



Phase 1: Preliminary Risk Assessment

August 2018

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Land Adjacent to Building 2, Status Park, Nobel Drive, Harlington, Hayes UB3 5EY

August 2018

Savills

33 Margaret Street

London

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1. Introduction

- 1.1 Phlorum Ltd has been commissioned by Savills to undertake a Phase 1 Preliminary Risk Assessment (PRA), land contamination desk study assessment, of the proposed redevelopment of the Land Adjacent to Building 2, Status Park, Nobel Drive, Harlington, Hayes at National Grid Reference (NGR) TQ 0901769.
- 1.2 It is understood that the proposed development of the site involves development of the southern part of the area into a 158 rooms hotel for Heathrow Airport.
- 1.3 Contamination assessments are undertaken in three phases. The results of this Phase 1 (PRA) should provide sufficient information to enable a Phase 2 intrusive site investigation and risk assessment to be effectively undertaken, if necessary. The Phase 2 can sometimes be done in stages. Depending on the results of the Phase 2, a risk management and site remediation (Phase 3) could then subsequently be undertaken, if necessary.
- 1.4 This report involved the following:
 -  a site visit of the site, undertaken by Phlorum, on 6th July 2018;
 -  review of data from the Environment Agency (EA), local authority¹ and British Geological Survey (BGS) for the site;
 -  review of geological and hydro-geological maps of the site;
 -  review of publicly available map data; and
 -  Enviro-Insight and Geo-Insight reports produced by Groundsure were also obtained. A copy of the Groundsure data is shown in Appendix A.
- 1.5 This report outlines the findings of the Phase 1 contaminated land desk study assessment. This report is based on the end use of the site being residential dwelling (hotel).

2. Site Sensitivity

- 2.1 The aim of this section is to review the main potential receptors and pathways for any contaminants on site. The main source of information was obtained from the Groundsure reports of the site.

Site Location and Adjacent Land Uses

- 2.2 The site is located just to the north of the north-eastern corner of the Heathrow Airport, along the A4 road, which runs east to west. It is approximately located 2,000m north-east of the Heathrow Airport train station for terminals 1, 2 and 3, 2,500m south-west of Hayes and Harlington train station. The site is surrounded by commercial properties to the west and north, with agricultural land identified to the east across Nobel Drive. The A4 road lies along the south, with further commercial buildings located beyond.

Geology

- 2.3 The report is based on the BGS data provided via the Geology of Britain Viewer². The bedrock beneath the site is comprised of the London Clay Formation- Clay from the Ypresian Age, (56-49 Million years ago). The thickness of the formation is up to 150m in the eastern part of the London basin and thins to as little as 5m in western areas.
- 2.4 There is one record relating to permeability of bedrock ground within the site, this is as follows:
-  18m east of site; Flow Type: Mixed; Maximum Permeability; Moderate; Minimum Permeability; Very Low.
- 2.5 There are no geological faults recorded within 500m of the site.
- 2.6 The site has 3 underlying superficial deposits within 500m of the study site boundary, this is as follows:
-  On Site; LEX Code: LASI-XCZ; Description: Langley Silt Member; Rock Description: Clay, Silt.
 -  18m SE; LEX Code: TPGR-XSV; Description: Taplow Gravel Member; Rock Description: Sand and Gravel.

² Accessed at <http://mapapps.bgs.ac.uk/geologyofbritain/home.html> on 20th July 2018

Hydrogeology

Groundwater Resources

- 2.7 The Groundwater Vulnerability Map provided by Groundsure is based on Environment Agency Data which indicates that the bedrock on site is classed as unproductive, described as geology of low permeability that have a negligible significance for water supply or river base flow.
- 2.8 The following aquifer records are shown on the Aquifer within Superficial Geology Map:
-  Onsite; Unproductive stratum; Description: these are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow
 -  18m south-east and 121m west of the site; Principal Aquifer; Description: Geology of high intergranular and/or fracture permeability, usually providing a high level of water storage and may support water supply/river base flow on a strategic scale. Generally principal aquifers were previously major aquifers.

Source Protection Zones

- 2.9 There are no Source Protection Zones (SPZ) within 500m from the study site, these are as follows:

Surface Water Abstractions

- 2.10 There are no surface water abstraction licenses within 2,000m of the study site.

Ground Water Abstractions

- 2.11 There are thirteen Groundwater Abstraction Licences within 2,000mm of the study site, the first five are listed below:
-  148m south-west of the site at NGR 509000 76800; Status: Active; Licence No: 28/39/36/0058; Details: Process Water Supply - Direct Source: Thames groundwater; Point: Borehole At Northrop Road, Heathrow Airport, Hounslow; Data Type: Point; Name: avis rent a car limited; Annual Volume (m³): 10980; Max Daily Volume (m³): 30; Original Start Date: 1/3/1993; Issue No: 100; Version Start Date: 01/04/2008;

- 266m south-east of the site at NGR 509410 176770; Status; historic; licence no: 28/39/36/0058; Details source: process water; Direct Source: Thames Groundwater; Point: Argonaut House, Bath Road, Hayes borehole A; Data Type: Point; Name; Q-Park Limited; Original Start Date: 16/12/1993; Expiry Date: 31/12/2008; Issue No: 100; Version Start Date: 01/04/2008;
- 329m south-east of the site at NGR 509500 176800; Status; historic; licence no: 28/39/36/0063; Details source: process water; Direct Source: Thames Groundwater; Point: Argonaut House, Hayes – Borehole; Data Type: Point; Name; Budget Rent A Car International; Original Application No.: WRA/N/1036; Original Start Date: 16/12/1993; Expiry Date: 31/12/2008. Issue No: 100; Version Start Date: 16/12/1998;
- 1,029m south-east of the site at NGR 509400 178000; Status; historic; licence no: 28/39/36/0060; Details source: Mineral Washing; Direct Source: Thames Groundwater; Point: Wet Pit at high Street, Harlington, Middlesex; Data Type: Point; Name; Henry Streeter (sand & Ballast); Annual Volume (m³): 649318; Max Daily Volume (m³): 2455; Original Application No.: NPS/WR/022592; Original Start Date: 6/12/2008; Issue No: 102; Version Start Date: 22/02/2016;
- 1,399m south of the site at NGR 509650 175600; Status: Historic; Licence No: 28/39/36/0068; Details: Pollution remediation; Direct Source: Thames Groundwater; Point: Borehole at Park Inn Hotel, Bath Road; Point; Name: Par Hotel Heathrow Limited; Annual Volume (m³): 43800; Max Daily Volume (m³): 120; Original Application No.: NPS/WR/022090; Original Start Date: 16/12/2008; Expiry Date: 31/05/2002; Issue No: 1; Version Start Date: 4/6/2011;

Potable Water Abstraction Licences

- 2.12 There is one Potable Water Abstraction Licence within 2,000m of the study site, this is listed below:

- 1,961m south-west at NGR: 507663 175573; Status: Historical; Licence No: TH/039/0028/007; Details: Drinking, Cooking, Sanitary, Washing (Small Garden) - Commercial/Industrial/Public Services; Direct Source: Thames Groundwater; Point: Heathrow Airport - Borehole C; Data Type: Point; Name: HEATHROW AIRPORT LIMITED; Annual Volume (m³): 706000; Max Daily Volume (m³): 3197; Original Application No: NPS/WR/014700; Original Start Date: 13/2/2010; Expiry Date: 31/12/2019; Issue No: 2;

Water Discharges Consents

- 2.13 There are no records of licensed discharge consent within 500m of the site.

Groundwater Vulnerability and Soil Leaching Potential

- 2.14 There is one instance where the EA gives the information on groundwater vulnerability and soil leaching potential within 500m of the study site, this is:
- On site; Classification: Major Aquifer/High Leaching Potential; Soil Vulnerability Category: HU; Description: 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.

Pollution Incidents

- 2.15 There are no records of historic IPC authorisations within 500m of the study site.
- 2.16 There are no records of Part A(1) and IPPC Authorised Activities within 500m of the study site.
- 2.17 There are no records of Red List Discharge Consents (potentially harmful discharges to controlled waters) within 500m of the study site.
- 2.18 There are no records of List 1 Dangerous Substances Inventory Sites within 500m of the study site.
- 2.19 There are no records of List 2 Dangerous Substance Inventory Sites within 500m of the study site.
- 2.20 There are four records of Part A(2) and Part B Activities and Enforcements within 500m of the study site. These are:
- 60m south of the site at NGR 509185 176861; Address: Avis Rent-a-Car Ltd, Unit B, Northrop Road, London Heathrow Airport, Hounslow, TW6 2EB; Process: Unloading of Petrol into Storage at Service Stations; Status: Current Permit; Permit Type: Part B; No enforcements notified.
 - 105m south-west of the site at NGR 509041 176824; Address: Avis Rent-a-Car Ltd, Unit B, Northrop Road, London Heathrow Airport, Hounslow, TW6 2QA; Process: Unloading of Petrol into Storage at Service Stations; Status: Current Permit; Permit Type: Part B; No enforcements notified.
 - 153m south-east of the site at NGR 509262 176787; Address: Budget Rent A Car, Northern Perimeter Rd, HAL; Process: Unloading of Petrol into Storage at Service Stations; Status: Historical Permit; Permit Type: Part B; No enforcements notified.
 - 385m north-west of the site at NGR 508825 177264; Address: Tesco Harlington, High Street, Harlington; Process: Unloading of Petrol into Storage at Service Stations; Status: Historical Permit; Permit Type: Part B; No enforcements notified.

- 2.21 There are no records of Licence 3 or 4 Radioactive Substances Authorisations (RAS), on the Environmental Permits, Incidents and Registers Map.
- 2.22 There are no records of Licensed Discharge Consents within 500m of the study site.
- 2.23 There are no records of Water Industry Referrals (potentially harmful discharges to the public sewer) within 500m of the study site.
- 2.24 There are no records of Planning Hazardous Substance Consents and Enforcements within 500m of the study site.
- 2.25 There are no records of Control of Major Accident Hazards Regulations (COMAH) & The Notification of Installations Handling Hazardous Substances (NIHHS) sites within 500m of the study site.
- 2.26 There are no records of National Incidents Recording System, List 2 within 500m of the study site. These are:
- 2.27 There are no records of National Incidents Recording System, List 1 within 500m of the study site.
- 2.28 There are no records of sites determined as Contaminated Land under Part 2A of the Environmental Protection Act 1990 within 500m of the study site.

Mineral Deposits and Mining

- 2.29 There are no historical Mining areas within 1,000m of the study site boundary.
- 2.30 There are no Coal Mining areas within 1,000m of the study site boundary.
- 2.31 There are no JPB Mining areas within 1,000m of the study site boundary.
- 2.32 Information is provided by the BGS shows there are no records of Non-Coal Mining areas within 1,000m of the study site boundary.
- 2.33 There are no records of Non-Coal Mining Cavities within 1,000m of the study site boundary.
- 2.34 There are records of natural cavities within 1,000m of the study site boundary, this data is based on the Peter Brett Associates Natural Cavities Database.
- 2.35 There are no Brine Extraction areas within 1,000m of the study site boundary.
- 2.36 There are no Gypsum Extraction areas within 1,000m of the study site boundary.
- 2.37 There are no Tin Mining areas within 1,000m of the study site boundary.
- 2.38 There are no Clay Mining areas within 1,000m of the study site boundary.

3. Published Records

- 3.1 The aim of this section is to review the published records of sensitive areas, potential hazardous activities on, under or around the site. The main source of information was the Groundsure reports for the site.

Current Industrial Data

- 3.2 There is one record of petrol or fuel sites within 500m of the study site, this is as follow:
-  385m west of the study site at NGR 508719, 176824; Company: Prax; Address: Heathrow North Diesel Automat, Newall Road, Outer London, TW6 2RZ.
- 3.3 There are no records of National Grid High Voltage Underground Electricity Transmission Cables within the study site, or within 500m from the study site.
- 3.4 There are no records of National Grid High Pressure Gas Transmission Pipelines within the study site, or within 500m from the study site.

Landfill and Waste Sites

- 3.5 There are two records from Environment Agency landfill data within 1,000m of the study site, these are:
-  29m east of the site at NGR 509289 177515; Address; Henry Streeter Ltd, Land South of Cranford lane, North of Bath Road, Harlington, Middlesex, UB3 5DA; Landfill Reference: 80068.0; Environmental Permitting Regulations (Waste) Reference: STR003; Landfill Types: A05: Landfill taking Non-Biodegradable Wastes; Operator: Henry Streeter Ltd; Status: Closure; and
 -  530m north of the site at NGR 509274 177931; Address; The Gravel Pit, High Street, Harlington, Hayes Middlesex, UB3 5DA; Landfill Reference: 80066.0; Environmental Permitting Regulations (Waste) Reference: STR001; Landfill Types: A06: Landfill taking other Wastes; Operator: Henry Streeter Ltd; Status: Closure; and
- 3.6 There are nine records of Environment Agency historic landfill sites within 1,500m of the study site. The closet five are shown below:

- 50m south east of the site; Site Address: Northern Perimeter Road, Cranford, Hounslow, London; Site Reference: 8H1055; Waste Type: Inert; Operator: Greenhams sand and Gravel; Last Recorded: 31/Dec/1945.
 - 95m north of the site-Site Address: South of Cranford Lane, Cranford Lane West; Waste Licence: Yes; Site Reference: DL207, 8H1017, HIL018; Waste Type: Inert; Licence Issue:06/06/1985; Licence Surrendered: 16/08/1993; Licence Holder: Henry Streeter (Sand and Ballast) Limited First Recorded: 10/07/1986; Last Recorded: 03/10/1989.
 - 175m west of the site: Site Address: Land Rear of Airport Bowl; Site Reference: 8H1063; Licence Holder: Henry Streeter (Sand and Ballast) Limited.
 - 557m south east of the site; Site Address: East of Cranford Lane, Cranfords Lane; Site Reference: 8H1072, HIL081 First Recorded: 31/12/1951; Last Recorded: 31/Dec/1955.
 - 588m south west of the site; Site Address: Heathrow Runway, Heathrow Airport Hillingdon, London; Site Reference: 8H1054.
- 3.7 There are no records of BGS/DoE non-operational landfill sites within 1,500m of the study site.
- 3.8 There is one record of Landfills from Local Authority and Historical Mapping Records within 1,500m of the study. This is detailed below:
- 1,401m south-east of the site, at NGR 510572 176002; Source: London Borough of Hounslow.
- 3.9 There are no records of waste treatment, transfer or disposal sites within 500m of the study site.
- 3.10 There are fifteen records of Environment Agency licensed waste sites within 1,500m of the study site, the closest five are listed below, for further details please see Appendix A of this report:
- 436m south-west of the site at NGR 509437 176562; Site Address; Heathrow Airport Ltd, Cranford Lane Transfer Station, Eastern Perimeter Road, Hillingdon, Middlesex, TW6 1JH; Type: Household, Commercial & Industrial Waste Transfer Station; Size: >=25,000 tonnes <75,000 tonnes; Environmental Permitting Regulations (Waste) Licence Number: HEA001; EPR reference: EA/EPR/VP3096NC/V002; Operator: Heathrow Airport Ltd; Waste Management licence No: 80042; Annual Tonnage: 31025.0; Issue Date: 03/08/1981; Modified: 14/07/1989; Status: Issued Transferred; Site Name: Cranford Lane T S, Heathrow;

- 532m north of the site at NGR 509289 177515; Site Address; Henry Streeter (Sand & Ballast) Limited, land south of Cranford Lane, north of Bath Road, Harlington Middlesex, UB3 5DA; Type: Landfill taking Non-Biodegradable Waste; Size: ≥75,000 tonnes; Environmental Permitting Regulations (Waste) Licence Number: STR003; Operator: Henry Streeter (Sand & Ballast) Ltd; Waste Management licence No: 80068; Issue Date: 13/02/1990; Modified: 07/09/1993; Site Name: Cranford Lane/bath Road, Harlington; Correspondence Address: Henry Streeter Ltd, 66, Purley Way Croydon, Surrey, CR9 4BD.
- 600m south-east of the site at NGR 509634 176517; Site Address; Heathrow Airport Ltd, Cranford Lane Transfer Station, Eastern Perimeter Road, Hillingdon, Middlesex, TW6 1JH; Type: Household, Commercial & Industrial Waste Transfer Station; Size: <75,000 tonnes; Environmental Permitting Regulations (Waste) Licence Number: HEA001; EPR reference: EA/EPR/VP3096NC/V002; Operator: Heathrow Airport Ltd; Waste Management licence No: 80042; Issue Date: 03/08/1981; Modified: 14/07/1989; Status: Issued Transferred; Site Name: Cranford Lane T S, Heathrow.
- 944m north of the site at NGR 509274 177931; Site Address; The Gravel Pit, High Street Harlington, Hayes, Middlesex, UB3 5DA; Type: Landfill Taking Other Wastes Size: <75,000 tonnes; Environmental Permitting Regulations (Waste) Licence Number: STR001; EPR reference: EA/EPR/AP3896NG/V006; Operator: Henry Streeter (Sand & Ballast) Ltd; Waste Management licence No: 80066; Issue Date: 28/09/1977; Modified: 08/05/2013; Status: Closure; Transferred; Site Name: The Gravel Pit.
- 1,326m north of the site at NGR 509166 178314; Site Address; The Gravel Pit, High Street Harlington, Hayes, Middlesex, UB3 5DA; Type: Landfill Taking Other Wastes Size: <75,000 tonnes; Environmental Permitting Regulations (Waste) Licence Number: STR000; Operator: Henry Streeter (Sand & Ballast) Ltd; Waste Management licence No: 80066; Issue Date: 28/09/1977; Modified: 23/09/1993; Surrendered Date: 30/08/2002; Status: Modified; Site Name: High Street, Harlington; Correspondence Address: Henry Streeter (sand & Ballast) Ltd, 66, Purley Way, Croydon, Surrey, CR9 3BD.

Sensitive Land Uses

3.11 There are fourteen records of potentially contaminative industrial sites within 250m of the study site, these are summarised below:

- Six electricity substation located respectively 5m north, 52m west, 57m south, 67m south, 88m north and 104m west of the study site;

- 📍 Budget Rent A Car, 106m south-west of the site;
- 📍 Avis Rent a Car and budget rent a car, 106m south-west of the site; ;.
- 📍 Three Approach Lights, 171m, 183m both south-east of the site, plus 239m south of the site;
- 📍 Two electricity substations. 189m west, and 240m south-west of the site; and
- 📍 Oscar Cars Heathrow, 227m west of the site.

3.12 The systematic analysis of data extracted from High Detailed 1:1,250 and 1:2,500 scale historical maps indicate the following 12 records of Historical Tank Features within 500m of the search boundary:

- 📍 99m west of the site; Use: Unspecified Tank; Date: c.1974-1987;
- 📍 255m south-west of the site; Use: Unspecified Tank; Date: 1998;
- 📍 266m west of the site; Use: Unspecified Tank; Date: c. 1986-1998;
- 📍 269m east of the site; Use: Unspecified Tanks; Date: c.1974-1993;
- 📍 270m south-east of the site; Use: Unspecified Tanks; Date: c.1932-1935;
- 📍 299m east of the site; Use: Unspecified Tanks; Date: 1974;
- 📍 316m west of the site; Use: Unspecified Tank; Date: 1974;
- 📍 316m east of the site; Use: Tank; Date: c.1990-1997;
- 📍 329m west of the site; Use: Unspecified Tank; Date: 1974;
- 📍 429m south-west of the site; Use: Sewage Tank; Date: c.1932-1935;
- 📍 441m south-west of the site; Use: Sewage Tank; Date: c.1932-1935;
- 📍 499m south of the site; Use Unspecified Tank; Date 1913.

3.13 The systematic analysis of data extracted from High Detailed 1:1,250 and 1:2,500 scale historical maps provided list 13 records of historical energy features within 500m of the search boundary:

- 📍 1m north of the site; Use: Electricity Substation; Date: c.1990-1993;
- 📍 30m south of the site; Use: Electricity Substation; Date: c.1974-1993;
- 📍 51m west of the site; Use: Electricity Substation; Date:c.1990-1993;
- 📍 65m south of the site; Use: Electricity Substation; Date: 1993;
- 📍 85m north of the site; Use: Electricity Substation; Date: 1990;
- 📍 101m west of the site; Use: Electricity Substation; Date: 1998;
- 📍 186m west of the site; Use: Electricity Substation; Date: 1998;
- 📍 190m east of the site; Use: Electricity Substation; Date: c.1974-1993;

- 241m south-west of the site; Use: Electricity Substation; Date: c.1974-1998;
 - 290m west of the site; Use: Electricity Substation; Date: c.1972-1990;
 - 322m west of the site; Use: Electricity Substation; Date: c.1974-1998;
 - 425m north-west of the site; Use: Electricity Substation; Date: c.1972-1990;1990, 1988; and
 - 493m west of the site; Use: Electricity Substation; Date: c.1972-1988.
- 3.14 The systematic analysis of data extracted from High Detailed 1:1,250 and 1:2,500 scale historical maps provided no record of historical petrol stations and fuel sites within 500m of the search boundary, and one record of historical garage and motor vehicle repair, this is detailed below:
- 211m east of the site; Use: Motor Car Equipment Factory; Date: 1974.
- 3.15 There are 15 records of Potentially Infilled Features from 1:10,000 scale mapping within 500m of the study site, these are:
- 37m south-west of the study site; Use: Pond; Date: 1882;
 - 44m south-west of the study site; Use: Saw Pit; Date: c.1865-1882;
 - 55m south-east of the study site; Use: Sand and Gravel Works; Date: c.1935-1938;
 - 86m south-east of the study site; Use: Pond; Date: 1932;
 - 106m south of the site; Use: Pond; Date: c.1894-1932;
 - 165m south-east of the study site; Use: Gravel Pit; Date: 1932;
 - 202m east of the study site; Use: Pond; Date: c.1894-1912;
 - 208m east of the site; Use: Refuse Heap; Date: 1938;
 - 244m east of the study site; Use: Unspecified Ground Workings; Date: c.1965-1882;
 - 272m north of the study site; Use: Gravel Pit; Date: 1987;
 - 288m south-east of the study site; Use: Unspecified Pit; Date: 1865;
 - 340m south east of the study site; Use: Pond; Date: 1932;
 - 355m south east of the study site; Use: Gravel Pit; Date: 1932;
 - 407m west of the study site; Use: Pond; Date: c.1865-1912;
 - 433m south west of the study site; Use: Sewage Tanks; Date: c.1935-1938;

Natural Hazardous Findings

- 3.16 The maximum Shrink-Swell hazard rating identified on the study site is Very Low. Ground conditions predominantly low plasticity. No special actions required to avoid problems due to shrink-swell clays. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with shrink-swell clays.
- 3.17 The maximum Landslide hazard rating identified on the study site is Very Low. 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.
- 3.18 The maximum Soluble Rocks hazard rating identified on the study site is Negligible. 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.
- 3.19 The maximum Compressible Ground hazard rating identified on the study site is Moderate. Significant potential for compressibility problems. Avoid large differential loadings of ground. Do not drain or de-water ground near the property without technical advice. For new build consider possibility of compressible ground in ground investigation, construction and building design. Consider effects of groundwater changes. Extra construction costs are likely. For existing property possible increase in insurance risk from compressibility, especially if water conditions or loading of the ground change significantly.
- 3.20 The maximum Collapsible Rocks hazard rating identified on the study site is Low. Slight possibility for collapsible deposit problems after major changes in loading or groundwater conditions. Normal maintenance to avoid large amounts of water entering the ground through pipe leakage or soak-aways should reduce the likelihood of problems due to collapsible deposits. For new build, assess the possibility of collapsible (loessic) deposits in ground investigation. For existing property, no significant increase in insurance risk from collapsible deposits is likely.
- 3.21 The maximum Running Sand hazard rating identified on the study site is Very Low. 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.

Radon

- 3.22 The site is not in a Radon Affected Area, as less than 1% of properties are above the Action Level.

Sensitive Land Uses

- 3.23 There is one record of Local Nature Reserves (LNR) within 2,000m of the study site the reserve is detailed below:

 1,113m south east of the site; LNR Name: Cranebank; Data Source: Natural England.

- 3.24 There is one records of Nitrate Vulnerable Zones within 2,000m of the study site, these are detailed below:

 1,801m west of site; NVZ Name: Existing; Data Source: DEFRA;

- 3.25 There are 16 records of Green Belt land within 2000m of the study site, with the closest recorded 16m east of the site, all of them detailed as follow:

 Green Belt Name: London Green Belt Area; Local Authority Name: Hillingdon London Boro.

- 3.26 There are no records of the following Designated Environmentally Sensitive Sites within 2,000m of the study site:

-  Sites of Special Scientific Interest (SSSI);
-  National Nature Reserves (NNR);
-  Ancient Woodlands;
-  Special Areas of Conservation (SAC);
-  Special Protection Areas (SPA);
-  Ramsar sites;
-  World Heritage Sites;
-  Environmentally Sensitive Areas;
-  Areas of Outstanding Natural Beauty (AONB);
-  National Parks (NP); or
-  Nitrate Sensitive Areas.

Borehole Records

- 3.27 There are eighteen records of boreholes within 250m of the site boundary according to BGS Borehole Records, these are:

- 50m south-west of the site at NGR 509050 176890; BGS Reference: TQ07NE174; Drilled Length -1.0; Borehole Name: Harlington Drainage 15;
- 91m east of the site at NGR 509300 176960; BGS Reference: TQ07NE242; Drilled Length 5.0; Borehole Name: Heathrow surface access studies 29;
- 113m west of the site at NGR 508315 176875; BGS Reference: TQ07NE19; Drilled Length 3.0; Borehole Name: Hayes UB.8 Hayes & Harlington;
- 130m south east of the site at NGR 508980 176940; BGS Reference: TQ07NE243; Drilled Length 4.0; Borehole Name: Heathrow surface access studies 298;
- 133m east of the site at NGR 509330 176910; BGS Reference: TQ07NE183; Drilled Length -1.0; Borehole Name: Harlington Drainage 30;
- 148m south west of the site at NGR 509000 176800; BGS Reference: TQ07NE379; Drilled Length 9.0; Borehole Name: Avis Car rental Hounslow;
- 186m east of the site at NGR 509380 176890; BGS Reference: TQ07NE586; Drilled Length -1.0; Borehole Name: Fly a way bath road Heathrow 7;
- 203m east of the site at NGR 509400 176900; BGS Reference: TQ07NE587; Drilled Length -1.0; Borehole Name: Fly a way bath road Heathrow 8;
- 205m east of the site at NGR 509390 176860; BGS Reference: TQ07NE579; Drilled Length -1.0; Borehole Name: Bath road Heathrow TP10;
- 212m south east of the site at NGR 509390 176840; BGS Reference: TQ07NE585; Drilled Length -1.0; Borehole Name: Fly a way bath road Heathrow 6;
- 213m west of the site at NGR 508880 176990; BGS Reference: TQ07NE307; Drilled Length 9.0; Borehole Name: Harlington Corner Hotel 1;
- 214m west of the site at NGR 508880 176950; BGS TQ07NE307; Drilled length -1.0; Borehole Name; Harlington Corner Hotel 3;
- 217m east of the site at NGR 509420 176920; BGS Reference: TQ07NE175; Drilled Length -1.0; Borehole Name: Harlington Drainage 16;

- 220m east of the site at NGR 509410 176870; BGS Reference: TQ07NE578; Drilled Length -1.0; Borehole Name: Bath Road Heathrow TP9;
- 231m south east of the site at NGR 509410 176840; BGS Reference: TQ07NE577; Drilled Length -1.0; Borehole Name: Bath Road Heathrow TP8;
- 243m west of the site at NGR 508850 176960; BGS Reference: TQ07NE306; Drilled Length 9.0; Borehole Name: Harlington Corner Hotel 2;
- 246m south east of the site at NGR 509400 176790; BGS Reference: TQ07NE575; Drilled Length-1.0; Borehole Name: Bath Roas Heathrow TP6; and
- 250m south east of the site at NGR 509390 176770; BGS Reference: TQ07NE583; Drilled Length 9.0; Borehole Name: Fly away bath road Heathrow 4.

4. Historic Records

- 4.1 This section is based on historic maps of the area dating back to 1865. The maps are included in Appendix B. All measurements are approximate.

The Site and within 100m of the Study Site

- 4.2 The original 1:2,500 scale maps from 1865 shows this plot of land was originally used as an orchard. The area was predominantly agricultural farmland of orchards and grazing fields with the villages of Cranford to the east and Harlington to the north. There is a public house shown to the south west, approximately 100m away.
- 4.3 A domestic dwelling with gardens and outhouses is shown in the 1865 map, appearing as Ash Cottage. This building was situated approximately 20m west of the existing site boundary.
- 4.4 In 1895 the same scale map shows two new buildings within 30m of the site, one to the north east and the other to the south east. There is no indication as to what these buildings are used for.
- 4.5 The 1932 1:2,500 scale map no longer shows the site as an orchard, but is instead an open field. The building to the north-east of the site has been extended and an additional small structure added close to the structure south-east of the site. Also at this time, a Sports Ground has been constructed 100m to the west of the site, where originally there had been an open field. The domestic dwellings to the south over the road are largely unchanged since 1865.
- 4.6 The 1935 1:2,500 map shows no significant change to the site or the surrounding areas.
- 4.7 The 1964 map shows that the site area had now been developed into the William Byrd County Primary School. Furthermore, a small building has been erected 10m west of the site. Ash cottage to the west and the structures to the north-west and south west are still shown on the map, but no longer labelled. The road is shown to now have a central reservation. The domestic dwellings to the south of the road are unchanged. The field north of the site is used as playing field for the school.

- 4.8 No major changes were recorded until the 1972 1:1,250 map, by which time Ash Cottage no longer appears on the map and has instead been replaced by a bowling alley. The small structures to the north-east and south-east of the site no longer appear on the map. The domestic terrace houses to the south of Bath Road no longer appear on the map and have been replaced with large buildings and car parking space.
- 4.9 The 1986 1:1,250 scale map shows the current layout of the site. The primary school has been replaced with an office block on the western side of the site with the rest of the site taken up with car parking space and green verges. The plot to the west between the bowling alley and the site, is shown as an Ibis Hotel. North of the site, where previously there had been playing fields there are now domestic properties within 100m to the north-west, labelled as David Close and Caroline Place. Directly to the north are large block buildings with corresponding car parks, these are connected to Bath Road by Nobel Drive, a new road.
- 4.10 The 1993 1:1,250 scale map shows no change to the site or the surrounding areas north of Bath road. The area directly south of the site continues to be developed with a large car park. This is the last recorded historical map to date. The site has been unchanged since this last mapping.

The agricultural land directly to the east of the site, has not changed use since the earliest 1865 map. However, this area is currently classed as an EA/NRW Active Landfill Site.

The Surrounding Area within 250m of the Study Site

- 4.11 The 1865 map shows that the surrounding land use within 250m is primarily agricultural and domestic. To the north there are orchards and to the east and west there are open fields, with gardens in close proximity to the houses south of Bath road. This map also shows the Coach and Horses Public House approximately 250m west of the site.
- 4.12 The 1914 map shows a new collection of buildings to the south-east of the site, just north of the area marked as marsh land. The access to these buildings is via Bath road.
- 4.13 The 1932 1:2,500 scale map shows the first record of the sports ground with corresponding structures situated between Ash Cottage and the Coach & Horses Public House. To the south east approximately 200m from the site a gravel pit is recorded. There is also a tank recorded just west of the gravel pit, approximately 260m from the site. This tank is part of a new development of buildings situated on a strip of land running north-south. The areas north of the site are unchanged.

- 4.14 The 1964 1:2,500 map shows considerable change to the area. The coach and Horse Public House west of the site has been redeveloped into a hotel, which is circular in structure. Directly to the south a new road labelled the 'Northern Perimeter Road' runs parallel with Bath road, joining Hatton Road to the west and turning south and continuing off the map in the east. The map shows new developments to the south west of the site, approximately 230m away. These structures are however labelled as works buildings and factories on the later 1970 and 1974 1:10,000 scale maps. The last recording of these buildings is in 2002, after which they have been redeveloped into a hotel and long stay car park. New buildings have also been constructed to the south east of the site, with access from Bath road and the new Northern Perimeter road. The use of these buildings is unknown, though the largest is labelled as Argonaut House.
- 4.15 The 1967 map shows little change apart from four rows of terraced housing appearing 250m east of the site with two new roads. These are part of Cranford.
- 4.16 The 1794 map refers to Argonaut House as a magnet factory.
- 4.17 The 1990 1:1,250 scale map shows the first recording of the commercial and domestic developments to the north of the site. Between 1967 and 1972 the sports ground to the west of the site is redeveloped into the bowling alley.
- 4.18 The 1992 1:1,250 map shows the domestic development to the north-west has been extended further to the west.

The Surrounding Area within 800m of the Study Site

- 4.19 A school is shown to be 520m east of the site on the 1868 1:10,560 scale map. 800m to the east the River Crane runs south to north, with a widening in the river north of Bath road. 500m to the west of the site there is a small horse patrol Police Station along the Bath Road.
- 4.20 The area within 800m of the site remains largely unchanged from rural domestic and agricultural use. There are domestic developments to the west of the site and south of Harlington, as shown on the 1932 1:10,560 scale map. There is also a new school shown on this map with playing fields.
- 4.21 The 1935 map shows the extension of the gravel pit to the south east of the site, now covering more land to the east and south. This site is currently marked as an EA/NRW Historic Landfill site. Within this site there is an EA/NRW Licensed Waste Site approximately 460m south-east of the site.
- 4.22 The 1960 map shows the first recording of the Heathrow Airport to the south and south west of the site. The area west of the site continues to be developed with further domestic properties and two large hotels north of the Bath road.

- 4.23 The 1974 map records an industrial complex of factory works buildings within 500m east of the site. There is also continued development to the commercial buildings 800m south of the site.
- 4.24 The 1985 map shows another gravel pit approximately 300m to the north of the site, though this is not indicated on the smaller scale maps. This gravel pit extends to the north to 650m from the site. This site is now marked as an EA/NRW Historic Landfill site.
- 4.25 The 2014 1:10,000 scale map shows that there has been no significant change to the area from 1974.

Historic Records Summary

- 4.26 The site was historically used as an orchard and or agricultural fields.
- 4.27 Off-site there are reported gravel pits which have since be infilled. However, there are no records or what was used to infill these. As a result, there is a risk of potential landfill gas and/or leachate migrating from these areas on to site. Although no records of such events have been recorded.
- 4.28 The off-site factories may also be a source of unknown contamination.

5. Site Walkover

- 5.1 A member of Phlorum staff conducted a site walkover of the external areas of the site on 5th of July 2018 in order to assess any contamination issues. The weather conditions during the survey were overcast with sunny spells.
- 5.2 The photos of the site taken during the walkover are included as Appendix D and observations in the text are included as Target Notes on Figure 1 in Appendix E.
- 5.3 The area to be redeveloped is currently a car park for Building 2, comprising of a tarmac, brick and soil surface. This area is rectangular in shape with a planted green space along the middle and surrounded by planted green verges.
- 5.4 There were several metal grate drains across the site that could act as pathways for contaminants from the surface to the soils beneath. Other potential pathways include the joints between the bricks and small cracks seen in the tarmac. There was no obvious staining on the surfaces of the site. Where soils were at the surface, kerbstones separated them from the tarmac, as well as being upslope of the camber of the carpark.
- 5.5 The site was being used as storage space for some building material. These comprised of piping, sheeting, pallets and harass fencing.
- 5.6 To the western end of the centrally planted area, on the tarmac an industrial drum was observed, which was believed to contain hydrocarbon oil. However, no staining was seen around the drum.
- 5.7 One manhole cover was observed on the site where the new development is proposed. This is at the western end of the central planted area.
- 5.8 Bath Road runs adjacent to the southern boundary of the site. There is the potential for surface runoff from the road, to drain into the soils beneath the site.
- 5.9 A Cotoneaster plant was observed at the site. There are 5 types of cotoneaster listed in Part II, Schedule 9 of the Wildlife and Countryside Act (WCA) 1981, as amended.

Site Walkover Summary

- 5.10 The site was visited on 5th of July 2018, the external areas of the site were surveyed for evidence of contamination when the weather was clear and dry. Access could not be gained to the office area.

- 5.11 The main potential source of contamination on site, was from spillages and leaks from the cars using the car park. This is likely to have been localised spillages of oil and/or fuel. However, the hydrocarbons could runoff through the drains or through the joints between the bricked pavings in to the underlying soils.
- 5.12 The main offsite potential sources of contamination observed from the site walk was from fuel and oil spillages from the vehicles using Bath Road, to the south of the site. Hydrocarbons spillages could enter the ground through drains, joins and cracks, and then migrate through the gravel member to the soils beneath the car park.
- 5.13 A cotoneaster plant was also observed on site. 5 Cotoneaster species are listed on the WCA, as invasive non-natives species that should not be allowed to growth in the wild.

6. Contamination Risk Assessment

General

- 6.1 Based on the previous information reviewed and obtained for this report an initial qualitative risk assessment can be undertaken. This assessment is based on the development of an appropriate conceptual model in accordance with current UK guidelines set out within Contaminated Land (England) Regulations 2006, as amended, Section 57 of the Environmental Protection Act 1990 and other guidance (e.g. BS10175:2011+A2:2017, the National Planning Policy Framework).
- 6.2 For environmental risk to be present there must be three conditions simultaneously coexisting, namely:
-  A source is a contaminant or potential pollutant which has the potential to cause harm, or to cause pollution of controlled waters.
 -  A receptor (e.g. end-user, off-site water abstraction) which can be harmed by the site conditions.
 -  A plausible pathway is a route or means of connecting the source and receptor such that the harm could actually occur.
- 6.3 The relationship between a contaminant source and receptor, by means of a pathway, is termed a "pollutant linkage". A "pollutant linkage" is only considered to exist if all three elements of the linkage are present (i.e. source, pathway and receptor). Where one of these conditions is absent, there is, by definition, no risk. The risk is itself considered in terms of its significance and this is qualitatively assessed on the basis of magnitude of harm that may occur and likelihood of that harm occurring.

Risk Assessment and Conceptual Model

- 6.4 The qualitative risk assessment is included in Appendix C and a diagram of the conceptual model is shown in Appendix F.

Potential Sources of Contamination

- 6.5 The site comprises of a building and car park currently used as office space. The following potential sources of contamination have been identified from the desk study and site walkover of external areas:
-  Underground services;

-  The public highway south and east of the site could be a source for fuel oil spills;
-  Leaks and spillages of hydrocarbons from cars in the carpark.
-  General rubbish found at the site;
-  Migration of volatile contaminants through the ground;
-  Offsite contamination (Bath road, and infilled gravel pits);
-  Historic activities in the areas (e.g. factories); and
-  invasive plants (cotoneaster);

Potential Pathways

- 6.6 The site lies over predominantly impermeable London Clay as the bedrock. However, above this there are permeable sands and gravels, which have a high potential for leaching and subterranean migration of fluids.
- 6.7 The following potential pathways have been identified in the context of the current site condition:
-  Leaching of localised mobile inorganic and organic contamination into surface and ground water;
 -  Buried pipes and services;
 -  Soil ingestion, dermal contact, inhalation;
 -  Migration of volatile contaminants through the ground; and
 -  Chemical attack.

Potential Receptors

- 6.1 The risk of contamination exposure to any future ground workers can generally be mitigated via the use of appropriate Health & Safety Risk Assessments and PPE. The following potential receptors have been identified:
-  Ecological environment;
 -  Construction workers;
 -  Future site users;
 -  Neighbouring site users; and
 -  Ground/surface water.

7. Conclusions

- 7.1 The geological records indicate that the geology of the site is the London Clay Formation with an overlying Taplow Gravel Member. The actual presence of contamination in, on, or under the ground can only be confirmed by an intrusive site investigation.
- 7.2 The main potential contamination sources on the site are from its current use as a car park. There is a risk of hydrocarbon leakage and spillage from vehicles using this site, as well as chemicals from the wearing of tyres. Runoff from Bath road to the underlying geology could have also migrated across the soils beneath the car parking area. These potential sources would likely be localised and uncommon, but could drain to low lying areas, resulting in localised areas of contamination. However, there was no observed evidence of any contamination of that kind. There is also a potential migration risk of leachate and gases through the Taplow Gravel Member from the EA/NRW Historic Landfill sites to the south-east and to the north of the site. The material used to infill the gravel pits is unknown making the risk also unknown. This can only be determined from further investigation. However, there have been no reported incidents of landfill gas or leachate in the area. The actual presence of contamination in, on, or under the ground from hydrocarbons, leachate and gas can only be confirmed by an intrusive site investigation and gas monitoring.
- 7.3 The historic use of the site as an orchard and school is considered a **Very Low** risk as a potential contamination source. The current use of the site as a car park is a **Low** risk as a potential contamination source. The risk is considered to be mainly from the potential localised areas of hydrocarbons spillages from vehicles using the car park and the unknown infilling of the EA/NRW Historic Landfill sites.
- 7.4 The future use of the site as a hotel is predicted to have a **Low** contamination risk.
- 7.5 The potential risks to the current or proposed future users of the site from any off-site contamination sources, either current or historical, are considered to be **Low**. The site is primarily surrounded by commercial office buildings, hotels, residential buildings and agricultural farmland, there is a potential risk of contaminants migrating onsite site from the offsite historic and active landfills and factories, as well as from the road ways around the site.

- 7.6 On the basis of the above we consider the risk of contamination being in the ground of the external areas of the site is **Moderate**. We would recommend that a site investigation is carried out as this is the only way to confirm if there has, or has not been any contamination of the site from the current or previous uses of the site and the surrounding areas. This assessment will need to assess the potential of gas migration from the adjacent landfills.
- 7.7 If a site investigation is not deemed necessary by the local authority, then if during the development of the site, any contamination is discovered, the works should immediately stop and further investigation will need to be carried out by a contamination specialist, in accordance with the Planning Conditions.
- 7.8 A cotoneaster plant was also observed on site. Five Cotoneaster species are listed on the WCA, as invasive non-natives species that should not be allowed to growth in the wild.

8. References

-  Environment Agency (2004) Model Procedures for the Management of Land Contamination; Contaminated Land Report 11.
-  REP 211 Radon (2015): guidance on protective measures for new buildings
-  BS 10175:2011+A2:2017 Investigation of potentially contaminated sites. Code of practice. Code of practice.

APPENDIX A

GroundSure Reports



Phlorum

Unit 12, Hunns Mere Way,
Woodingdean, BN2 6AH

Groundsure
Reference:

GS-5201746

Your Reference: 8127

Report Date 6 Jul 2018

Report Delivery Method: Email - pdf

Enviro Insight

Address: Status Park, HEATHROW, UB3 5EY

Dear Sir/ Madam,

Thank you for placing your order with Groundsure. Please find enclosed the **Groundsure Enviro Insight** as requested.

If you need any further assistance, please do not hesitate to contact our helpline on 08444 159000 quoting the above Groundsure reference number.

Yours faithfully,

Managing Director
Groundsure Limited

Enc.
Groundsure Enviroinsight

Address: Status Park, HEATHROW, UB3 5EY

Date: 6 Jul 2018

Reference: GS-5201746

Client: Phlorum

NW

N

NE

W

E



SW

S

SE

Aerial Photograph Capture date: 20-Apr-2015

Grid Reference: 509139,176969

Site Size: 0.78ha

Report Reference: GS-5201746

Client Reference: 8127

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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	3	20	28
1.2 Additional Information – Historical Tank Database	0	0	3	25
1.3 Additional Information – Historical Energy Features Database	0	5	13	17
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	1	0
1.6 Potentially Infilled Land	0	3	21	13

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	4	1
2.1.7 Records of Category 3 or 4 Radioactive Substances Authorisations	0	0	0	0
2.1.8 Records of Licensed Discharge Consents	0	0	0	0
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	1	0	0	1	Not searched
3.1.2 Environment Agency/Natural Resources Wales Historic Landfill Sites	0	1	2	0	3	3
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	1
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	1	7	7

Section 4: Current Land Use	On-site	0-50m	51-250	251-500
4.1 Current Industrial Sites Data	0	1	13	Not searched
4.2 Records of Petrol and Fuel Sites	0	0	0	1
4.3 National Grid Underground Electricity Cables	0	0	0	0
4.4 National Grid Gas Transmission Pipelines	0	0	0	0

Section 5: Geology	
5.1 Records of Artificial Ground and Made Ground present beneath the study site	Identified
5.2 Records of Superficial Ground and Drift Geology present beneath the study site	Identified
5.3 For records of Bedrock and Solid Geology beneath the study site see the detailed findings section.	

Section 6: Hydrogeology and Hydrology	0-500m					
6.1 Records of Strata Classification in the Superficial Geology within 500m of the study site	Identified					
6.2 Records of Strata Classification in the Bedrock Geology within 500m of the study site	Identified					
	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	1	2	0	10
6.4 Surface Water Abstraction Licences (within 2000m of the study site)	0	0	0	0	0	0
6.5 Potable Water Abstraction Licences (within 2000m of the study site)	0	0	0	0	0	1
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	1	0	Not searched	Not searched

Section 6: Hydrogeology and Hydrology

0-500m

	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 entries within 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 Environment 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	0	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

Section 8: Designated Environmentally Sensitive Sites	On-site	0-50m	51-250	251-500	501-1000	1000-2000
8.10 Records of Areas of Outstanding Natural Beauty (AONB)	0	0	0	0	0	0
8.11 Records of National Parks	0	0	0	0	0	0
8.12 Records of Nitrate Sensitive Areas	0	0	0	0	0	0
8.13 Records of Nitrate Vulnerable Zones	0	0	0	0	0	1
8.14 Records of Green Belt land	0	1	0	0	7	8

Section 9: Natural Hazards	
9.1 Maximum risk of natural ground subsidence	Moderate
9.1.1 Maximum Shrink-Swell hazard rating identified on the study site	Very Low
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	Moderate
9.1.5 Maximum Collapsible Rocks hazard rating identified on the study site	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



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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: 51

ID	Distance [m]	Direction	Use	Date
1	29	S	Airport	1964
2AD	44	SW	Saw Pit	1882
3AE	45	SW	Saw Pit	1865
4A	55	SE	Sand and Gravel Works	1938
5A	55	SE	Sand and Gravel Works	1935
6	110	E	Airport	1959
7B	146	S	Airport	1987
8B	146	S	Airport	1974
9AH	165	SE	Gravel Pit	1932
10C	207	E	Gravel Pit	1935
11C	208	E	Refuse Heap	1938
12D	211	E	Unspecified Works	1970
13D	215	E	Unspecified Factory	1987
14D	215	E	Unspecified Factory	1974
15E	225	SW	Nursery	1912
16E	228	SW	Nursery	1912
17	228	SW	Nursery	1935
18F	229	SW	Nursery	1938
19F	229	SW	Nursery	1932
20	243	W	Telephone Exchange	1974
21R	244	W	Unspecified Depot	1987
22AJ	244	E	Unspecified Ground Workings	1882
23G	246	SE	Unspecified Pit	1865
24G	267	SE	Unspecified Tank	1935
25G	270	SE	Unspecified Tank	1938
26AK	272	N	Gravel Pit	1987
27H	276	SE	Unspecified Works	1970
28	277	SE	Unspecified Works	1987
29C	282	SE	Unspecified Warehouse	1987
30H	283	SE	Unspecified Works	1974
31AL	288	SE	Unspecified Pit	1865
32C	293	SE	Unspecified Warehouse	1974
33AA	298	W	Telephone Exchange	1987

34	325	SE	Unspecified Warehouse	1987
35	328	SE	Unspecified Commercial/Industrial	1974
36I	338	NW	Smithy	1894
37I	338	NW	Smithy	1897
38	346	SE	Unspecified Works	1974
39	354	SW	Airport	1970
40AM	355	SE	Gravel Pit	1932
41J	384	SE	Unspecified Works	1987
42J	412	SE	Unspecified Works	1970
43K	433	SW	Sewage Tanks	1935
44K	433	SW	Sewage Tanks	1935
45K	435	SW	Sewage Tanks	1938
46L	437	W	Sewage Pumping Station	1935
47L	437	W	Sewage Pumping Station	1938
48M	443	SE	Unspecified Tank	1935
49M	444	SE	Unspecified Tank	1938
50M	444	SE	Unspecified Tank	1932
51K	444	SW	Sewage Tanks	1938

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:

28

ID	Distance (m)	Direction	Use	Date
52N	99	W	Unspecified Tank	1987
53N	99	W	Unspecified Tank	1986
54N	99	W	Unspecified Tank	1974
55X	255	SW	Unspecified Tank	1998
56O	266	W	Unspecified Tank	1998
57O	267	W	Unspecified Tank	1987
58O	267	W	Unspecified Tank	1986
59P	269	E	Unspecified Tank	1990
60P	270	E	Unspecified Tank	1974
61P	270	E	Unspecified Tank	1993
62G	270	SE	Unspecified Tank	1935
63G	271	SE	Unspecified Tank	1932
64D	299	E	Unspecified Tank	1974
65S	304	E	Unspecified Tank	1974
66Q	315	E	Unspecified Tank	1990
67Q	315	E	Unspecified Tank	1997

68R	316	W	Unspecified Tank	1974
69S	316	E	Tanks	1990
70S	317	E	Tanks	1997
71R	317	W	Unspecified Tank	1974
72R	329	W	Unspecified Tank	1974
73K	429	SW	Sewage Tanks	1935
74K	429	SW	Sewage Tanks	1932
75K	441	SW	Sewage Tanks	1935
76K	441	SW	Sewage Tanks	1932
77M	441	SE	Unspecified Tank	1935
78M	441	SE	Unspecified Tank	1932
79	499	S	Unspecified Tank	1913

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:

35

ID	Distance (m)	Direction	Use	Date
80T	1	N	Electricity Substation	1990
81T	4	N	Electricity Substation	1993
82U	30	S	Electricity Substation	1990
83U	30	S	Electricity Substation	1974
84U	39	S	Electricity Substation	1993
85V	51	W	Electricity Substation	1993
86V	51	W	Electricity Substation	1990
87	65	S	Electricity Substation	1993
88	85	N	Electricity Substation	1990
89N	101	W	Electricity Substation	1998
90	186	W	Electricity Substation	1998
91W	190	E	Electricity Substation	1990
92W	191	E	Electricity Substation	1993
93W	192	E	Electricity Substation	1974
94X	241	SW	Electricity Substation	1974
95Y	242	SW	Electricity Substation	1987
96Y	242	SW	Electricity Substation	1986
97Y	243	SW	Electricity Substation	1998
98X	253	SW	Electricity Substation	1974
99X	255	SW	Electricity Substation	1987
100Y	255	SW	Electricity Substation	1986
101Z	290	W	Electricity Substation	1972
102Z	292	W	Electricity Substation	1990

103Z	292	W	Electricity Substation	1988
104	296	W	Electricity Substation	1990
105AA	322	W	Electricity Substation	1974
106AA	322	W	Electricity Substation	1998
107AA	323	W	Electricity Substation	1987
108AA	323	W	Electricity Substation	1986
109	378	W	Electricity Substation	1998
110AB	425	NW	Electricity Substation	1972
111AB	425	NW	Electricity Substation	1990
112AB	425	NW	Electricity Substation	1988
113AC	493	W	Electricity Substation	1972
114AC	494	W	Electricity Substation	1988

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: 1

ID	Distance (m)	Direction	Use	Date
115P	211	E	Motor Car Equipment Factory	1974

1.6 Potentially Infilled Land

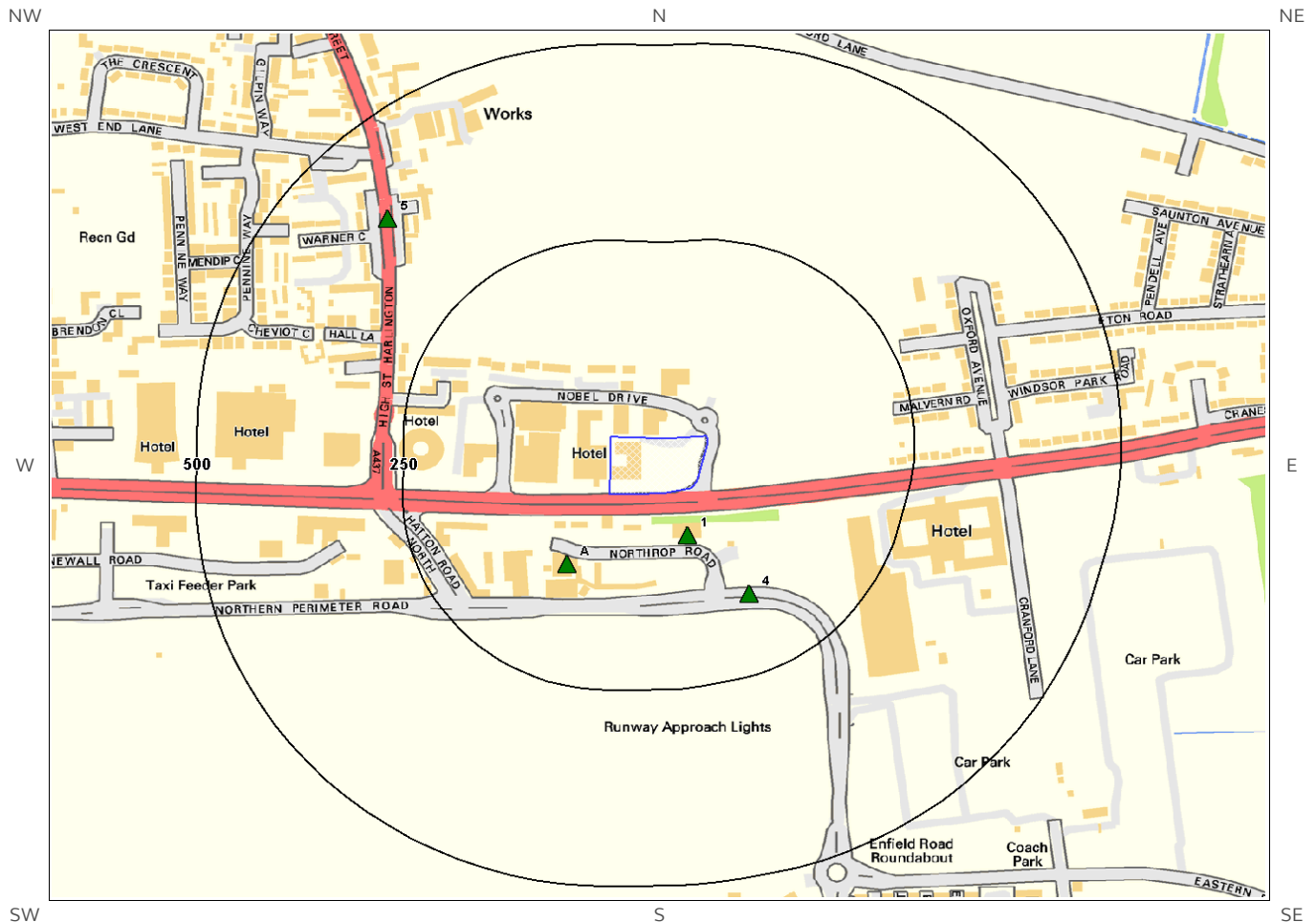
Records of Potentially Infilled Features from 1:10,000 scale mapping within 500m of the study site: 37

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

ID	Distance(m)	Direction	Use	Date
116	37	SW	Pond	1882
117AD	44	SW	Saw Pit	1882
118AE	45	SW	Saw Pit	1865
119A	55	SE	Sand and Gravel Works	1938

120A	55	SE	Sand and Gravel Works	1935
121	86	SE	Pond	1932
122AF	95	SW	Pond	1865
123AF	104	S	Pond	1912
124AF	106	S	Pond	1897
125AF	106	S	Pond	1894
126AF	106	S	Pond	1938
127AF	106	S	Pond	1932
128AF	106	S	Pond	1912
129AG	159	SW	Ponds	1912
130AG	161	SW	Ponds	1865
131AH	165	SE	Gravel Pit	1932
132AI	202	S	Ponds	1912
133AI	202	S	Ponds	1894
134AI	202	S	Ponds	1912
135C	207	E	Gravel Pit	1935
136AI	207	S	Ponds	1865
137C	208	E	Refuse Heap	1938
138AJ	244	E	Unspecified Ground Workings	1882
139G	246	SE	Unspecified Pit	1865
140AK	272	N	Gravel Pit	1987
141AL	288	SE	Unspecified Pit	1865
142	340	SE	Pond	1932
143AM	355	SE	Gravel Pit	1932
144AN	407	W	Pond	1912
145AN	412	W	Pond	1894
146AN	412	W	Pond	1932
147AN	412	W	Pond	1912
148AN	412	W	Ponds	1865
149K	433	SW	Sewage Tanks	1935
150K	433	SW	Sewage Tanks	1935
151K	435	SW	Sewage Tanks	1938
152K	444	SW	Sewage Tanks	1938

2. Environmental Permits, Incidents and Registers Map



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- | | | |
|--|---|--|
|  Site Outline |  Recorded Pollution Incident |  RAS 3 & 4 Authorisations |
|  250 |  Dangerous Substances (List 1) |  Part A(1) Authorised Processes and Historic IPC Authorisations |
|  500 |  Dangerous Substances (List 2) |  Part A(2) and Part B Authorised Processes |
| |  Water Industry Referrals |  COMAH / NIHHS Sites |
| |  Licenced Discharge Consents |  Sites Determined as Contaminated Land |
| |  Red List Discharge Consents |  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:

0

Database searched and no data found.

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

0

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

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:

5

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
1	60	S	509185 176861	Address: Avis Rent-a-Car Ltd, Unit B, Northrop Road, London Heathrow Airport, Hounslow, TW6 2EB Process: Unloading of Petrol into Storage at Service Stations Status: Current Permit Permit Type: Part B Enforcement: No Enforcement Notified Date of Enforcement: No Enforcement Notified Comment: No Enforcement Notified
2A	105	SW	509041 176824	Address: Avis Rent-a-Car Ltd, Valet Building, Northrop Road, London Heathrow Airport, Hounslow, TW6 2QA Process: Unloading of Petrol into Storage at Service Stations Status: Current Permit Permit Type: Part B Enforcement: No Enforcement Notified Date of Enforcement: No Enforcement Notified Comment: No Enforcement Notified
3A	105	SW	509041 176824	Address: Valet Building Avis Rent A Car, Northrop Road, HAL, TW6 2QA 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
4	153	SE	509262 176787	Address: Budget Rent A Car, Northern Perimeter Rd, HAL 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
5	385	NW	508825 177264	Address: Tesco Harlington, High Street, Harlington 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

2.1.7 Records of Category 3 or 4 Radioactive Substances Authorisations:

0

Database searched and no data found.

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

0

Database searched and no data found.

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

Database searched and no data found.

2.2 Dangerous or Hazardous Sites

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

0

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

Database searched and no data found.

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

0

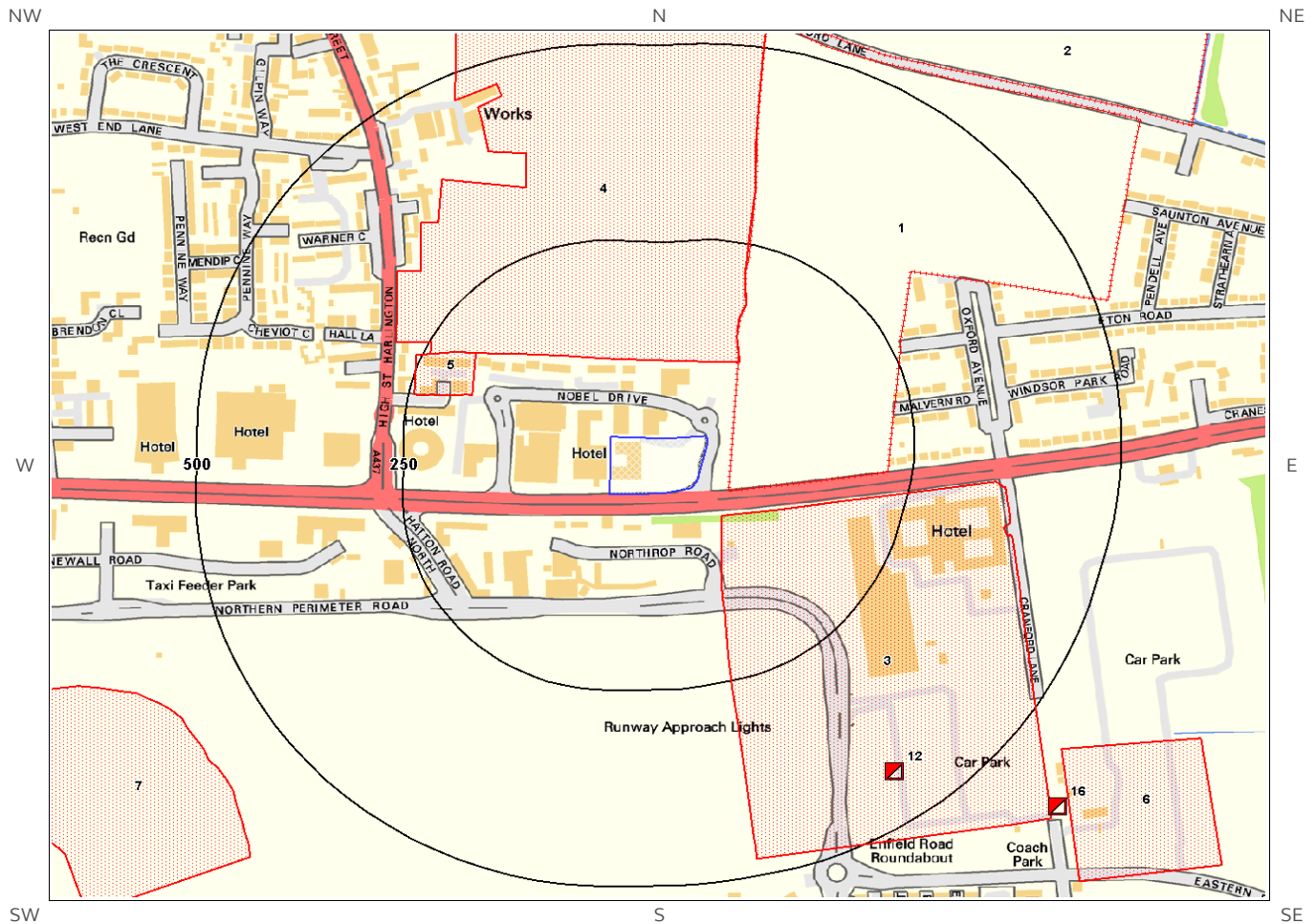
Database searched and no data found.

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

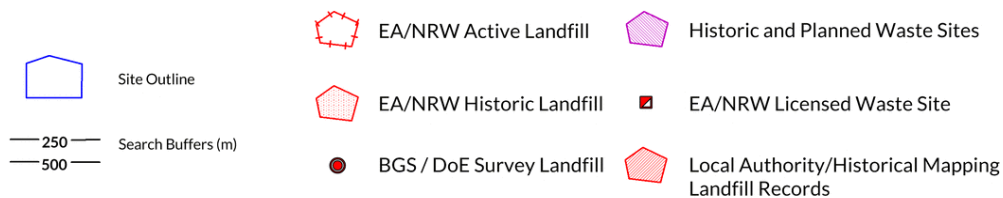
Records of sites determined as contaminated land under Section 78R of the Environmental Protection Act 1990 are there within 500m of the study site 0

Database searched and no data found.

3. Landfill and Other Waste Sites Map



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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:

2

The following Environment Agency/Natural Resources Wales landfill records are represented as polygons on the Landfill and Other Waste Sites map:

ID	Distance (m)	Direction	NGR	Details
1	29	E	509289 177515	Address: Henry Streeter (Sand & Ballast) Ltd, Land South Of Cranford Lane, North Of Bath Road, Harlington, Middlesex, UB3 5DA Landfill Reference: 80068.0 Environmental Permitting Regulations (Waste) Reference: STR003 Landfill Type: A05: Landfill taking Non-Biodegradable Wastes Operator: Henry Streeter (Sand & Ballast) Ltd Status: Closure IPPC Reference: EPR Reference:
2	530	N	509274 177931	Address: The Gravel Pit, High Street, Harlington, Hayes, Middlesex, UB3 5DA Landfill Reference: 80066.0 Environmental Permitting Regulations (Waste) Reference: STR001 Landfill Type: A06: Landfill taking other wastes Operator: Henry Streeter (Sand & Ballast) Ltd Status: Closure IPPC Reference: EPR Reference:

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

9

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

ID	Distance (m)	Direction	NGR	Details
3	50	SE		Site Address: Northern Perimeter Road, Cranford, Hounslow, London Waste Licence: - Site Reference: 8HI055 Waste Type: Inert Environmental Permitting Regulations (Waste) Reference: - Licence Issue: Licence Surrendered: Licence Holder Address: - Operator: Greenhams sand and Gravel Licence Holder: - First Recorded: - Last Recorded: 31-Dec-1945

ID	Distance (m)	Direction	NGR	Details	
4	95	N		Site Address: South of Cranford Lane, Cranford Lane West Waste Licence: Yes Site Reference: DL207, 8HI017, HIL018 Waste Type: Inert Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: 06-Jun-1985 Licence Surrendered: 16-Aug-1993 Licence Holder Address: - Operator: - Licence Holder: Henry Streeter (Sand and Ballast) Limited First Recorded: 10-Jul-1986 Last Recorded: 03-Oct-1989
5	175	W		Site Address: Land Rear of Airport Bowl, Airport Bowl Waste Licence: - Site Reference: 8HI063 Waste Type: - Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: Licence Surrendered: Licence Holder Address: - Operator: - Licence Holder: - First Recorded: - Last Recorded: -
6	557	SE		Site Address: East of Cranford Lane, Cranford Lane Waste Licence: - Site Reference: 8HI072, HIL081 Waste Type: - Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: Licence Surrendered: Licence Holder Address: - Operator: - Licence Holder: - First Recorded: 31-Dec-1951 Last Recorded: 31-Dec-1955
7	588	SW		Site Address: Heathrow Runway, Heathrow Airport, Hillingdon, London Waste Licence: - Site Reference: 8HI054 Waste Type: - Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: Licence Surrendered: Licence Holder Address: - Operator: - Licence Holder: - First Recorded: - Last Recorded: -
Not shown	767	NW		Site Address: Imperial College, South of Sipson Lane, Harlington, Middlesex Waste Licence: Yes Site Reference: STR030 Waste Type: - Environmental Permitting Regulations (Waste) Reference: TE1/L/STR004	Licence Issue: 05-Jun-1997 Licence Surrendered: Licence Holder Address: - Operator: - Licence Holder: Henry Streeter (Sand and Ballast) Limited First Recorded: 31-Dec-1997 Last Recorded: -
Not shown	1141	NE		Site Address: Crane Meadow, Harlington, West Drayton, Hillingdon, London Waste Licence: Yes Site Reference: DL292, 8HI016, HIL017 Waste Type: Inert Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: 12-Jan-1989 Licence Surrendered: 22-Feb-1990 Licence Holder Address: - Operator: - Licence Holder: H Streeter (Sand and Ballast) Limited First Recorded: 31-Oct-1986 Last Recorded: 31-Oct-1989
Not shown	1197	N		Site Address: Saint Peters Way, Harlington, West Drayton, Hillingdon, London Waste Licence: - Site Reference: 8HI039 Waste Type: - Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: Licence Surrendered: Licence Holder Address: - Operator: - Licence Holder: - First Recorded: 31-Dec-1973 Last Recorded: 31-Dec-1989
Not shown	1411	SE		Site Address: Cranebank-Hazelmere, North Feltham, Hounslow, London Waste Licence: - Site Reference: 8HO030 Waste Type: - Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: Licence Surrendered: Licence Holder Address: - Operator: Sand and Shingle Licence Holder: Sand and Shingle Limited First Recorded: 31-Dec-1931 Last Recorded: 31-Dec-1946

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

0

Database searched and no data found.

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

1

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

ID	Distance (m)	Direction	NGR	Site Address	Source	Data Type
Not shown	1401	SE	510572 176002	-	London Borough of Hounslow	Polygon

3.2 Other Waste Sites

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

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:

15

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

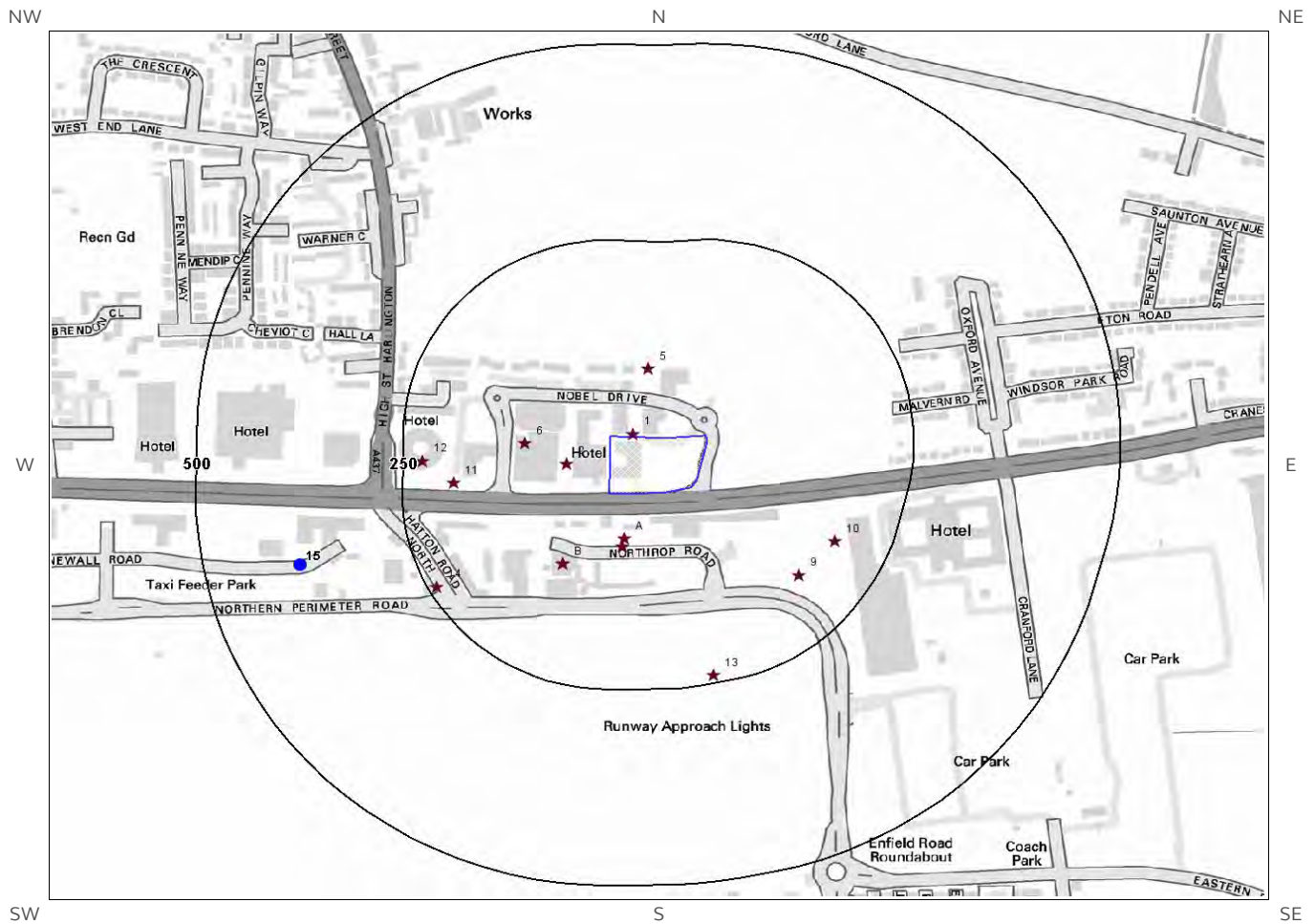
ID	Distance (m)	Direction	NGR	Details
12	436	SE	509437 176562	Site Address: Heathrow Airport Ltd, Cranford Lane Transfer Station, Eastern Perimeter Road, Hillingdon, Middlesex, TW6 1JH Type: Household, Commercial & Industrial Waste T Stn Size: >= 25000 tonnes < 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: HEA001 EPR reference: EA/EPR/VP3096NC/V002 Operator: Heathrow Airport Ltd Waste Management licence No: 80042 Annual Tonnage: 31025.0 Issue Date: 03/08/1981 Effective Date: - Modified: 14/07/1989 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Cranford Lane T S, Heathrow Correspondence Address: -

ID	Distance (m)	Direction	NGR	Details
Not shown	532	N	509289 177515	Site Address: Henry Streeter (Sand & Ballast) Ltd, Land South Of Cranford Lane, North Of Bath Road, Harlington, Middlesex, UB3 5DA Type: Landfill taking Non-Biodegradeable Wastes Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: STR003 EPR reference: EA/EPR/AP3296NR/V002 Operator: Henry Streeter (Sand & Ballast) Ltd Waste Management licence No: 80068 Annual Tonnage: 289340.0 Issue Date: 13/02/1990 Effective Date: - Modified: 07/09/1993 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Closure Site Name: Cranford Lane, Bath Road, Harlington Correspondence Address: -
Not shown	532	N	509289 177515	Site Address: Henry Streeter (Sand & Ballast) Limited, land south of Cranford Lane, north of Bath Road, Harlington, Middlesex, UB3 5DA Type: Landfill taking Non-Biodegradeable Wastes Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: STR003 EPR reference: - Operator: Henry Streeter (Sand & Ballast) Ltd Waste Management licence No: 80068 Annual Tonnage: 0.0 Issue Date: 13/02/1990 Effective Date: - Modified: 07/09/1993 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Closure Site Name: "Cranford Lane/bath Road, Harlington" Correspondence Address: Henry Streeter (Sand & Ballast) Limited, 66, Purley Way, Croydon, Surrey, CR9 4BD
Not shown	532	N	509289 177515	Site Address: Henry Streeter (Sand & Ballast) Ltd, Land South Of Cranford Lane, North Of Bath Road, Harlington, Middlesex, UB3 5DA Type: Landfill taking Non-Biodegradeable Wastes Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: STR003 EPR reference: - Operator: Henry Streeter (Sand & Ballast) Ltd Waste Management licence No: 80068 Annual Tonnage: 0.0 Issue Date: 13/02/1990 Effective Date: - Modified: 07/09/1993 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Closure Site Name: Cranford Lane, Bath Road, Harlington Correspondence Address: Henry Streeter (Sand & Ballast) Ltd, 66, Purley Way, Croydon, Surrey, CR9 4BD
16	600	SE	509634 176517	Site Address: Heathrow Airport Ltd, Cranford Lane Transfer Station, Eastern Perimeter Road, Hillingdon, London, TW6 1JH Type: Household, Commercial & Industrial Waste T Stn Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: HEA001 EPR reference: - Operator: Heathrow Airport Ltd Waste Management licence No: 80042 Annual Tonnage: 0.0 Issue Date: 03/08/1981 Effective Date: - Modified: 14/07/1989 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Closure Site Name: "Cranford Lane TS, Heathrow" Correspondence Address: Heathrow Airport Ltd, Heathrow Point West, 234, Bath Road, Harlington, Middlesex, UB3 5AP
Not shown	944	N	509274 177931	Site Address: The Gravel Pit, High Street, Harlington, Hayes, Middlesex, UB3 5DA Type: Landfill taking other wastes Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: STR001 EPR reference: EA/EPR/AP3896NG/V006 Operator: Henry Streeter (Sand & Ballast) Ltd Waste Management licence No: 80066 Annual Tonnage: 0.0 Issue Date: 28/09/1977 Effective Date: - Modified: 08/05/2013 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Closure Site Name: The Gravel Pit Correspondence Address: -

ID	Distance (m)	Direction	NGR	Details
Not shown	944	N	509274 177931	Site Address: The Gravel Pit, High Street, Harlington, Hayes, Middlesex, UB3 5DA Type: Landfill taking other wastes Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: STR001 EPR reference: EA/EPR/AP3896NG/V006 Operator: Henry Streeter (Sand & Ballast) Ltd Waste Management licence No: 80066 Annual Tonnage: 0.0 Issue Date: 28/09/1977 Effective Date: - Modified: 08/05/2013 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Closure Site Name: The Gravel Pit Correspondence Address: -
Not shown	944	N	509274 177931	Site Address: The Gravel Pit, High Street, Harlington, Hayes, Middlesex, UB3 5DA Type: Landfill taking other wastes Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: STR001 EPR reference: EA/EPR/AP3896NG/V006 Operator: Henry Streeter (Sand & Ballast) Ltd Waste Management licence No: 80066 Annual Tonnage: 0.0 Issue Date: 28/09/1977 Effective Date: - Modified: 08/05/2013 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Closure Site Name: The Gravel Pit Correspondence Address: -
Not shown	1326	N	509166 178314	Site Address: The Gravel Pit, High Street, Harlington, Hayes, Middlesex, UB3 5DA Type: Landfill taking other wastes Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: STR001 EPR reference: - Operator: Henry Streeter (Sand & Ballast) Ltd Waste Management licence No: 80066 Annual Tonnage: 0.0 Issue Date: 28/09/1977 Effective Date: - Modified: 23/09/1993 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified Site Name: "High Street, Harlington" Correspondence Address: Henry Streeter (Sand & Ballast) Limited, 66, Purley Way, Croydon, Surrey, CR9 4BD
Not shown	1326	N	509166 178314	Site Address: The Gravel Pit, High Street, Harlington, Hayes, Middlesex, UB3 5DA Type: Landfill taking other wastes Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: STR000 EPR reference: - Operator: Henry Streeter (Sand & Ballast) Ltd Waste Management licence No: 80066 Annual Tonnage: 0.0 Issue Date: 28/09/1977 Effective Date: - Modified: 23/09/1993 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified Site Name: High Street, Harlington Correspondence Address: Henry Streeter (Sand & Ballast) Limited, 66, Purley Way, Croydon, Surrey, CR9 4BD
Not shown	1472	NW	507900 177850	Site Address: Henry Streeter (Sand & Ballast) Limited, Imperial College, (south of) Sipson Lane, Harlington, Middlesex, UB7 0JG Type: Landfill taking Non-Biodegradable Wastes Size: >= 25000 tonnes < 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: STR004 EPR reference: - Operator: Henry Streeter (Sand & Ballast) Ltd Waste Management licence No: 80069 Annual Tonnage: 0.0 Issue Date: 05/06/1997 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Closure Site Name: "Imperial College, Harlington" Correspondence Address: Henry Streeter (Sand & Ballast) Limited, 66, Purley Way, Croydon, Surrey, CR9 4BD

ID	Distance (m)	Direction	NGR	Details
Not shown	1472	NW	507900 177850	Site Address: Henry Streeter (Sand & Ballast) Ltd, Imperial College, (south, Of) Sipson Lane, Harlington, Middlesex, UB7 0JG Type: Landfill taking Non-Biodegradable Wastes Size: >= 25000 tonnes < 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: STR004 EPR reference: EA/EPR/AP3696NL/V002 Operator: Henry Streeter (Sand & Ballast) Ltd Waste Management licence No: 80069 Annual Tonnage: 360144.0 Issue Date: 05/06/1997 Effective Date: - Modified: 17/06/2014 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified Site Name: Imperial College, Harlington Correspondence Address: -
Not shown	1472	NW	507900 177850	Site Address: Henry Streeter (Sand & Ballast) Ltd, Imperial College, (south, Of) Sipson Lane, Harlington, Middlesex, UB7 0JG Type: Landfill taking Non-Biodegradable Wastes Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: STR004 EPR reference: EA/EPR/AP3696NL/V002 Operator: Henry Streeter (Sand & Ballast) Ltd Waste Management licence No: 80069 Annual Tonnage: 360144.0 Issue Date: 05/06/1997 Effective Date: - Modified: 17/06/2014 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified Site Name: Imperial College, Harlington Correspondence Address: -
Not shown	1472	NW	507900 177850	Site Address: Henry Streeter (Sand & Ballast) Limited, Imperial College, (south of) Sipson Lane, Harlington, Middlesex, UB7 0JG Type: Landfill taking Non-Biodegradable Wastes Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: STR004 EPR reference: - Operator: Henry Streeter (Sand & Ballast) Ltd Waste Management licence No: 80069 Annual Tonnage: 0.0 Issue Date: 05/06/1997 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Closure Site Name: "Imperial College, Harlington" Correspondence Address: Henry Streeter (Sand & Ballast) Limited, 66, Purley Way, Croydon, Surrey, CR9 4BD
Not shown	1472	NW	507900 177850	Site Address: Henry Streeter (Sand & Ballast) Ltd, Imperial College, (south, Of) Sipson Lane, Harlington, Middlesex, UB7 0JG Type: Landfill taking Non-Biodegradable Wastes Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: STR004 EPR reference: - Operator: Henry Streeter (Sand & Ballast) Ltd Waste Management licence No: 80069 Annual Tonnage: 360144.0 Issue Date: 05/06/1997 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Closure Site Name: Imperial College, Harlington Correspondence Address: Henry Streeter (Sand & Ballast) Ltd, 66, Purley Way, Croydon, Surrey, CR9 4BD

4. Current Land Use Map



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- | | | | | | |
|---|--------------------|---|--------------------------|--|---------------------------------|
|  | Site Outline |  | Current Industrial Sites |  | Electricity Transmission Cables |
|  | Search Buffers (m) |  | Petrol & Fuel Sites |  | Gas Transmission Pipelines |

4. Current Land Uses

4.1 Current Industrial Data

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

14

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

ID	Distance (m)	Direction	Company	NGR	Address	Activity	Category
1	5	N	Electricity Sub Station	509121 176992	UB3	Electrical Features	Infrastructure and Facilities
2	52	W	Electricity Sub Station	509041 176954	UB3	Electrical Features	Infrastructure and Facilities
3A	57	S	Electricity Sub Station	509111 176858	TW6	Electrical Features	Infrastructure and Facilities
4A	67	S	Electricity Sub Station	509108 176848	TW6	Electrical Features	Infrastructure and Facilities
5	88	N	Electricity Sub Station	509140 177075	UB3	Electrical Features	Infrastructure and Facilities
6	104	W	Electricity Sub Station	508990 176980	UB3	Electrical Features	Infrastructure and Facilities
7B	106	SW	Budget Rent A Car	509036 176826	Unit B Northrop Road, London Heathrow Airport, Hounslow, TW6 2QA	Vehicle Hire and Rental	Hire Services
8B	106	SW	Avis Rent A Car	509036 176825	Building 220, Northrop Road, London Heathrow Airport, Hounslow, TW6 2QA	Vehicle Hire and Rental	Hire Services
9	171	SE	Approach Lights	509322 176812	TW6	Aeronautical Features	Air
10	183	SE	Approach Lights	509365 176855	TW6	Aeronautical Features	Air
11	189	W	Electricity Sub Station	508904 176929	TW6	Electrical Features	Infrastructure and Facilities
12	227	W	Oscar Cars Heathrow	508866 176957	118, Bath Road, Harlington, Hayes, UB3 5AJ	Airlines and Airline Services	Transport, Storage and Delivery
13	239	S	Approach Lights	509219 176684	TW6	Aeronautical Features	Air
14	240	SW	Electricity Sub Station	508884 176797	TW6	Electrical Features	Infrastructure and Facilities

4.2 Petrol and Fuel Sites

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

1

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

ID	Distance (m)	Direction	NGR	Company	Address	LPG	Status
15	385	W	508719 176824	Prax	Heathrow North Diesel Automat, Newall Road, Newall Road, Cranford, Hounslow, Outer London, TW6 2RZ	No	Non-Retail

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:

0

Database searched and no data found.

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

Database searched and no data found.

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
WMGR-ARTDP	INFILLED GROUND	ARTIFICIAL DEPOSIT

5.2 Superficial Ground and Drift Geology

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

Lex Code	Description	Rock Type
LASI-XCZ	LANGLEY SILT MEMBER	CLAY AND SILT
TPGR-XSV	TAPLOW GRAVEL MEMBER	SAND AND GRAVEL

5.3 Bedrock and Solid Geology

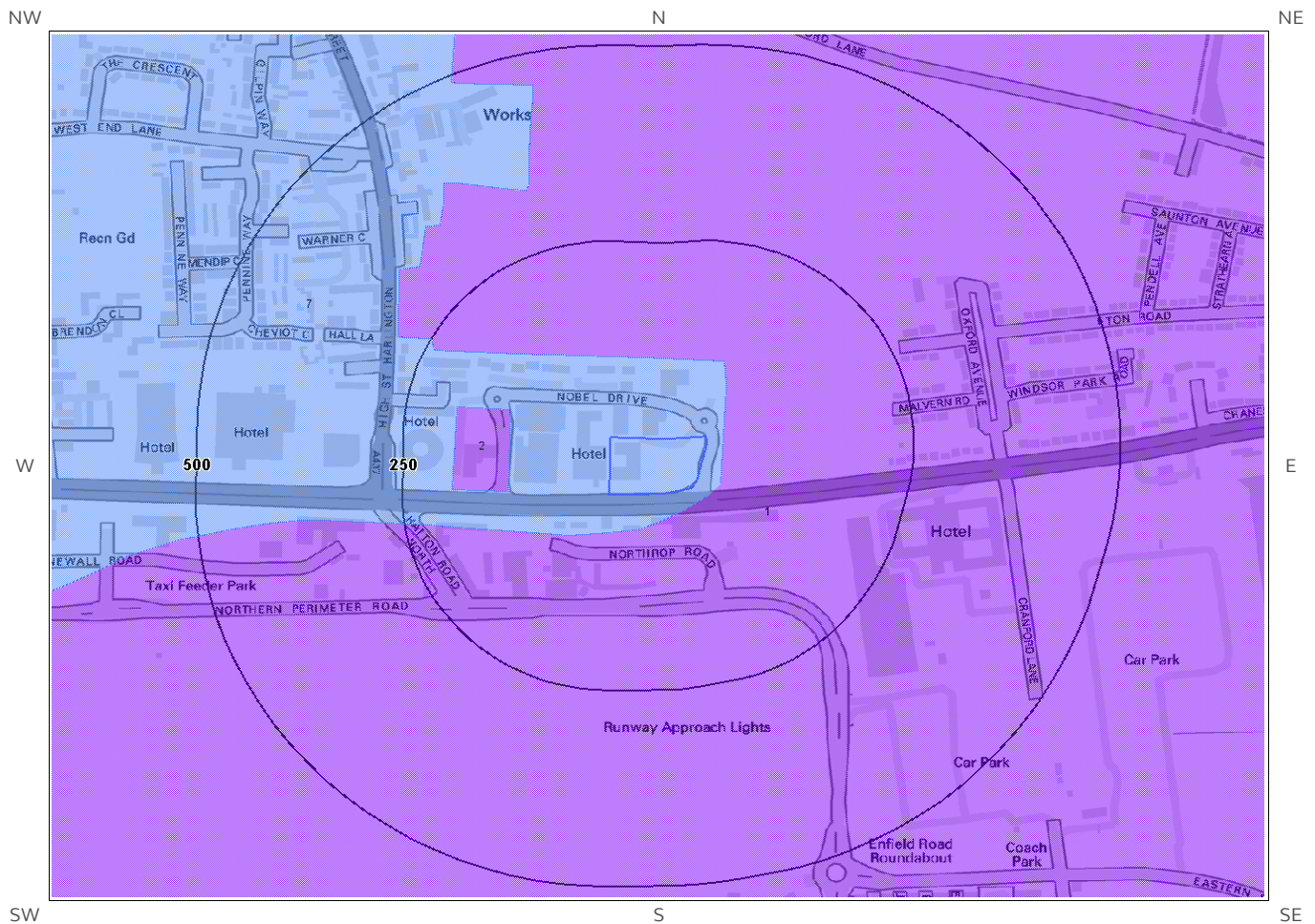
The database has been searched on site, including a 50m buffer.

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

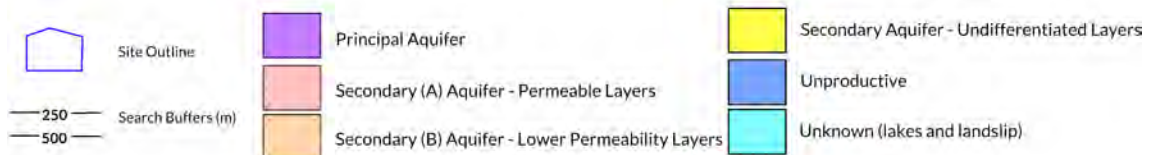
(Derived from the BGS 1:50,000 Digital Geological Map of Great Britain)

6 Hydrogeology and Hydrology

6a. Aquifer Within Superficial Geology



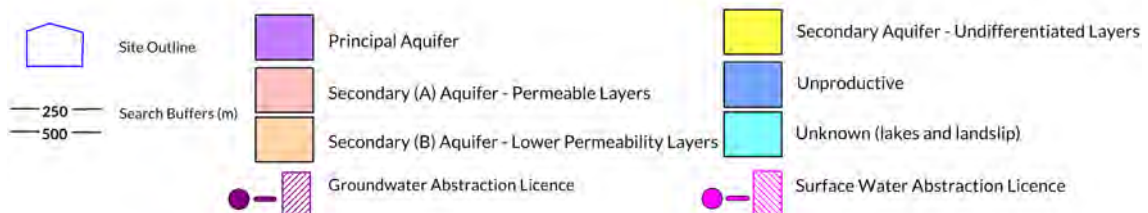
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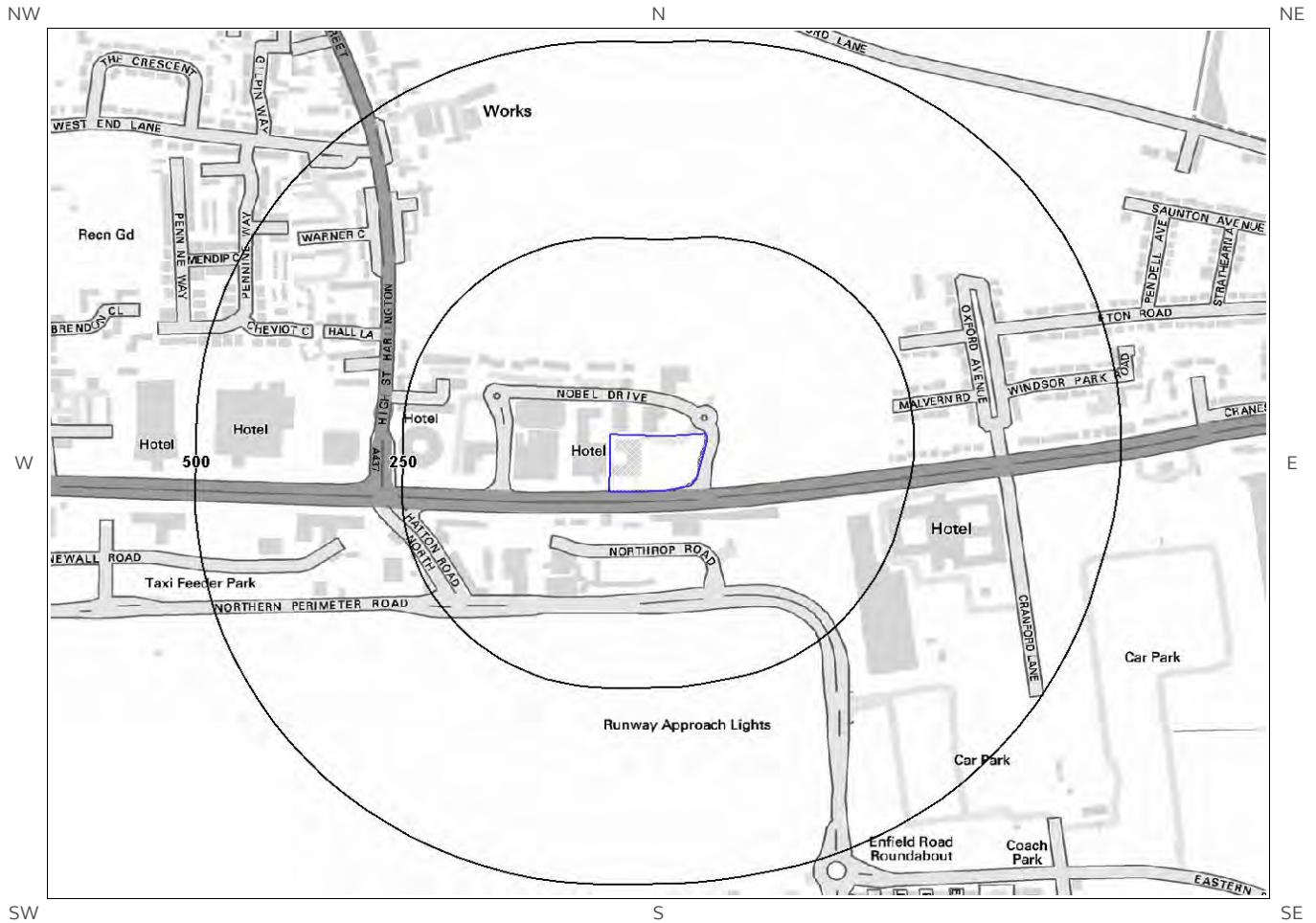
6b. Aquifer Within Bedrock Geology and Abstraction Licenses



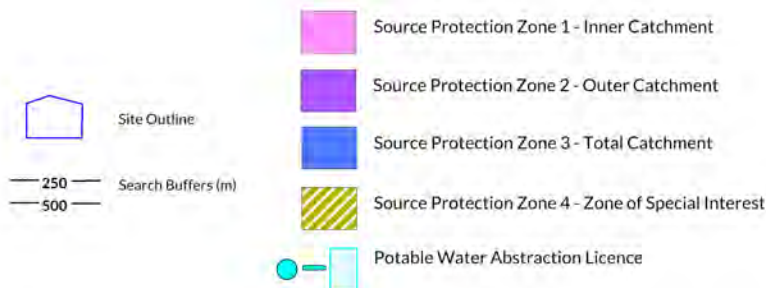
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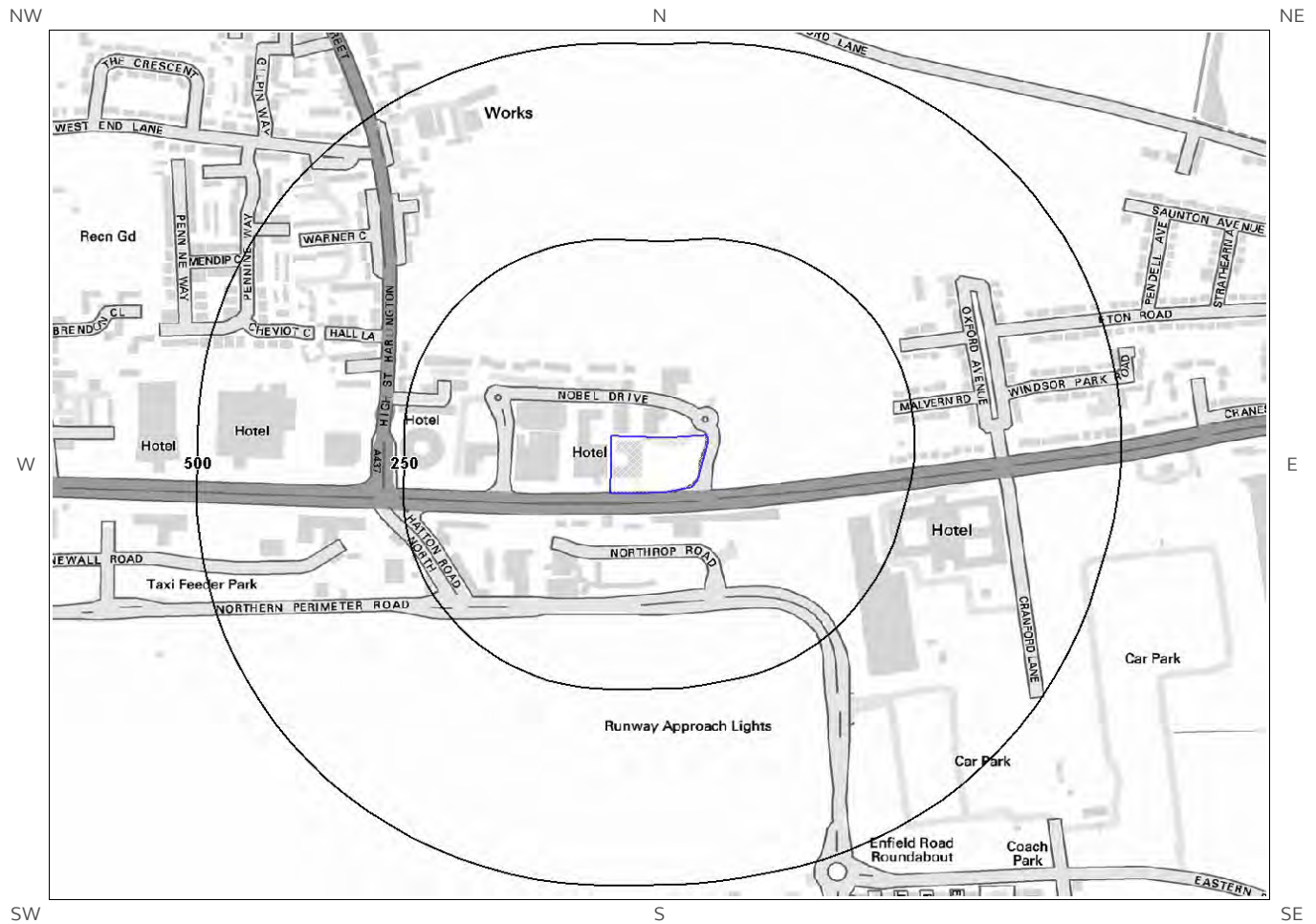
6c. Hydrogeology – Source Protection Zones and Potable Water Abstraction Licenses



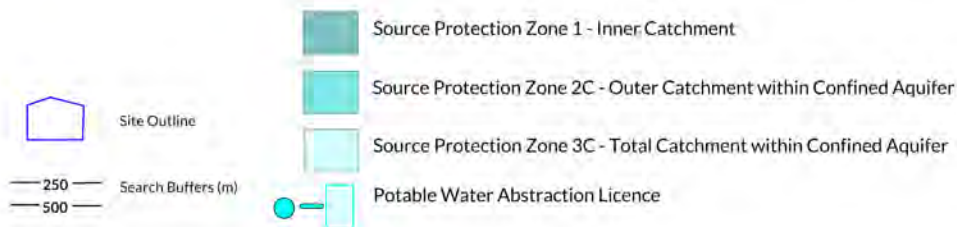
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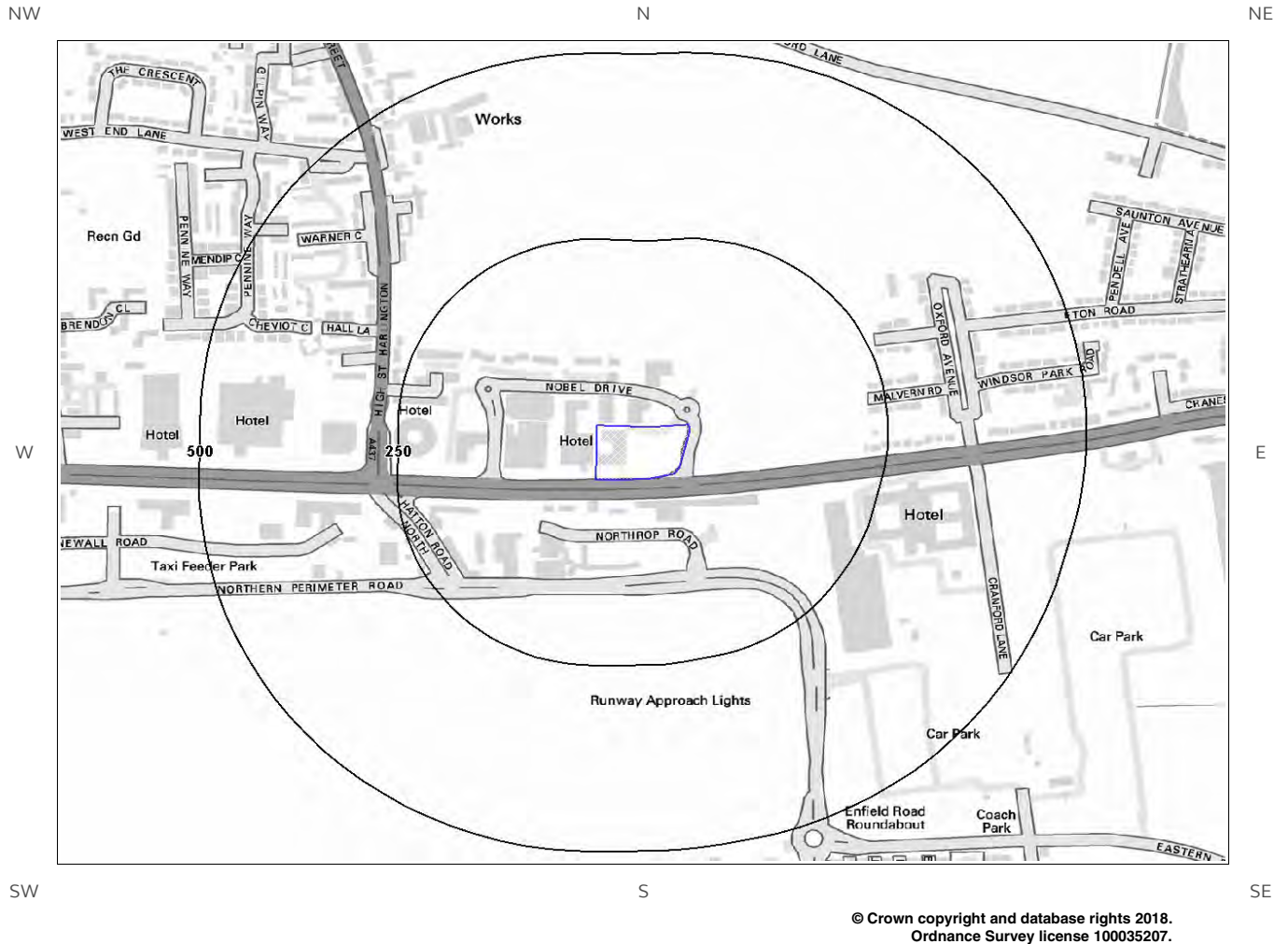
6d. Hydrogeology – Source Protection Zones within confined aquifer



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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	Distance (m)	Direction	Designation	Description
7	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
1	18	SE	Principal	Geology of high intergranular and/or fracture permeability, usually providing a high level of water storage and may support water supply/river base flow on a strategic scale. Generally principal aquifers were previously major aquifers
2	121	W	Principal	Geology of high intergranular and/or fracture permeability, usually providing a high level of water storage and may support water supply/river base flow on a strategic scale. Generally principal aquifers were previously major 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	Distance (m)	Direction	Designation	Description
1	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

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	Distance (m)	Direction	NGR	Details
3	148	SW	509000 176800	Status: Active Licence No: 28/39/36/0058 Details: Process Water Direct Source: Thames Groundwater Point: Borehole At Northrop Road, Heathrow Airport, Hounslow Data Type: Point Name: AVIS RENT A CAR LIMITED Annual Volume (m³): 10980 Max Daily Volume (m³): 30 Original Application No: - Original Start Date: 1/3/1993 Expiry Date: - Issue No: 100 Version Start Date: 1/4/2008 Version End Date:
4	266	SE	509410 176770	Status: Historical Licence No: 28/39/36/0063 Details: Process water Direct Source: Thames Groundwater Point: Argonaut House, Bath Road, Hayes-Borehole A Data Type: Point Name: Q-PARK LIMITED Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: - Original Start Date: 16/12/1998 Expiry Date: 31/12/2008 Issue No: 101 Version Start Date: 13/12/2002 Version End Date:
5	329	SE	509500 176800	Status: Historical Licence No: 28/39/36/0063 Details: Process water Direct Source: Thames Groundwater Point: Argonaut House, Hayes - Borehole Data Type: Point Name: BUDGET RENT A CAR INTERNATIONAL Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: WRA/N/1036 Original Start Date: 16/12/1998 Expiry Date: 31/12/2008 Issue No: 100 Version Start Date: 16/12/1998 Version End Date:
Not shown	1029	N	509400 178000	Status: Active Licence No: 28/39/36/0060 Details: Mineral Washing Direct Source: Thames Groundwater Point: Wet Pit At High Street, Harlington, Middlesex Data Type: Point Name: HENRY STREETER (SAND & BALLAST) LIMITED Annual Volume (m³): 649318 Max Daily Volume (m³): 2455 Original Application No: NPS/WR/022090 Original Start Date: 6/12/1994 Expiry Date: - Issue No: 102 Version Start Date: 22/2/2016 Version End Date:
Not shown	1399	S	509650 175600	Status: Historical Licence No: 28/39/36/0068 Details: Pollution Remediation Direct Source: Thames Groundwater Point: Boreholes At Heathrow Airport, Elmdon Road, Hatton Cross Data Type: Point Name: CELTIC TECHNOLOGIES LTD Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: WRA/N/1169 Original Start Date: 4/6/2001 Expiry Date: 31/05/2002 Issue No: 1 Version Start Date: 4/6/2001 Version End Date:
Not shown	1508	W	507590 177105	Status: Active Licence No: TH/039/0036/017 Details: General Use Relating To Secondary Category (Medium Loss) Direct Source: Thames Groundwater Point: Borehole At Park Inn Hotel, Bath Road Data Type: Point Name: Park Hotel Heathrow Limited Annual Volume (m³): 43800 Max Daily Volume (m³): 120 Original Application No: NPS/WR/022592 Original Start Date: 29/9/2016 Expiry Date: 31/3/2025 Issue No: 1 Version Start Date: 29/9/2016 Version End Date:

ID	Distance (m)	Direction	NGR	Details
Not shown	1620	SE	510600 176120	Status: Historical Licence No: 28/39/36/0071 Details: Pollution Remediation Direct Source: Thames Groundwater Point: Heathrow Estate, Hounslow- Point A Data Type: Point Name: BRIXTON PLC Annual Volume (m³): 61488 Max Daily Volume (m³): 168 Original Application No: WRA/N/1314 Original Start Date: 23/12/2003 Expiry Date: 31/12/2006 Issue No: 1 Version Start Date: 23/12/2003 Version End Date:
Not shown	1862	NW	507600 178100	Status: Active Licence No: 28/39/36/0059 Details: Mineral Washing Direct Source: Thames Groundwater Point: Wet Pit At Sipson Lane, Harmondsworth Data Type: Point Name: Harleyford Aggregates Limited Annual Volume (m³): 649318 Max Daily Volume (m³): 2455 Original Application No: NPS/WR/022219 Original Start Date: 6/12/1994 Expiry Date: - Issue No: 102 Version Start Date: 18/4/2016 Version End Date:
Not shown	1926	E	511100 176600	Status: Historical Licence No: 28/39/36/0035 Details: Spray Irrigation - Direct Direct Source: Thames Groundwater Point: Borehole At Rectory Farm, Bath Road, Cranford Data Type: Point Name: BARWICK Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: - Original Start Date: 11/10/1971 Expiry Date: - Issue No: 100 Version Start Date: 29/9/1995 Version End Date:
Not shown	1927	E	511110 176650	Status: Historical Licence No: 28/39/36/0035 Details: Spray Irrigation - Direct Direct Source: Thames Groundwater Point: Borehole At Rectory Farm, Bath Road, Cranford Data Type: Point Name: BARWICK Annual Volume (m³): 6818 Max Daily Volume (m³): 262 Original Application No: - Original Start Date: 11/10/1971 Expiry Date: - Issue No: 100 Version Start Date: 27/7/2001 Version End Date:
Not shown	1961	SW	507663 175573	Status: Active Licence No: TH/039/0028/007 Details: General Use Relating To Secondary Category (High Loss) Direct Source: Thames Groundwater Point: Heathrow Airport - Borehole C Data Type: Point Name: HEATHROW AIRPORT LIMITED Annual Volume (m³): 706000 Max Daily Volume (m³): 3197 Original Application No: NPS/WR/014700 Original Start Date: 13/2/2010 Expiry Date: 31/12/2019 Issue No: 2 Version Start Date: 29/4/2014 Version End Date:
Not shown	1961	SW	507663 175573	Status: Active Licence No: TH/039/0028/007 Details: Evaporative Cooling Direct Source: Thames Groundwater Point: Heathrow Airport - Borehole C Data Type: Point Name: HEATHROW AIRPORT LIMITED Annual Volume (m³): 706000 Max Daily Volume (m³): 3197 Original Application No: NPS/WR/014700 Original Start Date: 13/2/2010 Expiry Date: 31/12/2019 Issue No: 2 Version Start Date: 29/4/2014 Version End Date:
Not shown	1961	SW	507663 175573	Status: Historical Licence No: TH/039/0028/007 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Thames Groundwater Point: Heathrow Airport - Borehole C Data Type: Point Name: HEATHROW AIRPORT LIMITED Annual Volume (m³): 706000 Max Daily Volume (m³): 3197 Original Application No: NPS/WR/014700 Original Start Date: 13/2/2010 Expiry Date: 31/12/2019 Issue No: 2 Version Start Date: 29/4/2014 Version End Date:

6.4 Surface Water Abstraction Licences

Surface Water Abstraction Licences within 2000m of the study site

None identified

Database searched and no data found.

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	Distance (m)	Direction	NGR	Details
Not shown	1961	SW	507663 175573	Status: Historical Licence No: TH/039/0028/007 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Thames Groundwater Point: Heathrow Airport - Borehole C Data Type: Point Name: HEATHROW AIRPORT LIMITED Annual Volume (m³): 706000 Max Daily Volume (m³): 3197 Original Application No: NPS/WR/014700 Original Start Date: 13/2/2010 Expiry Date: 31/12/2019 Issue No: 2 Version Start Date: Version End Date:

6.6 Source Protection Zones

Source Protection Zones within 500m of the study site

None identified

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

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.

Database searched and no data found.

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	Major 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.
109	N	Major Aquifer/Intermediate Leaching Potential	I1	Soils which can possibly transmit a wide range of pollutants.

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

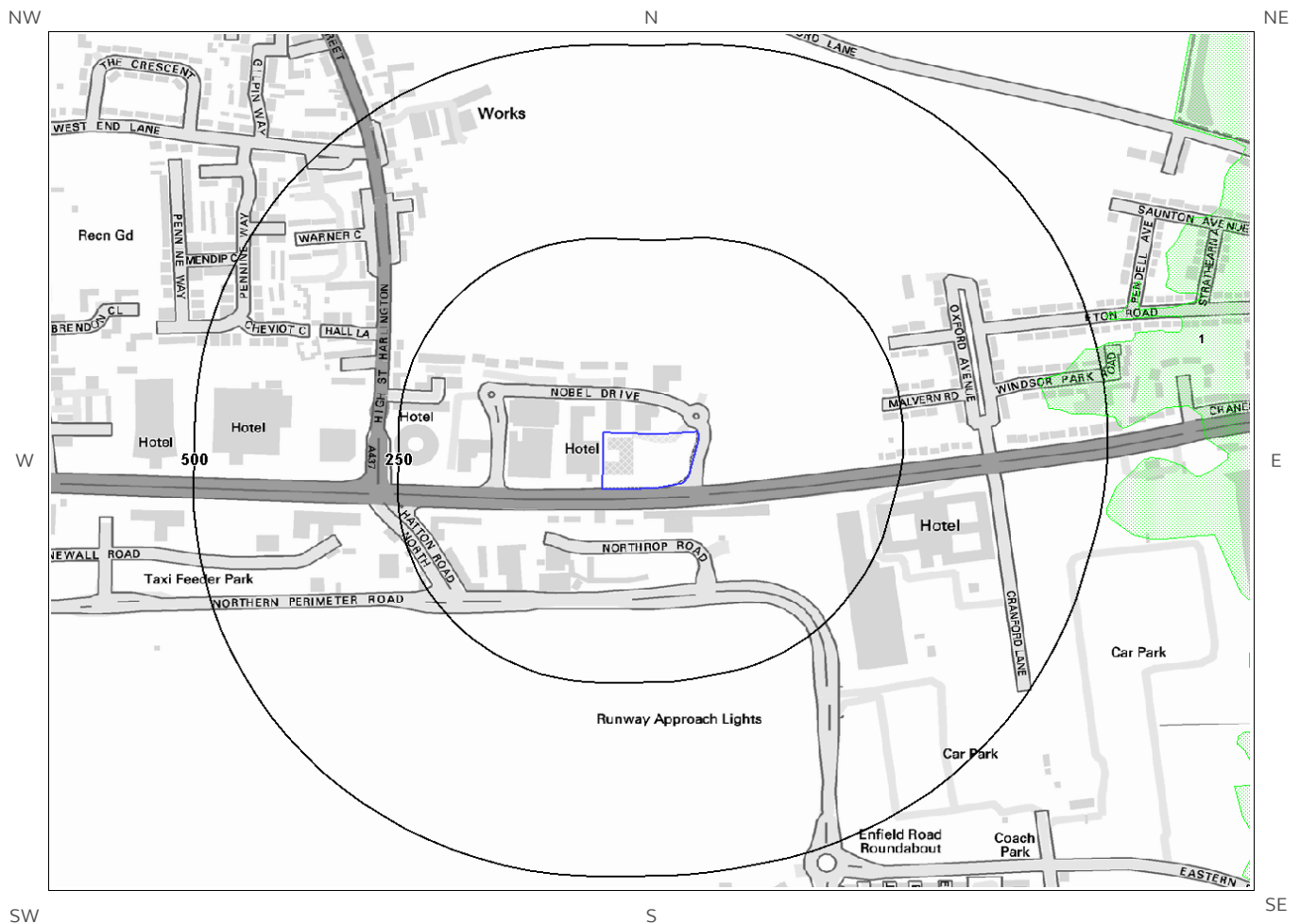
Database searched and no data found.

6.11 Surface Water Features

Surface water features within 250m of the study site None identified

Database searched and no data found.

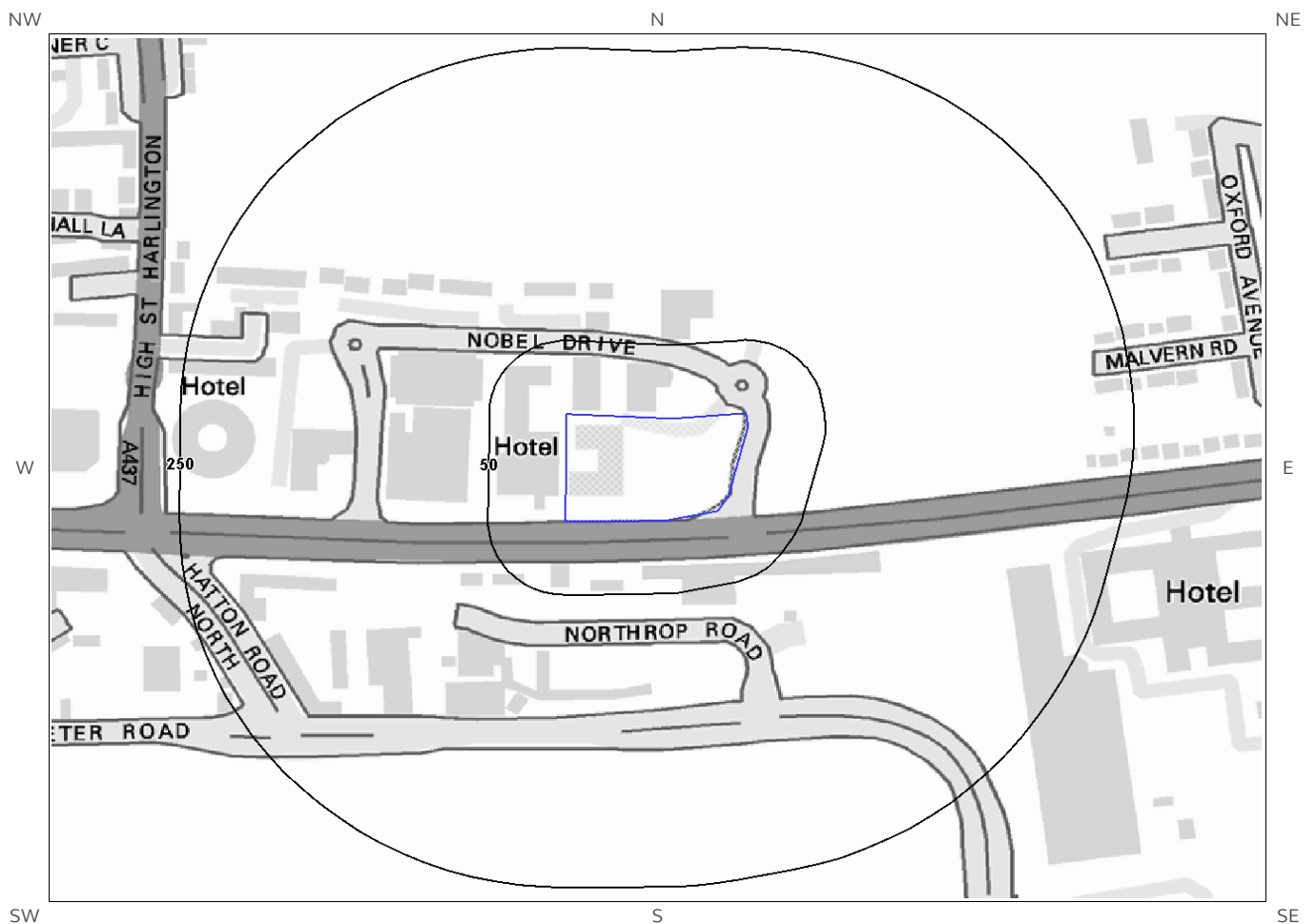
7a. Environment Agency/Natural Resources Wales Flood Map for Planning (from rivers and the sea)



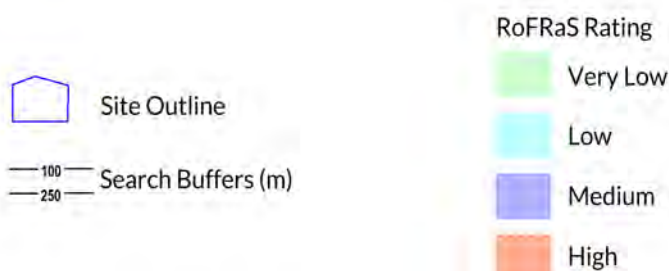
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7b. Environment Agency/Natural Resources Wales Risk of Flooding from Rivers and the Sea (RoFRaS) Map



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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 Very Low

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 None identified
Database searched and no data found.

7.5 Areas benefiting from Flood Defences

Areas benefiting from Flood Defences within 250m of the study site None identified

7.6 Areas benefiting from Flood Storage

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

None identified

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

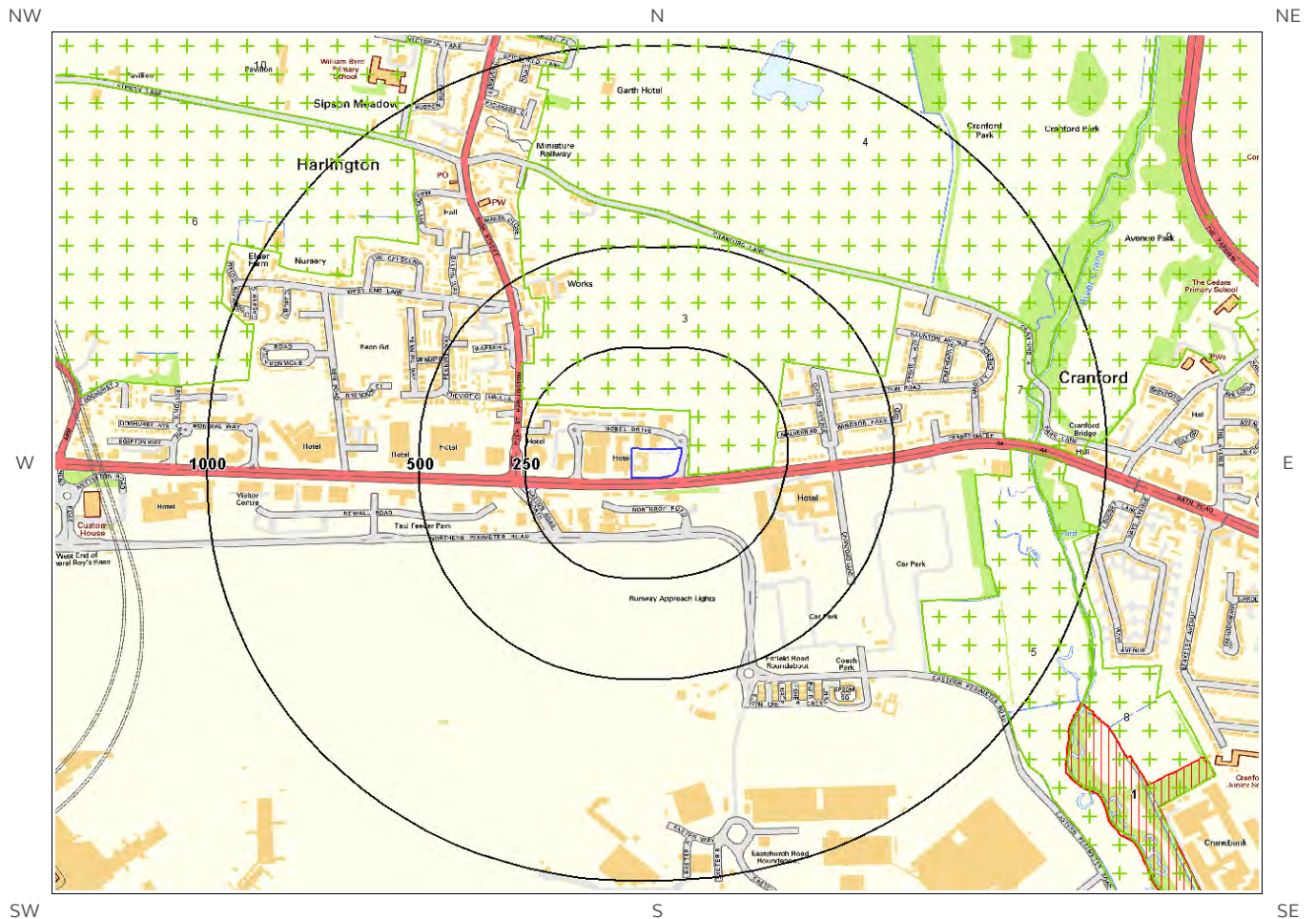
British Geological Survey confidence rating in this result

Moderate

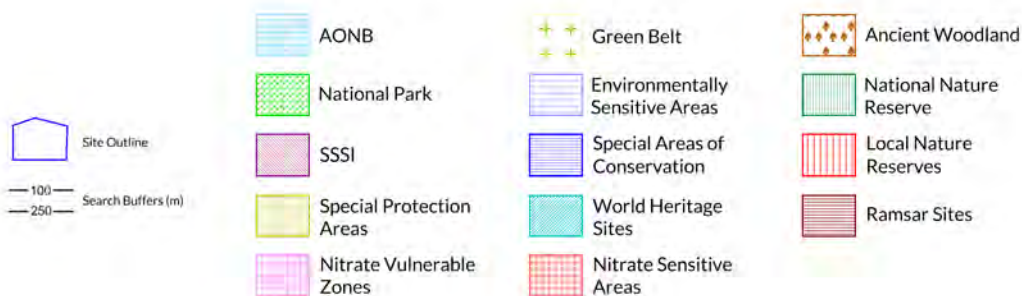
Notes: Groundwater flooding is defined as the emergence of groundwater at the ground surface or the rising of groundwater into man-made ground under conditions where the normal range of groundwater levels is exceeded.

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



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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:

0

Database searched and no data found.

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

0

Database searched and no data found.

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

0

Database searched and no data found.

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

0

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:

0

Database searched and no data found.

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

1

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	1113	SE	Cranebank	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:

0

Database searched and no data found.

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

0

Database searched and no data found.

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

0

Database searched and no data found.

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

1

The following Nitrate Vulnerable Zone records produced by DEFRA are represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance (m)	Direction	NVZ Name	Data Source
Not shown	1801	W	Existing	DEFRA

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

16

Green Belt data contains Ordnance Survey data © Crown copyright and database right [2015].

ID	Distance	Direction	Green Belt Name	Local Authority Name
3	16	E	London Area Greenbelt	Hillingdon London Boro
4	533	N	London Area Greenbelt	Hillingdon London Boro
5	661	SE	London Area Greenbelt	Hillingdon London Boro
6	715	NW	London Area Greenbelt	Hillingdon London Boro
7	756	E	London Area Greenbelt	Hillingdon London Boro
8	824	E	London Area Greenbelt	Hounslow London Boro
9	827	E	London Area Greenbelt	Hounslow London Boro
10	935	NW	London Area Greenbelt	Hillingdon London Boro
Not shown	1376	N	London Area Greenbelt	Hillingdon London Boro
Not shown	1385	N	London Area Greenbelt	Hillingdon London Boro
Not shown	1463	N	London Area Greenbelt	Hillingdon London Boro
Not shown	1625	W	London Area Greenbelt	Hillingdon London Boro
Not shown	1630	NW	London Area Greenbelt	Hillingdon London Boro
Not shown	1650	S	London Area Greenbelt	Hounslow London Boro
Not shown	1872	W	London Area Greenbelt	Hillingdon London Boro
Not shown	1897	NW	London Area Greenbelt	Hillingdon London Boro

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 Very Low

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

Hazard
Ground conditions predominantly low plasticity. No special actions required to avoid problems due to shrink-swell clays. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with shrink-swell clays.

9.1.2 Landslides

Maximum Landslide* hazard rating identified on the study site Very Low

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

Hazard
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.

9.1.3 Soluble Rocks

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

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

Hazard
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.

9.1.4 Compressible Ground

Maximum Compressible Ground* hazard rating identified on the study site

Moderate

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

Hazard
Significant potential for compressibility problems. Avoid large differential loadings of ground. Do not drain or de-water ground near the property without technical advice. For new build consider possibility of compressible ground in ground investigation, construction and building design. Consider effects of groundwater changes. Extra construction costs are likely. For existing property possible increase in insurance risk from compressibility, especially if water conditions or loading of the ground change significantly.

9.1.5 Collapsible Rocks

Maximum Collapsible Rocks* hazard rating identified on the study site

Low

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

Hazard
Slight possibility for collapsible deposit problems after major changes in loading or groundwater conditions. Normal maintenance to avoid large amounts of water entering the ground through pipe leakage or soak-aways should reduce the likelihood of problems due to collapsible deposits. For new build, assess the possibility of collapsible (loessic) deposits in ground investigation. For existing property, no significant increase in insurance risk from collapsible deposits is likely.

9.1.6 Running Sand

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

Very Low

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.

* This indicates an automatically generated 50m buffer and site.

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

None identified

Database searched and no data found.

10.2 Non-Coal Mining

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

None identified

Database searched and no data found.

10.3 Brine Affected Areas

Brine affected areas within 75m of the study site

None identified

Guidance: No Guidance Required.

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
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Web: www.environment-agency.gov.uk

Email: enquiries@environment-agency.gov.uk

Public Health England

Public information access office
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133-155 Waterloo Road, London, SE1 8UG
www.gov.uk/phe

Email: enquiries@phe.gov.uk
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www.coal.gov.uk

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Local Authority

Authority: London Borough of Hillingdon
Phone: 01895 250 111

Web: <http://www.hillingdon.gov.uk/>

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Gemapping PLC

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Hampshire RG27 8NW
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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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<https://www.groundsure.com/terms-and-conditions-may25-2018>

Phlorum

Unit 12, Hunns Mere Way,
Woodingdean, BN2 6AH

Groundsure Reference: GS-5201747

Your Reference: 8127

Report Date 6 Jul 2018

Report Delivery Method: Email - pdf

Geo Insight

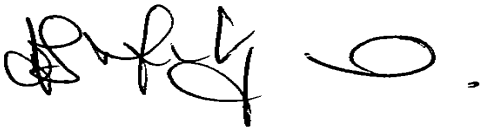
Address: Status Park, HEATHROW, UB3 5EY

Dear Sir/ Madam,

Thank you for placing your order with Groundsure. Please find enclosed the **Groundsure Geo Insight** as requested.

If you need any further assistance, please do not hesitate to contact our helpline on 08444 159000 quoting the above Groundsure reference number.

Yours faithfully,



Managing Director
Groundsure Limited

Enc.
Groundsure Geo Insight

Address: Status Park, HEATHROW, UB3 5EY

Date: 6 Jul 2018

Reference: GS-5201747

Client: Phlorum



Aerial Photograph Capture date: 20-Apr-2015

Grid Reference: 509139,176969

Site Size: 0.78ha

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Overview of Findings

The Groundsure Geo Insight provides high quality geo-environmental information that allows geo-environmental professionals and their clients to make informed decisions and be forewarned of potential ground instability problems that may affect the ground investigation, foundation design and possibly remediation options that could lead to possible additional costs.

The report is based on the BGS 1:50,000 and 1:10,000 Digital Geological Map of Great Britain, BGS Geosure data; BRITPITS database; Non-coal mining data and Borehole Records, Coal Authority data including brine extraction areas, PBA non-coal mining and natural cavities database, Johnson Poole and Bloomer mining data and Groundsure's unique database including historical surface ground and underground workings.

For further details on each dataset, please refer to each individual section in the 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: Geology 1:10,000 Scale

1.1 Artificial Ground	1.1 Is there any Artificial Ground/ Made Ground present beneath the study site at 1:10,000 scale?	Yes
1.2 Superficial Geology and Landslips	1.2.1 Is there any Superficial Ground/Drift Geology present beneath the study site at 1:10,000 scale?*	Yes
	1.2.2 Are there any records of landslide within 500m of the study site boundary at 1:10,000 scale?	No
1.3 Bedrock, Solid Geology and linear features	1.3.1 For records of Bedrock and Solid Geology beneath the study site* see the detailed findings section.	
	1.3.2 Are there any records of linear features within 500m of the study site boundary at 1:10,000 scale?	No

Section 2: Geology 1:50,000 Scale

2.1 Artificial Ground	2.1.1 Is there any Artificial Ground/ Made Ground present beneath the study site?	Yes
	2.1.2 Are there any records relating to permeability of artificial ground within the study site*boundary?	Yes
2.2 Superficial Geology and Landslips	2.2.1 Is there any Superficial Ground/Drift Geology present beneath the study site?*	Yes
	2.2.2 Are there any records of permeability of superficial ground within 500m of the study site?	Yes
	2.2.3 Are there any records of landslide within 500m of the study site boundary?	No
	2.2.4 Are there any records relating to permeability of landslips within the study site* boundary?	No

Section 2: Geology 1:50,000 Scale

2.3 Bedrock, Solid Geology and linear features

2.3.1 For records of Bedrock and Solid Geology beneath the study site* see the detailed findings section.

2.3.2 Are there any records relating to permeability of bedrock ground within the study site boundary?

Yes

2.3.3 Are there any records of linear features within 500m of the study site boundary?

No

Section 3: Radon

3. Radon

3.1 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 property is not in a Radon Affected Area, as less than 1% of properties are above the Action Level.

3.2 Radon Protection

No radon protective measures are necessary.

Section 4: Ground Workings

	On-site	0-50m	51-250	251-500	501-1000
4.1 Historical Surface Ground Working Features from Small Scale Mapping	0	0	16	Not Searched	Not Searched
4.2 Historical Underground Workings from Small Scale Mapping	0	0	0	0	0
4.3 Current Ground Workings	0	0	0	1	3

Section 5: Mining, Extraction & Natural Cavities

	On-site	0-50m	51-250	251-500	501-1000
5.1 Historical Mining	0	0	0	0	0
5.2 Coal Mining	0	0	0	0	0
5.3 Johnson Poole and Bloomer Mining Area	0	0	0	0	0
5.4 Non-Coal Mining*	0	0	0	0	0
5.5 Non-Coal Mining Cavities	0	0	0	0	0
5.5 Natural Cavities	0	0	0	0	0

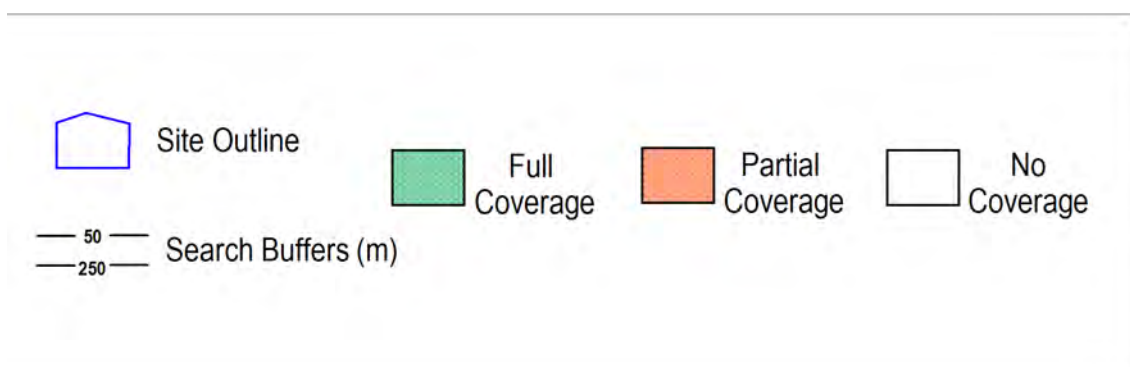
Section 5: Mining, Extraction & Natural Cavities	On-site	0-50m	51-250	251-500	501-1000
5.6 Brine Extraction	0	0	0	0	0
5.7 Gypsum Extraction	0	0	0	0	0
5.8 Tin Mining	0	0	0	0	0
5.9 Clay Mining	0	0	0	0	0
Section 6: Natural Ground Subsidence	On-site				
6.1 Shrink-Swell Clay	Very Low				
6.2 Landslides	Very Low				
6.3 Ground Dissolution of Soluble Rocks	Negligible				
6.4 Compressible Deposits	Moderate				
6.5 Collapsible Deposits	Low				
6.5 Running Sand	Very Low				
Section 7: Borehole Records	On-site	0-50m	51-250		
7 BGS Recorded Boreholes	0	1	17		
Section 8: Estimated Background Soil Chemistry	On-site	0-50m	51-250		
8 Records of Background Soil Chemistry	1	5	0		
Section 9: Railways and Tunnels	On-site	0-50m	51-250	250-500	
9.1 Tunnels	0	0	0	Not Searched	
9.2 Historical Railway and Tunnel Features	0	0	0	Not Searched	
9.3 Historical Railways	0	0	0	Not Searched	
9.4 Active Railways	0	0	0	Not Searched	
9.5 Railway Projects	0	0	0	0	

1:10,000 Scale Availability



1_10,000 Availability Legend

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Availability of 1:10,000 Scale Geology Mapping

The following information represents the availability of the key components of the 1:10,000 scale geological data.

ID	Distance	Artificial Coverage	Superficial Coverage	Bedrock Coverage	Mass Movement Coverage
1	0.0	Some deposits are mapped	Full	Full	No coverage
2	789.0	Some deposits are mapped	Full	Full	No coverage
N3	1915.0	Some deposits are mapped	Full	Full	No coverage

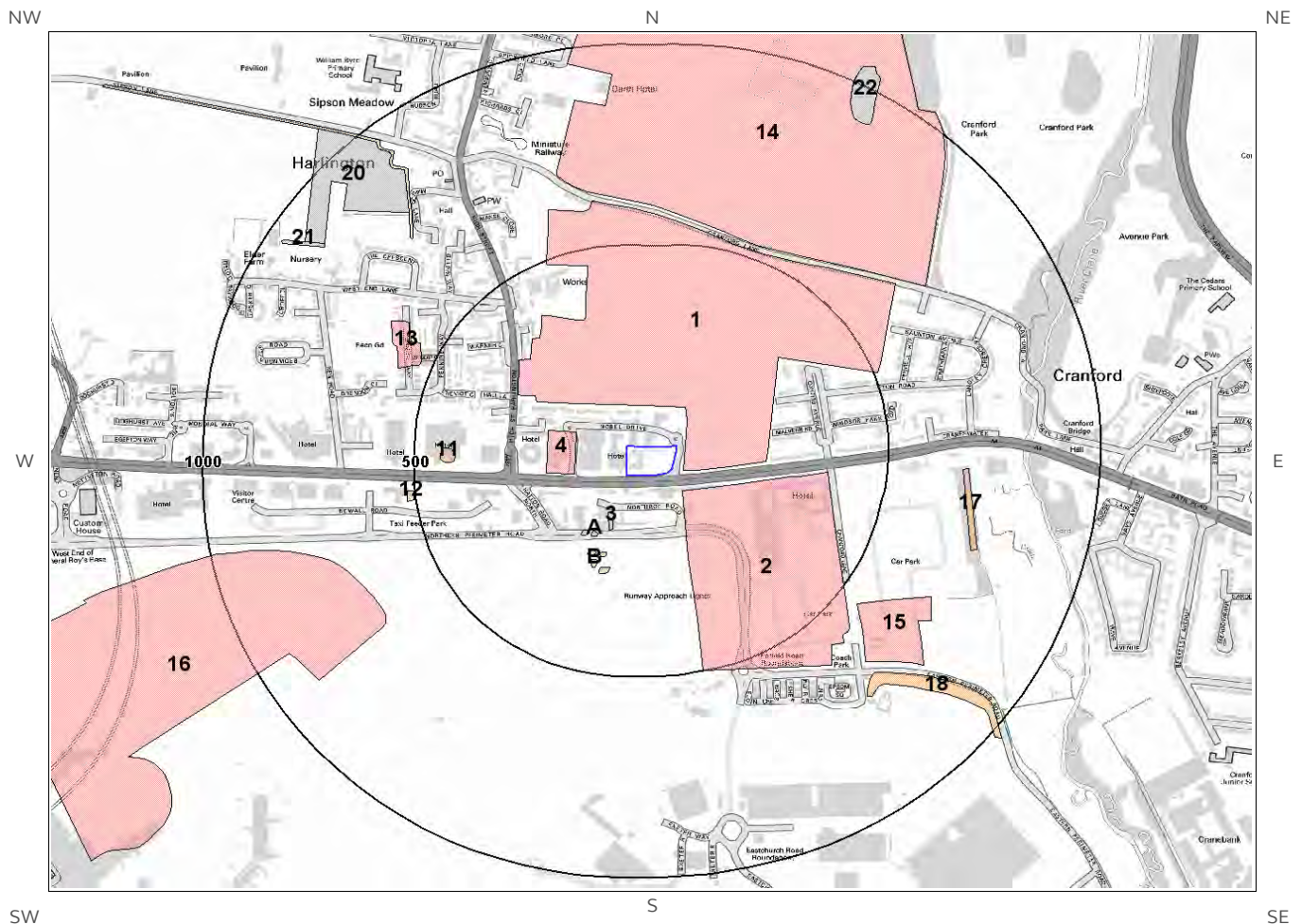
Guidance: The 1:10,000 scale geological interpretation is the most detailed generally available from BGS and is the scale at which most geological surveying is carried out in the field. The database is presented as four types of geology (artificial, mass movement, superficial and bedrock), although not all themes are mapped or available on every map sheet. Therefore a coverage layer showing the availability of the four themes is presented above.

The definitions of coverage are as follows:

Geology	Full Coverage	Partial Coverage	No Coverage
Bedrock	The whole tile has been mapped	Some but not all the tile has been mapped	No coverage
Superficial	The whole tile has been mapped	Some but not all of the tile has been mapped	No coverage
Artificial	Some deposits are mapped on this tile	-	No deposits are mapped
Mass Movement	Some deposits are mapped on this tile	-	No coverage

1 Geology (1:10,000 scale).

1.1 Artificial Ground map (1:10,000 scale)



Artificial Ground Legend

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1. Geology 1:10,000 scale

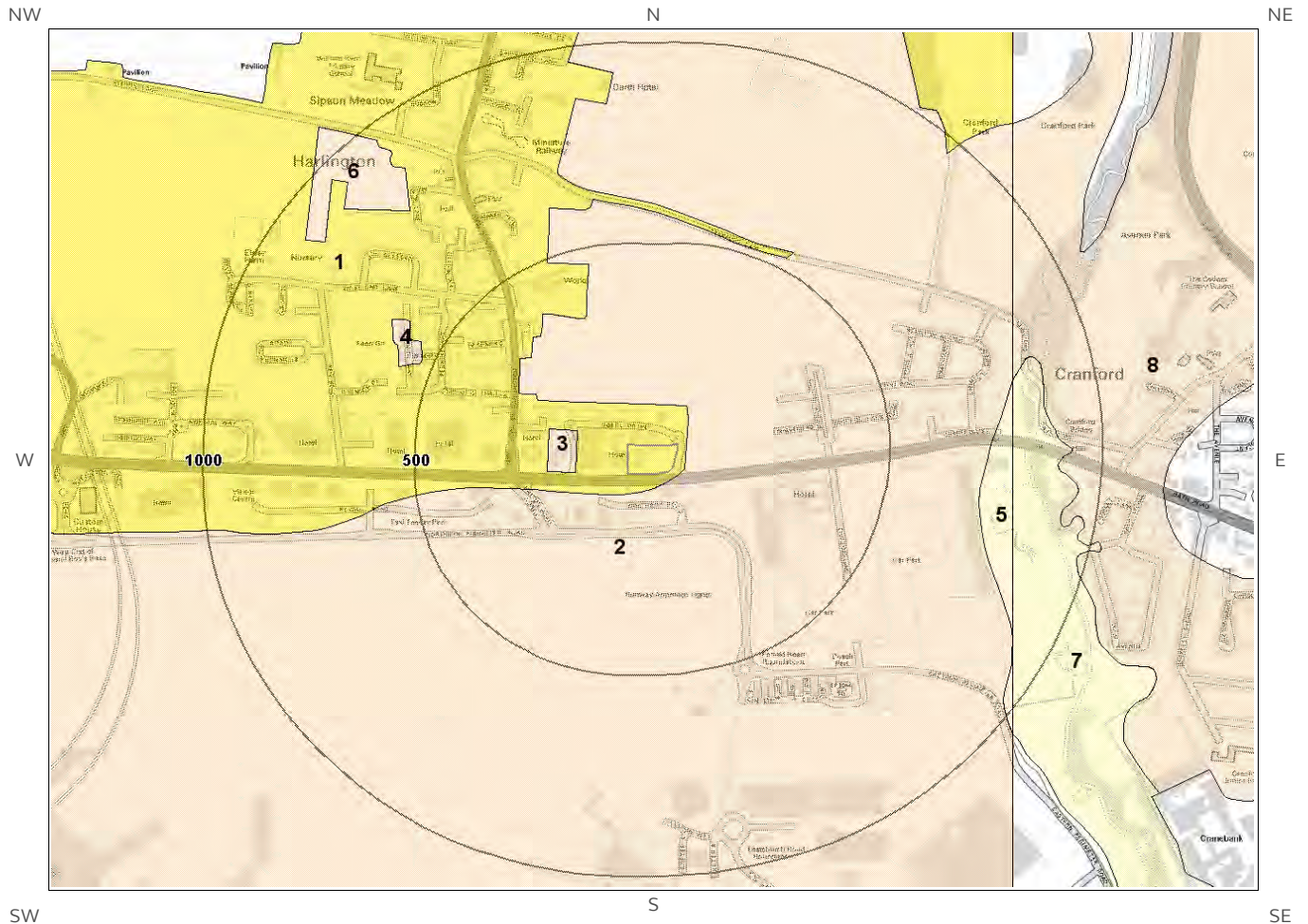
1.1 Artificial Ground

The following geological information represented on the mapping is derived from 1:10,000 scale BGS Geological mapping.

Are there any records of Artificial/ Made Ground within 500m of the study site boundary at 1:10,000 scale? Yes

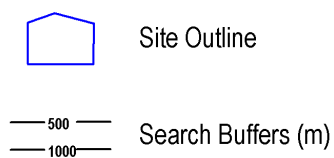
ID	Distance	Direction	LEX Code	Description	Rock Description
1	19.0	E	WMGR-UNKNOWN	Infilled Ground	Unknown/unclassified Entry
2	55.0	SE	WMGR-UNKNOWN	Infilled Ground	Unknown/unclassified Entry
3	97.0	S	MGR-UNKNOWN	Made Ground (Undivided)	Unknown/unclassified Entry
4	121.0	W	WMGR-UNKNOWN	Infilled Ground	Unknown/unclassified Entry
5A	157.0	SW	MGR-UNKNOWN	Made Ground (Undivided)	Unknown/unclassified Entry
6A	164.0	SW	MGR-UNKNOWN	Made Ground (Undivided)	Unknown/unclassified Entry
7A	196.0	S	MGR-UNKNOWN	Made Ground (Undivided)	Unknown/unclassified Entry
8A	200.0	S	MGR-UNKNOWN	Made Ground (Undivided)	Unknown/unclassified Entry
9B	220.0	S	MGR-UNKNOWN	Made Ground (Undivided)	Unknown/unclassified Entry
10B	230.0	S	MGR-UNKNOWN	Made Ground (Undivided)	Unknown/unclassified Entry
11	404.0	W	MGR-UNKNOWN	Made Ground (Undivided)	Unknown/unclassified Entry

1.2 Superficial Deposits and Landslips map (1:10,000 scale)



Artificial Ground Legend

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1.2 Superficial Deposits and Landslips

The following geological information represented on the mapping is derived from 1:10,000 scale BGS Geological mapping

1.2.1 Superficial Deposits/ Drift Geology

Are there any records of Superficial Deposits/ Drift Geology within 500m of the study site boundary at 1:10,000 scale? Yes

ID	Distance (m)	Direction	LEX Code	Description	Rock Description
1	0.0	On Site	LASI-Z	Langley Silt Member - Silt (unlithified Deposits Coding Scheme)	Silt
2	18.0	SE	TPGR-XSV	Taplow Gravel Formation - Sand And Gravel	Sand And Gravel
3	121.0	W	TPGR-XSV	Taplow Gravel Formation - Sand And Gravel	Sand And Gravel

1.2.2 Landslip

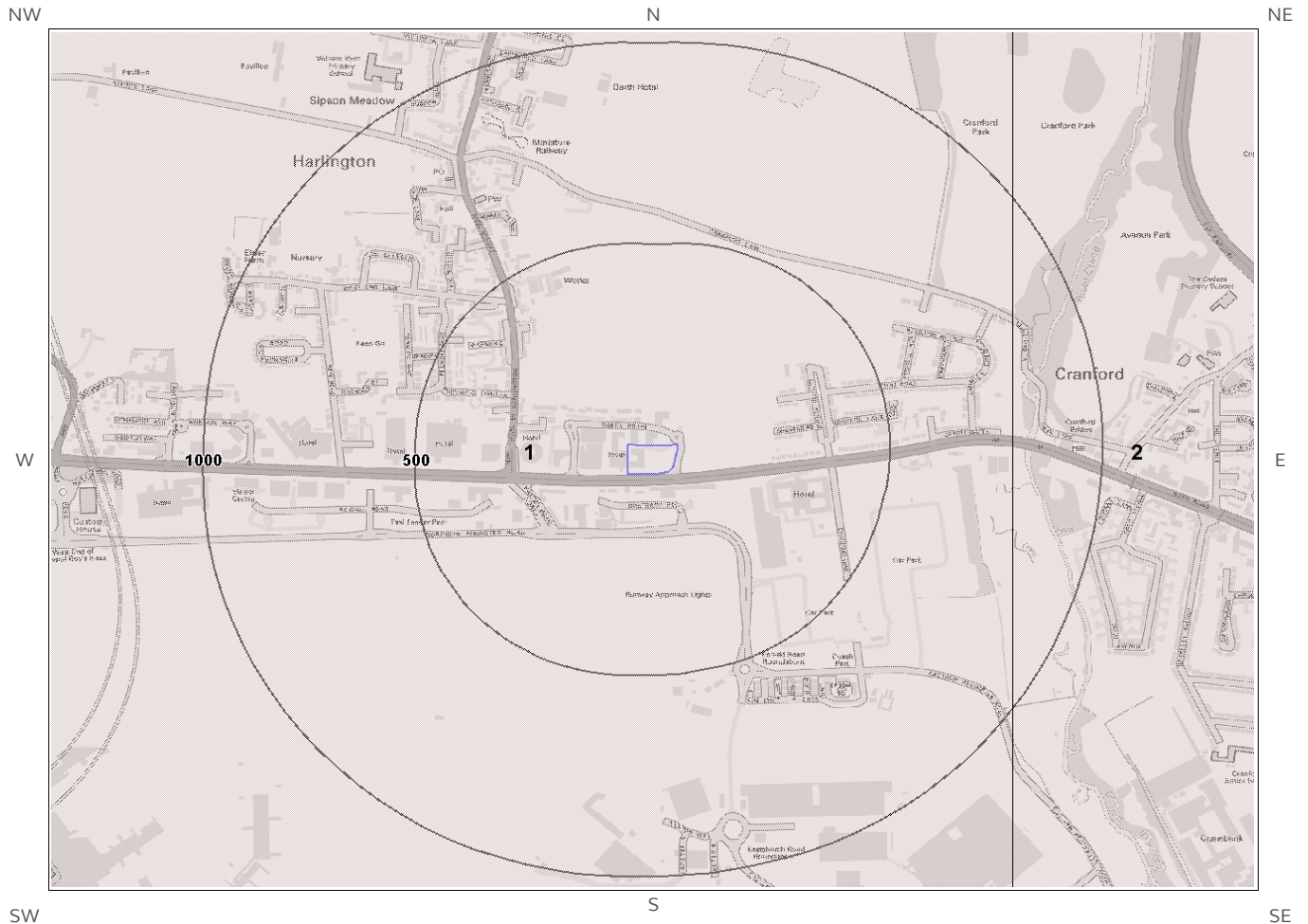
Are there any records of Landslip within 500m of the study site boundary at 1:10,000 scale? No

Database searched and no data found.

The geology map for the site and surrounding area are extracted from the BGS Digital Geological Map of Great Britain at 1:10,000 scale

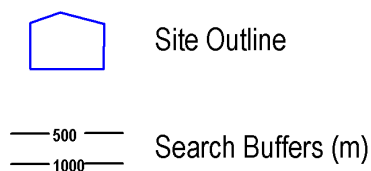
This Geology shows the main components as discrete layers, these are: Artificial / Made Ground, Superficial / Drift Geology and Landslips. These are all displayed with the BGS Lexicon code for the rock unit and BGS sheet number. Not all of the main geological components have nationwide coverage.

1.3 Bedrock and linear features map (1:10,000 scale)



Bedrock and linear features Legend

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1.3 Bedrock and linear features

The following geological information represented on the mapping is derived from 1:10,000 scale BGS Geological mapping.

1.3.1 Bedrock/ Solid Geology

Records of Bedrock/Solid Geology within 500m of the study site boundary at 1:10,000 scale.

ID	Distance (m)	Direction	LEX Code	Description	Rock Age
1	0.0	On Site	LC-CLAY	London Clay Formation - Clay	Eocene Epoch

1.3.2 Linear features

Are there any records of linear features within 500m of the study site boundary at 1:10,000 scale? No

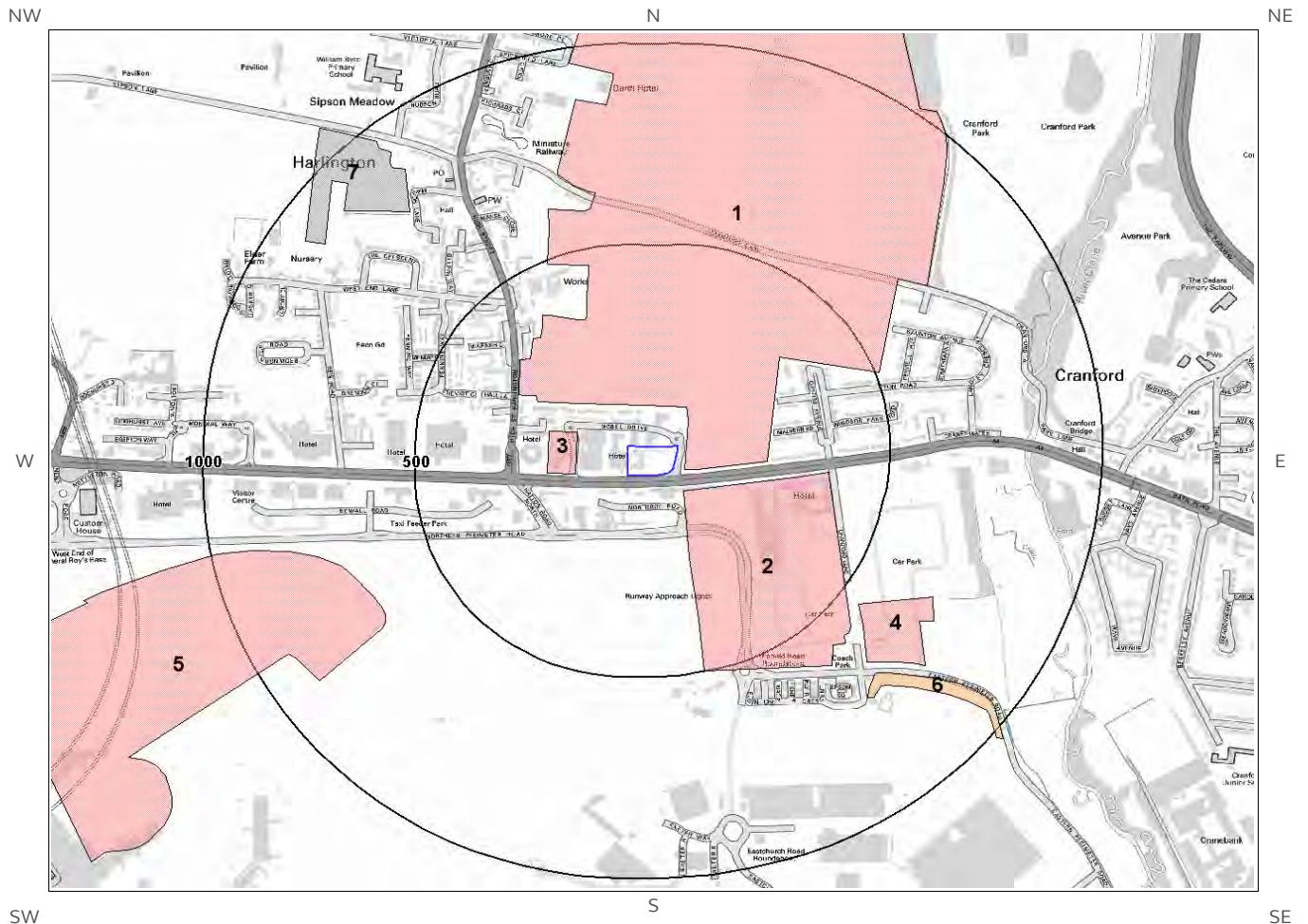
Database searched and no data found at this scale.

The geology map for the site and surrounding area are extracted from the BGS Digital Geological Map of great Britain at 1:10,000 scale.

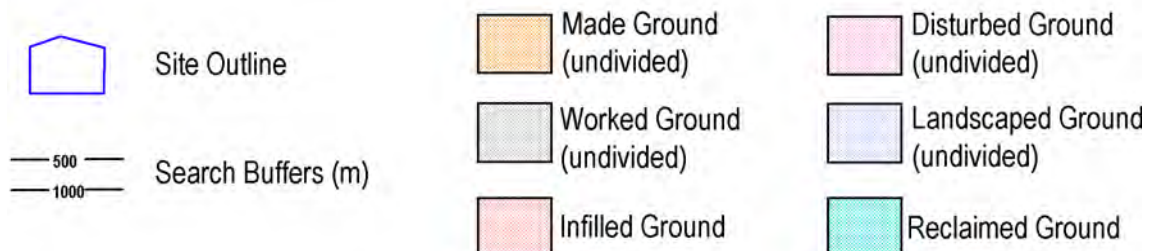
This Geology shows the main components as discrete layers, these are: Bedrock/ Solid Geology and linear features such as faults. These are all displayed with the BGS Lexicon code for the rock unit and BGS sheet number. Not all of the main geological components have nationwide coverage.

2 Geology 1:50,000 Scale

2.1 Artificial Ground map



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2. Geology 1:50,000 scale

2.1 Artificial Ground

The following geological information represented on the mapping is derived from 1:50,000 scale BGS Geological mapping, Sheet No: 269

2.1.1 Artificial/ Made Ground

Are there any records of Artificial/ Made Ground within 500m of the study site boundary? Yes

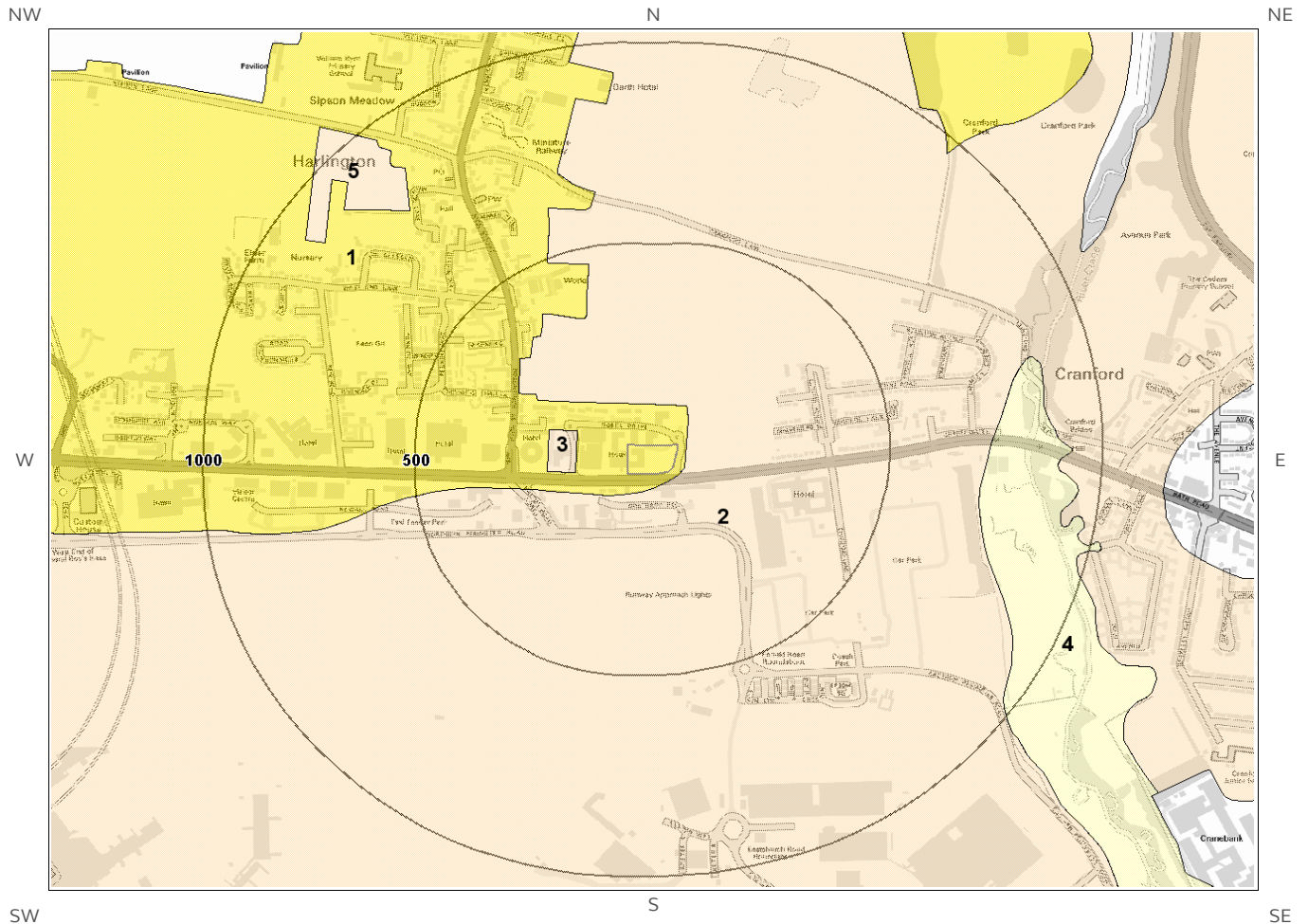
ID	Distance (m)	Direction	LEX Code	Description	Rock Description
1	18.0	E	WMGR-ARTDP	INFILLED GROUND	ARTIFICIAL DEPOSIT
2	55.0	SE	WMGR-ARTDP	INFILLED GROUND	ARTIFICIAL DEPOSIT
3	121.0	W	WMGR-ARTDP	INFILLED GROUND	ARTIFICIAL DEPOSIT

2.1.2 Permeability of Artificial Ground

Are there any records relating to permeability of artificial ground within the study site boundary? Yes

Distance (m)	Direction	Flow Type	Maximum Permeability	Minimum Permeability
18.0	E	Mixed	Very High	Low

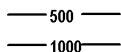
2.2 Superficial Deposits and Landslips map (1:50,000 scale)



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Site Outline



Search Buffers (m)

2.2 Superficial Deposits and Landslips

2.2.1 Superficial Deposits/ Drift Geology

Are there any records of Superficial Deposits/ Drift Geology within 500m of the study site boundary? Yes

ID	Distance	Direction	LEX Code	Description	Rock Description
1	0.0	On Site	LASI-XCZ	LANGLEY SILT MEMBER	CLAY AND SILT
2	18.0	SE	TPGR-XSV	TAPLOW GRAVEL MEMBER	SAND AND GRAVEL
3	121.0	W	TPGR-XSV	TAPLOW GRAVEL MEMBER	SAND AND GRAVEL

2.2.2 Permeability of Superficial Ground

Are there any records relating to permeability of superficial ground within the study site boundary? Yes

Distance (m)	Direction	Flow Type	Maximum Permeability	Minimum Permeability
0.0	On Site	Mixed	Low	Very Low
18.0	SE	Intergranular	Very High	High

2.2.3 Landslip

Are there any records of Landslip within 500m of the study site boundary? No

Database searched and no data found.

The geology map for the site and surrounding area are extracted from the BGS Digital Geological Map of Great Britain at 1:50,000 scale.

This Geology shows the main components as discrete layers, there are: Artificial/ Made Ground, Superficial/ Drift Geology and Landslips. These are all displayed with the BGS Lexicon code for the rock unit and BGS sheet number. Not all of the main geological components have nationwide coverage.

2.2.4 Landslip Permeability

Are there any records relating to permeability of landslips within the study site boundary? No

Database searched and no data found.

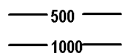
2.3 Bedrock and linear features map (1:50,000 scale)



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Site Outline



Search Buffers (m)

2.3 Bedrock, Solid Geology & linear features

The following geological information represented on the mapping is derived from 1:50,000 scale BGS Geological mapping, Sheet No: 269

2.3.1 Bedrock/Solid Geology

Records of Bedrock/Solid Geology within 500m of the study site boundary:

ID	Distance	Direction	LEX Code	Rock Description	Rock Age
1	0.0	On Site	LC-XCZS	LONDON CLAY FORMATION - CLAY, SILT AND SAND	YPRESIAN

2.3.2 Permeability of Bedrock Ground

Are there any records relating to permeability of bedrock ground within the study site boundary? Yes

Distance	Direction	Flow Type	Maximum Permeability	Minimum Permeability
0.0	On Site	Mixed	Moderate	Very Low

2.3.3 Linear features

Are there any records of linear features within 500m of the study site boundary? No

Database searched and no data found.

The geology map for the site and surrounding area are extracted from the BGS Digital Geological Map of Great Britain at 1:50,000 scale.

This Geology shows the main components as discrete layers, these are: Bedrock/Solid Geology and linear features such as faults. These are all displayed with the BGS Lexicon code for the rock unit and BGS sheet number. Not all of the main geological components have nation wide coverage.

3 Radon Data

3.1 Radon Affected Areas

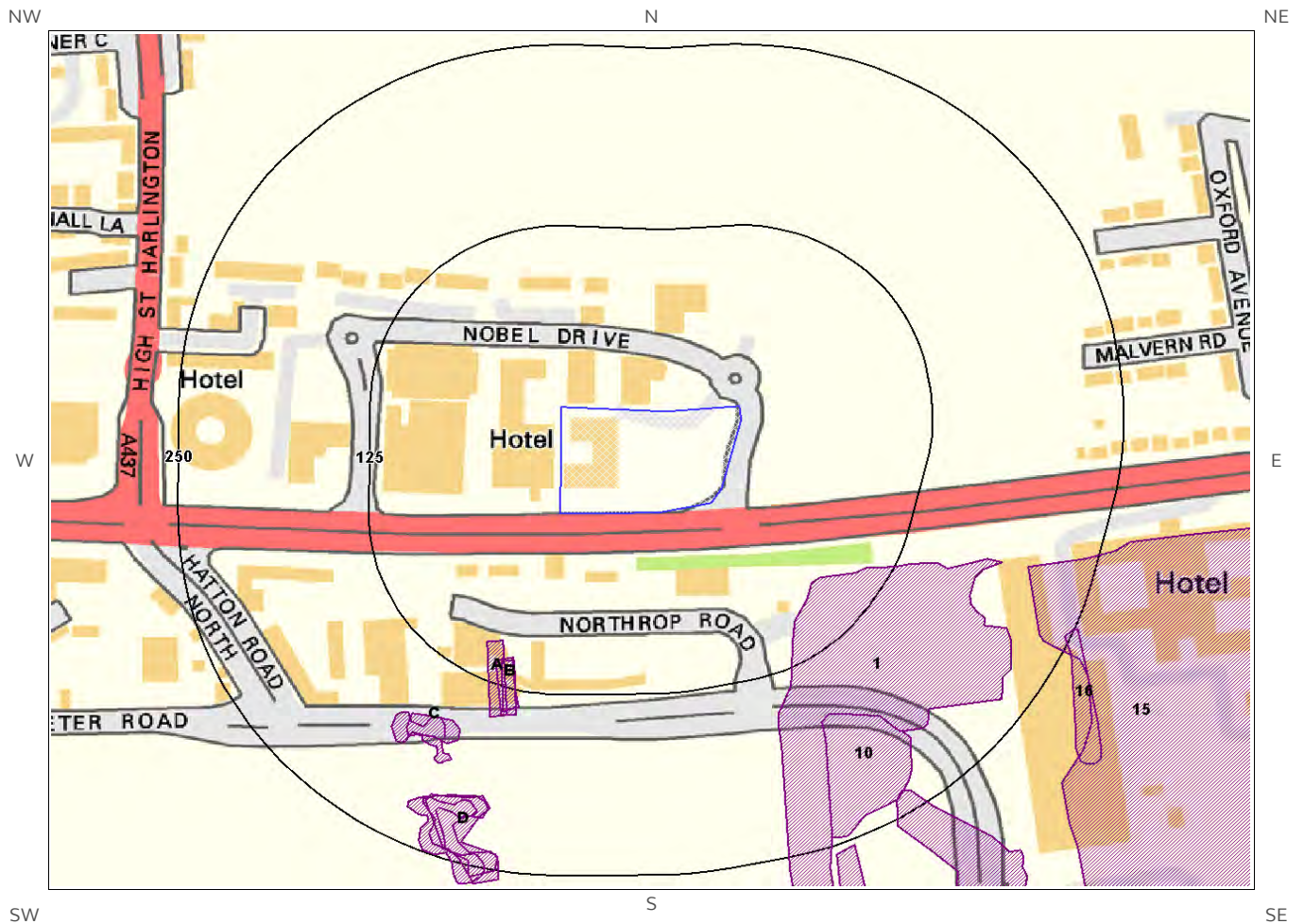
Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level? The property is not in a Radon Affected Area, as less than 1% of properties are above the Action Level.

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.

3.2 Radon Protection

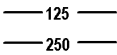
Is the property in an area where Radon Protection are required for new properties or extensions to existing ones as described in publication BR211 by the Building Research Establishment? No radon protective measures are necessary.

4 Ground Workings map



Ground Workings Legend

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- | | | | |
|---|--------------------|---|----------------------------------|
|  | Site Outline |  | Historic Surface Ground Workings |
|  | Search Buffers (m) |  | Historic Underground Workings |
| | |  | Current Ground Workings |

4 Ground Workings

4.1 Historical Surface Ground Working Features derived from Historical Mapping

This dataset is based on Groundsure's unique Historical Land Use Database derived from 1:10,560 and 1:10,000 scale historical mapping

Are there any Historical Surface Ground Working Features within 250m of the study site boundary? Yes

ID	Distance (m)	Direction	NGR	Use	Date
1	86.0	SE	509256 176699	Pond	1932
2A	95.0	SW	509052 176801	Pond	1865
3B	104.0	S	509060 176797	Pond	1912
4A	106.0	S	509057 176795	Pond	1932
5B	106.0	S	509057 176795	Pond	1912
6A	106.0	S	509057 176795	Pond	1938
7A	106.0	S	509057 176795	Pond	1894
8C	159.0	SW	509010 176767	Ponds	1912
9C	161.0	SW	508989 176760	Ponds	1865
10	165.0	SE	509294 176734	Gravel Pit	1932
11D	202.0	S	509026 176702	Ponds	1912
12D	202.0	S	509016 176692	Ponds	1894
13D	202.0	S	509016 176692	Ponds	1912
14D	207.0	S	509009 176689	Ponds	1865
15	208.0	E	509285 176685	Refuse Heap	1938
16	246.0	SE	509435 176788	Unspecified Pit	1865

4.2 Historical Underground Working Features derived from Historical Mapping

This data is derived from the Groundsure unique Historical Land Use Database. It contains data derived from 1:10,000 and 1:10,560 historical Ordnance Survey Mapping and includes some natural topographical features (Shake Holes for example) as well as manmade features that may have implications for ground stability. Underground and mining features have been identified from surface features such as shafts. The distance that these extend underground is not shown.

Are there any Historical Underground Working Features within 1000m of the study site boundary? No

Database searched and no data found.

4.3 Current Ground Workings

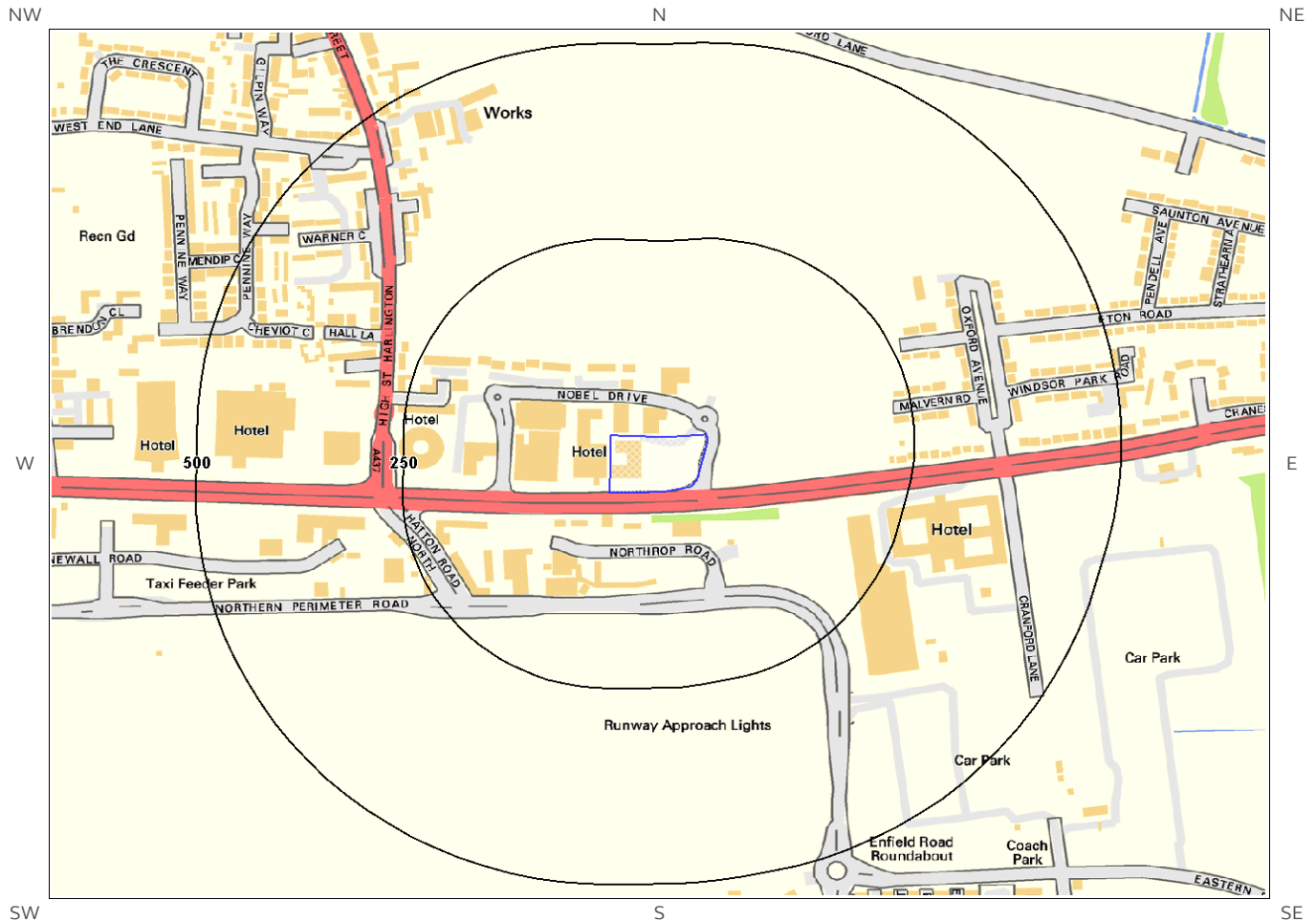
This dataset is derived from the BGS BRITPITS database covering active; inactive mines; quarries; oil wells; gas wells and mineral wharves; and rail deposits throughout the British Isles.

Are there any BGS Current Ground Workings within 1000m of the study site boundary? Yes

The following Current Ground Workings information is provided by British Geological Survey:

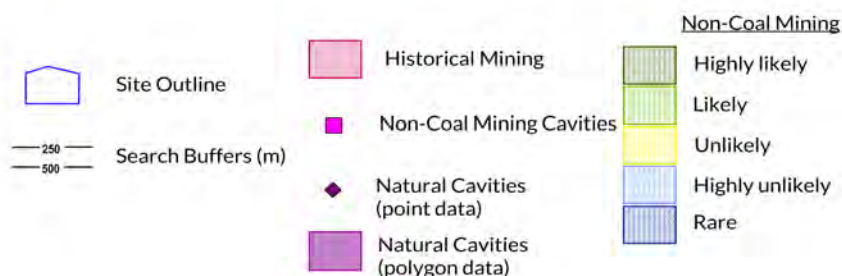
ID	Distance (m)	Direction	NGR	Commodity Produced	Pit Name	Type of working	Status
Not shown	272.0	N	509100 177260	Sand & Gravel	Cranford Lane South	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	931.0	NW	508465 177675	Sand & Gravel	Manor Farm Gravel Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	940.0	NW	508363 177580	Sand & Gravel	Manor Farm Gravel Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	956.0	N	509500 177900	Sand & Gravel	Cranford Lane	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased

5 Mining, Extraction & Natural Cavities map



Mining, Extraction and Natural Cavities Legend

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5 Mining, Extraction & Natural Cavities

5.1 Historical Mining

This dataset is derived from Groundsure unique Historical Land-use Database that are indicative of mining or extraction activities.

Are there any Historical Mining areas within 1000m of the study site boundary? No

Database searched and no data found.

5.2 Coal Mining

This dataset provides information as to whether the study site lies within a known coal mining affected area as defined by the coal authority.

Are there any Coal Mining areas within 1000m of the study site boundary? No

Database searched and no data found.

5.3 Johnson Poole and Bloomer

This dataset provides information as to whether the study site lies within an area where JPB hold information relating to mining.

Are there any JPB Mining areas within 1000m of the study site boundary? No

The following information provided by JPB is not represented on mapping: Database searched and no data found.

5.4 Non-Coal Mining

This dataset provides information as to whether the study site lies within an area which may have been subject to non-coal historic mining.

Are there any Non-Coal Mining areas within 1000m of the study site boundary? No

Database searched and no data found.

5.5 Non-Coal Mining Cavities

This dataset provides information from the Peter Brett Associates (PBA) mining cavities database (compiled for the national study entitled “Review of mining instability in Great Britain, 1990” PBA has also continued adding to this database) on mineral extraction by mining.

Are there any Non-Coal Mining cavities within 1000m of the study site boundary? No

Database searched and no data found.

5.6 Natural Cavities

This dataset provides information based on the Peter Brett Associates natural cavities database. The dataset is made up of points and polygons. Where polygons are used these represent an area in which it is expected the cavities could be found. It does not indicate that cavities are present everywhere within the polygon, and caution should be used in the interpretation of this data.

Are there any Natural Cavities within 1000m of the study site boundary? No

Database searched and no data found.

5.7 Brine Extraction

This data provides information from the Coal Authority issued on behalf of the Cheshire Brine Subsidence Compensation Board.

Are there any Brine Extraction areas within 1000m of the study site boundary? No

Database searched and no data found.

5.8 Gypsum Extraction

This dataset provides information on Gypsum extraction from British Gypsum records.

Are there any Gypsum Extraction areas within 1000m of the study site boundary? No

Database searched and no data found.

5.9 Tin Mining

This dataset provides information on tin mining areas and is derived from tin mining records. This search is based upon postcode information to a sector level..

Are there any Tin Mining areas within 1000m of the study site boundary? No

Database searched and no data found.

5.10 Clay Mining

This dataset provides information on Kaolin and Ball Clay mining from relevant mining records.

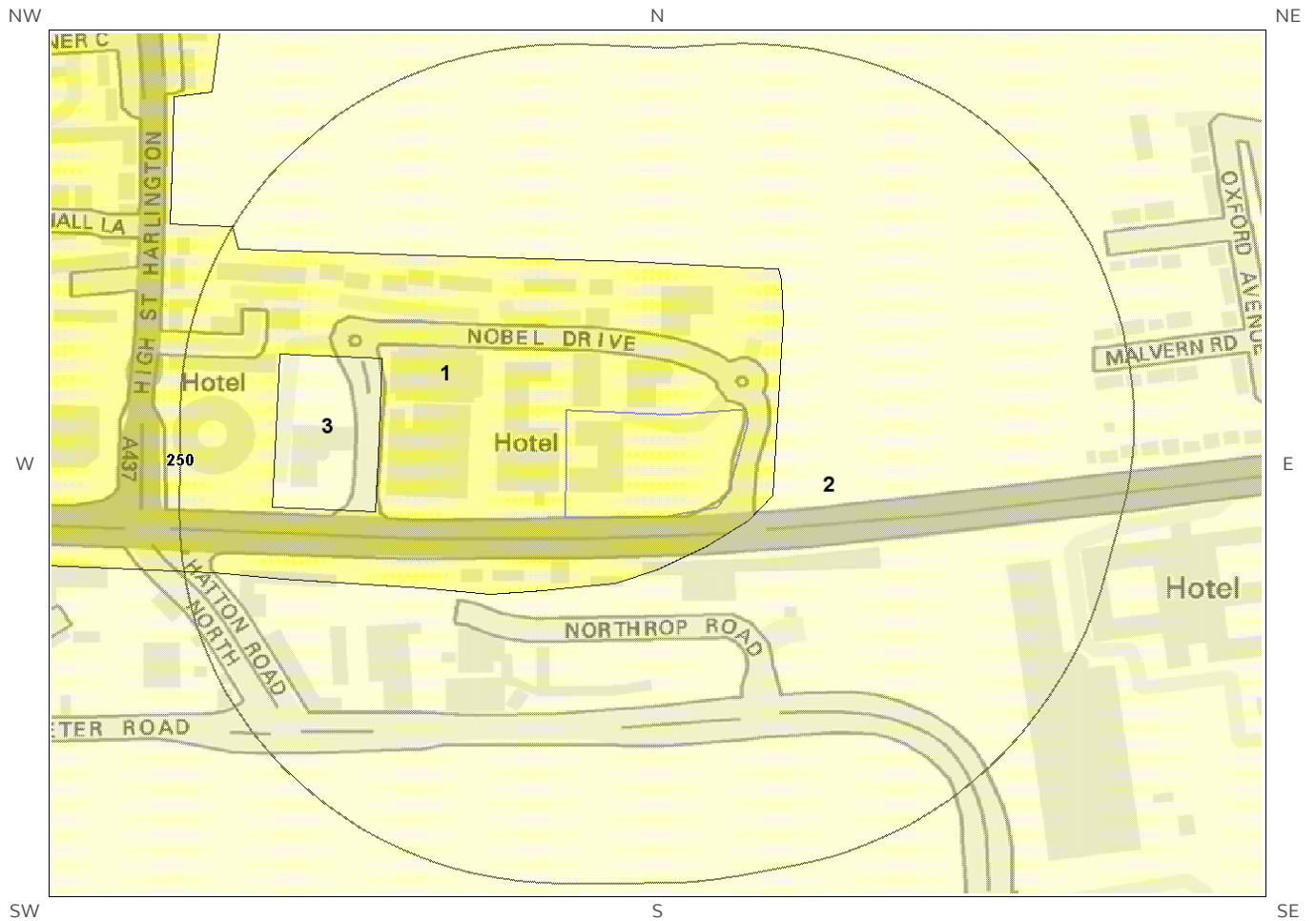
Are there any Clay Mining areas within 1000m of the study site boundary?

No

Database searched and no data found.

6 Natural Ground Subsidence

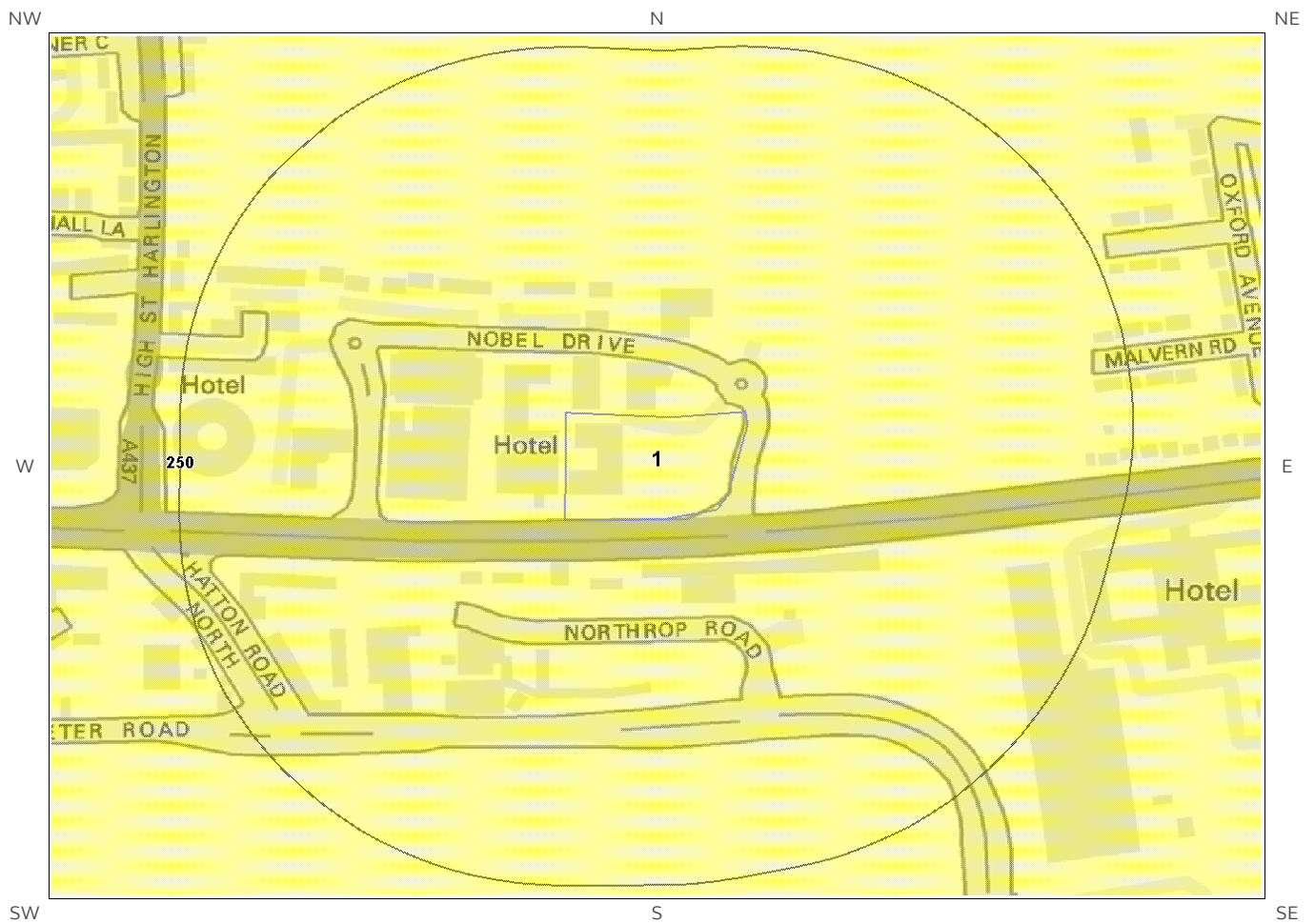
6.1 Shrink-Swell Clay map



Shrink Swell Clay Legend

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6.2 Landslides map

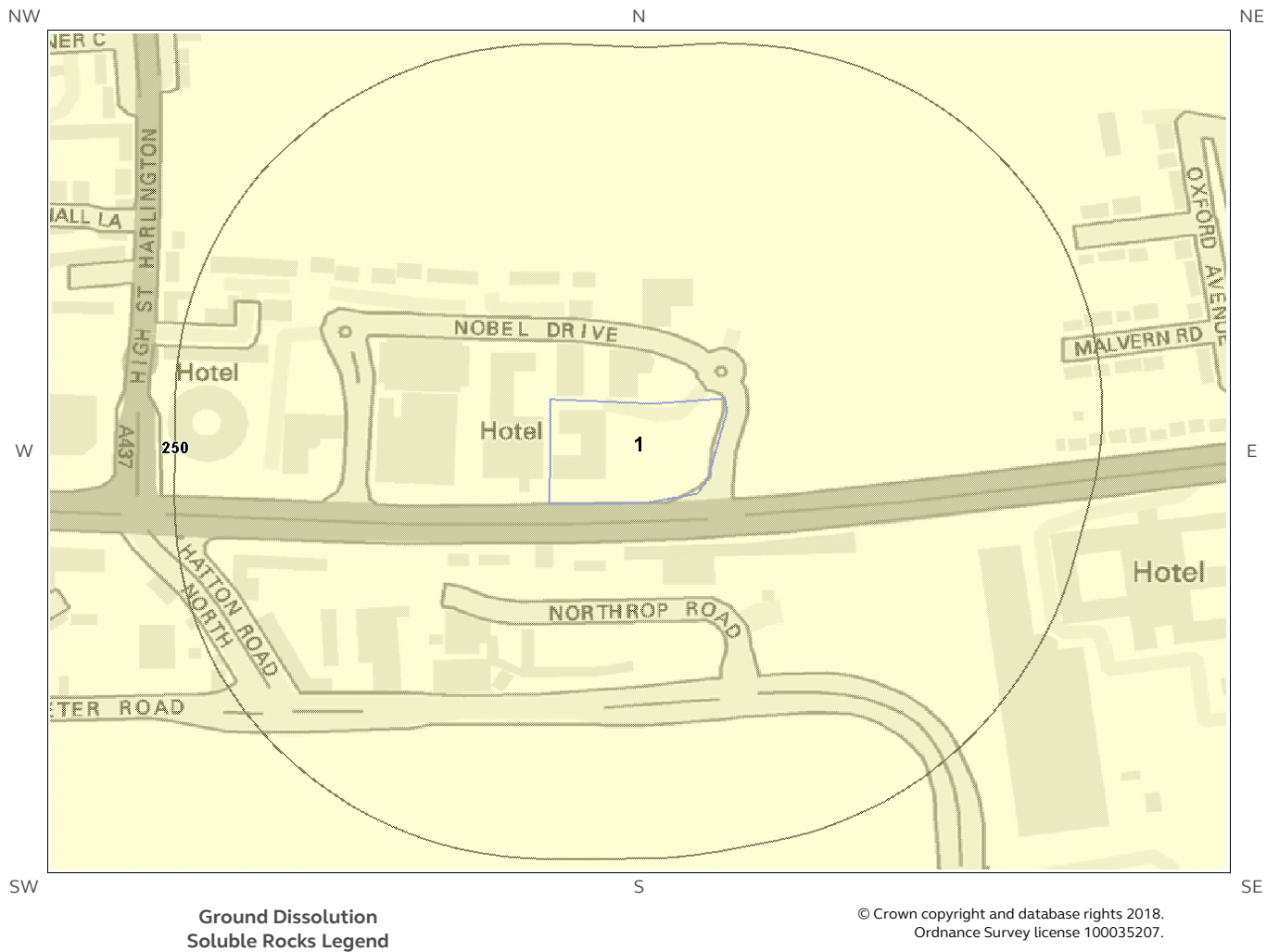


Landslides Legend

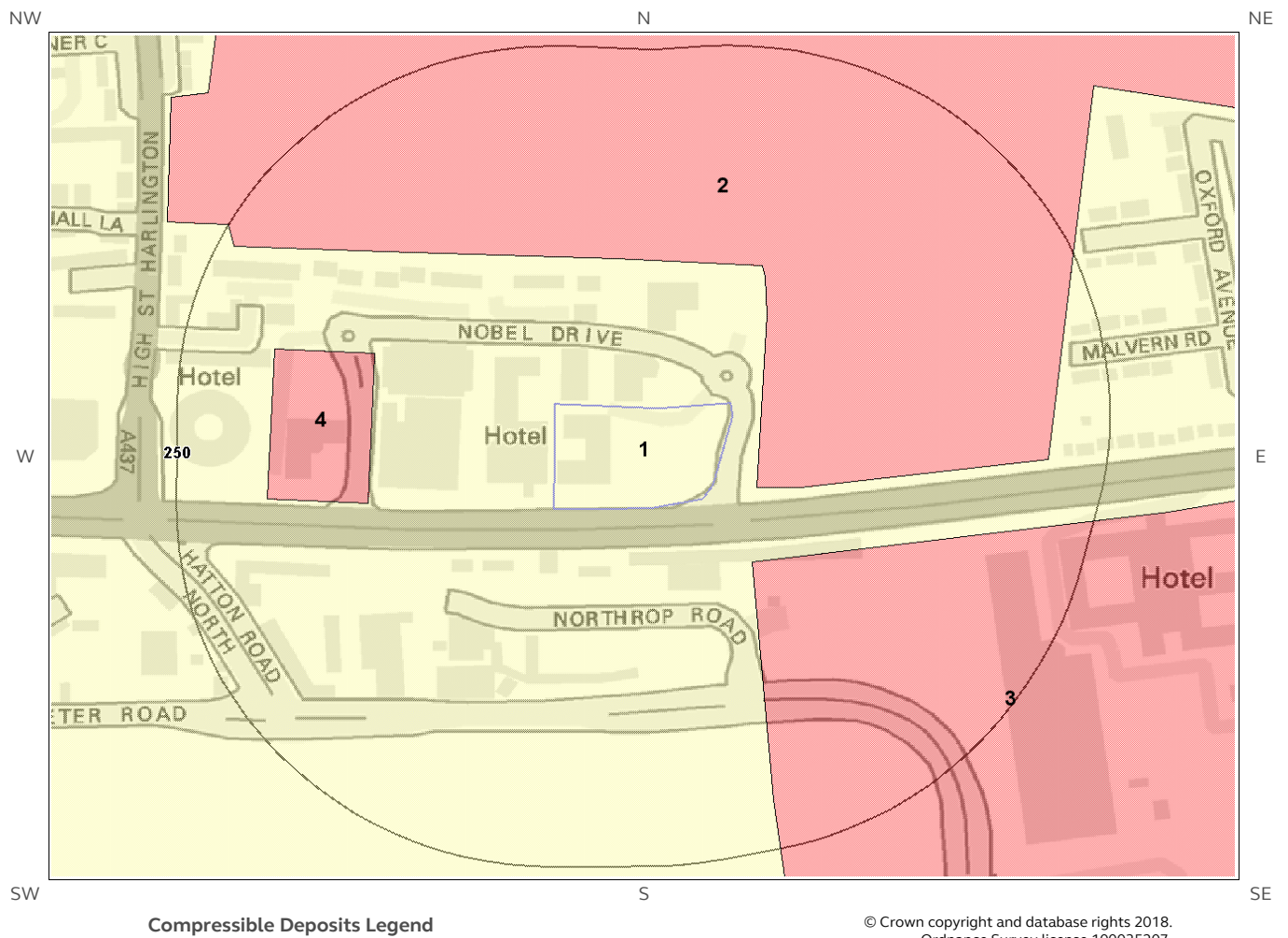
© Crown copyright and database rights 2018.
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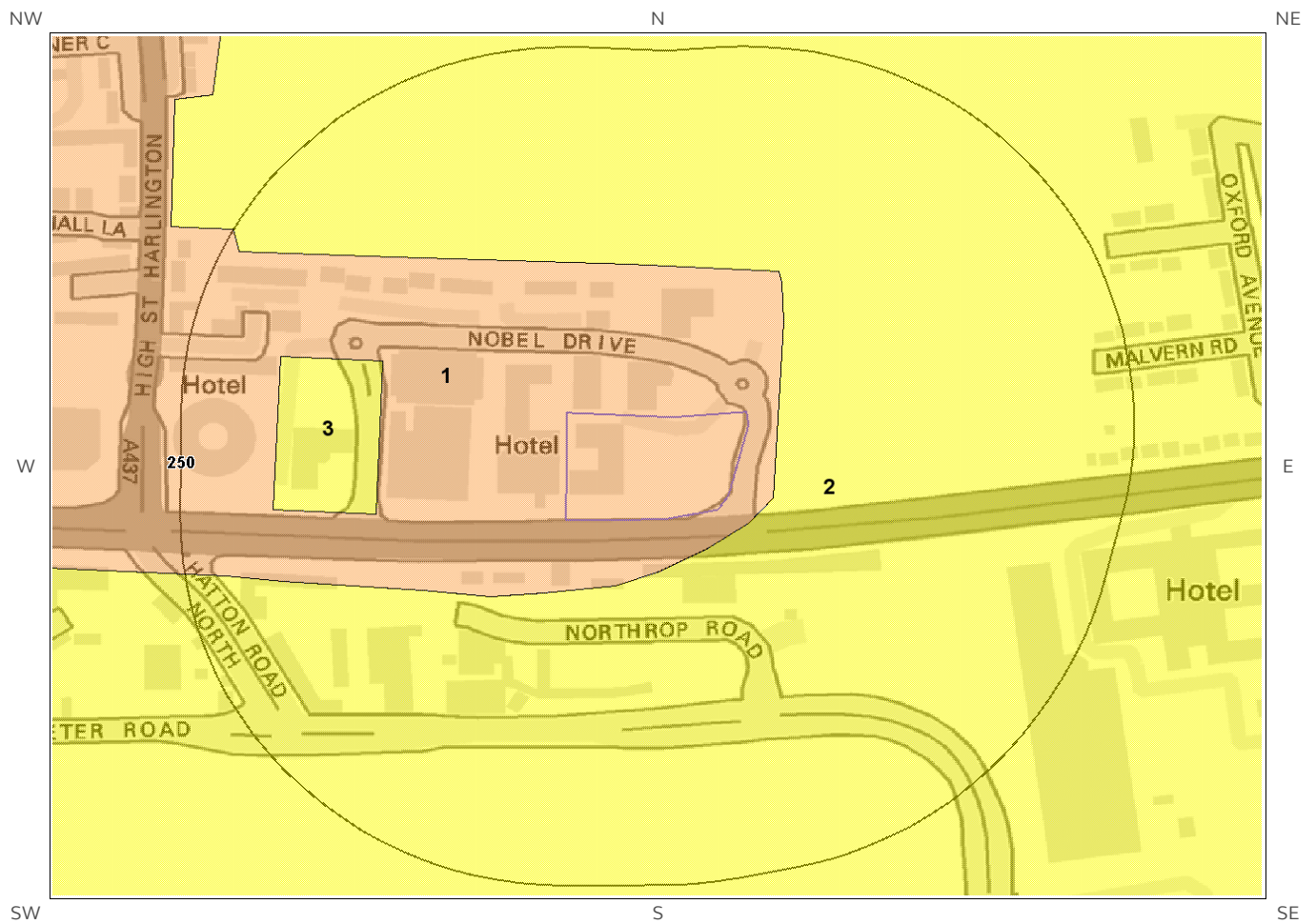
6.3 Ground Dissolution of Soluble Rocks map



6.4 Compressible Deposits map



6.5 Collapsible Deposits map



Collapsible Deposits Legend

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6 Natural Ground Subsidence

The National Ground Subsidence rating is obtained through the 6 natural ground stability hazard datasets, which are supplied by the British Geological Survey (BGS).

The following GeoSure data represented on the mapping is derived from the BGS Digital Geological map of Great Britain at 1:50,000 scale.

What is the maximum hazard rating of natural subsidence within the study site** boundary? Moderate

6.1 Shrink-Swell Clays

The following Shrink Swell information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Very Low	Ground conditions predominantly low plasticity. No special actions required to avoid problems due to shrink-swell clays. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with shrink-swell clays.
2	18.0	SE	Negligible	Ground conditions predominantly non-plastic. No special actions required to avoid problems due to shrink-swell clays. No special ground investigation required, and increased construction costs or increased financial risks are unlikely likely due to potential problems with shrink-swell clays.

6.2 Landslides

The following Landslides information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Very Low	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.

* This includes an automatically generated 50m buffer zone around the site

6.3 Ground Dissolution of Soluble Rocks

The following Ground Dissolution information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Negligible	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.

6.4 Compressible Deposits

The following Compressible Deposits information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Negligible	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.
2	18.0	E	Moderate	Significant potential for compressibility problems. Avoid large differential loadings of ground. Do not drain or de-water ground near the property without technical advice. For new build - consider possibility of compressible ground in ground investigation, construction and building design. Consider effects of groundwater changes. Extra construction costs are likely. For existing property - possible increase in insurance risk from compressibility, especially if water conditions or loading of the ground change significantly.

6.5 Collapsible Deposits

The following Collapsible Rocks information provided by the British Geological Survey:

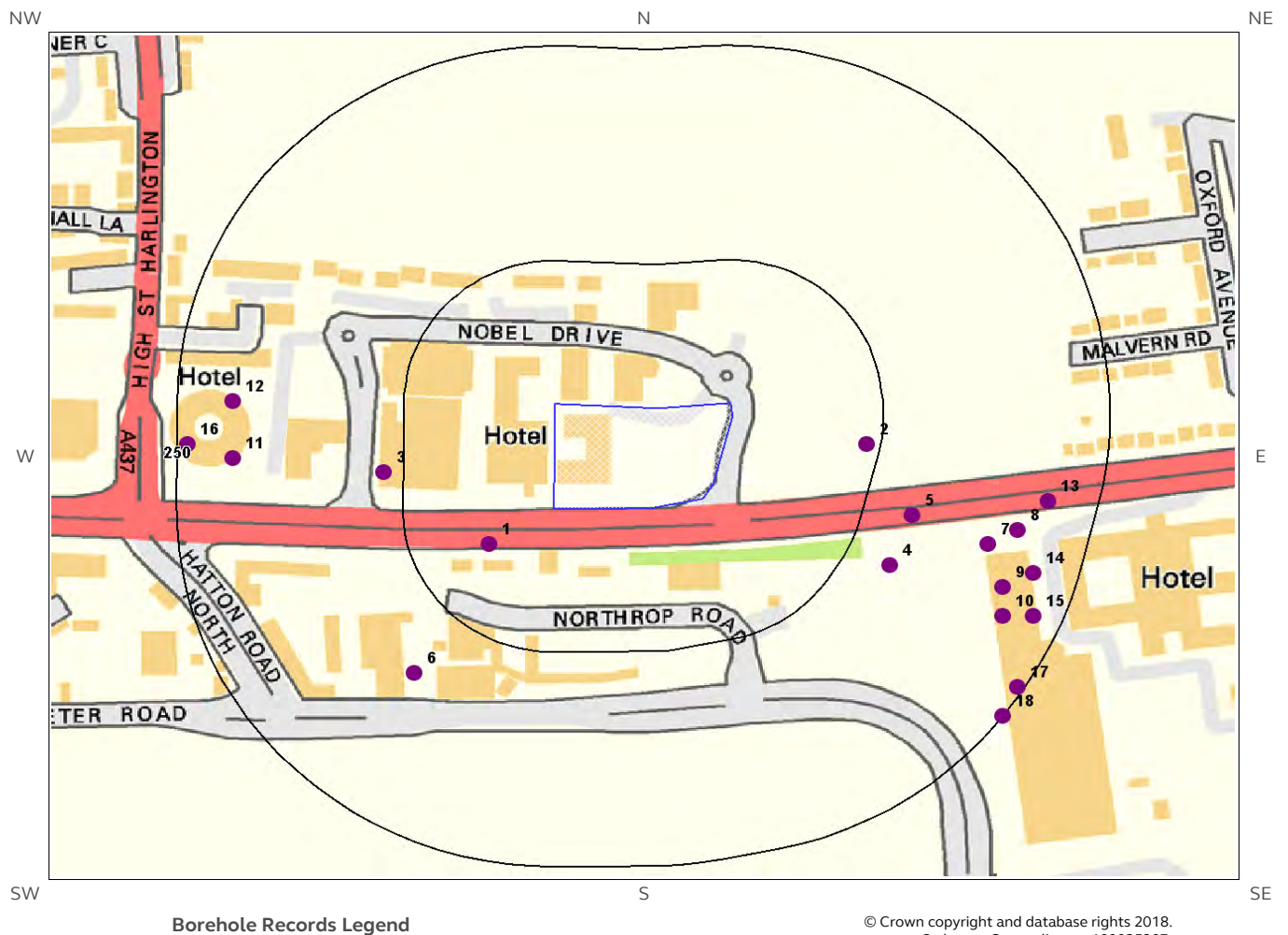
ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Low	Slight possibility for collapsible deposit problems after major changes in loading or groundwater conditions. Normal maintenance to avoid large amounts of water entering the ground through pipe leakage or soak-aways should reduce the likelihood of problems due to collapsible deposits. For new build, assess the possibility of collapsible (loessic) deposits in ground investigation. For existing property, no significant increase in insurance risk from collapsible deposits is likely.
2	18.0	SE	Very Low	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.

6.6 Running Sands

The following Running Sands information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Negligible	No indicators for running sand identified. 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.
2	18.0	SE	Very Low	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.

7 Borehole Records map



7 Borehole Records

The systematic analysis of data extracted from the BGS Borehole Records database provides the following information.

Records of boreholes within 250m of the study site boundary:

18

ID	Distance (m)	Direction	NGR	BGS Reference	Drilled Length	Borehole Name
1	50.0	SW	509050 176890	TQ07NE174	-1.0	HARLINGTON DRAINAGE 15
2	91.0	E	509300 176960	TQ07NE242	5.0	HEATHROW SURFACE ACCESS STUDIES 297
3	113.0	W	508980 176940	TQ07NE19	3.0	HAYES UB.8 HAYES & HARLINGTON
4	130.0	SE	509315 176875	TQ07NE243	4.0	HEATHROW SURFACE ACCESS STUDIES TP 298
5	133.0	E	509330 176910	TQ07NE183	-1.0	HARLINGTON DRAINAGE 30
6	148.0	SW	509000 176800	TQ07NE379	9.0	AVIS CAR RENTAL HOUNSLOW
7	186.0	E	509380 176890	TQ07NE586	-1.0	FLY A WAY BATH ROAD HEATHROW 7
8	203.0	E	509400 176900	TQ07NE587	-1.0	FLY A WAY BATH ROAD HEATHROW 8
9	205.0	E	509390 176860	TQ07NE579	-1.0	BATH ROAD HEATHROW TP10
10	212.0	SE	509390 176840	TQ07NE585	-1.0	FLY A WAY BATH ROAD HEATHROW 6
11	213.0	W	508880 176950	TQ07NE305	9.0	HARLINGTON CORNER HOTEL 1
12	214.0	W	508880 176990	TQ07NE307	9.0	HARLINGTON CORNER HOTEL 3
13	217.0	E	509420 176920	TQ07NE175	-1.0	HARLINGTON DRAINAGE 16
14	220.0	E	509410 176870	TQ07NE578	-1.0	BATH ROAD HEATHROW TP9
15	231.0	SE	509410 176840	TQ07NE577	-1.0	BATH ROAD HEATHROW TP8
16	243.0	W	508850 176960	TQ07NE306	9.0	HARLINGTON CORNER HOTEL 2
17	246.0	SE	509400 176790	TQ07NE575	-1.0	BATH ROAD HEATHROW TP6
18	250.0	SE	509390 176770	TQ07NE583	-1.0	FLY A WAY BATH ROAD HEATHROW 4

The borehole records are available using the hyperlinks below: Please note that if the donor of the borehole record has requested the information be held as commercial-in-confidence, the additional data will be held separately by the BGS and a formal request must be made for its release.

#2: scans.bgs.ac.uk/sobi_scans/boreholes/574070
#3: scans.bgs.ac.uk/sobi_scans/boreholes/573847
#4: scans.bgs.ac.uk/sobi_scans/boreholes/574071
#6: scans.bgs.ac.uk/sobi_scans/boreholes/574207
#11: scans.bgs.ac.uk/sobi_scans/boreholes/574133
#12: scans.bgs.ac.uk/sobi_scans/boreholes/574135
#16: scans.bgs.ac.uk/sobi_scans/boreholes/574134

8 Estimated Background Soil Chemistry

Records of background estimated soil chemistry within 250m of the study site boundary:

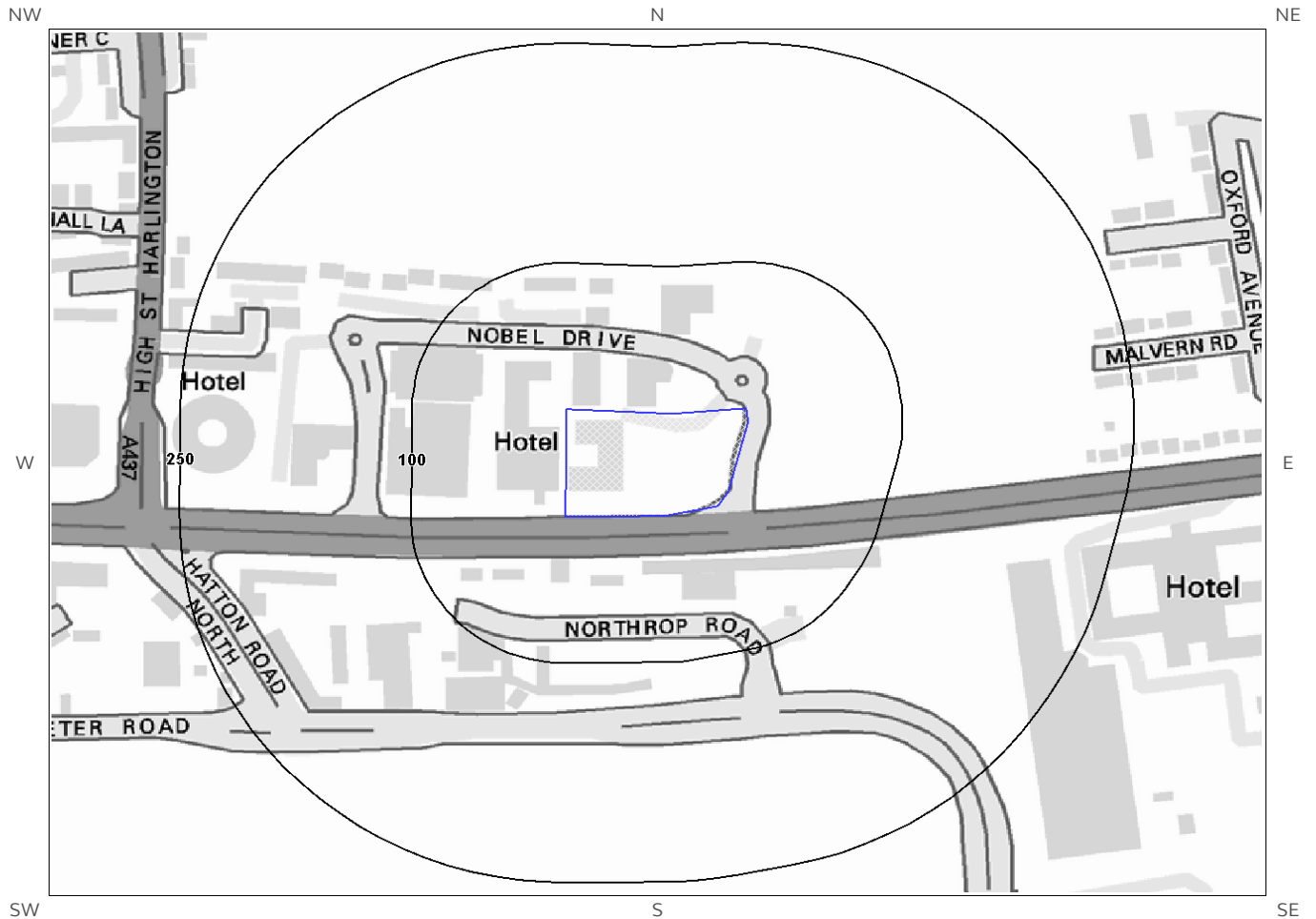
6

For further information on how this data is calculated and limitations upon its use, please see the Groundsure Geo Insight User Guide, available on request.

Distance (m)	Direction	Sample Type	Arsenic (As)	Cadmium (Cd)	Chromium (Cr)	Nickel (Ni)	Lead (Pb)
0.0	On Site	RuSoilLond	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	100 - 200 mg/kg
11.0	N	RuSoilLond	<15 mg/kg	No data	60 - 90 mg/kg	15 - 30 mg/kg	No data
11.0	N	London	No data	No data	No data	No data	No data
18.0	SE	RuSoilLond	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	100 - 200 mg/kg
24.0	NE	London	No data	No data	No data	No data	No data
24.0	NE	RuSoilLond	<15 mg/kg	No data	60 - 90 mg/kg	15 - 30 mg/kg	No data

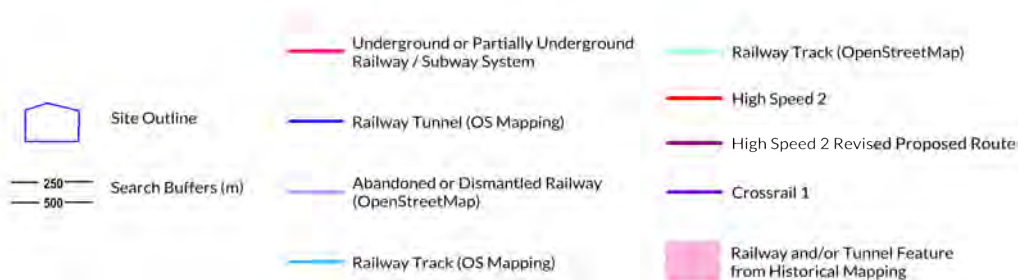
*As this data is based upon underlying 1:50,000 scale geological information, a 50m buffer has been added to the search radius.

9 Railways and Tunnels map



Railways and Tunnels Legend

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9 Railways and Tunnels

9.1 Tunnels

This data is derived from OpenStreetMap and provides information on the possible locations of underground railway systems in the UK - the London Underground, the Tyne & Wear Metro and the Glasgow Subway.

Have any underground railway lines been identified within the study site boundary? No

Have any underground railway lines been identified within 250m of the study site boundary? No

Database searched and no data found.

Any records that have been identified are represented on the Railways and Tunnels map.

This data is derived from Ordnance Survey mapping and provides information on the possible locations of railway tunnels forming part of the UK overground railway network.

Have any other railway tunnels been identified within the site boundary? No

Have any other railway tunnels been identified within 250m of the site boundary? No

Database searched and no data found.

Any records that have been identified are represented on the Railways and Tunnels map.

9.2 Historical Railway and Tunnel Features

This data is derived from Groundsure's unique Historical Land-use Database and contains features relating to tunnels, railway tracks or associated works that have been identified from historical Ordnance Survey mapping.

Have any historical railway or tunnel features been identified within the study site boundary? No

Have any historical railway or tunnel features been identified within 250m of the study site boundary? No

Database searched and no data found.

Any records that have been identified are represented on the Railways and Tunnels map.

9.3 Historical Railways

This data is derived from OpenStreetMap and provides information on the possible alignments of abandoned or dismantled railway lines in proximity to the study site.

Have any historical railway lines been identified within the study site boundary? No

Have any historical railway lines been identified within 250m of the study site boundary? No

Database searched and no data found.

Multiple sections of the same track may be listed in the detail above
Any records that have been identified are represented on the Railways and Tunnels map.

9.4 Active Railways

These datasets are derived from Ordnance Survey mapping and OpenStreetMap and provide information on the possible locations of active railway lines in proximity to the study site.

Have any active railway lines been identified within the study site boundary? No

Have any active railway lines been identified within 250m of the study site boundary? No

Database searched and no data found.

Multiple sections of the same track may be listed in the detail above
Any records that have been identified are represented on the Railways and Tunnels map.

9.5 Railway Projects

These datasets provide information on the location of large scale railway projects High Speed 2 and Crossrail 1 .

Is the study site within 5km of the route of the High Speed 2 rail project? No

Is the study site within 500m of the route of the Crossrail 1 rail project? No

Further information on proximity to these routes, the project construction status and associated works can be obtained through the purchase of a Groundsure HS2 and Crossrail 1 Report.

The route data has been digitised from publicly available maps by Groundsure. The route as provided relates to the Crossrail 1 project only, and does not include any details of the Crossrail 2 project, as final details of the route for Crossrail 2 are still under consultation.

Please note that this assessment takes account of both the original Phase 2b proposed route and the amended route proposed in 2016. As the Phase 2b route is still under consultation, Groundsure are providing information on both options until the final route is formally confirmed. Practitioners should take account of this uncertainty when advising clients.

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BGS Geological Hazards Reports and general geological enquiries

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

APPENDIX B

Historic Maps

Site Details:

Status Park, HEATHROW, UB3
5EY

Client Ref: 8127
Report Ref: GS-5201748
Grid Ref: 509152, 176952

Map Name: County Series

Map date: 1865

Scale: 1:2,500

Printed at: 1:2,500



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Revised 1865
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Production date: 06 July 2018

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf

