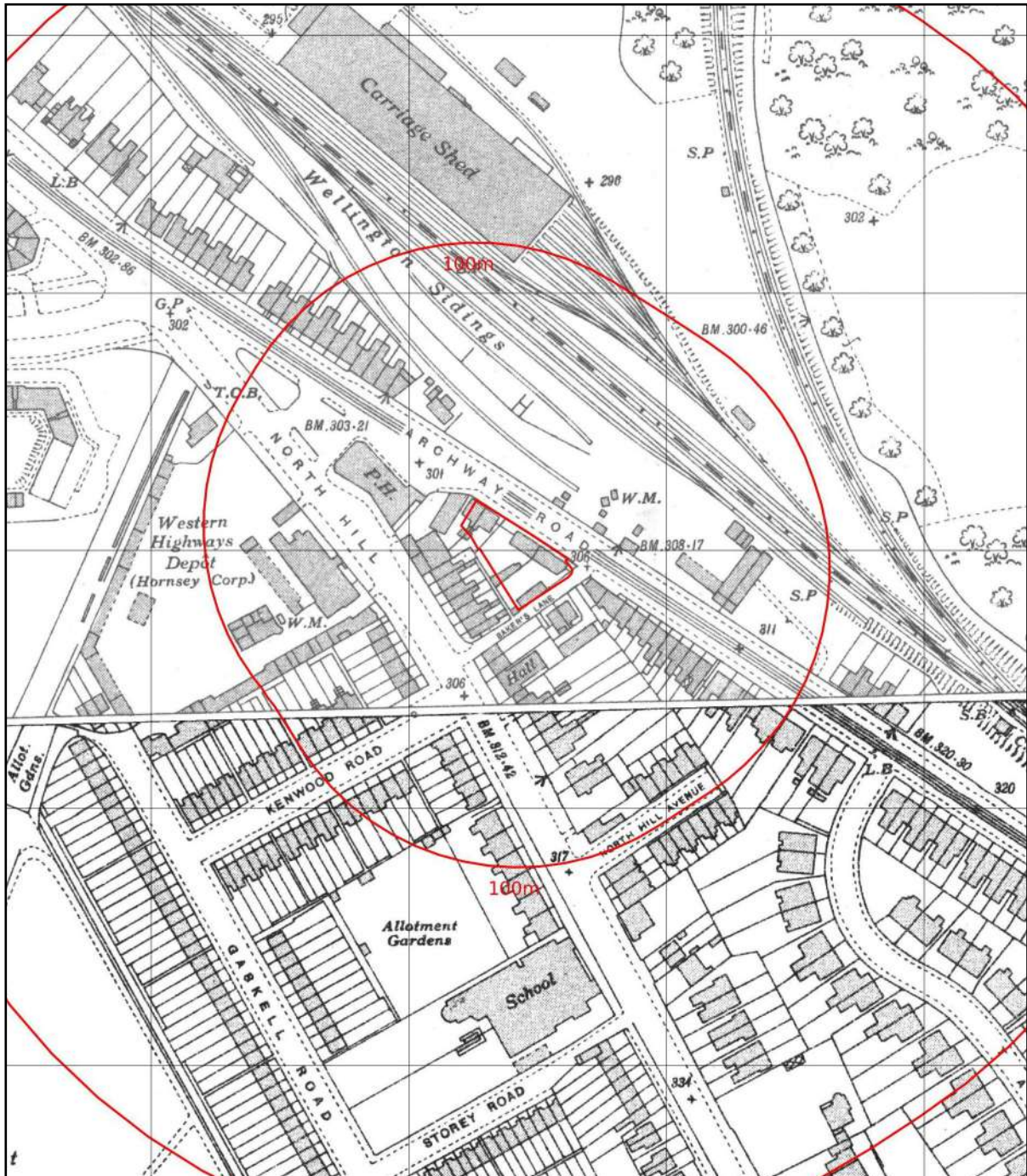
LUCION GROUND ENGINEERING LIMITED
Peterborough Tel : 01733 566566

Project No.
151840

Site History

Figure H

Reproduced from the 1935 edition Ordnance Survey sheet County Series at 1:2500 scale



Project : 505-511 Archway Road, London N6

Client : Alexander James Contracts Limited



LUCION GROUND ENGINEERING LIMITED
Peterborough Tel : 01733 566566

Project No.
151840

Figure I



Client : Alexander James Contracts Limited

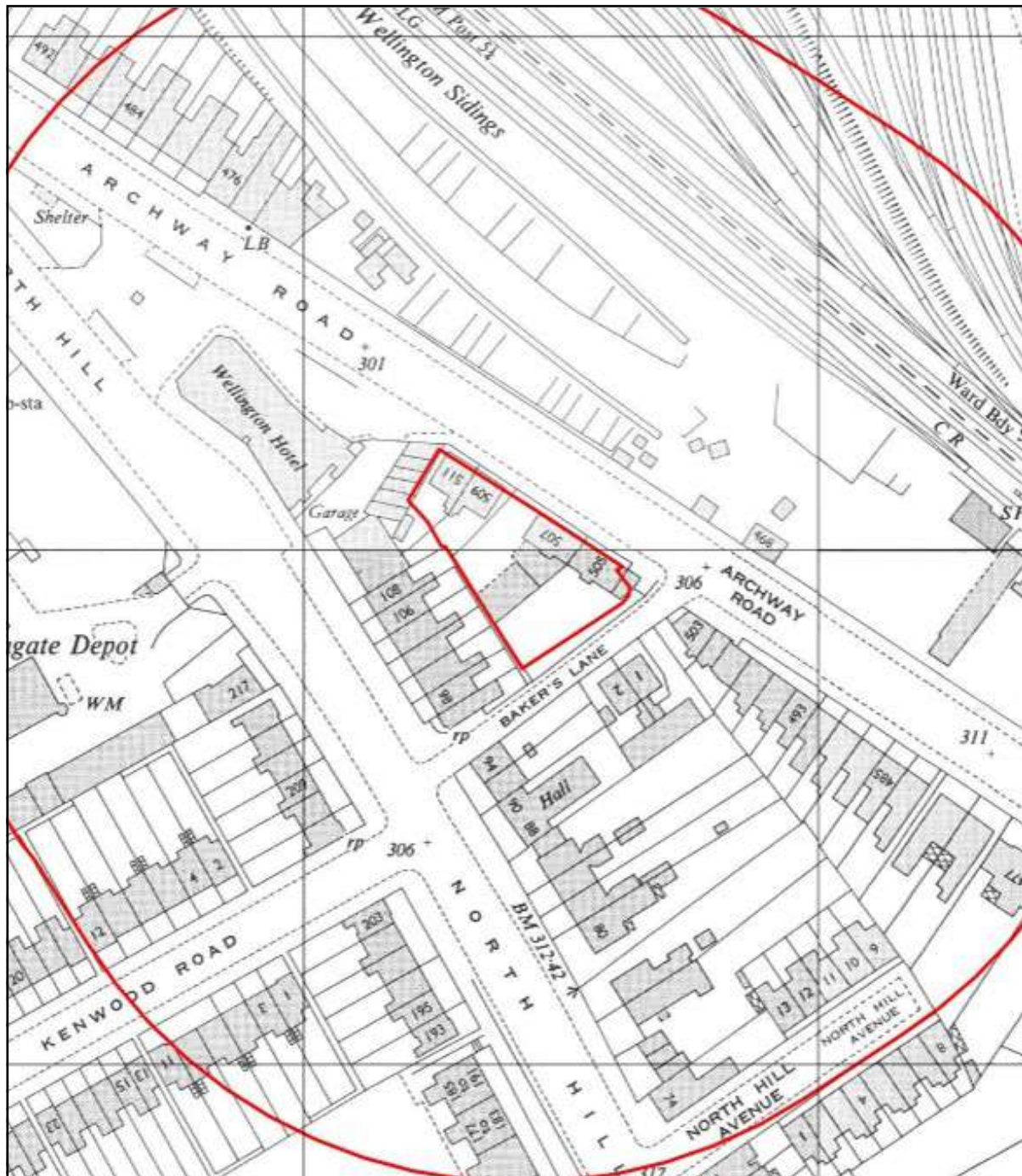


Project No.	151840
-------------	--------

Site History

Figure J

Reproduced from the 1950 edition Ordnance Survey sheets TQ2788NE & SE at 1:1250 scale



Project : 505-511 Archway Road, London N6

Client : Alexander James Contracts Limited



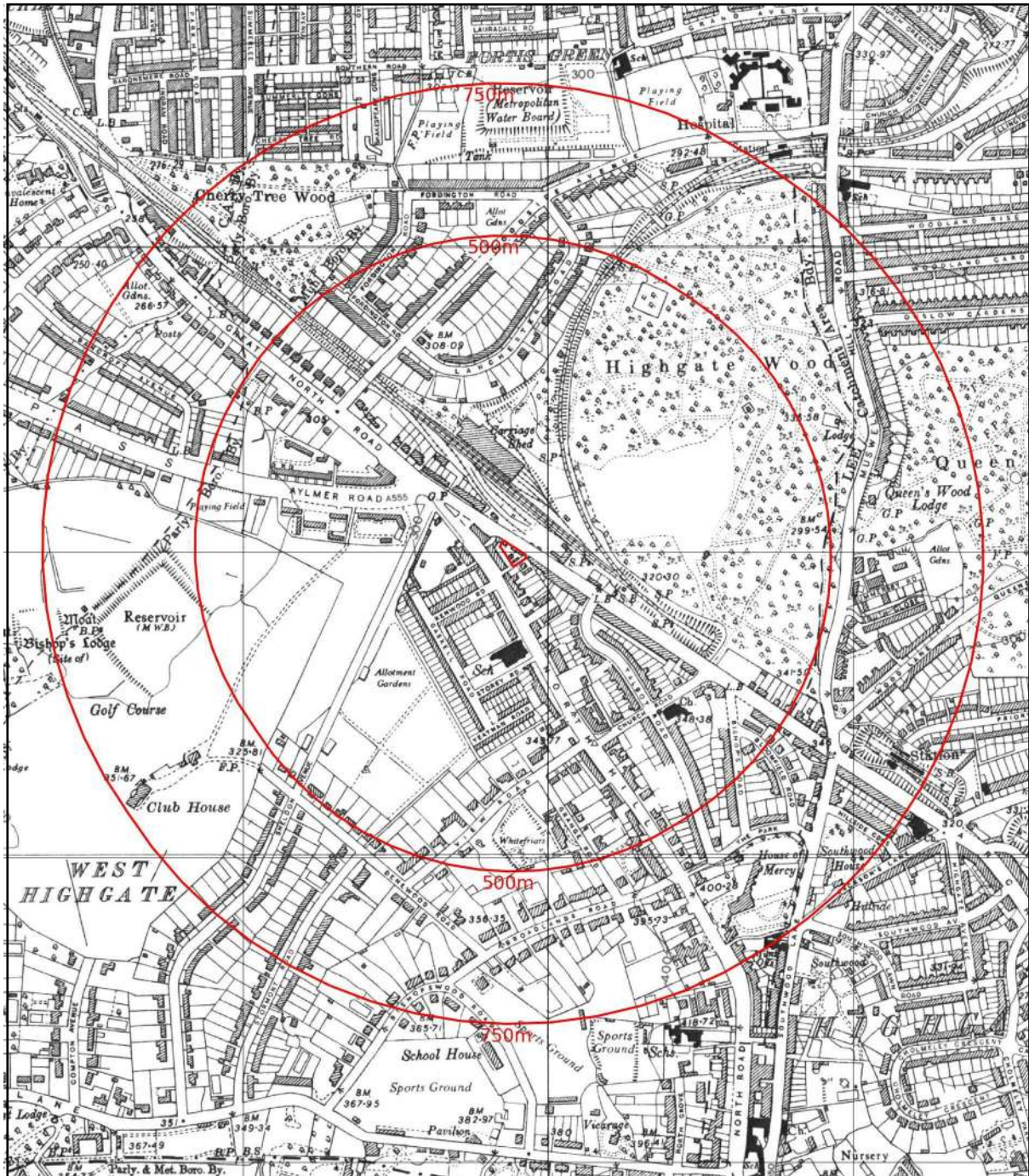
LUCION GROUND ENGINEERING LIMITED
Peterborough Tel : 01733 566566

Project No.
151840

Site History

Figure K

Reproduced from the 1951 edition Ordnance Survey sheet TQ28NE at 1:10,560 scale



Project : 505-511 Archway Road, London N6

Client : Alexander James Contracts Limited



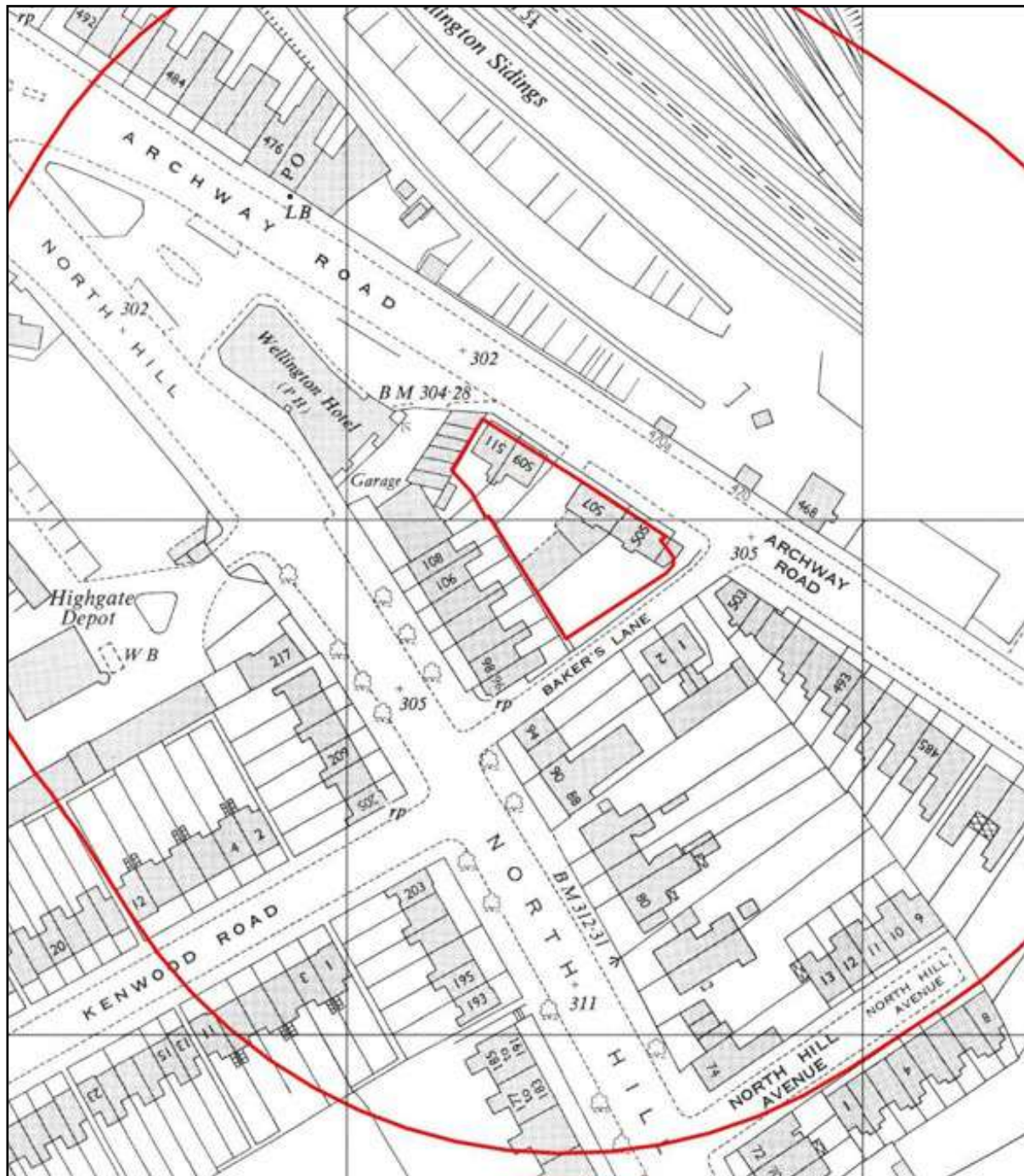
LUCION GROUND ENGINEERING LIMITED
Peterborough Tel : 01733 566566

Project No.
151840

Site History

Figure L

Reproduced from the 1960 edition Ordnance Survey sheets TQ2788NE & SE at 1:1250 scale



Project : 505-511 Archway Road, London N6

Client : Alexander James Contracts Limited



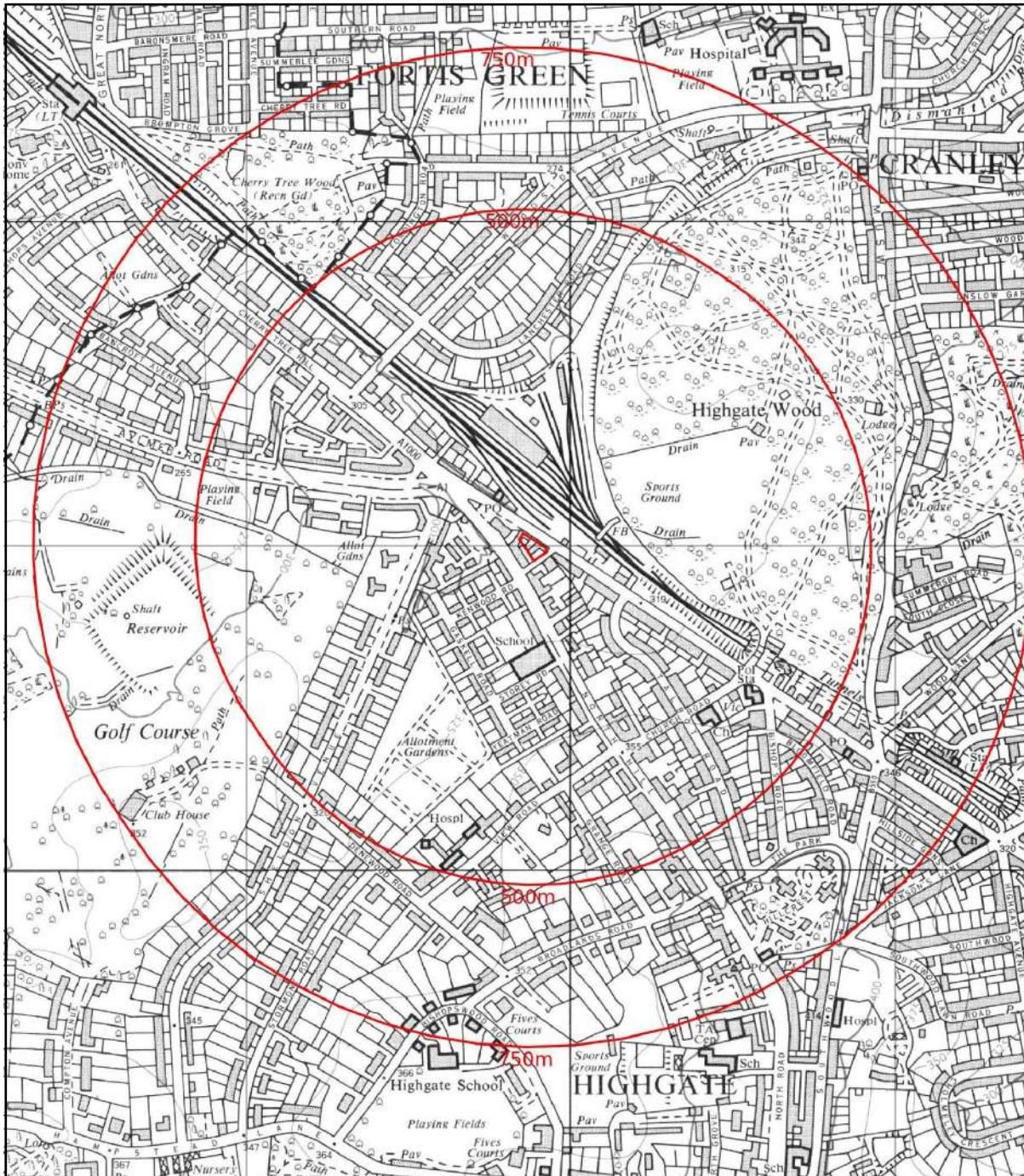
LUCION GROUND ENGINEERING LIMITED
Peterborough Tel : 01733 566566

Project No.
151840

Site History

Figure M

Reproduced from the 1965 edition Ordnance Survey sheet TQ28NE at 1:10.560 scale



Project : 505-511 Archway Road, London N6

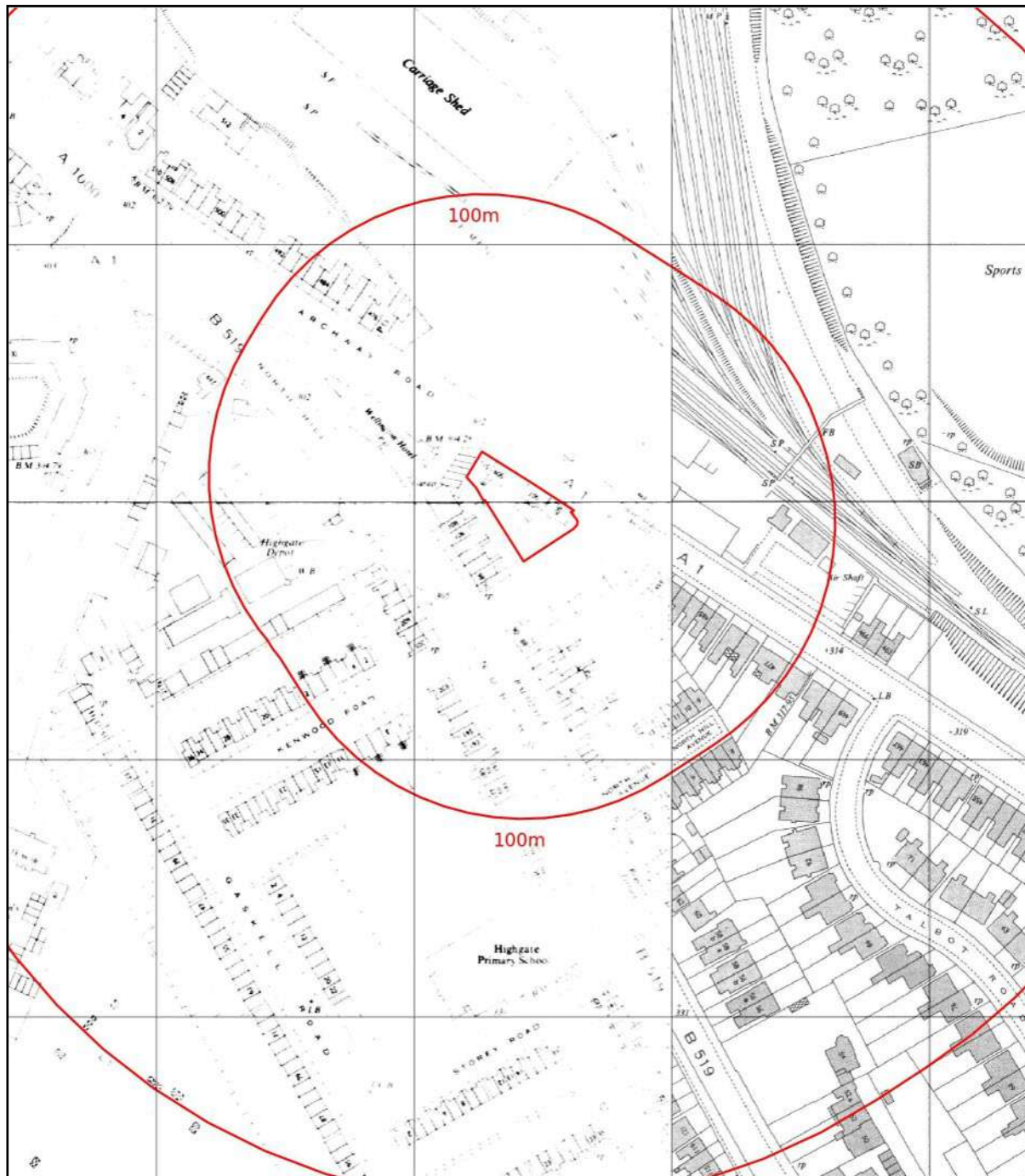
Client : Alexander James Contracts Limited



LUCION GROUND ENGINEERING LIMITED
Peterborough Tel : 01733 566566

Project No.
151840

Figure N



Client : Alexander James Contracts Limited

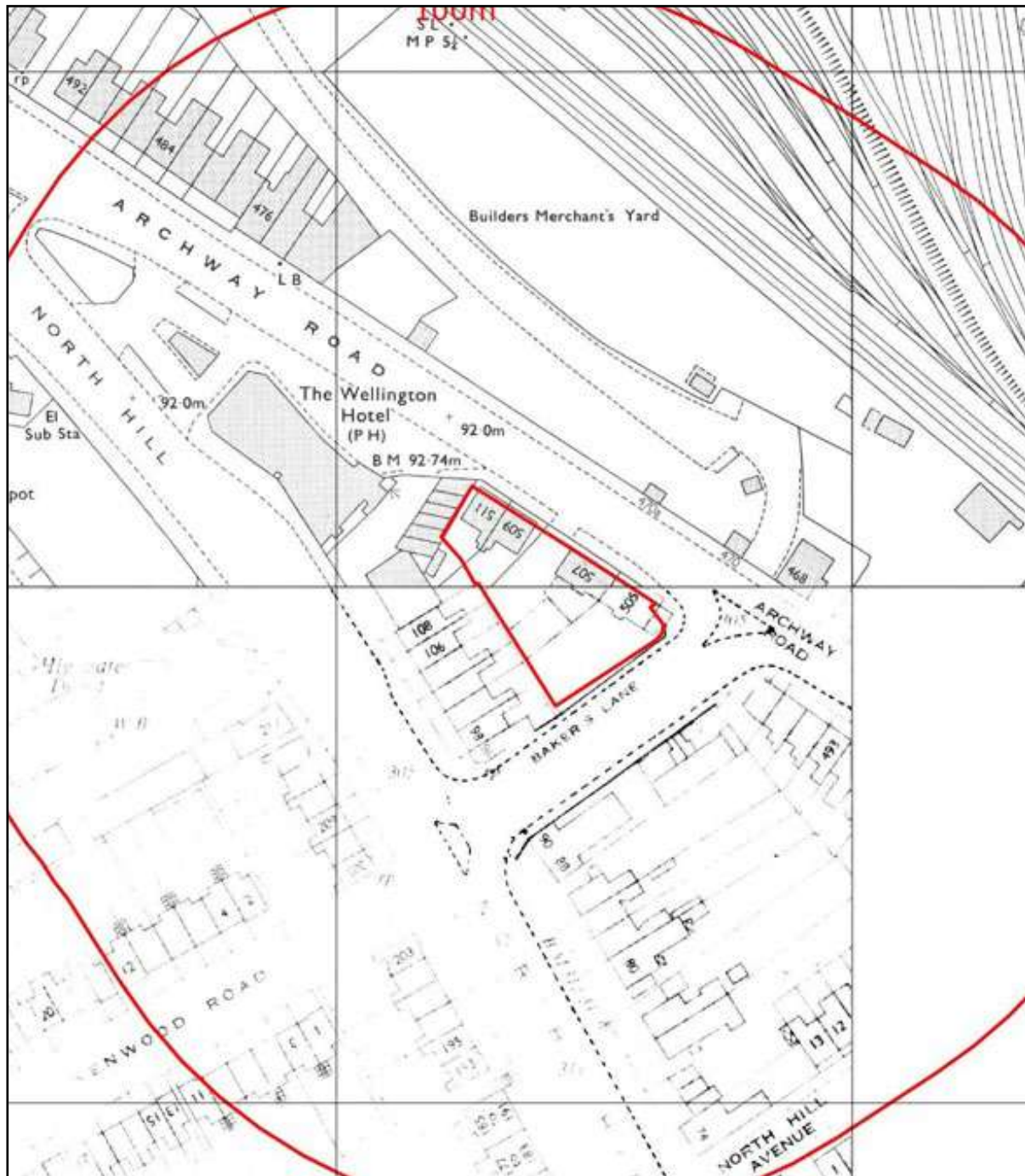


Project No.	151840
-------------	--------

Site History

Figure O

Reproduced from the 1973-74 edition Ordnance Survey sheets TQ2788NE & SE at 1:1250 scale
© Crown Copyright. Licence number AL100005523



Project : 505-511 Archway Road, London N6

Client : Alexander James Contracts Limited



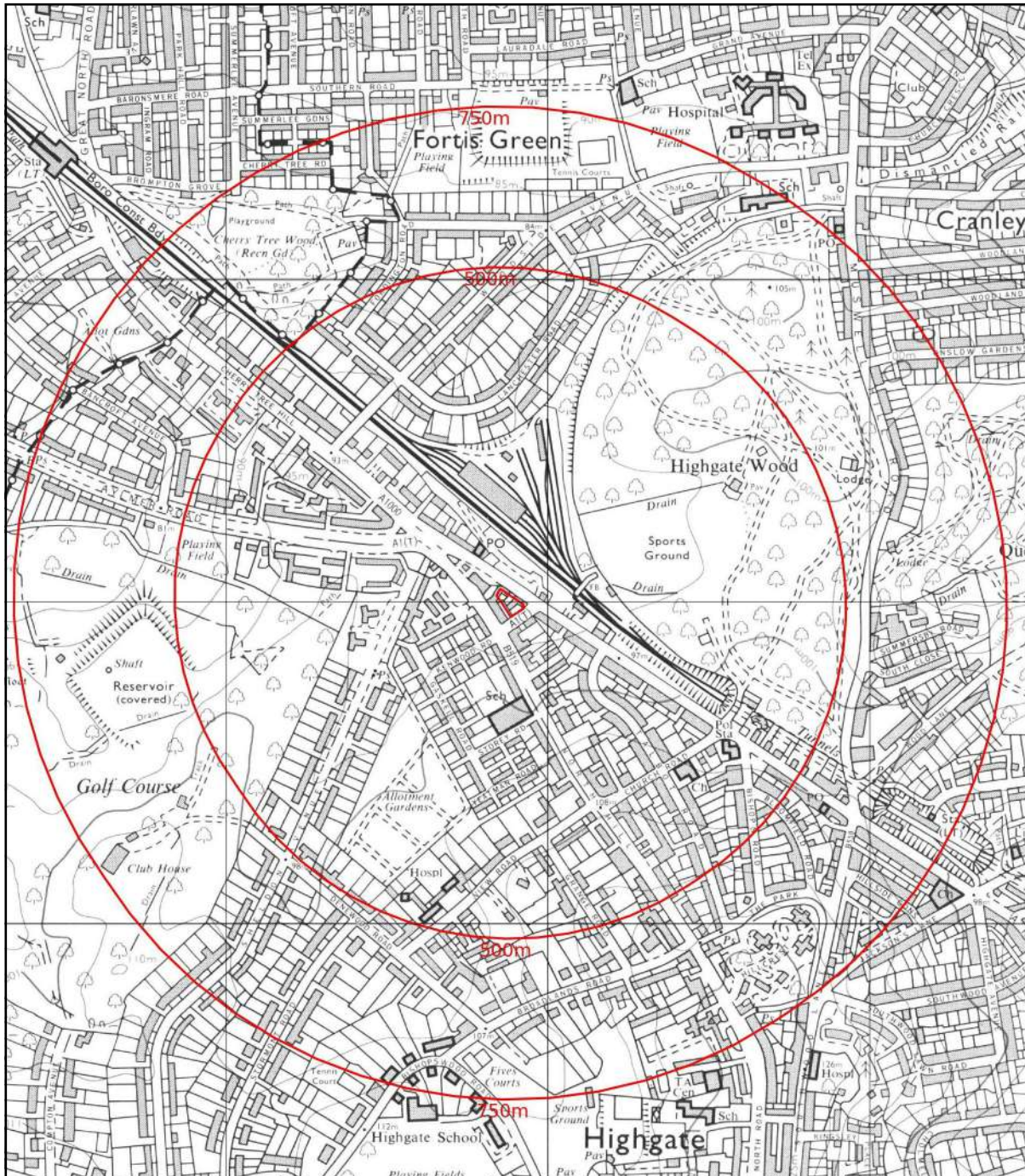
LUCION GROUND ENGINEERING LIMITED
Peterborough Tel : 01733 566566

Project No.
151840

Site History

Figure P

Reproduced from the 1974 edition Ordnance Survey sheet TQ28NE at 1:10.000 scale



Project : 505-511 Archway Road, London N6

Client : Alexander James Contracts Limited



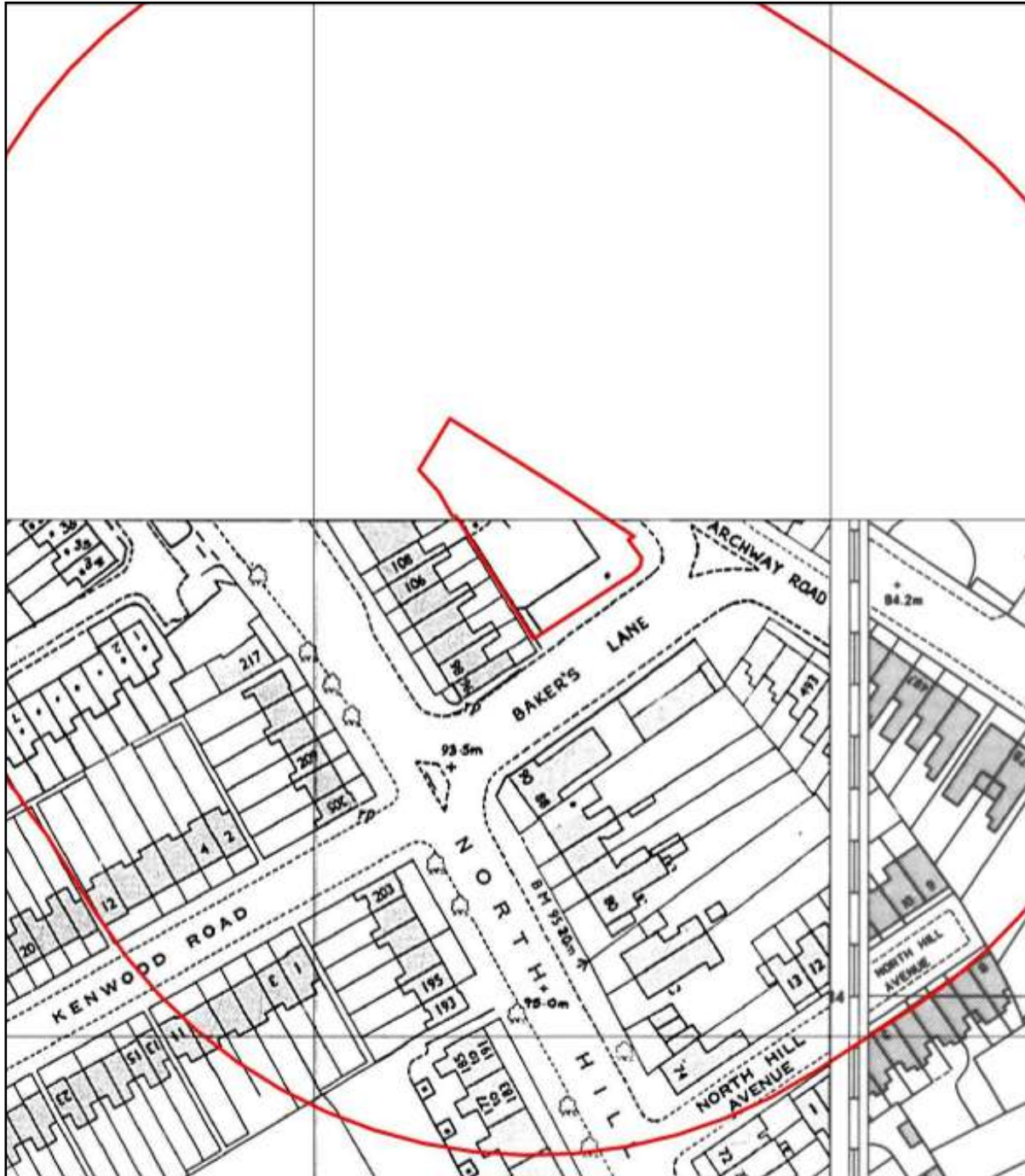
LUCION GROUND ENGINEERING LIMITED
Peterborough Tel : 01733 566566

Project No.
151840

Site History

Figure Q

Reproduced from the 1981 edition Ordnance Survey sheet TQ2788SE at 1:1250 scale
© Crown Copyright. Licence number AL100005523



Project : 505-511 Archway Road, London N6

Client : Alexander James Contracts Limited



LUCION GROUND ENGINEERING LIMITED
Peterborough Tel : 01733 566566

Project No.
151840

Site History

Figure R

Reproduced from the **2001** edition Ordnance Survey sheet **TQ28NE** at **1:10,000** scale
© Crown Copyright. Licence number AL100005523



Project : 505-511 Archway Road, London N6

Client : Alexander James Contracts Limited



LUCION GROUND ENGINEERING LIMITED
Peterborough Tel : 01733 566566

Project No.
151840

Site History

Figure S

Reproduced from the 2010 edition Ordnance Survey sheet TQ28NE at 1:10,000 scale
© Crown Copyright. Licence number AL100005523



Project : 505-511 Archway Road, London N6

Client : Alexander James Contracts Limited



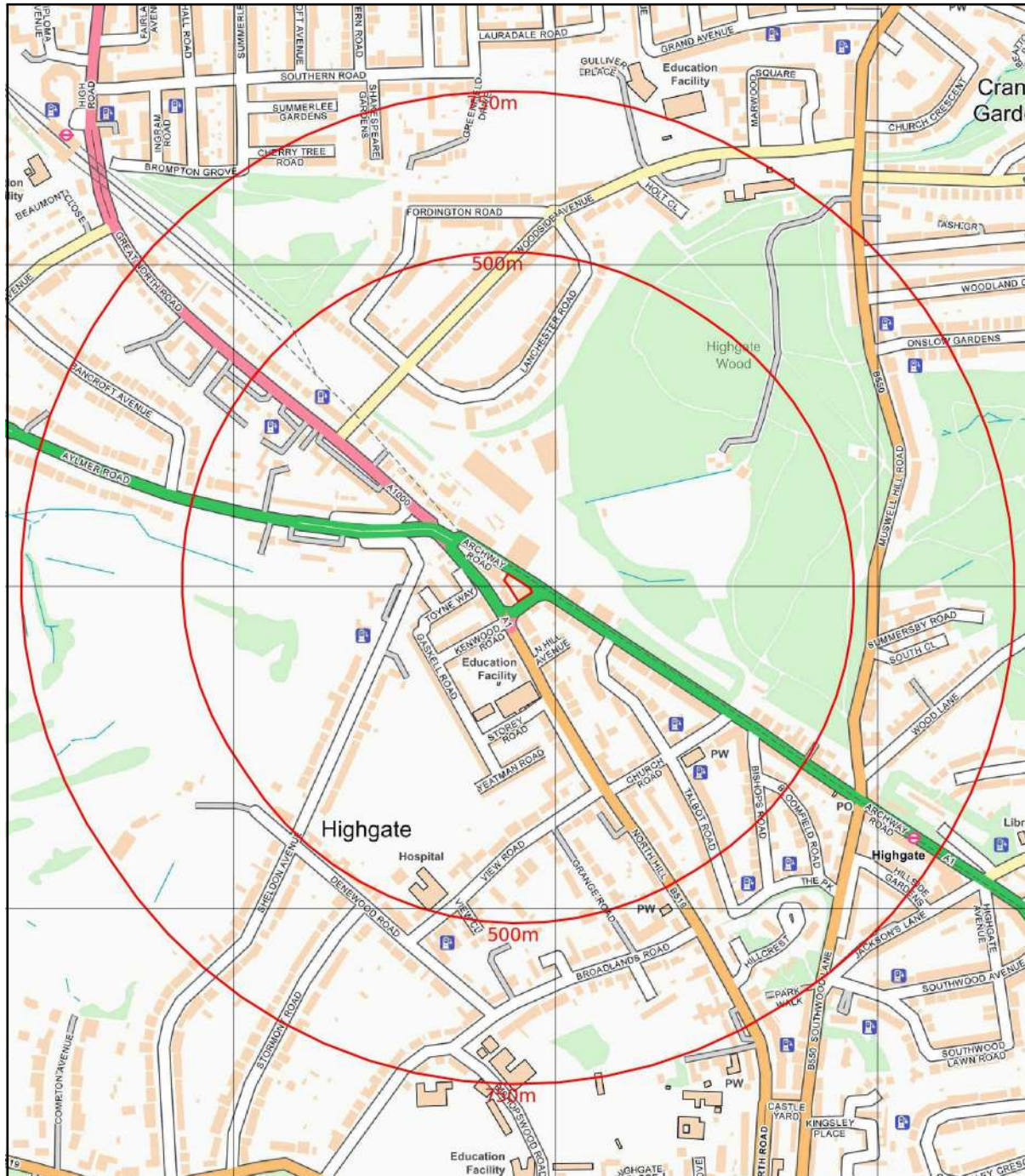
LUCION GROUND ENGINEERING LIMITED
Peterborough Tel : 01733 566566

Project No.
151840

Site History

Figure T

Reproduced from the **2025** edition Ordnance Survey sheet **TQ28NE** at **1:10,000** scale
© Crown Copyright. Licence number AL100005523



Project : 505-511 Archway Road, London N6

Client : Alexander James Contracts Limited



LUCION GROUND ENGINEERING LIMITED
Peterborough Tel : 01733 566566

Project No.
151840

Appendix 2

Database Information

505 - 511 ARCHWAY ROAD, BAKERS LANE, HORNSEY, LONDON, HARINGEY, N6 4JA

Order Details

Date: 16/07/2026
Your ref: 151840/PO28782
Our Ref: HMD-JGP-LL7-QKQ-WW4

Site Details

Location: 527941 188498
Area: 0.09 ha
Authority: [London Borough of Haringey](#) ↗

Site plan



Quick Links

Summary of findings [p. 2](#) >
OS MasterMap site plan [p.14](#) >
Aerial image [p. 9](#) >

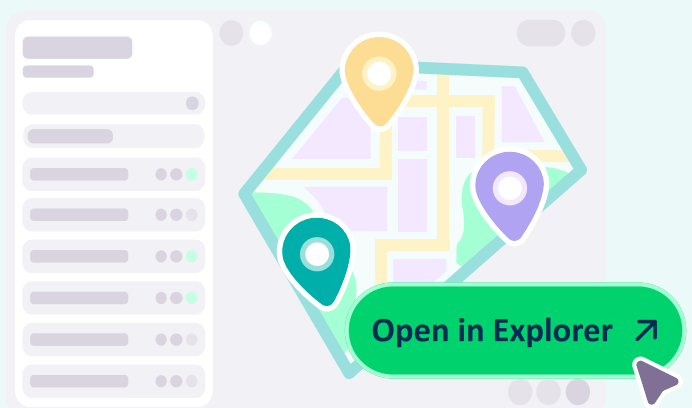
[Insight User Guide](#) ↗

Open this site in Explorer!

Access the data now in our interactive workspace.

- Map and interpret 130+ datasets across 170 years
- Generate insights and visuals quickly
- Revisit and collaborate with your team

Access to Groundsure Explorer requires an Insights account.
12 months access begins at purchase.



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	19	30	18	-
18 >	1.2 >	Historical tanks >	0	1	1	7	-
19 >	1.3 >	Historical energy features >	0	0	6	4	-
19	1.4	Historical petrol stations	0	0	0	0	-
20 >	1.5 >	Historical garages >	1	1	7	13	-
21	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
22 >	2.1 >	Historical industrial land uses >	0	20	45	25	-
26 >	2.2 >	Historical tanks >	0	1	1	13	-
27 >	2.3 >	Historical energy features >	0	0	10	10	-
28	2.4	Historical petrol stations	0	0	0	0	-
28 >	2.5 >	Historical garages >	2	4	11	19	-
Page	Section	Waste and landfill >	On site	0-50m	50-250m	250-500m	500-2000m
30	3.1	Active or recent landfill	0	0	0	0	-
30	3.2	Historical landfill (BGS records)	0	0	0	0	-
31	3.3	Historical landfill (LA/mapping records)	0	0	0	0	-
31	3.4	Historical landfill (EA/NRW records)	0	0	0	0	-
31	3.5	Historical waste sites	0	0	0	0	-
31	3.6	Licensed waste sites	0	0	0	0	-
31 >	3.7 >	Waste exemptions >	0	0	3	3	-
Page	Section	Current industrial land use >	On site	0-50m	50-250m	250-500m	500-2000m
33 >	4.1 >	Recent industrial land uses >	1	2	2	-	-
34	4.2	National Geographic Database (NGD) - Current or recent tanks	0	0	0	-	-
34 >	4.3 >	Current or recent petrol stations >	0	0	1	1	-
34	4.4	Sites determined as Contaminated Land	0	0	0	0	-
35	4.5	Control of Major Accident Hazards (COMAH)	0	0	0	0	-



35	4.6	Regulated explosive sites	0	0	0	0	-
35	4.7	Hazardous substance storage/usage	0	0	0	0	-
35	4.8	Historical licensed industrial activities (IPC)	0	0	0	0	-
35	4.9	Licensed industrial activities (Part A(1))	0	0	0	0	-
36 >	4.10 >	<u>Licensed pollutant release (Part A(2)/B) ></u>	0	2	0	0	-
36	4.11	Radioactive Substance Authorisations	0	0	0	0	-
36 >	4.12 >	<u>Licensed Discharges to controlled waters ></u>	0	0	2	0	-
37	4.13	Pollutant release to surface waters (Red List)	0	0	0	0	-
37	4.14	Pollutant release to public sewer	0	0	0	0	-
37 >	4.15 >	<u>List 1 Dangerous Substances ></u>	0	0	0	4	-
38	4.16	List 2 Dangerous Substances	0	0	0	0	-
38	4.17	Pollution Incidents (EA/NRW)	0	0	0	0	-
38	4.18	Pollution inventory substances	0	0	0	0	-
38	4.19	Pollution inventory waste transfers	0	0	0	0	-
38	4.20	Pollution inventory radioactive waste	0	0	0	0	-
Page	Section	Hydrogeology	On site	0-50m	50-250m	250-500m	500-2000m
39	5.1	Superficial aquifer	None (within 500m)				
40 >	5.2 >	<u>Bedrock aquifer ></u>	Identified (within 500m)				
41 >	5.3 >	<u>Groundwater vulnerability ></u>	Identified (within 50m)				
42	5.4	Groundwater vulnerability- soluble rock risk	None (within 0m)				
42	5.5	Groundwater vulnerability- local information	None (within 0m)				
43 >	5.6 >	<u>Groundwater abstractions ></u>	0	0	0	0	1
44	5.7	Surface water abstractions	0	0	0	0	0
44	5.8	Potable abstractions	0	0	0	0	0
44	5.9	Source Protection Zones	0	0	0	0	-
45	5.10	Source Protection Zones (confined aquifer)	0	0	0	0	-
Page	Section	Hydrology >	On site	0-50m	50-250m	250-500m	500-2000m
46 >	6.1 >	<u>Water Network (OS NGD) ></u>	0	0	2	-	-
47 >	6.2 >	<u>Surface water features ></u>	0	0	2	-	-



47 >	6.3 >	WFD Surface water body catchments >	1	-	-	-	-
47 >	6.4 >	WFD Surface water bodies >	0	0	0	-	-
48	6.5	WFD Groundwater bodies	0	-	-	-	-
Page	Section	River and coastal flooding	On site	0-50m	50-250m	250-500m	500-2000m
49	7.1	Risk of flooding from rivers and the sea	None (within 50m)				
49	7.2	Historical Flood Events	0	0	0	-	-
49	7.3	Flood Defences	0	0	0	-	-
50	7.4	Flood Storage Areas	0	0	0	-	-
51	7.5	Flood Zone 2	None (within 50m)				
51	7.6	Flood Zone 3	None (within 50m)				
Page	Section	Surface water flooding >					
52 >	8.1 >	Surface water flooding >	1 in 30 year, 0.3m - 1.0m (within 50m)				
Page	Section	Groundwater flooding >					
54 >	9.1 >	Groundwater flooding >	Negligible (within 50m)				
Page	Section	Environmental designations >	On site	0-50m	50-250m	250-500m	500-2000m
55 >	10.1 >	Sites of Special Scientific Interest (SSSI) >	0	0	0	0	2
56	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
56	10.3	Special Areas of Conservation (SAC)	0	0	0	0	0
56	10.4	Special Protection Areas (SPA)	0	0	0	0	0
56	10.5	National Nature Reserves (NNR)	0	0	0	0	0
57 >	10.6 >	Local Nature Reserves (LNR) >	0	0	0	0	5
57 >	10.7 >	Designated Ancient Woodland >	0	0	2	1	24
58	10.8	Biosphere Reserves	0	0	0	0	0
59	10.9	Forest Parks	0	0	0	0	0
59	10.10	Marine Conservation Zones	0	0	0	0	0
59	10.11	Green Belt	0	0	0	0	0
59	10.12	Proposed Ramsar sites	0	0	0	0	0
59	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
60	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0

60	10.15	Nitrate Sensitive Areas	0	0	0	0	0
60	10.16	Nitrate Vulnerable Zones	0	0	0	0	0
61 >	10.17 >	SSSI Impact Risk Zones >	1	-	-	-	-
62 >	10.18 >	SSSI Units >	0	0	0	0	3
Page	Section	Visual and cultural designations >	On site	0-50m	50-250m	250-500m	500-2000m
64	11.1	World Heritage Sites	0	0	0	-	-
65	11.2	Area of Outstanding Natural Beauty	0	0	0	-	-
65	11.3	National Parks	0	0	0	-	-
65 >	11.4 >	Listed Buildings >	0	1	5	-	-
66 >	11.5 >	Conservation Areas >	1	0	0	-	-
66	11.6	Scheduled Ancient Monuments	0	0	0	-	-
66	11.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	Agricultural designations >	On site	0-50m	50-250m	250-500m	500-2000m
67 >	12.1 >	Agricultural Land Classification >	Urban (within 250m)				
68 >	12.2 >	Open Access Land >	0	0	1	-	-
68	12.3	Tree Felling Licences	0	0	0	-	-
68	12.4	Environmental Stewardship Schemes	0	0	0	-	-
68	12.5	Countryside Stewardship Schemes	0	0	0	-	-
Page	Section	Habitat designations >	On site	0-50m	50-250m	250-500m	500-2000m
69 >	13.1 >	Priority Habitat Inventory >	0	0	5	-	-
70	13.2	Habitat Networks	0	0	0	-	-
70 >	13.3 >	Open Mosaic Habitat >	0	0	1	-	-
70	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
71 >	14.1 >	10k Availability >	Identified (within 500m)				
72 >	14.2 >	Artificial and made ground (10k) >	0	0	1	0	-
73	14.3	Superficial geology (10k)	0	0	0	0	-
73	14.4	Landslip (10k)	0	0	0	0	-
74 >	14.5 >	Bedrock geology (10k) >	1	0	1	0	-

75	14.6	Bedrock faults and other linear features (10k)	0	0	0	0	-
Page	Section	Geology 1:50,000 scale >	On site	0-50m	50-250m	250-500m	500-2000m
76 >	15.1 >	50k Availability >	Identified (within 500m)				
77 >	15.2 >	Artificial and made ground (50k) >	0	0	1	0	-
78	15.3	Artificial ground permeability (50k)	0	0	-	-	-
79	15.4	Superficial geology (50k)	0	0	0	0	-
79	15.5	Superficial permeability (50k)	None (within 50m)				
79	15.6	Landslip (50k)	0	0	0	0	-
79	15.7	Landslip permeability (50k)	None (within 50m)				
80 >	15.8 >	Bedrock geology (50k) >	1	0	1	0	-
81 >	15.9 >	Bedrock permeability (50k) >	Identified (within 50m)				
81	15.10	Bedrock faults and other linear features (50k)	0	0	0	0	-
Page	Section	Boreholes	On site	0-50m	50-250m	250-500m	500-2000m
82	16.1	BGS Boreholes	0	0	0	-	-
Page	Section	Natural ground subsidence >					
83 >	17.1 >	Shrink swell clays >	Moderate (within 50m)				
84 >	17.2 >	Running sands >	Very low (within 50m)				
85 >	17.3 >	Compressible deposits >	Negligible (within 50m)				
86 >	17.4 >	Collapsible deposits >	Very low (within 50m)				
87 >	17.5 >	Landslides >	Very low (within 50m)				
88 >	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
90	18.1	BritPits	0	0	0	0	-
91 >	18.2 >	Surface ground workings >	0	2	20	-	-
92 >	18.3 >	Underground workings >	0	0	0	7	16
93	18.4	Underground mining extents	0	0	0	0	-
93	18.5	Historical Mineral Planning Areas	0	0	0	0	-
93	18.6	Non-coal mining	0	0	0	0	0
93	18.7	JPB mining areas	None (within 0m)				



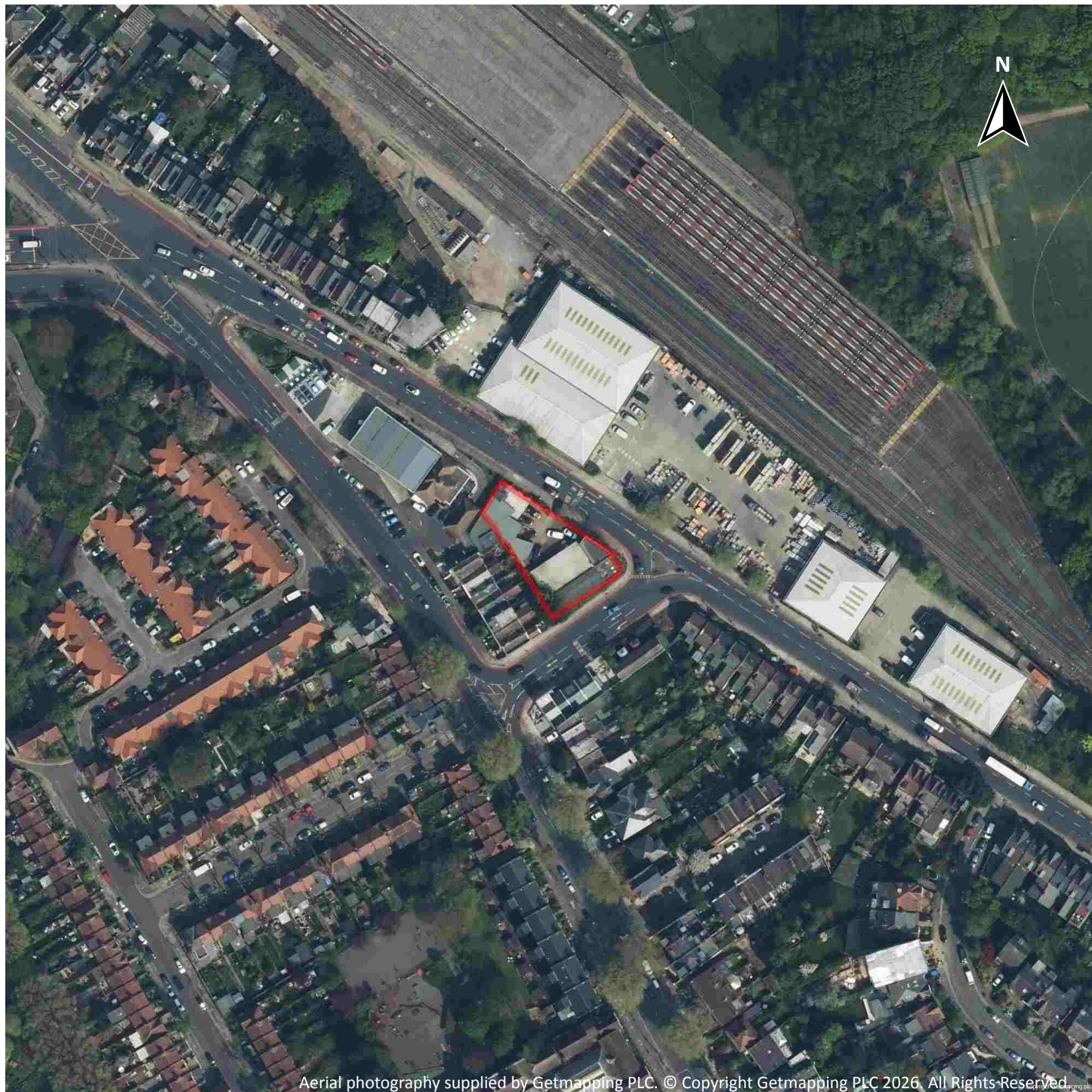
94	18.8	The Coal Authority non-coal mining	0	0	0	0	-
94 >	18.9 >	Researched mining >	0	0	0	1	-
94	18.10	Mining record office plans	0	0	0	0	-
94	18.11	BGS mine plans	0	0	0	0	-
95	18.12	Coal mining	None (within 0m)				
95	18.13	Brine areas	None (within 0m)				
95	18.14	Gypsum areas	None (within 0m)				
95	18.15	Tin mining	None (within 0m)				
95	18.16	Clay mining	None (within 0m)				
Page	Section	Ground cavities and sinkholes	On site	0-50m	50-250m	250-500m	500-2000m
96	19.1	Natural cavities	0	0	0	0	-
96	19.2	Mining cavities	0	0	0	0	0
96	19.3	Reported recent incidents	0	0	0	0	-
96	19.4	Historical incidents	0	0	0	0	-
Page	Section	Radon >					
98 >	20.1 >	Radon >	Less than 1% (within 0m)				
Page	Section	Soil chemistry >	On site	0-50m	50-250m	250-500m	500-2000m
100 >	21.1 >	BGS Estimated Background Soil Chemistry >	2	2	-	-	-
100 >	21.2 >	BGS Estimated Urban Soil Chemistry >	2	4	-	-	-
101	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
102 >	22.1 >	Underground railways (London) >	0	0	1	-	-
103	22.2	Underground railways (Non-London)	0	0	0	-	-
103 >	22.3 >	Railway tunnels >	0	1	0	-	-
103 >	22.4 >	Historical railway and tunnel features >	0	17	44	-	-
106	22.5	Royal Mail tunnels	0	0	0	-	-
106 >	22.6 >	Historical railways >	0	0	2	-	-
106	22.7	Railways	0	0	0	-	-
106	22.8	Crossrail 2	0	0	0	0	-



10722.9HS20000-



Recent aerial photograph

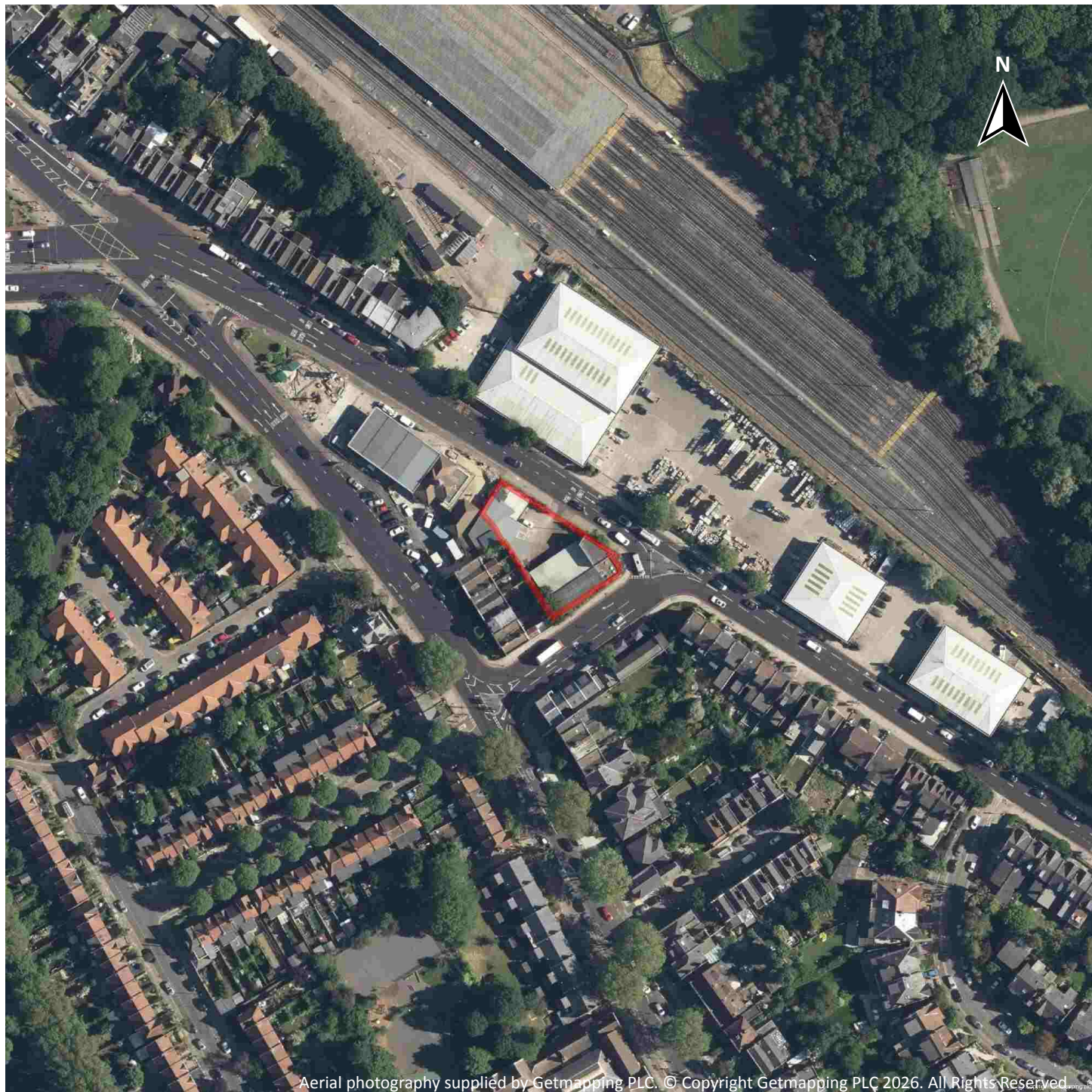


Capture Date: 21/04/2022

Site Area: 0.09ha



Recent site history - 2021 aerial photograph

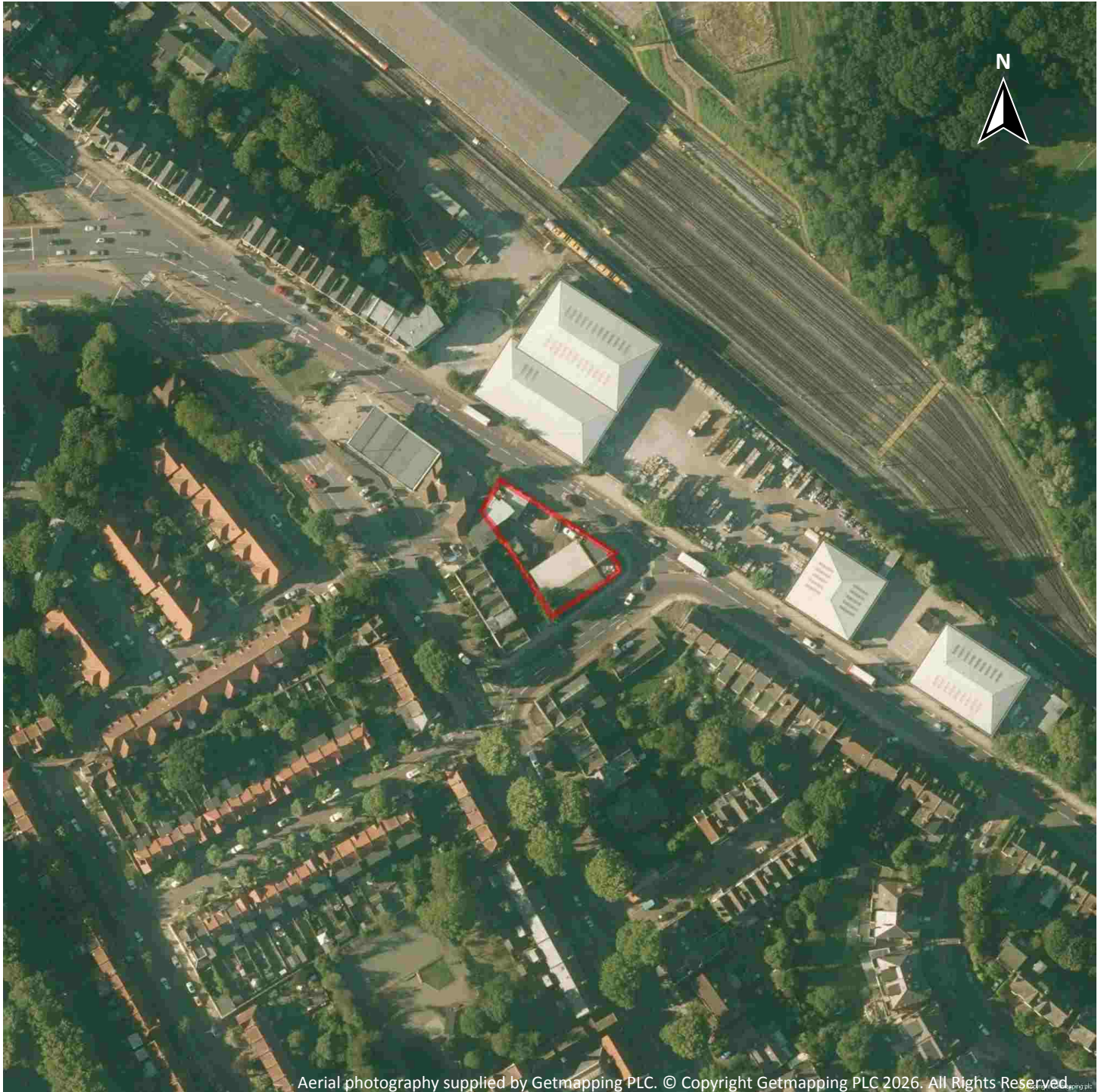


Capture Date: 14/06/2021

Site Area: 0.09ha



Recent site history - 2016 aerial photograph



Capture Date: 12/08/2016

Site Area: 0.09ha



Recent site history - 2013 aerial photograph



Capture Date: 28/04/2013

Site Area: 0.09ha



Recent site history - 1999 aerial photograph

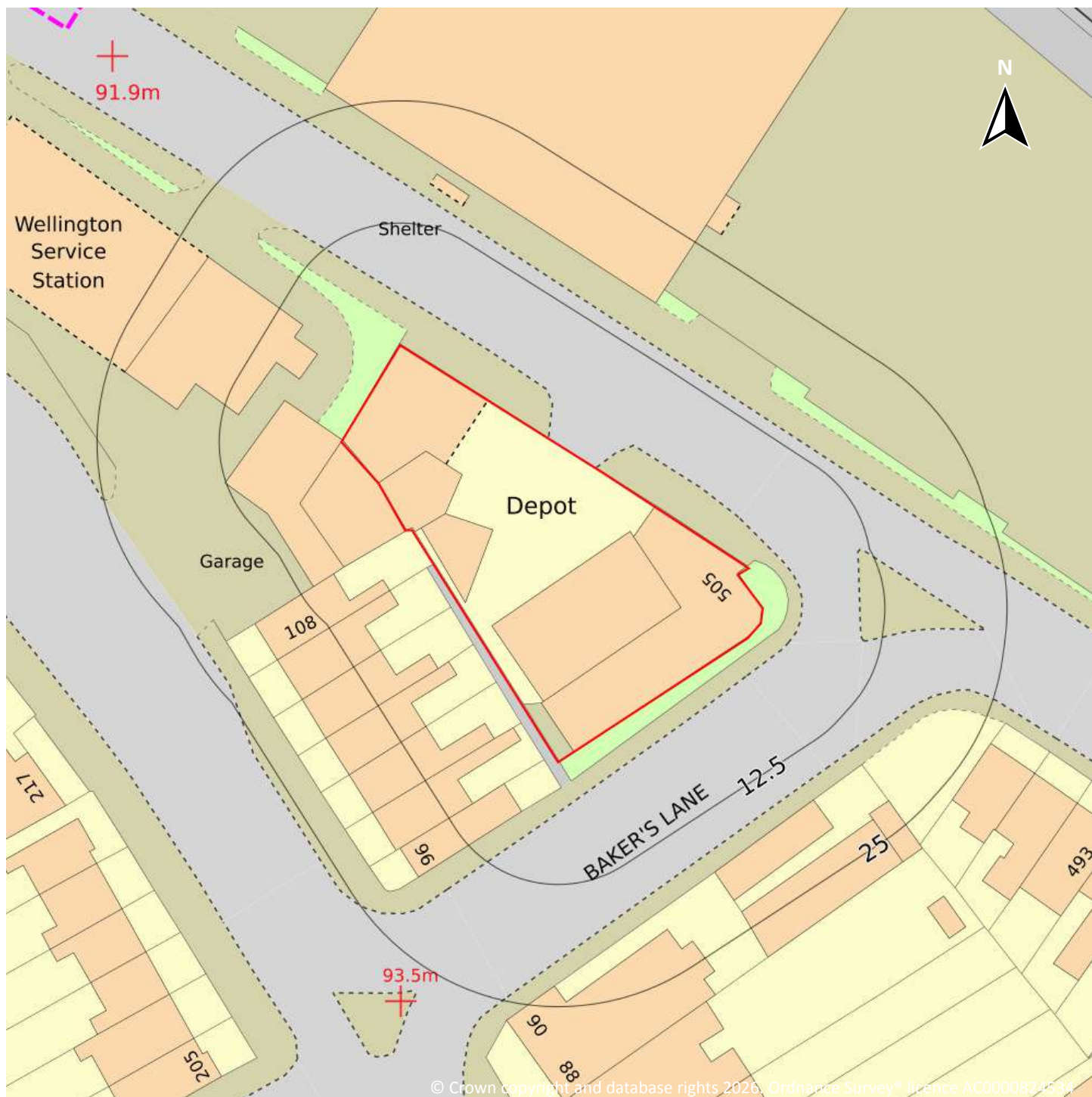


Capture Date: 04/09/1999

Site Area: 0.09ha



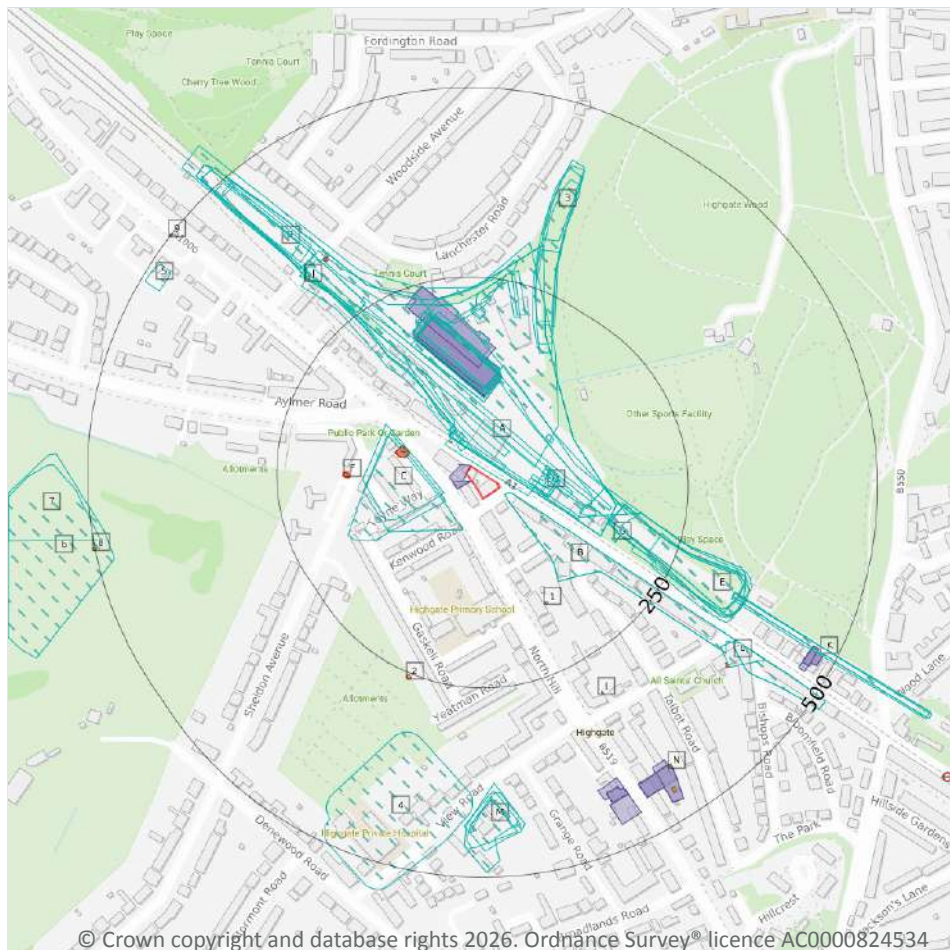
OS MasterMap site plan



Site Area: 0.09ha



1 Past land use



- Site Outline
- Search buffers in metres (m)
- Historical industrial land uses
- Historical tanks
- Historical energy features
- Historical garages

1.1 Historical industrial land uses

Records within 500m

67

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	6m NE	Railway Sidings	1920	2324197



ID	Location	Land use	Dates present	Group ID
B	12m SE	Brick Field	1873	2216679
B	12m SE	Brick Field	1879	2258085
A	17m NE	Railway Sidings	1958	2233416
A	17m NE	Railway Sidings	1965	2289708
A	17m NE	Railway Sidings	1974	2305942
A	18m NE	Railway Sidings	1896	2266406
A	19m NE	Railway Sidings	1938 - 1951	2245291
A	24m NE	Railway Sidings	1894	2274600
A	24m NW	Railway Building	1920	2212697
A	32m N	Railway Building	1938	2268302
A	36m N	Railway Building	1951	2299357
C	39m SW	Unspecified Depot	1894	2308390
D	39m E	Railway Building	1951	2257871
C	43m SW	Unspecified Depot	1920 - 1938	2246990
D	44m E	Railway Building	1938	2282971
D	44m E	Railway Sidings	1894	2280943
C	45m SW	Unspecified Depot	1896	2240007
A	48m NE	Railway Sidings	1996	2310589
D	58m E	Railway Building	1958	2278082
A	64m NE	Railway Sidings	1896	2250854
D	73m E	Railway Building	1965 - 1974	2207316
A	87m N	Carriage Shed	1896 - 1920	2324263
A	88m NE	Railway Building	1951	2196270
A	97m N	Carriage Shed	1938	2308850
A	97m N	Railway Building	1958	2208236
A	99m N	Carriage Shed	1951	2274689
A	104m N	Carriage Shed	1894	2289316
A	105m N	Railway Building	1965 - 1996	2310911



ID	Location	Land use	Dates present	Group ID
D	112m E	Railway Sidings	1894	2279044
E	121m E	Cuttings	1879	2234646
E	121m E	Cuttings	1873	2239729
E	147m E	Railway Sidings	1894	2292249
E	151m E	Cuttings	1951	2265767
E	153m E	Cuttings	1958 - 1996	2278126
A	164m N	Railway Building	1958 - 1996	2278048
G	164m SE	Railway Building	1873	2257527
G	164m SE	Railway Building	1879	2263340
E	167m E	Cuttings	1894	2260756
A	175m NE	Cuttings	1920	2271162
A	184m NE	Cuttings	1938 - 1951	2278261
A	189m N	Unspecified Ground Workings	1938	2163852
A	190m N	Unspecified Heap	1920	2187102
A	194m N	Railway Buildings	1958 - 1965	2321084
A	197m N	Railway Building	1974 - 1996	2273440
A	207m NE	Cuttings	1896	2246672
A	208m N	Railway Building	1974	2196269
A	210m NE	Cuttings	1894	2249488
E	215m SE	Cuttings	1920 - 1938	2276807
H	253m NW	Cuttings	1879	2211307
H	253m NW	Cuttings	1873	2254230
3	315m N	Cuttings	1894	2300889
4	323m S	Hospital	1965 - 1974	2260302
K	340m SE	Tunnel	1873	2298791
K	340m SE	Tunnel	1879	2305354
K	340m SE	Tunnels	1958 - 1996	2277992
H	345m NW	Cuttings	1896	2315753



ID	Location	Land use	Dates present	Group ID
H	351m NW	Cuttings	1894	2279239
L	360m SE	Police Station	1958 - 1996	2286006
H	362m NW	Cuttings	1951	2326859
M	376m S	Unspecified Ground Workings	1894	2207670
M	387m S	Unspecified Ground Workings	1951	2243693
M	389m S	Unspecified Ground Workings	1958	2242845
M	398m S	Unspecified Heap	1920	2188303
5	470m NW	Unspecified Heap	1951	2187103
6	477m W	Unspecified Heap	1958	2299470
7	490m W	Unspecified Heap	1936	2209967

This data is sourced from Ordnance Survey® / Groundsure.

1.2 Historical tanks

Records within 500m	9
----------------------------	----------

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 ungrouped 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	40m NW	Unspecified Tank	1913	390912
1	159m SE	Unspecified Tank	1864	390884
I	299m SE	Unspecified Tank	1993	430153
I	300m SE	Unspecified Tank	1991	430368
J	325m NW	Unspecified Tank	1913	390911
N	429m SE	Unspecified Tank	1978 - 1993	405347
N	456m SE	Unspecified Tank	1950 - 1976	414833
8	498m W	Unspecified Tank	1873	383997



ID	Location	Land use	Dates present	Group ID
9	498m NW	Unspecified Tank	1913	390909

This data is sourced from Ordnance Survey® / Groundsure.

1.3 Historical energy features

Records within 500m	10
----------------------------	-----------

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 ungrouped 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
C	80m W	Electricity Substation	1974	285209
C	80m W	Electricity Substation	1950	317687
C	80m W	Electricity Substation	1950	312189
C	87m W	Electricity Substation	1990 - 1991	292734
F	151m W	Electricity Substations	1974	275193
F	156m W	Electricity Substation	1990 - 1991	295927
2	252m SW	Electricity Substation	1985 - 1991	289735
J	331m NW	Electricity Substations	1974	275192
J	332m NW	Electricity Substation	1990 - 1991	304298
L	378m SE	Electricity Substation	1976 - 1993	280087

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 ungrouped 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

22

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 ungrouped 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	On site	Garage	1950 - 1963	84401
A	1m SW	Garage	1985 - 1991	86825
A	94m N	Carriage Shed	1990 - 1991	88090
A	94m N	Carriage Shed	1970	84621
A	94m N	Carriage Shed	1913 - 1950	90855
A	94m N	Carriage Shed	1974	87959
A	94m N	Carriage Shed	1950 - 1960	92189
A	103m N	Carriage Shed	1896	89916
A	131m N	Carriage Shed	1935	85733
N	409m SE	Garage	1991	84271
N	420m SE	Garage	1970	95904
N	420m SE	Garage and Store	1950	82037
N	420m SE	Garage	1962 - 1978	85216
N	428m SE	Garage	1976 - 1978	82781
N	428m SE	Garage	1962	94343
N	428m SE	Garage	1991 - 1993	85710
N	435m SE	Garage	1993	84914
K	461m SE	Garage	1991	94354
K	462m SE	Garage	1970	89050
K	462m SE	Garage	1962	86806



ID	Location	Land use	Dates present	Group ID
K	462m SE	Garage	1976 - 1978	92731
K	472m SE	Garage	1993	88827

This data is sourced from Ordnance Survey® / Groundsure.

1.6 Historical military land

Records within 500m

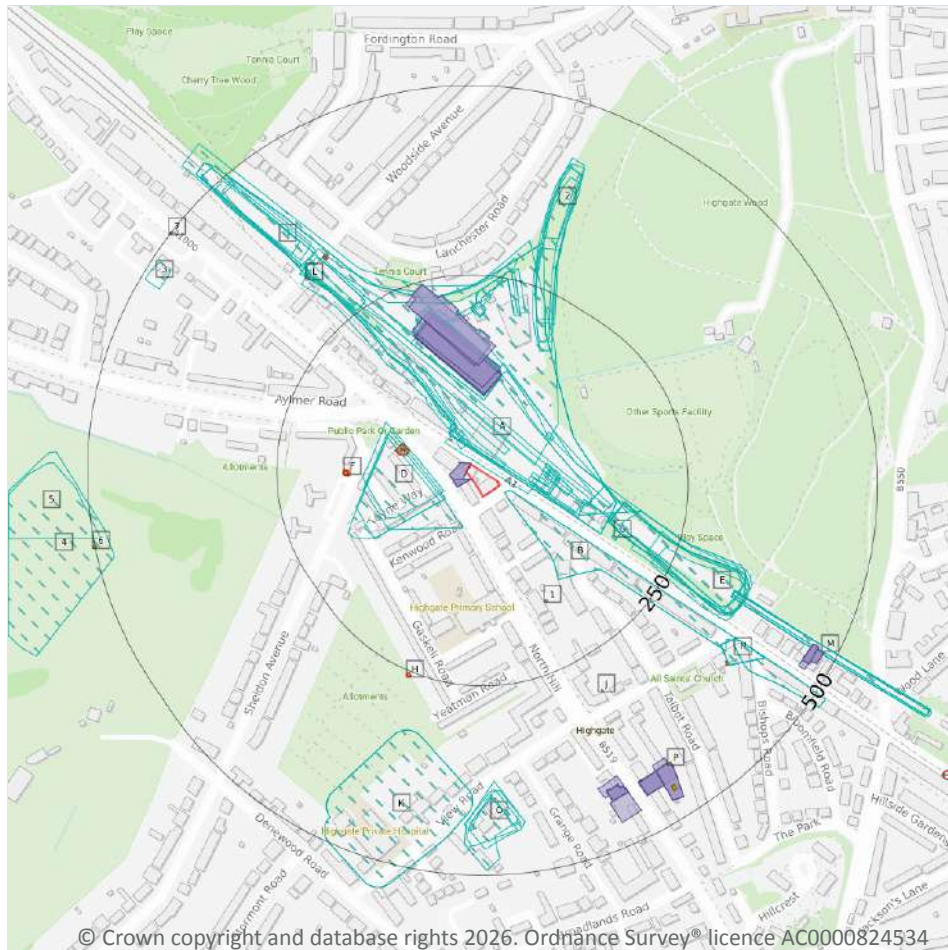
0

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
- Historical garages

2.1 Historical industrial land uses

Records within 500m

90

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 22](#) >

ID	Location	Land Use	Date	Group ID
A	6m NE	Railway Sidings	1920	2324197
B	12m SE	Brick Field	1873	2216679
B	12m SE	Brick Field	1879	2258085



ID	Location	Land Use	Date	Group ID
A	17m NE	Railway Sidings	1965	2289708
A	17m NE	Railway Sidings	1974	2305942
A	17m NE	Railway Sidings	1958	2233416
A	18m NE	Railway Sidings	1896	2266406
C	19m NE	Railway Sidings	1938	2245291
A	20m NE	Railway Sidings	1951	2245291
A	24m NE	Railway Sidings	1894	2274600
A	24m NW	Railway Building	1920	2212697
A	32m N	Railway Building	1938	2268302
A	36m N	Railway Building	1951	2299357
D	39m SW	Unspecified Depot	1894	2308390
C	39m E	Railway Building	1951	2257871
D	43m SW	Unspecified Depot	1938	2246990
C	44m E	Railway Building	1938	2282971
C	44m E	Railway Sidings	1894	2280943
D	45m SW	Unspecified Depot	1896	2240007
A	48m NE	Railway Sidings	1996	2310589
D	51m SW	Unspecified Depot	1920	2246990
C	58m E	Railway Building	1958	2278082
A	64m NE	Railway Sidings	1896	2250854
C	73m E	Railway Building	1965	2207316
C	73m E	Railway Building	1974	2207316
A	87m N	Carriage Shed	1920	2324263
C	88m NE	Railway Building	1951	2196270
A	92m N	Carriage Shed	1896	2324263
A	97m N	Carriage Shed	1938	2308850
A	97m N	Railway Building	1958	2208236
A	99m N	Carriage Shed	1951	2274689



ID	Location	Land Use	Date	Group ID
A	104m N	Carriage Shed	1894	2289316
A	105m N	Railway Building	1965	2310911
A	105m N	Railway Building	1974	2310911
A	105m N	Railway Building	1996	2310911
C	112m E	Railway Sidings	1894	2279044
E	121m E	Cuttings	1879	2234646
E	121m E	Cuttings	1873	2239729
E	147m E	Railway Sidings	1894	2292249
E	151m E	Cuttings	1951	2265767
E	153m E	Cuttings	1965	2278126
E	153m E	Cuttings	1974	2278126
E	153m E	Cuttings	1996	2278126
E	153m E	Cuttings	1958	2278126
A	164m N	Railway Building	1965	2278048
A	164m N	Railway Building	1974	2278048
A	164m N	Railway Building	1996	2278048
A	164m N	Railway Building	1958	2278048
G	164m SE	Railway Building	1873	2257527
G	164m SE	Railway Building	1879	2263340
E	167m E	Cuttings	1894	2260756
A	175m NE	Cuttings	1920	2271162
A	184m NE	Cuttings	1951	2278261
A	186m NE	Cuttings	1938	2278261
A	189m N	Unspecified Ground Workings	1938	2163852
A	190m N	Unspecified Heap	1920	2187102
A	194m N	Railway Buildings	1965	2321084
A	194m N	Railway Buildings	1958	2321084
A	197m N	Railway Building	1974	2273440



ID	Location	Land Use	Date	Group ID
A	197m N	Railway Building	1996	2273440
A	207m NE	Cuttings	1896	2246672
A	208m N	Railway Building	1974	2196269
A	210m NE	Cuttings	1894	2249488
E	215m SE	Cuttings	1938	2276807
E	226m SE	Cuttings	1920	2276807
I	253m NW	Cuttings	1879	2211307
I	253m NW	Cuttings	1873	2254230
2	315m N	Cuttings	1894	2300889
K	323m S	Hospital	1965	2260302
K	323m S	Hospital	1974	2260302
M	340m SE	Tunnel	1879	2305354
M	340m SE	Tunnel	1873	2298791
M	340m SE	Tunnels	1965	2277992
M	340m SE	Tunnels	1974	2277992
M	340m SE	Tunnels	1996	2277992
M	340m SE	Tunnels	1958	2277992
I	345m NW	Cuttings	1896	2315753
I	351m NW	Cuttings	1894	2279239
N	360m SE	Police Station	1965	2286006
N	360m SE	Police Station	1974	2286006
N	360m SE	Police Station	1996	2286006
N	360m SE	Police Station	1958	2286006
I	362m NW	Cuttings	1951	2326859
O	376m S	Unspecified Ground Workings	1894	2207670
O	387m S	Unspecified Ground Workings	1951	2243693
O	389m S	Unspecified Ground Workings	1958	2242845
O	398m S	Unspecified Heap	1920	2188303



ID	Location	Land Use	Date	Group ID
3	470m NW	Unspecified Heap	1951	2187103
4	477m W	Unspecified Heap	1958	2299470
5	490m W	Unspecified Heap	1936	2209967

This data is sourced from Ordnance Survey® / Groundsure.

2.2 Historical tanks

Records within 500m	15
----------------------------	-----------

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 22 >](#)

ID	Location	Land Use	Date	Group ID
A	40m NW	Unspecified Tank	1913	390912
1	159m SE	Unspecified Tank	1864	390884
J	299m SE	Unspecified Tank	1993	430153
J	300m SE	Unspecified Tank	1991	430368
L	325m NW	Unspecified Tank	1913	390911
P	429m SE	Unspecified Tank	1978	405347
P	429m SE	Unspecified Tank	1991	405347
P	430m SE	Unspecified Tank	1993	405347
P	456m SE	Unspecified Tank	1970	414833
P	456m SE	Unspecified Tank	1950	414833
P	456m SE	Unspecified Tank	1976	414833
P	456m SE	Unspecified Tank	1950	414833
P	456m SE	Unspecified Tank	1962	414833
6	498m W	Unspecified Tank	1873	383997
7	498m NW	Unspecified Tank	1913	390909

This data is sourced from Ordnance Survey® / Groundsure.



2.3 Historical energy features

Records within 500m

20

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 22 >](#)

ID	Location	Land Use	Date	Group ID
D	80m W	Electricity Substation	1974	285209
D	80m W	Electricity Substation	1950	317687
D	80m W	Electricity Substation	1950	312189
D	87m W	Electricity Substation	1991	292734
D	87m W	Electricity Substation	1990	292734
D	87m W	Electricity Substation	1990	292734
F	151m W	Electricity Substations	1974	275193
F	156m W	Electricity Substation	1991	295927
F	156m W	Electricity Substation	1990	295927
F	156m W	Electricity Substation	1990	295927
H	252m SW	Electricity Substation	1985	289735
H	252m SW	Electricity Substation	1991	289735
L	331m NW	Electricity Substations	1974	275192
L	332m NW	Electricity Substation	1991	304298
L	332m NW	Electricity Substation	1990	304298
L	332m NW	Electricity Substation	1990	304298
N	378m SE	Electricity Substation	1993	280087
N	379m SE	Electricity Substation	1991	280087
N	379m SE	Electricity Substation	1978	280087
N	379m SE	Electricity Substation	1976	280087

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

36

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'.

Features are displayed on the Past land use - un-grouped map on [page 22 >](#)

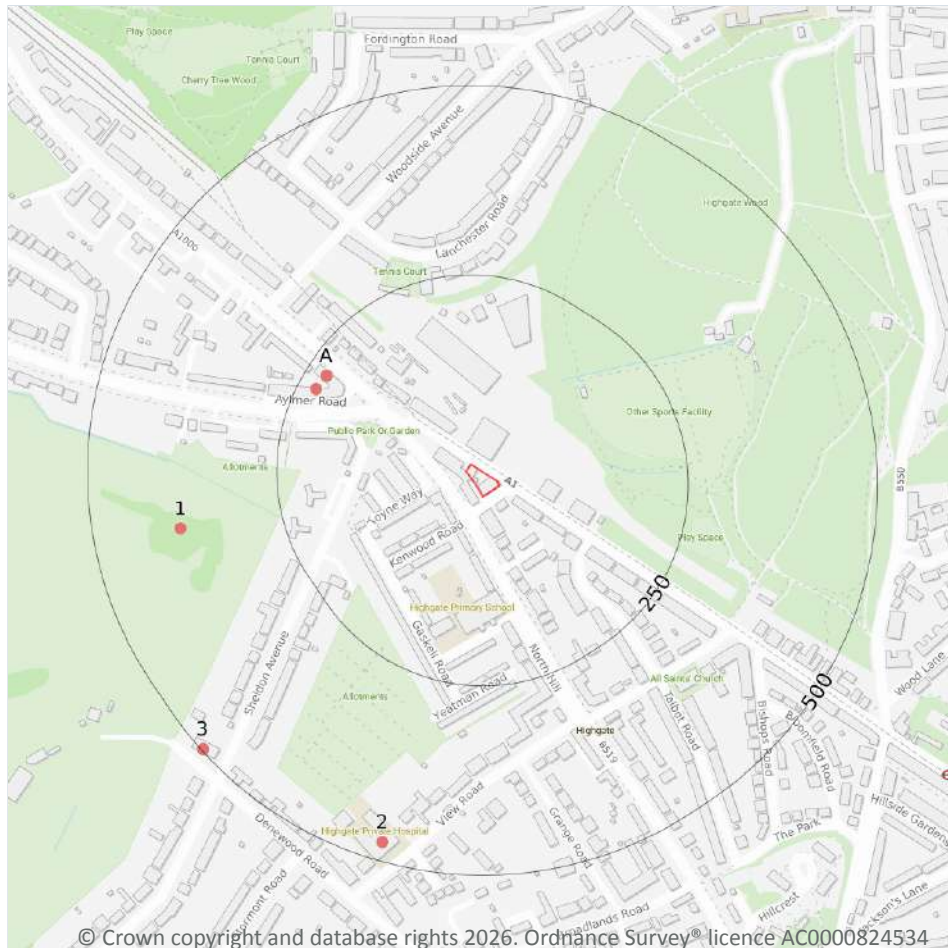
ID	Location	Land Use	Date	Group ID
A	On site	Garage	1960	84401
A	On site	Garage	1950	84401
A	1m SW	Garage	1963	84401
A	1m SW	Garage	1950	84401
A	1m SW	Garage	1985	86825
A	1m SW	Garage	1991	86825
A	94m N	Carriage Shed	1991	88090
A	94m N	Carriage Shed	1990	88090
A	94m N	Carriage Shed	1990	88090
A	94m N	Carriage Shed	1950	90855
A	94m N	Carriage Shed	1970	84621
A	94m N	Carriage Shed	1960	92189
A	94m N	Carriage Shed	1974	87959
A	94m N	Carriage Shed	1950	92189
A	103m N	Carriage Shed	1896	89916
A	130m N	Carriage Shed	1913	90855

ID	Location	Land Use	Date	Group ID
A	131m N	Carriage Shed	1935	85733
P	409m SE	Garage	1991	84271
P	420m SE	Garage	1970	95904
P	420m SE	Garage	1978	85216
P	420m SE	Garage	1962	85216
P	420m SE	Garage	1976	85216
P	420m SE	Garage and Store	1950	82037
P	420m SE	Garage	1970	85216
P	428m SE	Garage	1978	82781
P	428m SE	Garage	1962	94343
P	428m SE	Garage	1976	82781
P	428m SE	Garage	1991	85710
P	429m SE	Garage	1993	85710
P	435m SE	Garage	1993	84914
M	461m SE	Garage	1991	94354
M	462m SE	Garage	1970	89050
M	462m SE	Garage	1978	92731
M	462m SE	Garage	1962	86806
M	462m SE	Garage	1976	92731
M	472m SE	Garage	1993	88827

This data is sourced from Ordnance Survey® / Groundsure.



3 Waste and landfill



— 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**6**

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.

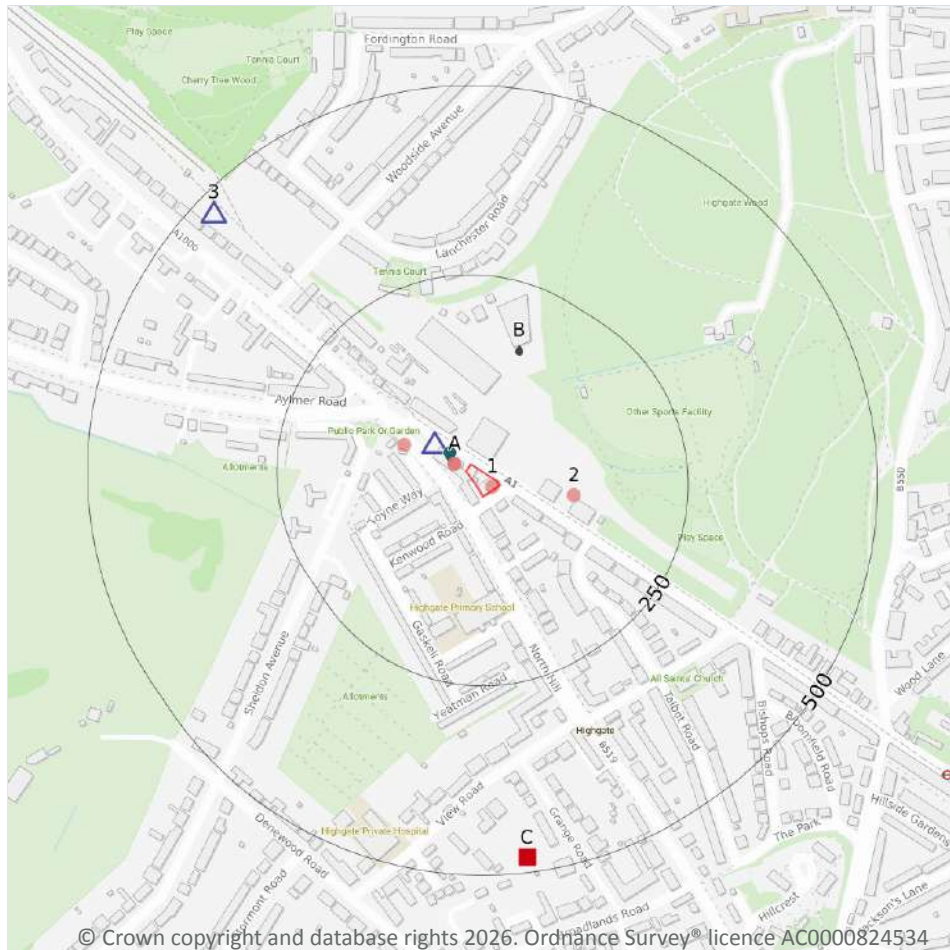
Features are displayed on the Waste and landfill map on [page 30](#) >

ID	Location	Site	Reference	Category	Sub-Category	Description
A	224m NW	Alymer Parade Vet, 17 Aylmer Parade, London, N20pe	WEX349442	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal
A	224m NW	Alymer Parade Vet, 17 Aylmer Parade, London, N20pe	WEX223087	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal
A	227m NW	Alymer Parade Vet, 17 Aylmer Parade, London, N20pe	WEX473044	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal
1	385m W	-	WEX389275	Disposing of waste exemption	Not on a farm	Burning waste in the open
2	476m S	-	WEX267137	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal
3	499m SW	Denewood Road, London, N6 4ah	WEX251728	Disposing of waste exemption	Not on a farm	Burning waste in the open

This data is sourced from the Environment Agency and Natural Resources Wales.



4 Current industrial land use



- Site Outline
- Search buffers in metres (m)
- Recent industrial land uses
- △ Current or recent petrol stations
- Licensed pollutant release (Part A(2)/B)
- Licensed Discharges to controlled waters
- List 1 Dangerous Substances

4.1 Recent industrial land uses

Records within 250m

5

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on [page 33](#) >

ID	Location	Company	Address	Activity	Category
1	On site	American Carwash	Depot 505-511, Archway Road, Hornsey, London, Greater London, N6 4HX	Vehicle Cleaning Services	Personal, Consumer and Other Services
A	18m NW	Esso	513, Archway Road, Hornsey, London, Greater London, N6 4HX	Petrol and Fuel Stations	Road and Rail
A	18m NW	Mfg Wellington	513, Archway Road, London, Greater London, N6 4HX	Vehicle Cleaning Services	Personal, Consumer and Other Services



ID	Location	Company	Address	Activity	Category
A	90m NW	Electricity Sub Station	Greater London, N6	Electrical Features	Infrastructure and Facilities
2	100m E	Shaft	Greater London, N6	Unspecified Quarries Or Mines	Extractive Industries

This data is sourced from Ordnance Survey®.

4.2 National Geographic Database (NGD) - Current or recent tanks

Records within 250m

0

Current or recent tanks identified from the Ordnance Survey® NGD.

This data is sourced from Ordnance Survey®.

4.3 Current or recent petrol stations

Records within 500m

2

Open, closed, under development and obsolete petrol stations.

Features are displayed on the Current industrial land use map on [page 33 >](#)

ID	Location	Company	Address	LPG	Status
A	56m NW	ESSO	513, Archway Road, North Hill, Highgate, London, Inner London, N6 4HX	No	Open
3	475m NW	OBSOLETE	98, Great North Road, East Finchley, London, Inner London, N2 0NL	Not Applicable	Obsolete

This data is sourced from Experian.

4.4 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.



4.5 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.

4.6 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.

4.7 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.

4.8 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.

4.9 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.

4.10 Licensed pollutant release (Part A(2)/B)

Records within 500m

2

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.

Features are displayed on the Current industrial land use map on [page 33](#) >

ID	Location	Address	Details	
A	30m NW	Wellington Service Station, 513 Archway Road, Highgate, London, N6 4HX	Process: Unloading of Petrol into Storage at Service Stations Status: Current Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified
A	31m NW	Roc UK, 513 Archway Rd, N6 4HX	Process: Unloading of Petrol into Storage at Service Stations Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified

This data is sourced from Local Authority records.

4.11 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.

4.12 Licensed Discharges to controlled waters

Records within 500m

2

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 33](#) >

ID	Location	Address	Details	
B	163m NE	HIGHGATE RAILWAY DEPOT, WOODSIDE AV, WOODSIDE AVENUE, LONDON N6	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: CTWC.2296 Permit Version: 1 Receiving Water: MADE GROUND/LONDON CLAY	Status: TRANSFERRED FROM COPA 1974 Issue date: 21/03/1988 Effective Date: 21/03/1988 Revocation Date: 08/12/2005



ID	Location	Address	Details	
B	163m NE	HIGHGATE RAILWAY DEPOT, WOODSIDE AV, WOODSIDE AVENUE, LONDON N6	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: CTWC.2296 Permit Version: 2 Receiving Water: MADE GROUND/LONDON CLAY	Status: TRANSFERRED FROM COPA 1974 Issue date: 09/12/2005 Effective Date: 09/12/2005 Revocation Date: 09/12/2017

This data is sourced from the Environment Agency and Natural Resources Wales.

4.13 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.

4.14 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.

4.15 List 1 Dangerous Substances

Records within 500m	4
----------------------------	----------

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.

Features are displayed on the Current industrial land use map on [page 33 >](#)

ID	Location	Name	Status	Receiving Water	Authorised Substances
C	480m S	J. Bull 256 Archway Rd London N6	Not Active	-	-
C	480m S	J. Bull 265 Arch Way Road London N6	Not Active	-	-
C	480m S	J Bull, 256 Archway Rd, London N6	Not Active	-	-
C	480m S	J Bull, 256 Archway Rd, London N6	Not Active	-	-

This data is sourced from the Environment Agency and Natural Resources Wales.



4.16 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.

4.17 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.

4.18 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.

4.19 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.

4.20 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

5.1 Superficial aquifer

Records within 500m

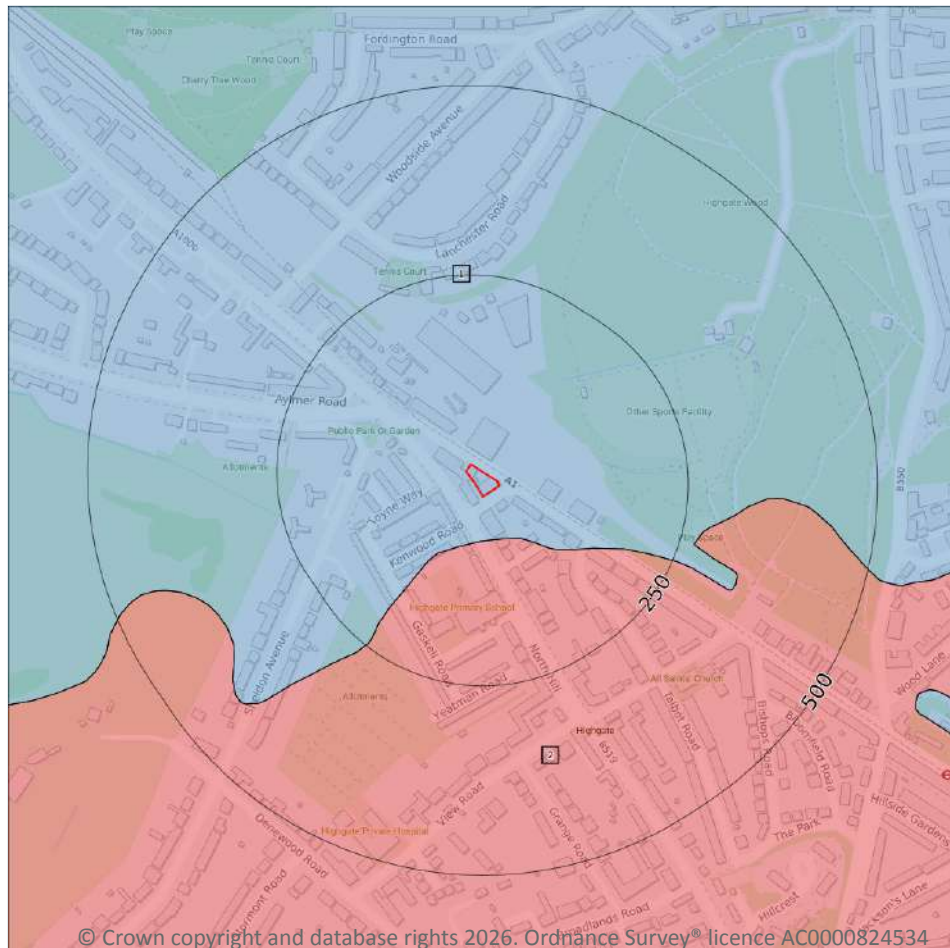
0

Aquifer status of groundwater held within superficial geology.

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

2

Aquifer status of groundwater held within bedrock geology.

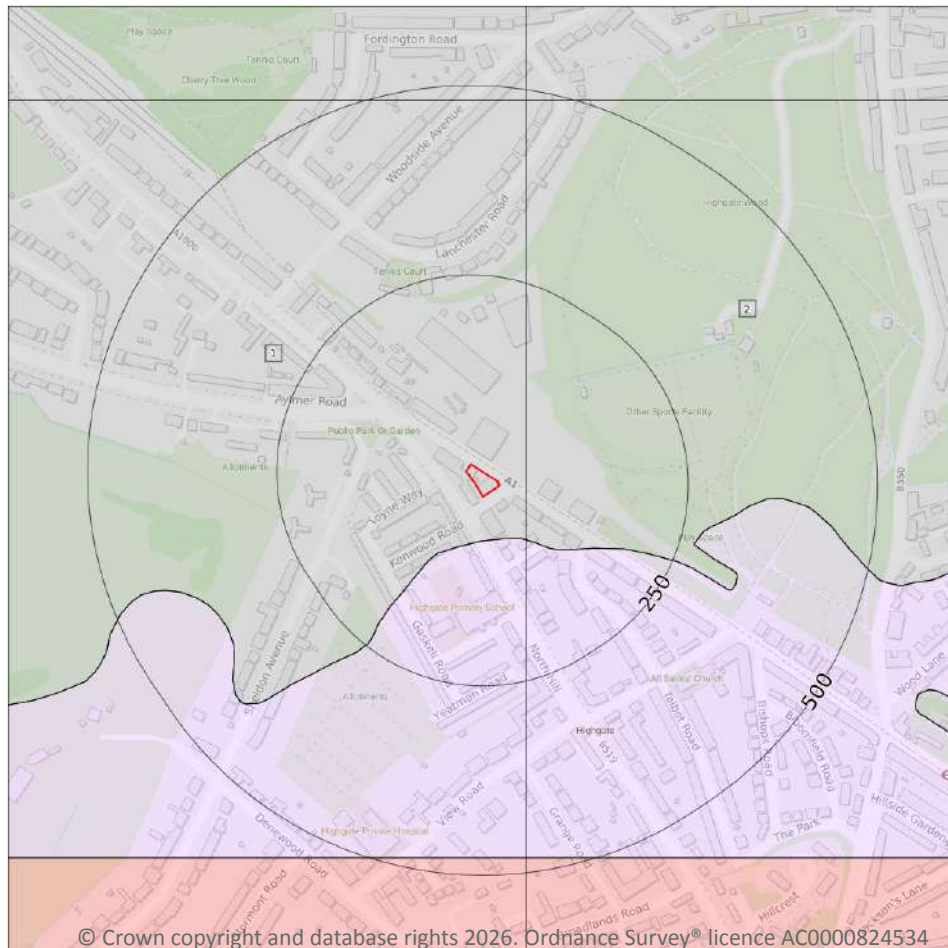
Features are displayed on the Bedrock aquifer map on [page 40](#) >

ID	Location	Designation	Description
1	On site	Unproductive	These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow
2	58m S	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.



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 41](#) >



ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
1	On site	Summary Classification: Unproductive aquifer (may have productive aquifer beneath) Combined classification: Unproductive Bedrock Aquifer, No Superficial Aquifer	Leaching class: Low Infiltration value: 40-70% Dilution value: 300-550mm/year	Vulnerability: - Aquifer type: - Thickness: <3m Patchiness value: <90% Recharge potential: No Data	Vulnerability: Unproductive Aquifer type: Unproductive Flow mechanism: Mixed
2	37m E	Summary Classification: Unproductive aquifer (may have productive aquifer beneath) Combined classification: Unproductive Bedrock Aquifer, No Superficial Aquifer	Leaching class: Low Infiltration value: 40-70% Dilution value: 300-550mm/year	Vulnerability: - Aquifer type: - Thickness: <3m Patchiness value: <90% Recharge potential: No Data	Vulnerability: Unproductive Aquifer type: Unproductive Flow mechanism: Mixed

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

0

This dataset identifies areas where solution features that enable rapid movement of a pollutant may be present within a 1km grid square.

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.



ID	Location	Details	
-	811m W	Status: Active Licence No: TH/039/0038/036 Details: Spray Irrigation - Direct Direct Source: THAMES GROUNDWATER Point: HIGHGATE GOLF CLUB BOREHOLE Data Type: Point Name: Highgate Golf Club Easting: 527149 Northing: 188258	Annual Volume (m ³): 25061 Max Daily Volume (m ³): 144 Original Application No: NPS/WR/041083 Original Start Date: 20/08/2024 Expiry Date: 31/03/2037 Issue No: 1 Version Start Date: 20/08/2024 Version End Date: -

This data is sourced from the Environment Agency and Natural Resources Wales.

5.7 Surface water abstractions

Records within 2000m	0
-----------------------------	----------

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.

This data is sourced from the Environment Agency and Natural Resources Wales.

5.8 Potable abstractions

Records within 2000m	0
-----------------------------	----------

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.

This data is sourced from the Environment Agency and Natural Resources Wales.

5.9 Source Protection Zones

Records within 500m	0
----------------------------	----------

Source Protection Zones define the sensitivity of an area around a potable abstraction site to contamination.

This data is sourced from the Environment Agency and Natural Resources Wales.

5.10 Source Protection Zones (confined aquifer)

Records within 500m

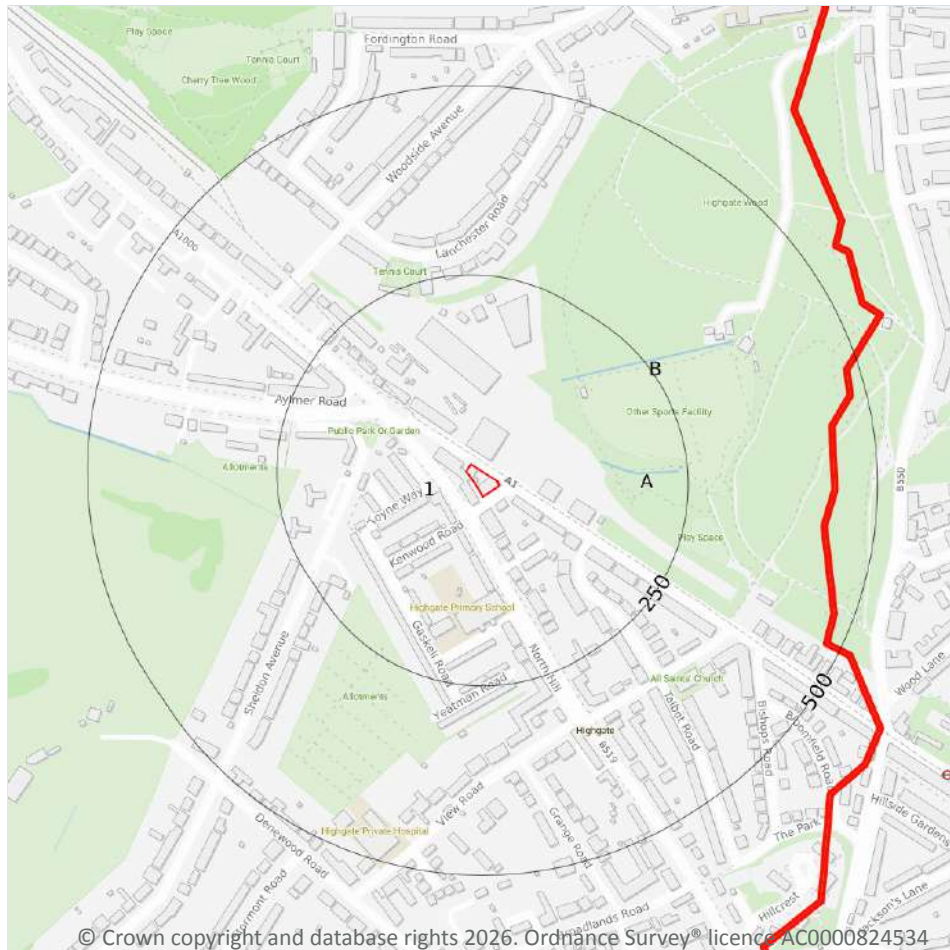
0

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



- Site Outline
- Search buffers in metres (m)
- Water Network (OS NGD)
- 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 NGD)

Records within 250m

2

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 46 >](#)

ID	Location	Type of water feature	Ground level	Permanence	Name
A	137m E	Drain. A manmade watercourse for the removal of excess water from an area.	On ground surface	Watercourse contains water year round (in normal circumstances)	-



ID	Location	Type of water feature	Ground level	Permanence	Name
B	158m NE	Drain. A manmade watercourse for the removal of excess water from an area.	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 NGD 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 46 >](#)

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 46 >](#)

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
1	On site	River	Dollis Brook and Upper Brent	GB106039022980	Brent Rivers and Lakes	London

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 46 >](#)

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
-	3918m W	River	Dollis Brook and Upper Brent	GB106039022980 ↗	No longer applicable	Does not require assessment	Moderate	2022

This data is sourced from the Environment Agency and Natural Resources Wales.

6.5 WFD Groundwater bodies

Records on site	0
------------------------	----------

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.

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 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

7.5 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.

7.6 Flood Zone 3

Records within 50m

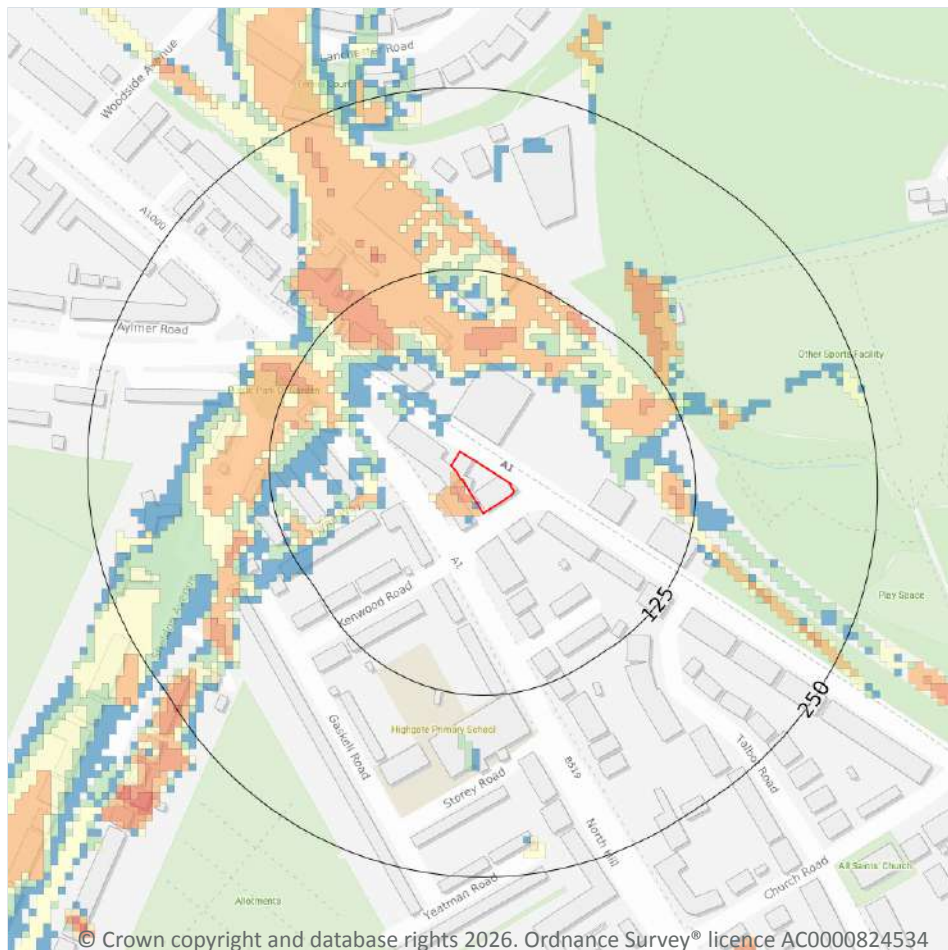
0

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 52 >](#)

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.

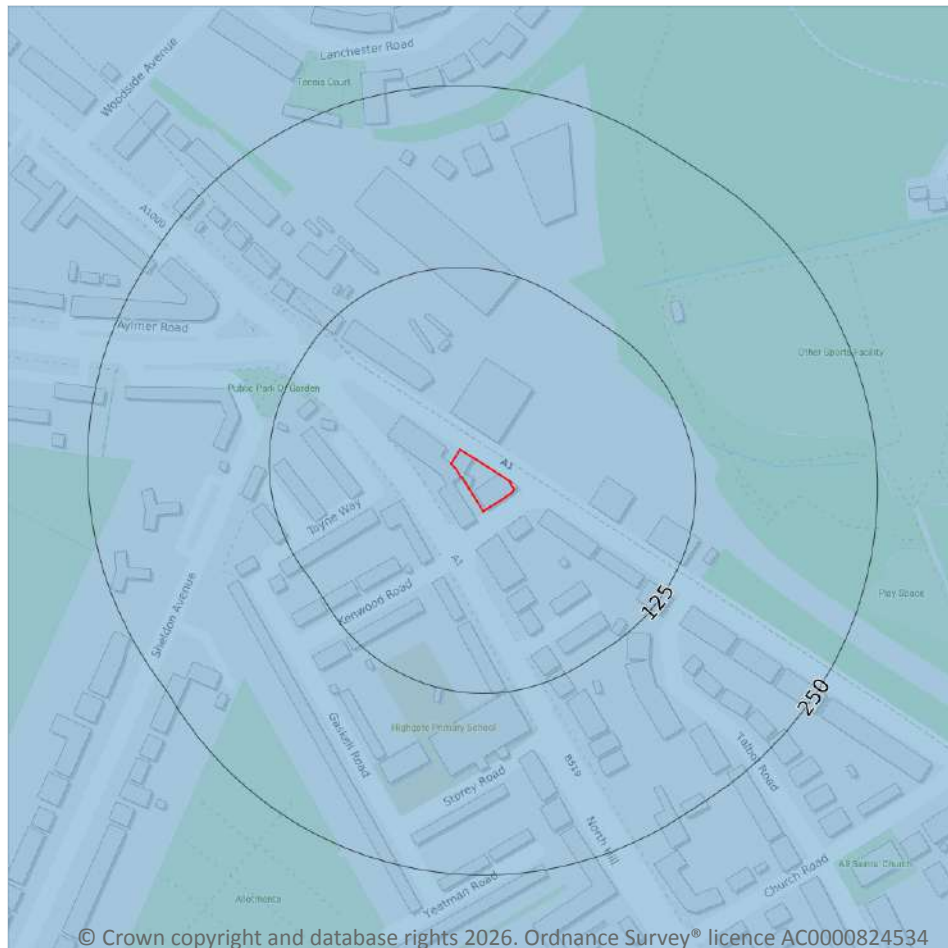
The table below shows the maximum flood depths for a range of return periods for the site.

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 Ambiantal 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

Negligible

Highest risk within 50m

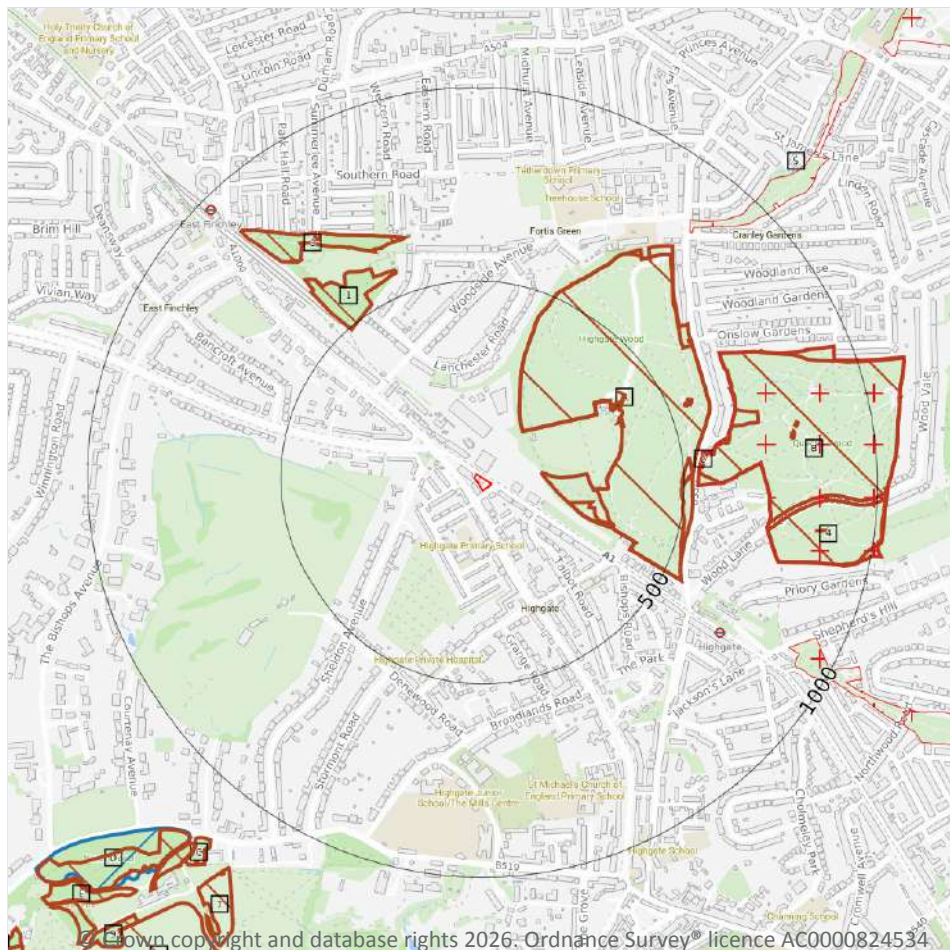
Negligible

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 54](#) >

This data is sourced from Ambiantal Risk Analytics.

10 Environmental designations



- Site Outline
- Search buffers in metres (m)
- Sites of Special Scientific Interest (SSSI)
- + Local Nature Reserves (LNR)
- ▨ Designated Ancient Woodland

10.1 Sites of Special Scientific Interest (SSSI)

Records within 2000m

2

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.

Features are displayed on the Environmental designations map on [page 55 >](#)

ID	Location	Name	Data source
D	1167m SW	Hampstead Heath Woods SSSI	Natural England



ID	Location	Name	Data source
-	1459m SW	Hampstead Heath Woods SSSI	Natural England

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

5

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 55 >](#)

ID	Location	Name	Data source
B	536m E	Queen's Wood	Natural England
5	829m NE	Parkland Walk	Natural England
6	877m SE	Parkland Walk	Natural England
10	1515m NE	Alexandra Palace & Park	Natural England
-	1578m N	Coldfall Wood	Natural England

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.7 Designated Ancient Woodland

Records within 2000m

27

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 55 >](#)

ID	Location	Name	Woodland Type
A	135m E	Queens Wood	Ancient & Semi-Natural Woodland
A	158m NE	Highgate Wood	Ancient & Semi-Natural Woodland
1	494m NW	Cherry Tree Wood	Ancient & Semi-Natural Woodland
B	536m E	Queens Wood	Ancient & Semi-Natural Woodland
B	540m E	Queens Wood	Ancient & Semi-Natural Woodland
2	544m E	Queens Wood	Ancient & Semi-Natural Woodland
3	633m NW	Cherry Tree Wood	Ancient & Semi-Natural Woodland
4	725m E	Queens Wood	Ancient & Semi-Natural Woodland



ID	Location	Name	Woodland Type
C	1145m SW	Hampstead Heath	Infilled Ancient Wood Pasture
D	1170m SW	North Wood	Ancient & Semi-Natural Woodland
7	1175m SW	Hampstead Heath	Infilled Ancient Wood Pasture
C	1180m SW	Hampstead Heath	Infilled Ancient Wood Pasture
8	1311m SW	Hampstead Heath	Ancient Wood Pasture
E	1368m SW	Hampstead Heath	Infilled Ancient Wood Pasture
9	1420m SW	Hampstead Heath	Infilled Ancient Wood Pasture
-	1447m SW	Ken Wood	Ancient & Semi-Natural Woodland
-	1456m SW	Ken Wood	Ancient & Semi-Natural Woodland
E	1498m SW	Hampstead Heath	Infilled Ancient Wood Pasture
-	1578m N	Coldfall Wood	Ancient & Semi-Natural Woodland
-	1578m N	Coldfall Wood	Ancient & Semi-Natural Woodland
-	1583m N	Coldfall Wood	Ancient & Semi-Natural Woodland
12	1652m SW	Hampstead Heath	Infilled Ancient Wood Pasture
13	1675m SW	Hampstead Heath	Infilled Ancient Wood Pasture
-	1804m SW	Turners Wood	Ancient & Semi-Natural Woodland
-	1804m SW	Unknown	Ancient & Semi-Natural Woodland
-	1837m SW	Hampstead Heath	Infilled Ancient Wood Pasture
-	1884m SW	Bishops Wood	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

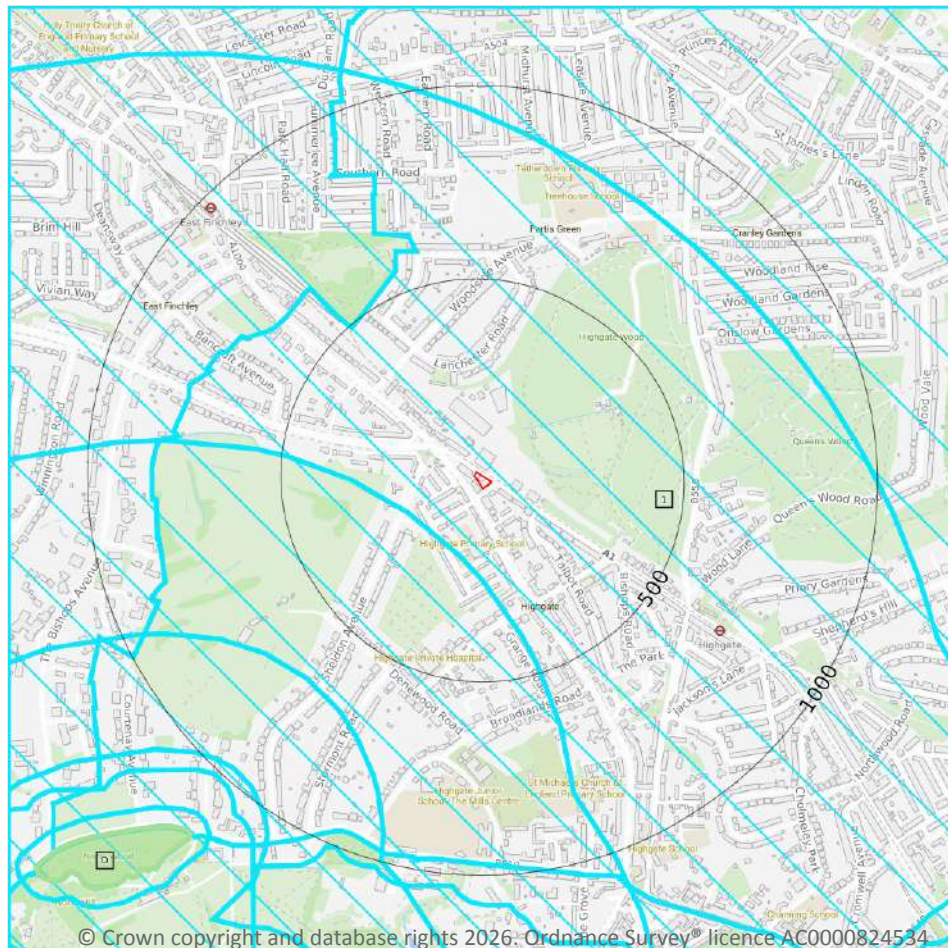
Records within 2000m

0

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.

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 61](#) >

ID	Location	Type of developments requiring consultation
1	On site	https://irz.geodata.org.uk/IRZ/step2.html?irzcode=0101000322352&notes=&location=528228,188455%20(IRZ%20polygon%20centre)

This data is sourced from Natural England.



10.18 SSSI Units

Records within 2000m

3

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.

Features are displayed on the SSSI Impact Zones and Units map on [page 61](#) >

ID: D
 Location: 1167m SW
 SSSI name: Hampstead Heath Woods
 Unit name: 2
 Broad habitat: Broadleaved, Mixed And Yew Woodland - Lowland
 Condition: Favourable
 Reportable features:

Feature name	Feature condition	Date of assessment
Lowland mixed deciduous woodland	Favourable	18/05/2018

ID: -
 Location: 1459m SW
 SSSI name: Hampstead Heath Woods
 Unit name: 2
 Broad habitat: Broadleaved, Mixed And Yew Woodland - Lowland
 Condition: Favourable
 Reportable features:

Feature name	Feature condition	Date of assessment
Lowland mixed deciduous woodland	Favourable	18/05/2018

ID: -
 Location: 1626m SW
 SSSI name: Hampstead Heath Woods
 Unit name: 1
 Broad habitat: Fen, Marsh And Swamp - Lowland
 Condition: Favourable
 Reportable features:

Feature name	Feature condition	Date of assessment
Spring/flush fen (lowland)	Favourable	18/05/2018



This data is sourced from Natural England and Natural Resources Wales.



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

6

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 64 >](#)

ID	Location	Name	Grade	Reference Number	Listed date
2	38m S	82-86, North Hill	II	1358884	10/05/1974
A	146m SE	62 And 64, North Hill N6	II	1079182	10/05/1974
A	153m SE	60, North Hill N6	II	1079181	10/05/1974
B	171m S	141 And 143, North Hill N6	II	1079191	10/05/1974
B	185m S	133-139, North Hill N6	II	1294343	10/05/1974
B	198m S	Providence Cottage	II	1079190	10/05/1974



This data is sourced from Historic England, Cadw and Historic Environment Scotland.

11.5 Conservation Areas

Records within 250m

1

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.

Features are displayed on the Visual and cultural designations map on [page 64 >](#)

ID	Location	Name	District	Date of designation
1	On site	Highgate	Haringey	21/12/1967

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

11.6 Scheduled Ancient Monuments

Records within 250m

0

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.

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



- Site Outline
- Search buffers in metres (m)
- Grade 1 - excellent quality
- Grade 2 - very good quality
- Grade 3 - good to moderate quality
- Grade 3a - good quality
- Grade 3b - moderate quality
- Grade 4 - poor quality
- Grade 5 - very poor quality
- Non-agricultural land
- Urban land
- Exclusion land
- Tree felling licences
- Open Access land

12.1 Agricultural Land Classification

Records within 250m

1

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 67](#) >

ID	Location	Classification	Description
1	On site	Urban	Non-agricultural/no quality assigned

This data is sourced from Natural England.



12.2 Open Access Land

Records within 250m

1

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.

Features are displayed on the Agricultural designations map on [page 67](#) >

ID	Location	Name	Classification	Other relevant legislation
2	125m NE	Highgate Wood	Section 15 Land	Corporation of London (Open Spaces) Act

This data is sourced from Natural England and Natural Resources Wales.

12.3 Tree Felling Licences

Records within 250m

0

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.

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

5

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 69](#) >

ID	Location	Main Habitat	Other habitats
2	111m NE	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
A	112m NE	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
A	132m NE	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
3	219m W	Deciduous woodland	Main habitat: DWOOD (INV > 50%)



ID	Location	Main Habitat	Other habitats
4	240m W	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	1
----------------------------	----------

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.

Features are displayed on the Habitat designations map on [page 69 >](#)

ID	Location	Site reference	Identification confidence	Primary source	Secondary source	Tertiary source
1	53m N	Highgate Depot	Low	BugLife All Of A Buzz Data	-	-

This data is sourced from Natural England.

13.4 Limestone Pavement Orders

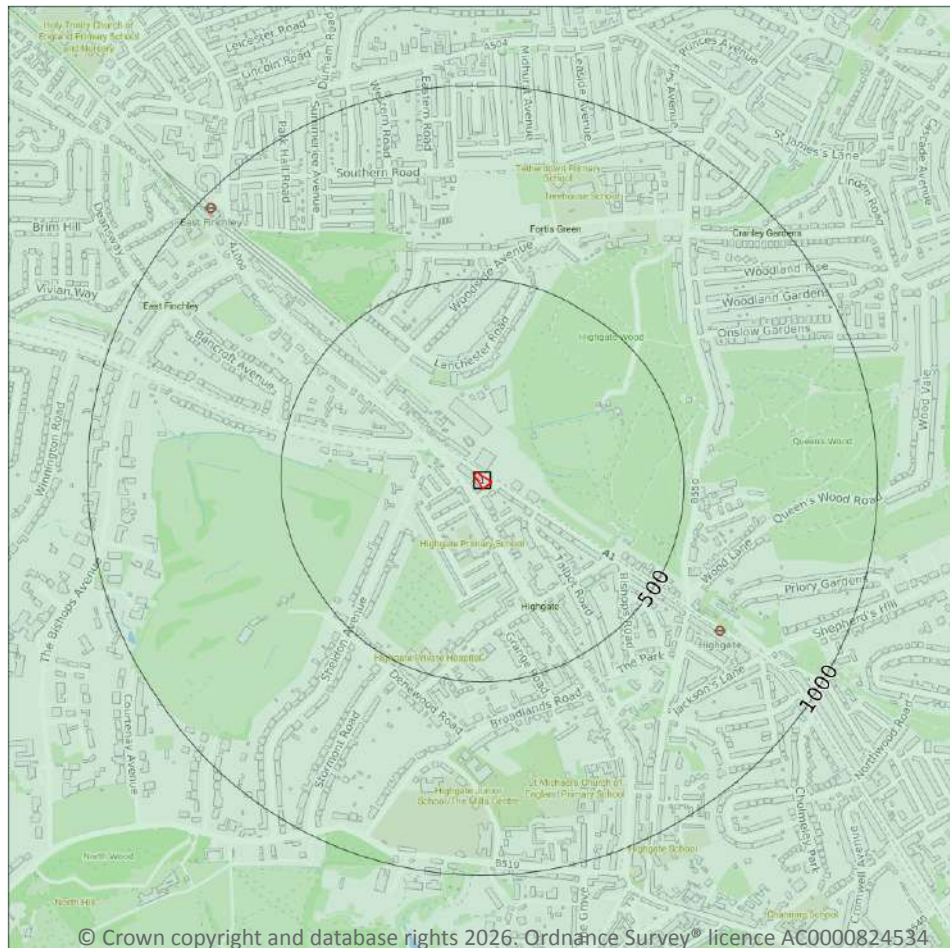
Records within 250m	0
----------------------------	----------

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

1

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 71](#) >

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	Full	Full	Full	No coverage	TQ28NE

This data is sourced from the British Geological Survey.



Geology 1:10,000 scale - Artificial and made ground



- 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

1

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 72](#) >

ID	Location	LEX Code	Description	Rock description
1	71m SE	WGR-VOID	Worked Ground (Undivided)	Void

This data is sourced from the British Geological Survey.



Geology 1:10,000 scale - Superficial

14.3 Superficial geology (10k)

Records within 500m

0

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.

This data is sourced from the British Geological Survey.

14.4 Landslip (10k)

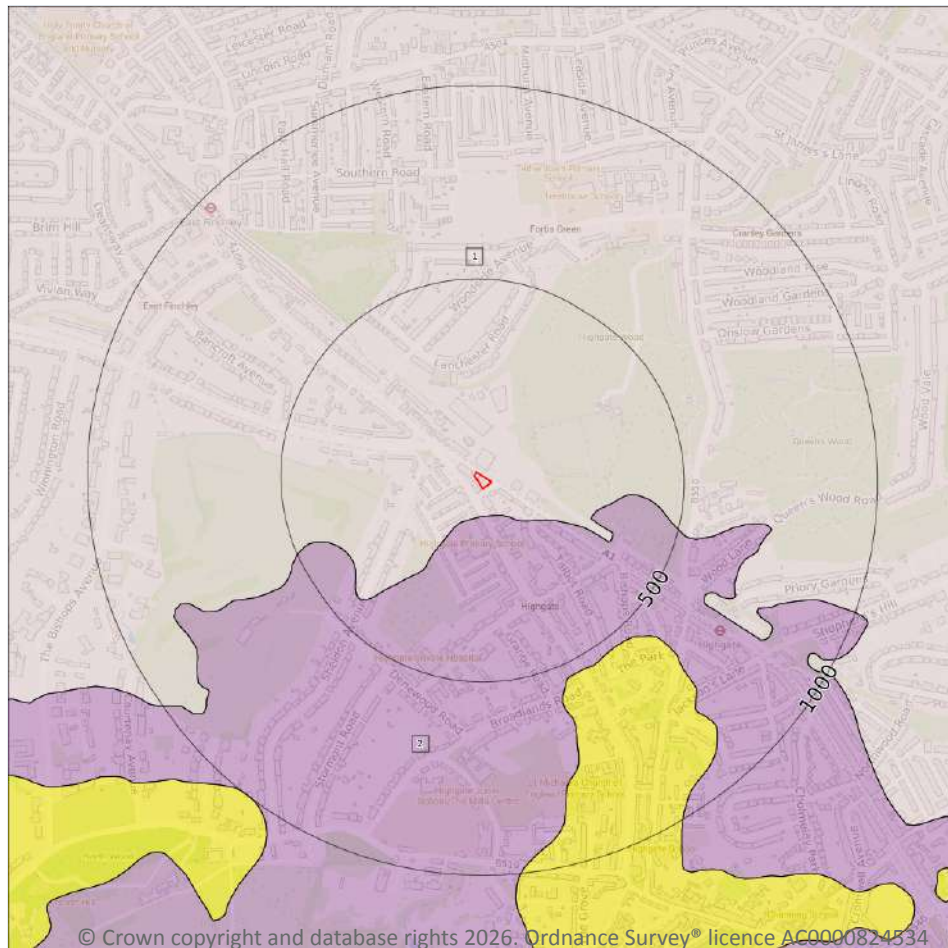
Records within 500m

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

2

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 74](#) >

ID	Location	LEX Code	Description	Rock age
1	On site	LC-C	London Clay Formation-Clay	Ypresian
2	71m S	CLGB-SDST	Claygate Member-Sandstone	Ypresian

This data is sourced from the British Geological Survey.



14.6 Bedrock faults and other linear features (10k)

Records within 500m

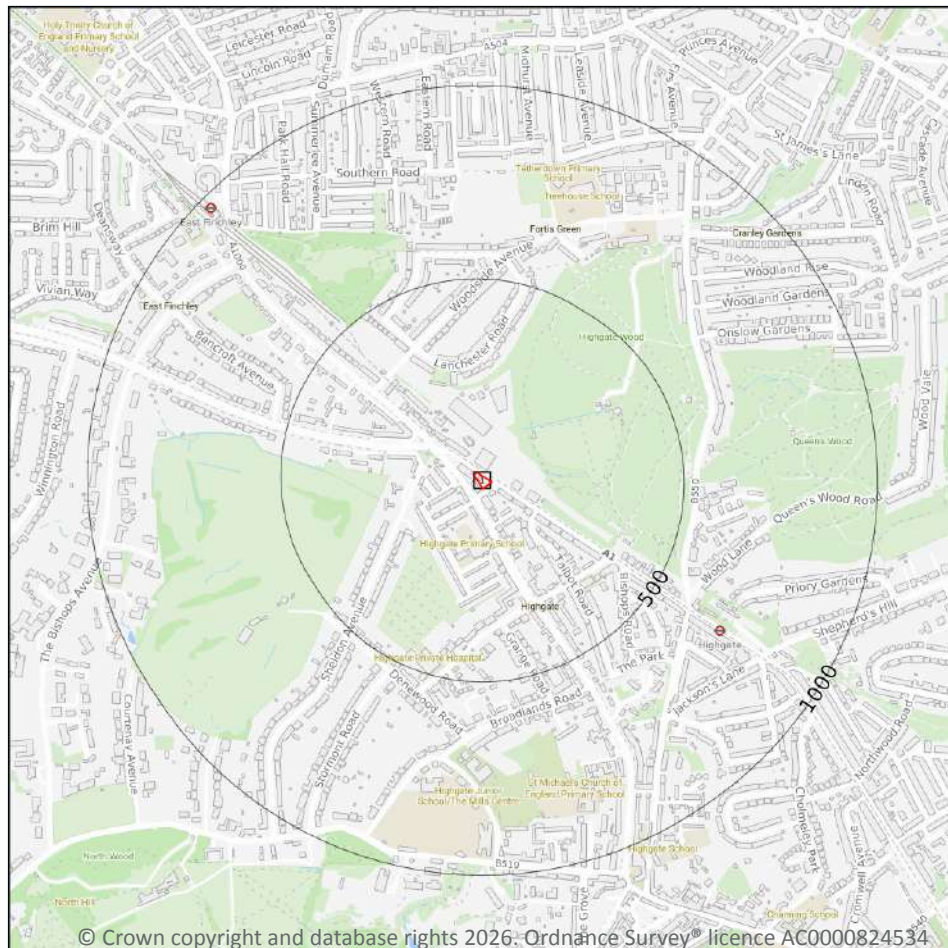
0

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.

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.

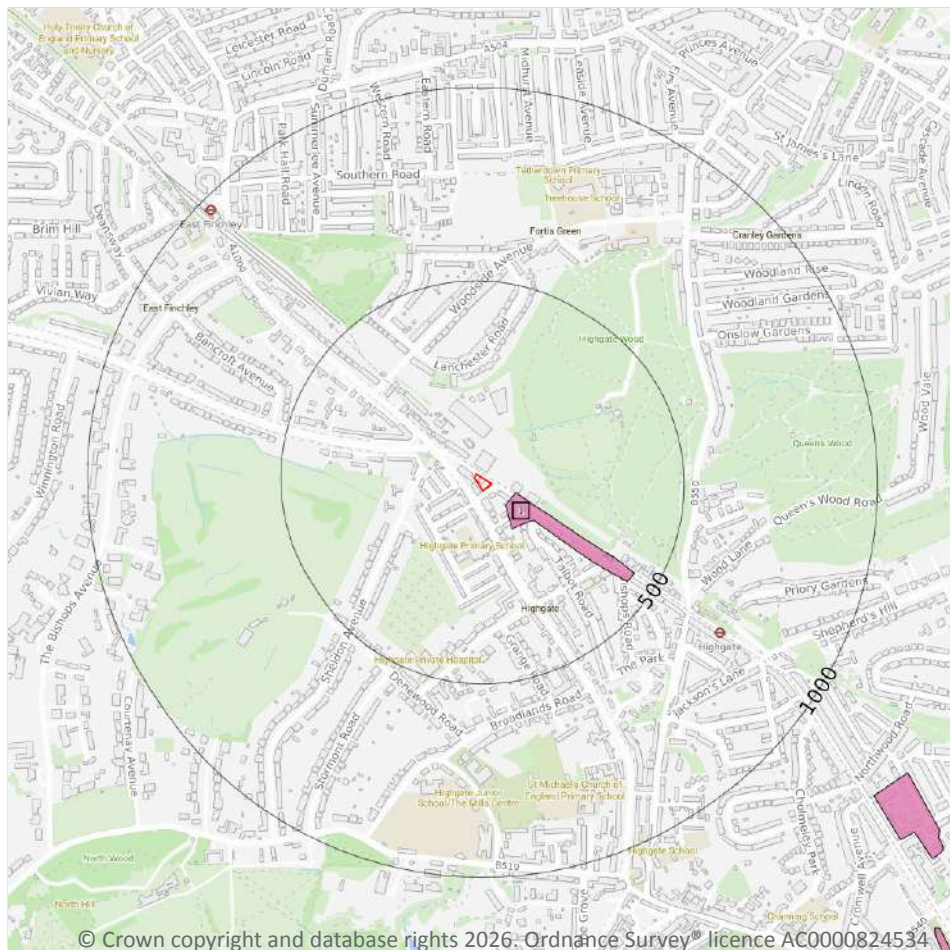
Features are displayed on the Geology 1:50,000 scale - Availability map on [page 76](#) >

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	Full	Full	Full	Full	EW256_north_london_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

1

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 77](#) >

ID	Location	LEX Code	Description	Rock description
1	62m SE	WGR-VOID	Worked Ground	Void

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

15.4 Superficial geology (50k)

Records within 500m

0

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.

This data is sourced from the British Geological Survey.

15.5 Superficial 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 superficial deposits (the zone between the land surface and the water table).

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)

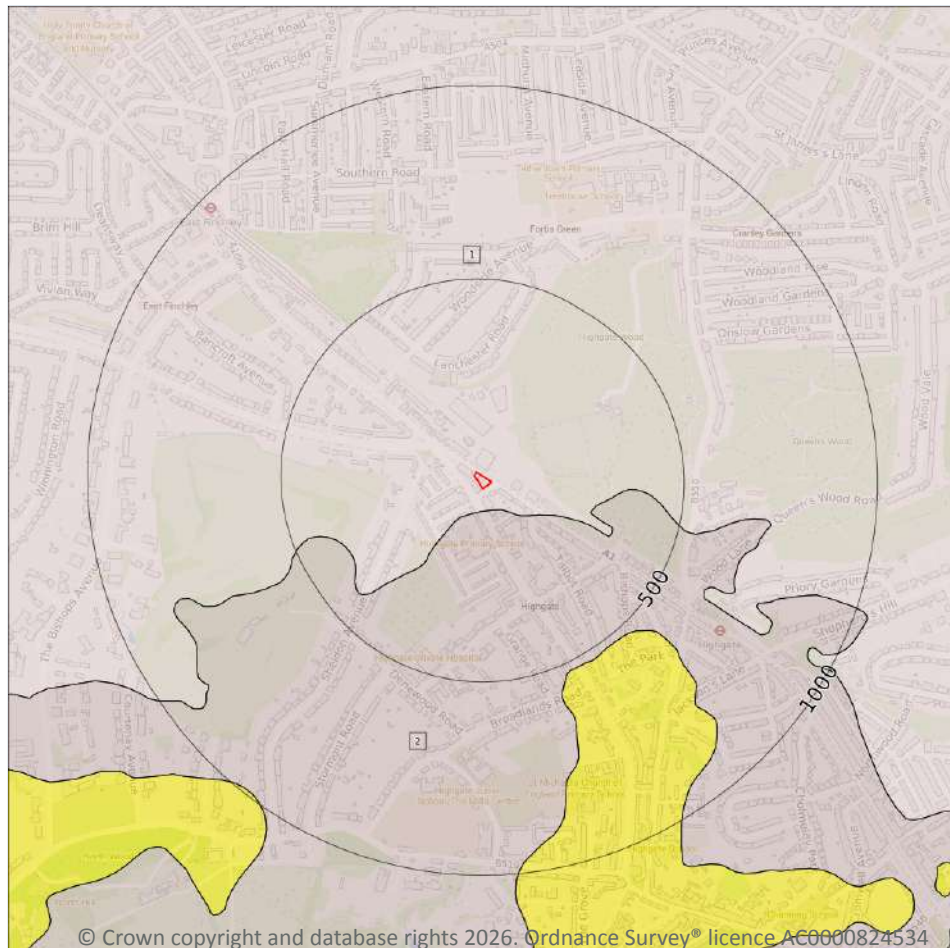
Records within 50m

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

2

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 80 >](#)

ID	Location	LEX Code	Description	Rock age
1	On site	LC-XCZS	London Clay Formation-Clay, silt and sand	Ypresian
2	58m S	CLGB-XCZS	Claygate Member-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**0**

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.

This data is sourced from the British Geological Survey.



16 Boreholes

16.1 BGS Boreholes

Records within 250m

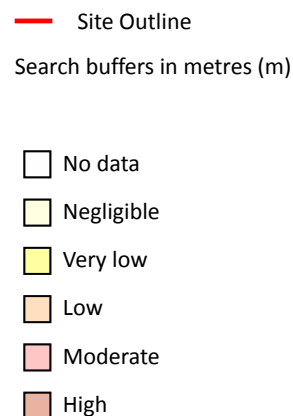
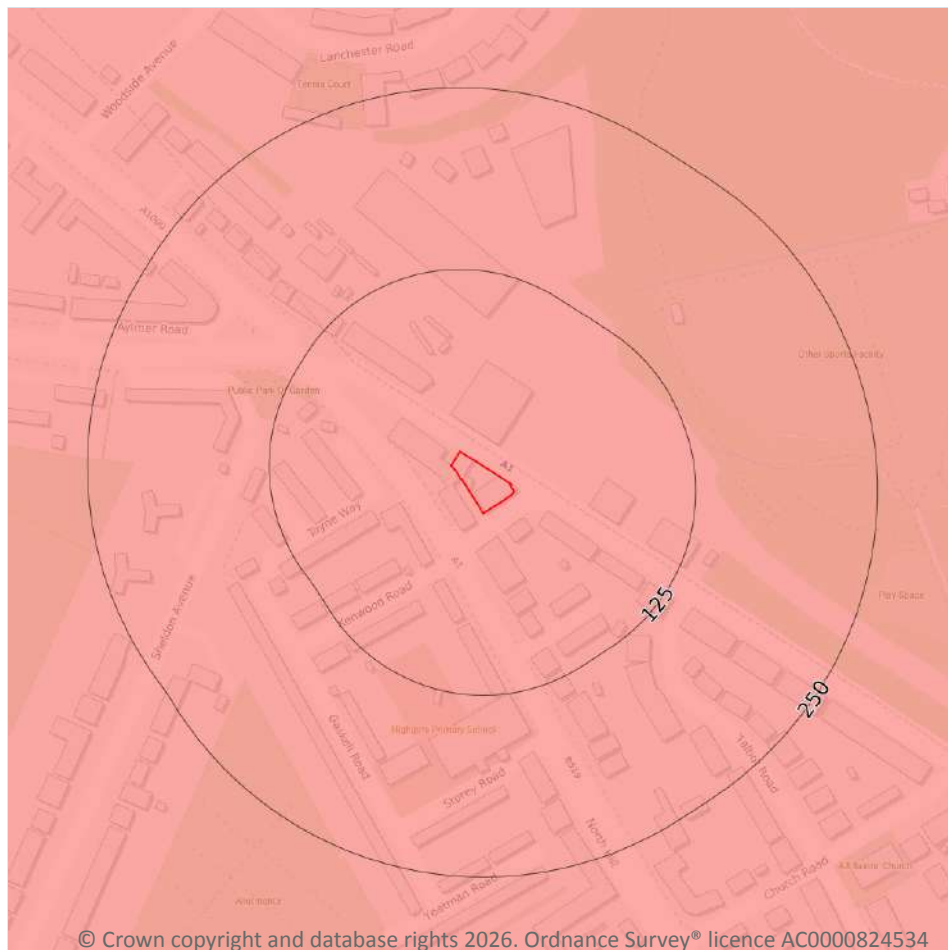
0

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.

This data is sourced from the British Geological Survey.



17 Natural ground subsidence - Shrink swell clays



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).

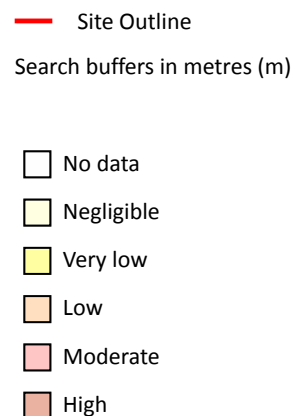
Features are displayed on the Natural ground subsidence - Shrink swell clays map on [page 83](#) >

Location	Hazard rating	Details
On site	Moderate	Ground conditions predominantly high plasticity.

This data is sourced from the British Geological Survey.



Natural ground subsidence - Compressible deposits



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.

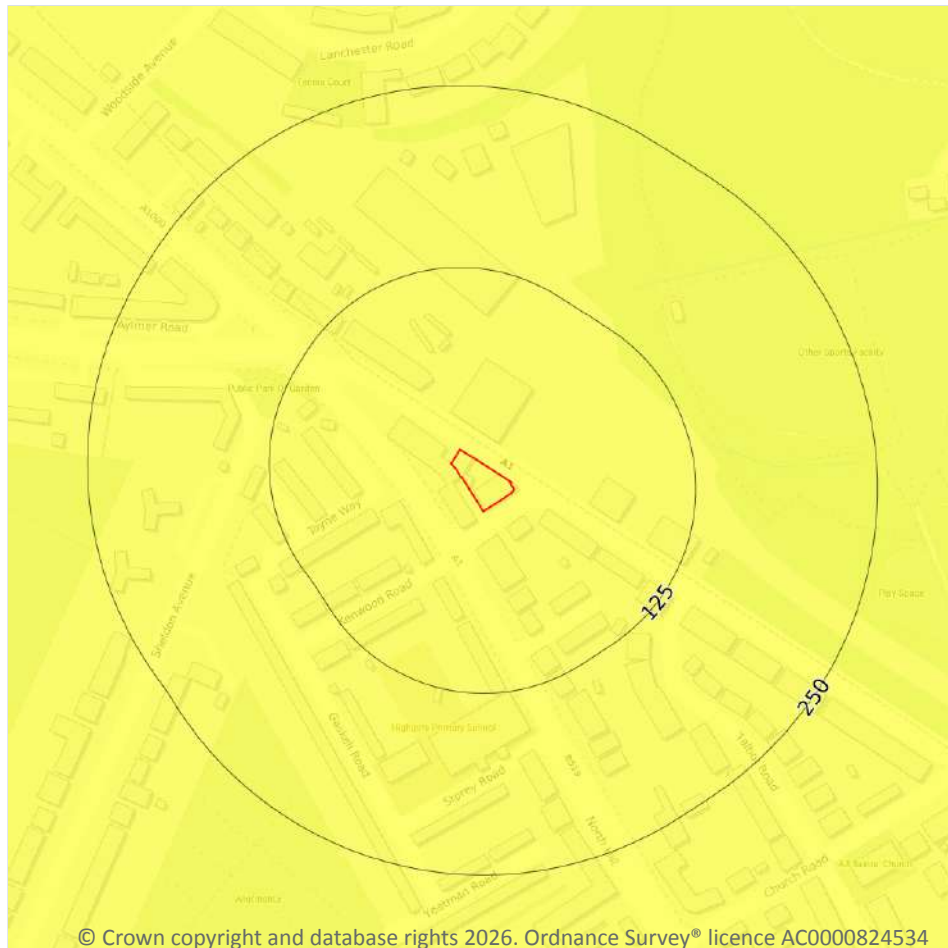
Features are displayed on the Natural ground subsidence - Compressible deposits map on [page 85 >](#)

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.

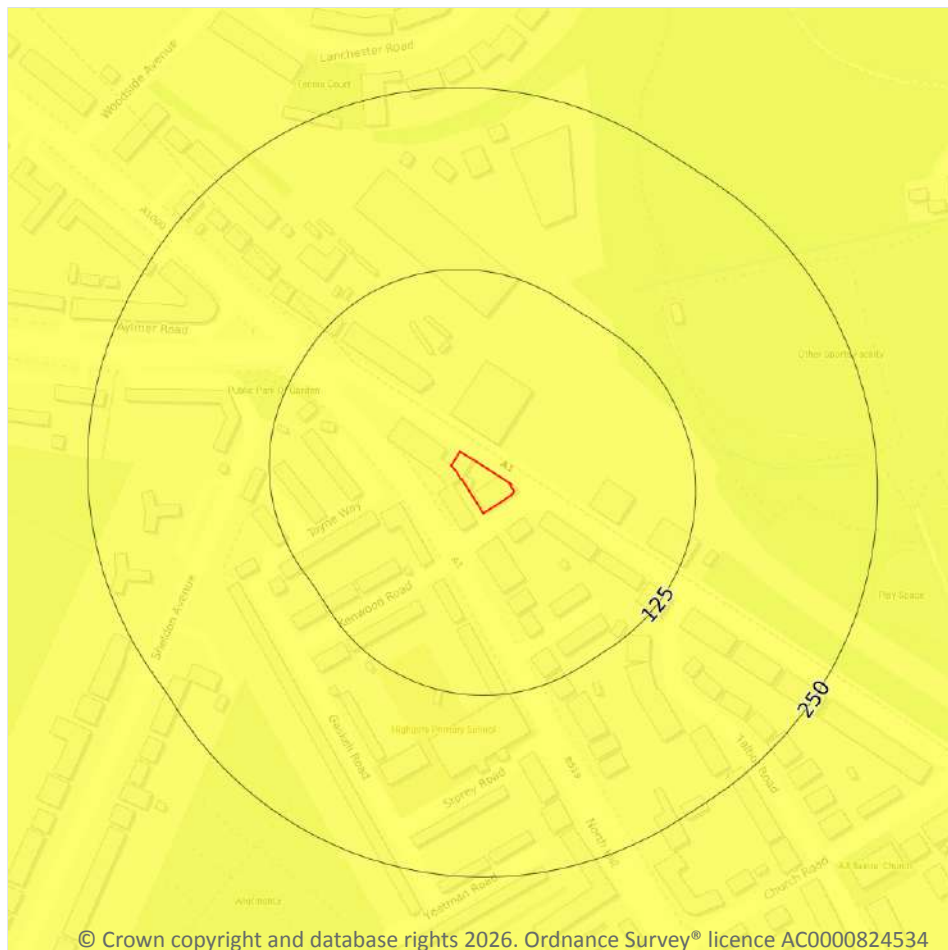
Features are displayed on the Natural ground subsidence - Collapsible deposits map on [page 86](#) >

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

© Crown copyright and database rights 2026. Ordnance Survey® licence AC0000824534

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.

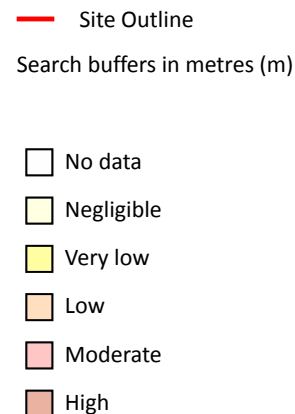
Features are displayed on the Natural ground subsidence - Landslides map on [page 87](#) >

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



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 88](#)

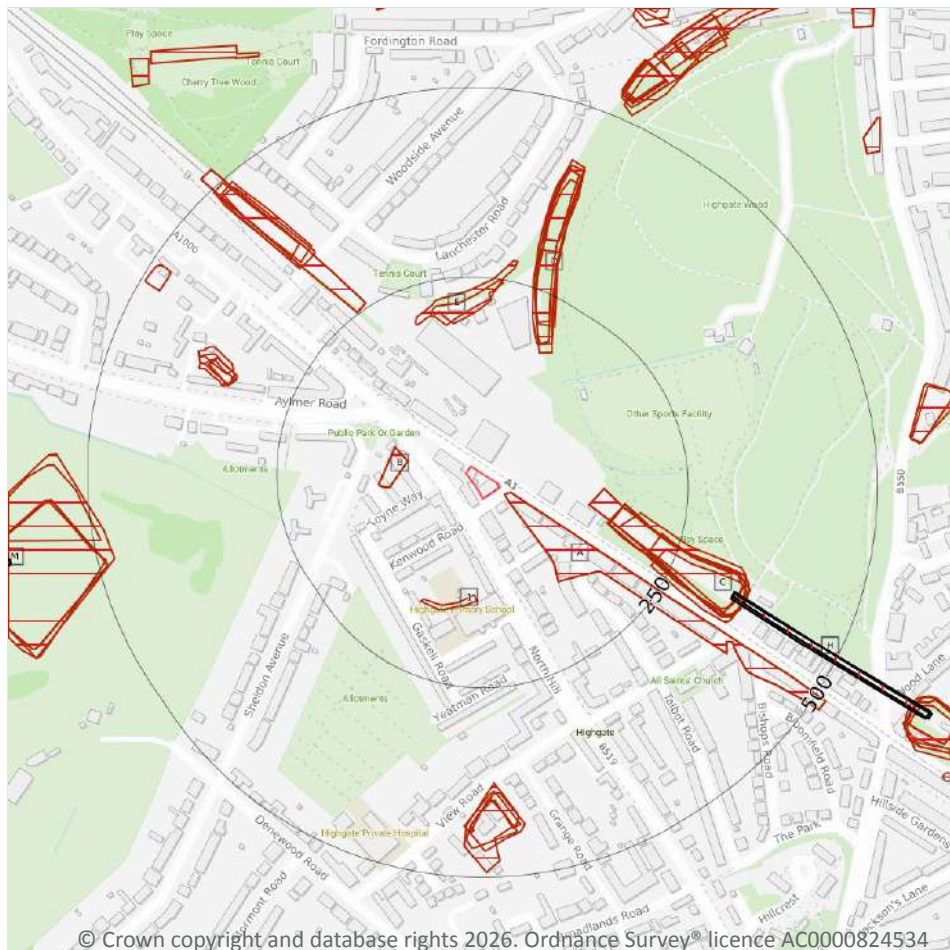
Location	Hazard rating	Details
On site	Negligible	Soluble rocks are either not thought to be present within the ground, or not prone to dissolution. Dissolution features are unlikely to be present.



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

22

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 90](#) >

ID	Location	Land Use	Year of mapping	Mapping scale
A	12m SE	Brick Field	1879	1:10560
A	12m SE	Brick Field	1873	1:10560
B	79m W	Pond	1879	1:10560
B	79m W	Pond	1873	1:10560
C	121m E	Cuttings	1879	1:10560
C	121m E	Cuttings	1873	1:10560
1	128m S	Pond	1879	1:10560
C	151m E	Cuttings	1951	1:10560
C	153m E	Cuttings	1958	1:10560
C	153m E	Cuttings	1965	1:10560
C	153m E	Cuttings	1974	1:10000
C	153m E	Cuttings	1996	1:10000
C	167m E	Cuttings	1894	1:10560
D	175m NE	Cuttings	1920	1:10560
D	184m NE	Cuttings	1951	1:10560
D	186m NE	Cuttings	1938	1:10560
E	189m N	Unspecified Ground Workings	1938	1:10560
E	190m N	Unspecified Heap	1920	1:10560
D	207m NE	Cuttings	1896	1:10560
D	210m NE	Cuttings	1894	1:10560
C	215m SE	Cuttings	1938	1:10560
C	226m SE	Cuttings	1920	1:10560

This is data is sourced from Ordnance Survey®/Groundsure.



18.3 Underground workings

Records within 1000m

23

Historical land uses identified from Ordnance Survey® mapping that indicate the presence of underground workings e.g. mine shafts.

Features are displayed on the Mining and ground workings map on [page 90 >](#)

ID	Location	Land Use	Year of mapping	Mapping scale
H	340m SE	Tunnel	1873	1:10560
H	340m SE	Tunnel	1879	1:10560
H	340m SE	Tunnel	1879	1:10560
H	340m SE	Tunnels	1965	1:10560
H	340m SE	Tunnels	1974	1:10000
H	340m SE	Tunnels	1995	1:10000
H	340m SE	Tunnels	1958	1:10560
M	612m W	Unspecified Shaft	1965	1:10560
M	612m W	Unspecified Shaft	1974	1:10000
M	612m W	Unspecified Shaft	1995	1:10000
-	684m NE	Unspecified Shaft	1965	1:10560
-	684m NE	Unspecified Shaft	1974	1:10000
-	684m NE	Unspecified Shaft	1995	1:10000
-	799m NE	Unspecified Shaft	1965	1:10560
-	801m SE	Tunnel	1873	1:10560
-	801m SE	Tunnel	1879	1:10560
-	801m SE	Tunnel	1879	1:10560
-	803m SE	Tunnels	1965	1:10560
-	803m SE	Tunnels	1974	1:10000
-	803m SE	Tunnels	1995	1:10000
-	803m SE	Tunnels	1958	1:10560
-	807m NE	Unspecified Shaft	1974	1:10000
-	807m NE	Unspecified Shaft	1995	1:10000



This 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

0

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.

This data is sourced from the British Geological Survey.

18.6 Non-coal mining

Records within 1000m

0

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).

This data is sourced from the British Geological Survey.

18.7 JPB mining areas

Records on site

0

Areas which could be affected by former coal and other mining. This data includes some mine plans unavailable to the Coal Authority.

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
485m S	Unspecified

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.

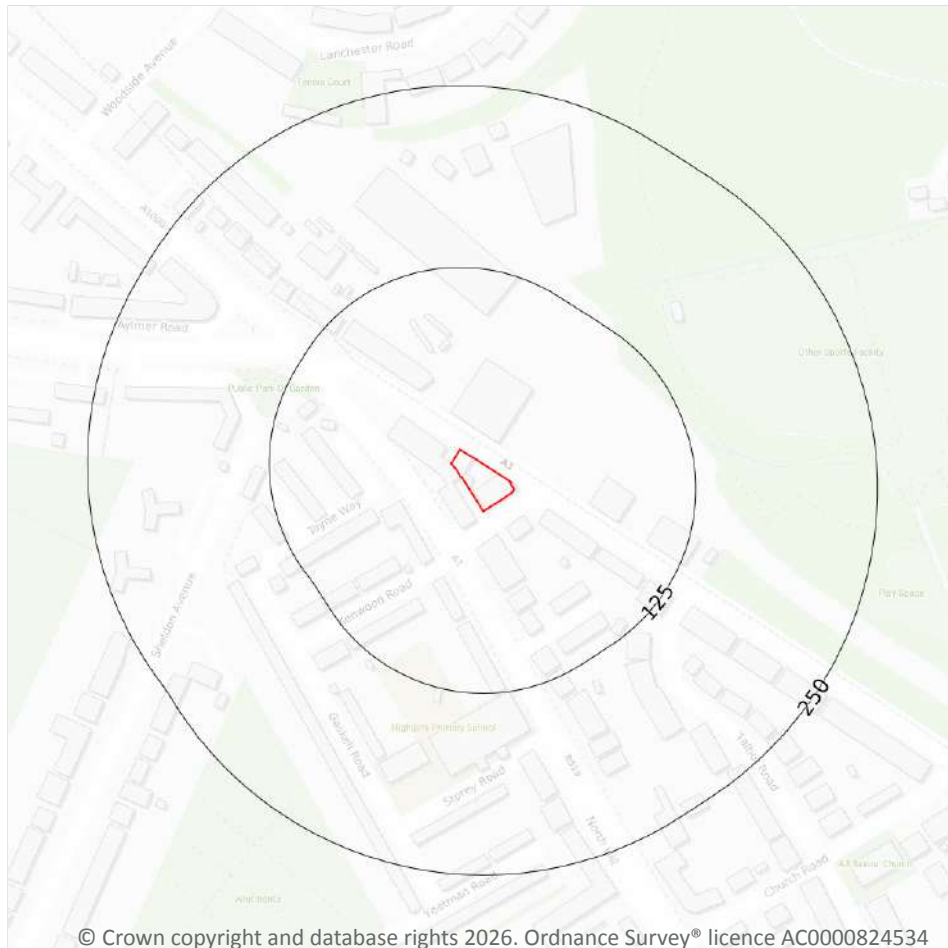
Not all 'holes' noted on Ordnance Survey® mapping will necessarily be present within this dataset.



This data is sourced from Groundsure.



20 Radon



— 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 98](#) >

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

4

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 km². 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 km²; 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	No data	No data	No data	No data	No data	No data	No data
On site	No data	No data	No data	No data	No data	No data	No data
37m E	No data	No data	No data	No data	No data	No data	No data
37m E	No data	No data	No data	No data	No data	No data	No data

This data is sourced from the British Geological Survey.

21.2 BGS Estimated Urban Soil Chemistry

Records within 50m

6

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 km²).

Location	Arsenic (mg/kg)	Bioaccessible Arsenic (mg/kg)	Lead (mg/kg)	Bioaccessible Lead (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Copper (mg/kg)	Nickel (mg/kg)	Tin (mg/kg)
On site	21	3.7	204	140	0.4	139	45	20	15
On site	22	3.8	220	151	0.5	133	44	21	16
20m W	21	3.7	253	174	0.5	153	54	22	17
22m SW	22	3.8	258	177	0.5	140	49	24	18
37m E	22	3.8	188	129	0.4	124	39	19	15



Location	Arsenic (mg/kg)	Bioaccessible Arsenic (mg/kg)	Lead (mg/kg)	Bioaccessible Lead (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Copper (mg/kg)	Nickel (mg/kg)	Tin (mg/kg)
37m E	20	3.5	160	110	0.4	127	38	18	13

This data is sourced from the British Geological Survey.

21.3 BGS Measured Urban Soil Chemistry

Records within 50m

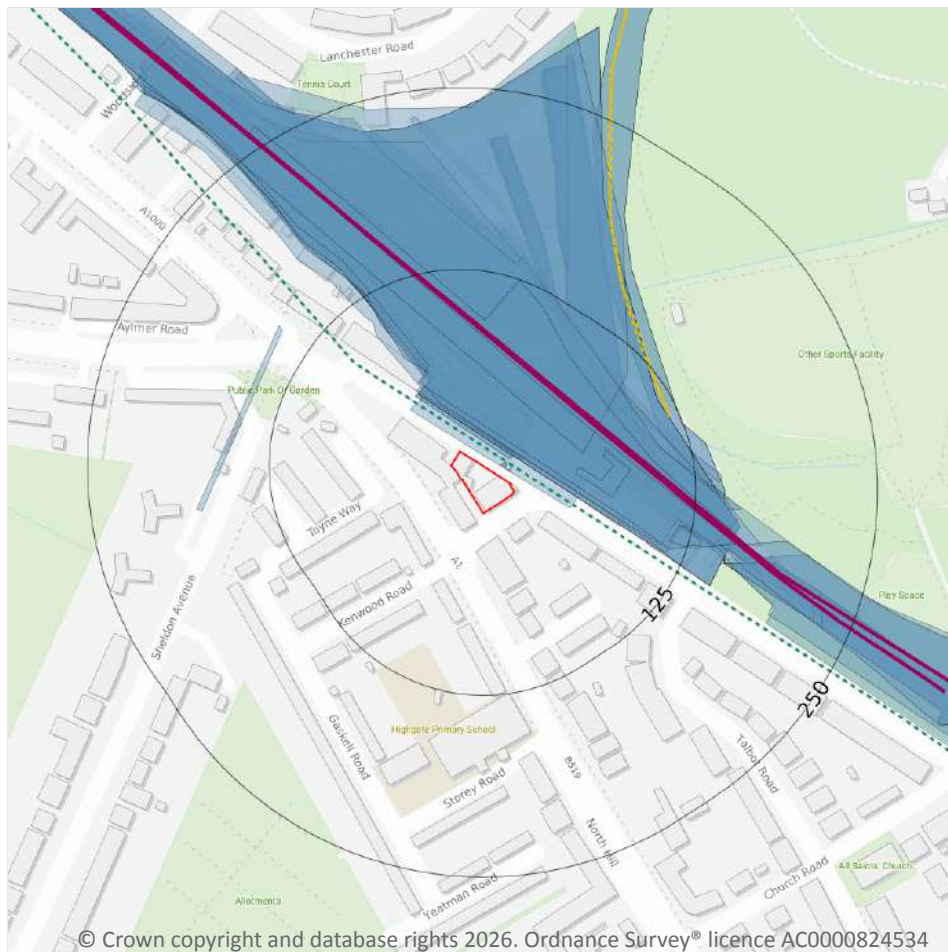
0

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 km².

This data is sourced from the British Geological Survey.



22 Railway infrastructure and projects



- Site Outline
- Search buffers in metres (m)
- C2 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 102 >](#)

Location	Line Name	Line Section	Track Type	Depth (m bgl)	Operational hours
69m NE	Northern Line	Northern Line	Surface Track	0	Mon-Thu: Early 0512 Late 2358 Fri-Sun: Early 0522

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

1

Railway tunnels taken from contemporary Ordnance Survey® mapping.

Features are displayed on the Railway infrastructure and projects map on [page 102 >](#)

Location	Type
11m NE	Railway Tunnel

This data is sourced from the Ordnance Survey®.

22.4 Historical railway and tunnel features

Records within 250m

61

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.

Features are displayed on the Railway infrastructure and projects map on [page 102 >](#)

Location	Land Use	Year of mapping	Mapping scale
6m NE	Railway Sidings	1920	10560
14m NE	Railway	1933	-
14m NE	Railway	1913	-
17m NE	Railway Sidings	1965	10560
17m NE	Railway Sidings	1974	10000
17m NE	Railway Sidings	1958	10560
18m NE	Railway Sidings	1896	10560
19m NE	Railway Sidings	1938	10560
20m NE	Railway Sidings	1951	10560



Location	Land Use	Year of mapping	Mapping scale
23m NE	Railway Sidings	1950	1250
23m NE	Railway Sidings	1960	1250
24m NE	Railway Sidings	1894	10560
24m NE	Railway Sidings	1950	2500
28m NE	Railway Sidings	1896	2500
44m E	Railway Sidings	1894	10560
48m NE	Railway Sidings	1996	10000
48m NE	Railway Sidings	1913	2500
51m NE	Railway Sidings	1935	2500
52m NE	Railway Sidings	1970	2500
52m NE	Railway Sidings	1950	2500
64m NE	Railway Sidings	1896	10560
67m NE	Railway Sidings	1973	1250
67m NE	Railway Sidings	1950	1250
69m NE	Railway Sidings	1974	1250
69m NE	Railway Sidings	1950	1250
69m NE	Railway Sidings	1960	1250
69m NE	Railway Sidings	1950	2500
69m NE	Railway Sidings	1970	2500
82m E	Railway Sidings	1962	1250
82m E	Railway Sidings	1978	1250
82m E	Railway Sidings	1976	1250
82m E	Railway Sidings	1950	1250
83m NE	Railway Sidings	1991	1250
92m NE	Railway Sidings	1935	2500
105m NE	Railway Sidings	1960	1250
105m NE	Railway Sidings	1950	1250
105m NE	Railway Sidings	1974	1250



Location	Land Use	Year of mapping	Mapping scale
106m NE	Railway Sidings	1991	1250
106m NE	Railway Sidings	1990	1250
107m NE	Railway Sidings	1970	2500
107m NE	Railway Sidings	1950	2500
110m E	Railway Sidings	1991	1250
112m E	Railway Sidings	1894	10560
144m NE	Railway Sidings	1974	1250
144m NE	Railway Sidings	1950	1250
144m NE	Railway Sidings	1960	1250
144m NW	Railway Sidings	1913	2500
146m NE	Railway Sidings	1990	1250
146m NE	Railway Sidings	1991	1250
147m E	Railway Sidings	1894	10560
147m NE	Railway Sidings	1950	2500
147m NE	Railway Sidings	1970	2500
151m E	Railway	1914	-
152m E	Railways	1938	-
152m E	Railways	1870	-
152m E	Railways	1896	-
184m NW	Railway Sidings	1991	1250
184m NW	Railway Sidings	1990	1250
216m E	Railways	1938	-
221m E	Railways	1870	-
222m E	Railways	1896	-

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**2**

Former railway lines, including dismantled lines, abandoned lines, disused lines, historic railways and razed lines.

Features are displayed on the Railway infrastructure and projects map on [page 102 >](#)

Location	Description
118m NE	Historical OSM
118m NE	Abandoned

This data is sourced from OpenStreetMap.

22.7 Railways

Records within 250m**0**

Currently existing railway lines, including standard railways, narrow gauge, funicular, trams and light railways.

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. Please note that the Crossrail 2 project has been temporarily suspended. It is possible funding will be received in the future, but there is no guarantee of this.

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> ↗.

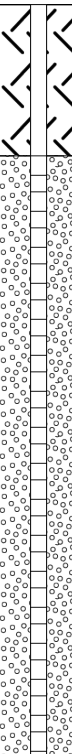
Terms and conditions

Groundsure's Terms and Conditions can be accessed at this link: www.groundsure.com/terms-conditions-april-2026/ ↗.



Appendix 3

Records of Boreholes BH01 & BH02 & WSA to WSD Results of gas/water monitoring

 LUCION GROUND ENGINEERING LTD. Peterborough Tel : 01733 566566			Site: 505-511 Archway Road, London N6			BOREHOLE BH01	
22/07/2026			Final Depth 10.00 m		Equipment Cable Percussion Rig		
Samples and In Situ Testing			Water Levels (Casing)	Well	Stratum Description	Legend	Depth (m)
Depth (m)	Type	Results					
0.25-0.75	B1	N8 (2/2,2,2,2)	(1.20)		MADE GROUND - CONCRETE.		0.25
0.75-1.10	B2				MADE GROUND - Brown SAND AND GRAVEL of angular to rounded flint, quartzite and concrete.		
1.20-1.70	B3				MADE GROUND - Soft, brown and grey, slightly sandy, slightly gravelly, silty CLAY. Gravel of angular to rounded flint, quartz and ash.		1.10
1.35-1.65	CPT						
1.90	D1	Blows=25			Soft, brown mottled grey, silty CLAY with occasional dead root traces.		1.90
2.00-2.40	U1				(ALLUVIUM)		2.50
2.50	D2	Blows=35			Firm, brown mottled grey, silty CLAY with occasional dead root traces.		
3.00-3.20	U2				(ALLUVIUM)		4.00
3.30	D3						
4.00-4.40	U3	Blows=45			Firm, fissured, brown and grey, silty CLAY.		6.00
4.50	D4				(LONDON CLAY FORMATION)		
5.00-5.40	U4	Blows=45			Stiff, fissured, grey brown, silty CLAY.		6.00
5.50	D5						
6.00	D6	Blows=65			(LONDON CLAY FORMATION)		10.00
6.50-6.90	U5						
7.00	D7						
7.50	D8						
8.00-8.40	U6	Blows=65			(LONDON CLAY FORMATION)		10.00
8.50	D9						
9.00	D10	Blows=70			(LONDON CLAY FORMATION)		10.00
9.50-9.90	U7						
10.00	D11				End of Borehole at 10.00m		10.00
Remarks 1. Concrete cored to 0.25m depth. 2. Starter pit excavated from 0.25m to 1.20m depth (1 hr). 3. Borehole cased to 2.50m depth. 4. Gas monitoring standpipe installed to 5.00m depth.						Hole Diameter by Depth	
						Depth (m)	Diameter (mm)
						10.00	150
						Scale: 1:50	Page 1/1
KEY D - Disturbed Sample B - Bulk Sample U - Undisturbed Sample W - Water Sample S/C - SPT Spoon/Cone  - Water Strike  - Water Rise MP - Mackintosh Probe V - Vane Shear Test N/* - SPT Blows ES - Environmental Sample  - Level On Completion  - Level Casing Withdrawn  - Standpipe Level				Groundwater Strike			
				Strike (m)	Rose To (m)	Casing (m)	Sealed
				Groundwater Observations			
				Date	Depth (m)	Casing (m)	Water (m)
				22/07/2026	10.00	2.50	Dry
				30/07/2026	5.00	1.00	3.61
				06/08/2026	5.00	1.00	3.00
				13/08/2026	5.00	1.00	2.46

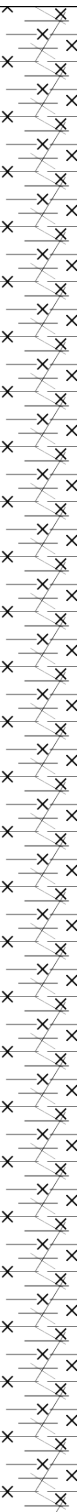


**BOREHOLE
BH02**

Final Depth
20.00 m

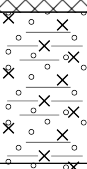
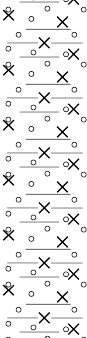
Equipment
Cable Percussion Rig

Remarks 1. Concrete cored to 0.25m depth. 2. Starter pit excavated from 0.25m to 1.20m depth (1 hr). 3. Borehole cased to 2.80m depth. 4. Gas monitoring standpipe installed to 5.00m depth.						Hole Diameter by Depth		Project No. 151840			
						Depth (m)	Diameter (mm)				
						20.00	150	Scale: 1:50		Page 1/2	
KEY		Groundwater Strike				Groundwater Observations					
D - Disturbed Sample	MP - Mackintosh Probe	Strike (m)	Rose To (m)	Casing (m)	Sealed	Remarks	Date	Depth (m)	Casing (m)	Water (m)	
B - Bulk Sample	V - Vane Shear Test	1.70		1.20	1.80	Seepage	22/07/2026	20.00	2.80	Dry	
U - Undisrbed Sample	N/* - SPT Blows						30/07/2026	5.00	1.00	1.28	
W - Water Sample	ES - Environmental Sample						06/08/2026	5.00	1.00	1.39	
S/C - SPT Spoon/Cone	▮ - Level On Completion						13/08/2026	5.00	1.00	1.42	
☒ - Water Strike	▮ - Level Casing Withdrawn										
⬇ - Water Rise	▮ - Standpipe Level										

 Lucion improving people and planet LUCION GROUND ENGINEERING LTD. Peterborough Tel : 01733 566566				Site: 505-511 Archway Road, London N6					BOREHOLE BH02						
				From 21/07/2026 to 22/07/2026		Final Depth 20.00 m		Equipment Cable Percussion Rig							
Samples and In Situ Testing			Water Levels (Casing)	Well	Stratum Description					Legend	Depth (m)				
Depth (m)	Type	Results													
10.50-10.90	U7	Blows=70	Beneath Installation Beneath Installation	Stiff, fissured, grey brown, silty CLAY.							20.00				
11.00	D13														
11.50	D14														
12.00-12.40	U8	Blows=75													
12.50	D15														
13.00	D16														
13.50-13.90	U9	Blows=75													
14.00	D17														
14.50	D18														
15.00-15.40	U10	Blows=75													
15.50	D19														
16.00	D20														
16.50-16.90	U11	Blows=75													
17.00	D21														
17.50	D22														
18.00-18.40	U12	Blows=80													
18.50	D23														
19.00	D24														
19.50-19.90	U13	Blows=80													
20.00	D25														
					End of Borehole at 20.00m										
Remarks 1. Concrete cored to 0.25m depth. 2. Starter pit excavated from 0.25m to 1.20m depth (1 hr). 3. Borehole cased to 2.80m depth. 4. Gas monitoring standpipe installed to 5.00m depth.								Hole Diameter by Depth				Project No. 151840			
								Depth (m)						Diameter (mm)	
								20.00				150		Scale: 1:50	
KEY D - Disturbed Sample MP - Mackintosh Probe B - Bulk Sample V - Vane Shear Test U - Undisturbed Sample N/* - SPT Blows W - Water Sample ES - Environmental Sample S/C - SPT Spoon/Cone ▮ - Level On Completion ≡Z - Water Strike ▮ - Level Casing Withdrawn ▴ - Water Rise ▮ - Standpipe Level				Groundwater Strike								Groundwater Observations			
				Strike (m)	Rose To (m)	Casing (m)	Sealed	Remarks	Date	Depth (m)	Casing (m)	Water (m)			

 Lucion Powering people and planet LUCION GROUND ENGINEERING LTD. Peterborough Tel : 01733 566566 <td colspan="4">Site: 505-511 Archway Road, London N6</td> <td colspan="2">WINDOW SAMPLE WSA</td>			Site: 505-511 Archway Road, London N6				WINDOW SAMPLE WSA						
20/07/2026			Final Depth 3.45 m	Equipment Dynamic Sampling Rig									
Samples and In Situ Testing			Water Levels (Casing)	Stratum Description	Legend	Depth (m)							
Depth (m)	Type	Results											
0.30 0.40-0.70 0.60 0.90	D1 B1 D2 D3	N4 (1/1,1,1,1)		MADE GROUND - CONCRETE.									
				MADE GROUND - Brown and orange brown SAND AND GRAVEL of angular to rounded flint and quartzite.		0.20							
				MADE GROUND - Firm, grey and brown, slightly sandy, slightly gravelly, silty CLAY. Gravel of angular brick rubble and ash.		0.40							
				MADE GROUND - Firm, friable, brown and dark brown slightly sandy, slightly gravelly, silty CLAY. Gravel of angular to rounded flint, mortar and ash.		0.70							
				MADE GROUND - Soft, brown and dark brown, slightly sandy, slightly gravelly, silty CLAY. Gravel of angular to rounded quartz, flint, ash and brick.		1.10							
1.10 1.20 1.20-2.00 1.35-1.65	D4 D5 U1 SPT	N4 (1/1,1,1,1)		Soft, grey, slightly sandy, silty, organic CLAY. (ALLUVIUM)		1.70							
				Soft, brown grey, silty CLAY with occasional dead roots.		1.90							
				(ALLUVIUM)									
2.00 2.00-3.00 2.15-2.45	D6 U2 SPT	N5 (2/1,1,1,2)		Firm, brown grey mottled brown, silty CLAY.		2.40							
				(ALLUVIUM)									
				(ALLUVIUM)									
3.00 3.15-3.45	D7 SPT	N9 (3/2,2,2,3)		End of Borehole at 3.45m		3.45							
Remarks					Hole Diameter by Depth		Project No.						
1. Starter pit excavated to 1.20m depth.					Depth (m)	Diameter (mm)	151840						
					2.00 3.45	77 57	Scale: 1:25	Page 1/1					
KEY				Groundwater Strike		Groundwater Observations							
D - Disturbed Sample		MP - Mackintosh Probe		Strike (m)	Rose To (m)	Casing (m)	Sealed	Remarks	Date	Depth (m)	Casing (m)	Water (m)	
B - Bulk Sample		V - Vane Shear Test							20/07/2026	3.45		Dry	
U - Undisturbed Sample		N/* - SPT Blows											
W - Water Sample		ES - Environmental Sample											
S/C - SPT Spoon/Cone		▽ - Level On Completion											
⊠ - Water Strike		▼ - Level Casing Withdrawn											
⬆ - Water Rise		▽ - Standpipe Level											

Lucion improving people and planet LUCION GROUND ENGINEERING LTD. Peterborough Tel : 01733 566566				Site: 505-511 Archway Road, London N6				WINDOW SAMPLE WSB				
20/07/2026				Final Depth 3.45 m		Equipment Dynamic Sampling Rig						
Samples and In Situ Testing			Water Levels (Casing)	Well	Stratum Description	Legend	Depth (m)					
Depth (m)	Type	Results										
0.30	D1	N4 (1/1,1,1,1)			MADE GROUND - CONCRETE.		0.25					
0.60	D2				MADE GROUND - Brown SAND AND GRAVEL of angular to rounded flint and quartzite.							
0.70-1.00	B1				MADE GROUND - Soft, brown and grey, slightly sandy, slightly gravelly, silty CLAY. Gravel of angular to rounded quartzite, flint, ceramic and ash.							
0.90	D3											
1.10	D4											
1.20	D5	N4 (1/1,1,1,1)			Soft, brown grey mottled grey, silty CLAY with occasional dead roots.		1.80					
1.20-2.00	U1				(ALLUVIUM)							
1.35-1.65	SPT											
2.00	D6											
2.00-3.00	U2											
2.15-2.45	SPT	N4 (1/1,1,1,1)			Firm, locally soft, grey brown mottled brown, silty CLAY.		2.50					
3.00	D7				(ALLUVIUM)							
3.15-3.45	SPT											
		N7 (1/1,2,2,2)			(ALLUVIUM)		3.45					
					End of Borehole at 3.45m							
Remarks							Hole Diameter by Depth		Project No. 151840			
1. Starter pit excavated to 1.20m depth. 2. Gas monitoring standpipe installed to 3.00m depth.							Depth (m)	Diameter (mm)		Scale: 1:25	Page 1/1	
							2.00	87				
							3.45	67				
KEY					Groundwater Strike			Groundwater Observations				
D - Disturbed Sample		MP - Mackintosh Probe		Strike (m)	Rose To (m)	Casing (m)	Sealed	Remarks	Date	Depth (m)	Casing (m)	Water (m)
B - Bulk Sample		V - Vane Shear Test							20/07/2026	3.45		3.40
U - Undisturbed Sample		N/* - SPT Blows							30/07/2026	3.00	1.00	1.43
W - Water Sample		ES - Environmental Sample							06/08/2026	3.00	1.00	1.46
S/C - SPT Spoon/Cone		Level On Completion							13/08/2026	3.00	1.00	1.46
S/C - Water Strike		Level Casing Withdrawn										
Water Rise		Standpipe Level										

Lucion protecting people and planet LUCION GROUND ENGINEERING LTD. Peterborough Tel : 01733 566566			Site: 505-511 Archway Road, London N6			WINDOW SAMPLE WSD		
20/07/2026			Final Depth 3.45 m	Equipment Dynamic Sampling Rig				
Samples and In Situ Testing			Water Levels (Casing)	Stratum Description	Legend	Depth (m)		
Depth (m)	Type	Results						
0.30	D1	N5 (3/1,1,1,2)		MADE GROUND - CONCRETE.		0.25		
0.50-0.80 0.60	B1 D2			MADE GROUND - Brown SAND AND GRAVEL of angular to rounded flint and quartzite.				
0.90	D3			MADE GROUND - Stiff, friable, dark grey brown, slightly sandy, slightly gravelly, silty CLAY. Gravel of angular flint.		0.90		
1.10 1.20	D4 D5			MADE GROUND - Soft, dark grey and grey, slightly sandy, slightly gravelly, silty CLAY. Gravel of angular flint, coke and ash.		1.20		
1.20-2.00 1.35-1.65	U1 SPT							1.80
2.00 2.00-3.00 2.15-2.45	D6 U2 SPT	N6 (2/1,1,2,2)	(ALLUVIUM)		2.30			
3.00 3.15-3.45	D7 SPT	N10 (3/2,2,3,3)	(ALLUVIUM)		3.45			
				End of Borehole at 3.45m				
Remarks 1. Starter pit excavated to 1.20m depth.					Hole Diameter by Depth Depth (m) Diameter (mm) 2.00 87 3.00 67		Project No. 151840	
					Scale: 1:25		Page 1/1	
KEY			Groundwater Strike			Groundwater Observations		
D - Disturbed Sample B - Bulk Sample U - Undisturbed Sample W - Water Sample S/C - SPT Spoon/Cone ⊘ - Water Strike ⬆ - Water Rise			MP - Mackintosh Probe V - Vane Shear Test N/* - SPT Blows ES - Environmental Sample ⬇ - Level On Completion ⬆ - Level Casing Withdrawn ⬇ - Standpipe Level			Strike (m) Rose To (m) Casing (m) Sealed Remarks Date Depth (m) Casing (m) Water (m) 20/07/2026 3.45		

Gas and Groundwater Monitoring Results

Date	Borehole No.	CH4 (% v/v)		CO2 (% v/v)		O2 (% v/v)		Flow Rate (l/hr)		Atmos Pressure (mb)	Well Depth (m bgl)	Groundwater (m bgl)	Comments
		Peak	Steady	Peak	Steady	Minimum	Maximum	Peak	Steady				
30/07/2026	BH01	<0.1	<0.1	3.0	3.0	11.5	11.5	<0.1	<0.1	1002	5.15	3.61	Water Sample Taken.
06/08/2026	BH01	<0.1	<0.1	3.5	3.5	7.3	7.3	<0.1	<0.1	1009	5.15	3.00	
13/08/2026	BH01	<0.1	<0.1	3.1	3.1	7.1	7.1	<0.1	<0.1	1009	5.15	2.46	
30/07/2026	BH02	<0.1	<0.1	1.0	1.0	18.1	18.1	<0.1	<0.1	1002	5.15	1.28	Water Sample Taken.
06/08/2026	BH02	<0.1	<0.1	0.9	0.9	17.5	17.5	<0.1	<0.1	1009	5.15	1.39	
13/08/2026	BH02	<0.1	<0.1	0.9	0.9	18.3	18.3	<0.1	<0.1	1009	5.15	1.42	
30/07/2026	WSB	<0.1	<0.1	2.9	2.9	13.3	13.3	<0.1	<0.1	1002	3.10	1.43	Water Sample Taken.
06/08/2026	WSB	<0.1	<0.1	3.3	3.3	14.4	14.4	<0.1	<0.1	1009	3.10	1.46	
13/08/2026	WSB	<0.1	<0.1	2.7	2.7	16.1	16.1	<0.1	<0.1	1009	5.15	1.46	



LUCION GROUND ENGINEERING LTD.

Peterborough Tel : 01733 566566

Project: 505-511 Archway Road, London N6

Client: Alexander James Contracts Limited

Project No.

151840

Appendix 4

Laboratory Geotechnical Test Results

Lucion Ground Engineering Limited

Summary of Test Results

Project No. 151840	Project Name 505-511 Archway Road, London N6
------------------------------	--

Sample					Density		Classification												Sulphates (SO4) 2:1				CBR					
Location	Ref	Top	Base	Type	Bulk	Dry	Moisture Content %			Class	LL	PL	PI	Retained on 425µm	Type	Max Deviator Stress	Cell pressure	Shear Strength	Angle of Shear Resistance	Soil	Water	pH	Organic Content	Top	Base	Retained on 20mm	Hand Vane	Remarks
		m	m		Mg/m ³		NMC	TRX	CBR		%	%	%	%		kPa	kPa	kPa	Degrees	mg/l	mg/l		%	%	%	%		
BH01	B1	0.25	0.75	B	2.19	1.98	11																	11	17.3	15		
BH01	B2	0.75	1.10	B																502		10.8						
BH01	B3	1.20	1.70	B						CL	30	15	15	27														
BH01	U1	2.00	2.40	U	2.00	1.46	37			CH	55	19	36	0	Single Stage	76	50	38	0									
BH01	U2	3.00	3.20	U	1.85	1.40	32			CH	65	23	42	0												57	Unsuitable for triaxial test	
BH01	U3	4.00	4.40	U	1.94	1.48	31								Single Stage	113	70	57	0									
BH01	U4	5.00	5.40	U	1.90	1.45	31								Single Stage	124	90	62	0									
BH01	U5	6.50	6.90	U	2.02	1.60	26								Single Stage	156	120	78	0									
BH01	U6	8.00	8.40	U	2.01	1.57	28								Single Stage	145	140	73	0									
BH01	U7	9.50	9.90	U	1.99	1.56	28								Single Stage	177	170	89	0									
BH02	B1	0.20	0.70	B	2.29	2.13	7.5																	37.6	48.6	24		
BH02	B2	0.70	1.20	B																74		9.7						

Key

U - Undisturbed
D - Disturbed
B - Bulk
C - Core
W - Water

All tests performed in accordance with BS1377-2:2022 and BS EN ISO 17892 unless specified otherwise.

Sheet Reference: LGE Lab/C/1974 Iss 2 Rev 32



Lucion Ground Engineering Limited

Summary of Test Results

Project No. 151840	Project Name 505-511 Archway Road, London N6
------------------------------	--

Sample					Density		Classification												Sulphates (SO4) 2:1				CBR					
Location	Ref	Top	Base	Type	Bulk	Dry	Moisture Content %			Class	LL	PL	PI	Retained on 425µm	Type	Max Deviator Stress	Cell pressure	Shear Strength	Angle of Shear Resistance	Soil	Water	pH	Organic Content	Top	Base	Retained on 20mm	Hand Vane	Remarks
		m	m		Mg/m ³		NMC	TRX	CBR		%	%	%	%		kPa	kPa	kPa	Degrees	mg/l	mg/l		%	%	%	kPa		
BH01	B1	0.25	0.75	B	2.19	1.98	11																	11	17.3	15		
BH01	B2	0.75	1.10	B																502		10.8						
BH01	B3	1.20	1.70	B						CL	30	15	15	27														
BH01	U1	2.00	2.40	U	2.00	1.46	37			CH	55	19	36	0	Single Stage	76	50	38	0									
BH01	U2	3.00	3.20	U	1.85	1.40	32			CH	65	23	42	0												57	Unsuitable for triaxial test	
BH01	U3	4.00	4.40	U	1.94	1.48	31								Single Stage	113	70	57	0									
BH01	U4	5.00	5.40	U	1.90	1.45	31								Single Stage	124	90	62	0									
BH01	U5	6.50	6.90	U	2.02	1.60	26								Single Stage	156	120	78	0									
BH01	U6	8.00	8.40	U	2.01	1.57	28								Single Stage	145	140	73	0									
BH01	U7	9.50	9.90	U	1.99	1.56	28								Single Stage	177	170	89	0									
BH02	B1	0.20	0.70	B	2.29	2.13	7.5																37.6	48.6	24			
BH02	B2	0.70	1.20	B																74		9.7						

Key
 U - Undisturbed
 D - Disturbed
 B - Bulk
 C - Core
 W - Water

All tests performed in accordance with BS1377-2:2022 and BS EN ISO 17892 unless specified otherwise.

Sheet Reference: LGE Lab/C/1974 Iss 2 Rev 32

Lucion Ground Engineering Limited

Summary of Test Results

Project No. 151840	Project Name 505-511 Archway Road, London N6
------------------------------	--

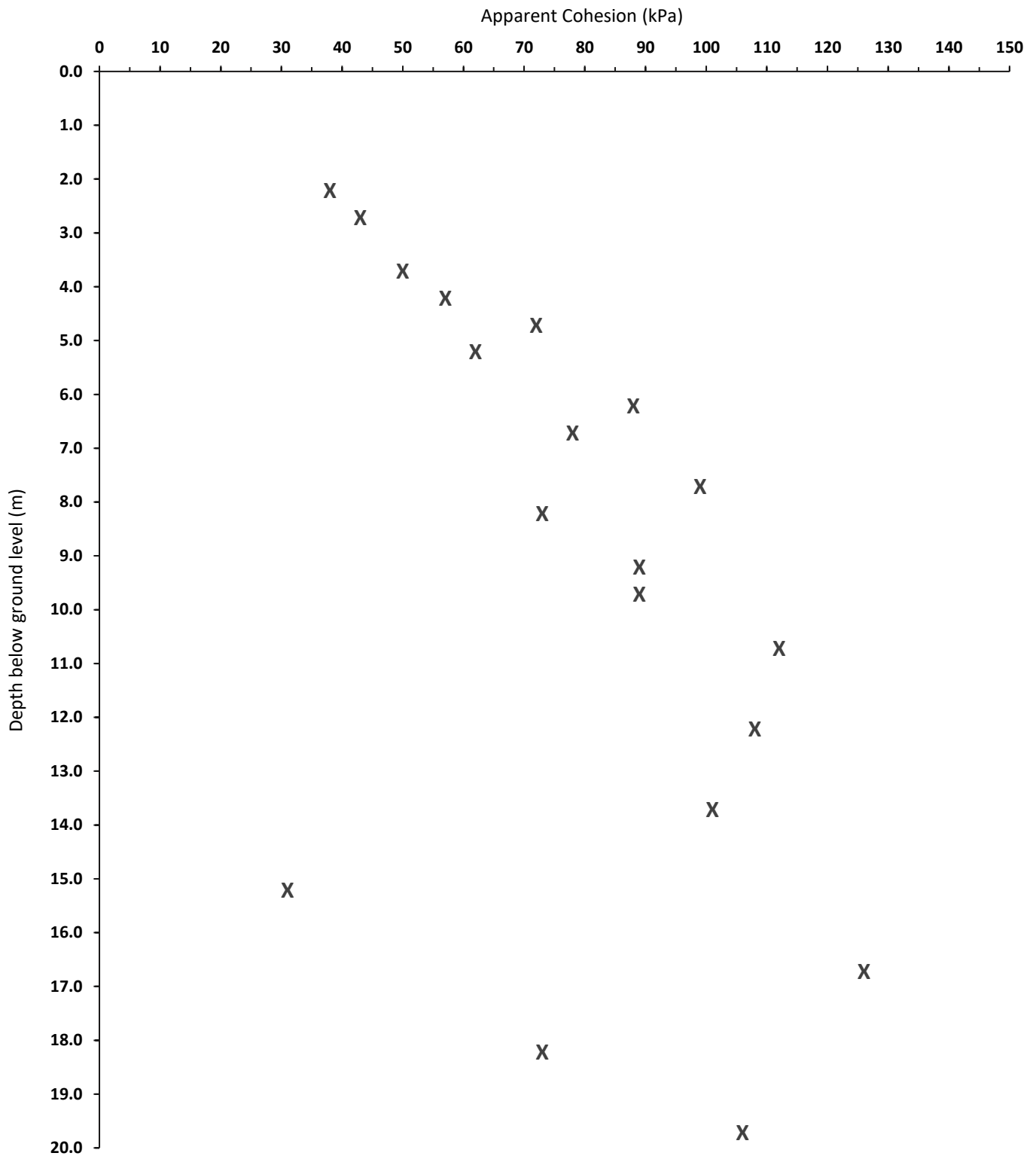
Sample					Density		Classification												Sulphates (SO4) 2:1				CBR					
Location	Ref	Top	Base	Type	Bulk	Dry	Moisture Content %			Class	LL	PL	PI	Retained on 425µm	Type	Max Deviator Stress	Cell pressure	Shear Strength	Angle of Shear Resistance	Soil	Water	pH	Organic Content	Top	Base	Retained on 20mm	Hand Vane	Remarks
		m	m		Mg/m ³		NMC	TRX	CBR		%	%	%	%		kPa	kPa	kPa	Degrees	mg/l	mg/l		%	%	%	%		
BH01	B1	0.25	0.75	B	2.19	1.98	11																	11	17.3	15		
BH01	B2	0.75	1.10	B																502		10.8						
BH01	B3	1.20	1.70	B						CL	30	15	15	27														
BH01	U1	2.00	2.40	U	2.00	1.46	37			CH	55	19	36	0	Single Stage	76	50	38	0									
BH01	U2	3.00	3.20	U	1.85	1.40	32			CH	65	23	42	0												57	Unsuitable for triaxial test	
BH01	U3	4.00	4.40	U	1.94	1.48	31								Single Stage	113	70	57	0									
BH01	U4	5.00	5.40	U	1.90	1.45	31								Single Stage	124	90	62	0									
BH01	U5	6.50	6.90	U	2.02	1.60	26								Single Stage	156	120	78	0									
BH01	U6	8.00	8.40	U	2.01	1.57	28								Single Stage	145	140	73	0									
BH01	U7	9.50	9.90	U	1.99	1.56	28								Single Stage	177	170	89	0									
BH02	B1	0.20	0.70	B	2.29	2.13	7.5																	37.6	48.6	24		
BH02	B2	0.70	1.20	B																74		9.7						

Key

U - Undisturbed
D - Disturbed
B - Bulk
C - Core
W - Water

All tests performed in accordance with BS1377-2:2022 and BS EN ISO 17892 unless specified otherwise.

Sheet Reference: LGE Lab/C/1974 Iss 2 Rev 32



Key: BH01 & BH02 = X

Apparent Cohesion kPa v Depth below ground level (m)

SITE: 505 - 511 Archway Road, London N6

CLIENT: Alexander James Contracts Limited



LUCION GROUND ENGINEERING LTD.
Tel. 01733 566566

Project No. 151840

Appendix 5

Laboratory Chemical Test Results

Certificate of Analysis

Certificate Number 26-18137

Issued: 12-Aug-26

Client Lucion Ground Engineering
Newark Road
Peterborough
PE1 5UA

Our Reference 26-18137

Client Reference ~ 151840

Order No ~ 28883

Contract Title ~ 505-511 Archway Road London N6

Description 15 Soil samples.

Date Received 23-Jul-26

Date Started 23-Jul-26

Date Completed 12-Aug-26

Test Procedures Identified by prefix DETSn (details on request).

Notes 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.

Approved By



Reyhan Irfan
Operations Manager



Sample Deviations present. See Deviation Table Section for details.

Normec DETS Limited

Unit 2, Park Road Industrial Estate South, Consett, Co Durham, DH8 5PY
Tel: 01207 582333 • email: info-dets@normecgroup.com • normecdets.com

Summary of Chemical Analysis

Matrix Descriptions

Our Ref 26-18137

Client Ref ~ 151840

Contract Title ~ 505-511 Archway Road London N6

Sample ID	Depth	Lab No	Completed	Matrix Description
WSA	0.3	2722468	12/08/2026	Brown gravelly SAND
WSA	0.6	2722469	12/08/2026	Brown gravelly, sandy CLAY (Possible made ground - brick) including odd coal
WSA	1.2	2722470	12/08/2026	Brown slightly gravelly, sandy CLAY
WSA	2	2722471	12/08/2026	Brown slightly gravelly, sandy CLAY
WSA	3	2722472	12/08/2026	Brown slightly gravelly, sandy CLAY
WSB	0.3	2722473	12/08/2026	Brown, gravelly SAND
WSB	0.6	2722474	12/08/2026	Brown, gravelly SAND
WSB	1.2	2722475	12/08/2026	Brown slightly gravelly, sandy CLAY
WSB	2	2722476	12/08/2026	Brown slightly gravelly, sandy CLAY
WSB	3	2722477	12/08/2026	Brown slightly gravelly, sandy CLAY
WSD	0.3	2722478	12/08/2026	Brown, gravelly SAND including odd rootlets
WSD	0.6	2722479	12/08/2026	Brown, gravelly SAND
WSD	1.2	2722480	12/08/2026	Brown gravelly, sandy CLAY including odd rootlets (Possible made ground - brick)
WSD	2	2722481	12/08/2026	Brown slightly gravelly, sandy CLAY
WSD	3	2722482	12/08/2026	Brown slightly gravelly, sandy CLAY

Summary of Chemical Analysis

Soil Samples

Our Ref 26-18137

Client Ref ~ 151840

Contract Title ~ 505-511 Archway Road London N6

Lab No	2722468	2722469	2722470	2722471	2722472	2722473
Sample ID ~	WSA	WSA	WSA	WSA	WSA	WSB
Depth ~	0.30	0.60	1.20	2.00	3.00	0.30
Other ID ~						
Sample Type ~	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date ~	20/07/2026	20/07/2026	20/07/2026	20/07/2026	20/07/2026	20/07/2026
Sampling Time ~	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
Metals									
Arsenic	DETSC 2301#	0.2	mg/kg	21	15				25
Boron, Water Soluble (2.5:1)	DETSC 2311#	0.2	mg/kg	0.4	0.8				0.3
Cadmium	DETSC 2301#	0.1	mg/kg	0.2	< 0.1				0.2
Chromium	DETSC 2301#	0.15	mg/kg	20	18				16
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0	< 1.0				< 1.0
Copper	DETSC 2301#	0.2	mg/kg	23	42				26
Lead	DETSC 2301#	0.3	mg/kg	18	180				12
Mercury	DETSC 2325#	0.05	mg/kg	< 0.05	0.45				< 0.05
Nickel	DETSC 2301#	1	mg/kg	27	15				27
Selenium	DETSC 2301#	0.5	mg/kg	< 0.5	< 0.5				< 0.5
Zinc	DETSC 2301#	1	mg/kg	77	61				74
Inorganics									
pH	DETSC 2008#		pH	8.6	8.6				8.9
Cyanide, Total	DETSC 2130#	0.1	mg/kg	< 0.1	< 0.1				< 0.1
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1	< 0.1				< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	< 0.6	< 0.6				< 0.6
Organic matter	DETSC 2002#	0.1	%	0.5	2.4				0.1
Sulphate Aqueous Extract as SO4 (2:1)	DETSC 2076#	10	mg/l	18	35				21
Sulphide	DETSC 2024*	10	mg/kg	< 10	< 10				< 10
Sulphate as SO4, Total	DETSC 2321#	100	mg/kg	227	464				284
Petroleum Hydrocarbons									
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01				< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01				< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01				< 0.01
Aliphatic >EC10-EC12	DETSC 3521#	1.5	mg/kg	< 1.50	< 1.50				< 1.50
Aliphatic >EC12-EC16	DETSC 3521#	1.2	mg/kg	< 1.20	< 1.20				< 1.20
Aliphatic >EC16-EC21	DETSC 3521#	1.5	mg/kg	< 1.50	< 1.50				< 1.50
Aliphatic >EC21-EC35	DETSC 3521#	3.4	mg/kg	< 3.40	< 3.40				< 3.40
Aliphatic C5-C35	DETSC 3521*	10	mg/kg	< 10.00	< 10.00				< 10.00
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01				< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01				< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01				< 0.01
Aromatic >EC10-EC12	DETSC 3521#	0.9	mg/kg	< 0.90	< 0.90				< 0.90
Aromatic >EC12-EC16	DETSC 3521#	0.5	mg/kg	< 0.50	< 0.50				< 0.50
Aromatic >EC16-EC21	DETSC 3521#	0.6	mg/kg	1.01	1.71				< 0.60
Aromatic >EC21-EC35	DETSC 3521#	1.4	mg/kg	< 1.40	< 1.40				< 1.40
Aromatic C5-C35	DETSC 3521*	10	mg/kg	< 10.00	< 10.00				< 10.00
TPH Ali/Aro Total C5-C35	DETSC 3521*	10	mg/kg	< 10.00	< 10.00				< 10.00
EPH (C10-C40)	DETSC 3311#	10	mg/kg			< 10	< 10	< 10	
PAHs									
Naphthalene	DETSC 3303#	0.03	mg/kg	< 0.03	1.1				< 0.03

Summary of Chemical Analysis

Soil Samples

Our Ref 26-18137

Client Ref ~ 151840

Contract Title ~ 505-511 Archway Road London N6

Lab No	2722468	2722469	2722470	2722471	2722472	2722473
Sample ID ~	WSA	WSA	WSA	WSA	WSA	WSB
Depth ~	0.30	0.60	1.20	2.00	3.00	0.30
Other ID ~						
Sample Type ~	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date ~	20/07/2026	20/07/2026	20/07/2026	20/07/2026	20/07/2026	20/07/2026
Sampling Time ~	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03	1.2				< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	0.03	1.2				< 0.03
Fluorene	DETSC 3303	0.03	mg/kg	< 0.03	1.2				< 0.03
Phenanthrene	DETSC 3303#	0.03	mg/kg	0.27	1.1				< 0.03
Anthracene	DETSC 3303	0.03	mg/kg	0.08	1.0				< 0.03
Fluoranthene	DETSC 3303#	0.03	mg/kg	0.88	1.2				< 0.03
Pyrene	DETSC 3303#	0.03	mg/kg	0.79	1.2				< 0.03
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.42	1.2				< 0.03
Chrysene	DETSC 3303	0.03	mg/kg	0.36	1.2				< 0.03
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.60	1.2				< 0.03
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.17	1.1				< 0.03
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.39	1.1				< 0.03
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.23	1.5				< 0.03
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	0.07	1.3				< 0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.29	1.3				< 0.03
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	4.6	19				< 0.10
Phenols									
Phenol - Monohydric	DETSC 2130#	0.3	mg/kg	< 0.3	< 0.3				< 0.3

Summary of Chemical Analysis

Soil Samples

Our Ref 26-18137

Client Ref ~ 151840

Contract Title ~ 505-511 Archway Road London N6

Lab No	2722474	2722475	2722476	2722477	2722478	2722479
Sample ID ~	WSB	WSB	WSB	WSB	WSD	WSD
Depth ~	0.60	1.20	2.00	3.00	0.30	0.60
Other ID ~						
Sample Type ~	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date ~	20/07/2026	20/07/2026	20/07/2026	20/07/2026	20/07/2026	20/07/2026
Sampling Time ~	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
Metals									
Arsenic	DETSC 2301#	0.2	mg/kg	25				24	23
Boron, Water Soluble (2.5:1)	DETSC 2311#	0.2	mg/kg	0.5				0.2	0.2
Cadmium	DETSC 2301#	0.1	mg/kg	0.2				0.2	0.1
Chromium	DETSC 2301#	0.15	mg/kg	20				18	15
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0				< 1.0	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	23				35	21
Lead	DETSC 2301#	0.3	mg/kg	58				10	10
Mercury	DETSC 2325#	0.05	mg/kg	0.08				< 0.05	< 0.05
Nickel	DETSC 2301#	1	mg/kg	27				27	24
Selenium	DETSC 2301#	0.5	mg/kg	< 0.5				< 0.5	< 0.5
Zinc	DETSC 2301#	1	mg/kg	94				81	92
Inorganics									
pH	DETSC 2008#		pH	8.7				8.9	8.5
Cyanide, Total	DETSC 2130#	0.1	mg/kg	< 0.1				< 0.1	< 0.1
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1				< 0.1	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	< 0.6				< 0.6	< 0.6
Organic matter	DETSC 2002#	0.1	%	0.4				< 0.1	< 0.1
Sulphate Aqueous Extract as SO4 (2:1)	DETSC 2076#	10	mg/l	16				36	18
Sulphide	DETSC 2024*	10	mg/kg	< 10				< 10	< 10
Sulphate as SO4, Total	DETSC 2321#	100	mg/kg	182				296	171
Petroleum Hydrocarbons									
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01				< 0.01	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01				< 0.01	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01				< 0.01	< 0.01
Aliphatic >EC10-EC12	DETSC 3521#	1.5	mg/kg	< 1.50				< 1.50	< 1.50
Aliphatic >EC12-EC16	DETSC 3521#	1.2	mg/kg	< 1.20				< 1.20	< 1.20
Aliphatic >EC16-EC21	DETSC 3521#	1.5	mg/kg	< 1.50				< 1.50	< 1.50
Aliphatic >EC21-EC35	DETSC 3521#	3.4	mg/kg	< 3.40				< 3.40	< 3.40
Aliphatic C5-C35	DETSC 3521*	10	mg/kg	< 10.00				< 10.00	< 10.00
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01				< 0.01	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01				< 0.01	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01				< 0.01	< 0.01
Aromatic >EC10-EC12	DETSC 3521#	0.9	mg/kg	< 0.90				< 0.90	< 0.90
Aromatic >EC12-EC16	DETSC 3521#	0.5	mg/kg	< 0.50				< 0.50	< 0.50
Aromatic >EC16-EC21	DETSC 3521#	0.6	mg/kg	0.81				< 0.60	< 0.60
Aromatic >EC21-EC35	DETSC 3521#	1.4	mg/kg	< 1.40				< 1.40	< 1.40
Aromatic C5-C35	DETSC 3521*	10	mg/kg	< 10.00				< 10.00	< 10.00
TPH Ali/Aro Total C5-C35	DETSC 3521*	10	mg/kg	< 10.00				< 10.00	< 10.00
EPH (C10-C40)	DETSC 3311#	10	mg/kg		< 10	< 10	< 10		
PAHs									
Naphthalene	DETSC 3303#	0.03	mg/kg	< 0.03				< 0.03	< 0.03

Summary of Chemical Analysis

Soil Samples

Our Ref 26-18137

Client Ref ~ 151840

Contract Title ~ 505-511 Archway Road London N6

Lab No	2722474	2722475	2722476	2722477	2722478	2722479
Sample ID ~	WSB	WSB	WSB	WSB	WSD	WSD
Depth ~	0.60	1.20	2.00	3.00	0.30	0.60
Other ID ~						
Sample Type ~	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date ~	20/07/2026	20/07/2026	20/07/2026	20/07/2026	20/07/2026	20/07/2026
Sampling Time ~	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03				< 0.03	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	< 0.03				< 0.03	< 0.03
Fluorene	DETSC 3303	0.03	mg/kg	< 0.03				< 0.03	< 0.03
Phenanthrene	DETSC 3303#	0.03	mg/kg	0.14				< 0.03	< 0.03
Anthracene	DETSC 3303	0.03	mg/kg	0.04				< 0.03	< 0.03
Fluoranthene	DETSC 3303#	0.03	mg/kg	0.22				< 0.03	< 0.03
Pyrene	DETSC 3303#	0.03	mg/kg	0.20				< 0.03	< 0.03
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.08				< 0.03	< 0.03
Chrysene	DETSC 3303	0.03	mg/kg	0.09				< 0.03	< 0.03
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.10				< 0.03	< 0.03
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.04				< 0.03	< 0.03
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.07				< 0.03	< 0.03
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.05				< 0.03	< 0.03
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03				< 0.03	< 0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.05				< 0.03	< 0.03
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	1.1				< 0.10	< 0.10
Phenols									
Phenol - Monohydric	DETSC 2130#	0.3	mg/kg	< 0.3				< 0.3	< 0.3

Summary of Chemical Analysis Soil Samples

Our Ref 26-18137

Client Ref ~ 151840

Contract Title ~ 505-511 Archway Road London N6

Lab No	2722480	2722481	2722482
Sample ID ~	WSD	WSD	WSD
Depth ~	1.20	2.00	3.00
Other ID ~			
Sample Type ~	SOIL	SOIL	SOIL
Sampling Date ~	20/07/2026	20/07/2026	20/07/2026
Sampling Time ~	n/s	n/s	n/s

Test	Method	LOD	Units			
Metals						
Arsenic	DETSC 2301#	0.2	mg/kg			
Boron, Water Soluble (2.5:1)	DETSC 2311#	0.2	mg/kg			
Cadmium	DETSC 2301#	0.1	mg/kg			
Chromium	DETSC 2301#	0.15	mg/kg			
Chromium, Hexavalent	DETSC 2204*	1	mg/kg			
Copper	DETSC 2301#	0.2	mg/kg			
Lead	DETSC 2301#	0.3	mg/kg			
Mercury	DETSC 2325#	0.05	mg/kg			
Nickel	DETSC 2301#	1	mg/kg			
Selenium	DETSC 2301#	0.5	mg/kg			
Zinc	DETSC 2301#	1	mg/kg			
Inorganics						
pH	DETSC 2008#		pH			
Cyanide, Total	DETSC 2130#	0.1	mg/kg			
Cyanide, Free	DETSC 2130#	0.1	mg/kg			
Thiocyanate	DETSC 2130#	0.6	mg/kg			
Organic matter	DETSC 2002#	0.1	%			
Sulphate Aqueous Extract as SO4 (2:1)	DETSC 2076#	10	mg/l			
Sulphide	DETSC 2024*	10	mg/kg			
Sulphate as SO4, Total	DETSC 2321#	100	mg/kg			
Petroleum Hydrocarbons						
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg			
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg			
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg			
Aliphatic >EC10-EC12	DETSC 3521#	1.5	mg/kg			
Aliphatic >EC12-EC16	DETSC 3521#	1.2	mg/kg			
Aliphatic >EC16-EC21	DETSC 3521#	1.5	mg/kg			
Aliphatic >EC21-EC35	DETSC 3521#	3.4	mg/kg			
Aliphatic C5-C35	DETSC 3521*	10	mg/kg			
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg			
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg			
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg			
Aromatic >EC10-EC12	DETSC 3521#	0.9	mg/kg			
Aromatic >EC12-EC16	DETSC 3521#	0.5	mg/kg			
Aromatic >EC16-EC21	DETSC 3521#	0.6	mg/kg			
Aromatic >EC21-EC35	DETSC 3521#	1.4	mg/kg			
Aromatic C5-C35	DETSC 3521*	10	mg/kg			
TPH Ali/Aro Total C5-C35	DETSC 3521*	10	mg/kg			
EPH (C10-C40)	DETSC 3311#	10	mg/kg	< 10	< 10	380
PAHs						
Naphthalene	DETSC 3303#	0.03	mg/kg			

Summary of Chemical Analysis Soil Samples

Our Ref 26-18137

Client Ref ~ 151840

Contract Title ~ 505-511 Archway Road London N6

Lab No	2722480	2722481	2722482
Sample ID ~	WSD	WSD	WSD
Depth ~	1.20	2.00	3.00
Other ID ~			
Sample Type ~	SOIL	SOIL	SOIL
Sampling Date ~	20/07/2026	20/07/2026	20/07/2026
Sampling Time ~	n/s	n/s	n/s

Test	Method	LOD	Units			
Acenaphthylene	DETSC 3303#	0.03	mg/kg			
Acenaphthene	DETSC 3303#	0.03	mg/kg			
Fluorene	DETSC 3303	0.03	mg/kg			
Phenanthrene	DETSC 3303#	0.03	mg/kg			
Anthracene	DETSC 3303	0.03	mg/kg			
Fluoranthene	DETSC 3303#	0.03	mg/kg			
Pyrene	DETSC 3303#	0.03	mg/kg			
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg			
Chrysene	DETSC 3303	0.03	mg/kg			
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg			
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg			
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg			
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg			
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg			
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg			
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg			
Phenols						
Phenol - Monohydric	DETSC 2130#	0.3	mg/kg			

Summary of Asbestos Analysis Soil Samples

Our Ref 26-18137

Client Ref ~ 151840

Contract Title ~ 505-511 Archway Road London N6

Lab No	Sample ID	Material Type	Result	Comment*	Analyst
2722468	WSA 0.30	SOIL	NAD	none	Michael Kay
2722469	WSA 0.60	SOIL	NAD	none	Michael Kay
2722473	WSB 0.30	SOIL	NAD	none	Michael Kay
2722474	WSB 0.60	SOIL	NAD	none	Michael Kay
2722478	WSD 0.30	SOIL	NAD	none	Michael Kay
2722479	WSD 0.60	SOIL	NAD	none	Michael Kay

Crocidolite = Blue Asbestos, Amosite = Brown Asbestos, Chrysotile = White Asbestos. Anthophyllite, Actinolite and Tremolite are other forms of Asbestos. Samples are analysed by DETSC 1101 using polarised light microscopy in accordance with HSG248 and documented in-house methods. NAD = No Asbestos Detected. Where a sample is NAD, the result is based on analysis of at least 2 sub-samples and should be taken to mean 'no asbestos detected in sample'. Key: * -not included in laboratory scope of accreditation.

Information in Support of the Analytical Results

Our Ref 26-18137
 Client Ref ~ 151840
 Contract ~ 505-511 Archway Road London N6

Containers Received & Deviating Samples

Lab No	Sample ID ~	Date Sampled ~	Containers Received	time exceeded for tests	Incorrect container for tests	Headspace in container for tests
2722468	WSA 0.30 SOIL	20/07/26	GJ 60ml ((Headspace)), PT 500ml			BTEX/C5-10, HS
2722469	WSA 0.60 SOIL	20/07/26	GJ 60ml ((Headspace)), PT 500ml			BTEX/C5-10, HS
2722470	WSA 1.20 SOIL	20/07/26	GJ 60ml, PT 500ml			
2722471	WSA 2.00 SOIL	20/07/26	GJ 60ml, PT 500ml			
2722472	WSA 3.00 SOIL	20/07/26	GJ 60ml, PT 500ml			
2722473	WSB 0.30 SOIL	20/07/26	GJ 60ml ((Headspace)), PT 500ml			BTEX/C5-10, HS
2722474	WSB 0.60 SOIL	20/07/26	GJ 60ml ((Headspace)), PT 500ml			BTEX/C5-10, HS
2722475	WSB 1.20 SOIL	20/07/26	GJ 60ml, PT 500ml			
2722476	WSB 2.00 SOIL	20/07/26	GJ 60ml, PT 500ml			
2722477	WSB 3.00 SOIL	20/07/26	GJ 60ml, PT 500ml			
2722478	WSD 0.30 SOIL	20/07/26	GJ 60ml ((Headspace)), PT 500ml			BTEX/C5-10, HS
2722479	WSD 0.60 SOIL	20/07/26	GJ 60ml ((Headspace)), PT 500ml			BTEX/C5-10, HS
2722480	WSD 1.20 SOIL	20/07/26	GJ 60ml, PT 500ml			
2722481	WSD 2.00 SOIL	20/07/26	GJ 60ml, PT 500ml			
2722482	WSD 3.00 SOIL	20/07/26	GJ 60ml, PT 500ml			

Key: G-Glass P-Plastic J-Jar T-Tub

Normec DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

Soil Analysis Notes

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 250µm sieve

Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis.

The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-

Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months

Appendix A - Details of Analysis

Method	Parameter	Units	Limit of Detection	Sample Preparation	Sub-Contracted	UKAS	MCERTS
DETS 2002	Organic matter	%	0.1	Air Dried	No	Yes	Yes
DETS 2003	Loss on ignition	%	0.01	Air Dried	No	Yes	Yes
DETS 2008	pH	pH Units	1	Air Dried	No	Yes	Yes
DETS 2076	Sulphate Aqueous Extract as SO ₄	mg/l	10	Air Dried	No	Yes	Yes
DETS 2084	Total Organic Carbon	%	0.5	Air Dried	No	Yes	Yes
DETS 2119	Ammoniacal Nitrogen as N	mg/kg	0.5	Air Dried	No	Yes	Yes
DETS 2130	Cyanide free	mg/kg	0.1	Air Dried	No	Yes	Yes
DETS 2130	Cyanide total	mg/kg	0.1	Air Dried	No	Yes	Yes
DETS 2130	Phenol - Monohydric	mg/kg	0.3	Air Dried	No	Yes	Yes
DETS 2130	Thiocyanate	mg/kg	0.6	Air Dried	No	Yes	Yes
DETS 2301	Arsenic	mg/kg	0.2	Air Dried	No	Yes	Yes
DETS 2301	Barium	mg/kg	1.5	Air Dried	No	Yes	Yes
DETS 2301	Beryllium	mg/kg	0.2	Air Dried	No	Yes	Yes
DETS 2301	Cadmium Available	mg/kg	0.1	Air Dried	No	Yes	Yes
DETS 2301	Cadmium	mg/kg	0.1	Air Dried	No	Yes	Yes
DETS 2301	Cobalt	mg/kg	0.7	Air Dried	No	Yes	Yes
DETS 2301	Chromium	mg/kg	0.15	Air Dried	No	Yes	Yes
DETS 2301	Copper	mg/kg	0.2	Air Dried	No	Yes	Yes
DETS 2301	Manganese	mg/kg	20	Air Dried	No	Yes	Yes
DETS 2301	Molybdenum	mg/kg	0.4	Air Dried	No	Yes	Yes
DETS 2301	Nickel	mg/kg	1	Air Dried	No	Yes	Yes
DETS 2301	Lead	mg/kg	0.3	Air Dried	No	Yes	Yes
DETS 2301	Selenium	mg/kg	0.5	Air Dried	No	Yes	Yes
DETS 2301	Zinc	mg/kg	1	Air Dried	No	Yes	Yes
DETS 2311	Boron (water soluble)	mg/kg	0.2	Air Dried	No	Yes	Yes
DETS 2321	Total Sulphate as SO ₄	%	0.01	Air Dried	No	Yes	Yes
DETS 2325	Mercury	mg/kg	0.05	Air Dried	No	Yes	Yes
DETS 3049	Sulphur (free)	mg/kg	0.75	As Received	No	Yes	Yes
DETS 3072	Ali/Aro C10-C35	mg/kg	10	As Received	No	Yes	Yes
DETS 3072	Aliphatic C10-C12	mg/kg	1.5	As Received	No	Yes	Yes
DETS 3072	Aliphatic C10-C35	mg/kg	10	As Received	No	Yes	Yes
DETS 3072	Aliphatic C12-C16	mg/kg	1.2	As Received	No	Yes	Yes
DETS 3072	Aliphatic C16-C21	mg/kg	1.5	As Received	No	Yes	Yes
DETS 3072	Aliphatic C21-C35	mg/kg	3.4	As Received	No	Yes	Yes
DETS 3072	Aromatic C10-C12	mg/kg	0.9	As Received	No	Yes	Yes
DETS 3072	Aromatic C10-C35	mg/kg	10	As Received	No	Yes	Yes
DETS 3072	Aromatic C12-C16	mg/kg	0.5	As Received	No	Yes	Yes
DETS 3072	Aromatic C16-C21	mg/kg	0.6	As Received	No	Yes	Yes
DETS 3072	Aromatic C21-C35	mg/kg	1.4	As Received	No	Yes	Yes
DETS 3303	Acenaphthene	mg/kg	0.03	As Received	No	Yes	Yes
DETS 3303	Acenaphthylene	mg/kg	0.03	As Received	No	Yes	Yes
DETS 3303	Benzo(a)pyrene	mg/kg	0.03	As Received	No	Yes	Yes
DETS 3303	Benzo(a)anthracene	mg/kg	0.03	As Received	No	Yes	Yes
DETS 3303	Benzo(b)fluoranthene	mg/kg	0.03	As Received	No	Yes	Yes
DETS 3303	Benzo(k)fluoranthene	mg/kg	0.03	As Received	No	Yes	Yes
DETS 3303	Benzo(g,h,i)perylene	mg/kg	0.03	As Received	No	Yes	Yes
DETS 3303	Dibenzo(a,h)anthracene	mg/kg	0.03	As Received	No	Yes	Yes
DETS 3303	Fluoranthene	mg/kg	0.03	As Received	No	Yes	Yes

Appendix A - Details of Analysis

Method	Parameter	Units	Limit of Detection	Sample Preparation	Sub-Contracted	UKAS	MCERTS
DETSC 3303	Indeno(1,2,3-c,d)pyrene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Naphthalene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Phenanthrene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Pyrene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3311	C10-C24 Diesel Range Organics (DRO)	mg/kg	10	As Received	No	Yes	Yes
DETSC 3311	C24-C40 Lube Oil Range Organics (LORO)	mg/kg	10	As Received	No	Yes	Yes
DETSC 3311	EPH (C10-C40)	mg/kg	10	As Received	No	Yes	Yes
DETSC 3321	Benzene	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3321	Ethylbenzene	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3321	Toluene	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3321	Xylene	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3321	m+p Xylene	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3321	o Xylene	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 28 + PCB 31	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 52	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 101	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 118	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 153	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 138	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 180	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB Total	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3521	Ali/Aro C10-C35	mg/kg	10	As Received	No	Yes	Yes
DETSC 3521	Aliphatic C10-C12	mg/kg	1.5	As Received	No	Yes	Yes
DETSC 3521	Aliphatic C10-C35	mg/kg	10	As Received	No	Yes	Yes
DETSC 3521	Aliphatic C12-C16	mg/kg	1.2	As Received	No	Yes	Yes
DETSC 3521	Aliphatic C16-C21	mg/kg	1.5	As Received	No	Yes	Yes
DETSC 3521	Aliphatic C21-C35	mg/kg	3.4	As Received	No	Yes	Yes
DETSC 3521	Aromatic C10-C12	mg/kg	0.9	As Received	No	Yes	Yes
DETSC 3521	Aromatic C10-C35	mg/kg	10	As Received	No	Yes	Yes
DETSC 3521	Aromatic C12-C16	mg/kg	0.5	As Received	No	Yes	Yes
DETSC 3521	Aromatic C16-C21	mg/kg	0.6	As Received	No	Yes	Yes
DETSC 3521	Aromatic C21-C35	mg/kg	1.4	As Received	No	Yes	Yes

Method details are shown only for those determinands listed in Annex A of the MCERTS standard. Anything not included on this list falls outside the scope of MCERTS. No Recovery Factors are used in the determination of results. Results reported assume 100% recovery. Full method statements are available on request.

Appendix A - Details of Analysis

Method	Parameter	Units	Limit of Detection	Sample Preparation	Sub-Contracted	UKAS	MCERTS
--------	-----------	-------	--------------------	--------------------	----------------	------	--------

Key:

~ Sample details are provided by the client and can affect the validity of the results

* -not accredited.

-MCERTS (accreditation only applies if report carries the MCERTS logo).

\$ -subcontracted.

n/s -not supplied.

I/S -insufficient sample.

U/S -unsuitable sample.

t/f -to follow.

nd -not detected.

End of Report

Certificate of Analysis

Certificate Number 26-20300

Issued: 28-Aug-26

Client Lucion Ground Engineering
Newark Road
Peterborough
PE1 5UA

Our Reference 26-20300

Client Reference ~ 151840

Order No ~ 28883

Contract Title ~ 505-511 Archwayu Road London N6

Description 3 Groundwater samples.

Date Received 17-Aug-26

Date Started 17-Aug-26

Date Completed 28-Aug-26

Test Procedures Identified by prefix DETSn (details on request).

Notes 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.

Approved By

A handwritten signature in black ink, appearing to read "Louise Cook".

Louise Cook
Contracts Manager



Summary of Chemical Analysis

Water Samples

Our Ref 26-20300

Client Ref ~ 151840

Contract Title ~ 505-511 Archwayu Road London N6

Lab No	2736232	2736233	2736234
Sample ID ~	BH01	BH02	WSB
Depth ~	2.46	1.42	1.46
Other ID ~			
Sample Type ~	GROUND WATER	GROUND WATER	GROUND WATER
Sampling Date ~	13/08/2026	13/08/2026	13/08/2026
Sampling Time ~	n/s	n/s	n/s

Test	Method	LOD	Units
Petroleum Hydrocarbons			
EPH (C10-C40)	DETSC 3311	10	ug/l
		28	190
			92

Information in Support of the Analytical Results

Our Ref 26-20300
 Client Ref ~ 151840
 Contract ~ 505-511 Archway Road London N6

Containers Received & Deviating Samples

Lab No	Sample ID ~	Date Sampled ~	Containers Received	Holding time exceeded for tests	Incorrect container for tests
2736232	BH01 2.46 GROUND WATER	13/08/26	GB 1L, GV x2		
2736233	BH02 1.42 GROUND WATER	13/08/26	GB 1L, GV x2		
2736234	WSB 1.46 GROUND WATER	13/08/26	GB 1L, GV x2		

Key: G-Glass B-Bottle V-Vial

Normec DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-
 Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months

Key:

~ Sample details are provided by the client and can affect the validity of the results
 * -not accredited.
 # -MCERTS (accreditation only applies if report carries the MCERTS logo).
 \$ -subcontracted.
 n/s -not supplied.
 I/S -insufficient sample.
 U/S -unsuitable sample.
 t/f -to follow.
 nd -not detected.

End of Report Ver 26.05.23

Appendix 6

Concrete Requirements Against Sulphate Attack

TABLE C2 – AGGRESSIVE CHEMICAL ENVIRONMENT FOR CONCRETE
(ACEC) CLASSIFICATION FOR BROWNFIELD LOCATIONS^a

Table C2 Aggressive Chemical Environment for Concrete (ACEC) classification for brownfield locations ^a								
Sulfate and magnesium		Groundwater				Groundwater		ACEC
Design Sulfate	2:1 water/soil extract ^b	Groundwater		Total potential sulfate ^c		Static water	Mobile water	Class for location
Class for location								
1	2	3	4	5	6	7	8	9
	(SO ₄ mg/l)	(Mg mg/l)	(SO ₄ mg/l)	(Mg mg/l)	(SO ₄ %)	(pH) ^d	(pH) ^d	
DS-1	< 500		< 400		< 0.24	≥ 2.5	> 6.5 ^d 5.5–6.5 4.5–5.5 2.5–4.5	AC-1s AC-1 AC-2z AC-3z AC-4z
DS-2	500–1500		400–1400		0.24–0.6	> 5.5 2.5–5.5	> 6.5 5.5–6.5 4.5–5.5 2.5–5.5	AC-1s AC-2 AC-2s AC-3z AC-4z AC-5z
DS-3	1600–3000		1500–3000		0.7–1.2	> 5.5 2.5–5.5	> 6.5 5.5–6.5 2.5–5.5	AC-2s AC-3 AC-3s AC-4 AC-5
DS-4	3100–6000	≤ 1200	3100–6000	≤ 1000	1.3–2.4	> 5.5 2.5–5.5	> 6.5 2.5–6.5	AC-3s AC-4 AC-4s AC-5
DS-4m	3100–6000	> 1200 ^e	3100–6000	> 1000 ^e	1.3–2.4	> 5.5 2.5–5.5	> 6.5 2.5–6.5	AC-3s AC-4m AC-4ms AC-5m
DS-5	> 6000	≤ 1200	> 6000	≤ 1000	> 2.4	> 5.5 2.5–5.5	≥ 2.5	AC-4s AC-5
DS-5m	> 6000	> 1200 ^e	> 6000	> 1000 ^e	> 2.4	> 5.5 2.5–5.5	≥ 2.5	AC-4ms AC-5m

Notes

- a** Brownfield locations are those sites, or parts of sites, that might contain chemical residues produced by or associated with industrial production (Section C5.1.3).
- b** The limits of Design Sulfate Classes based on 2:1 water/soil extracts have been lowered from previous Digests (Box C7).
- c** Applies only to locations where concrete will be exposed to sulfate ions (SO₄), which may result from the oxidation of sulfides such as pyrite, following ground disturbance (Appendix A1 and Box C8).
- d** An additional account is taken of hydrochloric and nitric acids by adjustment to sulfate content (Section C5.1.3).
- e** The limit on water-soluble magnesium does not apply to brackish groundwater (chloride content between 12 000 mg/l and 17 000 mg/l). This allows 'm' to be omitted from the relevant ACEC classification. Seawater (chloride content about 18 000 mg/l) and stronger brines are not covered by this table.

Explanation of suffix symbols to ACEC Class

- Suffix 's' indicates that the water has been classified as static.
- Concrete placed in ACEC Classes that include the suffix 'z' have primarily to resist acid conditions and may be made with any of the cements in Table D2 on page 42.
- Suffix 'm' relates to the higher levels of magnesium in Design Sulfate Classes 4 and 5.

© Crown Copyright

Produced from Building Research Establishment Special Digest 1, June 2005, by permission of the Controller of HM Stationery Office.