5 The Grove
London N6 6JU

Ground Investigation And Basement Impact Assessment Report

Mr Stephen Cameron

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Rev 1

Report prepared by

Alex Taylor BSc MSc FGS
Senior Geotechnical Engineer

With input from

Martin Cooper BEng CEng MICE FGS

John Evans MSc FGS CGeol

Rupert Evans MSc CEnv CWEM MCIWEM AIEMA

Report checked and approved for issue by

Steve Branch BSc MSc CGeol FGS FRGS
Managing Director

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This report has been issued by the GEA office indicated below. Any enquiries regarding the report should be directed to the project engineer at the office indicated below or to Steve Branch in our main Herts office.

✓	**Hertfordshire**	tel 01727 824666
	Nottinghamshire	tel 01509 674888
	Manchester	tel 0161 209 3032

This report is intended as a Ground Investigation Report (GIR) as defined in BS EN1997-2, unless specifically noted otherwise. The report is not a Geotechnical Design Report (GDR) as defined in EN1997-2 and recommendations made within this report are for guidance only.

CONTENTS

EXECUTIVE SUMMARY

This executive summary contains an overview of the key findings and conclusions. No reliance should be placed on any part of the executive summary until the whole of the report has been read. Other sections of the report may contain information that puts into context the findings that are summarised in the executive summary.

BRIEF

This report describes the findings of a site investigation carried out by Geotechnical and Environmental Associates Limited (GEA) on the instructions of Constructure, on behalf of Mr Stephen Cameron, with respect to the redevelopment of the site through the a new swimming pool with a surrounding pool terrace, a woodland walk in the west and alterations to the existing single storey pool house in the east. The purpose of the investigation has been to research the history of the site with respect to possible contaminative uses, to determine the ground conditions, to assess the extent of any contamination and to provide information to assist with the design of retaining walls and foundations.

SITE HISTORY

No 5 The Grove is Grade II listed and was originally built in around 1688, and rebuilt, retaining the general original appearance in about 1933. The earliest map studied, dated 1870, shows the site to have been developed in its existing configuration, with much of the surrounding existing road network and buildings also shown to have been constructed by this time. The area to the southwest and west of the site is shown as open ground with a large building labelled as Parkfield located approximately 100 m to the south. By the time of the map dated 1935 Parkfield had been demolished and redeveloped with the existing Witanhurst mansion building. Some time between 1974 and 1991 Highfield Grove and the existing properties fronting onto it were constructed and a tennis court and pond are labelled in the grounds of Witanhurst, to the west of the site. Both the site and the surrounding area have since remained essentially unchanged.

GROUND CONDITIONS

The investigation has confirmed the expected ground conditions in that, below a nominal to moderate thickness of made ground, the Bagshot Formation was encountered overlying the Claygate Member, which extended to the full depth of the investigation, of 20.00 m (108.50 m OD). The made ground generally comprised dark brown clayey sand with gravel and variable amounts of brick, ash, and glass fragments and extended to depths of between 0.80 m (127.70 m OD) below street level and 2.00 m (119.50 m OD) below rear garden level. The Bagshot Formation predominantly comprised layers of firm orange-brown and grey sandy clay with lenses of fine sand, interbedded with layers of medium dense becoming dense orange-brown and brown sandy with variable clay content and extended to a depth of 15.00 m (113.50 m OD) below street level. The Claygate Member comprised stiff grey sandy clay with layers of fine sand and extended to the full depth of the investigation, of 20.00 m (108.50 m OD) below street level. Groundwater was encountered at a depth of 6.00 m (118.00 m OD and 115.50 m OD) in both Borehole Nos 2 and 3 at the rear of the site. It was also encountered in Borehole No 1 at depths of 12.00 m (116.50 m OD) and 14.00 m (114.50 m OD). Standpipes were installed in each of the boreholes but have not been monitored to date. The results of the chemical analyses have indicated four of the five samples tested to contain elevated concentrations of lead.

RECOMMENDATIONS

The proposed swimming pool will extend to a depth of approximately 3.00 m below existing ground level in the lower garden, such that formation level is expected to be within the Bagshot Formation. Groundwater is unlikely to be encountered within the excavation and the use of either piled foundations or shallow spread foundations should be feasible to support the loads of the development. The excavation will be carried out as an open cut.

Remedial measures are not considered to be required with respect to contamination.

BASEMENT IMPACT ASSESSMENT

It has been concluded that the majority of the impacts identified can be mitigated by appropriate design and standard construction practice. Groundwater is unlikely to be present within the excavation and will still be able to flow around and beneath the pool following construction. As the new pool does not close a pathway or create a cut-off, it is considered that the groundwater will follow a pathway around and beneath the proposed pool and will not build up significantly behind it. The swimming pool excavation should not, therefore, have any noticeable effect on groundwater flow.

Part 1: INVESTIGATION REPORT

This section of the report details the objectives of the investigation, the work that has been carried out to meet these objectives and the results of the investigation. Interpretation of the findings is presented in Part 2.

1.0 INTRODUCTION

Geotechnical and Environmental Associates Limited (GEA) has been commissioned by Constructure Consulting Engineers, on behalf of Mr Stephen Cameron, to carry out a desk study, ground investigation and ground movement assessment at 5 The Grove, London N6 6JU. This report also forms part of a Basement Impact Assessment (BIA), which has been carried out in accordance with guidelines from the London Borough of Camden (LBC) in support of a planning application.

1.1 Proposed Development

It is understood that it is proposed to reconfigure the lower rear garden area to form a new swimming pool with a surrounding pool terrace, a woodland walk in the west and alterations to the existing single storey pool house in the east.

This report is specific to the proposed development and the advice herein should be reviewed once the development proposals are finalised.

1.2 Purpose of Work

The principal technical objectives of the work carried out were as follows:

- to check the history of the site with respect to previous contaminative uses;
- to provide information on the level of Unexploded Ordnance (UXO) risk;
- to determine the ground conditions and their engineering properties;
- to provide advice and information with respect to the design of suitable foundations and retaining walls;
- to assess the impact of the swimming pool excavation on the local hydrogeology, hydrology and stability of the surrounding natural and build environment;
- to provide an indication of the degree of soil contamination present; and
- to assess the risk that any such contamination may pose to the proposed development, its users or the wider environment.

1.3 Scope of Work

In order to meet the above objectives, a desk study was carried out, followed by a ground investigation. The desk study comprised:

- a review of historical Ordnance Survey (OS) maps and environmental searches sourced from the Envirocheck database;

- a review of readily available geology maps;
- a walkover survey of the site carried out in conjunction with the fieldwork;
- commissioning of 1st Line Defence to undertake a preliminary UXO risk assessment;

In the light of this desk study an intrusive ground investigation was carried out which comprised, in summary, the following activities:

- a single cable percussion borehole advanced to a depth of 20.00 m (108.50 m OD);
- standard penetration tests (SPTs), carried out at regular intervals in the cable percussion boreholes to provide quantitative data on the strength of the soils;
- two boreholes advanced to depths of 6.80 m (117.20 m OD) and 7.00 m (114.50 m OD) by a demountable open-drive percussive sampling rig;
- installation of three groundwater monitoring standpipes, to depths of between 6.00 m (115.50 m OD) m and 6.80 m (117.20 m);
- eight hand excavated trial pits advanced to a maximum depth of 1.25 m;
- testing of selected soil samples for contamination and geotechnical purposes;
- provision of a report presenting and interpreting the above data, together with our advice and recommendations with respect to the proposed development.

This report includes a contaminated land assessment which has been undertaken by a suitably qualified and competent professional in accordance with the methodology presented by the Environment Agency in their Land contamination risk assessment (LCRM)[1] published 8 October 2020. This involves identifying, making decisions on, and taking appropriate action to deal with, land contamination in a way that is consistent with government policies and legislation within the United Kingdom. Risk management is divided into three stages; Risk Assessment, Options Appraisal and Remediation, and each stage comprises three tiers. The Risk Assessment stage includes preliminary risk assessment (PRA), generic quantitative risk assessment (GQRA) and detailed quantitative risk assessment (DQRA)and this report includes the PRA and GQRA.

The exploratory methods adopted in this investigation have been selected on the basis of the constraints of the site including but not limited to access and space limitations, together with any budgetary or timing constraints. Where it has not been possible to reasonably use an EC7 compliant investigation technique a practical alternative has been adopted to obtain indicative soil parameters and any interpretation is based upon engineering experience, local precedent where applicable and relevant published information.

1.3.1 Basement Impact Assessment

The work carried out includes a Hydrological and Hydrogeological Assessment and Land Stability Assessment (also referred to as Slope Stability Assessment), all of which form part of the BIA procedure specified in the London Borough of Camden (LBC) Planning Guidance Basements[2]and their Guidance for Subterranean Development[3] prepared by Arup ('the Arup Report') in accordance with Policy A5 of the Camden Local Plan 2017. The aim of the work

1 https://www.gov.uk/government/publications/land-contamination-risk-management-lcrm
2 London Borough of Camden Planning Guidance (March 2018) *CPG Basements*
3 Ove Arup & Partners (2010) *Camden geological, hydrogeological and hydrological study. Guidance for Subterranean Development.* For London Borough of Camden November 2010

is to provide information on surface water, groundwater and land stability and in particular to assess whether the development will affect neighbouring properties or groundwater movements and whether any identified impacts can be appropriately mitigated by the design of the development.

1.3.2 Qualifications

The land stability element of the Basement Impact Assessment (BIA) has been carried out by Martin Cooper, a BEng in Civil Engineering, a chartered engineer (CEng), member of the Institution of Civil Engineers (MICE), and Fellow of the Geological Society (FGS) who has over 20 years' specialist experience in ground engineering. The subterranean (groundwater) flow assessment has been carried out by John Evans, MSc in Hydrogeology, Chartered Geologist (CGeol) and Fellow of the Geological Society of London (FGS). The surface water and flooding assessment has been carried out by Rupert Evans, a hydrologist with more than ten years consultancy experience in flood risk assessment, surface water drainage schemes and hydrology / hydraulic modelling. Rupert Evans is a Chartered Environmentalist, Chartered Water and Environmental Manager and a Member of CIWEM.

The assessments have been made in conjunction with Steve Branch, a BSc in Engineering Geology and Geotechnics, MSc in Geotechnical Engineering, a Chartered Geologist (CGeol) and Fellow of the Geological Society (FGS) with some 30 years' experience in geotechnical engineering and engineering geology.

All assessors meet the qualification requirements of the Council guidance.

1.4 Limitations

The conclusions and recommendations made in this report are limited to those that can be made on the basis of the investigation. The results of the work should be viewed in the context of the range of data sources consulted, the number of locations where the ground was sampled and the number of soil, gas or ground water samples tested. No liability can be accepted for conditions not revealed by the sampling or testing. Any comments made on the basis of information obtained from third parties are given in good faith on the assumption that the information is accurate; no independent validation of third party information has been made by GEA.

2.0 THE SITE

2.1 Site Description

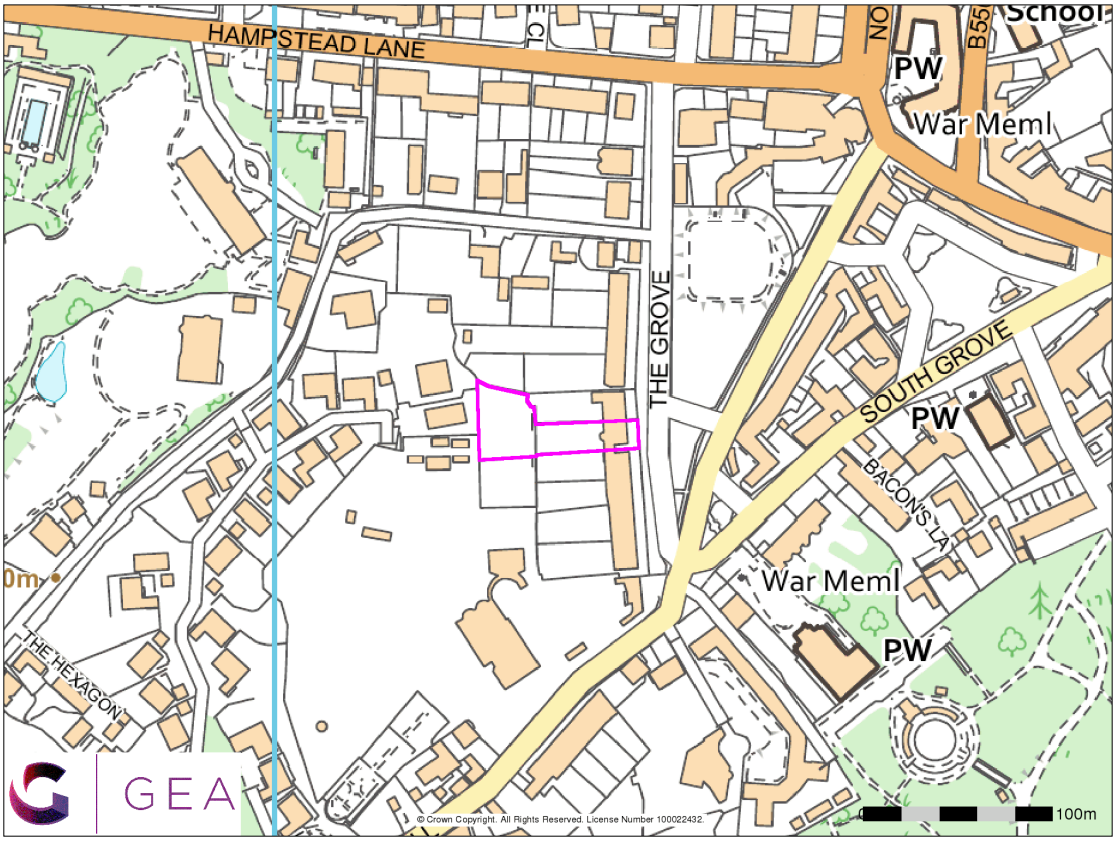
The site is located within the London Borough of Camden, to the east of Hampstead Heath, approximately 850 m southwest of Highgate London Underground Station and 1.3 km northwest of Archway London Underground Station. It fronts onto The Grove to the east and is bordered to the north by an adjoined two-storey house with associated areas of hardstanding and soft landscaping and to the south by a two-storey terraced house with associated areas of hardstanding and soft landscaping. The rear of the property is bounded by part of the grounds of Witanhurst Mansion and by the grounds of two properties fronting onto Highfields Grove. The properties to the rear have a ground level significantly below that of the basement level of the site. The site may be additionally located by National Grid Reference 528177, 187307 and is shown on the map extract overleaf.

A walkover of the site was carried out by a geotechnical engineer from GEA at the time of the fieldwork. The site is occupied by a three storey house with a single level basement below.

There is a front garden formed at ground floor level and a rear garden formed at basement level.

The front garden comprises an area of hardstanding, with planted beds along the northern, southern and eastern boundaries formed at a level of about 128.60 m OD. A lightwell is present along the front elevation of the house and there are steps down to basement level along the southern elevation of the house. The basement is at a level of about 126.00 m OD.

The rear garden consists of an initial section at a similar level to the basement, comprising an area of hardstanding along the rear elevation of the house. The site level then steps up to about 126.90 m OD where a paved path is present along the northern boundary alongside a central lawn. Planted beds are present along the northern and southern boundaries and this part of the garden is essentially level. At the end of this section of the garden is a staircase that leads down to the lower rear garden area at levels of between 124.50 m OD and 120.50 m OD. This part of the garden slopes down to the southwest and includes a swimming pool set within a lawn surrounded by planted beds in the north and by a wildflower meadow area surrounded by box hedges in the south. There is also a single storey pool house located centrally beneath the stairs.



2.2 Site History

The site history has been researched by reference to internet sources and historical Ordnance Survey (OS) maps obtained from the Envirocheck database.

No 5 The Grove is Grade II listed and was originally built in around 1688, and rebuilt, retaining the general original appearance in about 1933. The earliest map studied, dated 1870, shows the site to have been developed in its existing configuration, with much of the

surrounding existing road network and buildings also shown to have been constructed by this time. The area to the southwest and west of the site is shown as open ground with a large building labelled as Parkfield located approximately 100 m to the south.

By the time of the map dated 1935 Parkfield had been demolished and redeveloped with the existing Witanhurst mansion building. Some time between 1974 and 1991 Highfield Grove and the existing properties fronting onto it were constructed and a tennis court and pond are labelled in the grounds of Witanhurst mansion, to the west of the site. Both the site and the surrounding area have since remained essentially unchanged.

2.3 Other Information

A search of public registers and databases has been made via the Envirocheck database and relevant extracts from the search are appended. Full results of the search can be provided if required.

The Envirocheck report has indicated no landfill sites located within 1 km of the site and additionally, no waste management or waste transfer sites are located within 750 m of the site. Furthermore, no areas of potentially infilled land or water are located within 250 m of the site.

Only a single pollution incident to controlled waters has been recorded within 500 m of the site, located 309 m to the west. The incident is recorded as a 'Category II – Significant Incident' and the pollutant is detailed as 'Oils- Unknown'.

The site is not within an area shown by the Environment Agency to be at risk from flooding from rivers or the sea and is mostly not considered to be at risk of surface water flooding, with the exception of an area to the rear of the house which is considered to be a low risk area.

Reference to records compiled by the Health Protection Agency (formerly the National Radiological Protection Board) indicates that the site falls within an area where less than 1% of homes are affected by radon emissions and therefore radon protective measures will not be necessary.

2.4 Preliminary UXO Risk Assessment

A Preliminary UXO Risk Assessment has been completed by 1st Line Defence (report ref PA13708-00, dated 23rd June 2021), and the report is included in the appendix. The risk assessment has been carried out in accordance with the guidelines provided by CIRIA[4], which state that the likelihood of encountering and detonating UXO below a site should be assessed along with establishing the consequences that may arise. The first phase comprises a preliminary risk assessment, which should be undertaken at an early stage of the development planning. If such an assessment identifies a high level of risk then a detailed risk assessment should be carried out by a UXO specialist, which will identify an appropriate course of action with regard to risk mitigation.

The report indicates that, during World War II (WWII), the site was located within the Metropolitan Borough of St Pancras, which sustained a very high bomb density. Reference to London Bomb Census mapping does not indicate the presence of any bombs or bomb damage being recorded on the site with the closest recorded bombs located 90 m south of the site. The site was not significantly altered during the war according to the historic maps. It is considered likely that the properties would have remained occupied and subject to regular post-raid checks for signs of UXO and therefore a minimal risk of encountering unexploded ordnance has been identified for the site and no further action is recommend in this respect.

4 CIRIA C681 (2009) *Unexploded ordnance (UXO) A guide for the construction industry*

2.5 Geology

The British Geological Survey (BGS) map of the area (Sheet 256) indicates the site to be underlain by the Bagshot Formation overlying the Claygate Member of the London Clay.

GEA has previously carried out a ground investigation at a site 50 m away about 50 m to the north of the site, which encountered a significant thickness of made ground overlying the Bagshot Formation, which was underlain by the Claygate Member. The made ground extended to depths of between 1.80 m (125.91 m OD) and 3.40 m (124.48 m OD). The Bagshot Formation generally comprised an initial horizon of soft to firm pale brown mottled orange-brown sandy clay, extending to depths of between 7.25 m (120.63 m OD) and 4.10 m (123.41 m OD), whereupon medium dense pale brown mottled orange-brown clayey fine to medium sand was encountered, and extended to a depth of 14.90 m (112.98 m OD). The Claygate Member comprised stiff grey silty clay and extended to the full depth of the investigation, of 15.00 m (112.88 m OD).

A borehole drilled by the BGS on Hampstead Lane to the north of the site, generally referred to as the 'Hampstead Heath borehole', was advanced to a depth of 66.74 m (61.97 m OD) at National Grid Reference 526455, 186890. The borehole records indicate that the Bagshot Formation extends to a level of 109.71 m OD, which would equate to about 15 m below ground level at The Grove, and penetrated the full thickness of the Claygate Member, which was found to extend to a level of 93.71 m OD.

2.6 Hydrology and Hydrogeology

The Bagshot Formation is classified by the Environment Agency (EA) as a Secondary 'A' Aquifer, which refers to 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.

The Claygate Member is classified by the Environment Agency as a Secondary 'A' Aquifer, which refers to 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. In the absence of significant sand horizons, the Claygate Member is not capable of storing and transmitting water in usable amounts and receives very low levels of annual recharge due to very low permeability. The underlying London Clay Formation is classified by the EA as an Unproductive Stratum, referring to rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow

During the previous GEA investigation detailed in the previous section, groundwater was encountered at a depth of 12.70 m during drilling, and rose to a depth of 12.30 m after 20 minutes. Three standpipes were installed to a maximum depth of 6.00 m and where found to be dry during two subsequent monitoring visits.

There are no EA designated Source Protection Zones (SPZs) on the site. The Envirocheck report indicates a pond in the garden of a property fronting onto Fitzroy Park is the nearest surface water feature to the site and is located 218 m west of the site.

Reference to the Lost Rivers of London[5] indicates that none of London's Lost Rivers were present within 500 m of the site.

[5] Nicholas Barton and Stephen Myers (2016) *London's Lost Rivers. Revised Edition.* Historical Publications Ltd

2.7 Preliminary Risk Assessment

Part IIA of the Environmental Protection Act 1990, which was inserted into that Act by Section 57 of the Environment Act 1995, provides the main regulatory regime for the identification and remediation of contaminated land. The determination of contaminated sites is based on a "suitable for use" approach which involves managing the risks posed by contaminated land by making risk-based decisions. This risk assessment is carried out on the basis of a source-pathway-receptor approach.

2.7.1 Source

The desk study findings indicate that the site does not have a potentially contaminative history as it has apparently been developed with the existing house since prior to 1870.

2.7.2 Receptor

The site will remain in residential use following the redevelopment and therefore end users will continue to represent relatively high sensitivity receptors and as the site is underlain by a Secondary 'A' Aquifer, adjacent sites are considered to be a moderately sensitive receptors. Shallow groundwater is also considered to be a moderately sensitive receptor, while the chalk aquifer at depth is considered to be a particularly sensitive receptor. Buried services are likely to come into contact with any contaminants present within the soils through which they pass and site workers are likely to come into contact with any contaminants present in the soils during construction works.

2.7.3 Pathway

The permeable Bagshot Formation would allow the migration of contaminated groundwater through the shallow soils to surrounding sites, although the impermeable layers in the Claygate Member and impermeable London Clay create a barrier to the major Chalk aquifer. In the east of site, end users will be isolated from direct contact with any contaminants present within the made ground by the presence of the building and hardstanding. However, to the rear of the site, existing areas of soft landscaping will remain and will continue to provide a pathway for contaminants to end users. Buried services may be exposed to any contaminants present within the soil through direct contact and site workers will come into contact with the soils during construction works. There is thus considered to be a low potential for a contaminant pathway to be present between any potential contaminant source and a target for the particular contaminant.

2.7.4 Preliminary Risk Appraisal

On the basis of the above it is considered that there is a low risk of there being a significant contaminant linkage at this site, which would result in a requirement for major remediation work.

There is no evidence of filled ground within the vicinity and so there is not considered to be a significant potential for hazardous soil gas to be present on or migrating towards the site; there should thus be no need to consider soil gas exclusion systems.

3.0 SCREENING

The Camden guidance suggests that any development proposal that includes a basement should be screened to determine whether or not a full BIA is required.

3.1 Screening Assessment

A number of screening tools are included in the Arup document and for the purposes of this report reference has been made to Appendices E1, E2 and E3 which include a series of questions within screening flowcharts for surface flow and flooding, subterranean (groundwater) flow and land stability. The flowchart questions and responses to these questions are tabulated below.

3.1.1 Subterranean (groundwater) Screening Assessment

Question	Response for 5 The Grove
1a. Is the site located directly above an aquifer?	*Yes. The site is underlain by the Bagshot Formation sands which are designated a Secondary Aquifer by the Environment Agency, capable of supporting flow to watercourses and private abstractions. Aquifer designation maps acquired from the Environment Agency as part of the desk study and Figures 3, 4 and 8 of the Arup report confirm this.*
1b. Will the proposed basement extend beneath the water table surface?	Unlikely. The proposed swimming pool will extend to a depth of 3.0 m below ground level. The previous nearby investigation performed by GEA indicated groundwater to be absent to a depth of 12.7 m below street level which equates to about 6 m below the level of the lower garden, as such that groundwater should not be encountered within the basement excavation.
2. Is the site within 100 m of a watercourse, well (used/ disused) or potential spring line?	No. Topographical maps acquired as part of the desk study and Figures 11 and 12 of the Arup report confirm this.
3. Is the site within the catchment of the pond chains on Hampstead Heath?	No. The site lies outside of the catchment area for the Golders Hill pond chains as shown on Figures 14 of the Arup report.
4. Will the proposed basement development result in a change in the proportion of hard surfaced / paved areas?	Yes. The swimming pool will increase the proportion of hardstanding by about 20%.
5. As part of the site drainage, will more surface water (e.g. rainfall and run-off) than at present be discharged to the ground (e.g. via soakaways and/or SUDS)?	No. The details of the proposed development do not indicate the use of soakaway drainage.
6. Is the lowest point of the proposed excavation (allowing for any drainage and foundation space under the basement floor) close to or lower than, the mean water level in any local pond or spring line?	No. Topographical maps acquired as part of the desk study and Figures 11 and 12 of the Arup report confirm this.

Q1 The site is underlain by the Bagshot Formation which is classified a Secondary 'A' Aquifer.

Q2 The development will increase the proportion of hardstanding on the site.

The above assessment has not identified any potential issues that need to be further assessed:

3.1.2 Stability Screening Assessment

Question	Response for 5 The Grove
1. Does the existing site include slopes, natural or manmade, greater than 7°?	No. Fig 16 of the Arup report does not show the site to be in an area with slopes greater than 7°. Ordnance survey maps show the site and immediate surrounding area to be relatively level.
2. Will the proposed re-profiling of landscaping at the site change slopes at the property boundary to more than 7°?	No, not according to proposed drawings supplied by the consulting engineer.
3. Does the development neighbour land, including railway cuttings and the like, with a slope greater than 7°?	No. Not according to Figure 16 of the Arup report.
4. Is the site within a wider hillside setting in which the general slope is greater than 7°?	No. Figure 16 of the Arup report shows the site to be a significant distance from areas containing sustained slopes of greater than 7°.
5. Is the London Clay the shallowest strata at the site?	No. Not according to Figure 2 of the Arup report or the BGS map of the area.
6. Will any trees be felled as part of the proposed development and / or are any works proposed within any tree protection zones where trees are to be retained?	No. No trees are to be felled to facilitate the development.
7. Is there a history of seasonal shrink-swell subsidence in the local area and / or evidence of such effects at the site?	No. The Bagshot Sands are predominantly granular and are not capable of shrink swell. Also, information derived from the Envirocheck report indicates the site is not in an area susceptible to ground shrink swell stability hazards.
8. Is the site within 100 m of a watercourse or potential spring line?	No. Not according to Figure 12 of the Arup report, extracts from the Envirocheck report and Ordnance Survey maps.
9. Is the site within an area of previously worked ground?	No. Not according to Figure 3 of the Arup report.
10. Is the site within an aquifer?	*Yes. The site is underlain by the Bagshot Formation which is classified as a Secondary 'A' Aquifer by the Environment Agency (EA).*
11. Is the site within 50 m of Hampstead Heath ponds?	No. Not According to Figure 14 of the Arup report.
12. Is the site within 5 m of a highway or pedestrian right of way?	No. The site boundary is within 5 m of a pedestrian right of way, but the proposed basement is not.
13. Will the proposed basement significantly increase the differential depth of foundations relative to neighbouring properties?	No, There are no structures located within 10 m of the swimming pool excavation and therefore neighbouring structures will be unaffected.
14. Is the site over (or within the exclusion zone of) any tunnels, e.g. railway lines?	No. Not according to Figure 18 of the Arup report.

The above assessment has identified the following potential issues that need to be assessed:

Q10 The site is underlain by a Secondary 'A' Aquifer, as defined by the EA

3.1.3 Surface Flow and Flooding Screening Assessment

Question	Response for 5 The Grove
1. Is the site within the catchment of the pond chains on Hampstead Heath?	No. Figure 14 of Arup report confirms that the site is not located within this catchment area.
2. As part of the proposed site drainage, will surface water flows (e.g. volume of rainfall and peak run-off) be materially changed from the existing route?	No, any additional surface water generated from an increased impermeable area will be attenuated to ensure they are not increased or altered.
3. Will the proposed basement development result in a change in the proportion of hard surfaced / paved areas?	Yes, the new layout of the lower garden will increase the proportion of soft landscaping by about 20%.

Question	Response for 5 The Grove
4. Will the proposed basement development result in changes to the profile of the inflows (instantaneous and long term) of surface water being received by adjacent properties or downstream watercourses?	No, any additional surface water generated from an increased impermeable area will be attenuated to ensure they are not increased or altered.
5. Will the proposed basement result in changes to the quality of surface water being received by adjacent properties or downstream watercourses?	No. The proposed development is very unlikely to result in any changes to the quality of surface water being received by adjacent properties or downstream watercourses as the surface water drainage regime will be unchanged and the land uses will remain the same.
6. Is the site in an area identified to have surface water flood risk according to either the Local Flood Risk Management Strategy or the Strategic Flood Risk Assessment or is it at risk of flooding, for example because the proposed basement is below the static water level of nearby surface water feature?	No The findings of this BIA together with the Camden Flood Risk Management Strategy dated 2013 and Figures 3iii, 4e, 5a and 5b of the SFRA dated 2014, in addition to the Environment Agency online flood maps show that the site has a low flooding risk from surface water, groundwater, sewers, reservoirs (and other artificial sources), and fluvial/tidal watercourses. In accordance with paragraph 6.16 of the CPG a positive pumped device and non-return valve will be installed in the basement in order to further protect the site from sewer flooding.

The above assessment has identified no potential issues that need to be assessed.

4.0 SCOPING AND SITE INVESTIGATION

The purpose of scoping is to assess in more detail the factors to be investigated in the impact assessment. Potential impacts are assessed for each of the identified potential impact factors.

4.1 Potential Impacts

The following potential impacts have been identified by the screening process

Potential Impact	Consequence
The site is underlain by a Secondary 'A' Aquifer, as defined by the EA	Groundwater present within the aquifer may enter the proposed excavation and cause structural instability and damage. There is potential for the contamination of groundwater.
The proposed development will increase the proportion of hardstanding across the site.	The sealing off the ground surface by hardstanding could result in a decreased recharge to the underlying ground which may impact upon the groundwater flow or levels which could impact springs in the area and could increase the potential for dampness or seepages at nearby basement structures.

These potential impacts have been investigated through the site investigation, as detailed in Section 13.0.

4.2 Exploratory Work

Access to the property was limited by the presence of the existing house. In order to meet the objectives described in Section 1.2 as much as possible in view of the access restrictions, a single borehole was advanced to a depth of 20.00 m using a dismantlable cable percussion rig in the front garden. Additionally, two boreholes were advanced to refusal in the lower rear

garden to depths of 6.80 m and 7.00 m by means of a demountable open-drive sampling rig which was man-handled into position. A series of eight trial pits was also hand excavated to a maximum depth of 1.25 m to provide access to the existing foundations. The rear lower garden area is between 4.00 m and 7.00 m below the level of the front garden.

During boring, disturbed and undisturbed samples were obtained from the boreholes for subsequent laboratory examination and testing. Standard Penetration Tests (SPTs) were carried out at regular intervals to provide additional quantitative data on the strength of soils encountered.

Three groundwater monitoring standpipes were installed to depths of between 6.00 m and 6.80 m to facilitate groundwater monitoring, which has not been carried out to date.

A selection of the samples recovered from the boreholes was submitted to a soil mechanics laboratory for a programme of geotechnical testing and an analytical laboratory for a programme of contamination testing.

All of the above work was carried out under the supervision of a geotechnical engineer from GEA.

The borehole and trial pit records are appended, together with a site plan indicating the exploratory positions.

4.2.1 Sampling Strategy

The trial pit and borehole locations were specified by the consulting engineers, Constructure, and were positioned by GEA as close to the specified positions as possible, in accessible areas whilst avoiding any known services.

Five samples of the made ground have been tested for the presence of contamination. The analytical suite of testing was selected to identify hydrocarbon contamination resulting from the former use of the site and a range of typical industrial contaminants for the purposes of general coverage.

For this investigation the analytical suite for the soil included a range of metals, speciation of total petroleum hydrocarbons (TPH), polycyclic aromatic hydrocarbons (PAH), total cyanide and monohydric phenols. The contamination analyses were carried out at an MCERTs accredited laboratory with the majority of the testing suite accredited to MCERTS standards. A summary of the MCERTs accreditation and test methods are included with the attached results and further details are available upon request.

5.0 GROUND CONDITIONS

The investigation has confirmed the expected ground conditions in that, below a nominal to moderate thickness of made ground, the Bagshot Formation was encountered overlying the Claygate Member, which extended to the full depth of the investigation, of 20.00 m (108.50 m OD).

5.1 Made Ground

The made ground generally comprised dark brown clayey sand with gravel and variable amounts of brick, ash, and glass fragments and extended to depths of between 0.80 m (127.70 m OD) below street level and 3.00 m (118.50 m OD) below rear garden level.

No evidence of significant contamination was identified during the fieldwork. As a precaution five samples of the made ground were tested for the presence of contamination and the results are presented in Section 5.5.

5.2 Bagshot Formation

The Bagshot Formation predominantly comprised layers of firm orange-brown and grey sandy clay with lenses of fine sand, interbedded with layers of medium dense becoming dense orange-brown and brown sandy with variable clay content and extended to a depth of 15.00 m (113.50 m OD) below street level.

Atterberg results show the clay layers to be of low to medium shrinkability while the results of quick undrained triaxial compression tests have indicated the clay to be low to medium strength.

No evidence of contamination was noted in these soils.

5.3 Claygate Member

The Claygate Member comprised stiff grey sandy clay with layers of fine sand and extended to the full depth of the investigation, of 20.00 m (108.50 m OD) below street level.

No evidence of contamination was noted in these soils.

5.4 Groundwater

Groundwater was encountered at a depth of 6.00 m (118.00 m OD and 115.50 m OD) in both Borehole Nos 2 and 3 at the rear of the site. It was also encountered in Borehole No 1 at depths of 12.00 m (116.50 m OD) and 14.00 m (114.50 m OD). Standpipes were installed in each of the boreholes but have not been monitored to date.

5.5 Soil Contamination

The table below sets out the values measured within the five samples analysed; all concentrations are in mg/kg unless otherwise stated.

Determinant	TP2 0.30 m	TP11 0.40 m	BH2 0.30 m	BH3 0.50 m	TP1 0.30 m
Asbestos Scan	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
pH	10.7	8.0	7.9	7.9	10.4
Arsenic	19	26	27	30	12
Cadmium	<0.2	<0.2	<0.2	<0.2	<0.2
Chromium	<4.0	<4.0	<4.0	<4.0	<4.0
Lead	**330**	**600**	**800**	**690**	82
Mercury	0.7	1.1	1.7	1.2	<0.3
Selenium	<1.0	<1.0	<1.0	<1.0	<1.0
Copper	23	60	75	77	14
Nickel	11	20	19	25	11
Zinc	59	180	210	270	53
Total Cyanide	<1.0	<1.0	<1.0	1.2	<1.0
Total Phenols	<1.0	<1.0	<1.0	<1.0	<1.0
Total PAH	<0.80	18.4	5.95	10.3	<0.80
Sulphide	2.4	3.6	<1.0	<1.0	1.5
Benzo(a)pyrene	<0.05	1.5	0.64	1.0	<0.05
Naphthalene	<0.05	<0.05	<0.05	<0.05	<0.05
TPH	46	74	16	62	<10
Total Organic Carbon %	0.5	2.9	2.3	2.6	0.3

Note: Figure in bold indicates concentration in excess of risk-based soil guideline values, as discussed in Part 2 of this report

5.5.1 Generic Quantitative Risk Assessment

The use of a risk-based approach has been adopted to provide an initial screening of the test results to assess the need for subsequent site-specific risk assessments. Contaminants of concern are those that have values in excess of generic human health risk-based guideline values, which are either the CLEA[6] Soil Guideline Values where available, the Suitable 4 Use Values[7] (S4UL) produced by LQM/CIEH calculated using the CLEA UK Version 1.07[8] software, or the DEFRA Category 4 Screening values[9], assuming a residential end use with plant uptake. The key generic assumptions for this end use are as follows:

- that groundwater will not be a critical risk receptor;

[6] *Updated Technical Background to the CLEA Model (Science Report SC050021/SR3) Jan 2009* and Soil Guideline Value reports for specific contaminants; all DEFRA and Environment Agency.
[7] *The LQM/CIEH S4Uls for Human Health Risk Assessment* S4UL3065 November 2014
[8] Contaminated Land Exposure Assessment (CL|EA) Software Version 1.071 Environment Agency 2015
[9] CL:AIRE (2013) *Development of Category 4 Screening Levels for Assessment of Land Affected by Contamination* Final Project Report SP1010 and DEFRA (2014) *Development of Category 4 Screening Levels for Assessment of Land Affected by Contamination* Policy Companion Document SP1010

- that the critical receptor for human health will be young female children aged zero to six years old;
- that the exposure duration will be six years;
- that the critical exposure pathways will be indoor dust ingestion, skin contact with indoor dust, and inhalation of indoor and outdoor dust and vapours; and
- that the building type equates to a two-storey small terraced house.

It is considered that these assumptions are acceptable for this generic assessment of this site. The tables of generic screening values derived by GEA and an explanation of how each value has been derived are included in the Appendix.

Where contaminant concentrations are measured at concentrations below the generic screening value it is considered that they pose an acceptable level of risk and thus further consideration of these contaminant concentrations is not required. However, where concentrations are measured in excess of these generic screening values there is considered to be a potential that they could pose an unacceptable risk and thus further action will be required which could include;

- additional testing to zone the extent of the contaminated material and thus reduce the uncertainty with regard to its potential risk;
- site specific risk assessment to refine the assessment criteria and allow an assessment to be made as to whether the concentration present would pose an unacceptable risk at this site; or
- soil remediation or risk management to mitigate the risk posed by the contaminant to a degree that it poses an acceptable risk.

The results of the chemical analyses have indicated four of the five samples tested to contain elevated concentrations of lead.

The significance of these results is considered further in Part 2 of the report.

5.6 Existing Foundations

The findings of the trial pits are summarised in the table below. Sketches and photographs of each pit are included in the Appendix.

Trial Pit No	Structure	Foundation detail	Bearing Stratum
1	A-A'	Mass concrete strip / trench fill Top 0.52 m Base 0.84 m Lateral projection 320mm	Firm orange brown mottled pale brown sandy slightly silty CLAY
1	B-B'	Mass concrete strip / trench fill Top 0.52 m Base 0.84 m Lateral projection 320mm	Firm orange brown mottled pale brown sandy slightly silty CLAY
1A	A-A'	Mass concrete strip / trench fill Top 0.40 m Base 0.75 m Lateral projection 255mm	Firm orange brown mottled pale brown sandy slightly silty CLAY

Trial Pit No	Structure	Foundation detail	Bearing Stratum
2	A-A'	Mass concrete strip / trench fill Top 0.60 m Base Not Proved Lateral projection 250mm	Not Proved
2A	A-A'	Mass concrete strip / trench fill Top 0.53 m Base 0.83 m Lateral projection 270mm	Firm orange brown mottled pale brown sandy slightly silty CLAY
3	A-A'	Mass concrete strip / trench fill Top +0.12 m Base 0.30 m Lateral projection 50mm	Orange-brown sandy silty clayey fine to medium sub-angular to sub-rounded GRAVEL
3A	A-A'	Mass concrete strip / trench fill Top 0.27 m Base 0.57 m Lateral projection 170mm	Orange-brown clayey fine to medium SAND with occasional gravel
11	A-A'	Unknown Top 1.25 m Base Not Proved Lateral projection Not Proved	Not Proved
12	A-A'	Mass concrete strip / trench fill Top 0.82 m Base 0.99 m Lateral projection 220mm	Orange-brown clayey fine to medium SAND with occasional gravel

Part 2: DESIGN BASIS REPORT

This section of the report provides an interpretation of the findings detailed in Part 1, in the form of a ground model, and then provides advice and recommendations with respect to the proposed development.

6.0 INTRODUCTION

It is understood that it is proposed to reconfigure the rear garden area to include a central swimming pool, extending to a maximum depth of 3.00 m below the existing level (121.50 m OD), which corresponds to about 8.00 m below street level, along with a surrounding terrace, a single storey pool house and a woodland walk area in the west. It is understood that the loads of the swimming pool will either be supported by shallow spread foundations or mini-piles. The swimming pool excavation is to be carried out within an open cut.

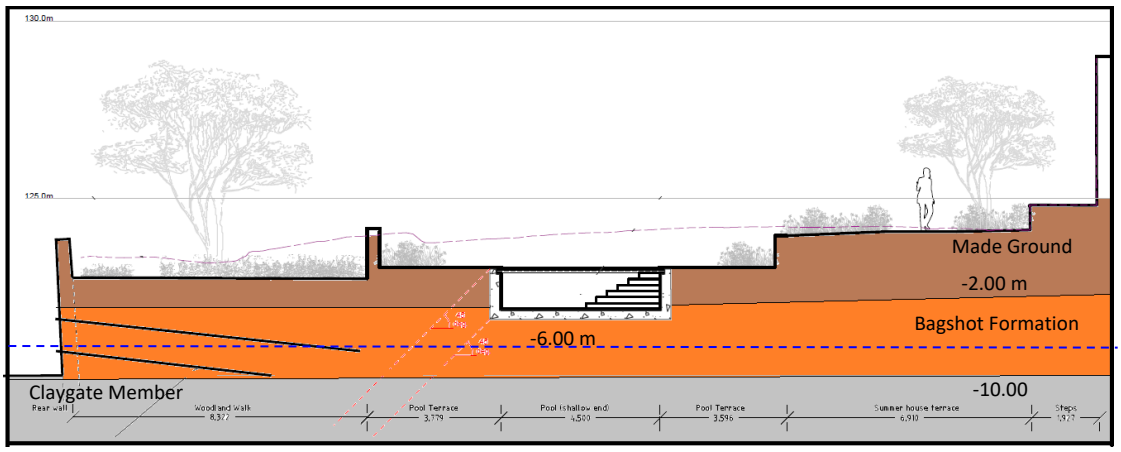
7.0 GROUND MODEL

The desk study has revealed that the site has not had a potentially contaminative historical use as it has been developed with the unspecified commercial and residential buildings since prior to 1880, and on the basis of the fieldwork, the ground conditions at this site can be characterised as follows:

- below a nominal to moderate thickness of made ground, the Bagshot Formation is present, over the Claygate Member which extends to the maximum depth of the investigation, of 20.00 m (108.50 m OD) below street level;
- the made ground comprises dark brown clayey sand with gravel and variable amounts of brick, ash, and glass fragments and extends to depths of between 0.80 m (127.70 m OD) below street level and 2.00 m (119.50 m OD) below lower garden level;
- the Bagshot Formation comprises layers of firm orange-brown and grey sandy clay with lenses of fine sand, interbedded with layers of medium dense becoming dense orange-brown and brown sandy with variable clay content and extends to a depth of 15.00 m (113.50 m OD) below street level;
- the Claygate Member comprises stiff grey sandy clay with layers of fine sand and extends to the full depth of the investigation, of 20.00 m (108.50 m OD) below street level;
- groundwater is present within the Bagshot Formation at a depth of approximately 12.00 m (116.50 m OD) below street level and 6.00 m (117.50 m OD) below lower garden level; and,
- the results of the chemical analyses have indicated four of the five samples tested to contain elevated concentrations of lead.

7.1 Conceptual Site Model

A section through the proposed scheme with the above ground model is shown below.



8.0 ADVICE AND RECOMMENDATIONS

It is proposed to form the swimming pool excavation within an open cut excavation and to support the structure with either shallow spread foundations or mini-piles. Groundwater is unlikely to be encountered within the excavation. The formation level for swimming pool will likely be at a depth of about 3.00 m below ground level (121.50 m OD) and should therefore be within the slightly clayey sand of the Bagshot Formation.

8.1 Swimming Pool Excavation

8.1.1 Swimming Pool Construction

The investigation has indicated that groundwater should not be encountered in the swimming pool excavation. The swimming pool excavation will expose a greater volume of soil than has been investigated by the boreholes and it is possible that larger pockets or inter-connected layers of higher permeability soils could be encountered. Therefore, it is recommended that monitoring of the standpipes is continued.

There are a number of methods by which the sides of the swimming pool excavation could be supported in the temporary and permanent conditions. The choice of wall will be governed, to a large extent, by whether it is to be incorporated into the permanent works and have a load bearing function and also by the limited available access. The final choice will depend on a number of factors, including the need to protect nearby structures from movements, the required overall stiffness of the support system and the potential need to control groundwater movement through the wall in the temporary condition. In this respect the stability of the adjacent buildings will be paramount.

It is understood that it is currently proposed to carry out the swimming pool excavation as an open cut. This should be feasible but it should be noted that slopes within Bagshot Formation can be problematic due to the inconsistent nature of the soil, which often contains lenses or layers of sand interbedded with clays which can give rise to inconsistent groundwater tables and changes in pore water pressures, which can lead to various stability problems. In addition at this site the made ground extends to depths of between 1.30 m and 2.00 m. Whilst it is possible that a slope angle of about 60 degrees could be adopted for the clay of Bagshot

Formation, in view of the presence of a significant thickness of made ground over the soil and the variability of the Bagshot Formation an angle of about 30 degrees may be more appropriate, unless the slope face is strutted. Precautions should be taken to protect the slopes during periods of rainfall to minimise instability. A check has been carried out which has indicated that a line at an angle of 45° from the base of the footings of the surrounding structures does not intersect the proposed slope and therefore the excavation of the open cut excavation should not impact the stability of the surrounding structures. A ground movement assessment is, therefore, not considered to be required.

8.1.2 Retaining Walls

The following parameters are suggested for the design of the permanent swimming pool retaining walls.

Stratum	Bulk Density (kg/m^3)	Effective Cohesion ($c' - kN/m^2$)	Effective Friction Angle (Φ' – degrees)
Made Ground	1700	Zero	20
Bagshot Formation (Sands)	1900	Zero	31
Bagshot Formation (Clay)	1900	Zero	24
Claygate Member	1900	Zero	26

Significant inflows of groundwater are unlikely to be encountered within the swimming pool excavation, although monitoring of the standpipes should be continued in order to establish equilibrium levels. Consideration should however be given to the risk of surface water building up behind the retaining walls and unless adequate drainage can be incorporated to prevent such build-up, it is recommended that a water level of three-quarters of the retained height be adopted in the design of new retaining walls. Reference should be made to BS8102:2009[10] with regard to requirements for waterproofing.

8.1.3 Swimming Pool Excavation Heave

The 3.00 m deep swimming pool excavation will result in a net unloading of up to approximately 55 kN/m². The proposed excavations will result in elastic heave and long term swelling of the clay layers within the Bagshot Formation and underlying Claygate Member. The effects of the longer term swelling movement will to a certain extent be counteracted by the applied loads from the development and the granular deposits found in both stratum.

8.2 Spread Foundations

It should be possible to adopt spread foundations provided that proposed loads are relatively light. Given the swimming pool excavation depth of 3.00 m all new foundations should bypass any potentially desiccated soils and there should not be a need for further deepening to take account for the presence of possible tree root effects, particularly as the swimming pool is outside of the zone of influence of the trees on the site.

Spread foundations bearing beneath the formation level of the swimming pool in the firm silty sandy clay of the Bagshot Formation may be designed to apply a net allowable bearing pressure of 100 kN/m². The requirement for compressible material alongside foundations should be determined by reference to the NHBC guidelines.

If the proposed loads are too high or the required founding depths become uneconomic mini-piled foundations would provide a suitable alternative foundation option.

10 BS8102 (2009) *Code of practice for protection of below ground structures against water from the ground*

In view of the variable, and in places, significant thickness of made ground at the site as well as the requirement for the site to be levelled to allow the construction of the swimming pool, the foundations may need to be locally deepened to bypass the made ground and bear within the natural soil. Foundations will need to be nominally reinforced where they span granular and cohesive soils to minimise differential movements.

A check has been made with respect to the surrounding structures which are outside of a line drawn at a 45 degree angle from the base of the swimming pool excavation which indicates that the loads of the swimming pool will not impact any nearby foundations.

8.3 Raft Foundation

Depending on the loads and whether they can be relatively uniformly distributed, it may be feasible to adopt a raft foundation for the new swimming pool. The loads of the swimming pool are not know at this stage but the excavation would result in a net unloading of about 37 kN/m^2.

If a raft is to be considered, once the loads and levels have been finalised a settlement analysis should be carried out to confirm the suitability of the use of a raft foundation as this will be controlled largely by the predicted settlements to be expected.

8.4 Piled Foundations

Given the ground conditions at this site, a conventional rotary augered pile is unlikely to be appropriate due to the possible instability and water ingress in the Bagshot Formation from within any silty or sandy zones. The use of bored piles installed using continuous flight auger (cfa) techniques is therefore considered to be the most appropriate.

The following table of ultimate coefficients may be used for the preliminary design of bored piles, based on the SPT / elevation graph in the appendix on the assumption of cohesive soils being present.

Stratum	Depth (m) [m OD]	kN / m^2
Ultimate Skin Friction		
Swimming Pool Excavation	G.L (123.5) to 3.0 (120.5)	Ignore
Bagshot Formation (clay)	3.0 (120.5) to 10.0. (113.5)	Increasing linearly from 35 to 68
Ultimate End Bearing		
Bagshot Formation	5.0 (118.5) to 10.0 (113.5)	Increasing linearly from 900 to 1350

In the absence of pile testing a factor of safety of 3.0 should be applied to the above coefficients in the computation of safe theoretical working loads.

On the basis of the above coefficients and a factor of safety of 3.0, the following pile capacity has been estimated for a 300 mm diameter pile.

Pile Diameter mm	Effective Pile length	Pile Toe Depth	Safe Working Load kN
450	5	8	92

The above example is not intended to constitute any form of recommendation with regard to pile size or type, but merely serve to illustrate the use of the above coefficients. Specialist piling contractors should be consulted with regard to the design of an appropriate piling scheme and their attention should be drawn to the variability in soil type as well as the potential groundwater inflows within the made ground and from within silt and sand partings within the Bagshot Formation.

8.5 Swimming Pool Floor Slabs

Following the excavation of the swimming pool, a lightly loaded ground bearing floor slab should be utilised. The slab will need to be designed to resist heave movements, or it could be constructed as a rigid box tied into the walls. A check should be made on potential movements once final levels have been determined.

8.6 Shallow Excavations

On the basis of the borehole findings it is considered that shallow excavations for foundations and services that extend through the made ground should remain generally stable in the short term, although some instability may occur. Where personnel are required to enter excavations, a risk assessment should be carried out and temporary lateral support or battering of the excavation sides considered in order to comply with normal safety requirements.

Significant inflows of groundwater into shallow excavations are not generally anticipated, although seepages may be encountered from localised perched water tables within the made ground or from within more silty and sandy horizons from within the Bagshot Formation and Claygate Member, although such inflows should be suitably controlled by sump pumping.

If deeper excavations are considered it is recommended that provision be made for lateral support. Where personnel are required to enter excavations, a risk assessment should be carried out and temporary lateral support or battering of the excavation sides considered in order to comply with normal safety requirements.

8.7 Effect of Sulphates

Chemical analyses have generally revealed low concentrations of soluble sulphate and near-neutral pH in accordance with Class DS-1 conditions of Table C2 of BRE Special Digest 1:SD Third Edition (2005), while the measured pH values of the samples show that an ACES class of AC-1s would be appropriate for the site. This assumes a static water condition at the site. The guidelines contained in the above digest should be followed in the design of foundation concrete.

8.8 Site Specific Risk Assessment

The desk study research has indicated that the site has only had a residential end use since the original house was built on the site in the late 17th Century and as a result is not considered to have a potentially contaminative history.

The contamination testing has indicated that four of the five samples tested contain an elevated concentration of lead, with all other contaminants being present at low levels.
The source of the lead contamination is not known, although the made ground was noted as containing fragments of extraneous material and it is possible that these fragments, possibly lead based paint or coal, could be the source of the lead contamination. In addition, reference to the Envirocheck report has indicated that the site lies within an area known to have a background concentration of lead of between 300 mg and 600 mg. Only two of the

concentrations were found to be elevated above this level, with a maximum concentration of 800 mg/kg. Additionally, a localised area nearby to the north is known to have a background lead concentration of between 600 mg and 900 mg. The development will not result in an increase in soft landscaping at the site, meaning exposure will remain as it has been throughout the history of the site. As a result, a requirement for remedial measures at the site is not envisaged. However, measures will be required to protect site workers, which is discussed further below.

8.8.1 Protection of Site Workers

Site workers should be made aware of the potential contamination and a programme of working should be identified to protect workers handling any soil. The method of site working should be in accordance with guidelines set out by HSE[11] and CIRIA[12] and the requirements of the Local Authority Environmental Health Officer.

8.9 Waste Disposal

Under the European Waste Directive, waste is classified as being either Hazardous or Non-Hazardous and landfills receiving waste are classified as accepting hazardous or non-hazardous wastes or the non-hazardous sub-category of inert waste in accordance with the Waste Directive. Waste classification is a staged process and this investigation represents the preliminary sampling exercise of that process. Once the extent and location of the waste that is to be removed has been defined, further sampling and testing may be necessary. The results from this ground investigation should be used to help define the sampling plan for such further testing, which could include WAC leaching tests where the totals analysis indicates the soil to be a hazardous waste or inert waste from a contaminated site. It should however be noted that the Environment Agency guidance WM3[13] states that landfill WAC analysis, specifically leaching test results, must not be used for waste classification purposes.

Any spoil arising from excavations or landscaping works, which is not to be re-used in accordance with the CL:AIRE[14] guidance, will need to be disposed of to a licensed tip. Waste going to landfill is subject to landfill tax at either the standard rate of £96.70 per tonne (about £180 per m^3) or at the lower rate of £3.10 per tonne (roughly £6.00 per m^3). However, the classifications for tax purposes and disposal purposes differ and currently all made ground and topsoil is taxable at the 'standard' rate and only naturally occurring soil and stones, which are accurately described as such in terms of the 2011 Order, would qualify for the 'lower rate' of landfill tax.

Based upon on the technical guidance provided by the EA it is considered likely that the soils encountered during this ground investigation, as represented by the chemical analyses carried out, would be generally classified as follows;

Soil Type	Waste Classification (Waste Code)	WAC Testing Required Prior to Landfill Disposal?	Current applicable rate of Landfill Tax
Made ground	Non-hazardous (17 05 04)	No	£91.35/tonne (Standard rate)
Natural Soils	Inert (17 05 05)	Should not be required but confirm with receiving landfill	£2.90 / tonne (Reduced rate for uncontaminated naturally occurring rocks and soils)

11 HSE (1992) HS(G)66 *Protection of workers and the general public during the development of contaminated land* HMSO
12 CIRIA (1996) *A guide for safe working on contaminated sites* Report 132, Construction Industry Research and Information Association
13 Environment Agency 2015. *Guidance on the classification and assessment of waste.* Technical Guidance WM3 First Edition
14 CL:AIRE March 2011. *The Definition of Waste: Development Industry Code of Practice* Version 2

Under the requirements of the European Waste Directive all waste needs to be pre-treated prior to disposal. The pre-treatment process must be physical, thermal, chemical or biological, including sorting. It must change the characteristics of the waste in order to reduce its volume, hazardous nature, facilitate handling or enhance recovery. The waste producer can carry out the treatment but they will need to provide documentation to prove that this has been carried out. Alternatively, the treatment can be carried out by an approved contractor. The Environment Agency has issued a position paper[15] which states that in certain circumstances, segregation at source may be considered as pre-treatment and thus excavated material may not have to be treated prior to landfilling if the soils can be segregated onsite prior to excavation by sufficiently characterising the soils insitu prior to excavation.

The above opinion with regard to the classification of the excavated soils is provided for guidance only and should be confirmed by the receiving landfill once the soils to be discarded have been identified.

The local waste regulation department of the Environment Agency (EA) should be contacted to obtain details of tips that are licensed to accept the soil represented by the test results. The tips will be able to provide costs for disposing of this material but may require further testing.

15 Environment Agency 23 Oct 2007 *Regulatory Position Statement Treating non-hazardous waste for landfill - Enforcing the new requirement*

9.0 BASEMENT IMPACT ASSESSMENT

The screening identified a number of potential impacts. The desk study and ground investigation information has been used below to review the potential impacts, to assess the likelihood of them occurring and the scope for reasonable engineering mitigation.

The table below summarises the previously identified potential impacts of the development and the following paragraphs detail the additional information that is now available from the site investigation and how this will effect each potential impact.

Potential Impact	Consequence
The site is underlain by a Secondary 'A' Aquifer, as defined by the EA	Groundwater present within the aquifer may enter the proposed excavation and cause structural instability and damage. There is potential for the contamination of groundwater.
The proposed development will increase the proportion of hardstanding across the site.	The sealing off the ground surface by hardstanding could result in a decreased recharge to the underlying ground which may impact upon the groundwater flow or levels which could impact springs in the area and could increase the potential for dampness or seepages at nearby basement structures.

The site is underlain by a Secondary 'A' Aquifer

There is a potential for groundwater to be present within the Secondary 'A' Aquifer beneath the site, however, the findings of the investigation have indicated groundwater to not be present at shallow depths beneath the site such that significant inflows of groundwater are not anticipated. Trial excavations to as close to the full excavation depth as possible should be carried out to confirm this view when possible and in the interim monitoring of the standpipes should be continued. In addition, the samples of made ground tested from the site have been found to be free from elevated concentrations of soluble contaminants and the site is not considered to have had a potentially contaminative history. As a result a risk of contaminating the aquifer is not envisaged.

The proposed development will increase the proportion of hardstanding across the site.

Any additional surface water generated from an increased impermeable area will be locally attenuated allowing the full volume of surface water to enter the ground in a similar way to the existing condition. Therefore groundwater flows should not be materially changed.

9.1 BIA Conclusion

A Basement Impact Assessment has been carried out following the information and guidance published by the London Borough of Camden.

It is concluded that the proposed development is unlikely to result in any specific land or slope stability issues.

9.2 Non-Technical Summary of Evidence

This section provides a short summary of the evidence acquired and used to form the conclusions made within the BIA.

9.2.1 Screening

The following table provides the evidence used to answer the surface water flow and flooding screening questions.

Question	Evidence
1. Is the site within the catchment of the pond chains on Hampstead Heath?	Figures 12 and 14 of the Arup report.
2. As part of the proposed site drainage, will surface water flows (e.g. volume of rainfall and peak run-off) be materially changed from the existing route?	A site walkover and existing plans of the site have confirmed that the proposed basement scheme will not increase the amount of hardstanding.
3. Will the proposed basement development result in a change in the proportion of hard surfaced / paved areas?	
4. Will the proposed basement development result in changes to the profile of the inflows (instantaneous and long term) of surface water being received by adjacent properties or downstream watercourses?	As above.
5. Will the proposed basement result in changes to the quantity of surface water being received by adjacent properties or downstream watercourses?	
6. Is the site in an area known to be at risk from surface water flooding such as South Hampstead, West Hampstead, Gospel Oak and Kings Cross, or is it at risk of flooding because the proposed basement is below the static water level of a nearby surface water feature?	Flood risk maps acquired from the Environment Agency as part of the desk study, Figure 15 of the Arup report, the Camden Flood Risk Management Strategy dated 2013 and SFRA dated 2014.

The following table provides the evidence used to answer the subterranean (groundwater flow) screening questions.

Question	Evidence
1a. Is the site located directly above an aquifer?	Aquifer designation maps acquired from the Environment Agency as part of the desk study and Figures 3, 5 and 8 of the Arup report.
1b. Will the proposed basement extend beneath the water table surface?	Site investigation.
2. Is the site within 100 m of a watercourse, well (used/ disused) or potential spring line?	Historical maps acquired as part of the desk study and Figures 11 and 12 of the Arup report.
3. Is the site within the catchment of the pond chains on Hampstead Heath?	Figures 12 and 14 of the Arup report.
4. Will the proposed basement development result in a change in the proportion of hard surfaced / paved areas?	A site walkover and existing plans of the site have confirmed that the basement development will only replace existing hardstanding areas.
5. As part of the site drainage, will more surface water (e.g. rainfall and run-off) than at present be discharged to the ground (e.g. via soakaways and/or SUDS)?	The details of the proposed development do not indicate the use soakaway drainage.
6. Is the lowest point of the proposed excavation (allowing for any drainage and foundation space under the basement floor) close to or lower than, the mean water level in any local pond or spring line?	Topographical maps acquired as part of the desk study and Figures 11 and 12 of the Arup report.

The following table provides the evidence used to answer the slope stability screening questions.

Question	Evidence
1. Does the existing site include slopes, natural or manmade, greater than 7°?	Site survey drawing and Figures 16 and 17 of the Arup report and confirmed during a site walkover
2. Will the proposed re-profiling of landscaping at the site change slopes at the property boundary to more than 7°?	The details of the proposed development provided do not include the re-profiling of the site to create new slopes.
3. Does the development neighbour land, including railway cuttings and the like, with a slope greater than 7°?	Topographical maps and Figures 16 and 17 of the Arup report and confirmed during a site walkover
4. Is the site within a wider hillside setting in which the general slope is greater than 7°?	
5. Is the London Clay the shallowest strata at the site?	Geological maps and Figures 3, 5 and 8 of the Arup report
6. Will any trees be felled as part of the proposed development and / or are any works proposed within any tree protection zones where trees are to be retained?	The Arboriculturist report prepared for the site and the existing and proposed ground floor drawings prove that two trees from the rear garden will be removed
7. Is there a history of seasonal shrink-swell subsidence in the local area and / or evidence of such effects at the site?	Knowledge on the ground conditions of the area and reference to NHBC guidelines were used to make an assessment of this, in addition to a visual inspection of the buildings carried out during the site walkover
8. Is the site within 100 m of a watercourse or potential spring line?	Topographical maps acquired as part of the desk study and Figures 11 and 12 of the Arup report and the Lost Rivers of London book.
9. Is the site within an area of previously worked ground?	Geological maps and Figures 3, 5 and 8 of the Arup report
10. Is the site within an aquifer?	Aquifer designation maps acquired from the Environment Agency as part of the desk study and Figures 3, 5 and 8 of the Arup report.
11. Is the site within 50 m of Hampstead Heath ponds?	Topographical maps acquired as part of the desk study and Figures 12 and 14 of the Arup report.
12. Is the site within 5 m of a highway or pedestrian right of way?	Site plans and the site walkover.
13. Will the proposed basement significantly increase the differential depth of foundations relative to neighbouring properties?	Camden planning portal and the site walkover confirmed the position of the proposed basement relative the neighbouring properties.
14. Is the site over (or within the exclusion zone of) any tunnels, e.g. railway lines?	Maps and plans of infrastructure tunnels were reviewed.

9.2.2 Scoping and Site Investigation

The questions in the screening stage that there were answered ‘yes’, were taken forward to a scoping stage and the potential impacts discussed in Section 4.0 of this report, with reference to the possible impacts outlined in the Arup report.

A ground investigation has been carried out, which has allowed an assessment of the potential impacts of the basement development on the various receptors identified from the screening and scoping stages. Principally the investigation aimed to establish the ground conditions, including the groundwater level and the engineering properties of the underlying soils to enable suitable design of the basement development. The findings of the investigation are discussed in Part 2 of this report and summarised in the Executive Summary.

9.2.3 Impact Assessment

Section 10.0 of this report summarises whether or not, on the basis of the findings of the investigation, the potential impacts still need to be given consideration and identifies ongoing risks that will require suitable engineering mitigation. Section 9.0 of this report also provides recommendations for the design of the proposed development.

10.0 OUTSTANDING RISKS AND ISSUES

This section of the report aims to highlight areas where further work is required as a result of limitations on the scope of this investigation, or where issues have been identified by this investigation that warrant further consideration. The scope of risks and issues discussed in this section is by no means exhaustive, but covers the main areas where additional work may be required.

The ground is a heterogeneous natural material and variations will inevitably arise between the locations at which it is investigated. This report provides an assessment of the ground conditions based on the discrete points at which the ground was sampled, but the ground conditions should be subject to review as the work proceeds to ensure that any variations from the Ground Model are properly assessed by a suitably qualified person.

It would be prudent, once access is available, to carry out a number of trial excavations, to depths as close to the full swimming pool excavation depth as possible, to provide an indication of the likely groundwater conditions. Continued monitoring of the standpipes to establish any seasonal fluctuations and a groundwater design line is also recommended.

APPENDIX

Site Plan

Borehole Records

Trial Pit Records

Geotechnical Test Results

SPT & Cohesion/Depth Graph

Contamination Test Results

Generic Risk-Based Screening Values

Envirocheck Extracts

Historical Maps

UXO Preliminary Risk Assessments

GEA

Geotechnical & Environmental Associates

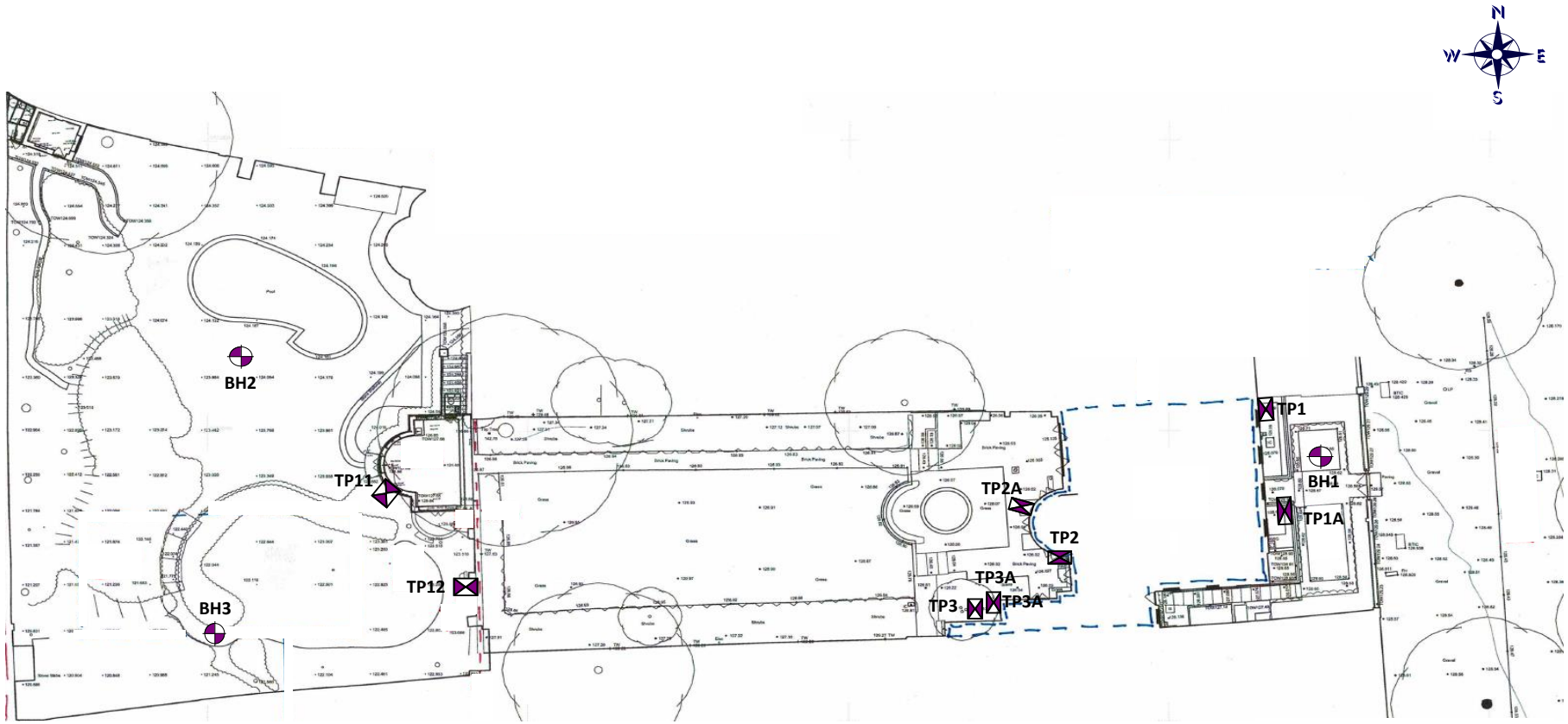
www.gea-ltd.co.uk

Site Plan

Site	5 The Grove, London N6 6JU
Client	Mr Stephen Cameron
Engineer	Constructure

Job Number J21179

Sheet 1 / 1



GEA	Geotechnical & Environmental Associates Widbury Barn | Widbury Hill | Ware | SG12 7QE	Site 5 The Grove, London N6 6JU	Borehole Number BH1

Boring Method	Casing Diameter	Ground Level (mOD)	Client	Job Number
Demountable Cable Percussion Rig	200mm cased to 12.00m 150mm cased to 16.00m		Mr Stephen Cameron	J21179
	Location	**Dates** 29/06/2021- 02/07/2021	**Engineer** Constructure	**Sheet** 1/3

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
						0.10 (0.20)	Made Ground (Brick paving)		
0.30	D1					0.30	Made Ground (Sand and cement)		
0.50	B2					(0.50)	Made Ground (Brown clayey sand with grave and brick fragments)		
						0.80	Medium dense orange-brown clayey SAND with occasional gravel		
1.20-1.65 1.20-1.65	SPT N60=18 D3	1.20	DRY	2,3/3,4,4,5		(1.20)			
1.75	D4								
2.00-2.45	U5					2.00	Firm orange-brown sandy CLAY with bands of clayey sand		
2.75	D6								
3.00-3.45 3.00-3.45	SPT N60=15 D7	2.00	DRY	2,3/3,3,3,4					
3.75	D8								
4.00-4.45	U9								
4.75	D10								
5.00-5.45 5.00-5.45	SPT N60=17 D11	2.00	DRY	3,3/3,4,4,4		(7.00)			
6.00	D12								
6.50-6.95 6.50-6.95	SPT N60=22 D13	2.00	DRY	3,3/4,5,5,6					
7.50	D14								
8.00-8.45	U15								
9.00	D16					9.00	Dense fine brown SAND		
9.50-9.95 9.50-9.95	SPT N60=35 D17	2.00	DRY	4,5/6,7,8,10		(1.00)			

Remarks
Groundwater monitoring standpipe installed to a depth of 10.00 m.

Scale (approx)	Logged By
1:50	AT

Figure No.
J21179.BH1

GEA Geotechnical & Environmental Associates Widbury Barn | Widbury Hill | Ware | SG12 7QE	Site 5 The Grove, London N6 6JU	Borehole Number **BH1**

Boring Method	Casing Diameter	Ground Level (mOD)	Client	Job Number
Demountable Cable Percussion Rig	200mm cased to 12.00m 150mm cased to 16.00m		Mr Stephen Cameron	J21179
	Location	**Dates** 29/06/2021- 02/07/2021	**Engineer** Constructure	**Sheet** 2/3

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
						10.00	Firm grey and brown sandy CLAY with lenses of fine sand		
10.50	D18								
11.00-11.45	SPT N60=30	11.00	DRY	3,4/5,6,7,9		(2.00)			▼2
11.00-11.45	D19								▼1
									▽1
12.00	D20			Fast Inflow(1) at 12.00m, rose to 11.50m in 20 mins.		12.00	Medium dense orange-brown fine SAND with bands of sandy clay		
12.50-12.95	SPT N60=51	12.00	DRY	5,7/9,10,12,15					
12.50-12.95	D21								
13.50	D22					(3.00)			
14.00-14.45	D23			Fast Inflow(2) at 14.00m, rose to 11.00m in 20 mins.					▽2
14.00-14.45	SPT N60=26	14.00	DRY	3,4/5,5,5,8					
15.00	D24					15.00	Firm grey sandy CLAY with lenses of fine sand		▼3
15.50-15.95	SPT N60=36	15.00	DRY	4,5/7,8,8,9					
15.50-15.95	D25								
16.50	D26								
17.00-17.45	SPT N60=40	16.00	DRY	4,5/7,8,10,11					
17.00-17.45	D27					(5.45)			
18.00	D28			Fast Inflow(3) at 18.00m, rose to 15.00m in 20 mins.					▽3
18.50-18.95	SPT N60=31	16.00	DRY	5,7/8,7,6,7					
18.50-18.95	D29								
19.50	D30								
20.00-20.45	SPT N60=36	16.00	DRY	6,7/7,8,8,9					

Remarks

Scale (approx)	Logged By
1:50	AT

Figure No.
J21179.BH1

GEA
Geotechnical & Environmental Associates
Widbury Barn | Widbury Hill | Ware | SG12 7QE

Site	Borehole Number
5 The Grove, London N6 6JU	BH1

Boring Method	Casing Diameter	Ground Level (mOD)	Client	Job Number
Demountable Cable Percussion Rig	200mm cased to 12.00m 150mm cased to 16.00m		Mr Stephen Cameron	J21179
	Location	**Dates** 29/06/2021-02/07/2021	**Engineer** Constructure	**Sheet** 3/3

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
20.00-20.45	D31					20.45	Complete at 20.45m		

Remarks

Scale (approx)	Logged By
1:50	AT

Figure No. J21179.BH1

GEA	Geotechnical & Environmental Associates Widbury Barn | Widbury Hill | Ware | SG12 7QE	Site 5 The Grove, London N6 6JU	Number **BH2**
Excavation Method Opendrive Percussive Sampler	**Dimensions**	**Ground Level (mOD)**	**Client** Mr Stephen Cameron	**Job Number** J21179
	Location	**Dates** 28/06/2021	**Engineer** Constructure	**Sheet** 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.30	D1				(0.50) 0.50	Made Ground (dark brown clayey sand with gravel, brick fragments and occasional glass and ash fragments)		
0.70	D2				(0.80)	Made Ground (brown nd dark brown very sandy slightly silty clay with gravel, brick and ash fragments)		
1.00-1.45	SPT		1,1/1,2,2,2		1.30			
1.70	D3				(0.70)	Firm becoming stiff orange-brown mottled grey slightly silty sandy CLAY		
2.00-2.45	SPT		1,0/0,1,2,2		2.00			
2.10	D4				(0.30) 2.30	Firm becoming stiff orange-brown mottled grey slightly silty sandy CLAY with sub-rounded fine to medium gravel		
					(0.70)	Stiff becoming stiff orange-brown mottled grey slightly silty sandy CLAY		
3.00-3.45	SPT		4,5/6,4,4,3		3.00	Medium dense to dense brown and orange-brown silty slightly clayey fine to medium SAND		
3.50	D5							
4.00-4.45	SPT		1,2/2,2,2,3					
					(3.80)			
5.00-5.45	SPT		3,3/4,5,3,3					
5.50	D6							
6.00-6.45	SPT		Water strike(1) at 6.00m. 2,2/2,3,3,3		6.80			▽1
						Complete at 6.80m		

Remarks
Borehole terminated at a depth of 6.80 m due to density of the soil.
Groundwater monitoring standpipe installed to 6.80 m.

Scale (approx)	Logged By
1:50	AT

Figure No.
J21179.BH2

GEA	Geotechnical & Environmental Associates Widbury Barn | Widbury Hill | Ware | SG12 7QE	Site 5 The Grove, London N6 6JU	Number BH3
Excavation Method Opendrive Percussive Sampler	Dimensions	Ground Level (mOD)	Client Mr Stephen Cameron	Job Number J21179
	Location	Dates 29/06/2021	Engineer Constructure	Sheet 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
						Made Ground (dark brown clayey sand with gravel, brick fragments and occasional glass and ash fragments)		
0.50	D1							
1.00-1.45	SPT N60=7		1,1/1,1,1,2		(2.00)			
					2.00			
2.00-2.45	SPT N60=17		1,2/2,3,4,3			Firm brown silty sandy CLAY with rounded to sub-rounded gravel		
					(1.00)			
2.80	D2							
					3.00			
3.00-3.45	SPT N60=18		2,2/2,2,4,5		(0.40)	Orange-brown SAND and fine to coarse sub-angular to sub-rounded gravel		
					3.40			
						Firm brown silty sandy CLAY with rare fine to medium sib-rounded gravel		
4.00-4.45	SPT N60=21		2,2/3,4,3,5		(1.60)			
4.80	D3							
					5.00			
5.00-5.45	SPT N60=62		5,9/10,11,12,11			Firm orange-brown very sandy silty CLAY		
					(1.00)			
5.80	D4							
			Water strike(1) at 6.00m.		6.00			▽1
6.00-6.45	SPT N60=51		5,7/7,7,10,12			NO RECOVERY		
6.45-6.90	SPT N60=96		13,13/14,19,19,16		(1.00)			
					7.00			
7.00-7.33	SPT 63/175		13,15/21,22,20			Complete at 7.00m		

Remarks
Borehole terminated at a depth of 7.00 m due to density of the soil.
Groundwater monitoring standpipe installed to 6.00 m.

Scale (approx)	Logged By
1:50	AT

Figure No.
J21179.BH2

GEA	www.gea-ltd.co.uk Herts | 01727 824666 Notts | 01509 674888	**Trial Pit No** 1

Site 5 The Grove, London N6 6JU

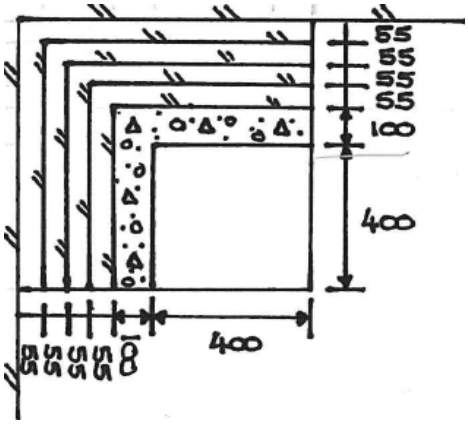
Client Mr Stephen Cameron

Engineer Constructure

Job Number
J21179
Sheet
1'1
Dates
28/06/2021

Excavation Method	**Dimensions**	**Ground Level (mOD)**	**Location**
Manual	720 x 720 x 1040		

PLAN:



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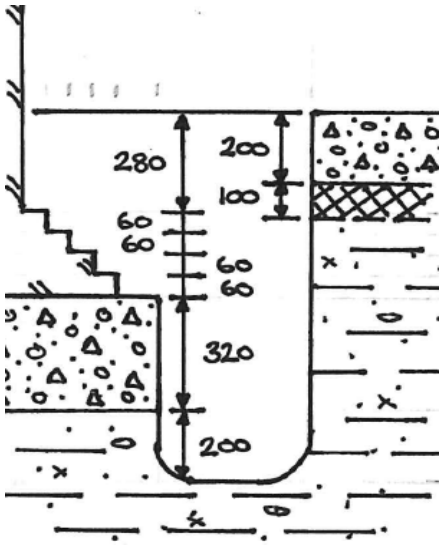


Concrete

Made Ground (orange-brown clayey sand with gravel, brickand concrete fragments)

Firm orange-brown mottled pale brown firm sandy slightly silty CLAY

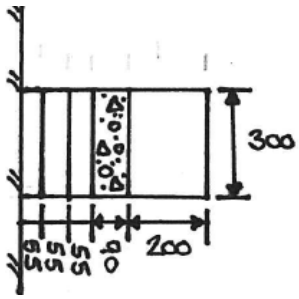
Remarks:	Scale:
All dimensions in millimetres	01:20
Sides of trial pit remained stable during excavation	Logged by:
Groundwater not encountered	AT

GEA	www.gea-ltd.co.uk Herts | 01727 824666 Notts | 01509 674888	**Trial Pit No** 1A

Site 5 The Grove, London N6 6JU	**Job Number** J21179
Client Mr Stephen Cameron	**Sheet** 1'1
Engineer Constructure	**Dates** 28/06/2021

Excavation Method	**Dimensions**	**Ground Level (mOD)**	**Location**
Manual	300 x 455 x 850		

PLAN:



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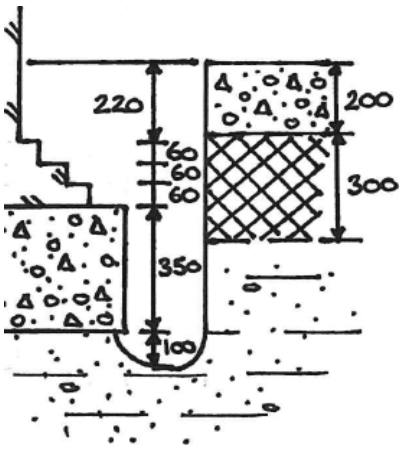


Concrete

Made Ground (orange-brown clayey sand with gravel, brickand concrete fragments)

Orange-brown mottled pale brown firm sandy slightly silty CLAY

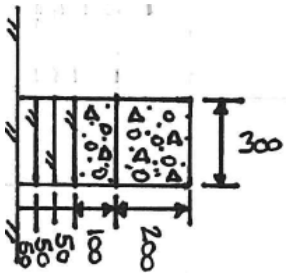
Remarks:	Scale:
All dimensions in millimetres	01:20
Sides of trial pit remained stable during excavation	Logged by:
Groundwater not encountered	AT

GEA	www.gea-ltd.co.uk Herts | 01727 824666 Notts | 01509 674888	**Trial Pit No** 2

Site 5 The Grove, London N6 6JU	**Job Number** J21179
Client Mr Stephen Cameron	**Sheet** 1'1
Engineer Constructure	**Dates** 28/06/2021

Excavation Method	**Dimensions**	**Ground Level (mOD)**	**Location**
Manual	300 x 450 x 700		

PLAN:



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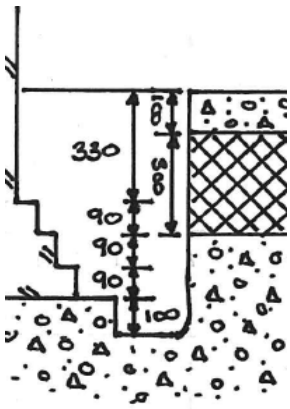


Concrete

Made Ground (pale brown and brown very clayey sand with gravel, brick, concrete and clay pipe fragments and

Possible concrete service

Remarks:	Scale:
All dimensions in millimetres	01:20
Sides of trial pit remained stable during excavation	Logged by:
Groundwater not encountered	AT

GEA	www.gea-ltd.co.uk Herts | 01727 824666 Notts | 01509 674888	**Trial Pit No** 2A

Site 5 The Grove, London N6 6JU

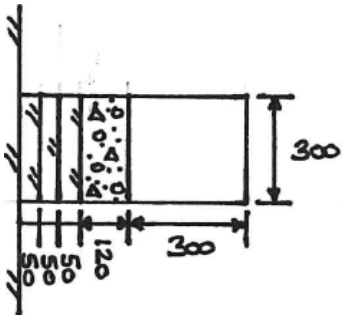
Client Mr Stephen Cameron

Engineer Constructure

Job Number
J21179
Sheet
1'1
Dates
28/06/2021

Excavation Method	**Dimensions**	**Ground Level (mOD)**	**Location**
Manual	300 x 570 x 980		

PLAN:



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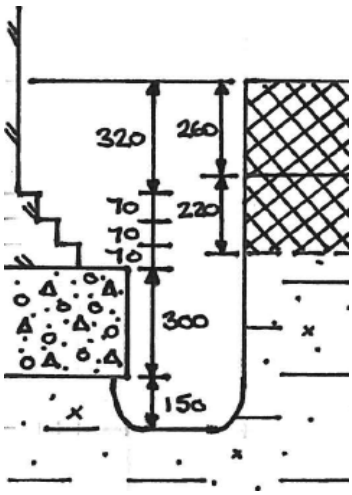


Made Ground (brown clayey sand with gravel and occasional brick fragments)

Made Ground (orange-brown sandy clay with gravel and brick fragments)

Firm orange-brown mottled pale brown firm sandy slightly silty CLAY

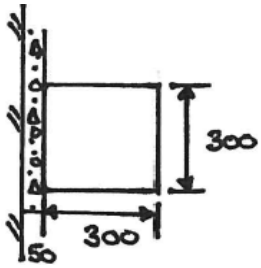
Remarks:	Scale:
All dimensions in millimetres	01:20
Sides of trial pit remained stable during excavation	Logged by:
Groundwater not encountered	AT

GEA	www.gea-ltd.co.uk Herts | 01727 824666 Notts | 01509 674888	**Trial Pit No** 3

Site 5 The Grove, London N6 6JU	**Job Number** J21179
Client Mr Stephen Cameron	**Sheet** 1'1
Engineer Constructure	**Dates** 28/06/2021

Excavation Method	**Dimensions**	**Ground Level (mOD)**	**Location**
Manual	300 x 300 x 400		

PLAN:



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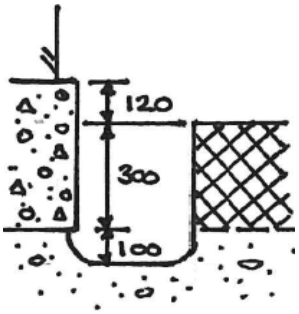


Made Ground (brown clayey sand with gravel, brick and concrete fragments)

Orange-brown sandy slightly clayey fine to medium sub-angular to sub-rounded

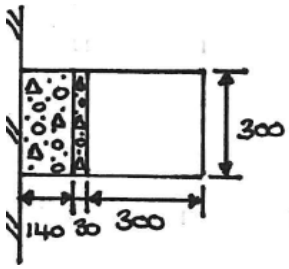
Remarks:	Scale:
All dimensions in millimetres	01:20
Sides of trial pit remained stable during excavation	Logged by:
Groundwater not encountered	AT

GEA	www.gea-ltd.co.uk Herts | 01727 824666 Notts | 01509 674888	**Trial Pit No** 3A

Site 5 The Grove, London N6 6JU	**Job Number** J21179
Client Mr Stephen Cameron	**Sheet** 1'1
Engineer Constructure	**Dates** 28/06/2021

Excavation Method	**Dimensions**	**Ground Level (mOD)**	**Location**
Manual	300 x 520 x 700		

PLAN:



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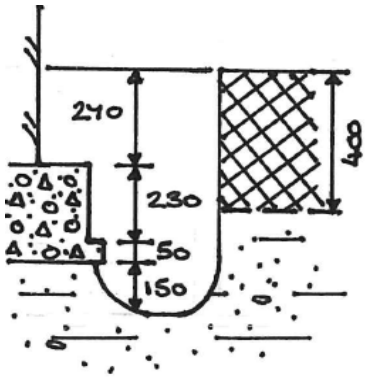


Made Ground (brown clayey sand with gravel, brick and concrete fragments)

Orange-brown clayey fine to medium SAND with occasional gravel

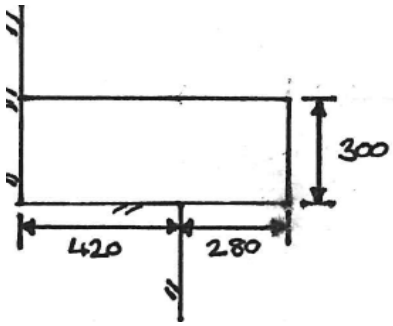
Remarks:	Scale:
All dimensions in millimetres	01:20
Sides of trial pit remained stable during excavation	Logged by:
Groundwater not encountered	AT

GEA	www.gea-ltd.co.uk Herts | 01727 824666 Notts | 01509 674888	**Trial Pit No** 11

Site 5 The Grove, London N6 6JU	**Job Number** J21179
Client Mr Stephen Cameron	**Sheet** 1'1
Engineer Constructure	**Dates** 28/06/2021

Excavation Method	**Dimensions**	**Ground Level (mOD)**	**Location**
Manual	300 x 700 x 1250		

PLAN:



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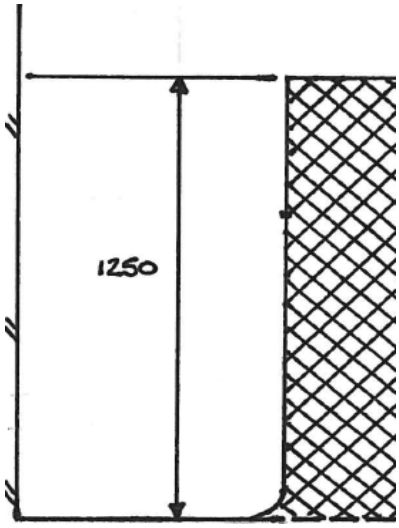


Made Ground (brown clayey sand with gravel and occasional brick fragments)

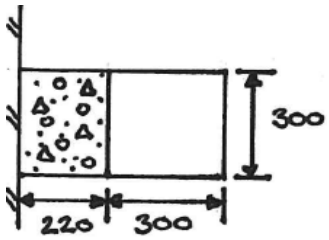
Remarks:	Scale:
All dimensions in millimetres	01:20
Sides of trial pit remained stable during excavation	Logged by:
Groundwater not encountered	AT

GEA	www.gea-ltd.co.uk Herts | 01727 824666 Notts | 01509 674888	**Trial Pit No** 12

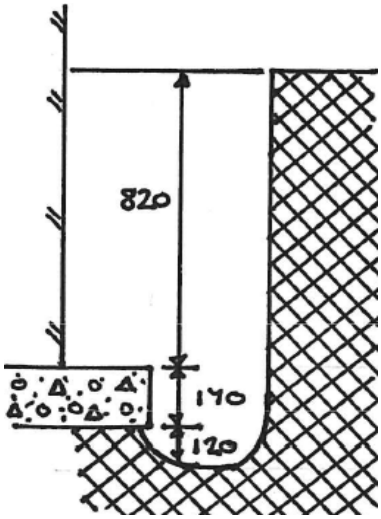
Site 5 The Grove, London N6 6JU	**Job Number** J21179
Client Mr Stephen Cameron	**Sheet** 1'1
Engineer Constructure	**Dates** 28/06/2021

Excavation Method	**Dimensions**	**Ground Level (mOD)**	**Location**
Manual	300 x 520 x 1110		

PLAN:



SECTION:



Made Ground (brown clayey sand with gravel and occasional brick fragments)

Remarks:	Scale:
All dimensions in millimetres	01:20
Sides of trial pit remained stable during excavation	Logged by:
Groundwater not encountered	AT

SUMMARY OF GEOTECHNICAL TESTING

Sample details					Classification Tests					Density Tests		Undrained Triaxial Compression				Chemical Tests			Other tests and comments
Location	Depth (m)	Sample Ref	Type	Description	WC %	LL %	PL %	PI %	<425 µm %	Bulk Mg/m³	Dry Mg/m³	Condition	Cell Pressure kPa	Deviator Stress kPa	Shear Stress kPa	pH	2:1 W/S SO4 g/L	W/S Mg mg/L	
BH1	1.20		D	Orange brown mottled grey gravelly sandy silty CLAY.	12.1	39	18	21	50										
BH1	1.75		D													8.4	< 0.010		
BH1	2.00-2.45		U	Firm brown mottled grey CLAY	24.6					1.94	1.56	Undisturbed	40	90	45				
BH1	3.75		D													6.7	< 0.010		
BH1	8.00-8.45		U	Stiff orange brown mottled grey sandy CLAY.	9.2					2.02	1.85	Undisturbed	160	169	84				
BH1	9.50		D	Yellowish brown mottled brown silty SAND. Sand is fine.	23.9		NP		99										
BH1	13.50		D	Yellowish brown sandy silty CLAY.															Particle Size Distribution
BH1	14.00		D	Orange brown mottled grey sandy SILT / CLAY with rare fine gravel.	36.2	33	24	9.0	99										
BH1	18.50		D	Yellowish brown mottled grey silty SAND. Sand is fine.	25.7		NP		99										
BH2	1.70		D	Orange brown mottled grey sandy silty CLAY with rare fine to medium gravel.	25.1	43	18	25	98										

Sample type: B (Bulk disturb.) BLK (Block) C (Core) D (Disturbed) LB (Large Bulk dist.) U (Undisturbed) NP=Non Plastic

Checked and Approved by

S Burke - Senior Technician
29/07/2021

Project Number:

GEO / 33547

Project Name:

5 THE GROVE
J21179

GEOLABS®

SUMMARY OF GEOTECHNICAL TESTING

Sample details					Classification Tests					Density Tests		Undrained Triaxial Compression				Chemical Tests			Other tests and comments
Location	Depth (m)	Sample Ref	Type	Description	WC %	LL %	PL %	PI %	<425 µm %	Bulk Mg/m³	Dry Mg/m³	Condition	Cell Pressure kPa	Deviator Stress kPa	Shear Stress kPa	pH	2:1 W/S SO4 g/L	W/S Mg mg/L	
BH2	2.10		D													7.9	< 0.010		
BH2	3.50		D	Yellowish brown very slightly silty slightly clayey SAND.															Particle Size Distribution
BH3	2.80		D													8.0	< 0.010		
BH3	5.80		D	Orange brown mottled grey sandy silty CLAY with rare fine to medium gravel.	35.5	41	21	20	99										

Sample type: B (Bulk disturb.) BLK (Block) C (Core) D (Disturbed) LB (Large Bulk dist.) U (Undisturbed) NP=Non Plastic

Checked and Approved by

S Burke

S Burke - Senior Technician
29/07/2021

Project Number:

GEO / 33547

Project Name:

5 THE GROVE
J21179

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BS EN ISO 17892-4 : 2016

PARTICLE SIZE DISTRIBUTION

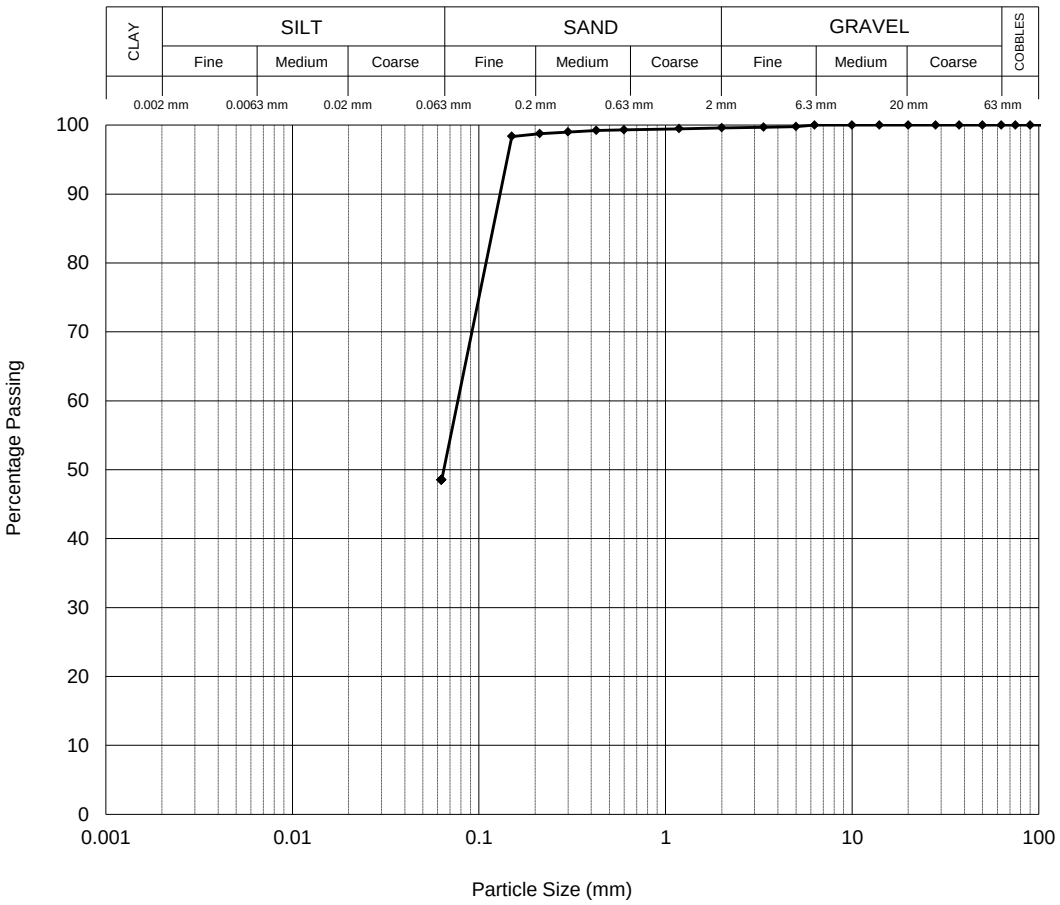
Location	BH1
Depth (m)	13.50
Sample Type	D

Description

Yellowish brown sandy silty CLAY.

BS EN ISO 17892-4 : 2016 : Clause 5.2 - Wet Sieve

Sieve	
Size	% Pass
200.0 mm	100
125.0 mm	100
90.0 mm	100
75.0 mm	100
63.0 mm	100
50.0 mm	100
37.5 mm	100
28.0 mm	100
20.0 mm	100
14.0 mm	100
10.0 mm	100
6.30 mm	100
5.00 mm	100
3.35 mm	100
2.00 mm	100
1.18 mm	99
600 µm	99
425 µm	99
300 µm	99
212 µm	99
150 µm	98
63 µm	49



Particle Proportions	
Cobbles	0.0
Gravel	0.4
Sand	51.1
Silt & Clay	48.5

Tested by AW
Checked and Approved by

S Burke

S Burke - Senior Technician
29/07/2021

Project Number:

GEO / 33547

Project Name:

5 THE GROVE
J21179

GEOLABS ®
UKAS TESTING
1982

BS EN ISO 17892-4 : 2016

PARTICLE SIZE DISTRIBUTION

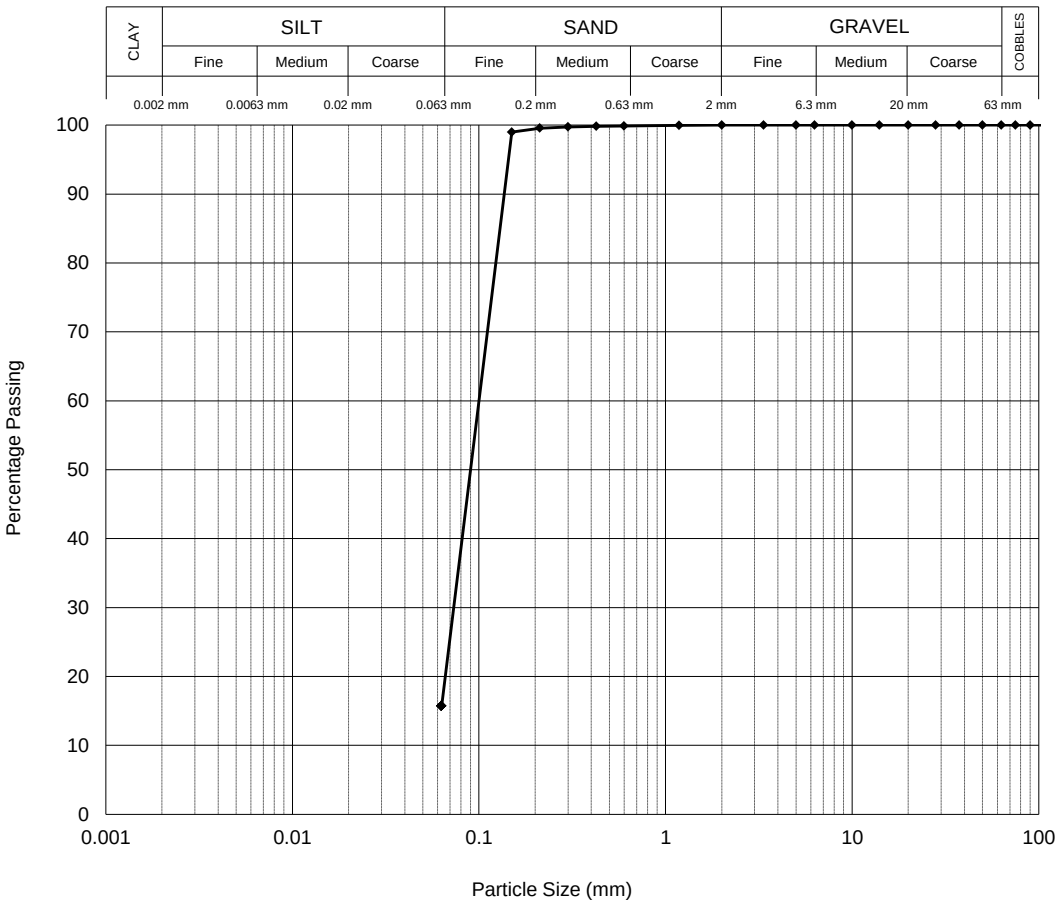
Location	BH2
Depth (m)	3.50
Sample Type	D

Description

Yellowish brown very slightly silty slightly clayey SAND.

BS EN ISO 17892-4 : 2016 : Clause 5.2 - Wet Sieve

Sieve	
Size	% Pass
200.0 mm	100
125.0 mm	100
90.0 mm	100
75.0 mm	100
63.0 mm	100
50.0 mm	100
37.5 mm	100
28.0 mm	100
20.0 mm	100
14.0 mm	100
10.0 mm	100
6.30 mm	100
5.00 mm	100
3.35 mm	100
2.00 mm	100
1.18 mm	100
600 µm	100
425 µm	100
300 µm	100
212 µm	100
150 µm	99
63 µm	16



Particle Proportions	
Cobbles	0.0
Gravel	0.0
Sand	84.3
Silt & Clay	15.7

Tested by AW
Checked and Approved by

S Burke

S Burke - Senior Technician
29/07/2021

Project Number:

GEO / 33547

Project Name:

5 THE GROVE
J21179

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1982

BS EN ISO 17892-8 : 2018

UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION

Location	BH1
Depth (m)	2.00-2.45
Sample Type	U

Description:

Firm brown mottled grey CLAY

Specimen Details

Specimen conditions		Undisturbed
Length	(mm)	201.7
Diameter	(mm)	103.1
Moisture content	(%)	24.6
Bulk density	(Mg/m³)	1.94
Dry density	(Mg/m³)	1.56
Test Details		
Latex membrane thickness	(mm)	0.3
Specimen height prior to shearing	(mm)	201.6
Membrane correction	(kPa)	1.1
Mean rate of shear	(%/min)	2.0
Cell pressure	(kPa)	40
Strain at failure	(%)	19.8
Maximum deviator stress	(kPa)	90
Shear Stress Cu	(kPa)	45

Mode of failure

Orientation of the sample	Vertical
Distance from top of tube mm	30

Tested by SB
Checked and Approved by

S Burke

S Burke - Senior Technician
29/07/2021

Project Number:

GEO / 33547

Project Name:

5 THE GROVE
J21179

GEOLABS®
UKAS TESTING
1982

BS EN ISO 17892-8 : 2018

UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION

Location	BH1
Depth (m)	8.00-8.45
Sample Type	U

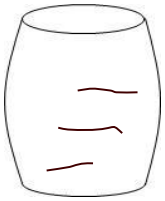
Description:

Stiff orange brown mottled grey sandy CLAY.

Specimen Details

Specimen conditions		Undisturbed
Length	(mm)	202.0
Diameter	(mm)	101.3
Moisture content	(%)	9.2
Bulk density	(Mg/m³)	2.02
Dry density	(Mg/m³)	1.85
Test Details		
Latex membrane thickness	(mm)	0.3
Specimen height prior to shearing	(mm)	201.9
Membrane correction	(kPa)	1.0
Mean rate of shear	(%/min)	2.0
Cell pressure	(kPa)	160
Strain at failure	(%)	16.3
Maximum deviator stress	(kPa)	169
Shear Stress Cu	(kPa)	84

Mode of failure



Orientation of the sample	Vertical
Distance from top of tube mm	150

Tested by SB
Checked and Approved by

S Burke - Senior Technician
29/07/2021

Project Number:

GEO / 33547

Project Name:

5 THE GROVE
J21179

GEOLABS
UKAS TESTING 1982

GEOLABS®

Client	Geotechnical & Environmental Associates Limited
Project No.	33547
Project Name	**5 THE GROVE**

TEST RESTRICTION

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

Laboratory ID	BH / TP No.	Sample Ref.	Depth (m)		Type	Test(s) Scheduled			Reason for Restriction	Description
399298	BH1		4.00	4.45	U100		UU TXL		Sample filled with wax and too short to test with open cracks.	Firm brown CLAY.

Comments / remarks

Test restriction raised by

S Burke

Ref. WS 04 - TERE - Issue 1B (12/18)

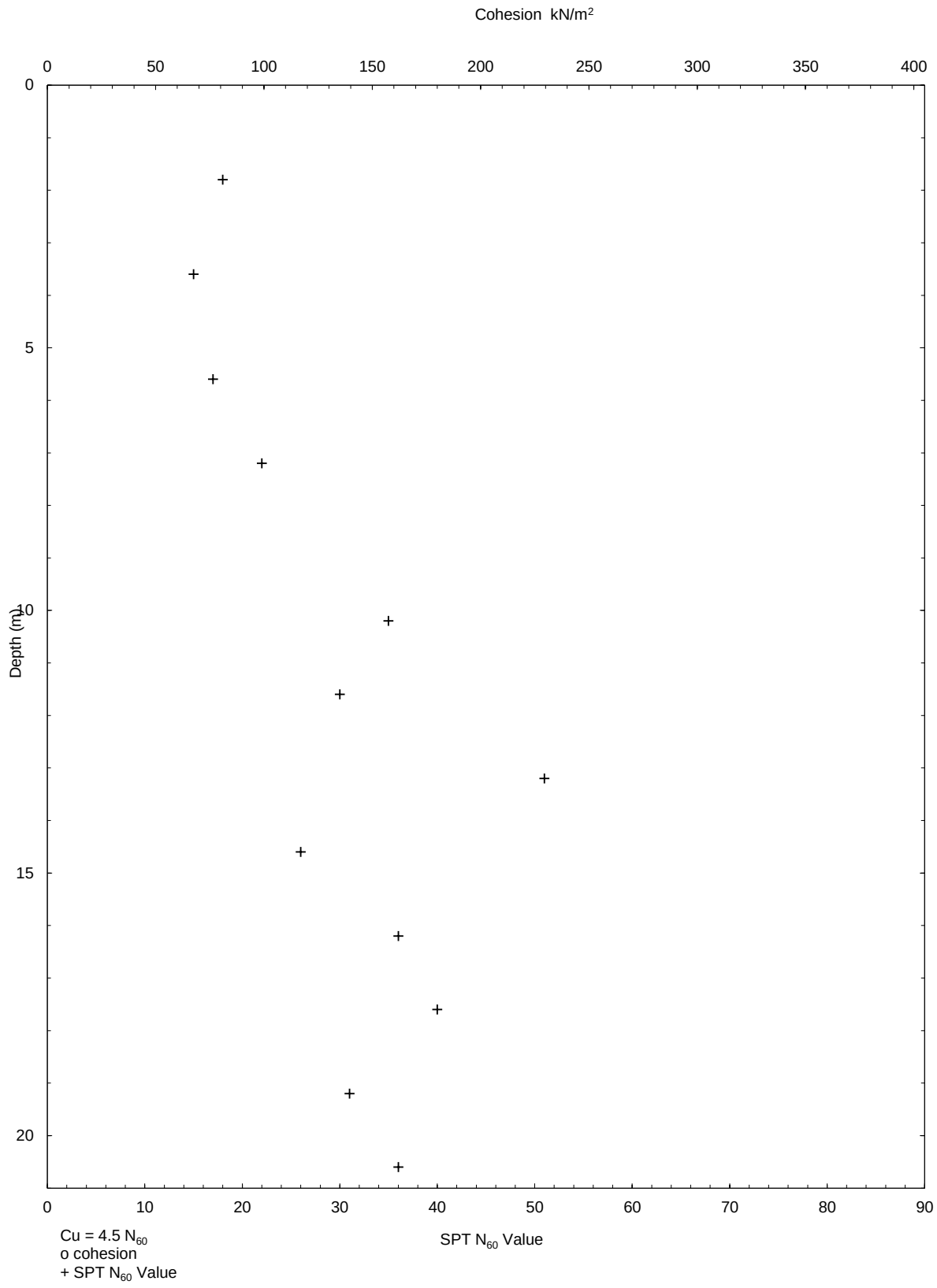
GEA
www.gea-ltd.co.uk
Herts | 01727 824666 Notts | 01509 674888

SPT & Cohesion / Depth Graph

Site	5 The Grove, London N6 6JU
Client	Mr Stephen Cameron
Agent	Constructure

Job Number J21179

Sheet 1 / 1



Alex Taylor
Geotechnical & Environmental Associates
Widbury Barn
Widbury Hill
Ware
Hertfordshire
SG127QE

e: AlexTaylor@gea-ltd.co.uk

i2 Analytical Ltd.
7 Woodshots Meadow,
Croxley Green
Business Park,
Watford,
Herts,
WD18 8YS

t: 01923 225404
f: 01923 237404
e: reception@i2analytical.com

Analytical Report Number : 21-84454

Project / Site name:	5 The Grove London	**Samples received on:**	01/07/2021
Your job number:	J21056	**Samples instructed on/ Analysis started on:**	01/07/2021
Your order number:		**Analysis completed by:**	08/07/2021
Report Issue Number:	1	**Report issued on:**	08/07/2021
Samples Analysed:	5 soil samples		

Signed: Karolina Marek

Karolina Marek
PL Head of Reporting Team
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41 -711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils - 4 weeks from reporting
leachates - 2 weeks from reporting
waters - 2 weeks from reporting
asbestos - 6 months from reporting

Excel copies of reports are only valid when accompanied by this PDF certificate.

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement.
Application of uncertainty of measurement would provide a range within which the true result lies.
An estimate of measurement uncertainty can be provided on request.

Analytical Report Number: 21-84454
Project / Site name: 5 The Grove London

Lab Sample Number				1923806	1923807	1923808	1923809	1923810
Sample Reference				TP2	TP11	BH2	BH3	TP1
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.30	0.40	0.30	0.50	0.30
Date Sampled				28/06/2021	28/06/2021	28/06/2021	28/06/2021	28/06/2021
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	16	14	18	18	14
Total mass of sample received	kg	0.001	NONE	1.4	1.2	1.3	1.2	1.2
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
General Inorganics								
pH - Automated	pH Units	N/A	MCERTS	10.7	8.0	7.9	7.9	10.4
Total Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	1.2	< 1.0
Total Sulphate as SO4	mg/kg	50	MCERTS	1700	1100	950	1100	1500
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.16	0.043	0.027	0.038	0.14
Sulphide	mg/kg	1	MCERTS	2.4	3.6	< 1.0	< 1.0	1.5
Water Soluble Chloride (2:1)	mg/kg	1	MCERTS	32	29	8.2	6.0	52
Total Organic Carbon (TOC)	%	0.1	MCERTS	0.5	2.9	2.3	2.6	0.3
Total Phenols								
Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Speciated PAHs								
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	0.20	2.0	0.41	0.62	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	0.48	< 0.05	0.18	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	0.31	3.7	1.0	1.8	< 0.05
Pyrene	mg/kg	0.05	MCERTS	0.25	3.1	0.91	1.6	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	2.1	0.69	1.2	< 0.05
Chrysene	mg/kg	0.05	MCERTS	< 0.05	1.3	0.43	0.79	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	1.5	0.83	1.1	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	0.94	0.22	0.61	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	1.5	0.64	1.0	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	0.79	0.36	0.61	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	0.17	< 0.05	0.12	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	0.96	0.43	0.71	< 0.05
Total PAH								
Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	< 0.80	18.4	5.95	10.3	< 0.80
Heavy Metals / Metalloids								
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	19	26	27	30	12
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	4	MCERTS	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	21	25	29	29	28
Copper (aqua regia extractable)	mg/kg	1	MCERTS	23	60	75	77	14
Lead (aqua regia extractable)	mg/kg	1	MCERTS	330	600	800	690	82
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	0.7	1.1	1.7	1.2	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	11	20	19	25	11
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	59	180	210	270	53

Analytical Report Number: 21-84454
Project / Site name: 5 The Grove London

Lab Sample Number				1923806	1923807	1923808	1923809	1923810
Sample Reference				TP2	TP11	BH2	BH3	TP1
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.30	0.40	0.30	0.50	0.30
Date Sampled				28/06/2021	28/06/2021	28/06/2021	28/06/2021	28/06/2021
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Petroleum Hydrocarbons								
TPH C10 - C40	mg/kg	10	MCERTS	46	74	16	62	< 10
TPH (C8 - C10)	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH (C10 - C12)	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPH (C12 - C16)	mg/kg	4	MCERTS	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
TPH (C16 - C21)	mg/kg	1	MCERTS	11	21	3.1	15	< 1.0
TPH (C21 - C35)	mg/kg	1	MCERTS	24	42	13	41	< 1.0

U/S = Unsuitable Sample I/S = Insufficient Sample

Analytical Report Number : 21-84454
Project / Site name: 5 The Grove London

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
1923806	TP2	None Supplied	0.3	Brown clay and sand with gravel.
1923807	TP11	None Supplied	0.4	Brown loam with gravel and vegetation.
1923808	BH2	None Supplied	0.3	Brown clay and loam with gravel.
1923809	BH3	None Supplied	0.5	Brown clay and loam with gravel and vegetation.
1923810	TP1	None Supplied	0.3	Brown clay and sand with gravel.

Analytical Report Number : 21-84454
Project / Site name: 5 The Grove London

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Sulphate, water soluble, in soil (16hr extraction)	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Asbestos identification in soil	Asbestos Identification with the use of polarised light microscopy in conjunction with disperion staining techniques.	In house method based on HSG 248	A001-PL	D	ISO 17025
Chloride, water soluble, in soil	Determination of Chloride colorimetrically by discrete analyser.	In house method.	L082-PL	D	MCERTS
Hexavalent chromium in soil	Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of 1,5 diphenylcarbazide followed by colorimetry.	In-house method	L080-PL	W	MCERTS
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
Monohydric phenols in soil	Determination of phenols in soil by extraction with sodium hydroxide followed by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (skalar)	L080-PL	W	MCERTS
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement.	In house method.	L099-PL	D	MCERTS
Sulphide in soil	Determination of sulphide in soil by acidification and heating to liberate hydrogen sulphide, trapped in an alkaline solution then assayed by ion selective electrode.	In-house method	L010-PL	D	MCERTS
Total sulphate (as SO4 in soil)	Determination of total sulphate in soil by extraction with 10% HCl followed by ICP-OES.	In house method.	L038-PL	D	MCERTS
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L019-UK/PL	D	NONE
Total cyanide in soil	Determination of total cyanide by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	MCERTS
Total organic carbon (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	In house method.	L009-PL	D	MCERTS
TPH Banding in Soil by FID	Determination of hexane extractable hydrocarbons in soil by GC-FID.	In-house method, TPH with carbon banding and silica gel split/cleanup.	L076-PL	W	MCERTS
TPH in (Soil)	Determination of TPH bands by HS-GC-MS/GC-FID	In-house method, TPH with carbon banding and silica gel split/cleanup.	L076-PL	D	MCERTS

Analytical Report Number : 21-84454
Project / Site name: 5 The Grove London

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status

For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.
For method numbers ending in 'PL' analysis have been carried out in our laboratory in Poland.
Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.

Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

GEA

Widbury Barn
Widbury Hill
Ware
Herts SG12 7QE

Generic Risk-Based Soil Screening Values

Site	5 The Grove, London N6 6JU	**Job Number**	J21179
Client	Mr Stephen Cameron	**Sheet**	1 / 1
Agent	Constructure		

Proposed End Use Residential with plant uptake

Soil pH 8

Soil Organic Matter content % 1.0

Contaminant	Screening Value mg/kg	Data Source
Metals		
Arsenic	37	C4SL
Cadmium	26	C4SL
Chromium (III)	3000	LQM/CIEH
Chromium (VI)	21	C4SL
Copper	2,330	LQM/CIEH
Lead	200	C4SL
Elemental Mercury	1	SGV
Inorganic Mercury	170	SGV
Nickel	97	LQM/CIEH
Selenium	350	SGV
Zinc	3,750	LQM/CIEH
Hydrocarbons		
Benzene	0.2	C4SL
Toluene	120	SGV
Ethyl Benzene	65	SGV
Xylene	42	SGV
Aliphatic C5-C6	30	LQM/CIEH
Aliphatic C6-C8	73	LQM/CIEH
Aliphatic C8-C10	19	LQM/CIEH
Aliphatic C10-C12	93	LQM/CIEH
Aliphatic C12-C16	740	LQM/CIEH
Aliphatic C16-C35	45,000	LQM/CIEH
Aromatic C6-C7	See Benzene	LQM/CIEH
Aromatic C7-C8	See Toluene	LQM/CIEH
Aromatic C8-C10	27	LQM/CIEH
Aromatic C10-C12	69	LQM/CIEH
Aromatic C12-C16	140	LQM/CIEH
Aromatic C16-C21	250	LQM/CIEH
Aromatic C21-C35	890	LQM/CIEH
PRO (C_5 –C_{10})	269	Calc
DRO (C_{12} –C_{28})	46,130	Calc
Lube Oil (C_{28} –C_{44})	45,890	Calc
TPH	**1000**	Trigger for speciated testing

Contaminant	Screening Value mg/kg	Data Source
Anions		
Soluble Sulphate	500 mg/l	Structures
Sulphide	50	Structures
Chloride	400	Structures
Others		
Organic Carbon (%)	6	Methanogenic potential
Total Cyanide	140	WRAS
Total Mono Phenols	184	SGV
PAH		
Naphthalene	2.20	C4SL exp & LQM/CIEH
Acenaphthylene	170	LQM/CIEH
Acenaphthene	210	LQM/CIEH
Fluorene	160	LQM/CIEH
Phenanthrene	92	LQM/CIEH
Anthracene	2,300	LQM/CIEH
Fluoranthene	260	LQM/CIEH
Pyrene	560	LQM/CIEH
Benzo(a) Anthracene	4.3	C4SL exp & LQM/CIEH
Chrysene	8	C4SL exp & LQM/CIEH
Benzo(b) Fluoranthene	7.7	C4SL exp & LQM/CIEH
Benzo(k) Fluoranthene	12.1	C4SL exp & LQM/CIEH
Benzo(a) pyrene	4.35	C4SL
Indeno(1 2 3 cd) Pyrene	4.4	C4SL exp & LQM/CIEH
Dibenzo(a h) Anthracene	1.10	C4SL exp & LQM/CIEH
Benzo (g h i) Perylene	65	C4SL exp & LQM/CIEH
Screening value for PAH	**62.1**	B(a)P / 0.15
Chlorinated Solvents		
1,1,1 trichloroethane (TCA)	11.7	LQM/CIEH
tetrachloroethane (PCA)	0.56	LQM/CIEH
tetrachloroethene (PCE)	1.01	LQM/CIEH
trichloroethene (TCE)	0.134	LQM/CIEH
1,2-dichloroethane (DCA)	0.0054	LQM/CIEH
vinyl chloride (Chloroethene)	0.000953	LQM/CIEH
tetrachloromethane (Carbon tetra	0.018	LQM/CIEH
trichloromethane (Chloroform)	0.888	LQM/CIEH

Notes

Concentrations measured below the above values may be considered to represent 'uncontaminated conditions' which pose 'LOW' risk to human health. Concentrations measured in excess of these values indicate a potential risk which require further, site specific risk assessment.

SGV - Soil Guideline Value, derived from the CLEA model and published by Environment Agency 2009

LQM/CIEH - Generic Assessment Criteria for Human Health Risk Assessment 2nd edition (2009)derived using CLEA 1.04 model 2009

C4SL - Defra Category 4 Screening value based on Low Level of Toxicological Risk

C4SL exp & LQM/CIEH calculated using C4SL revisions to exposure assessment but LQM/CIEH health criteria values

Calc - sum of nearest available carbon range specified including BTEX for PRO fraction

B(a)P / 0.15 - GEA experience indicates that Benzo(a) pyrene (one of the most common and most carcinogenic of the PAHs) rarely exceeds 15% of the total PAH concentration, hence this Total PAH threshold is regarded as being conservative

Envirocheck® Report:

Datasheet

Order Details:

Order Number:
280788528_1_1

Customer Reference:
J21179

National Grid Reference:
528150, 187300

Slice:
A

Site Area (Ha):
0.2

Search Buffer (m):
1000

Site Details:

5, The Grove
LONDON
N6 6JU

Client Details:

Mr S Branch
GEA Ltd
Widbury Barn
Widbury Hill
Ware
Herts
SG12 7QE

GEA

Contents

Introduction

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

Report Version v53.0

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Agency & Hydrological					
BGS Groundwater Flooding Susceptibility	pg 1	Yes			n/a
Contaminated Land Register Entries and Notices					
Discharge Consents	pg 1		1		
Prosecutions Relating to Controlled Waters			n/a	n/a	n/a
Enforcement and Prohibition Notices					
Integrated Pollution Controls					
Integrated Pollution Prevention And Control					
Local Authority Integrated Pollution Prevention And Control					
Local Authority Pollution Prevention and Controls	pg 1			2	3
Local Authority Pollution Prevention and Control Enforcements					
Nearest Surface Water Feature	pg 1		Yes		
Pollution Incidents to Controlled Waters	pg 2			1	3
Prosecutions Relating to Authorised Processes					
Registered Radioactive Substances	pg 2				3
River Quality					
River Quality Biology Sampling Points					
River Quality Chemistry Sampling Points					
Substantiated Pollution Incident Register	pg 3				2
Water Abstractions					
Water Industry Act Referrals					
Groundwater Vulnerability Map	pg 3	Yes	n/a	n/a	n/a
Groundwater Vulnerability - Soluble Rock Risk			n/a	n/a	n/a
Groundwater Vulnerability - Local Information			n/a	n/a	n/a
Bedrock Aquifer Designations	pg 3	Yes	n/a	n/a	n/a
Superficial Aquifer Designations			n/a	n/a	n/a
Source Protection Zones					
Extreme Flooding from Rivers or Sea without Defences				n/a	n/a
Flooding from Rivers or Sea without Defences				n/a	n/a
Areas Benefiting from Flood Defences				n/a	n/a
Flood Water Storage Areas				n/a	n/a
Flood Defences				n/a	n/a
OS Water Network Lines	pg 3			9	44

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Waste					
BGS Recorded Landfill Sites					
Historical Landfill Sites					
Integrated Pollution Control Registered Waste Sites					
Licensed Waste Management Facilities (Landfill Boundaries)					
Licensed Waste Management Facilities (Locations)					
Local Authority Landfill Coverage		1	n/a	n/a	n/a
Local Authority Recorded Landfill Sites					
Potentially Infilled Land (Non-Water)	pg 10				3
Potentially Infilled Land (Water)	pg 10			2	11
Registered Landfill Sites					
Registered Waste Transfer Sites					
Registered Waste Treatment or Disposal Sites					
Hazardous Substances					
Control of Major Accident Hazards Sites (COMAH)					
Explosive Sites					
Notification of Installations Handling Hazardous Substances (NIHHS)					
Planning Hazardous Substance Consents					
Planning Hazardous Substance Enforcements					

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Summary

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Geological					
BGS 1:625,000 Solid Geology	pg 11	Yes	n/a	n/a	n/a
BGS Estimated Soil Chemistry					
BGS Recorded Mineral Sites					
BGS Urban Soil Chemistry	pg 11		Yes	Yes	Yes
BGS Urban Soil Chemistry Averages	pg 14	Yes			
CBSCB Compensation District			n/a	n/a	n/a
Coal Mining Affected Areas			n/a	n/a	n/a
Mining Instability			n/a	n/a	n/a
Man-Made Mining Cavities					
Natural Cavities					
Non Coal Mining Areas of Great Britain				n/a	n/a
Potential for Collapsible Ground Stability Hazards	pg 14	Yes		n/a	n/a
Potential for Compressible Ground Stability Hazards				n/a	n/a
Potential for Ground Dissolution Stability Hazards				n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 14	Yes		n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 14	Yes	Yes	n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 14		Yes	n/a	n/a
Radon Potential - Radon Affected Areas			n/a	n/a	n/a
Radon Potential - Radon Protection Measures			n/a	n/a	n/a
Industrial Land Use					
Contemporary Trade Directory Entries	pg 15		8	14	70
Fuel Station Entries	pg 22			1	
Points of Interest - Commercial Services	pg 22			3	9
Points of Interest - Education and Health	pg 23				8
Points of Interest - Manufacturing and Production	pg 24		1		7
Points of Interest - Public Infrastructure	pg 25		3	10	19
Points of Interest - Recreational and Environmental	pg 27				5
Gas Pipelines					
Underground Electrical Cables	pg 28		2	3	9

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Sensitive Land Use					
Ancient Woodland	pg 30				2
Areas of Adopted Green Belt					
Areas of Unadopted Green Belt					
Areas of Outstanding Natural Beauty					
Environmentally Sensitive Areas					
Forest Parks					
Local Nature Reserves	pg 30				1
Marine Nature Reserves					
National Nature Reserves					
National Parks					
Nitrate Sensitive Areas					
Nitrate Vulnerable Zones					
Ramsar Sites					
Sites of Special Scientific Interest	pg 30				1
Special Areas of Conservation					
Special Protection Areas					
World Heritage Sites					

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13SW (SE)	0	1	528146 187300
1	**Discharge Consents** Operator: Thames Water Utilities Ltd Property Type: WTW/WATER COLLECTION/TREATMENT/SUPPLY Location: Highgate Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Temp.0148 Permit Version: 1 Effective Date: 15th September 1989 Issued Date: 15th September 1989 Revocation Date: 5th October 2000 Discharge Type: Trade Effluent Discharge Environment: Freshwater Stream/River Receiving Water: River Thames **Status: Authorisation revoked** Positional Accuracy: Located by supplier to within 100m	A13SE (E)	108	2	528300 187300
2	**Local Authority Pollution Prevention and Controls** Name: John Nichol Service Station Location: 31-33 North Road, LONDON, N6 4BE Authority: London Borough of Haringey, Planning and Environmental Health Permit Reference: PV-11 Dated: 17th April 2001 Process Type: Local Authority Air Pollution Control Description: PG1/14 Petrol filling station **Status: Authorised** Positional Accuracy: Manually positioned to the address or location	A13NE (NE)	326	3	528296 187611
3	**Local Authority Pollution Prevention and Controls** Name: First Choice Location: 5 Highgate High Street, London, N6 5jr Authority: London Borough of Camden, Pollution Projects Team Permit Reference: PPC/DC3 Dated: 12th January 2007 Process Type: Local Authority Pollution Prevention and Control Description: PG6/46 Dry cleaning **Status: Permitted** Positional Accuracy: Located by supplier to within 10m	A14NW (E)	385	4	528575 187336
4	**Local Authority Pollution Prevention and Controls** Name: Highgate Dry Cleaners & Laundry Location: 246 Archway Road, Highgate, London, N6 5ax Authority: London Borough of Haringey, Planning and Environmental Health Permit Reference: DC59 Dated: Not Supplied Process Type: Local Authority Pollution Prevention and Control Description: PG6/46 Dry cleaning **Status: Permitted** Positional Accuracy: Manually positioned to the address or location	A19SE (NE)	855	3	528857 187839
5	**Local Authority Pollution Prevention and Controls** Name: Archway Dry Cleaners Location: 194 Archway Road, London, N6 5bb Authority: London Borough of Haringey, Planning and Environmental Health Permit Reference: DC05 Dated: Not Supplied Process Type: Local Authority Pollution Prevention and Control Description: PG6/46 Dry cleaning **Status: Permitted** Positional Accuracy: Manually positioned to the address or location	A19SE (NE)	856	3	528968 187662
6	**Local Authority Pollution Prevention and Controls** Name: Prestige Dry Cleaners Location: 289 Archway Road, London, N6 5aa Authority: London Borough of Haringey, Planning and Environmental Health Permit Reference: DC39 Dated: Not Supplied Process Type: Local Authority Pollution Prevention and Control Description: PG6/46 Dry cleaning **Status: Permitted** Positional Accuracy: Manually positioned to the address or location	A19NW (NE)	868	3	528581 188078
	Nearest Surface Water Feature	A13NW (W)	218	-	527890 187318

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
7	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: FINCHLEY Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed As A Pollution Incident Incident Date: 28th October 1993 Incident Reference: NE930729 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A12SE (W)	309	2	527800 187280
8	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Highgate View Road Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed As A Pollution Incident Incident Date: 19th May 1992 Incident Reference: N1920289 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A17NE (NW)	743	2	527800 188000
9	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Beddington Stw Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed As A Pollution Incident Incident Date: 14th April 1989 Incident Reference: SE890125 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A9NW (SE)	780	2	528800 186800
10	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Regents Canal, Camden Authority: Environment Agency, Thames Region Pollutant: Unknown Sewage Note: Not Supplied Incident Date: 20th February 1997 Incident Reference: THN11997031084 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A12SW (W)	857	2	527300 187000
11	**Registered Radioactive Substances** Name: Whittington Hospital Nhs Trust Location: Magdala Avenue, Highgate Hill, London, N19 5nf Authority: Environment Agency, Thames Region Permit Reference: Bw7139 Dated: 6th November 2014 Process Type: Not Supplied Description: Not Supplied **Status: Replaced** Positional Accuracy: Located by supplier to within 100m	A14SE (E)	952	2	529100 187000
11	**Registered Radioactive Substances** Name: Whittington Hospital Nhs Trust Location: Magdala Avenue, Highgate Hill, London, N19 5nf Authority: Environment Agency, Thames Region Permit Reference: BZ9014 Dated: 6th November 2014 Process Type: Not Supplied Description: Not Supplied **Status: Replaced** Positional Accuracy: Located by supplier to within 100m	A14SE (E)	952	2	529100 187000

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
11	**Registered Radioactive Substances** Name: Whittington Hospital Nhs Trust Location: Magdala Avenue, Highgate Hill, London, N19 5nf Authority: Environment Agency, Thames Region Permit Reference: TB3295DJ Dated: Not Supplied Process Type: Not Supplied Description: Not Supplied **Status: Application has been determined by the EA** Positional Accuracy: Located by supplier to within 100m	A14SE (E)	952	2	529100 187000
12	**Substantiated Pollution Incident Register** Authority: Environment Agency - Thames Region, North East Area Incident Date: 17th September 2020 Incident Reference: 1849089 Water Impact: Category 2 - Significant Incident Air Impact: Category 4 - No Impact Land Impact: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 10m Pollutant: Crude Sewage	A12SE (SW)	588	2	527580 187025
13	**Substantiated Pollution Incident Register** Authority: Environment Agency - Thames Region, North East Area Incident Date: 22nd July 2004 Incident Reference: 252851 Water Impact: Category 2 - Significant Incident Air Impact: Category 4 - No Impact Land Impact: Category 4 - No Impact Positional Accuracy: Located by supplier to within 10m Pollutant: General Biodegradable Materials and WastesAlgae	A8SW (S)	773	2	527851 186553
	Groundwater Vulnerability Map Combined Classification: Secondary Bedrock Aquifer - High Vulnerability Combined Vulnerability: High Combined Aquifer: Productive Bedrock Aquifer, No Superficial Aquifer Pollutant Speed: Intermediate Bedrock Flow: Mixed Dilution: 300-550 mm/year Baseflow Index: >70% Superficial Patchiness: <90% Superficial Thickness: <3m Superficial Recharge: No Data	A13SW (SE)	0	5	528146 187300
	Groundwater Vulnerability - Soluble Rock Risk None				
	Bedrock Aquifer Designations Aquifer Designation: Secondary Aquifer - A	A13SW (SE)	0	5	528146 187300
	Superficial Aquifer Designations No Data Available				
	Extreme Flooding from Rivers or Sea without Defences None				
	Flooding from Rivers or Sea without Defences None				
	Areas Benefiting from Flood Defences None				
	Flood Water Storage Areas None				
	Flood Defences None				
14	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 29.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A12SE (W)	306	6	527803 187273

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
15	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 191.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A12NE (W)	310	6	527810 187412
16	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 8.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A12SE (W)	334	6	527775 187264
17	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 6.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A12SE (W)	334	6	527775 187264
18	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 1.4 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A12SE (W)	335	6	527774 187273
19	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 17.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A12SE (W)	337	6	527773 187255
20	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 3.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A12SE (W)	337	6	527773 187258
21	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 47.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A12SE (W)	347	6	527765 187240
22	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 312.9 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A12SE (W)	378	6	527740 187199
23	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 36.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A7NE (SW)	566	6	527702 186888

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
24	**OS Water Network Lines** Watercourse Form: Lake Watercourse Length: 13.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A12NE (W)	589	6	527536 187468
25	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 42.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A12NE (W)	590	6	527536 187474
26	**OS Water Network Lines** Watercourse Form: Lake Watercourse Length: 137.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Highgate Ponds Catchment Name: Thames Primacy: 1	A12SE (SW)	590	6	527571 187041
27	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 60.4 Watercourse Level: Underground Permanent: True Watercourse Name: Highgate Ponds Catchment Name: Thames Primacy: 1	A12SE (SW)	590	6	527571 187041
28	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 30.2 Watercourse Level: Underground Permanent: True Watercourse Name: Highgate Ponds Catchment Name: Thames Primacy: 1	A7NE (SW)	593	6	527636 186924
29	**OS Water Network Lines** Watercourse Form: Lake Watercourse Length: 43.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Highgate Ponds Catchment Name: Thames Primacy: 1	A7NE (SW)	596	6	527652 186899
30	**OS Water Network Lines** Watercourse Form: Lake Watercourse Length: 109.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Number 6 Pond Catchment Name: Thames Primacy: 1	A12SE (W)	596	6	527543 187095
31	**OS Water Network Lines** Watercourse Form: Lake Watercourse Length: 70.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Highgate Ponds Catchment Name: Thames Primacy: 1	A7NE (SW)	600	6	527679 186864
32	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 54.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A12NE (W)	607	6	527525 187495

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
33	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 12.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Highgate Ponds Catchment Name: Thames Primacy: 1	A7NE (SW)	626	6	527729 186784
34	**OS Water Network Lines** Watercourse Form: Lake Watercourse Length: 27.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Highgate Ponds Catchment Name: Thames Primacy: 1	A7NE (SW)	626	6	527729 186784
35	**OS Water Network Lines** Watercourse Form: Lake Watercourse Length: 98.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A7NE (SW)	628	6	527706 186800
36	**OS Water Network Lines** Watercourse Form: Lake Watercourse Length: 157.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Highgate Ponds Catchment Name: Thames Primacy: 1	A7NE (SW)	631	6	527736 186773
37	**OS Water Network Lines** Watercourse Form: Marsh Watercourse Length: 53.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A12SW (W)	656	6	527463 187169
38	**OS Water Network Lines** Watercourse Form: Marsh Watercourse Length: 51.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A12SW (W)	656	6	527463 187169
39	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 23.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A12SW (W)	669	6	527443 187220
40	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 152.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A12SW (W)	699	6	527411 187238
41	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 93.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A12SW (W)	702	6	527414 187186

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
42	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 37.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A7NE (SW)	703	6	527609 186787
43	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 12.9 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A7NE (SW)	727	6	527572 186791
44	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 44.1 Watercourse Level: Underground Permanent: True Watercourse Name: Highgate Ponds Catchment Name: Thames Primacy: 1	A7SE (SW)	729	6	527791 186627
45	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 14.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A7NE (SW)	735	6	527560 186794
46	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 12.5 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A7NE (SW)	742	6	527546 186799
47	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 513.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A7NE (SW)	750	6	527534 186801
48	**OS Water Network Lines** Watercourse Form: Lake Watercourse Length: 25.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Highgate Ponds Catchment Name: Thames Primacy: 1	A7SE (SW)	765	6	527798 186583
49	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 23.6 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A12SW (W)	778	6	527336 187185
50	**OS Water Network Lines** Watercourse Form: Lake Watercourse Length: 159.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Highgate Ponds Catchment Name: Thames Primacy: 1	A7SE (SW)	783	6	527808 186559

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
51	**OS Water Network Lines** Watercourse Form: Lake Watercourse Length: 43.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A7SE (SW)	783	6	527808 186559
52	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 33.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A12SW (W)	794	6	527318 187218
53	**OS Water Network Lines** Watercourse Form: Lake Watercourse Length: 87.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A12SW (W)	802	6	527313 187183
54	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 18.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A12SW (W)	809	6	527301 187247
55	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 16.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A7SE (SW)	809	6	527766 186549
56	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 40.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A12SW (W)	819	6	527290 187262
57	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 27.6 Watercourse Level: Underground Permanent: True Watercourse Name: Highgate Ponds Catchment Name: Thames Primacy: 1	A8SW (S)	822	6	527940 186477
58	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 119.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A7SE (SW)	823	6	527752 186541
59	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 3.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A7SE (SW)	823	6	527752 186541

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
60	**OS Water Network Lines** Watercourse Form: Lake Watercourse Length: 141.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Highgate Ponds Catchment Name: Thames Primacy: 1	A8SW (S)	833	6	527963 186462
61	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 23.3 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A12SW (W)	889	6	527227 187163
62	**OS Water Network Lines** Watercourse Form: Marsh Watercourse Length: 23.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A12SW (W)	902	6	527218 187140
63	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 184.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A7SE (SW)	907	6	527638 186507
64	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 2.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A7SE (SW)	907	6	527638 186507
65	**OS Water Network Lines** Watercourse Form: Lake Watercourse Length: 132.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A12SW (W)	916	6	527205 187131
66	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 10.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A17SW (NW)	1000	6	527261 187856

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Local Authority Landfill Coverage Name: London Borough of Camden - Has no landfill data to supply		0	7	528146 187300
	Local Authority Landfill Coverage Name: London Borough of Haringey - Has supplied landfill data		165	8	528160 187485
	Local Authority Landfill Coverage Name: London Borough of Islington - Has no landfill data to supply		649	9	528835 187195
67	**Potentially Infilled Land (Non-Water)** Bearing Ref: NE Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1996	A19SW (NE)	646	11	528688 187716
68	**Potentially Infilled Land (Non-Water)** Bearing Ref: NE Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1896	A19SE (NE)	823	11	528911 187701
69	**Potentially Infilled Land (Non-Water)** Bearing Ref: E Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1996	A14SE (E)	849	11	529029 187147
70	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1876	A18SW (N)	365	11	528057 187685
71	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1946	A18SE (NE)	486	11	528481 187693
72	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1896	A14SW (E)	538	11	528716 187169
73	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1876	A14NW (E)	595	11	528761 187476
74	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1876	A14NW (E)	597	11	528758 187489
75	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1876	A18SW (N)	629	11	528148 187951
76	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1876	A14NW (E)	655	11	528808 187523
77	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1876	A14NE (E)	674	11	528848 187458
78	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1896	A17SE (NW)	688	11	527618 187807
79	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1946	A19NW (NE)	784	11	528517 188016
80	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1876	A18NE (N)	927	11	528285 188233
81	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1896	A18NW (N)	954	11	527955 188265
82	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1876	A19SE (NE)	991	11	529101 187696

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS 1:625,000 Solid Geology Description: Bracklesham Group And Barton Group (Undifferentiated)	A13SW (SE)	0	1	528146 187300
	BGS 1:625,000 Solid Geology Description: Thames Group	A13NW (W)	0	1	528120 187306
	BGS Estimated Soil Chemistry No data available				
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 528213, 187266 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured Concentration: 22.40 mg/kg Cadmium Measured Concentration: 0.50 mg/kg Chromium Measured Concentration: 84.50 mg/kg Lead Measured Concentration: 382.20 mg/kg Nickel Measured Concentration: 21.90 mg/kg	A13SE (SE)	30	1	528213 187266
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 527819, 187616 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured Concentration: 12.50 mg/kg Cadmium Measured Concentration: 0.40 mg/kg Chromium Measured Concentration: 94.70 mg/kg Lead Measured Concentration: 201.10 mg/kg Nickel Measured Concentration: 14.10 mg/kg	A13NW (NW)	411	1	527819 187616
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 528316, 187756 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured Concentration: 18.10 mg/kg Cadmium Measured Concentration: 0.80 mg/kg Chromium Measured Concentration: 79.60 mg/kg Lead Measured Concentration: 761.60 mg/kg Nickel Measured Concentration: 31.00 mg/kg	A18SE (N)	470	1	528316 187756
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 527639, 187232 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured Concentration: 13.40 mg/kg Cadmium Measured Concentration: 0.50 mg/kg Chromium Measured Concentration: 110.70 mg/kg Lead Measured Concentration: 147.10 mg/kg Nickel Measured Concentration: 13.80 mg/kg	A12SE (W)	473	1	527639 187232

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 528669, 187173 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured Concentration: 13.30 mg/kg Cadmium Measured Concentration: 0.30 mg/kg Chromium Measured Concentration: 72.20 mg/kg Lead Measured Concentration: 148.70 mg/kg Nickel Measured Concentration: 12.90 mg/kg	A14SW (E)	491	1	528669 187173
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 528310, 186810 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured Concentration: 16.90 mg/kg Cadmium Measured Concentration: 0.30 mg/kg Chromium Measured Concentration: 121.40 mg/kg Lead Measured Concentration: 205.10 mg/kg Nickel Measured Concentration: 23.20 mg/kg	A8NE (S)	493	1	528310 186810
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 528658, 186810 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured Concentration: 19.20 mg/kg Cadmium Measured Concentration: 0.50 mg/kg Chromium Measured Concentration: 82.70 mg/kg Lead Measured Concentration: 148.90 mg/kg Nickel Measured Concentration: 29.10 mg/kg	A9NW (SE)	668	1	528658 186810
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 527676, 186759 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured Concentration: 15.30 mg/kg Cadmium Measured Concentration: 0.60 mg/kg Chromium Measured Concentration: 93.70 mg/kg Lead Measured Concentration: 232.10 mg/kg Nickel Measured Concentration: 19.50 mg/kg	A7NE (SW)	679	1	527676 186759
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 528776, 187704 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured Concentration: 16.00 mg/kg Cadmium Measured Concentration: 1.00 mg/kg Chromium Measured Concentration: 74.90 mg/kg Lead Measured Concentration: 262.90 mg/kg Nickel Measured Concentration: 27.00 mg/kg	A19SW (NE)	709	1	528776 187704

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 527233, 187207 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured Concentration: 12.20 mg/kg Cadmium Measured Concentration: 0.30 mg/kg Chromium Measured Concentration: 101.50 mg/kg Lead Measured Concentration: 188.80 mg/kg Nickel Measured Concentration: 13.10 mg/kg	A12SW (W)	879	1	527233 187207
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 528226, 188231 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured Concentration: 26.20 mg/kg Cadmium Measured Concentration: 0.50 mg/kg Chromium Measured Concentration: 107.20 mg/kg Lead Measured Concentration: 206.60 mg/kg Nickel Measured Concentration: 17.10 mg/kg	A18NE (N)	915	1	528226 188231
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 527238, 187609 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured Concentration: 19.50 mg/kg Cadmium Measured Concentration: 0.50 mg/kg Chromium Measured Concentration: 85.10 mg/kg Lead Measured Concentration: 395.80 mg/kg Nickel Measured Concentration: 44.00 mg/kg	A12NW (W)	915	1	527238 187609
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 528248, 186291 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured Concentration: 13.80 mg/kg Cadmium Measured Concentration: 0.50 mg/kg Chromium Measured Concentration: 88.40 mg/kg Lead Measured Concentration: 202.30 mg/kg Nickel Measured Concentration: 22.80 mg/kg	A8SE (S)	999	1	528248 186291

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Urban Soil Chemistry Averages Source: British Geological Survey, National Geoscience Information Service Sample Area: London Count Id: 7209 Arsenic Minimum Concentration: 1.00 mg/kg Arsenic Average Concentration: 17.00 mg/kg Arsenic Maximum Concentration: 161.00 mg/kg Cadmium Minimum Concentration: 0.10 mg/kg Cadmium Average Concentration: 0.90 mg/kg Cadmium Maximum Concentration: 165.20 mg/kg Chromium Minimum Concentration: 13.00 mg/kg Chromium Average Concentration: 79.00 mg/kg Chromium Maximum Concentration: 2094.00 mg/kg Lead Minimum Concentration: 11.00 mg/kg Lead Average Concentration: 280.00 mg/kg Lead Maximum Concentration: 10000.00 mg/kg Nickel Minimum Concentration: 2.00 mg/kg Nickel Average Concentration: 28.00 mg/kg Nickel Maximum Concentration: 506.00 mg/kg	A13SW (SE)	0	1	528146 187300
	Coal Mining Affected Areas In an area that might not be affected by coal mining				
	Non Coal Mining Areas of Great Britain No Hazard				
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SW (SE)	0	1	528146 187300
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SW (SE)	0	1	528146 187300
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SW (SE)	0	1	528146 187300
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SW (SE)	0	1	528146 187300
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SW (SE)	0	1	528146 187300
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SW (W)	33	1	528074 187294
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SW (SE)	0	1	528146 187300
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13SW (W)	33	1	528074 187294
	Radon Potential - Radon Affected Areas Affected Area: The property is in a Lower probability radon area (less than 1% of homes are estimated to be at or above the Action Level). Source: British Geological Survey, National Geoscience Information Service	A13SW (SE)	0	1	528146 187300
	Radon Potential - Radon Protection Measures Protection Measure: No radon protective measures are necessary in the construction of new dwellings or extensions Source: British Geological Survey, National Geoscience Information Service	A13SW (SE)	0	1	528146 187300

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
83	**Contemporary Trade Directory Entries** Name: Oven Cleaning High Gate Location: 77, Highgate West Hill, London, N6 6BU Classification: Oven cleaning **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13SE (E)	66	-	528258 187284
84	**Contemporary Trade Directory Entries** Name: Hygi Seat Location: 40, Highgate West Hill, London, N6 6LS Classification: Hygiene & Cleansing Services **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A13SW (S)	143	-	528098 187139
84	**Contemporary Trade Directory Entries** Name: 24hr Abacus Location: 40, Highgate West Hill, London, N6 6LS Classification: Air Conditioning Equipment & Systems **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A13SW (S)	144	-	528098 187139
85	**Contemporary Trade Directory Entries** Name: Bonsucro Location: 20, Pond Square, London, N6 6BA Classification: Sugar Refiners & Suppliers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13NE (NE)	176	-	528324 187419
85	**Contemporary Trade Directory Entries** Name: Smart Line Location: 57, Highgate High Street, London, N6 5JX Classification: Dry Cleaners **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13NE (NE)	208	-	528370 187409
85	**Contemporary Trade Directory Entries** Name: Cleaners Of Highgate Location: 39 Highgate High St, London, N6 5LA Classification: Carpet, Curtain & Upholstery Cleaners **Status: Inactive** Positional Accuracy: Manually positioned within the geographical locality	A13NE (E)	221	-	528393 187394
85	**Contemporary Trade Directory Entries** Name: A Man With A Van Highgate Location: 47, Highgate High Street, London, N6 5JX Classification: Rubbish Clearance **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13NE (E)	233	-	528408 187390
85	**Contemporary Trade Directory Entries** Name: Walter Castellazzo Designs Location: 84, Highgate High Street, London, N6 5HX Classification: Homefurnishings - Manufacturers **Status: Active** Positional Accuracy: Automatically positioned to the address	A13NE (NE)	238	-	528397 187422
86	**Contemporary Trade Directory Entries** Name: Highgate Scaffolding Location: 8, South Grove, London, N6 6BS Classification: Scaffolding & Work Platforms **Status: Active** Positional Accuracy: Automatically positioned to the address	A13NE (E)	257	-	528444 187351
86	**Contemporary Trade Directory Entries** Name: Highgate Cleaners Location: 37, Highgate High Street, London, N6 5JT Classification: Carpet, Curtain & Upholstery Cleaners **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13NE (E)	291	-	528478 187352
86	**Contemporary Trade Directory Entries** Name: Cleaners Highgate Location: 37, Highgate High Street, London, N6 5JT Classification: Cleaning Services - Domestic **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13NE (E)	291	-	528478 187352
86	**Contemporary Trade Directory Entries** Name: Cleaning Services Highgate Location: 29, Highgate High Street, London, N6 5JT Classification: Cleaning Services - Domestic **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13NE (E)	298	-	528487 187342

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
86	**Contemporary Trade Directory Entries** Name: Cyril R Salter Location: 44a, Highgate High Street, LONDON, N6 5HX Classification: Perfume Suppliers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A14NW (E)	319	-	528499 187388
87	**Contemporary Trade Directory Entries** Name: John Nichol Cars Ltd Location: 31-33 North Road, London, N6 4BE Classification: Car Dealers - Used **Status: Active** Positional Accuracy: Manually positioned to the address or location	A13NE (NE)	326	-	528288 187614
88	**Contemporary Trade Directory Entries** Name: Athlone House Location: Hampstead Lane, London, N6 4RX Classification: Hospitals **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12NE (NW)	363	-	527795 187509
89	**Contemporary Trade Directory Entries** Name: Vagabond Bags Ltd Location: 7, Broadbent Close, London, N6 5JW Classification: Bags, Belts & Accessories - Manufacturers & Suppliers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A14NW (E)	373	-	528551 187402
89	**Contemporary Trade Directory Entries** Name: Sally Poppy Location: 4, Broadbent Close, London, N6 5JW Classification: Lingerie Manufacturers & Wholesalers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A14NW (E)	391	-	528569 187406
89	**Contemporary Trade Directory Entries** Name: Radiant Location: 10, BROADBENT CLOSE, HORNSEY, LONDON, N6 5JW Classification: Lighting Manufacturers **Status: Active** Positional Accuracy: Automatically positioned to the address	A14NW (E)	410	-	528587 187410
90	**Contemporary Trade Directory Entries** Name: First Choice Dry Clean Location: 5, Highgate High Street, London, N6 5JR Classification: Dry Cleaners **Status: Active** Positional Accuracy: Automatically positioned to the address	A14NW (E)	384	-	528574 187337
90	**Contemporary Trade Directory Entries** Name: Highgate Motor Care Ltd Location: 20-22, Highgate High Street, London, N6 5JG Classification: Mot Testing Centres **Status: Active** Positional Accuracy: Automatically positioned to the address	A14NW (E)	390	-	528574 187376
91	**Contemporary Trade Directory Entries** Name: Highgate Cemetery Location: Swains Lane, London, N6 6PJ Classification: Cemeteries & Crematoria **Status: Active** Positional Accuracy: Automatically positioned to the address	A9NW (SE)	476	-	528541 186964
92	**Contemporary Trade Directory Entries** Name: Cleaning Services Highgate Location: 27, Oakeshott Avenue, London, N6 6NT Classification: Carpet, Curtain & Upholstery Cleaners **Status: Active** Positional Accuracy: Automatically positioned to the address	A8NE (S)	484	-	528259 186810
93	**Contemporary Trade Directory Entries** Name: Electrocoin Location: 1, Oakeshott Avenue, London, N6 6NT Classification: Electronic Engineers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A8NW (S)	510	-	528136 186773
94	**Contemporary Trade Directory Entries** Name: Southwood Hospital Location: Southwood Lane, London, N6 5SP Classification: Hospitals **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A18SE (NE)	530	-	528418 187782

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
95	**Contemporary Trade Directory Entries** Name: Antique Bronze Ltd Location: 44, Hillway, London, N6 6EP Classification: Antiques - Repairing & Restoring **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A8NE (SE)	587	-	528391 186736
96	**Contemporary Trade Directory Entries** Name: Stratstone Of Highgate Location: 1, North Hill, London, N6 4AB Classification: Car Dealers **Status: Inactive** Positional Accuracy: Automatically positioned in the proximity of the address	A18SE (N)	596	-	528228 187907
96	**Contemporary Trade Directory Entries** Name: London Brewing Co Location: 13, North Hill, London, N6 4AB Classification: Brewers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A18SE (N)	598	-	528231 187908
97	**Contemporary Trade Directory Entries** Name: Simply For You Location: 8, Stormont Road, London, N6 4NL Classification: Cleaning Services - Domestic **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A17SE (NW)	725	-	527493 187708
98	**Contemporary Trade Directory Entries** Name: Ed Tanner Location: 16, Causton Road, London, N6 5ES Classification: Leather Merchants & Wholesalers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A19SW (NE)	729	-	528802 187702
99	**Contemporary Trade Directory Entries** Name: London Female & Male Fertility Centre Location: 17, View Road, London, N6 4DJ Classification: Hospitals **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A18NW (NW)	752	-	527824 188021
99	**Contemporary Trade Directory Entries** Name: Highgate Hospital Location: 17, View Road, London, N6 4DJ Classification: Hospitals **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A18NW (NW)	752	-	527824 188021
100	**Contemporary Trade Directory Entries** Name: U C S Dampproofing & Timber Preservation Services Location: 53, Cromwell Avenue, London, N6 5HP Classification: Damp & Dry Rot Control **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A14NE (E)	753	-	528934 187427
101	**Contemporary Trade Directory Entries** Name: Liquivite Vet Foods Location: 3, Bromwich Avenue, London, N6 6QH Classification: Pet Foods & Animal Feeds **Status: Active** Positional Accuracy: Automatically positioned to the address	A8SE (SE)	787	-	528467 186551
102	**Contemporary Trade Directory Entries** Name: On Reflection Location: Highgate West Hill, London, N6 6AP Classification: Mirrors & Decorative Glass **Status: Inactive** Positional Accuracy: Manually positioned within the geographical locality	A8SE (S)	803	-	528256 186488
103	**Contemporary Trade Directory Entries** Name: Isl Frames Location: 191-197, Archway Road, London, N6 5BN Classification: Picture & Picture Frame Renovating & Restoring **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A19SE (NE)	807	-	528881 187722
103	**Contemporary Trade Directory Entries** Name: Tim Crocker Location: 197, Archway Road, London, N6 5BN Classification: Cabinet Makers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A19SE (NE)	807	-	528881 187722

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
103	**Contemporary Trade Directory Entries** Name: Stocker Furniture Location: 191, Archway Road, London, N6 5BN Classification: Furniture Manufacturers - Home & Office **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A19SE (NE)	807	-	528881 187722
103	**Contemporary Trade Directory Entries** Name: Rickards & Pearce Location: 197, Archway Road, London, N6 5BN Classification: Cabinet Makers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A19SE (NE)	807	-	528881 187722
103	**Contemporary Trade Directory Entries** Name: Woodsmiths Ltd Location: 201, Archway Road, London, N6 5BN Classification: Cabinet Makers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A19SE (NE)	810	-	528869 187745
103	**Contemporary Trade Directory Entries** Name: Anglo American Optical Location: HORNSEY, LONDON, N6 5AX Classification: Optical Goods - Manufacturers **Status: Active** Positional Accuracy: Automatically positioned to the address	A19SE (NE)	851	-	528913 187754
103	**Contemporary Trade Directory Entries** Name: D J Engineering Location: 206, Archway Road, London, N6 5BA Classification: Washing Machines - Servicing & Repairs **Status: Inactive** Positional Accuracy: Manually positioned to an adjacent address or location	A19SE (NE)	855	-	528929 187736
104	**Contemporary Trade Directory Entries** Name: A1 Discount Motor Services Location: 177, Archway Road, London, N6 5BL Classification: Garage Services **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A19SE (NE)	810	-	528919 187658
104	**Contemporary Trade Directory Entries** Name: Archway Dry Cleaners Location: 194, Archway Road, LONDON, N6 5BB Classification: Dry Cleaners **Status: Active** Positional Accuracy: Automatically positioned to the address	A19SE (NE)	856	-	528969 187662
104	**Contemporary Trade Directory Entries** Name: Ebone Location: 196, Archway Road, London, N6 5BB Classification: Hosiery Manufacturers & Wholesalers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A19SE (NE)	856	-	528966 187667
104	**Contemporary Trade Directory Entries** Name: Ebone Location: 196, Archway Road, London, N6 5BB Classification: Hosiery Manufacturers & Wholesalers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A19SE (NE)	856	-	528966 187667
105	**Contemporary Trade Directory Entries** Name: Capital Home Help Location: Flat 1, 223, Archway Road, London, N6 5BN Classification: Cleaning Services - Domestic **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A19SW (NE)	815	-	528793 187853
105	**Contemporary Trade Directory Entries** Name: Nssb Location: 246, Archway Road, London, N6 5AX Classification: Dry Cleaners **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A19SE (NE)	854	-	528857 187838
105	**Contemporary Trade Directory Entries** Name: Saha Services Ltd Location: 246 Archway Road, London, N6 5AX Classification: Dry Cleaners **Status: Active** Positional Accuracy: Automatically positioned to the address	A19SE (NE)	854	-	528857 187838

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
105	**Contemporary Trade Directory Entries** Name: Highgate Dry Clean & Laundry Location: 246, Archway Road, London, N6 5AX Classification: Dry Cleaners **Status: Active** Positional Accuracy: Automatically positioned to the address	A19SE (NE)	856	-	528859 187839
105	**Contemporary Trade Directory Entries** Name: Lavengro Print Centre Ltd Location: 252, Archway Road, London, N6 5AX Classification: Printers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A19SE (NE)	857	-	528849 187852
105	**Contemporary Trade Directory Entries** Name: Mr Clutch Location: 260-268, Archway Road, London, N6 5AX Classification: Brake & Clutch Service Centres **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A19SE (NE)	859	-	528830 187877
105	**Contemporary Trade Directory Entries** Name: Mr Clutch Location: 260-268, Archway Road, London, N6 5AX Classification: Brake & Clutch Service Centres **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A19SE (NE)	859	-	528830 187877
105	**Contemporary Trade Directory Entries** Name: Rachel'S Mirrors & Interiors Location: 270, Archway Road, London, N6 5AU Classification: Mirrors & Decorative Glass **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A19SE (NE)	866	-	528828 187890
105	**Contemporary Trade Directory Entries** Name: Archway Exhaust & Tyres Location: 274, Archway Road, London, N6 5AU Classification: Tyre Dealers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A19SW (NE)	877	-	528814 187920
106	**Contemporary Trade Directory Entries** Name: M K Londyn Cleaning Services Ltd Location: Archway Rd, London, N6 5AX Classification: Carpet, Curtain & Upholstery Cleaners **Status: Inactive** Positional Accuracy: Manually positioned to the road within the address or location	A19SE (NE)	832	-	528870 187784
106	**Contemporary Trade Directory Entries** Name: Junkanddisorderly.Com Location: Unit 7, 53 Archway Road, London, N6 5AX Classification: Waste Disposal Services **Status: Inactive** Positional Accuracy: Manually positioned within the geographical locality	A19SE (NE)	853	-	528875 187813
106	**Contemporary Trade Directory Entries** Name: Junkanddisorderly.Com Location: Unit 7,53 Archway Rd, London, N6 5AX Classification: Waste Disposal Services **Status: Inactive** Positional Accuracy: Manually positioned within the geographical locality	A19SE (NE)	853	-	528875 187813
106	**Contemporary Trade Directory Entries** Name: M K Londyn Ltd Location: 242, Archway Road, London, N6 5AX Classification: Carpet, Curtain & Upholstery Cleaners **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A19SE (NE)	854	-	528863 187831
106	**Contemporary Trade Directory Entries** Name: M K L Finance Ltd Location: 242, Archway Road, London, N6 5AX Classification: Cleaning Services - Domestic **Status: Active** Positional Accuracy: Automatically positioned to the address	A19SE (NE)	855	-	528863 187831
107	**Contemporary Trade Directory Entries** Name: Sophie Levene Location: 5, Jacksons Lane, London, N6 5SR Classification: Antiques - Repairing & Restoring **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A19NW (NE)	834	-	528637 188007

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
108	**Contemporary Trade Directory Entries** Name: Bendix Self-Service Launderette Location: 202, Archway Road, London, N6 5BA Classification: Laundries & Launderettes **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A19SE (NE)	850	-	528937 187711
109	**Contemporary Trade Directory Entries** Name: The Stained Glassworks Location: HORNSEY, LONDON, N6 5BB Classification: Stained Glass Designers & Producers **Status: Active** Positional Accuracy: Automatically positioned to the address	A19SE (NE)	859	-	528978 187648
109	**Contemporary Trade Directory Entries** Name: Changing Curtains Location: HORNSEY, LONDON, N6 5BB Classification: Blinds, Awnings & Canopies **Status: Active** Positional Accuracy: Automatically positioned to the address	A19SE (E)	859	-	528980 187642
110	**Contemporary Trade Directory Entries** Name: Highgate Launderette Location: 176, Archway Road, London, N6 5BB Classification: Laundries & Launderettes **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A14NE (E)	864	-	528997 187615
110	**Contemporary Trade Directory Entries** Name: Highgate Launderette Location: 176, Archway Road, London, N6 5BB Classification: Laundries & Launderettes **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A14NE (E)	864	-	528997 187615
110	**Contemporary Trade Directory Entries** Name: Pax Guns Location: 166, Archway Road, London, N6 5BB Classification: Gunsmiths **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A14NE (E)	869	-	529012 187588
110	**Contemporary Trade Directory Entries** Name: Pax Guns Ltd Location: 166, Archway Road, London, N6 5BB Classification: Gunsmiths **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A14NE (E)	869	-	529012 187588
110	**Contemporary Trade Directory Entries** Name: M A Logistics World Location: 168, ARCHWAY ROAD, HORNSEY, LONDON, N6 5BB Classification: Road Haulage Services **Status: Active** Positional Accuracy: Automatically positioned to the address	A14NE (E)	869	-	529010 187594
110	**Contemporary Trade Directory Entries** Name: Amano Ltd Location: 164, Archway Road, London, N6 5BB Classification: Knitwear Manufacturers & Wholesalers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A14NE (E)	869	-	529015 187582
111	**Contemporary Trade Directory Entries** Name: Prestige Dry Cleaners Uk Ltd Location: 289, Archway Road, LONDON, N6 5AA Classification: Dry Cleaners **Status: Active** Positional Accuracy: Automatically positioned to the address	A19NW (NE)	868	-	528580 188078
111	**Contemporary Trade Directory Entries** Name: Stantons Location: 297, Archway Road, London, N6 5AA Classification: Cleaning Materials & Equipment **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A19NW (NE)	868	-	528572 188083
111	**Contemporary Trade Directory Entries** Name: British Spirals & Casting Location: 305, Archway Road, LONDON, N6 5AA Classification: Ornamental Metalwork **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A19NW (NE)	869	-	528562 188088

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
111	**Contemporary Trade Directory Entries** Name: Tilleys London Castings Location: 305, Archway Road, London, N6 5AA Classification: Metal Workers **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A19NW (NE)	869	-	528562 188088
112	**Contemporary Trade Directory Entries** Name: Marivel Group Location: 52, Talbot Road, London, N6 4QP Classification: Packaging & Wrapping Equipment & Supplies **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A18NE (N)	877	-	528176 188197
113	**Contemporary Trade Directory Entries** Name: The Wash House Location: 337, Archway Road, London, N6 5AA Classification: Laundries & Launderettes **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A19NW (NE)	878	-	528518 188118
113	**Contemporary Trade Directory Entries** Name: Chambers Engineering Location: 312, Archway Road, London, N6 5AT Classification: Garage Services **Status: Inactive** Positional Accuracy: Automatically positioned in the proximity of the address	A19NW (NE)	919	-	528523 188160
114	**Contemporary Trade Directory Entries** Name: Norlux Ltd Location: 74, Chester Road, London, N19 5BZ Classification: Laundries & Launderettes **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A9NW (SE)	881	-	528792 186643
114	**Contemporary Trade Directory Entries** Name: Sweet Fa Uk Ltd Location: 62, Chester Road, London, N19 5BZ Classification: Clothing & Fabrics - Manufacturers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A9NW (SE)	881	-	528792 186643
115	**Contemporary Trade Directory Entries** Name: Artisans Libres Location: 292, Archway Road, London, N6 5AU Classification: Furniture - Repairing & Restoring **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A19SW (NE)	882	-	528778 187961
116	**Contemporary Trade Directory Entries** Name: Brookfield Garage Location: 5, Swains Lane, London, N6 6QX Classification: Garage Services **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A8SE (S)	899	-	528303 186397
116	**Contemporary Trade Directory Entries** Name: Cavours Location: 110, Highgate West Hill, London, N6 6AP Classification: Hardware **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A8SE (S)	920	-	528287 186374
116	**Contemporary Trade Directory Entries** Name: Consulting Rooms Location: West Hill House,6c Swains Lane, Camden, London, N6 6QS Classification: Hospitals **Status: Active** Positional Accuracy: Automatically positioned to the address	A8SE (S)	940	-	528328 186358
117	**Contemporary Trade Directory Entries** Name: P E L Waste Reduction Equipment Location: 312, ARCHWAY ROAD, HORNSEY, LONDON, N6 5AT Classification: Waste Processing Machinery **Status: Active** Positional Accuracy: Automatically positioned to the address	A19NW (NE)	899	-	528731 188021
118	**Contemporary Trade Directory Entries** Name: Cleaning Lady London Location: 35, Bishops Road, London, N6 4HP Classification: Cleaning Services - Domestic **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A18NE (N)	901	-	528294 188205

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
119	**Contemporary Trade Directory Entries** Name: M Karoullas Location: 367, Archway Road, London, N6 4EJ Classification: Dry Cleaners **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A18NE (N)	911	-	528420 188184
119	**Contemporary Trade Directory Entries** Name: R K Tuning Location: 426, Archway Road, London, N6 4JH Classification: Car Engine Tuning & Diagnostic Services **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A18NE (N)	943	-	528424 188216
120	**Contemporary Trade Directory Entries** Name: Archway Design & Build Location: Commercial Unit, 22, Highgate Hill, London, N19 5NL Classification: Damp & Dry Rot Control **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A14SE (E)	942	-	529108 187069
120	**Contemporary Trade Directory Entries** Name: Archway Contractors Ltd Location: 22, Highgate Hill, London, N19 5NL Classification: Damp & Dry Rot Control **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A14SE (E)	942	-	529108 187069
121	**Contemporary Trade Directory Entries** Name: Kemet Creatives Location: 12a, St. Albans Road, London, NW5 1RD Classification: Clothing & Fabrics - Manufacturers **Status: Active** Positional Accuracy: Automatically positioned to the address	A8SE (S)	948	-	528418 186368
122	**Contemporary Trade Directory Entries** Name: Intelligent Hormone Sciences Ltd Location: Unit 3 42 Orchard Road, London, N6 5TR Classification: Laboratories **Status: Inactive** Positional Accuracy: Manually positioned within the geographical locality	A19SE (NE)	968	-	528946 187909
123	**Contemporary Trade Directory Entries** Name: Just Jeeps (Uk) Ltd Location: 440, Archway Road, London, N6 4JH Classification: Garage Services **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A18NE (N)	973	-	528357 188264
124	**Contemporary Trade Directory Entries** Name: The Paper Conservation Studio Ltd Location: 80, Archway Road, London, N19 3TT Classification: Art Restoration & Picture Cleaning **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A15NW (E)	1000	-	529192 187313
125	**Fuel Station Entries** Name: John Nichol Cars Location: 31-33, North Road , Highgate , London, Inner London, N6 4BE Brand: Gulf Premises Type: Petrol Station **Status: Open** Positional Accuracy: Automatically positioned to the address	A13NE (NE)	324	-	528290 187611
126	**Points of Interest - Commercial Services** Name: Highgate Motor Care Ltd Location: 20-22 Broadbent Close, London, N6 5JW Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A14NW (E)	385	10	528570 187373
126	**Points of Interest - Commercial Services** Name: Highgate Motors Location: 9 Broadbent Close, London, N6 5JW Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A14NW (E)	405	10	528581 187415
126	**Points of Interest - Commercial Services** Name: Highgate Motors Location: 9 Broadbent Close, London, N6 5JW Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A14NW (E)	409	10	528587 187410

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
127	**Points of Interest - Commercial Services** Name: Mr Clutch Location: 260-268 Archway Road, London, N6 5AX Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A19SE (NE)	859	10	528830 187877
127	**Points of Interest - Commercial Services** Name: Mr Clutch Location: 260-268 Archway Road, London, N6 5AX Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A19SE (NE)	859	10	528830 187877
127	**Points of Interest - Commercial Services** Name: Mr Clutch Location: 260-268 Archway Road, London, N6 5AX Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A19SE (NE)	859	10	528830 187877
128	**Points of Interest - Commercial Services** Name: M A Logistics World Location: 168 ARCHWAY ROAD, Hornsey, London, N6 5BB Category: Transport, Storage and Delivery Class Code: Distribution and Haulage Positional Accuracy: Positioned to address or location	A14NE (E)	869	10	529010 187594
129	**Points of Interest - Commercial Services** Name: Tilleys London Castings Location: 305 Archway Road, London, N6 5AA Category: Construction Services Class Code: Metalworkers Including Blacksmiths Positional Accuracy: Positioned to address or location	A19NW (NE)	869	10	528562 188088
129	**Points of Interest - Commercial Services** Name: British Spirals & Casting Location: 305 Archway Road, London, N6 5AA Category: Construction Services Class Code: Metalworkers Including Blacksmiths Positional Accuracy: Positioned to address or location	A19NW (NE)	869	10	528562 188088
130	**Points of Interest - Commercial Services** Name: Lyras Maritime Ltd Location: 17 Sheldon Avenue, London, N6 4JS Category: Transport, Storage and Delivery Class Code: Distribution and Haulage Positional Accuracy: Positioned to address or location	A17SW (NW)	891	10	527385 187845
131	**Points of Interest - Commercial Services** Name: Maple Surveys Location: Flat 1 Highcroft, North Hill, London, N6 4RD Category: Recycling Services Class Code: Recycling, Reclamation and Disposal Positional Accuracy: Positioned to address or location	A18NW (N)	895	10	528078 188218
132	**Points of Interest - Commercial Services** Name: Just Jeeps Location: 440 Archway Road, London, N6 4JH Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A18NE (N)	973	10	528357 188264
133	**Points of Interest - Education and Health** Name: Southwood Hospital Location: Southwood Lane, London, N6 5SP Category: Health Practitioners and Establishments Class Code: Hospitals Positional Accuracy: Positioned to address or location	A18SE (NE)	530	10	528418 187782
134	**Points of Interest - Education and Health** Name: London Female & Male Fertility Centre Location: 17 View Road, London, N6 4DJ Category: Health Practitioners and Establishments Class Code: Hospitals Positional Accuracy: Positioned to address or location	A18NW (NW)	752	10	527824 188021
134	**Points of Interest - Education and Health** Name: Highgate Hospital Location: 17 View Road, London, N6 4DJ Category: Health Practitioners and Establishments Class Code: Hospitals Positional Accuracy: Positioned to address or location	A18NW (NW)	752	10	527824 188021

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
134	**Points of Interest - Education and Health** Name: Highgate Private Hospital Location: 17 View Road, London, N6 4DJ Category: Health Practitioners and Establishments Class Code: Hospitals Positional Accuracy: Positioned to address or location	A18NW (NW)	752	10	527824 188021
134	**Points of Interest - Education and Health** Name: Highgate Hospital Location: 17 View Road, London, N6 4DJ Category: Health Practitioners and Establishments Class Code: Hospitals Positional Accuracy: Positioned to address or location	A17NE (NW)	758	10	527809 188020
135	**Points of Interest - Education and Health** Name: Whittington Hospital Location: Highgate Hill, London, N19 5NX Category: Health Practitioners and Establishments Class Code: Hospitals Positional Accuracy: Positioned to address or location	A9NE (SE)	942	10	529057 186916
135	**Points of Interest - Education and Health** Name: Whittington Hospital Location: St. Marys Wing, Magdala Avenue, London, N19 5NF Category: Health Practitioners and Establishments Class Code: Hospitals Positional Accuracy: Positioned to address or location	A9NE (E)	956	10	529078 186930
136	**Points of Interest - Education and Health** Name: Whittington Hospital Location: St. Marys Wing, Magdala Avenue, London, N19 5NF Category: Health Practitioners and Establishments Class Code: Accident & Emergency Department Positional Accuracy: Positioned to address or location	A14SE (E)	998	10	529144 186987
137	**Points of Interest - Manufacturing and Production** Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A13NE (E)	123	10	528305 187350
138	**Points of Interest - Manufacturing and Production** Name: Tank Location: N6 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A18NE (N)	805	10	528195 188124
139	**Points of Interest - Manufacturing and Production** Name: Shaft Location: N6 Category: Extractive Industries Class Code: Unspecified Quarries Or Mines Positional Accuracy: Positioned to an adjacent address or location	A14NE (E)	836	10	529026 187346
140	**Points of Interest - Manufacturing and Production** Name: Tank Location: N6 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A18NW (N)	897	10	528103 188220
141	**Points of Interest - Manufacturing and Production** Name: Tank Location: N19 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A9NE (SE)	919	10	529018 186885
142	**Points of Interest - Manufacturing and Production** Name: West Hill House Location: WEST HILL HOUSE 6, SWAINS LANE, London, N6 6QS Category: Industrial Features Class Code: Business Parks and Industrial Estates Positional Accuracy: Positioned to address or location	A8SE (S)	940	10	528328 186358
142	**Points of Interest - Manufacturing and Production** Name: West Hill House Business Centre Location: 6 Swains Lane, London, N6 6QS Category: Industrial Features Class Code: Business Parks and Industrial Estates Positional Accuracy: Positioned to address or location	A8SE (S)	941	10	528328 186358

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
143	**Points of Interest - Manufacturing and Production** Name: Tank Location: N6 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A19NW (NE)	962	10	528618 188165
144	**Points of Interest - Public Infrastructure** Name: Mausoleum Location: Not Supplied Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to an adjacent address or location	A13SE (SE)	192	10	528325 187149
144	**Points of Interest - Public Infrastructure** Name: Mausoleum Location: Not Supplied Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to an adjacent address or location	A13SE (SE)	213	10	528362 187159
144	**Points of Interest - Public Infrastructure** Name: Mausoleum Location: Not Supplied Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to an adjacent address or location	A13SE (SE)	260	10	528375 187104
144	**Points of Interest - Public Infrastructure** Name: Highgate Cemetery Location: N6 Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to an adjacent address or location	A13SE (SE)	291	10	528401 187086
145	**Points of Interest - Public Infrastructure** Name: A Man with a Van Highgate Location: 47 Highgate High Street, London, N6 5JX Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to address or location	A13NE (E)	233	10	528408 187390
146	**Points of Interest - Public Infrastructure** Name: John Nichol Cars Location: 31-33 North Road, Highgate, London, N6 4BE Category: Road And Rail Class Code: Petrol and Fuel Stations Positional Accuracy: Positioned to address or location	A13NE (NE)	324	10	528290 187611
146	**Points of Interest - Public Infrastructure** Name: John Nichol (Cars) Ltd Location: 33 North Road, London, N6 4BE Category: Road And Rail Class Code: Petrol and Fuel Stations Positional Accuracy: Positioned to address or location	A13NE (NE)	333	10	528292 187620
147	**Points of Interest - Public Infrastructure** Name: Mausoleum Location: Not Supplied Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to an adjacent address or location	A13SE (SE)	380	10	528414 186980
147	**Points of Interest - Public Infrastructure** Name: Highgate Cemetery Location: N6 Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to an adjacent address or location	A8NE (SE)	432	10	528430 186928
148	**Points of Interest - Public Infrastructure** Name: Highgate Cemetery Location: N6 Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to an adjacent address or location	A14SW (SE)	409	10	528517 187039
148	**Points of Interest - Public Infrastructure** Name: Cemetery Location: N6 Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to an adjacent address or location	A14SW (SE)	464	10	528526 186966

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
148	**Points of Interest - Public Infrastructure** Name: Highgate Cemetery Location: Swains Lane, London, N6 6PJ Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to address or location	A9NW (SE)	476	10	528541 186964
148	**Points of Interest - Public Infrastructure** Name: Highgate Cemetery Location: Swains Lane, London, N6 6PJ Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to address or location	A9NW (SE)	477	10	528541 186964
149	**Points of Interest - Public Infrastructure** Name: Sluice Location: N6 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A7NE (SW)	582	10	527642 186935
150	**Points of Interest - Public Infrastructure** Name: Sluice Location: N6 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A12SE (W)	599	10	527540 187095
150	**Points of Interest - Public Infrastructure** Name: Sluice Location: N6 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A12SE (W)	603	10	527536 187095
151	**Points of Interest - Public Infrastructure** Name: Sluice Location: N6 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A7NE (SW)	663	10	527696 186763
152	**Points of Interest - Public Infrastructure** Name: Highgate Cemetery Location: N19 Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to an adjacent address or location	A9NW (SE)	723	10	528727 186802
153	**Points of Interest - Public Infrastructure** Name: Outfall Location: N6 Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to an adjacent address or location	A7SE (SW)	750	10	527756 186620
153	**Points of Interest - Public Infrastructure** Name: Sluice Location: N6 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A7SE (SW)	805	10	527766 186554
154	**Points of Interest - Public Infrastructure** Name: Mortuary Location: Not Supplied Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to an adjacent address or location	A9NE (SE)	787	10	528887 186918
155	**Points of Interest - Public Infrastructure** Name: Sluice Location: N6 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A12SW (W)	803	10	527312 187184
155	**Points of Interest - Public Infrastructure** Name: Sluice Location: N6 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A12SW (W)	808	10	527307 187183

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
156	**Points of Interest - Public Infrastructure** Name: M K Londyn Waste Location: 242a Archway Road, London, N6 5AX Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to address or location	A19SE (NE)	854	10	528863 187831
157	**Points of Interest - Public Infrastructure** Name: Sluice Location: N6 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A8SW (S)	879	10	527877 186434
158	**Points of Interest - Public Infrastructure** Name: Sluice Location: NW3 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A12SW (W)	906	10	527214 187142
158	**Points of Interest - Public Infrastructure** Name: Sluice Location: NW3 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A12SW (W)	911	10	527209 187141
159	**Points of Interest - Public Infrastructure** Name: Sludge Tank Location: N19 Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to an adjacent address or location	A9NE (SE)	909	10	528977 186829
160	**Points of Interest - Public Infrastructure** Name: Police Station Location: Outside Police Station Archway Road, Highgate, London, N6 4ER Category: Central and Local Government Class Code: Police Stations Positional Accuracy: Positioned to address or location	A18NE (N)	961	10	528282 188268
160	**Points of Interest - Public Infrastructure** Name: Highgate Police Station Location: Highgate Police Station 407, Archway Road, London, N6 4NW Category: Central and Local Government Class Code: Police Stations Positional Accuracy: Positioned to address or location	A18NE (N)	961	10	528282 188269
161	**Points of Interest - Public Infrastructure** Name: Sluice Location: N6 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A8SW (S)	961	10	528024 186325
161	**Points of Interest - Public Infrastructure** Name: Sluice Location: N6 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A8SW (S)	961	10	528029 186325
162	**Points of Interest - Recreational and Environmental** Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A14SE (E)	842	10	529012 187097
162	**Points of Interest - Recreational and Environmental** Name: Playground Location: Nr Highgate Hill, N19 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A14SE (E)	843	10	529001 187051
162	**Points of Interest - Recreational and Environmental** Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A14SE (E)	851	10	529010 187052

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
163	**Points of Interest - Recreational and Environmental** Name: Play Area Location: N19 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A9NE (SE)	879	10	528834 186687
164	**Points of Interest - Recreational and Environmental** Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A19NE (NE)	989	10	528886 188007
165	**Underground Electrical Cables** Unique Feature Identifier: 10006401 Cable Status: Electrically Decommissioned Cable Type: Cable Unknown Record Last Updated: 9th July 2018	A13NE (NE)	216	11	528360 187437
166	**Underground Electrical Cables** Unique Feature Identifier: 10006637 Cable Status: Electrically Decommissioned Cable Type: Cable Unknown Record Last Updated: 9th July 2018	A13NE (NE)	243	11	528362 187475
167	**Underground Electrical Cables** Unique Feature Identifier: 10005939 Cable Status: Electrically Decommissioned Cable Type: Cable Unknown Record Last Updated: 9th July 2018	A14NW (E)	336	11	528519 187378
168	**Underground Electrical Cables** Unique Feature Identifier: 10006636 Cable Status: Electrically Decommissioned Cable Type: Cable Unknown Record Last Updated: 9th July 2018	A18SE (NE)	394	11	528378 187649
169	**Underground Electrical Cables** Unique Feature Identifier: 10006400 Cable Status: Electrically Decommissioned Cable Type: Cable Unknown Record Last Updated: 9th July 2018	A14NW (E)	460	11	528650 187342
170	**Underground Electrical Cables** Unique Feature Identifier: 10006604 Cable Status: Electrically Decommissioned Cable Type: Cable Unknown Record Last Updated: 9th July 2018	A18SE (N)	538	11	528318 187825
171	**Underground Electrical Cables** Unique Feature Identifier: 10006667 Cable Status: Electrically Decommissioned Cable Type: Cable Unknown Record Last Updated: 9th July 2018	A18SE (N)	570	11	528293 187863
172	**Underground Electrical Cables** Unique Feature Identifier: 10006635 Cable Status: Electrically Decommissioned Cable Type: Cable Unknown Record Last Updated: 9th July 2018	A14SE (E)	646	11	528836 187243

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
173	**Underground Electrical Cables** Unique Feature Identifier: 10005941 Cable Status: Electrically Decommissioned Cable Type: Cable Unknown Record Last Updated: 9th July 2018	A18NE (N)	696	11	528202 188013
174	**Underground Electrical Cables** Unique Feature Identifier: 10006634 Cable Status: Electrically Decommissioned Cable Type: Cable Unknown Record Last Updated: 9th July 2018	A14SE (E)	702	11	528879 187141
175	**Underground Electrical Cables** Unique Feature Identifier: 10006558 Cable Status: Electrically Decommissioned Cable Type: Cable Unknown Record Last Updated: 9th July 2018	A18NE (N)	759	11	528160 188080
176	**Underground Electrical Cables** Unique Feature Identifier: 10006605 Cable Status: Electrically Decommissioned Cable Type: Cable Unknown Record Last Updated: 9th July 2018	A14SE (E)	775	11	528913 187003
177	**Underground Electrical Cables** Unique Feature Identifier: 10006612 Cable Status: Electrically Decommissioned Cable Type: Cable Unknown Record Last Updated: 9th July 2018	A18NW (N)	875	11	528075 188198
178	**Underground Electrical Cables** Unique Feature Identifier: 10006399 Cable Status: Electrically Decommissioned Cable Type: Cable Unknown Record Last Updated: 9th July 2018	A9NE (SE)	887	11	528944 186816

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
179	**Ancient Woodland** Name: Ken Wood Reference: 1495724 Area(m²): 94873.71 Type: Ancient and Semi-Natural Woodland	A12SW (W)	734	12	527421 187027
180	**Ancient Woodland** Name: Queens Wood Reference: 1495755 Area(m²): 245788.97 Type: Ancient and Semi-Natural Woodland	A18NE (N)	979	12	528457 188244
181	**Local Nature Reserves** Name: Parkland Walk Multiple Area: Y Area (m2): 143103.64 Source: Natural England Designation Date: 1st January 1990	A19NW (NE)	912	12	528756 188018
182	**Sites of Special Scientific Interest** Name: Hampstead Heath Woods Multiple Areas: Y Total Area (m2): 161715.26 Source: Natural England Reference: 1003451 Designation Details: Site Of Special Scientific Interest Designation Date: 18th April 1990 Date Type: Notified	A12SW (W)	734	12	527421 187027

Data Suppliers

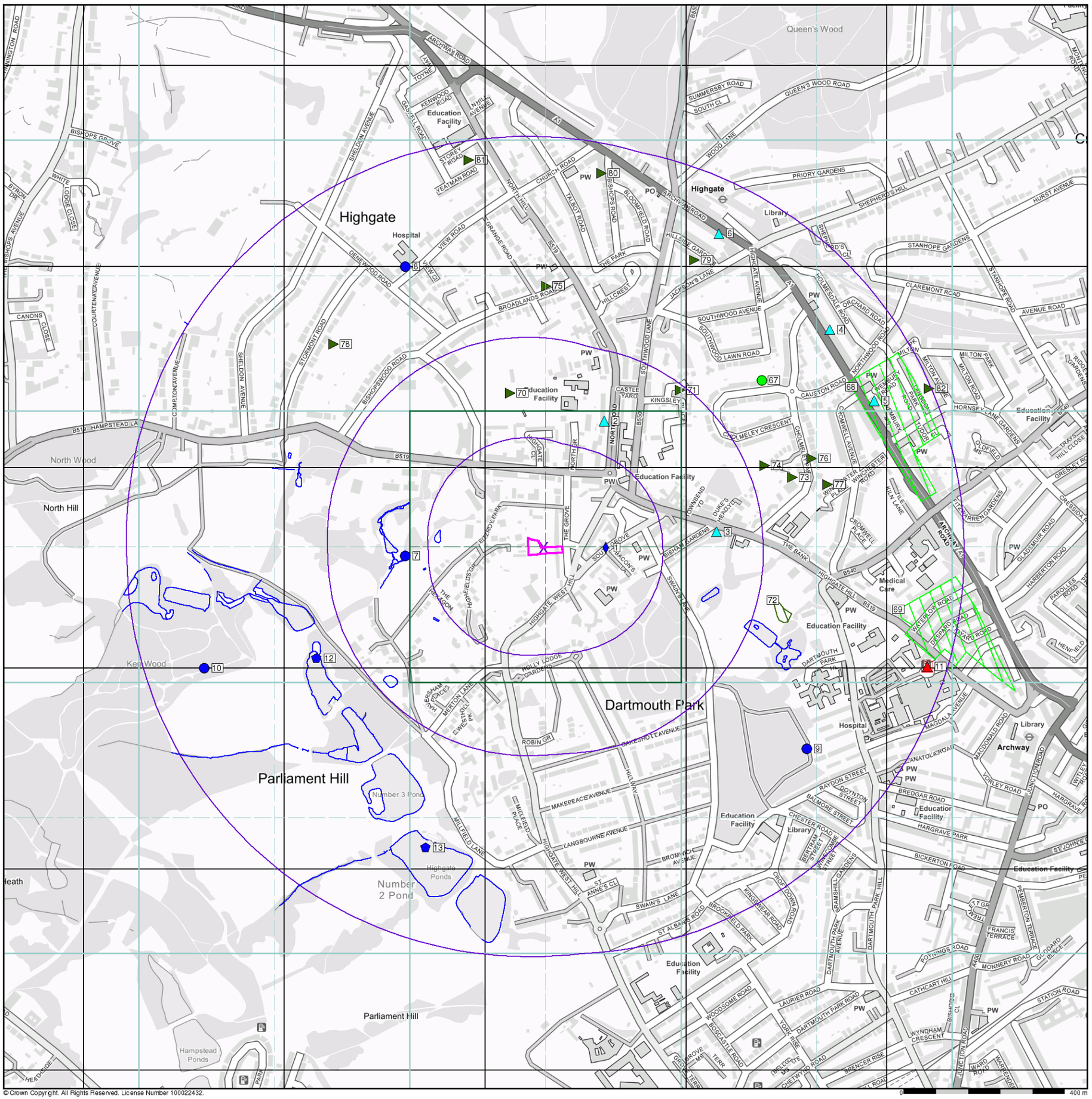
A selection of organisations who provide data within this report

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

Useful Contacts

Contact	Name and Address	Contact Details
1	**British Geological Survey - Enquiry Service** British Geological Survey, Environmental Science Centre, Keyworth, Nottingham, Nottinghamshire, NG12 5GG	Telephone: 0115 936 3143 Fax: 0115 936 3276 Email: enquiries@bgs.ac.uk Website: www.bgs.ac.uk
2	**Environment Agency - National Customer Contact Centre (NCCC)** PO Box 544, Templeborough, Rotherham, S60 1BY	Telephone: 03708 506 506 Email: enquiries@environment-agency.gov.uk
3	**London Borough of Haringey - Planning and Environmental Health** 639 High Road, Tottenham, London, N17 8BD	Telephone: 0208 489 5183 Fax: 0208 489 5117 Website: www.haringey.gov.uk
4	**London Borough of Camden - Pollution Projects Team** Seventh Floor, Town Hall Extension, Argyle Street, London, WC1H 8EQ	Telephone: 020 7278 4444 Fax: 020 7860 5713 Website: www.camden.gov.uk
5	**Environment Agency - Head Office** Rio House, Waterside Drive, Aztec West, Almondsbury, Bristol, Avon, BS32 4UD	Telephone: 01454 624400 Fax: 01454 624409
6	**Ordnance Survey** Adanac Drive, Southampton, Hampshire, SO16 0AS	Telephone: 03456 05 05 05 Email: customerservices@ordnancesurvey.co.uk Website: www.ordnancesurvey.gov.uk
7	**London Borough of Camden** Town Hall, Judd Street, London, WC1H 9JE	Telephone: 020 7974 4444 Fax: 020 7974 6866 Email: info@camden.gov.uk Website: www.camden.gov.uk
8	**London Borough of Haringey - Planning Department** Civic Centre, 639 High Road, Tottenham, London, N17 8BD	Website: www.haringey.gov.uk
9	**London Borough of Islington - Environmental Health Department** 159 Upper Street, Islington, London, N1 1RE	Telephone: 020 7527 2000 Fax: 020 7477 3057 Website: www.islington.gov.uk
10	**PointX** 7 Abbey Court, Eagle Way, Sowton, Exeter, Devon, EX2 7HY	Website: www.pointx.co.uk
11	**Landmark Information Group Limited** Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0844 844 9966 Fax: 0844 844 9951 Email: helpdesk@landmark.co.uk Website: www.landmark.co.uk
12	**Natural England** County Hall, Spetchley Road, Worcester, WR5 2NP	Telephone: 0300 060 3900 Email: enquiries@naturalengland.org.uk Website: www.naturalengland.org.uk
-	**Public Health England - Radon Survey, Centre for Radiation, Chemical and Environmental Hazards** Chilton, Didcot, Oxfordshire, OX11 0RQ	Telephone: 01235 822622 Fax: 01235 833891 Email: radon@phe.gov.uk Website: www.ukradon.org
-	**Landmark Information Group Limited** Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0844 844 9952 Fax: 0844 844 9951 Email: customerservices@landmarkinfo.co.uk Website: www.landmarkinfo.co.uk

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



0 400 m

GEA

General

Specified Site | Specified Buffer(s) | Bearing Reference Point | Map ID

Several of Type at Location

Agency and Hydrological

- Contaminated Land Register Entry or Notice (Location)
- Contaminated Land Register Entry or Notice
- Discharge Consent
- Enforcement or Prohibition Notice
- Integrated Pollution Control
- Integrated Pollution Prevention Control
- Local Authority Integrated Pollution Prevention and Control
- Local Authority Pollution Prevention and Control
- Local Authority Pollution Prevention and Control Enforcement
- Pollution Incident to Controlled Waters
- Prosecution Relating to Authorised Processes
- Prosecution Relating to Controlled Waters
- Registered Radioactive Substance
- River Network or Water Feature
- River Quality Sampling Point
- Substantiated Pollution Incident Register
- Water Abstraction
- Water Industry Act Referral

Hazardous Substances

COMAH Site | Explosive Site | NIHHS Site | Planning Hazardous Substance Consent | Planning Hazardous Substance Enforcement

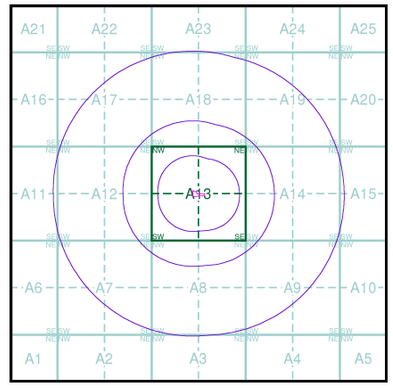
Geological

- BGS Recorded Mineral Site

Waste

- BGS Recorded Landfill Site (Location)
- BGS Recorded Landfill Site
- EA Historic Landfill (Buffered Point)
- EA Historic Landfill (Polygon)
- Integrated Pollution Control Registered Waste Site
- Licensed Waste Management Facility (Landfill Boundary)
- Licensed Waste Management Facility (Location)
- Local Authority Recorded Landfill Site (Location)
- Local Authority Recorded Landfill Site
- Potentially Infilled Land (Non-water)
- Potentially Infilled Land (Non-water)
- Potentially Infilled Land (Non-water)
- Potentially Infilled Land (Water)
- Potentially Infilled Land (Water)
- Potentially Infilled Land (Water)
- Registered Landfill Site
- Registered Landfill Site (Location)
- Registered Landfill Site (Point Buffered to 100m)
- Registered Landfill Site (Point Buffered to 250m)
- Registered Waste Transfer Site (Location)
- Registered Waste Transfer Site
- Registered Waste Treatment or Disposal Site (Location)
- Registered Waste Treatment or Disposal Site

Site Sensitivity Map - Slice A



Order Details

Order Number:	280788528_1_1
Customer Ref:	J21179
National Grid Reference:	528150, 187300
Slice:	A
Site Area (Ha):	0.2
Search Buffer (m):	1000

Site Details

5, The Grove, LONDON, N6 6JU

Landmark INFORMATION GROUP

Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk

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Industrial Land Use Map

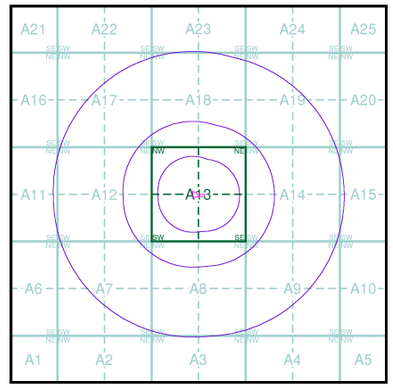
General

Specified Site | Specified Buffer(s) | Bearing Reference Point | Slice | Map ID

Industrial Land Use

- Contemporary Trade Directory Entry
- Fuel Station Entry
- Gas Pipeline
- Points of Interest - Commercial Services
- Points of Interest - Education and Health
- Points of Interest - Manufacturing and Production
- Points of Interest - Public Infrastructure
- Points of Interest - Recreational and Environmental
- Underground Electrical Cables

Industrial Land Use Map - Slice A



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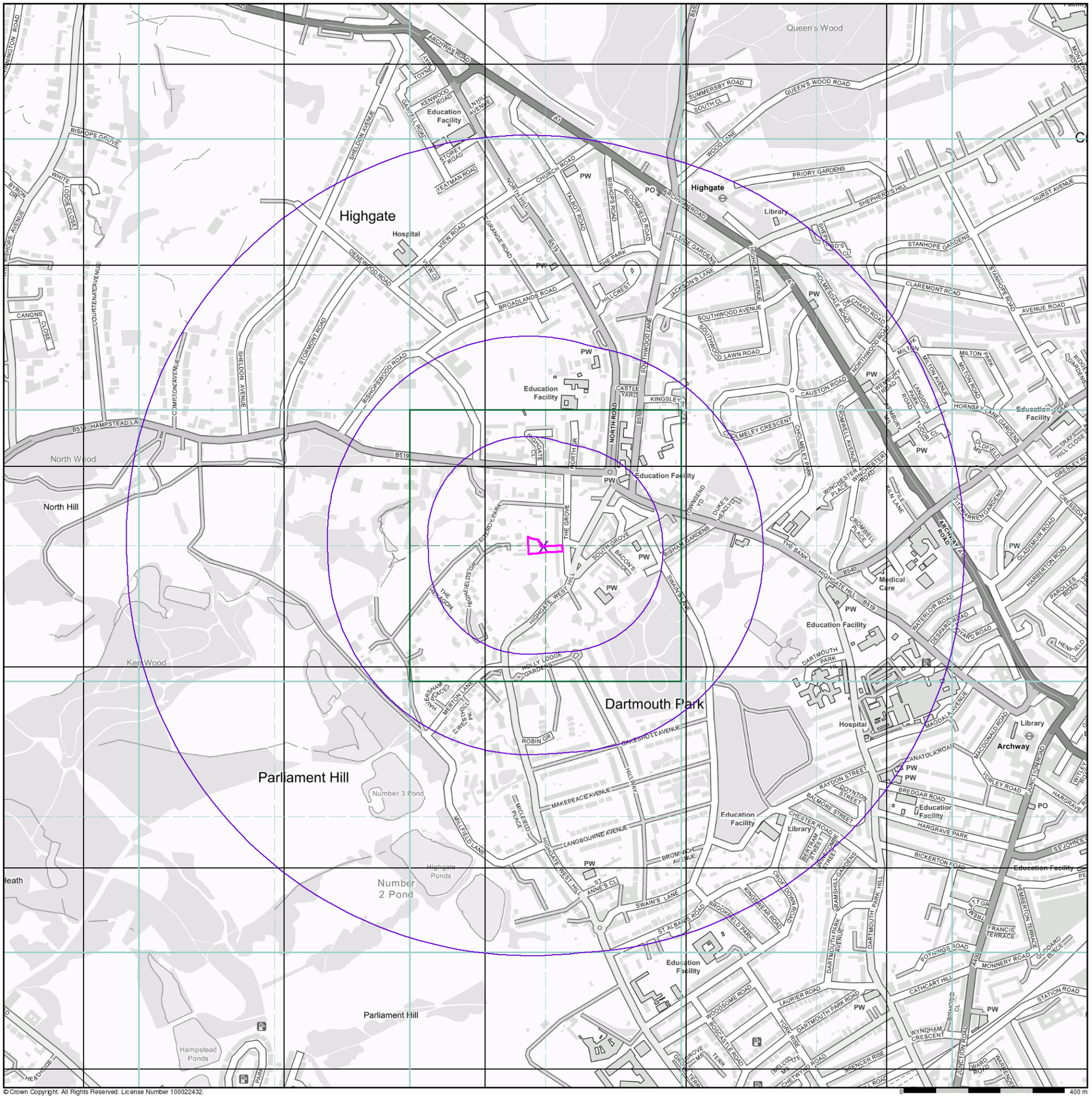


GEA

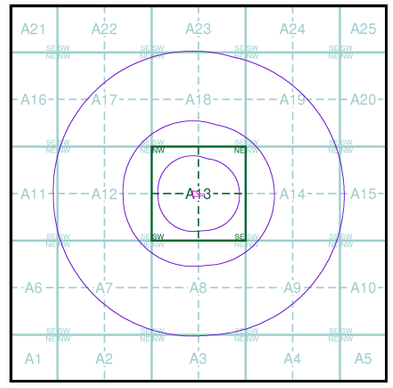
General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point

Agency and Hydrological (Flood)

- Extreme Flooding from Rivers or Sea without Defences (Zone 2)
- Flooding from Rivers or Sea without Defences (Zone 3)
- Area Benefiting from Flood Defence
- Flood Water Storage Areas
- Flood Defence

Flood Map - Slice A



Order Details

Order Number:	280788528_1_1
Customer Ref:	J21179
National Grid Reference:	528150, 187300
Slice:	A
Site Area (Ha):	0.2
Search Buffer (m):	1000

Site Details

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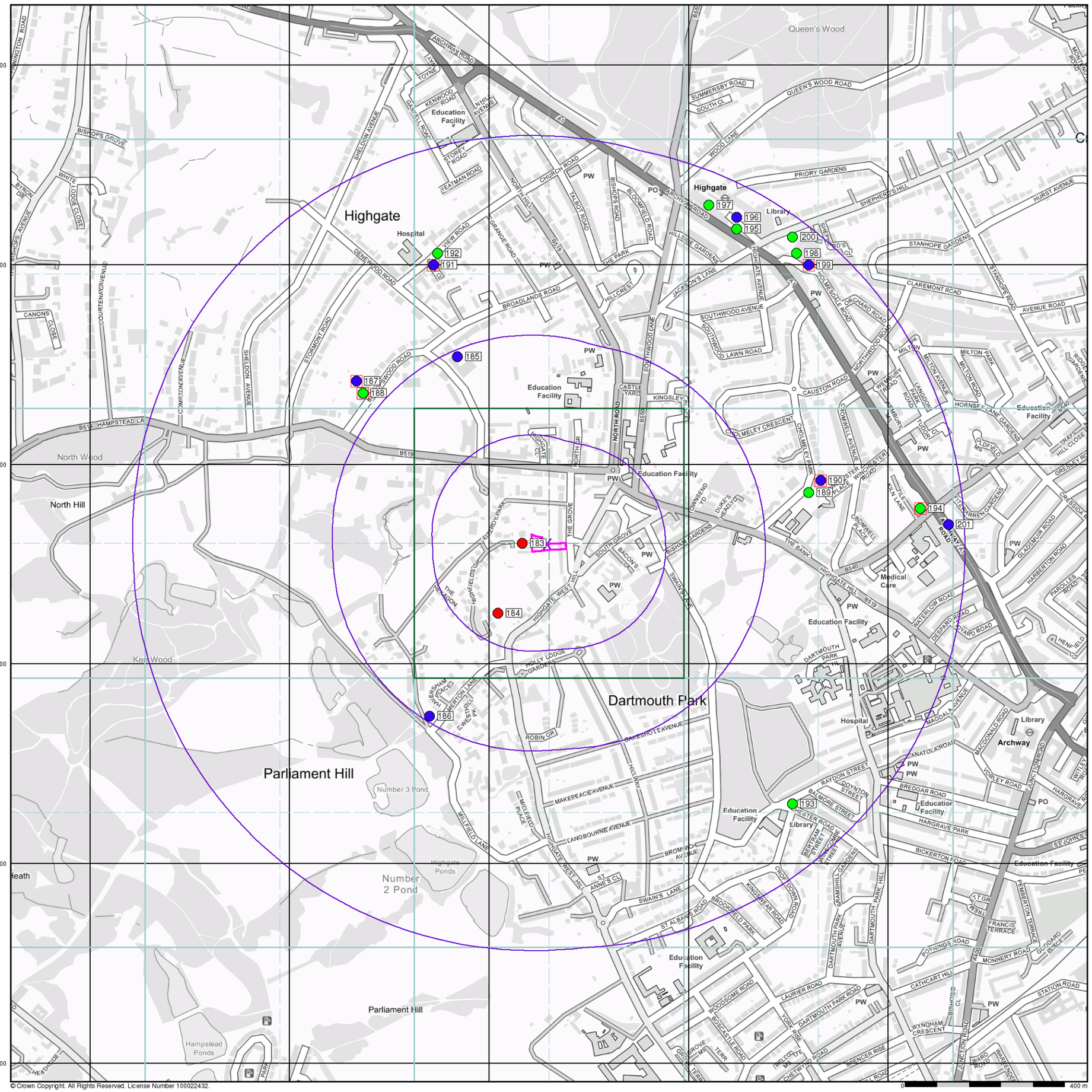


General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Map ID
- Several of Type at Location

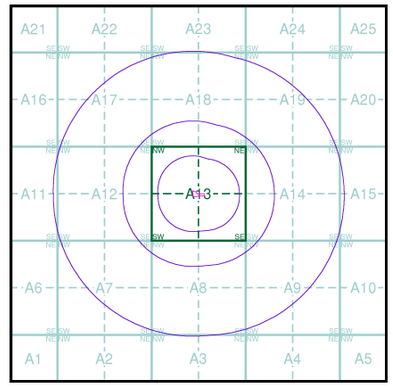
Agency and Hydrological (Boreholes)

- BGS Borehole Depth 0 - 10m
- BGS Borehole Depth 10 - 30m
- BGS Borehole Depth 30m +
- Confidential
- Other

For Borehole information please refer to the Borehole .csv file which accompanied this slice.

A copy of the BGS Borehole Ordering Form is available to download from the Support section of www.envirocheck.co.uk.

Borehole Map - Slice A



Order Details

Order Number:	280788528_1_1
Customer Ref:	J21179
National Grid Reference:	528150, 187300
Slice:	A
Site Area (Ha):	0.2
Search Buffer (m):	1000

Site Details

5, The Grove, LONDON, N6 6JU

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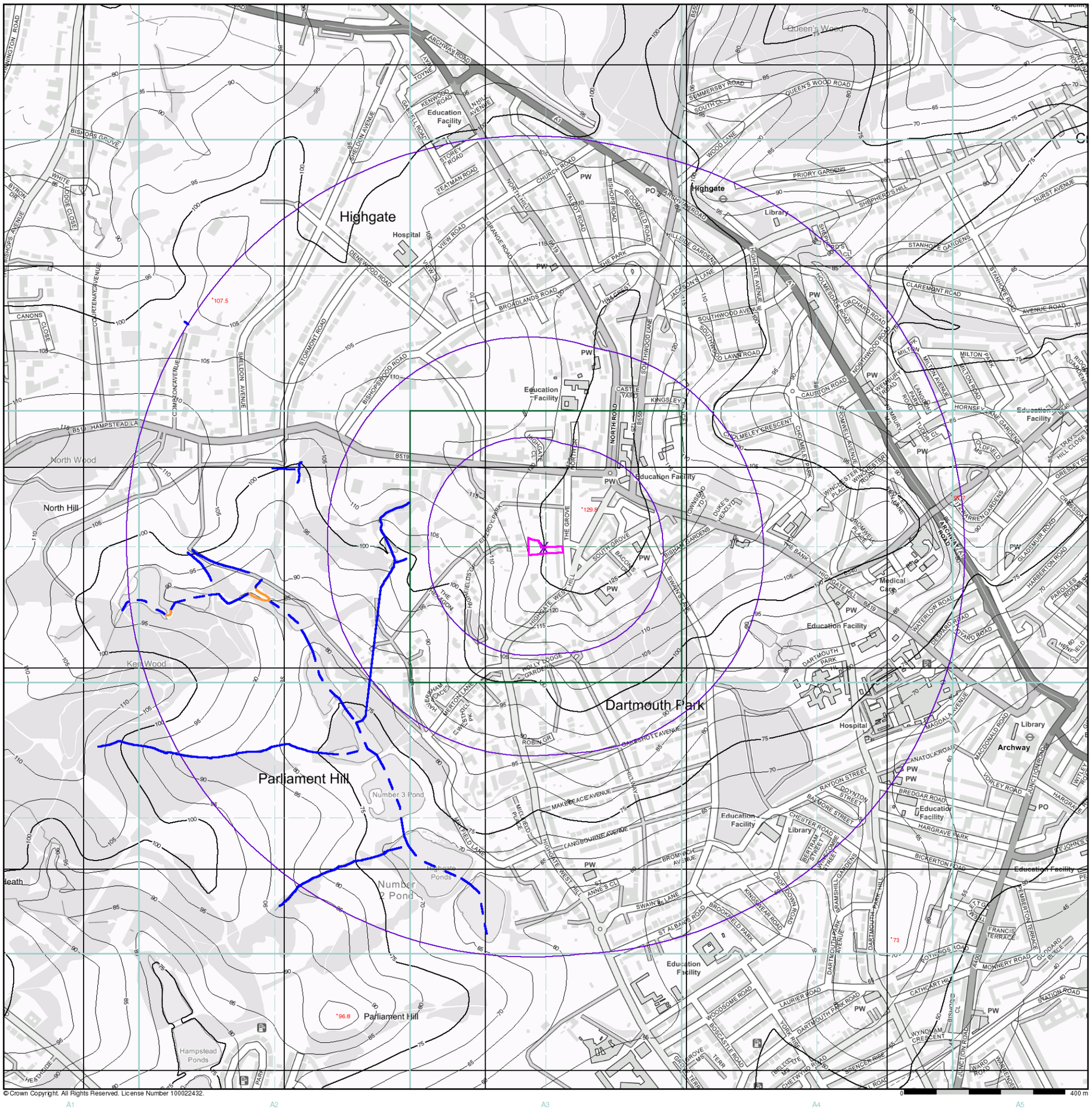


GEA

General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point

OS Water Network Data

- Canal
- Reservoir
- Foreshore
- Marsh
- Tidal River
- Inland River
- Drain
- Other
- Lake
- Transfer
- Lock Or Flight Of Locks
- Sea

Contours (height in meters)

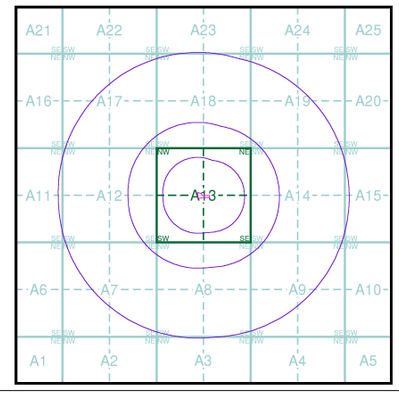
Standard Contour 105 100 95

Master Contour

Spot Height *167.3

- MLW Mean Low Water
- MHW Mean High Water

OS Water Network Map - Slice A



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