

# Basement Impact Assessment: Groundwater assessment

### 9/10 Regent Square, London, WC1H 8HZ

### Prepared for:

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### **1** INTRODUCTION

Ground and Project Consultants Ltd has instructed H Fraser Consulting Ltd (HFCL) to provide the hydrogeological aspects of a Basement Impact Assessment at the following property:

9/10 Regent Square, London, WC1H 8HZ.

The site is in the London Borough of Camden.

### 1.1 Objective

The objective of this report is to provide the hydrogeological aspects of a Basement Impact Assessment at 9/10 Regent Square, London, WC1H 8HZ.

### 1.2 Scope of works

The following works have been undertaken:

- Review of relevant desk-based information, including site investigation data
- Impact assessment of groundwater issues
- Reporting

The work has been undertaken in accordance with the requirements of London Borough of Camden's (LBC) Planning Guidance CPG4 'Basements and Lightwells' (referred to as CPG4) and Arup's 'Geological Hydrogeological and Hydrological Study, Guidance for Subterranean Development' (Arup, 2012, referred to throughout this report as the GHHS).

This assessment is limited to an assessment of the hydrogeological aspects of the proposed development and does not purport to make any comment on contamination or pollution, engineering, slope stability, surface water drainage or flooding, design or construction issues.

The work has been undertaken by Hannah Fraser, Director of HFCL, who is a Chartered Geologist with 22 years' experience as a hydrogeologist and consultant. Hannah has significant experience of undertaking Basement Impact Assessments in many London Boroughs.

### 2 BACKGROUND INFORMATION

Background information has been derived from a Groundsure report for the site (Appendix A); geological information has been derived from on-line BGS sources (Geology of Britain Viewer, GeoIndex, Lexicon); on-line mapping and aerial photography have been derived from Streetmap, Googlemaps, Bing Maps and GoogleEarth. Table 2.1 presents relevant background information for the site. The site location is shown in Figure 2.1.



Figure 2.1 Site location Contains Ordnance Survey data © Crown copyright and database right 2018

Table 2.1	Background	information
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Address	9/10 Regent Square, London, WC1H 8HZ
NGR	530412, 182514
Description	The property occupies the ground floor and lower ground floor of a mid- terraced five storey building on the south side of Regent's Square. Access is provided at ground floor level through a communal lobby shared by No 9 and No10 Regent's Square, via a walkway spanning between the pavement and the front of the building. There is a lightwell at the front of the property, ground levels here are between 18.96 m aOD and 19.03 m aOD. The rear garden is accessed at lower ground floor level via a concrete terrace with ground levels at 19.03 m aOD to 19.07 m aOD. From here, steps lead up to a garden comprising flower beds and a lawn with ground levels between 20.41 m aOD and 21.07 m aOD. The total garden area is approximately 63 m <sup>2</sup> , with the soft landscaped area comprising approximately 18.5 m <sup>2</sup> of the total. The surrounding topography is generally flat lying with a gentle fall towards the
	River Thames to the south.

	Plans of the existing property are shown in Appendix B.
Proposed development	The proposed development is to extend the lower ground and ground floor levels into the rear garden, which will involve excavating part of the elevated level of the back garden and creating a small lower ground floor terrace at the rear with new stepped access to the upper ground floor level rear garden. This will result in a reduction of the soft landscaped area of the rear garden.
Planning records	The London Borough of Camden on-line planning portal has been searched for information pertaining to existing or proposed basement developments at neighbouring properties. There are two planning records available for 11 Regent Square; a 1961 permission to convert the building to two self-contained flats and one three storey maisonette, and a 1982 permission to demolish and erect new partitions on the basement, second and third floors. There are no drawings associated with the applications, but it is probable that there is a lower ground floor/basement level at No11 at a similar elevation to the existing basement at No 9/10. There are no on-line planning records for No 10 or No 9 Regent Square.
Geology	The bedrock geology below the site comprises London Clay <sup>1</sup> . The Lynch Hill Gravel member overlies the London Clay to the west and south; the edge of the outcrop is very close to the site but Figure 5 of the GHHS indicates that the superficial deposits do not underlie the site. Geological mapping <sup>2</sup> shows the site to lie on an area of Worked Ground.
	The London Clay mainly comprises bioturbated or poorly laminated, blue-grey or grey-brown, slightly calcareous, silty to very silty clay, clayey silt and sometimes silt, with some layers of sandy clay. It commonly contains thin courses of carbonate concretions ('cementstone nodules') and disseminated pyrite. It also includes a few thin beds of shells and fine sand partings or pockets of sand, which commonly increase towards the base and towards the top of the formation. At the base, and at some other levels, thin beds of black rounded flint gravel occur in places. Glauconite is present in some of the sands and in some clay beds, and white mica occurs at some levels. <sup>3</sup>
	There are several local borehole records within 200 m of the site. <sup>4</sup> A representative selection is presented in Table 2.2, and Figure 2.1 shows the location of the boreholes. The records show Made Ground up to 4.7 m bgl. Two of the records show superficial deposits to 1.68 m bgl and 2.29 m bgl comprising sand and gravel, and very stiff clay with some gravel. The superficial deposits are underlain by London Clay.
	Site investigations were undertaken at the site on 2 July 2018 by Ground and Water Ltd. One borehole was extended to 8.45 m bgl, and two trial pits were excavated to 1.3 m bgl and 1.42 m bgl. A probe test hole was also extended to 15 m bgl. The borehole was located in the back garden at a ground elevation of approximately 20.77 m aOD, based on site plans. The geology was confirmed

<sup>&</sup>lt;sup>1</sup> Groundsure report GS5191320 <sup>2</sup> British Geological Survey, 2006 <sup>3</sup> http://www.bgs.ac.uk/lexicon/lexicon.cfm?pub=LC <sup>4</sup> http://mapapps2.bgs.ac.uk/geoindex/home.html

	as 0.3 m to 1.0 m of Made Ground overlying London Clay. A summary of the geological data is presented in Table 2.3, and the borehole logs are provided in Appendix C.
Aquifer status	The London Clay is classified by the Environment Agency as unproductive strata. $^{\rm 5}$
	Groundwater was recorded at 4.4m in Made Ground at borehole TQ38SW2576, at 1.53 m in sand and gravel at borehole TQ38SW121, and at 2.3 m in Made Ground at TQ38SW2580.
	A water strike was encountered at 4.0 m bgl in BH1, the cable percussion borehole extended to 8.45 m bgl at the site. Groundwater was measured on 20 July at 5.05 m bgl, and the elevation of the water table is estimated as 15.7 m aOD.
Watercourses	There are no rivers within 500 m of the site. There are no surface water features within 250 m of the site. There are no surface water abstractions within 1000 m of the site. <sup>6</sup> The river Thames lies approximately 2 km to the south-southeast.
	The former channel of the River Fleet lies approximately 200 m east of the site.
Springs	There are no springs shown on OS mapping in the vicinity of the site.
Wells	The closest groundwater abstraction licence is 406 m northwest of the site, at Bidborough House, University College London, and is for ground source heat. It is not known whether this abstraction is from superficial deposits or the Chalk aquifer underlying the London Clay. The next closest groundwater abstraction is at Harrods, 774 m north of the site, also for a heat pump. The closest potable groundwater abstraction is a Thames Water abstraction 865 m east of the site. There are no BGS well records in the vicinity of the site. <sup>7</sup>
	There are no source protection zones within 500 m of the site.
Groundwater flooding	There is the potential for flooding at surface due to groundwater flooding by superficial deposits flooding. <sup>8</sup>

 <sup>&</sup>lt;sup>5</sup> Groundsure report GS-5191320
 <sup>6</sup> Groundsure report GS-5191320
 <sup>7</sup> http://mapapps2.bgs.ac.uk/geoindex/home.html
 <sup>8</sup> Groundsure report GS-5191320

### Table 2.2 BGS borehole records

Reference	Name	Easting	Northing	Description
TQ38SW2576	HARRISON ST	530410	182590	Ground level at 21.3 m aOD. Made Ground (ashes, bricks, grey-brown clay, concrete, black
	KINES BH4			soil) to 4.7m, firm brown grey silty clay to 10m, very stiff fissured grey brown silty clay with
				grey sandy clay in places to 21.9m, very stiff fissured mottled brown grey, green, red, and
				blue clay to 30m. Water struck at 4.4 m.
TQ38SW121	G.P.O. NO.4	530260	182480	Ground level at 20.61 m aOD. Fill (bricks, stones etc) to 0.61m, medium sand and fine
	ST PANCRAS			gravel to 1.68m, firm dark grey clay to 3.36m, stiff grey-blue fissured silty clay with some
				sand content in random layers to 14.33m, soft grey very silty clay to 14.94m, stiff grey-blue
				fissured silty clay with some sand content in random layers to 19.51m, stiff brown red and
				grey mottled friable clay to 25.61m, stiff light blue and brown mottled clay to 26.83m, stiff
				light grey fissured clay to 27.44m, black friable peaty sandy silt with pyrites to 27.74m, stiff
				dark grey silty clay to 28.66m, stiff light grey and brown mottled clay to 29.27m, stiff brown
				red and grey mottled friable clay to 32.92m, stiff dark grey sandy silty clay to 33.53m, stiff
				grey green and red mottled sandy silty clay to 34.75m, stiff grey sandy silty clay becoming
				gravelly with depth to 37.95m. Water at 1.53m represents GWL in the sand and gravel
				overlying the clay. Water at 14.33m and 12.2m represents seepage from the soft silty layer
				at 14.33m, 12.2m being the rest level after 14 hours.
TQ38SW1357	KINGSWAY	530570	182550	Ground level at 18.14 m aOD. Made Ground (clay, bricks, stones) to 0.61m, very stiff brown
	COLLEGE BH8			silty clay with grey streaks and some gravel (superficial deposits) to 2.29m, firm brown
				fissured silty clay to 4.27m, stiff becoming very stiff grey fissured silty clay with pockets of
				grey sandy silt to 18.29m.
TQ38SW2580	HARRISON	530440	182600	Concrete to 0.25m, made ground (ashes, bricks, concrete, clay, wood, iron) to 2.45m. Water
	ST KINES TP3			struck at 2.3m.

Site investigations were undertaken at the site on 2 July 2018. A cable percussion borehole (BH1) was extended to 8.45 m bgl, and two trial pits were extended to 3.0 m bgl and 0.42 m bgl. A probe hole was extended to 15 m bgl. A summary of the geological data is presented in Table 2.3, and borehole logs are presented in Appendix C.

Strata	Depth to base (m bgl)	Description
Made Ground	0.3 – 1.0	Brown silty clayey fine to coarse grained Sand with occasional to abundant fine to medium grained sub- angular to sub-rounded gravel of brick flint glass chalk and/or concrete. Brown sandy silty Clay with rare fine sub-angular to sub-rounded gravel of brick.
London Clay	unproven	Brown silty sandy Clay or brown silty Clay. Bands of orange sand noted ~1.3 m bgl and ~3.0 m bgl. Becomes less silty and colour becomes grey with depth.

### Table 2.3 Site investigation data

A water strike was encountered in BH1 at 4.0 m bgl, and groundwater was measured on 20 August at 5.05 m bgl.

### 3 SCREENING

A screening assessment has been undertaken in accordance with the methodology set out in CPG4 and GHHS (Arup, 2012). The results are presented in Table 3.1.

### Table 3.1 Screening assessment

Ref	Question	Answer (yes/no/unknown)	Action
Q1a	Is the site located directly above an aquifer?	No (see Figure 8 of the GHHS)	No further action
Q1b	Will the proposed basement extend beneath the water table surface?	Unlikely, however due to a sparsity of data this is taken forward for further consideration	Take forward to scoping stage
Q2	Is the site within 100m of a watercourse, well (used/ disused) or potential spring line?	No (see Figure 11 and 12 of the GHHS)	No further action
Q4	Will the proposed basement development result in a change in the proportion of hard surface/paved areas?	Yes, there will be an increase in the area of hard surfaces/paved surfaces	Take forward to scoping stage
Q5	As part of the 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)	Unknown	Take forward to scoping stage
Q6	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, there are no ponds or springs within 200 m (see Figure 12 of the GHHS)	No further action

### 4 SCOPING

This section of the report summarises the pertinent information as a Conceptual Model, and then describes the matters of concern that need to be considered in the Impact Assessment.

### 4.1 Conceptual model

The conceptual model is described below and presented as a schematic cross section in Figure 4.1.



### Figure 4.1 Schematic cross section

Schematic only - do not scale. Based on site investigation data supplied by Ground and Projects Ltd

The proposal is to extend existing lower ground floor and ground floor accommodation laterally into the back garden area, which will involve excavating part of the elevated level of the back garden and creating a small lower ground floor terrace at the rear (at elevation c. 19.05 m AOD) with new stepped access to the upper ground floor level rear garden (at elevations between 20.41 m aOD and 21.07 m aOD).

It is expected that neighbouring properties have lower ground floor levels similar to the existing lower ground floor level at the property. No planning records were found for basement extensions at neighbouring properties.

The local area comprises worked ground, indicating that the natural geology may have been wholly or partly replaced by fill in and around the site. The natural geology comprises the London Clay. A borehole at the site revealed up to 1.0 m of sandy or clayey Made Ground overlying London Clay. A water strike was encountered at 4.0 m bgl, and groundwater was measured at 5.05 m bgl, or around 15.7 m aOD. Groundwater was therefore at least 3.3 m below the lower ground floor level.

On the basis of the available data, the finished floor level of the proposed extension will be at least 3.3 m above the elevation of the measured water table elevation.

The extension into the garden area will result in a reduction in the soft landscaped area of the garden, and therefore a reduction in groundwater recharge.

### 4.2 Matters of concern

Five attributes are considered as potential matters of concern, as discussed below.

- 1. Groundwater levels groundwater levels have been measured approximately 3.3 m below the lower ground floor level due to the sparsity of the data, this is taken forward for further consideration.
- 2. Range of seasonal fluctuation in groundwater levels the range of fluctuation in groundwater levels is not known.
- 3. Spring/stream hydrographs there are no surface water courses in the vicinity of the site. This does not require further consideration.
- 4. Soil moisture there is the potential for soil moisture content to affect the development if any of the external walls retain soil.
- 5. Water quality there is no evidence that the development will affect water quality, provided good practice is followed with regard to pollution management. This does not require further consideration.

### 5 IMPACT ASSESSMENT

The impact assessment has been undertaken by considering groundwater attributes, how these are likely to change under the proposed development and the consequence of any predicted changes. The assessment is qualitative at this stage. The results are presented in Table 5.1.

### Table 5.1 Impact assessment

Groundwater Attribute	Predicted Change	Consequence of change and mitigation
Groundwater levels	Groundwater has been measured in a borehole at approximately 15.7 m OD, which is c. 3.3 m below the lower ground floor elevation of 19.04 m aOD.	There is the potential for infiltration of water through the shallow Made Ground after rainfall. Any excavations should be kept dry.
	The proposed extension will not deepen the lower ground floor level, it is therefore considered unlikely that groundwater will impact on the proposed development, or that the proposed development will have a significant impact on groundwater levels or flows.	Surface water drainage systems should comply with the requirements of SUDS.
	The area of soft landscaping in the garden will decrease, potentially increasing the amount of run-off to surface water drainage and decreasing the recharge to the ground. The London Clay has very low permeability and it is unlikely that there is significant infiltration of rainwater to groundwater under the present scenario. The impacts on groundwater flows and levels are likely to be negligible.	
Range of seasonal water table fluctuation	The range of seasonal water table fluctuation is unknown, however, it is unlikely that groundwater rises to the existing lower ground floor level.	It is recommended that groundwater levels are measured before, during and after construction.
Soil moisture	Soil moisture has the potential to permeate the development, where external walls are in contact with soils.	The proposed basement structure should be adequately protected against permeation of soil moisture.

### 6 CONCLUSIONS

The proposal is to extend the existing lower ground floor and ground floor accommodation laterally into the back garden area, which will involve excavating part of the elevated level of the back garden and creating a small lower ground floor terrace at the rear (at elevation c. 19.05 m AOD) with new stepped access to the upper ground floor level rear garden (at elevations between 20.41 m aOD and 21.07 m aOD).

The geology comprises 1 m of clayey Made Ground overlying London Clay. A borehole drilled in the upper garden levels revealed up to 1.0 m of sandy or clayey Made Ground overlying London Clay. A water strike was encountered at 4.0 m bgl, and groundwater was measured at 5.05 m bgl, or around 15.7 m aOD.

On the basis of the available data, the finished floor level of the proposed extension will be at least 3.3 m above the elevation of the measured water table elevation. The range of seasonal groundwater fluctuation is not known, but it is unlikely that groundwater rises to the existing lower ground floor level. It is considered unlikely that the development will impact on groundwater flows or levels. It is also considered unlikely that the proposed development will be impacted by groundwater. Groundwater levels should be monitored before, during and after construction to confirm this.

The area of soft landscaping in the garden will decrease as a result of the proposals, increasing the amount of run-off to surface water drainage and decreasing the recharge to the ground. The impact on groundwater is considered to be negligible. Surface water drainage systems should comply with the requirements of SUDS.

Soil moisture has the potential to permeate the development, where external walls are in contact with soils. The proposed basement structure should be adequately protected against permeation of soil moisture.

### 7 REFERENCES

**Arup, 2012.** Geological Hydrogeological and Hydrological Study, Guidance for subterranean development

**British Geological Survey, 2006.** North London. England and Wales Sheet 256. Bedrock and Superficial Deposits. 1:50,000

London Borough of Camden CPG4 'Basements and Lightwells'

### **APPENDIX A**

Groundsure Report

### Groundsure LOCATION INTELLIGENCE

Address:	FLAT 1, 9-10, REGENT SQUARE, LONDON, WC1H 8HZ
Date:	3 Jul 2018
Reference:	GS-5191320
Client:	Ground and Project Consultants Ltd

NW



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SW

Aerial Photograph Capture date:07-Jun-2015Grid Reference:530412,182514Site Size:0.01ha

Report Reference: GS-5191320 Client Reference: Regent\_Square

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<ul> <li>7b. Environment Agency/Natural Resources Wales Risk of Flooding from Rivers and the Sea (Map</li> <li>7 Flooding <ul> <li>7.1 River and Coastal Zone 2 Flooding</li></ul></li></ul>	RoFRaS) 59 60 60 60 60 61 61 62 63 63 63
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<ul> <li>7b. Environment Agency/Natural Resources Wales Risk of Flooding from Rivers and the Sea (Map</li> <li>7 Flooding <ul> <li>7.1 River and Coastal Zone 2 Flooding</li></ul></li></ul>	RoFRaS) 59 60 60 60 60 61 61 61 62 63 63 63 63
<ul> <li>7b. Environment Agency/Natural Resources Wales Risk of Flooding from Rivers and the Sea (Map</li> <li>7 Flooding <ul> <li>7.1 River and Coastal Zone 2 Flooding</li></ul></li></ul>	RoFRaS) 59 60 60 60 60 61 61 61 62 63 63 63 63 63
<ul> <li>7b. Environment Agency/Natural Resources Wales Risk of Flooding from Rivers and the Sea (Map</li> <li>7 Flooding <ul> <li>7.1 River and Coastal Zone 2 Flooding</li></ul></li></ul>	RoFRaS) 59 60 60 60 60 61 61 62 63 63 63 63 63 63
<ul> <li>7b. Environment Agency/Natural Resources Wales Risk of Flooding from Rivers and the Sea (Map</li> <li>7 Flooding <ol> <li>River and Coastal Zone 2 Flooding</li></ol></li></ul>	RoFRaS) 59 60 60 60 60 61 61 61 62 63 63 63 63 63 63 63 63
<ul> <li>7b. Environment Agency/Natural Resources Wales Risk of Flooding from Rivers and the Sea (Map</li> <li>7 Flooding <ol> <li>River and Coastal Zone 2 Flooding</li></ol></li></ul>	RoFRaS) 59 60 60 60 60 60 61 61 62 63 61 63 63 63 63 63 63 63
<ul> <li>7b. Environment Agency/Natural Resources Wales Risk of Flooding from Rivers and the Sea (Map</li> <li>7 Flooding <ul> <li>7.1 River and Coastal Zone 2 Flooding</li></ul></li></ul>	RoFRaS) 59 60 60 60 60 60 61 61 62 63 63 63 63 63 63 63 64 64 64
<ul> <li>7b. Environment Agency/Natural Resources Wales Risk of Flooding from Rivers and the Sea (Map</li> <li>7 Flooding <ul> <li>7.1 River and Coastal Zone 2 Flooding</li></ul></li></ul>	RoFRaS) 59 60 60 60 60 61 61 61 61 62 63 63 63 63 63 63 63 63 64 64 64 64
<ul> <li>7b. Environment Agency/Natural Resources Wales Risk of Flooding from Rivers and the Sea (Map</li> <li>7 Flooding <ul> <li>7.1 River and Coastal Zone 2 Flooding</li></ul></li></ul>	RoFRaS) 59 60 60 60 60 60 61 61 62 63 61 63 63 63 63 63 63 64 64 64 64 64
<ul> <li>7b. Environment Agency/Natural Resources Wales Risk of Flooding from Rivers and the Sea (Map</li> <li>7 Flooding <ul> <li>7.1 River and Coastal Zone 2 Flooding</li></ul></li></ul>	RoFRaS) 59 60 60 60 60 61 61 61 62 63 63 63 63 63 63 63 63 63 64 64 64 64 64 64 64 64 64 65 65



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# **Overview of Findings**

For further details on each dataset, please refer to each individual section in the main report as listed. Where the database has been searched a numerical result will be recorded. Where the database has not been searched '-' will be recorded.

Section 1: Historical Industrial Sites	On-site	0-50	51-250	251-500
1.1 Potentially Contaminative Uses identified from 1:10,000 scale mapping	0	1	23	113
1.2 Additional Information - Historical Tank Database	0	0	0	8
1.3 Additional Information – Historical Energy Features Database	0	0	7	23
1.4 Additional Information - Historical Petrol and Fuel Site Database	0	0	0	0
1.5 Additional Information – Historical Garage and Motor Vehicle Repair Database	0	0	6	14
1.6 Potentially Infilled Land	0	1	2	15
Section 2: Environmental Permits, Incidents and Registers	On-site	0-50m	51-250	251-500
2.1 Industrial Sites Holding Environmental Permits and/or Authorisations				
2.1.1 Records of historic IPC Authorisations	0	0	0	0
2.1.2 Records of Part A(1) and IPPC Authorised Activities	0	0	0	0
2.1.3 Records of Red List Discharge Consents	0	0	0	0
2.1.4 Records of List 1 Dangerous Substances Inventory sites	0	0	0	0
2.1.5 Records of List 2 Dangerous Substances Inventory sites	0	0	0	0
2.1.6 Records of Part A(2) and Part B Activities and Enforcements	0	0	0	7
2.1.7 Records of Category 3 or 4 Radioactive Substances Authorisations	0	0	15	17
2.1.8 Records of Licensed Discharge Consents	0	0	0	2
2.1.9 Records of Water Industry Referrals	0	0	0	0
2.1.10 Records of Planning Hazardous Substance Consents and Enforcements within 500m of the study site	0	0	0	0
2.2 Records of COMAH and NIHHS sites	0	0	0	0
2.3 Environment Agency/Natural Resources Wales Recorded Pollution Incidents				
2.3.1 National Incidents Recording System, List 2	0	0	0	0
2.3.2 National Incidents Recording System, List 1	0	0	0	0
2.4 Sites Determined as Contaminated Land under Part 2A EPA 1990	0	0	0	0



Section 3: Landfill and Other Waste Sites	On-site	0-50m	51-250	251-500	501-1000	1000- 1500
3.1 Landfill Sites						
3.1.1 Environment Agency/Natural Resources Wales Registered Landfill Sites	0	0	0	0	0	Not searched
3.1.2 Environment Agency/Natural Resources Wales Historic Landfill Sites	0	0	0	0	1	1
3.1.3 BGS/DoE Landfill Site Survey	0	0	0	0	0	0
3.1.4 Records of Landfills in Local Authority and Historical Mapping Records	0	0	0	0	0	0
3.2 Landfill and Other Waste Sites Findings						
3.2.1 Operational and Non-Operational Waste Treatment, Transfer and Disposal Sites	0	0	0	0	Not searched	Not searched
3.2.2 Environment Agency/Natural Resources Wales Licensed Waste Sites	0	0	0	0	4	8
Section 4: Current Land Use	On-site	e	0-50m	51-25	50 2	51-500
4.1 Current Industrial Sites Data	0		1	15	No	ot searched
4.2 Records of Petrol and Fuel Sites	0		0	0		3
4.3 National Grid Underground Electricity Cables	0		0	0		0
4.4 National Grid Gas Transmission Pipelines	0		0	0		0
5.1 Records of Artificial Ground and Made Ground present beneath the study site			lden	tified		
5.2 Records of Superficial Ground and Drift Geology present beneath the study site			Iden	tified		
5.3 For records of Bedrock and Solid Geology beneath the study site see the detailed findings section.						
Section 6: Hydrogeology and Hydrology			0-5	00m		
6.1 Records of Strata Classification in the Superficial Geology within 500m of the study site			Iden	tified		
6.2 Records of Strata Classification in the Bedrock Geology within 500m of the study site			Iden	tified		
	On-site	0-50m	51-250	251-500	501-1000	1000- 2000
6.3 Groundwater Abstraction Licences (within 2000m of the study site)	0	0	0	3	7	38
6.4 Surface Water Abstraction Licences (within 2000m of the study site)	0	0	0	0	0	4
6.5 Potable Water Abstraction Licences (within 2000m of the study site)	0	0	0	0	2	24
6.6 Source Protection Zones (within 500m of the study site)	0	0	0	0	Not searched	Not searched
6.7 Source Protection Zones within Confined Aquifer	0	0	0	0	Not searched	Not searched
6.8 Groundwater Vulnerability and Soil Leaching Potential (within 500m of the study site)	1	0	0	1	Not searched	Not searched



Section 6: Hydrogeology and Hydrology			0-5	00m		
	On-site	0-50m	51-250	251-500	501-1000	1000- 1500
6.9 Environment Agency/Natural Resources Wales information on river quality within 1500m of the study site	No	No	No	No	No	No
6.10 Ordnance Survey MasterMap Water Network <b>entries within</b> 500m of the site	0	0	0	0	Not searched	Not searched
6.11 Surface water features within 250m of the study site	No	No	No	Not searched	Not searched	Not searched

### Section 7: Flooding

7.1 Enviroment Agency Zone 2 floodplains within 250m of the study site	None identified
7.2 Environment Agency/Natural Resources Wales Zone 3 floodplains within 250m of the study site	None identified
7.3 Risk of flooding from Rivers and the Sea (RoFRaS) rating for the study site	Very Low
7.4 Flood Defences within 250m of the study site	None identified
7.5 Areas benefiting from Flood Defences within 250m of the study site	None identified
7.6 Areas used for Flood Storage within 250m of the study site	None identified
7.7 Maximum BGS Groundwater Flooding susceptibility within 50m of the study site	Potential at Surface
7.8 BGS confidence rating for the Groundwater Flooding susceptibility areas	Moderate

Section 8: Designated Environmentally Sensitive Sites	On-site	0-50m	51-250	251-500	501-1000	1000- 2000
8.1 Records of Sites of Special Scientific Interest (SSSI)	0	0	0	0	0	0
8.2 Records of National Nature Reserves (NNR)	0	0	0	0	0	0
8.3 Records of Special Areas of Conservation (SAC)	0	0	0	0	0	0
8.4 Records of Special Protection Areas (SPA)	0	0	0	0	0	0
8.5 Records of Ramsar sites	0	0	0	0	0	0
8.6 Records of Ancient Woodlands	0	0	0	0	0	0
8.7 Records of Local Nature Reserves (LNR)	0	0	0	0	1	1
8.8 Records of World Heritage Sites	0	0	0	0	0	0
8.9 Records of Environmentally Sensitive Areas	0	0	0	0	0	0



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9.1 Maximum risk of natural ground subsidence	Moderate
9.1.1 Maximum Shrink-Swell hazard rating identified on the study site	Moderate
9.1.2 Maximum Landslides hazard rating identified on the study site	Very Low
9.1.3 Maximum Soluble Rocks hazard rating identified on the study site	Negligible
9.1.4 Maximum Compressible Ground hazard rating identified on the study site	Negligible
9.1.5 Maximum Collapsible Rocks hazard rating identified on the study site	Very Low
9.1.6 Maximum Running Sand hazard rating identified on the study site	Very Low
9.2 Radon	
9.2.1 Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level?	The site is not in a Radon Affected Area, as less than 1% of properties are above the Action Level.
9.2.2 Is the property in an area where Radon Protection are required for new properties or extensions to existing ones as described in publication BR211 by the Building Research Establishment?	No radon protective measures are necessary.
Section 10: Mining	
10.1 Coal mining areas within 75m of the study site	None identified
10.2 Non-Coal Mining areas within 50m of the study site boundary	None identified
10.3 Brine affected areas within 75m of the study site	None identified



### Using this report

The following report is designed by Environmental Consultants for Environmental Professionals bringing together the most up-to-date market leading environmental data. This report is provided under and subject to the Terms & Conditions agreed between Groundsure and the Client. The document contains the following sections:

### 1. Historical Industrial Sites

Provides information on past land uses that may pose a risk to the study site in terms of potential contamination from activities or processes. Potentially Infilled Land features are also included. This search is conducted using radii of up to 500m.

### 2. Environmental Permits, Incidents and Registers

Provides information on Regulated Industrial Activities and Pollution Incidents as recorded by Regulatory Authorities, and sites determined as Contaminated Land. This search is conducted using radii up to 500m.

### 3. Landfills and Other Waste Sites

Provides information on landfills and other waste sites that may pose a risk to the study site. This search is conducted using radii up to 1500m.

### 4. Current Land Uses

Provides information on current land uses that may pose a risk to the study site in terms of potential contamination from activities or processes. These searches are conducted using radii of up to 500m. This includes information on potentially contaminative industrial sites, petrol stations and fuel sites as well as high pressure gas pipelines and underground electricity transmission lines.

### 5. Geology

Provides information on artificial and superficial deposits and bedrock beneath the study site.

### 6. Hydrogeology and Hydrology

Provides information on productive strata within the bedrock and superficial geological layers, abstraction licenses, Source Protection Zones (SPZs) and river quality. These searches are conducted using radii of up to 2000m.

### 7. Flooding

Provides information on river and coastal flooding, flood defences, flood storage areas and groundwater flood areas. This search is conducted using radii of up to 250m.

### 8. Designated Environmentally Sensitive Sites

Provides information on the Sites of Special Scientific Interest (SSSI), National Nature Reserves (NNR), Special Areas of Conservation (SAC), Special Protection Areas (SPA), Ramsar sites, Local Nature Reserves (LNR), Areas of Outstanding Natural Beauty (AONB), National Parks (NP), Environmentally Sensitive Areas, Nitrate Sensitive Areas, Nitrate Vulnerable Zones and World Heritage Sites and Scheduled Ancient Woodland. These searches are conducted using radii of up to 2000m.

### 9. Natural Hazards

Provides information on a range of natural hazards that may pose a risk to the study site. These factors include natural ground subsidence and radon..

### 10. Mining

Provides information on areas of coal and non-coal mining and brine affected areas.

### 11. Contacts

This section of the report provides contact points for statutory bodies and data providers that may be able to provide further information on issues raised within this report. Alternatively, Groundsure provide a free Technical Helpline (08444 159000) for further information and guidance.

#### Note: Maps

Only certain features are placed on the maps within the report. All features represented on maps found within this search are given an identification number. This number identifies the feature on the mapping and correlates it to the additional information provided below. This identification number precedes all other information and takes the following format -Id: 1, Id: 2, etc. Where numerous features on the same map are in such close proximity that the numbers would obscure each other a letter identifier is used instead to represent the features. (e.g. Three features which overlap may be given the identifier "A" on the map and would be identified separately as features 1A, 3A, 10A on the data tables provided).

Where a feature is reported in the data tables to a distance greater than the map area, it is noted in the data table as "Not Shown".

All distances given in this report are in Metres (m). Directions are given as compass headings such as N: North, E: East, NE: North East from the nearest point of the study site boundary.



## 1. Historical Land Use





# **1. Historical Industrial Sites**

### 1.1 Potentially Contaminative Uses identified from 1:10,000 scale Mapping

The systematic analysis of data extracted from standard 1:10,560 and 1:10,000 scale historical maps provides the following information:

Records of sites with a potentially contaminative past land use within 500m of the search boundary: 137

ID	Distance [m]	Direction	Use	Date
1AZ	11	SE	Disused Cemetery	1948
2A	53	S	Disused Cemetery	1938
3A	53	S	Disused Cemetery	1920
4B	79	SE	Hospital	1882
5B	80	SE	Hospital	1894
6B	83	SE	Hospital	1911
7C	134	SE	Hospital	1938
8C	134	SE	Hospital	1920
9D	178	W	Hospital	1920
10D	178	W	Hospital	1938
11E	212	E	Hospital	1882
12	232	E	Unspecified Works	1971
13E	235	E	Hospital	1920
14E	235	E	Hospital	1938
15F	237	E	Hospital	1957
16F	237	E	Hospital	1971
17E	237	E	Hospital	1948
18F	237	E	Hospital	1966
19E	242	E	Hospital	1911
20H	243	Ν	Bottling Stores	1920
21E	244	E	Hospital	1894
22G	245	E	Hospital	1976
23G	245	E	Hospital	1994
24H	246	Ν	Bottling Stores	1948
25J	256	Ν	Hospital	1894
26K	274	NE	Railway Station	1920
27	277	Ν	Unspecified Station	1971
281	280	NE	Hospital	1938
291	280	NE	Hospital	1971
301	280	NE	Hospital	1976
311	280	NE	Hospital	1994
32J	295	Ν	Hospital	1948
331	299	Ν	Hospital	1911
34K	301	NE	Hospital	1957



35K	301	NE	Hospital	1966
36G	334	E	Hospital	1938
37G	334	E	Hospital	1920
38G	338	E	Hospital	1948
39L	349	SE	Unspecified Yard	1938
40L	349	SE	Unspecified Yard	1920
41M	354	S	Hospital	1976
42M	354	S	Hospital	1971
43M	354	S	Hospital	1994
44Q	373	S	Hospital	1957
45N	381	S	Hospital	1966
46N	399	S	Hospitals	1898
470	402	SW	Unspecified Station	1948
48Z	404	SE	Hospital	1894
490	405	SW	Unspecified Station	1920
500	405	SW	Unspecified Station	1938
510	409	SW	London Transport Station	1976
520	409	SW	London Transport Station	1971
530	409	SW	London Transport Station	1994
540	409	SW	Unspecified Station	1966
55R	412	NE	Tunnel	1894
56P	415	NE	Railway Sidings	1948
57P	415	NE	Railway Sidings	1957
58Q	417	S	Hospitals	1895
59BA	419	NE	Tunnel	1882
60R	420	NE	Tunnel	1994
61R	420	NE	Tunnel	1976
62R	420	NE	Tunnel	1971
63R	420	NE	Tunnel	1966
64T	421	NE	Tunnel	1894
65BB	423	Ν	Tunnel	1894
66S	428	Ν	Railway Station	1894
67U	428	Ν	Railway Station	1920
68S	429	Ν	Railway Station	1911
69T	430	NE	Tunnel	1882
70U	434	Ν	Railway Station	1882
71V	434	NW	Railway Sidings	1920
72V	434	NW	Railway Sidings	1938
73X	435	NW	Unspecified Commercial/Industrial	1957
74W	439	NW	Railway Station	1911
75	441	S	Hospitals	1895
76W	441	NW	Railway Station	1894
77AD	446	Ν	Railway Station	1994
78Y	446	NE	Police Station	1957
79AG	448	NW	Goods Sheds	1894



	150			1000
×08	450	NW	Railway Station	1882
81X	451	NW	Railway Station	1966
82	452	NW	Goods Shed	1911
83Y	453	NE	Police Station	1966
84Z	453	SE	Hospital	1911
85Y	454	NE	Police Station	1976
86Y	454	NE	Police Station	1971
87Y	454	NE	Police Station	1994
88W	454	NW	Railway Station	1994
89W	454	NW	Terminus Station	1948
90W	454	NW	Railway Station	1971
91W	454	NW	Railway Station	1957
92W	454	NW	Railway Station	1976
93AA	454	Ν	Unspecified Station	1966
94AA	455	Ν	Railway Station	1948
95AA	455	Ν	Railway Station	1957
96W	457	NW	Terminus Station	1920
97W	457	NW	Terminus Station	1938
98AB	458	Ν	Unspecified Commercial/Industrial	1948
99AB	458	Ν	Unspecified Commercial/Industrial	1957
100AC	458	NW	Railway Sidings	1948
101AC	458	NW	Goods Shed	1948
102AD	458	Ν	Railway Station	1957
103AF	459	Ν	Railway Station	1911
104AA	460	Ν	Unspecified Station	1938
105AA	460	Ν	Electricity Railway Station	1920
106AE	461	NW	Goods Shed	1938
107AE	461	NW	Goods Shed	1920
108AF	462	Ν	Railway Station	1894
109BC	463	Ν	Tunnel	1882
110BD	464	Ν	Tunnel	1894
111AD	465	Ν	Unspecified Station	1976
112BE	471	Ν	Tunnel	1882
113AG	475	NW	Goods Shed	1957
114AG	475	NW	Goods Shed	1948
115AH	475	NW	Railway Sidings	1948
116AG	475	NW	Goods Shed	1968
117AG	475	NW	Goods Shed	1973
118AH	475	NW	Railway Sidings	1957
119AH	475	NW	Railway Sidings	1973
120AH	475	NW	Railway Sidings	1968
121AI	475	Ν	Railway Station	1994
122AI	475	Ν	Terminus Station	1948
123AI	475	Ν	Railway Station	1957



			-	
124AI	475	Ν	Railway Station	1976
125AI	475	Ν	Railway Station	1971
126AJ	479	S	Hospitals	1895
127AJ	480	S	Hospitals	1895
128AI	482	Ν	Railway Station	1966
129	482	Ν	Railway Sidings	1966
130AI	486	Ν	Terminus Station	1920
131AI	486	Ν	Railway Station	1938
132	486	S	Hospitals	1898
133AK	487	E	Tunnel	1882
134AK	489	E	Tunnel	1894
135	494	NW	Railway Sidings	1894
136	495	Ν	Coach Station	1976
137AI	495	Ν	Railway Station	1882

### 1.2 Additional Information – Historical Tank Database

The systematic analysis of data extracted from High Detailed 1:1,250 and 1:2,500 scale historical maps provides the following information.

Records of historical tanks within 500m of the search boundary:

8

ID	Distance (m)	Direction	Use	Date
138	306	SE	Unspecified Tank	1995
139AL	370	E Unspecified Tank		1960
140AL	370	E	Unspecified Tank	1951
141AL	370	E	Unspecified Tank	1952
142	384	W Unspecified Tank		1993
143Q	443	S	Unspecified Tank	1991
144Q	443	S	Unspecified Tank	1982
145Q	444	S Unspecified Tank 199		1994

### 1.3 Additional Information – Historical Energy Features Database

The systematic analysis of data extracted from High Detailed 1:1,250 and 1:2,500 scale historical maps provides the following information.

Records of historical energy features within 500m of the search boundary:

30

ID	Distance (m)	Direction	Use	Date
146AM	69	SW	Electricity Substation	1952
147AM	69	SW	Electricity Substation	1951



EQCATION INTELEIGENCE				
1982	Electricity Substation	SE	165	148AN
1991	Electricity Substation	SE	165	149AN
1974	Electricity Substation	SE	166	150AN
1982	Electricity Substation	SE	166	151AN
1995	Electricity Substation	SE	167	152AN
1997	Electricity Substation	NE	269	153AO
1996	Electricity Substation	NE	269	154AO
1973	Electricity Substation	NE	283	155AO
1982	Electricity Substation	NE	284	156AO
1991	Electricity Substation	NE	284	157AO
1951	Electricity Substation	E	312	158AP
1952	Electricity Substation	E	313	159AP
1951	Electricity Substation	W	363	160AR
1994	Electricity Substation	W	364	161AQ
1995	Electricity Substation	W	364	162AQ
1952	Electricity Substation	W	371	163AR
1995	Electricity Substation	SW	392	164AS
1994	Electricity Substation	SW	392	165AS
1973	Electricity Substation	SW	392	166AS
1982	Electricity Substation	SW	393	167AS
1991	Electricity Substation	SW	393	168AS
1990	Electricity Substation	Ν	463	169AA
1992	Electricity Substation	Ν	463	170AA
1991	Electricity Substation	Ν	463	171AA
1977	Electricity Substation	Ν	463	172AA
1993	Electricity Substation	Ν	466	173AA
1952	Electricity Substation	Ν	472	174AA
1951	Electricity Substation	Ν	472	175AA

### 1.4 Additional Information – Historical Petrol and Fuel Site Database

The systematic analysis of data extracted from High Detailed 1:1,250 and 1:2,500 scale historical maps provides the following information.

Records of historical petrol stations and fuel sites within 500m of the search boundary:

0

Database searched and no data found.

### 1.5 Additional Information – Historical Garage and Motor Vehicle Repair Database

The systematic analysis of data extracted from High Detailed 1:1,250 and 1:2,500 scale historical maps provides the following information.

Records of historical garage and motor vehicle repair sites within 500m of the search boundary: 20



ID	Distance (m)	Direction Use		Date
176AT	98	E	Garage	1951
177AT	98	E	Garage	1960
178AU	183	E	Garage	1973
179AU	183	E	Garage	1960
180AU	184	E	Garage	1982
181	249	E	Garage	1952
182AV	391	E	Garage	1952
183AV	391	E Garage		1960
184AV	392	E	Garage	1973
185AW	404	SW Garage		1951
186AW	404	SW Garage		1962
187AX	406	E Garage		1973
188AX	406	E	Garage	1960
189AY	464	W	Garages	1952
190AY	464	W	Garages	1952
191AY	464	W	Garages	1952
192Z	467	SE	Garage	1951
193AY	473	W	Garages	1951
194AY	484	W	Garages	1952
195	495	S	Garage	1951

### 1.6 Potentially Infilled Land

Records of Potentially Infilled Features from 1:10,000 scale mapping within 500m of the study site: 18

The following Historical Potentially Infilled Features derived from the Historical Mapping information is provided by Groundsure:

ID	ID Distance(m) Direction Use		Use	Date
196AZ	11	SE	SE Disused Cemetery	
197A	53	S	Disused Cemetery	1938
198A	53	S	Disused Cemetery	1920
199	284	E	Ponds	1938
200R	412	NE	Tunnel	1894
201BA	419	NE	Tunnel	1882
202R	420	NE	Tunnel	1966
203R	420	NE	Tunnel	1994
204R	420	NE	Tunnel	1976
205R	420	NE	Tunnel	1971
206T	421	NE	Tunnel	1894
207BB	423	Ν	Tunnel	1894
208T	430	NE	Tunnel 1882	
209BC	463	Ν	Tunnel 1882	
210BD	464	N	N Tunnel 1894	
211BE	471	Ν	N Tunnel 1882	



				OCATION INTELLIGENCE
212AK	487	E	Tunnel	1882
213AK	489	E	Tunnel	1894



# 2. Environmental Permits, Incidents and Registers Map



Licenced Discharge Consents

Red List Discharge Consents

Sites Determined as Contaminated Land

Hazardous Substance Consents

and Enforcements



# 2. Environmental Permits, Incidents and Registers

### 2.1 Industrial Sites Holding Licences and/or Authorisations

Searches of information provided by the Environment Agency/Natural Resources Wales and Local Authorities reveal the following information:

2.1.1 Records of historic IPC Authorisations within 500m of the study site:

Database searched and no data found.

2.1.2 Records of Part A(1) and IPPC Authorised Activities within 500m of the study site:

Database searched and no data found.

2.1.3 Records of Red List Discharge Consents (potentially harmful discharges to controlled waters) within 500m of the study site:

0

0

0

Database searched and no data found.

2.1.4 Records of List 1 Dangerous Substances Inventory Sites within 500m of the study site:

0

Database searched and no data found.

2.1.5 Records of List 2 Dangerous Substance Inventory Sites within 500m of the study site:

0

Database searched and no data found.



2.1.6 Records of Part A(2) and Part B Activities and Enforcements within 500m of the study site:

7

The following Part A(2) and Part B Activities are represented as points on the Environmental Permits, Incidents and Registers Map:

ID	Distance (m)	Direction	NGR	Details		
3В	346	Ν	530468 182864	Address: Alex 2hr Dry Cleaners, 289 Gray's Inn Road, WC1X 8QF Process: Dry Cleaning Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of Enforcement: No Enforcement Notified Comment: No Enforcement Notified	
4B	346	Ν	530468 182864	Address: Alex 2hr Dry Cleaners, 289 Gray's Inn Road, WC1X 8QF Process: Dry Cleaning Status: Current Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of Enforcement: No Enforcement Notified Comment: No Enforcement Notified	
5C	417	E	530805 182661	Address: Shell, Kings Cross Rd, WH1 9HS Process: Petrol Vapour Recovery Process Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of Enforcement: No Enforcement Notified Comment: No Enforcement Notified	
6C	421	E	530810 182656	Address: Texaco, 71 - 79 Kings Cross Road, London, WC1X 9LN Process: Unloading of Petrol into Storage at Service Stations Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of Enforcement: No Enforcement Notified Comment: No Enforcement Notified	
7	422	S	530526 182093	Address: Inst Child Health, Guildford St, WC1 1EH Process: incineration & furnace process Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of Enforcement: No Enforcement Notified Comment: No Enforcement Notified	
8D	487	Ν	530573 182980	Address: Ariana Dry Cleaner, 191 Kings Cross Road, WC1X 9DB Process: Dry Cleaning Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of Enforcement: No Enforcement Notified Comment: No Enforcement Notified	
9D	487	Ν	530573 182980	Address: Ariana Dry Cleaners, 191 Kings Cross Road, WC1X 9DB Process: Dry Cleaning Status: Current Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of Enforcement: No Enforcement Notified Comment: No Enforcement Notified	


#### 2.1.7 Records of Category 3 or 4 Radioactive Substances Authorisations:

32

The following RAS Licence (3 or 4) records are represented as points on the Environmental Permits, Incidents and Registers Map:

ID	Distance (m)	Direction	NGR	Address	Operato r	Туре	Permissio n Number	Dates	Status
42E	134	NW	530300 182600	Astra Neuroscience Research Unit, 1 Wakefield Street, London, WC1N 1PJ	Astra Neurosci ence Research Unit	Disposal Of Radioactive Waste (was Rsa60 Section 6).	AC1415	Date of Approval:16/6/199 5 Effective from:14/7/1995 Last date of update:2015-01- 01	Revoked/ca ncelled
43E	134	NW	530300 182600	Astra Neuroscience Research Unit, 1 Wakefield Street, London, WC1N 1PJ	Astra Neurosci ence Research Unit	Disposal Of Radioactive Waste (was Rsa60 Section 6).	AC1415	Date of Approval:31/3/199 1 Effective from:31/3/1991 Last date of update:2015-01- 01	Superseded By Variation
44F	151	SW	530300 182400	Institute Of Neurology, 1 Wakefield Street, London, N18 2BZ	Institute Of Neurolo gy	Disposal Of Radioactive Waste (was Rsa60 Section 6).	AD2611	Date of Approval:31/3/199 1 Effective from:31/3/1991 Last date of update:2015-01- 01	Revoked/ca ncelled
45F	151	SW	530300 182400	University College London, Institute Of Neurology,1 Wakefield Street, London, WC1N 1PJ	Universit y College London	Keeping And Use Of Radioactive Materials (was Rsa60 Section 1).	BW9905	Date of Approval:22/7/200 4 Effective from:22/7/2004 Last date of update:2015-01- 01	Effective
46F	151	SW	530300 182400	University College London, Institute Of Neurology, 1 Wakefield Street, London, WC1N 1PJ	Universit y College London	Disposal Of Radioactive Waste (was Rsa60 Section 6).	BW3192	Date of Approval:22/7/200 4 Effective from:19/8/2004 Last date of update:2015-01- 01	Superseded By Variation
47F	151	SW	530300 182400	University College London, Institute Of Neurology, 1 Wakefield Street, London, WC1N 1PJ	Universit y College London	Disposal Of Radioactive Waste (was Rsa60 Section 6).	BW3192	Date of Approval:4/1/2006 Effective from:4/1/2006 Last date of update:2015-01- 01	Effective
48F	151	SW	530300 182400	Institute Of Neurology, Institute Of Neurology, 1 Wakefield Street, London, WC1N 1PJ	Institute Of Neurolo gy	-	AD2646	Date of Approval:31/3/199 1 Effective from:31/3/1991 Last date of update:2015-01- 01	Superseded By Variation



ID	Distance (m)	Direction	NGR	Address	Operato r	Туре	Permissio n Number	Dates	Status
49F	151	SW	530300 182400	Institute Of Neurology, Institute Of Neurology, 1 Wakefield Street, London, WC1N 1PJ	Institute Of Neurolo gy	Disposal Of Radioactive Waste (was Rsa60 Section 6).	AD2646	Date of Approval:22/11/19 91 Effective from:22/11/1991 Last date of update:2015-01- 01	Revoked/ca ncelled
50K	167	SW	530340 182350	The School Of Pharmacy, University Of London,29-39 Brunswick Square, London, WC1N 1AX	The School Of Pharmac y	Keeping And Use Of Radioactive Materials (was Rsa60 Section 1).	AC4597	Date of Approval:30/7/200 8 Effective from:30/7/2008 Last date of update:2015-01- 01	Effective
51G	201	S	530400 182300	University Of London, 29-39 Brunswick Square, London, WC1N 1AX	Universit y Of London	Disposal Of Radioactive Waste (was Rsa60 Section 6).	AC4554	Date of Approval:1/12/200 3 Effective from:1/1/2004 Last date of update:2015-01- 01	Superseded By Variation
52G	201	S	530400 182300	University Of London, 29-39 Brunswick Square, London, WC1N 1AX	Universit y Of London	Disposal Of Radioactive Waste (was Rsa60 Section 6).	AC4554	Date of Approval:5/1/2006 Effective from:5/1/2006 Last date of update:2015-01- 01	Effective
53G	201	S	530400 182300	University Of London, 29-39 Brunswick Square, London, WC1N 1AX	Universit y Of London	Disposal Of Radioactive Waste (was Rsa60 Section 6).	AC4554	Date of Approval:31/3/199 1 Effective from:31/3/1991 Last date of update:2015-01- 01	Superseded By Variation
54G	201	S	530400 182300	University Of London, 29-39 Brunswick Square, London, WC1N 1AX	Universit y Of London	Disposal Of Radioactive Waste (was Rsa60 Section 6).	AC4554	Date of Approval:20/2/199 8 Effective from:20/3/1998 Last date of update:2015-01- 01	Superseded By Variation
55G	201	S	530400 182300	University Of London, 29-39 Brunswick Square, London, WC1N 1AX	Universit y Of London	Disposal Of Radioactive Waste (was Rsa60 Section 6).	AC4554	Date of Approval:26/6/199 5 Effective from:27/7/1995 Last date of update:2015-01- 01	Superseded By Variation
56L	236	SW	530200 182400	Institute Of Opthalmology, 41/45 Judd Street, London, WC1H 9QS	Institute Of Opthalm ology	Disposal Of Radioactive Waste (was Rsa60 Section 6).	AC5402	Date of Approval:31/3/199 1 Effective from:31/3/1991 Last date of update:2015-01- 01	Revoked/ca ncelled



ID	Distance (m)	Direction	NGR	Address	Operato r	Туре	Permissio n Number	Dates	Status
57H	307	E	530720 182440	University College London, Eastman Dental Institute, 256 Grays Inn Road, London, WC1X 8LD	Universit y College London	Disposal Of Radioactive Waste (was Rsa60 Section 6).	BU7456	Date of Approval:27/9/200 4 Effective from:25/10/2004 Last date of update:2015-01- 01	Superseded By Variation
58H	307	E	530720 182440	University College London, Eastman Dental Institute, 256 Grays Inn Road, London, WC1X 8LD	Universit y College London	Disposal Of Radioactive Waste (was Rsa60 Section 6).	BU7456	Date of Approval:4/1/2006 Effective from:4/1/2006 Last date of update:2015-01- 01	Effective
59H	307	E	530720 182440	Eastman Dental Hospital, 256 Grays Inn Road, London, WC1X 8LD	Eastman Dental Hospital	Keeping And Use Of Radioactive Materials (was Rsa60 Section 1).	AA1775	Date of Approval:30-10- 1991 Effective from:30- 10-1991 Last date of update:2005-01- 06	Superseded By Variation
60H	307	E	530720 182440	Eastman Dental Hospital, Eastman Dental Institute, 256 Grays Inn Road, London, WC1X 8LD	Eastman Dental Hospital	Disposal Of Radioactive Waste (was Rsa60 Section 6).	AA1783	Date of Approval:15/10/19 96 Effective from:4/11/1996 Last date of update:2015-01- 01	Revoked/ca ncelled
61H	307	E	530720 182440	University College London, Eastman Dental Institute,256 Grays Inn Road, London, WC1X 8LD	Universit y College London	Keeping And Use Of Radioactive Materials (was Rsa60 Section 1).	BU7464	Date of Approval:27/9/200 4 Effective from:27/9/2004 Last date of update:2015-01- 01	Effective
62H	307	E	530720 182440	Eastman Dental Hospital, 256 Grays Inn Road, London, WC1X 8LD	Eastman Dental Hospital	Keeping And Use Of Radioactive Materials (was Rsa60 Section 1).	AA1775	Date of Approval:15/10/19 96 Effective from:15/10/1996 Last date of update:2015-01- 01	Revoked/ca ncelled
631	334	Ν	530540 182830	University College London, The Ear Institute,330 - 336 Grays Inn Road, London, WC1X 8EE	Universit y College London	Keeping And Use Of Radioactive Materials (was Rsa60 Section 1).	BX6669	Date of Approval:14/7/200 5 Effective from:14/7/2005 Last date of update:2015-01- 01	Effective
641	334	Ν	530540 182830	University College London, The Ear Institute, 330 - 336 Grays Inn Road, London, WC1X 8EE	Universit y College London	Disposal Of Radioactive Waste (was Rsa60 Section 6).	BX6022	Date of Approval:14/7/200 5 Effective from:11/8/2005 Last date of update:2015-01- 01	Superseded By Variation



ID	Distance (m)	Direction	NGR	Address	Operato r	Туре	Permissio n Number	Dates	Status
651	334	Ν	530540 182830	University College London, The Ear Institute,330 - 336 Grays Inn Road, London, WC1X 8EE	Universit y College London	Keeping And Use Of Radioactive Materials (was Rsa60 Section 1).	BX6669	Date of Approval:22/7/200 4 Effective from:22/7/2004 Last date of update:2015-01- 01	Superseded By Variation
661	334	Ν	530540 182830	University College London, The Ear Institute, 330 - 336 Grays Inn Road, London, WC1X 8EE	Universit y College London	Disposal Of Radioactive Waste (was Rsa60 Section 6).	BX6022	Date of Approval:22/7/200 4 Effective from:19/8/2004 Last date of update:2015-01- 01	Superseded By Variation
671	334	Ν	530540 182830	University College London, The Ear Institute, 330 - 336 Grays Inn Road, London, WC1X 8EE	Universit y College London	Disposal Of Radioactive Waste (was Rsa60 Section 6).	BX6022	Date of Approval:4/1/2006 Effective from:4/1/2006 Last date of update:2015-01- 01	Effective
68J	363	S	530510 182150	Institute Of Child Health, 30 Guildford Street, London, WC1N 1EH	Institute Of Child Health	Disposal Of Radioactive Waste (was Rsa60 Section 6).	AH9871	Date of Approval:26/3/199 8 Effective from:20/4/1998 Last date of update:2015-01- 01	Superseded By Variation
69J	363	S	530510 182150	Institute Of Child Health, Hospital For Sick Children,30 Guilford Street, London, WC1N 1EH	Institute Of Child Health	Keeping And Use Of Radioactive Materials (was Rsa60 Section 1).	AH9863	Date of Approval:22/3/199 6 Effective from:22/3/1996 Last date of update:2015-01- 01	Effective
70J	363	S	530510 182150	Institute Of Child Health, 30 Guildford Street, London, WC1N 1EH	Institute Of Child Health	Disposal Of Radioactive Waste (was Rsa60 Section 6).	AH9871	Date of Approval:1/12/200 3 Effective from:1/1/2004 Last date of update:2015-01- 01	Superseded By Variation
71J	363	S	530510 182150	Institute Of Child Health, 30 Guildford Street, London, WC1N 1EH	Institute Of Child Health	Disposal Of Radioactive Waste (was Rsa60 Section 6).	AH9871	Date of Approval:1/9/1993 Effective from:29/9/1993 Last date of update:2015-01- 01	Superseded By Variation
72J	363	S	530510 182150	Institute Of Child Health, 30 Guildford Street, London, WC1N 1EH	Institute Of Child Health	Disposal Of Radioactive Waste (was Rsa60 Section 6).	AH9871	Date of Approval:20/2/200 7 Effective from:20/3/2007 Last date of update:2015-01- 01	Effective



ID	Distance (m)	Direction	NGR	Address	Operato r	Туре	Permissio n Number	Dates	Status
73J	363	S	530510 182150	Institute Of Child Health, 30 Guildford Street, London, WC1N 1EH	Institute Of Child Health	Disposal Of Radioactive Waste (was Rsa60 Section 6).	AH9871	Date of Approval:4/1/2006 Effective from:4/1/2006 Last date of update:2015-01- 01	Superseded By Variation

#### 2.1.8 Records of Licensed Discharge Consents within 500m of the study site:

2

The following Licensed Discharge Consents records are represented as points on the Environmental Permits, Incidents and Registers Map:

ID	Distance (m)	Direction	NGR	Deta	ails
1A	438	W	529996 182673	Address: BIDBOROUGH HOUSE, 20 MABLEDON PLACE, LONDON, LONDON, WC1H 9BF Effluent Type: TRADE DISCHARGES - COOLING WATER Permit Number: NPSWQD005471 Permit Version: 1	Receiving Water: GW VIA RE-INJECT BOREHOLE Status: NEW CONSENT (WRA 91, S88 & SCHED 10 AS AMENDED BY Issue date: 20/02/2009 Effective Date: 20-Feb-2009 Revocation Date: 07/03/2013
2A	438	W	529996 182673	Address: BIDBOROUGH HOUSE, 20 MABLEDON PLACE, LONDON, LONDON, WC1H 9BF Effluent Type: TRADE DISCHARGES - COOLING WATER Permit Number: NPSWQD005471 Permit Version: 2	Receiving Water: GW VIA RE-INJECT BOREHOLE Status: VARIED UNDER EPR 2010 Issue date: 08/03/2013 Effective Date: 08-Mar-2013 Revocation Date: -

### 2.1.9 Records of Water Industry Referrals (potentially harmful discharges to the public sewer) within 500m of the study site:

0

Database searched and no data found.

2.1.10 Records of Planning Hazardous Substance Consents and Enforcements within 500m of the study site:

0



### 2.2 Dangerous or Hazardous Sites

Records of COMAH & NIHHS sites within 500m of the study site:

Database searched and no data found.

#### 2.3 Environment Agency/Natural Resources Wales Recorded Pollution Incidents

2.3.1 Records of National Incidents Recording System, List 2 within 500m of the study site:

0

0

Database searched and no data found.

2.3.2 Records of National Incidents Recording System, List 1 within 500m of the study site:

0

Database searched and no data found.

### 2.4 Sites Determined as Contaminated Land under Part 2A EPA 1990

Records of sites determined as contaminated land under Section 78R of the Environmental Protection Act 1990 are there within 500m of the study site 0



### 3. Landfill and Other Waste Sites Map





# 3. Landfill and Other Waste Sites

### 3.1 Landfill Sites

3.1.1 Records from Environment Agency/Natural Resources Wales landfill data within 1000m of the study site:

0

Database searched and no data found.

3.1.2 Records of Environment Agency/Natural Resources Wales historic landfill sites within 1500m of the study site:

2

The following landfill records are represented as either points or polygons on the Landfill and Other Waste Sites map:

ID	Distance (m)	Direction	NGR	Detail	S
Not shown	959	E		Site Address: Rosoman Street / Skinner Street, Finsbury Waste Licence: - Site Reference: - Waste Type: Inert Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: Licence Surrendered: Licence Holder Address: - Operator: - Licence Holder: - First Recorded: 31-Dec-1975 Last Recorded: 31-Dec-1978
Not shown	1279	S		Site Address: Portugal Street, Lincoln's Inn Fields, London WC2A Waste Licence: - Site Reference: IMP006 Waste Type: - Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: Licence Surrendered: Licence Holder Address: - Operator: - Licence Holder: - First Recorded: - Last Recorded: -

3.1.3 Records of BGS/DoE non-operational landfill sites within 1500m of the study site:

Database searched and no data found.

0



3.1.4 Records of Landfills from Local Authority and Historical Mapping Records within 1500m of the study site:

Database searched and no data found.

#### 3.2 Other Waste Sites

3.2.1 Records of waste treatment, transfer or disposal sites within 500m of the study site:

0

0

Database searched and no data found.

3.2.2 Records of Environment Agency/Natural Resources Wales licensed waste sites within 1500m of the study site:

12

The following waste treatment, transfer or disposal sites records are represented as points on the Landfill and Other Waste Sites map:

ID	Distance (m)	Direction	NGR	Details				
Not shown	551	Ν	530575 183048	Site Address: - Type: Mobile Plant for remediation of land Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: VWO010 EPR reference: EA/EPR/AB3302GW/V002 Operator: Veolia Water Organics Recycling Ltd Waste Management licence No: 105434 Annual Tonnage: 0.0	Issue Date: 15/07/2013 Effective Date: - Modified: 09/09/2013 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified Site Name: S R 2008 No27 Correspondence Address: -			
Not shown	552	Ν	530584 183046	Site Address: Mobile Plant Type: Mobile Plant for remediation of land Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: VEO230 EPR reference: EA/EPR/DB3606XL/A001 Operator: Veolia E S Landfill Ltd Waste Management licence No: 105629 Annual Tonnage: 0.0	Issue Date: 30/11/2015 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Mobile Plant S R 2008 No27 Correspondence Address: -			
Not shown	980	NW	529975 183399	Site Address: Shanks & McEwan (Southern) Ltd, Kings Cross Transfer Station, 1, Camley Street, Camden, London, NW1 1UU Type: Household, Commercial & Industrial Waste T Stn Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: SHA005 EPR reference: EA/EPR/AP3091NU/S002 Operator: Shanks Waste Services Ltd Waste Management licence No: 80329 Annual Tonnage: 52326.0	Issue Date: 16/02/1993 Effective Date: - Modified: - Surrendered Date: 06/03/2001 Expiry Date: - Cancelled Date: - Status: Surrendered Site Name: Shanks & McEwan, King's Cross Correspondence Address: -			



ID	Distance (m)	Direction	NGR	Details				
Not shown	983	S	530155 181552	Site Address: Mobile Plant Type: Mobile plant treatment for soil <75,000 tpd Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: RIA001 EPR reference: EA/EPR/EB3603UR/A001 Operator: Recycled In Ardleigh Limited Waste Management licence No: 105680 Annual Tonnage: 0.0	Issue Date: 20/02/2017 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Mobile Plant S R 2010 No11 Correspondence Address: -			
Not shown	1022	NW	529833 183365	Site Address: Ronald Hall, St Pancras Metals, 86, Pancras Road, London, NW1 1WJ Type: Metal Recycling Site (mixed MRS's) Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: SAI006 EPR reference: EA/EPR/AP3691NW/A001 Operator: Hall Ronald Herbert Charles Waste Management licence No: 80335 Annual Tonnage: 2080.0	Issue Date: 20/11/1992 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: St Pancras Metals, N W 1 Correspondence Address: -			
Not shown	1046	NW	529928 183449	Site Address: P. Donaghy, 2, Camley Street, Kings Cross, London, NW1 Type: Household, Commercial & Industrial Waste T Stn Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: RUT001 EPR reference: EA/EPR/WP3791NW/S004 Operator: Rutland (Waste Disposal) Ltd Waste Management licence No: 80327 Annual Tonnage: 25000.0	Issue Date: 17/02/1992 Effective Date: - Modified: 15/07/1997 Surrendered Date: 07/01/2000 Expiry Date: - Cancelled Date: - Status: Surrendered Site Name: Rutland (Waste Disposal) Ltd, Kings Cross Correspondence Address: -			
Not shown	1046	NW	529928 183449	Site Address: P. Donaghy, 2, Camley Street, Kings Cross, London, NW1 Type: Household, Commercial & Industrial Waste T Stn Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: RUT001 EPR reference: EA/EPR/WP3791NW/S004 Operator: Rutland (Waste Disposal ) Ltd Waste Management licence No: 80327 Annual Tonnage: 25000.0	Issue Date: 17/02/1992 Effective Date: - Modified: 15/07/1997 Surrendered Date: 07/01/2000 Expiry Date: - Cancelled Date: - Status: Surrendered Site Name: Rutland (Waste Disposal) Ltd, Kings Cross Correspondence Address: -			
Not shown	1324	Ν	529908 183746	Site Address: Nick Dean, Kings Cross Goods Depot, Goods Way, Kings Cross, London, NW1 Type: Household, Commercial & Industrial Waste T Stn Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: GRS001 EPR reference: EA/EPR/EP3991NL/S005 Operator: GRS (Roadstone) Ltd Waste Management licence No: 80299 Annual Tonnage: 196000.0	Issue Date: 30/03/1993 Effective Date: - Modified: 18/09/1997 Surrendered Date: 15/10/2002 Expiry Date: - Cancelled Date: - Status: Surrendered Site Name: GRS (Roadstone), Kings Cross Correspondence Address: -			



ID	Distance (m)	Direction	NGR	Details					
Not shown	1324	Ν	529908 183746	Site Address: Nick Dean, Kings Cross Goods Depot, Goods Way, Kings Cross, London, NW1 Type: Household, Commercial & Industrial Waste T Stn Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: GRS001 EPR reference: EA/EPR/EP3991NL/S005 Operator: G R S ( Roadstone ) Ltd Waste Management licence No: 80299 Annual Tonnage: 196000.0	Issue Date: 30/03/1993 Effective Date: - Modified: 18/09/1997 Surrendered Date: 15/10/2002 Expiry Date: - Cancelled Date: - Status: Surrendered Site Name: GRS (Roadstone), Kings Cross Correspondence Address: -				
Not shown	1338	E	531723 182200	Site Address: 12, Tanfield Close, Cheshunt, Herefordshire, EN7 6BH Type: Mobile Plant for remediation of land Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: BRS005 EPR reference: EA/EPR/DB3036RC/A001 Operator: Brownfield Remediation Solutions Limited Waste Management licence No: 105256 Annual Tonnage: 0.0	Issue Date: 28/10/2011 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: S R 2008 No 27 Correspondence Address: -				
Not shown	1341	SE	531354 181541	Site Address: Mobile Plant Type: Mobile plant for land spreading Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: ETL001 EPR reference: EA/EPR/BB3408KC/V002 Operator: E P R Thetford Limited Waste Management licence No: 105552 Annual Tonnage: 0.0	Issue Date: 14/04/2014 Effective Date: - Modified: 09/06/2016 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified Site Name: Mobile Plant S R 2010 No 4 Correspondence Address: -				
Not shown	1344	NW	529589 183586	Site Address: - Type: Metal Recycling Site (mixed MRS's) Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: ARB001 EPR reference: EA/EPR/EP3491NW/A001 Operator: Arbuckle William David Waste Management licence No: 80302 Annual Tonnage: 1014.0	Issue Date: 05/06/1997 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Arbuckle, St Pancras Way Correspondence Address: -				



### 4. Current Land Use Map





### 4. Current Land Uses

### 4.1 Current Industrial Data

Records of potentially contaminative industrial sites within 250m of the study site:

16

The following records are represented as points on the Current Land Uses map.

ID	Distance (m)	Directio n	Company	NGR	Address	Activity	Category
1	9	E	Canns Down Press Contempary Artist Pubrs	530423 182519	Flat 1 8, Regent Square, London, WC1H 8HZ	Published Goods	Industrial Products
2	70	W	Reform Magazine	530341 182492	86, Tavistock Place, London, WC1H 9RT	Published Goods	Industrial Products
3	140	NE	English Kilt Company	530495 182634	26, Harrison Street, London, WC1H 8JW	Clothing, Components and Accessories	Consumer Products
4	169	SE	Electricity Sub Station	530554 182400	WC1N	Electrical Features	Infrastructure and Facilities
5	174	SW	The Clearance Co	530263 182410	Flat 9 Hunter House, Hunter Street, London, WC1N 1BE	Clearance and Salvage Dealers	Recycling Services
6	180	Ν	Ha Hu Books	530352 182691	Flat 9 Kellet House, Tankerton Street, London, WC1H 8HW	Published Goods	Industrial Products
7	197	NE	On Off Print & Design	530586 182614	225, Gray's Inn Road, London, WC1X 8RH	Published Goods	Industrial Products
8	211	NE	Telephone Exchange	530552 182680	WC1H	Telecommunications Features	Infrastructure and Facilities
9A	215	SW	Royal Navy	530225 182397	Handel Street, London, WC1N 1NP	Armed Services	Central and Local Government
10A	215	SW	University of London Officers Training Corps	530225 182397	Yeomanry House, Handel Street, London, WC1N 1NP	Armed Services	Central and Local Government
11A	215	SW	The Armed Forces	530224 182397	Yeomanry House, Handel Street, London, WC1N 1NP	Armed Services	Central and Local Government
12A	216	SW	Territorial Army Centre	530221 182403	WC1N	Armed Services	Central and Local Government
13A	216	SW	ULOTC	530224 182397	Yeomanry House, Handel Street, London, WC1N 1NP	Armed Services	Central and Local Government
14	229	Ν	S P Commodities Ltd	530327 182734	62, Argyle Street, London, WC1H 8ER	Scrap Metal Merchants	Recycling Services
15	232	NE	Play Deep Ltd	530519 182727	8-16, Cromer Street, London, WC1H 8LH	Recording Studios and Record Companies	IT, Advertising, Marketing and Media Services



ID	Distance (m)	Directio n	Company	NGR	Address	Activity	Category
16	240	SW	The Flash Centre	530247 182326	68, Brunswick Centre, London, WC1N 1AE	Photographic and Optical Equipment	Household, Office, Leisure and Garden

### 4.2 Petrol and Fuel Sites

Records of petrol or fuel sites within 500m of the study site:

3

The following petrol or fuel site records provided by Catalist are represented as points on the Current Land Use map:

ID	Distance (m)	Directio n	NGR	Company	Address	LPG	Status
17	447	SW	530068 182217	Total	Woburn Place Service Station, 3-16, Woburn Place, Woburn Place, Coram Street, St Pancras, London, Inner London, WC1H OLS	Not Applicable	Obsolete
18	447	E	530849 182626	Texaco	Star Kings Cross, 71-79, Kings Cross Road, Kings Cross Road, Clerkenwell, London, Inner London, WC1X 9LN	Not Applicable	Obsolete
19	461	W	529956 182615	Obsolete	St Pancras Service Station, 141-151, Euston Road, Euston Road, St Pancras, London, Inner London, NW1 2AU	Not Applicable	Obsolete

### 4.3 National Grid High Voltage Underground Electricity Transmission Cables

This dataset identifies the high voltage electricity transmission lines running between generating power plants and electricity substations. The dataset does not include the electricity distribution network (smaller, lower voltage cables distributing power from substations to the local user network). This information has been extracted from databases held by National Grid and is provided for information only with no guarantee as to its completeness or accuracy. National Grid do not offer any warranty as to the accuracy of the available data and are excluded from any liability for any such inaccuracies or errors.

Records of National Grid high voltage underground electricity transmission cables within 500m of the study site:

Database searched and no data found.

0



### 4.4 National Grid High Pressure Gas Transmission Pipelines

This dataset identifies high-pressure, large diameter pipelines which carry gas between gas terminals, power stations, compressors and storage facilities. The dataset does not include the Local Transmission System (LTS) which supplies gas directly into homes and businesses. This information has been extracted from databases held by National Grid and is provided for information only with no guarantee as to its completeness or accuracy. National Grid do not offer any warranty as to the accuracy of the available data and are excluded from any liability for any such inaccuracies or errors.

Records of National Grid high pressure gas transmission pipelines within 500m of the study site:

0



# 5. Geology

### 5.1 Artificial Ground and Made Ground

The database has been searched on site, including a 50m buffer.

Lex Code	Description	Rock Type
WGR-VOID	WORKED GROUND (UNDIVIDED)	VOID

### 5.2 Superficial Ground and Drift Geology

The database has been searched on site, including a 50m buffer.

Lex Code	Description	Rock Type
LHGR-XSV	LYNCH HILL GRAVEL MEMBER	SAND AND GRAVEL

### 5.3 Bedrock and Solid Geology

The database has been searched on site, including a 50m buffer.

Lex Code	Description	Rock Type
LC-XCZS	LONDON CLAY FORMATION	CLAY, SILT AND SAND

(Derived from the BGS 1:50,000 Digital Geological Map of Great Britain)



# 6 Hydrogeology and Hydrology 6a. Aquifer Within Superficial Geology

NW



SW

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S



## **6b. Aquifer Within Bedrock Geology and Abstraction** Licenses



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Report Reference: GS-5191320 Client Reference: Regent\_Square



### 6c. Hydrogeology – Source Protection Zones and Potable Water Abstraction Licenses



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### 6d. Hydrogeology – Source Protection Zones within confined aquifer







### 6e. Hydrology – Watercourse Network and River Quality





# 6.Hydrogeology and Hydrology

### 6.1 Aquifer within Superficial Deposits

Records of strata classification within the superficial geology at or in proximity to the property Yes

From 1 April 2010, the Environment Agency/Natural Resources Wales's Groundwater Protection Policy has been using aquifer designations consistent with the Water Framework Directive. For further details on the designation and interpretation of this information, please refer to the Groundsure Enviro Insight User Guide.

The following aquifer records are shown on the Aquifer within Superficial Geology Map (6a):

ID	Distanc e (m)	Direction	Designation	Description
1	0	On Site	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
2	407	W	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers

### 6.2 Aquifer within Bedrock Deposits

Records of strata classification within the bedrock geology at or in proximity to the property Yes

From 1 April 2010, the Environment Agency/Natural Resources Wales's Groundwater Protection Policy has been using aquifer designations consistent with the Water Framework Directive. For further details on the designation and interpretation of this information, please refer to the Groundsure Enviro Insight User Guide.

The following aquifer records are shown on the Aquifer within Bedrock Geology Map (6b):

ID	Distanc e (m)	Direction	Designation	Description
2	0	On Site	Unproductive	These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow
3	407	W	Unproductive	These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow
1	410	E	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers



### 6.3 Groundwater Abstraction Licences

Groundwater Abstraction Licences within 2000m of the study site

Identified

The following Abstraction Licences records are represented as points, lines and regions on the Aquifer within Bedrock Geology Map (6b):

ID	Distanc e (m)	Direction	NGR	Details		
4A	406	NW	530052 182718	Status: Historical Licence No: TH/039/0039/001 Details: Heat Pump Direct Source: Thames Groundwater Point: Bidborough House 20 Mabledon Place London Data Type: Point Name: LONDON BOROUGH OF CAMDEN	Annual Volume (m <sup>3</sup> ): 327600 Max Daily Volume (m <sup>3</sup> ): 1260 Original Application No: NPSWR000003 Original Start Date: 9/4/2009 Expiry Date: 31/3/2013 Issue No: 1 Version Start Date: 9/4/2009 Version End Date:	
5A	406	NW	530052 182718	Status: Historical Licence No: TH/039/0039/001 Details: Heat Pump Direct Source: Thames Groundwater Point: Borehole At Bidborough House 20 Mabledon Place London Data Type: Point Name: LONDON BOROUGH OF CAMDEN	Annual Volume (m <sup>3</sup> ): 327600 Max Daily Volume (m <sup>3</sup> ): 1260 Original Application No: NPSWR000003 Original Start Date: 9/4/2009 Expiry Date: 31/3/2013 Issue No: 1 Version Start Date: 9/4/2009 Version End Date:	
6A	406	NW	530052 182718	Status: Active Licence No: TH/039/0039/064 Details: Heat Pump Direct Source: Thames Groundwater Point: Borehole At Bidborough House, 20 Mabledon Place, London Data Type: Point Name: University College London	Annual Volume (m <sup>3</sup> ): 327600 Max Daily Volume (m <sup>3</sup> ): 1440 Original Application No: NPS/WR/017625 Original Start Date: 16/4/2013 Expiry Date: 31/3/2019 Issue No: 2 Version Start Date: 21/11/2014 Version End Date:	
Not shown	774	Ν	530368 183294	Status: Active Licence No: TH/039/0039/055 Details: Heat Pump Direct Source: Thames Groundwater Point: Regent Quarter - Borehole A Data Type: Point Name: BNP Paribas Jersey Trust Corp Ltd and Anley Trustees Ltd	Annual Volume (m <sup>3</sup> ): 323612 Max Daily Volume (m <sup>3</sup> ): 2160 Original Application No: NPS/WR/015663 Original Start Date: 6/2/2013 Expiry Date: 31/3/2025 Issue No: 2 Version Start Date: 25/6/2014 Version End Date:	
Not shown	844	SW	529858 181865	Status: Active Licence No: TH/039/0039/031 Details: Heat Pump Direct Source: Thames Groundwater Point: Keppel Street, Bloomsbury, London - Borehole 2 Data Type: Point Name: London School of Hygiene and Tropical Medicine	Annual Volume (m <sup>3</sup> ): 203407 Max Daily Volume (m <sup>3</sup> ): 558 Original Application No: NPS/WR/004429 Original Start Date: 8/11/2010 Expiry Date: 31/3/2019 Issue No: 1 Version Start Date: 1/4/2011 Version End Date:	
Not shown	844	SW	529858 181865	Status: Historical Licence No: TH/039/0039/031 Details: Heat Pump Direct Source: Thames Groundwater Point: Borehole 2, Keppel Street Data Type: Point Name: London School of Hygiene and Tropical Medicine	Annual Volume (m <sup>3</sup> ): 203407 Max Daily Volume (m <sup>3</sup> ): 558 Original Application No: NPS/WR/004429 Original Start Date: 8/11/2010 Expiry Date: 31/3/2019 Issue No: 1 Version Start Date: 8/11/2010 Version End Date:	



ID	Distanc e (m)	Direction	NGR 529860 181863	Details		
Not shown	844			Status: Historical Licence No: TH/039/0039/031 Details: Heat Pump Direct Source: Thames Groundwater Point: Borehole 1, Keppel Street Data Type: Point Name: London School of Hygiene and Tropical Medicine	Annual Volume (m <sup>3</sup> ): 203407 Max Daily Volume (m <sup>3</sup> ): 558 Original Application No: NPS/WR/004429 Original Start Date: 8/11/2010 Expiry Date: 31/3/2019 Issue No: 1 Version Start Date: 8/11/2010 Version End Date:	
Not shown	844	SW	529860 181863	Status: Active Licence No: TH/039/0039/031 Details: Heat Pump Direct Source: Thames Groundwater Point: Keppel Street, Bloomsbury, London - Borehole 1 Data Type: Point Name: London School of Hygiene and Tropical Medicine	Annual Volume (m <sup>3</sup> ): 203407 Max Daily Volume (m <sup>3</sup> ): 558 Original Application No: NPS/WR/004429 Original Start Date: 8/11/2010 Expiry Date: 31/3/2019 Issue No: 1 Version Start Date: 1/4/2011 Version End Date:	
Not shown	865	E	531239 182777	Status: Active Licence No: TH/039/0039/059 Details: Potable Water Supply - Direct Direct Source: Thames Groundwater Point: Borehole At New River Head Data Type: Point Name: THAMES WATER UTILITIES LTD	Annual Volume (m <sup>3</sup> ): 1261440 Max Daily Volume (m <sup>3</sup> ): 3456 Original Application No: NPS/WR/009226 Original Start Date: 1/4/2013 Expiry Date: 31/3/2025 Issue No: 1 Version Start Date: 1/4/2013 Version End Date:	
Not shown	899	E	531280 182760	Status: Historical Licence No: 28/39/39/0201 Details: Potable Water Supply - Direct Direct Source: Thames Groundwater Point: New River Head, Finsbury - Borehole Data Type: Point Name: THAMES WATER UTILITIES LTD	Annual Volume (m <sup>3</sup> ): 1261440 Max Daily Volume (m <sup>3</sup> ): 3456 Original Application No: WRA/R/2/2 Original Start Date: 8/1/2004 Expiry Date: 31/3/2013 Issue No: 1 Version Start Date: 8/1/2004 Version End Date:	
Not shown	1102	E	531452 182887	Status: Active Licence No: TH/039/0039/060 Details: Potable Water Supply - Direct Direct Source: Thames Groundwater Point: Borehole At Saddlers Wells Data Type: Point Name: THAMES WATER UTILITIES LTD	Annual Volume (m <sup>3</sup> ): 473040 Max Daily Volume (m <sup>3</sup> ): 1296 Original Application No: NPS/WR/009228 Original Start Date: 1/4/2013 Expiry Date: 31/3/2025 Issue No: 1 Version Start Date: 1/4/2013 Version End Date:	
Not shown	1104	E	531450 182900	Status: Historical Licence No: 28/39/39/0188 Details: Non-Evaporative Cooling Direct Source: Thames Groundwater Point: Borehole At Sadler's Wells Theatre, London Data Type: Point Name: SADLER'S WELLS TRUST LTD	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: - Original Start Date: 29/9/1998 Expiry Date: 31/12/2004 Issue No: 101 Version Start Date: 18/9/2001 Version End Date:	
Not shown	1104	E	531450 182900	Status: Historical Licence No: 28/39/39/0208 Details: Potable Water Supply - Direct Direct Source: Thames Groundwater Point: Sadler's Wells Theatre, London Data Type: Point Name: THAMES WATER UTILITIES LTD	Annual Volume (m <sup>3</sup> ): 473040 Max Daily Volume (m <sup>3</sup> ): 1296 Original Application No: WRA/R/1010 Original Start Date: 13/12/2004 Expiry Date: 31/3/2013 Issue No: 1 Version Start Date: 13/12/2004 Version End Date:	



ID	Distanc e (m)	Direction	NGR	Details		
Not shown	1104	E	531450 182900	Status: Historical Licence No: 28/39/39/0188 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Thames Groundwater Point: Borehole At Sadler's Wells Theatre, London Data Type: Point Name: SADLER'S WELLS TRUST LTD	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: - Original Start Date: 29/9/1998 Expiry Date: 31/12/2004 Issue No: 101 Version Start Date: 18/9/2001 Version End Date:	
Not shown	1104	E	531450 182900	Status: Historical Licence No: 28/39/39/0208 Details: Potable Water Supply - Direct Direct Source: Thames Groundwater Point: Borehole At Sadler's Wells Theatre, London Data Type: Point Name: THAMES WATER UTILITIES LTD	Annual Volume (m <sup>3</sup> ): 473040 Max Daily Volume (m <sup>3</sup> ): 1296 Original Application No: WRA/R/1010 Original Start Date: 13/12/2004 Expiry Date: 31/3/2013 Issue No: 1 Version Start Date: 13/12/2004 Version End Date:	
Not shown	1104	E	531450 182900	Status: Historical Licence No: 28/39/39/0188 Details: Non-Evaporative Cooling Direct Source: Thames Groundwater Point: Borehole At Sadlers Wells Theatre, London Data Type: Point Name: SADLERS WELLS TRUST LTD	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: A/N/6488 Original Start Date: - Expiry Date: 31/12/2004 Issue No: 100 Version Start Date: 29/9/1998 Version End Date:	
Not shown	1104	E	531450 182900	Status: Historical Licence No: 28/39/39/0188 Details: Water Bottling Direct Source: Thames Groundwater Point: Borehole At Sadler's Wells Theatre, London Data Type: Point Name: SADLER'S WELLS TRUST LTD	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: - Original Start Date: 29/9/1998 Expiry Date: 31/12/2004 Issue No: 101 Version Start Date: 18/9/2001 Version End Date:	
Not shown	1104	E	531450 182900	Status: Historical Licence No: 28/39/39/0188 Details: Water Bottling Direct Source: Thames Groundwater Point: Borehole At Sadlers Wells Theatre, London Data Type: Point Name: SADLERS WELLS TRUST LTD	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: A/N/6488 Original Start Date: - Expiry Date: 31/12/2004 Issue No: 100 Version Start Date: 29/9/1998 Version End Date:	
Not shown	1104	E	531450 182900	Status: Historical Licence No: 28/39/39/0188 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Thames Groundwater Point: Borehole At Sadlers Wells Theatre, London Data Type: Point Name: SADLERS WELLS TRUST LTD	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: A/N/6488 Original Start Date: - Expiry Date: 31/12/2004 Issue No: 100 Version Start Date: 29/9/1998 Version End Date:	
Not shown	1280	E	531650 182150	Status: Active Licence No: 28/39/39/0206 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Thames Groundwater Point: 86-88 Clerkenwell Road, London- Borehole A Data Type: Point Name: Urban Hotels UK LLP	Annual Volume (m <sup>3</sup> ): 25404 Max Daily Volume (m <sup>3</sup> ): 125 Original Application No: NPS/WR/010632 Original Start Date: 4/7/2003 Expiry Date: 31/3/2025 Issue No: 4 Version Start Date: 10/9/2012 Version End Date:	



ID Distanc Direction NGR e (m)			NGR	Deta	Details		
Not shown	1310	NE	531022 183681	Status: Active Licence No: TH/039/0039/057 Details: Potable Water Supply - Direct Direct Source: Thames Groundwater Point: Borehole At Barnard Park Data Type: Point Name: THAMES WATER UTILITIES LTD	Annual Volume (m <sup>3</sup> ): 914544 Max Daily Volume (m <sup>3</sup> ): 3024 Original Application No: NPS/WR/009227 Original Start Date: 1/4/2013 Expiry Date: 31/3/2025 Issue No: 1 Version Start Date: 1/4/2013 Version End Date:		
Not shown	1317	NE	531020 183690	Status: Historical Licence No: 28/39/39/0207 Details: Potable Water Supply - Direct Direct Source: Thames Groundwater Point: Barnard Park, Islington - Borehole Data Type: Point Name: THAMES WATER UTILITIES LTD	Annual Volume (m <sup>3</sup> ): 914544 Max Daily Volume (m <sup>3</sup> ): 3024 Original Application No: - Original Start Date: 2/5/2003 Expiry Date: 31/3/2013 Issue No: 1 Version Start Date: 8/1/2004 Version End Date:		
Not shown	1425	SE	531630 181750	Status: Historical Licence No: 28/39/39/0176 Details: Evaporative Cooling Direct Source: Thames Groundwater Point: 2 Boreholes At Charterhouse Street, Smithfield At Point A Data Type: Point Name: CITIGEN (LONDON) LTD	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: WRA/6138 Original Start Date: 23/12/1994 Expiry Date: 31/12/2004 Issue No: 101 Version Start Date: 1/4/2000 Version End Date:		
Not shown	1428	SE	531600 181700	Status: Historical Licence No: 28/39/39/0176 Details: Evaporative Cooling Direct Source: Thames Groundwater Point: Charterhouse Street, London - Borehole A Data Type: Point Name: CITIGEN (LONDON) LTD	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: - Original Start Date: 23/12/1994 Expiry Date: 31/12/2004 Issue No: 100 Version Start Date: 11/1/1995 Version End Date:		
Not shown	1428	SE	531600 181700	Status: Historical Licence No: 28/39/39/0176 Details: Evaporative Cooling Direct Source: Thames Groundwater Point: Charterhouse Street, London - Borehole B Data Type: Point Name: CITIGEN (LONDON) LTD	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: - Original Start Date: 23/12/1994 Expiry Date: 31/12/2004 Issue No: 100 Version Start Date: 11/1/1995 Version End Date:		
Not shown	1596	Ν	529920 184040	Status: Historical Licence No: 28/39/39/0222 Details: General Use Relating To Secondary Category (High Loss) Direct Source: Thames Groundwater Point: Kings Cross Concrete Plant-borehole Data Type: Point Name: HANSON QUARRY PRODUCTS EUROPE LTD	Annual Volume (m <sup>3</sup> ): 55200 Max Daily Volume (m <sup>3</sup> ): 200 Original Application No: GEN/39/ Original Start Date: 31/8/2006 Expiry Date: 31/3/2010 Issue No: 1 Version Start Date: 31/8/2006 Version End Date:		
Not shown	1596	Ν	529920 184040	Status: Active Licence No: TH/039/0039/027 Details: General Use Relating To Secondary Category (High Loss) Direct Source: Thames Groundwater Point: Kings Cross Concrete Plant-borehole Data Type: Point Name: HANSON QUARRY PRODUCTS EUROPE LTD	Annual Volume (m <sup>3</sup> ): 33400 Max Daily Volume (m <sup>3</sup> ): 200 Original Application No: NPS/WR/011609 Original Start Date: 21/4/2010 Expiry Date: 31/3/2019 Issue No: 2 Version Start Date: 13/8/2012 Version End Date:		



ID	Distanc e (m)	Direction	NGR	Details		
Not shown	1645	SE	531748 181533	Status: Active Licence No: TH/039/0039/084 Details: Heat Pump Direct Source: Thames Groundwater Point: Confined Chalk At City And Guilds Head Office Data Type: Point Name: City and Guilds of London Institure	Annual Volume (m <sup>3</sup> ): 189216 Max Daily Volume (m <sup>3</sup> ): 519 Original Application No: NPS/WR/013619 Original Start Date: 23/8/2013 Expiry Date: 31/3/2019 Issue No: 1 Version Start Date: 23/8/2013 Version End Date:	
Not shown	1645	SE	531748 181533	Status: Historical Licence No: TH/039/0039/084 Details: Heat Pump Direct Source: Thames Groundwater Point: Confined Chalk At City And Guilds Head Office Data Type: Point Name: City and Guilds of London Institure	Annual Volume (m <sup>3</sup> ): 189216 Max Daily Volume (m <sup>3</sup> ): 519 Original Application No: NPS/WR/013619 Original Start Date: 23/8/2013 Expiry Date: 31/3/2019 Issue No: 1 Version Start Date: 23/8/2013 Version End Date:	
Not shown	1648	SE	531050 180980	Status: Historical Licence No: 28/39/39/0025 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Thames Groundwater Point: Globe House, Victoria Embankment- Borehole C Data Type: Point Name: COMMERZ GRUNDBESITZ INVEST. MBH	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: - Original Start Date: 10/1/1966 Expiry Date: - Issue No: 101 Version Start Date: 28/3/2003 Version End Date:	
Not shown	1649	S	531030 180970	Status: Historical Licence No: 28/39/39/0025 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Thames Groundwater Point: Globe House, Victoria Embankment- Borehole B Data Type: Point Name: COMMERZ GRUNDBESITZ INVEST. MBH	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: - Original Start Date: 10/1/1966 Expiry Date: - Issue No: 101 Version Start Date: 28/3/2003 Version End Date:	
Not shown	1652	SE	531060 180980	Status: Historical Licence No: 28/39/39/0025 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Thames Groundwater Point: Globe House, Victoria Embankment- Borehole A Data Type: Point Name: COMMERZ GRUNDBESITZ INVEST. MBH	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: - Original Start Date: 10/1/1966 Expiry Date: - Issue No: 101 Version Start Date: 28/3/2003 Version End Date:	
Not shown	1656	SE	531300 181100	Status: Historical Licence No: 28/39/39/0077 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Thames Groundwater Point: Borehole At 37 Fleet Street, London Ec4 Data Type: Point Name: C HOARE & CO	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: - Original Start Date: 13/6/1966 Expiry Date: - Issue No: 100 Version Start Date: 10/6/1968 Version End Date:	



ID	Distanc e (m)	Direction	NGR	Details		
Not shown	1693	W	528830 181900	Status: Historical Licence No: TH/039/0039/010 Details: Heat Pump Direct Source: Thames Groundwater Point: 10 Weymouth Street, Ridgeford Properties Data Type: Point Name: Ridgeford Properties Limited	Annual Volume (m <sup>3</sup> ): 50000 Max Daily Volume (m <sup>3</sup> ): 400 Original Application No: NPSWR001161 Original Start Date: 13/8/2009 Expiry Date: 31/3/2013 Issue No: 1 Version Start Date: 13/8/2009 Version End Date:	
Not shown	1693	W	528830 181900	Status: Active Licence No: TH/039/0039/068 Details: Heat Pump Direct Source: Thames Groundwater Point: 10 Weymouth Street, Ridgeford Properties Data Type: Point Name: Ridgeford Properties Limited	Annual Volume (m <sup>3</sup> ): 50000 Max Daily Volume (m <sup>3</sup> ): 400 Original Application No: NPSWR009221 Original Start Date: 1/4/2013 Expiry Date: 31/3/2025 Issue No: 1 Version Start Date: 1/4/2013 Version End Date:	
Not shown	1713	SW	529100 181400	Status: Historical Licence No: 28/39/39/0138 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Thames Groundwater Point: Borehole 'b' At Walmer House, 296 Regent Street, London W1 Data Type: Point Name: CAPITAL AND COUNTIES PROPERTY COMPANY LIMITED	Annual Volume (m <sup>3</sup> ): 9126 Max Daily Volume (m <sup>3</sup> ): 25 Original Application No: - Original Start Date: 11/10/1971 Expiry Date: - Issue No: 100 Version Start Date: 26/11/1979 Version End Date:	
Not shown	1713	SW	529100 181400	Status: Historical Licence No: 28/39/39/0138 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Thames Groundwater Point: Walmer House, 296 Regent Street, London W1-borehole B Data Type: Point Name: CAPITAL AND COUNTIES PROPERTY COMPANY LIMITED	Annual Volume (m <sup>3</sup> ): 9126 Max Daily Volume (m <sup>3</sup> ): 25 Original Application No: - Original Start Date: 11/10/1971 Expiry Date: - Issue No: 100 Version Start Date: 26/11/1979 Version End Date:	
Not shown	1799	S	531000 180800	Status: Historical Licence No: 28/39/39/0025 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Thames Groundwater Point: Borehole 'c' At Globe House, Temple Place, London Data Type: Point Name: HAMMERSON UK PROPERTIES PLC	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: - Original Start Date: 10/1/1966 Expiry Date: - Issue No: 100 Version Start Date: 14/12/1995 Version End Date:	
Not shown	1799	S	531000 180800	Status: Historical Licence No: 28/39/39/0025 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Thames Groundwater Point: Borehole 'b' At Globe House, Temple Place, London Data Type: Point Name: HAMMERSON UK PROPERTIES PLC	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: - Original Start Date: 10/1/1966 Expiry Date: - Issue No: 100 Version Start Date: 14/12/1995 Version End Date:	



ID	Distanc e (m)	Direction	NGR	Details		
Not shown	1799	S	531000 180800	Status: Historical Licence No: 28/39/39/0025 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Thames Groundwater Point: Borehole 'a' At Globe House, Temple Place, London Data Type: Point Name: HAMMERSON UK PROPERTIES PLC	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: - Original Start Date: 10/1/1966 Expiry Date: - Issue No: 100 Version Start Date: 14/12/1995 Version End Date:	
Not shown	1815	SW	529010 181350	Status: Active Licence No: 28/39/39/0138 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Thames Groundwater Point: Walmer House, 296 Regent Street, London, W1b - Borehole 'a' Data Type: Point Name: Pontsarn Investments Limited	Annual Volume (m <sup>3</sup> ): 9126 Max Daily Volume (m <sup>3</sup> ): 25 Original Application No: NPS/WR/011671 Original Start Date: 11/10/1971 Expiry Date: - Issue No: 102 Version Start Date: 29/11/2012 Version End Date:	
Not shown	1827	SW	529010 181330	Status: Active Licence No: 28/39/39/0138 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Thames Groundwater Point: Walmer House, 296 Regent Street, London, W1b - Borehole 'b' Data Type: Point Name: Pontsarn Investments Limited	Annual Volume (m <sup>3</sup> ): 9126 Max Daily Volume (m <sup>3</sup> ): 25 Original Application No: NPS/WR/011671 Original Start Date: 11/10/1971 Expiry Date: - Issue No: 102 Version Start Date: 29/11/2012 Version End Date:	
Not shown	1854	SW	529000 181300	Status: Historical Licence No: 28/39/39/0138 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Thames Groundwater Point: Walmer House, 296 Regent Street, London W1-borehole A Data Type: Point Name: CAPITAL AND COUNTIES PROPERTY COMPANY LIMITED	Annual Volume (m <sup>3</sup> ): 9126 Max Daily Volume (m <sup>3</sup> ): 25 Original Application No: - Original Start Date: 11/10/1971 Expiry Date: - Issue No: 100 Version Start Date: 26/11/1979 Version End Date:	
Not shown	1854	SW	529000 181300	Status: Historical Licence No: 28/39/39/0138 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Thames Groundwater Point: Borehole 'a' At Walmer House, 296 Regent Street, London W1 Data Type: Point Name: CAPITAL AND COUNTIES PROPERTY COMPANY LIMITED	Annual Volume (m <sup>3</sup> ): 9126 Max Daily Volume (m <sup>3</sup> ): 25 Original Application No: - Original Start Date: 11/10/1971 Expiry Date: - Issue No: 100 Version Start Date: 26/11/1979 Version End Date:	
Not shown	1855	SE	531315 180878	Status: Active Licence No: TH/039/0039/115 Details: Spray Irrigation - Direct Direct Source: Thames Groundwater Point: Inner Temple Gardens Borehole Data Type: Point Name: THE HONOURABLE SOCIETY OF THE INNER TEMPLE	Annual Volume (m <sup>3</sup> ): 8000 Max Daily Volume (m <sup>3</sup> ): 50 Original Application No: NPS/WR/022651 Original Start Date: 20/10/2016 Expiry Date: 31/3/2028 Issue No: 1 Version Start Date: 20/10/2016 Version End Date:	



ID	Distanc e (m)	Direction	NGR	Details	
Not shown	1933	SE	531500 180900	Status: Historical Licence No: 28/39/39/0057 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Thames Groundwater Point: Two Boreholes At Unilever House, Blackfriars, London Ec4 Data Type: Point Name: UNILEVER LTD	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: - Original Start Date: 9/5/1966 Expiry Date: - Issue No: 100 Version Start Date: 9/5/1966 Version End Date:
Not shown	1965	S	530089 180562	Status: Active Licence No: TH/039/0039/067 Details: Heat Pump Direct Source: Thames Groundwater Point: 6 St Martins Place, London, Wc2n - Borehole Data Type: Point Name: ST MARTIN-IN-THE FIELDS LIMITED	Annual Volume (m³): 140000 Max Daily Volume (m³): 760 Original Application No: GEN/39/117 Original Start Date: 1/4/2013 Expiry Date: 31/3/2025 Issue No: 2 Version Start Date: 1/4/2013 Version End Date:
Not shown	1967	S	530090 180560	Status: Historical Licence No: 28/39/39/0236 Details: Heat Pump Direct Source: Thames Groundwater Point: 6 St Martins Place, London, Wc2n - Borehole Data Type: Point Name: ST MARTIN-IN-THE FIELDS LIMITED	Annual Volume (m <sup>3</sup> ): 52000 Max Daily Volume (m <sup>3</sup> ): 1300 Original Application No: GEN/39/117 Original Start Date: 24/4/2008 Expiry Date: 31/3/2013 Issue No: 1 Version Start Date: 24/4/2008 Version End Date:

### 6.4 Surface Water Abstraction Licences

Surface Water Abstraction Licences within 2000m of the study site

Identified

The following Surface Water Abstraction Licences records are represented as points, lines and regions on the Aquifer within Bedrock Geology Map (6b):

ID	Distance (m)	Direction	NGR	Details	
Not shown	1004	Ν	530310 183520	Status: Active Licence No: 28/39/39/0164 Details: Non-Evaporative Cooling Direct Source: Thames Surface Water - Non Tidal Point: Maiden Lane Bridge, London, Nw1 - Regents Canal Data Type: Point Name: Canal and River Trust	Annual Volume (m³): 7010000 Max Daily Volume (m³): 19520 Application No: - Original Start Date: 18/7/1980 Expiry Date: - Issue No: 101 Version Start Date: 17/12/2007 Version End Date:
Not shown	1264	NW	529750 183600	Status: Historical Licence No: 28/39/39/0172 Details: Make-Up or Top Up Water Direct Source: Thames Surface Water - Non Tidal Point: Grand Union Canal At Camley Street Nature Park, London Data Type: Point Name: BRITISH WATERWAYS BOARD	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Application No: - Original Start Date: 18/9/1991 Expiry Date: - Issue No: 100 Version Start Date: 18/9/1991 Version End Date:
Not shown	1264	NW	529750 183600	Status: Historical Licence No: 28/39/39/0172 Details: Make-Up or Top Up Water Direct Source: Thames Surface Water - Non Tidal Point: Camley Street Nature Park, London Data Type: Point Name: BRITISH WATERWAYS BOARD	Annual Volume (m³): - Max Daily Volume (m³): - Application No: - Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 18/9/1991 Version End Date:



ID Dist (r	tance (m)	Direction	NGR	Details	
Not 17 shown 17	753	E	532100 183000	Status: Active Licence No: 28/39/39/0164 Details: Non-Evaporative Cooling Direct Source: Thames Surface Water - Non Tidal Point: City Road Basin, Wharf Road, N1 - Regents Canal Data Type: Point Name: Canal and River Trust	Annual Volume (m <sup>3</sup> ): 7010000 Max Daily Volume (m <sup>3</sup> ): 19520 Application No: - Original Start Date: 18/7/1980 Expiry Date: - Issue No: 101 Version Start Date: 17/12/2007 Version End Date:

### 6.5 Potable Water Abstraction Licences

Potable Water Abstraction Licences within 2000m of the study site

Identified

The following Potable Water Abstraction Licences records are represented as points, lines and regions on the SPZ and Potable Water Abstraction Licences Map (6c):

ID	Distanc e (m)	Direction	NGR	Details		
Not shown	865	E	531239 182777	Status: Active Licence No: TH/039/0039/059 Details: Potable Water Supply - Direct Direct Source: Thames Groundwater Point: Borehole At New River Head Data Type: Point Name: THAMES WATER UTILITIES LTD	Annual Volume (m <sup>3</sup> ): 1261440 Max Daily Volume (m <sup>3</sup> ): 3456 Original Application No: NPS/WR/009226 Original Start Date: 1/4/2013 Expiry Date: 31/3/2025 Issue No: 1 Version Start Date: Version End Date:	
Not shown	899	E	531280 182760	Status: Historical Licence No: 28/39/39/0201 Details: Potable Water Supply - Direct Direct Source: Thames Groundwater Point: New River Head, Finsbury - Borehole Data Type: Point Name: THAMES WATER UTILITIES LTD	Annual Volume (m <sup>3</sup> ): 1261440 Max Daily Volume (m <sup>3</sup> ): 3456 Original Application No: WRA/R/2/2 Original Start Date: 8/1/2004 Expiry Date: 31/3/2013 Issue No: 1 Version Start Date: Version End Date:	
Not shown	1102	E	531452 182887	Status: Active Licence No: TH/039/0039/060 Details: Potable Water Supply - Direct Direct Source: Thames Groundwater Point: Borehole At Saddlers Wells Data Type: Point Name: THAMES WATER UTILITIES LTD	Annual Volume (m <sup>3</sup> ): 473040 Max Daily Volume (m <sup>3</sup> ): 1296 Original Application No: NPS/WR/009228 Original Start Date: 1/4/2013 Expiry Date: 31/3/2025 Issue No: 1 Version Start Date: Version End Date:	
Not shown	1104	E	531450 182900	Status: Historical Licence No: 28/39/39/0208 Details: Potable Water Supply - Direct Direct Source: Thames Groundwater Point: Borehole At Sadler's Wells Theatre, London Data Type: Point Name: THAMES WATER UTILITIES LTD	Annual Volume (m <sup>3</sup> ): 473040 Max Daily Volume (m <sup>3</sup> ): 1296 Original Application No: WRA/R/1010 Original Start Date: 13/12/2004 Expiry Date: 31/3/2013 Issue No: 1 Version Start Date: Version End Date:	
Not shown	1104	E	531450 182900	Status: Historical Licence No: 28/39/39/0188 Details: Water Bottling Direct Source: Thames Groundwater Point: Borehole At Sadler's Wells Theatre, London Data Type: Point Name: SADLER'S WELLS TRUST LTD	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: - Original Start Date: 29/9/1998 Expiry Date: 31/12/2004 Issue No: 101 Version Start Date: Version End Date:	



ID	Distanc e (m)	Direction	NGR	Details		
Not shown	1104	E	531450 182900	Status: Historical Licence No: 28/39/39/0208 Details: Potable Water Supply - Direct Direct Source: Thames Groundwater Point: Sadler's Wells Theatre, London Data Type: Point Name: THAMES WATER UTILITIES LTD	Annual Volume (m³): 473040 Max Daily Volume (m³): 1296 Original Application No: WRA/R/1010 Original Start Date: 13/12/2004 Expiry Date: 31/3/2013 Issue No: 1 Version Start Date: Version End Date:	
Not shown	1104	E	531450 182900	Status: Historical Licence No: 28/39/39/0188 Details: Water Bottling Direct Source: Thames Groundwater Point: Borehole At Sadlers Wells Theatre, London Data Type: Point Name: SADLERS WELLS TRUST LTD	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: A/N/6488 Original Start Date: - Expiry Date: 31/12/2004 Issue No: 100 Version Start Date: Version End Date:	
Not shown	1104	E	531450 182900	Status: Historical Licence No: 28/39/39/0188 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Thames Groundwater Point: Borehole At Sadler's Wells Theatre, London Data Type: Point Name: SADLER'S WELLS TRUST LTD	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: - Original Start Date: 29/9/1998 Expiry Date: 31/12/2004 Issue No: 101 Version Start Date: Version End Date:	
Not shown	1104	E	531450 182900	Status: Historical Licence No: 28/39/39/0188 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Thames Groundwater Point: Borehole At Sadlers Wells Theatre, London Data Type: Point Name: SADLERS WELLS TRUST LTD	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: A/N/6488 Original Start Date: - Expiry Date: 31/12/2004 Issue No: 100 Version Start Date: Version End Date:	
Not shown	1280	E	531650 182150	Status: Active Licence No: 28/39/39/0206 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Thames Groundwater Point: 86-88 Clerkenwell Road, London- Borehole A Data Type: Point Name: Urban Hotels UK LLP	Annual Volume (m <sup>3</sup> ): 25404 Max Daily Volume (m <sup>3</sup> ): 125 Original Application No: NPS/WR/010632 Original Start Date: 4/7/2003 Expiry Date: 31/3/2025 Issue No: 4 Version Start Date: Version End Date:	
Not shown	1310	NE	531022 183681	Status: Active Licence No: TH/039/0039/057 Details: Potable Water Supply - Direct Direct Source: Thames Groundwater Point: Borehole At Barnard Park Data Type: Point Name: THAMES WATER UTILITIES LTD	Annual Volume (m <sup>3</sup> ): 914544 Max Daily Volume (m <sup>3</sup> ): 3024 Original Application No: NPS/WR/009227 Original Start Date: 1/4/2013 Expiry Date: 31/3/2025 Issue No: 1 Version Start Date: Version End Date:	
Not shown	1317	NE	531020 183690	Status: Historical Licence No: 28/39/39/0207 Details: Potable Water Supply - Direct Direct Source: Thames Groundwater Point: Barnard Park, Islington - Borehole Data Type: Point Name: THAMES WATER UTILITIES LTD	Annual Volume (m <sup>3</sup> ): 914544 Max Daily Volume (m <sup>3</sup> ): 3024 Original Application No: - Original Start Date: 2/5/2003 Expiry Date: 31/3/2013 Issue No: 1 Version Start Date: Version End Date:	



ID Distanc Direction NGR e (m)				Details	Details	
Not shown	1648	SE	531050 180980	Status: Historical Licence No: 28/39/39/0025 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Thames Groundwater Point: Globe House, Victoria Embankment- Borehole C Data Type: Point Name: COMMERZ GRUNDBESITZ INVEST. MBH	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: - Original Start Date: 10/1/1966 Expiry Date: - Issue No: 101 Version Start Date: Version End Date:	
Not shown	1649	S	531030 180970	Status: Historical Licence No: 28/39/39/0025 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Thames Groundwater Point: Globe House, Victoria Embankment- Borehole B Data Type: Point Name: COMMERZ GRUNDBESITZ INVEST. MBH	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: - Original Start Date: 10/1/1966 Expiry Date: - Issue No: 101 Version Start Date: Version End Date:	
Not shown	1652	SE	531060 180980	Status: Historical Licence No: 28/39/39/0025 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Thames Groundwater Point: Globe House, Victoria Embankment- Borehole A Data Type: Point Name: COMMERZ GRUNDBESITZ INVEST. MBH	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: - Original Start Date: 10/1/1966 Expiry Date: - Issue No: 101 Version Start Date: Version End Date:	
Not shown	1656	SE	531300 181100	Status: Historical Licence No: 28/39/39/0077 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Thames Groundwater Point: Borehole At 37 Fleet Street, London Ec4 Data Type: Point Name: C HOARE & CO	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: - Original Start Date: 13/6/1966 Expiry Date: - Issue No: 100 Version Start Date: Version End Date:	
Not shown	1713	SW	529100 181400	Status: Historical Licence No: 28/39/39/0138 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Thames Groundwater Point: Borehole 'b' At Walmer House, 296 Regent Street, London W1 Data Type: Point Name: CAPITAL AND COUNTIES PROPERTY COMPANY LIMITED	Annual Volume (m <sup>3</sup> ): 9126 Max Daily Volume (m <sup>3</sup> ): 25 Original Application No: - Original Start Date: 11/10/1971 Expiry Date: - Issue No: 100 Version Start Date: Version End Date:	
Not shown	1713	SW	529100 181400	Status: Historical Licence No: 28/39/39/0138 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Thames Groundwater Point: Walmer House, 296 Regent Street, London W1-borehole B Data Type: Point Name: CAPITAL AND COUNTIES PROPERTY COMPANY LIMITED	Annual Volume (m <sup>3</sup> ): 9126 Max Daily Volume (m <sup>3</sup> ): 25 Original Application No: - Original Start Date: 11/10/1971 Expiry Date: - Issue No: 100 Version Start Date: Version End Date:	



ID	Distanc e (m)	Direction	NGR	Details		
Not shown	1799	S	531000 180800	Status: Historical Licence No: 28/39/39/0025 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Thames Groundwater Point: Borehole 'a' At Globe House, Temple Place, London Data Type: Point Name: HAMMERSON UK PROPERTIES PLC	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: - Original Start Date: 10/1/1966 Expiry Date: - Issue No: 100 Version Start Date: Version End Date:	
Not shown	1799	S	531000 180800	Status: Historical Licence No: 28/39/39/0025 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Thames Groundwater Point: Borehole 'c' At Globe House, Temple Place, London Data Type: Point Name: HAMMERSON UK PROPERTIES PLC	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: - Original Start Date: 10/1/1966 Expiry Date: - Issue No: 100 Version Start Date: Version End Date:	
Not shown	1799	S	531000 180800	Status: Historical Licence No: 28/39/39/0025 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Thames Groundwater Point: Borehole 'b' At Globe House, Temple Place, London Data Type: Point Name: HAMMERSON UK PROPERTIES PLC	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: - Original Start Date: 10/1/1966 Expiry Date: - Issue No: 100 Version Start Date: Version End Date:	
Not shown	1815	SW	529010 181350	Status: Active Licence No: 28/39/39/0138 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Thames Groundwater Point: Walmer House, 296 Regent Street, London, W1b - Borehole 'a' Data Type: Point Name: Pontsarn Investments Limited	Annual Volume (m <sup>3</sup> ): 9126 Max Daily Volume (m <sup>3</sup> ): 25 Original Application No: NPS/WR/011671 Original Start Date: 11/10/1971 Expiry Date: - Issue No: 102 Version Start Date: Version End Date:	
Not shown	1827	SW	529010 181330	Status: Active Licence No: 28/39/39/0138 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Thames Groundwater Point: Walmer House, 296 Regent Street, London, W1b - Borehole 'b' Data Type: Point Name: Pontsarn Investments Limited	Annual Volume (m <sup>3</sup> ): 9126 Max Daily Volume (m <sup>3</sup> ): 25 Original Application No: NPS/WR/011671 Original Start Date: 11/10/1971 Expiry Date: - Issue No: 102 Version Start Date: Version End Date:	
Not shown	1854	SW	529000 181300	Status: Historical Licence No: 28/39/39/0138 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Thames Groundwater Point: Walmer House, 296 Regent Street, London W1-borehole A Data Type: Point Name: CAPITAL AND COUNTIES PROPERTY COMPANY LIMITED	Annual Volume (m <sup>3</sup> ): 9126 Max Daily Volume (m <sup>3</sup> ): 25 Original Application No: - Original Start Date: 11/10/1971 Expiry Date: - Issue No: 100 Version Start Date: Version End Date:	



ID	Distanc e (m)	Direction	NGR	Details		
Not shown	1854	SW	529000 181300	Status: Historical Licence No: 28/39/39/0138 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Thames Groundwater Point: Borehole 'a' At Walmer House, 296 Regent Street, London W1 Data Type: Point Name: CAPITAL AND COUNTIES PROPERTY COMPANY LIMITED	Annual Volume (m <sup>3</sup> ): 9126 Max Daily Volume (m <sup>3</sup> ): 25 Original Application No: - Original Start Date: 11/10/1971 Expiry Date: - Issue No: 100 Version Start Date: Version End Date:	
Not shown	1933	SE	531500 180900	Status: Historical Licence No: 28/39/39/0057 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Thames Groundwater Point: Two Boreholes At Unilever House, Blackfriars, London Ec4 Data Type: Point Name: UNILEVER LTD	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: - Original Start Date: 9/5/1966 Expiry Date: - Issue No: 100 Version Start Date: Version End Date:	

#### **6.6 Source Protection Zones**

Source Protection Zones within 500m of the study site

Database searched and no data found.

### 6.7 Source Protection Zones within Confined Aquifer

Source Protection Zones within the Confined Aquifer within 500m of the study site

None identified

None identified

Historically, Source Protection Zone maps have been focused on regulation of activities which occur at or near the ground surface, such as prevention of point source pollution and bacterial contamination of water supplies. Sources in confined aquifers were often considered to be protected from these surface pressures due to the presence of a low permeability confining layer (e.g. glacial till, clay). The increased interest in subsurface activities such as onshore oil and gas exploration, ground source heating and cooling requires protection zones for confined sources to be marked on SPZ maps where this has not already been done.



### 6.8 Groundwater Vulnerability and Soil Leaching Potential

Environment Agency/Natural Resources Wales information on groundwater vulnerability and soil leaching potential within 500m of the study site Identified

Distance (m)	Direction	Classification	Soil Vulnerability Category	Description
0	On Site	Minor Aquifer/High Leaching Potential	HU	Soil information for urban areas and restored mineral workings. These soils are therefore assumed to be highly permeable in the absence of site-specific information.
407	W	Minor Aquifer/High Leaching Potential	HU	Soil information for urban areas and restored mineral workings. These soils are therefore assumed to be highly permeable in the absence of site-specific information.

#### 6.9 River Quality

Environment Agency/Natural Resources Wales information on river quality within 1500m of the study site None identified

6.9.1 Biological Quality:

Database searched and no data found.

6.9.2 Chemical Quality:

Database searched and no data found.

#### 6.10 Ordnance Survey MasterMap Water Network

Ordnance Survey MasterMap Water Network entries within 500m of the study site

Database searched and no data found.

### 6.11 Surface Water Features

Surface water features within 250m of the study site

None identified


# 7a. Environment Agency/Natural Resources Wales Flood Map for Planning (from rivers and the sea)





# 7b. Environment Agency/Natural Resources Wales Risk of Flooding from Rivers and the Sea (RoFRaS) Map





# 7 Flooding

### 7.1 River and Coastal Zone 2 Flooding

Environment Agency/Natural Resources Wales Zone 2 floodplain within 250m None identified

Environment Agency/Natural Resources Wales Zone 2 floodplains estimate the annual probability of flooding as between 1 in 1000 (0.1%) and 1 in 100 (1%) from rivers and between 1 in 1000 (0.1%) and 1 in 200 (0.5%) from the sea. Any relevant data is represented on Map 7a – Flood Map for Planning:

Database searched and no data found.

#### 7.2 River and Coastal Zone 3 Flooding

Environment Agency/Natural Resources Wales Zone 3 floodplain within 250m None identified

Zone 3 shows the extent of a river flood with a 1 in 100 (1%) or greater chance of occurring in any year or a sea flood with a 1 in 200 (0.5%) or greater chance of occurring in any year. Any relevant data is represented on Map 7a – Flood Map for Planning.

Database searched and no data found.

#### 7.3 Risk of Flooding from Rivers and the Sea (RoFRaS) Flood Rating

Highest risk of flooding onsite

The Environment Agency/Natural Resources Wales RoFRaS database provides an indication of river and coastal flood risk at a national level on a 50m grid with the flood rating at the centre of the grid calculated and given above. The data considers the probability that the flood defences will overtop or breach by considering their location, type, condition and standard of protection.

RoFRaS data for the study site indicates the property is in an area with a Very Low (less than 1 in 1000) chance of flooding in any given year.

#### 7.4 Flood Defences

Flood Defences within 250m of the study site Database searched and no data found. None identified

Very Low

### 7.5 Areas benefiting from Flood Defences

Areas benefiting from Flood Defences within 250m of the study site

None identified



None identified

### 7.6 Areas benefiting from Flood Storage

Areas used for Flood Storage within 250m of the study site

#### 7.7 Groundwater Flooding Susceptibility Areas

7.7.1 British Geological Survey groundwater flooding susceptibility areas within 50m of the boundary of the study site Identified

Clearwater Flooding or Superficial Deposits Flooding

Superficial Deposits Flooding

Notes: Groundwater flooding may either be associated with shallow unconsolidated sedimentary aquifers which overlie unproductive aquifers (Superficial Deposits Flooding), or with unconfined aquifers (Clearwater Flooding).

7.7.2 Highest susceptibility to groundwater flooding in the search area based on the underlying geological conditions

Potential at Surface Where potential for groundwater flooding to occur at surface is indicated, this means that given the geological conditions in the area groundwater flooding hazard should be considered in all land-use planning decisions. It is recommended that other relevant information e.g. records of previous incidence of groundwater flooding, rainfall, property type, and land drainage information be investigated in order to establish relative, but not absolute, risk of groundwater flooding.

#### 7.8 Groundwater Flooding Confidence Areas

British Geological Survey confidence rating in this result

Moderate

Notes: Groundwater flooding is defined as the emergence of groundwater at the ground surface or the rising of groundwater into man-made ground under conditions where the normal range of groundwater levels is exceeded.

The confidence rating is on a threefold scale - Low, Moderate and High. This provides a relative indication of the BGS confidence in the accuracy of the susceptibility result for groundwater flooding. This is based on the amount and precision of the information used in the assessment. In areas with a relatively lower level of confidence the susceptibility result should be treated with more caution. In other areas with higher levels of confidence the susceptibility result can be used with more confidence.



# 8. Designated Environmentally Sensitive Sites Map







# 8. Designated Environmentally Sensitive Sites

Designated Environmentally Sensitive Sites within 2000m of the study site

Identified

8.1 Records of Sites of Special Scientific Interest (SSSI) within 2000m of the study site:

Database searched and no data found.

8.2 Records of National Nature Reserves (NNR) within 2000m of the study site:

0

0

0

0

Database searched and no data found.

8.3 Records of Special Areas of Conservation (SAC) within 2000m of the study site:

Database searched and no data found.

8.4 Records of Special Protection Areas (SPA) within 2000m of the study site:

Database searched and no data found.

8.5 Records of Ramsar sites within 2000m of the study site:

0

Database searched and no data found.



### 8.6 Records of Ancient Woodland within 2000m of the study site:

Database searched and no data found.

#### 8.7 Records of Local Nature Reserves (LNR) within 2000m of the study site:

2

0

The following Local Nature Reserve (LNR) records provided by Natural England/Natural Resources Wales are represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance (m)	Direction	LNR Name	Data Source
1	930	NW	Camley Street Nature Park	Natural England
Not shown	1715	Ν	Barnsbury Wood	Natural England

#### 8.8 Records of World Heritage Sites within 2000m of the study site:

0

Database searched and no data found.

8.9 Records of Environmentally Sensitive Areas within 2000m of the study site:

0

Database searched and no data found.

## 8.10 Records of Areas of Outstanding Natural Beauty (AONB) within 2000m of the study site:

Database searched and no data found.

8.11 Records of National Parks (NP) within 2000m of the study site:

0

0

Database searched and no data found.



8.12 Records of Nitrate Sensitive Areas within 2000m of the study site:

Database searched and no data found.

8.13 Records of Nitrate Vulnerable Zones within 2000m of the study site:

0

0

0

Database searched and no data found.

### 8.14 Records of Green Belt land within 2000m of the study site:

Database searched and no data found.

# 9. Natural Hazards Findings

### 9.1 Detailed BGS GeoSure Data

BGS GeoSure Data has been searched to 50m. The data is included in tabular format. If you require further information on geology and ground stability, please obtain a Groundsure Geo Insight, available from our website. The following information has been found:

#### 9.1.1 Shrink Swell

Maximum Shrink-Swell\*\* hazard rating identified on the study site

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard

Ground conditions predominantly high plasticity. Do not plant or remove trees or shrubs near to buildings without expert advice about their effect and management. For new build, consideration should be given to advice published by the National House Building Council (NHBC) and the Building Research Establishment (BRE). There is a probable increase in construction cost to reduce potential shrink-swell problems. For existing property, there is a probable increase in insurance risk during droughts or where vegetation with high moisture demands is present.

#### 9.1.2 Landslides

Maximum Landslide\* hazard rating identified on the study site

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Slope instability problems are unlikely to be present. No special actions required to avoid problems due to landslides. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with landslides.

Hazard

#### 9.1.3 Soluble Rocks

Maximum Soluble Rocks\* hazard rating identified on the study site

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Soluble rocks are present, but unlikely to cause problems except under exceptional conditions. No special actions required to avoid problems due to soluble rocks. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with soluble rocks.

This indicates an automatically generated 50m buffer and site.



Very Low

Negligible

Moderate

Hazard

### 9.1.4 Compressible Ground

Maximum Compressible Ground\* hazard rating identified on the study site

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

No indicators for compressible deposits identified. No special actions required to avoid problems due to compressible deposits. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with compressible deposits.

Hazard

#### 9.1.5 Collapsible Rocks

Maximum Collapsible Rocks\* hazard rating identified on the study site

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Deposits with potential to collapse when loaded and saturated are unlikely to be present. No special ground investigation required or increased construction costs or increased financial risk due to potential problems with collapsible deposits.

#### 9.1.6 Running Sand

Maximum Running Sand\*\* hazard rating identified on the study site

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard

Very low potential for running sand problems if water table rises or if sandy strata are exposed to water. No special actions required, to avoid problems due to running sand. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with running sand.

Negligible

Very Low



Hazard

### 9.2 Radon



#### 9.2.1 Radon Affected Areas

Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level? The site is not in a Radon Affected Area, as less than 1% of properties are above the Action Level.

The radon data in this report is supplied by the BGS/Public Health England and is the definitive map of Radon Affected Areas in Great Britain and Northern Ireland. The dataset was created using long-term radon measurements in over 479,000 homes across Great Britain and 23,000 homes across Northern Ireland, combined with geological data. The dataset is considered accurate to 50m to allow for the margin of error in geological lines, and the findings of this report supercede any answer given in the less accurate Indicative Atlas of Radon in Great Britain, which simplifies the data to give the highest risk within any given 1km grid square. As such, the radon atlas is considered indicative, whereas the data given in this report is considered definitive.

#### 9.2.2 Radon Protection

Is the property in an area where Radon Protection are required for new properties or extensions to existing

ones as described in publication BR211 by the Building Research Establishment? No radon protective measures are necessary.



# 10. Mining

### 10.1 Coal Mining

Coal mining areas within 75m of the study site

Database searched and no data found.

#### 10.2 Non-Coal Mining

Non-Coal Mining areas within 50m of the study site boundary

Database searched and no data found.

#### **10.3 Brine Affected Areas**

Brine affected areas within 75m of the study site Guidance: No Guidance Required.

None identified

None identified

None identified



# **Contact Details**

Groundsure Helpline Telephone: 08444 159 000 info@groundsure.com



British Geological Survey Enquiries

Kingsley Dunham Centre Keyworth, Nottingham NG12 5GG Tel: 0115 936 3143. Fax: 0115 936 3276. Email:

Web:**www.bgs.ac.uk** BGS Geological Hazards Reports and general geological enquiries: **enquiries@bgs.ac.uk** 

> Environment Agency National Customer Contact Centre, PO Box 544 Rotherham, S60 1BY Tel: 03708 506 506 Web: <u>www.environment-agency.gov.uk</u> Email: enquiries@environment-agency.gov.uk

Public Health England Public information access office Public Health England, Wellington House 133-155 Waterloo Road, London, SE1 8UG www.gov.uk/phe Email:enquiries@phe.gov.uk Main switchboard: 020 7654 8000

> The Coal Authority 200 Lichfield Lane Mansfield Notts NG18 4RG Tel: 0345 7626 848 DX 716176 Mansfield 5 www.coal.gov.uk

Ordnance Survey Adanac Drive, Southampton SO16 0AS Tel: 08456 050505 British

Geological Survey





Ne Coal Authority



Local Authority Authority: London Borough of Camden Phone: 020 7974 4444 Web: http://www.camden.gov.uk/ Address: Camden Town Hall, Judd Street, London, WC1H 9JE

> Gemapping PLC Virginia Villas, High Street, Hartley Witney, Hampshire RG27 8NW Tel: 01252 845444





Acknowledgements: Site of Special Scientific Interest, National Nature Reserve, Ramsar Site, Special Protection Area, Special Area of Conservation data is provided by, and used with the permission of, Natural England/Natural Resources Wales who retain the Copyright and Intellectual Property Rights for the data.

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# **Standard Terms and Conditions**

Groundsure's Terms and Conditions can be viewed online at this link:

https://www.groundsure.com/terms-and-conditions-may25-2018

## **APPENDIX B**

Site plans



182500 N		CBP Z5.TI			182500 N
530400 E		530410 E	530420 E		
RGL Surveys Ltd Land & Measured Building Surveyors Building S8 Westcott Venture Park Westcott Bucks HP18 0XB Tel: 01296 651833 Email: mail@rglsurveys.co.uk	Drawn RO/NN Checked Scale Levelling 1:50 @A1 All levels relate to OS Active GPS Network. Date of Survey June 2018 Notes RGL-18-2872-01		Legend B BT CATV CB CBF CBP CL CLF CPS DC DC DK DP ER FB FH FP G	Bollard British Telecom Cable Television Control Box Closed Board Fence Concrete Block Paving Cover Level Chain Link Fence Concrete Paving Slabs Drainage Channel Drop Kerb Down Pipe Earth Rod Flowerbed Fire Hydrant Flag Pole Gully	MH Manhole   MKR Marker Post   PRF Post & Rail Fence   PS Pipe Size   PWF Post & Wire Fence   RE Rodding Eye   RN Road Name   RS Road Sign   SY Stay Wire   Sycamore MB Species Multi Bowl   0.3/4/8 Trunk(Dia)/Spread(Rad)/Height(Approx)   L Traffic Light   OB Top of Bank   P Tactile Paving   JTL Unable To Lift   /P Vent Pipe   WV Water Valve   VL Water Level   70 Ceiling Height/Level (metres)
Client Rita Nunes The Atelier Brown Millow Dunton Biggleswade SG18 8RH	9/10 Regent Square London Site Survey & Basement FP	OS ACTIVE	GV IC IRF (2.70) (2.70f)	Gas Valve   Inspection Cover   2.7     Iron Railing Fence   2.7     Ceiling Height (metres)   f-s     False Ceiling Height (metres)   +     Beam Height (metres)   +     Floor to Sill Height (metres)   500     Sill to Head Height (metres)   ✓     Finished Floor Level (metres)   ✓     All Arrows Indicate Direction Up Invert Level   Lamp Post	70f   False Ceiling Height/Level (metres)     42   Beam Height/Level (metres)     s=1.50   Floor to Sill Height/Level (metres)     h=0.67   Sill to Head Height/Level (metres)     50.00   Finished Floor Level (metres)     52.00   Ceiling/Beam Level (metres)     52.00   Ceiling/Beam Level (metres)     50.00   Floor Level (ceiling Height)     00(2.50)   Floor Level (Ceiling Height)     0.00   Soffit Level     110.83   Sill Level     1.50   Door Width     2.02   Door Height



182500 N						182500 N
530400 E		530410 E	530420 E			
RGL Surveys Ltd Land & Measured Building Surveyors Building S8 Westcott Venture Park Westcott	Drawn RO/NN Checked Scale   Levelling 1:50 @A1   All levels relate to OS Active GPS Network. Date of Survey   June 2018		Legen B CATV CB CBF CBP CL CLF CPS	d Bollard British Telecom Cable Television Control Box Closed Board Fence Concrete Block Paving Cover Level Chain Link Fence Concrete Paving Slabs	MH MKR PRF PS PWF RE RN RS SY Sycamore MB 0.3/4/8 TL	Manhole Marker Post Post & Rail Fence Pipe Size Post & Wire Fence Road Name Road Sign Stay Wire Species Multi Bowl Trunk(Dia)/Spread(Rad)/Height(Approx) Traffic Light
Bucks HP18 0XB Tel: 01296 651833 Email: mail@rglsurveys.co.uk	Drawing Number RGL-18-2872-02		DC DK DP ER FB FH FP G	Drainage Channel Drop Kerb Down Pipe Earth Rod Flowerbed Fire Hydrant Flag Pole Gully	TOB TP UTL VP WV WL (2.70)	Top of Bank Tactile Paving Unable To Lift Vent Pipe Water Valve Water Level Ceiling Height/Level (metres)
Rita Nunes The Atelier Brown Millow Dunton	9/10 Regent Square London		GV IC IRF (2.70) (2.70f) (2.42) f-s=1.50	Gas Valve Inspection Cover Iron Railing Fence Ceiling Height (metres) False Ceiling Height (metres) Beam Height (metres) Floor to Sill Height (metres)	$\begin{array}{c} 2.70t\\ \hline 2.42\\ f-s=1.50\\ s-h=0.67\\ + 50.00\\ \hline + 52.00\\ \hline \end{array}$	False Ceiling Height/Level (metres) Beam Height/Level (metres) Floor to Sill Height/Level (metres) Sill to Head Height/Level (metres) Finished Floor Level (metres) Ceiling/Beam Level (metres) All Arrows Indicate Direction Up Floor Level (Ceiling Height)
Biggleswade SG18 8RH	Site Survey & Ground FP		S −h=0.67 +50.00m S 45 LU LU KW LP	Sill to Head Height (metres) Finished Floor Level (metres) All Arrows Indicate Direction Up Invert Level Kerb Weir Lamp Post	✓ 1 110.83 LHT 112.98 1.50 2.02	Soffit Level Sill Level Lintel Level Door Width Door Height



Borehole logs

<b>&amp; Waller</b> Project Name: Elat 1, 9 - 10 Regents Square					Client: C	Ground an	d Proiec	ts Consul	tants		7/0010						
Proje	t Name	: Flat 1, 9 - 10	) Reger	nts Square	Limited					Date: 02/0	Date. 02/07/2010						
Locat		Is Cross, Lon	don, W	C1H 8HZ	Contract	ior:											
Proje	t No. : C	SWPR2699		Tuno	Crew Na	ame:		10000	d Du	Drilling Eq	Drilling Equipment:						
DOI	BH1	umber	поle W	LS		Levei		Logge	а Бу З	1	:50	She	et 1 of 1	er 1			
Well	Water	Sample	ple and In Situ Test		ng	Depth		Legen	d	Strat	um Descrip	tion					
	Ourkes	Depth (m)	Туре	Resul	ts	(11)	(11)		MAD	E GROUND: B	rown clayey	silty gravelly	sand.				
		0.25	D						Sand fine t	l is fine to coars o medium, sub	se grained. G -angular to si	Gravel is abur ub-rounded f	ndant, lint,				
		0.00				0 00				, glass, concret	e and chaik.						
		1.00	D			1.00		÷	MAD	E GROUND: B I is fine grained	rown gravelly I. Gravel is ra	y sandy silty ire, fine, sub-	clay.	1 -			
		1.00	SPT	N=7 (1,1/1	,2,2,2)				- ∖ angu LON	lar to sub-roun	ded brick. RMATION: B	rown silty CL	.AY.				
		1.50	D					<u></u>	Band ~3.00	ls of orange sa Im bal_Becom	nd noted ~1.3	30m bgl and					
								×	beco	mes grey with	depth.						
		2.00 2.00	D SPT	N=13 (2,3/2	2,4,4,3)			<u></u>						2 -			
		0.50			,			×									
		2.50						××									
		3 00	р					<u> </u>						3 -			
		3.00	SPT	N=23 (4,4/6	6,5,6,6)			X									
		3.50	D					x									
								x									
		4.00	D	N-22 (4 4/6				<u>x</u> x	×					4 -			
		4.00	501	N=23 (4,4/6	5,5,6,6)			<u>xx</u> x	-×								
		4.50	D					<u>×</u>	-×								
								××									
		5.00 5.00	D SPT	N=24 (3,4/6	6,6,6,6)			× 						5 -			
		5 50							-×								
		0.00						x									
		6.00 6.00	D SPT	N=21 (4,5/5	5,5,5,6)			×	×					6 -			
								<u></u>	- <u>×</u>								
		7.00	D					×	-×					7 -			
		7.00	SPT	N=22 (4,4/5	5,5,6,6)			<u>xx</u> x									
		7.50	D					<u>×</u>	× 1								
								××	-								
		8.00	SPT	N=23 (4,3/5	5,6,6,6)			× 						8 -			
						8.45		 	×								
						0.40				End of	Borehole at 8	.450m					
														q -			
														10 -			
Depth	Hole Diamo	eter Diameter Dor	Casing	Diameter Diameter	Denth To	n Denth D	Chiselling	ration	Tool	Denth Ton	Inclination	and Orientation	Orient				
Doput				Diamoter					1001			monnation	Unerite				



ground &water						Tr	rial F	Pit Lo	bg					
Projec	t Name	: Flat 1, 9 -	10 Rege	nts Square	Client: Ground	and Proj	ects Cons	ultants	Date: 02/07/2018					
Locati	on: King	ls Cross, Lo	ondon, W	C1H 8HZ	Contractor:									
Projec	Project No. : GWPR2699			Crew Name:				Equipment:						
Location Number Location Type TP/FE1 TP					Level		Logg	jed By HB	Scale 1:25	Pag Sh	eet 1 of 1			
Well	Water Strikes	Sampl	ple and In Situ Testing		Depth	Level (m)	Legend		Stratum Descrip	tion				
		0.25	D	result	0.30			MADE GRO Sand is fine fine to med and concre LONDON ( CLAY. Sand	ROUND: Brown silty clayey gravelly sand. ne to coarse grained. Gravel is occasional, idium, sub-angular to sub-rounded brick, flint rete. CLAY FORMATION: Brown silty sandy nd is fine grained.					
		0.50	D		1.30		××				1 -			
									End of Borehole at 1	300m	2 -			
											3 -			
											4 -			
											E -			
	Dim	ensions			Trenc	h Support	and Comm	ent		Pumpin	g Data			
Pit	Length	Pit Wic	lth	Pit Stability	Shoring Used			Remarks	Dai	te Rate	Remarks			
Roots	noted to	0.50m bgl. N	o groundv	vater encounte	ered.						AGS			

g	rou	nd				Tr	rial F	Pit Lo	og				
Proied	ct Name	: Flat 1. 9 ·	- 10 Rege	nts Square	Client: Ground and Projects Consultants Limited Date: 02/07/2018								
, Locati	ion: King	js Cross, L	ondon, W	C1H 8HZ	Contractor:								
Projec	ct No. : 0	GWPR269	9		Crew Name:				Equipment:				
Location Number Location Type TP/FE2 TP				Level Lo			led By ∃B	Scale 1:25	Scale Page Number 1:25 Sheet 1 of			er 1	
Well	Water Strikes	Samp	le and In	Situ Testing	Depth	Level (m)	Legend		Stratum De	scriptior	ı		
		Depth (n	n) Type	Results	; ()	()		CONCRETE					-
		0.25	D		0.15			MADE GF fine to coa coarse, su	ROUND: Brown silty arse grained. Grave ub-angular to sub-ro End of Borehole	gravelly I is abund punded fli e at 0.420	sand. Sa dant, find int and bi	and is to rick.	
													1
													2
													3
													4
Dit	Dim Length	ensions	idth	Pit Stability	Trenc Shoring Lead	h Support	and Commo	ent Remarks		Data	Pumpir	ng Data	
Rema No roo	arks	No ground	water encol	untered.				Tremarks		שמופ		AGS	<u>urs</u>