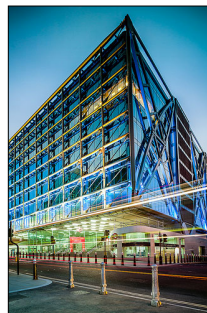

DESK STUDY & GROUND INVESTIGATION REPORT

9 Nestles Avenue
Hayes
UB3 4SA

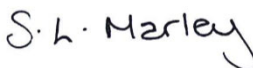
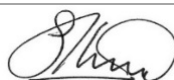
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J18167

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

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

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EXECUTIVE SUMMARY

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

BRIEF

This report describes the findings of a site investigation carried out by Geotechnical and Environmental Associates Limited (GEA) on the instructions of Healey Development Solutions (Hayes) Limited. The proposed development comprises demolition of the existing building and redevelopment to provide a building of up to ten storeys, comprising 84 residential units on the upper floors, with associated landscaping, access, car parking and cycle parking. A basement is also to be included and will be up to 4.20 m in depth and used for plant and tank storage. The purpose of the investigation has been to research the history of the site with respect to possible contaminative uses, to determine the risk of encountering unexploded ordnance (UXO), to determine the ground conditions and hydrogeology, to provide an indication of the presence of contamination and to provide information to assist with the design of suitable foundations. A Basement Impact Assessment (BIA) has also been included.

SITE HISTORY

The earliest map studied, dated 1864, shows the site and immediate surroundings to have been undeveloped. The site formed part of a National Filing Factory during World War I (WWI), where munitions were manufactured. After the war, it was used to teach former servicemen the trade of coach-building and car body work until 1923, after which the site was cleared. By 1934, the site formed part of a sports ground and comprised open space. Aerial photography dated 1946 shows an industrial style building to have been constructed on site, presumed to be the existing building, and the site has since remained unchanged.

GROUND CONDITIONS

Below a moderate thickness of made ground, Lynch Hill Gravel was encountered over London Clay, which was proved to the full depth of investigation. In the south of the site, made ground was encountered beneath block paving and extended to a depth of 0.80 m. Very dense and dense sand and gravel of the Lynch Hill Gravel was then encountered and extended to a depth of 6.50 m, with a reduction in the density attributable to groundwater. The London Clay comprised an initial weathered layer of firm brown and yellowish brown clay with rare fine gravel, which extended to a depth of 6.80 m, underlain by very stiff fissured brownish grey clay with mica and occasional partings of light brownish grey silt and fine sand, to the base of the borehole at 30.00 m. Claystones were encountered at depths of 15.70 m and 25.80 m. Within the boreholes advanced within the building, the floor slab generally comprised 160 mm of good quality reinforced concrete, beneath which made ground extended to depths of between 1.00 m and 2.20 m and generally comprised dark grey / brown dry clayey slightly gravelly sand including fragments of brick, clinker, glass and ceramic and rare chalk. Very dense brown sandy gravel and very dense yellowish brown fine to medium sand was then encountered and refusal was reached in all boreholes at depths of between 1.00 m and 3.00 m. Groundwater has been monitored at depths of between 2.71 m and 2.87 m, although only the standpipe in Borehole No 1 was accessible. On the basis of the similarly restricted monitoring to date, no elevated concentrations of ground gas have been detected such that gas protection measures are not required.

BASEMENT IMPACT ASSESSMENT

The BIA identified the following points to be assessed:

- The site is underlain by a Principal Aquifer;
- the basement may extend below the water table;
- the site is at risk of groundwater flooding at the surface;
- the proposals may affect surface water flow; and
- the site is within 5 m of a highway or public right of way.

The assessment of the proposed basement impacts has concluded that the new basement will not have an impact on the hydrological or hydrogeological setting.

RECOMMENDATIONS

In view of the anticipated moderate to high loads, it is recommended that the building will need to be supported on piled foundations bearing in the London Clay. It is understood that the highest loads are likely to be in the north of the site and therefore additional work will be required to confirm the ground conditions in that part of the site, in particular to determine the depth to the base of the gravel. In conjunction with this, it would be prudent to undertake additional gas and groundwater monitoring, which includes the standpipes not accessible to date, to confirm the groundwater regime across the site and any gas protection measures necessary. On the basis of the monitoring to date, groundwater is likely to be encountered towards the base of the gravel and within the depth of the proposed basement, at a maximum of 4.20 m in depth, such that a contiguous bored pile wall may be the most appropriate means of supporting the basement excavation.

An above ground fuel tank in the northwest of the site will need to be decommissioned by a specialist and it is possible that additional investigation will be required in this area to determine whether it has leaked. If any of the underlying soil is impacted with hydrocarbons this will need to be excavated or remediated. A thickness of imported soil will be required in areas of proposed soft landscaping to protect end users and to ensure successful plant growth.

Part 1: INVESTIGATION REPORT

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

1.0 INTRODUCTION

Geotechnical and Environmental Associates Limited (GEA) has been commissioned by Healey Development Solutions (Hayes) Limited, to carry out a desk study and ground investigation at 9 Nestles Avenue, Hayes, UB3 4SA.

The report also includes a Basement Impact Assessment (BIA). The site is located in the London Borough of Hillingdon and their planning guidance notes that an assessment is required of the impact of any new basement on drainage, flooding, groundwater conditions and structural stability. In the absence of a specific basement assessment procedure, the London Borough of Camden BIA policy has been adopted as it is widely known and is considered to provide a robust approach to the issues of potential concern. GEA have reviewed a draft version of the drainage report and flood risk assessment to assist with the BIA, produced by Heyne Tillet Steel (job number 2006, revision D, dated 24 July 2020).

1.1 Proposed Development

It is understood that the proposed development comprises demolition of the existing building and redevelopment to provide a building of ten storeys, comprising residential units, with associated landscaping, access, car parking and cycle parking. The nine duplex apartments on the ground floor will have attached private terraces, which will be comprised of hardstanding. There will be car parking under the northwestern side of the building. The landscaping will take the form of two 'garden walk' areas along the southeast and southwest sides of the building. There will be a partial basement of up to 4.20 m in depth under the north of the building, to contain plant equipment.

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

1.2 Purpose of Work

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

- ☐ to check the history of the site with respect to previous contaminative uses;
- ☐ to determine the risk of encountering unexploded ordnance (UXO) beneath the site;
- ☐ to determine the ground conditions and their engineering properties;
- ☐ to provide advice with respect to the design of suitable foundations;
- ☐ to provide an indication of the degree of soil contamination present; and
- ☐ to assess the risk that any such contamination may pose to the proposed development, its users or the wider environment.

1.3 Scope of Work

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

- ❑ a review of historical Ordnance Survey (OS) maps and environmental searches sourced from the Envirocheck database;
- ❑ a review of readily available geology maps;
- ❑ the commissioning of a Preliminary UXO Risk Assessment, and a subsequent Detailed UXO Risk Assessment, by 1st Line Defence, a specialist in this field; and
- ❑ a walkover survey of the site, carried out prior to the fieldwork.

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

- ❑ a Ground Probing Radar scan of the front of the site to identify a suitable location for a cable percussion borehole, away from buried services;
- ❑ a single borehole advanced to a depth of 30.00 m using a standard cable percussion rig;
- ❑ five boreholes advanced to a maximum depth of 3.00 m within the existing building by means of an opendrive percussive sampling (Terrier) rig;
- ❑ standard penetration tests (SPTs) carried out at regular intervals within the boreholes to provide quantitative data on the strength of the soils;
- ❑ the installation of gas and groundwater monitoring standpipes to a maximum depth of 7.00 m and a three return monitoring visits;
- ❑ testing of selected soil samples for contamination and geotechnical purposes; and
- ❑ provision of a report presenting and interpreting the above data, together with our advice and recommendations with respect to the proposed development.

The report includes a contaminated land assessment which has been undertaken in accordance with the methodology presented in Contaminated Land Report (CLR) 11¹ and involves identifying, making decisions on, and taking appropriate action to deal with, land contamination in a way that is consistent with government policies and legislation within the United Kingdom. The risk assessment is thus divided into three stages comprising Preliminary Risk Assessment, Generic Quantitative Risk Assessment, and Site-Specific Risk Assessment.

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

1 *Model Procedures for the Management of Land Contamination* issued jointly by the Environment Agency and the Department for Environment, Food and Rural Affairs (DEFRA) Sept 2004

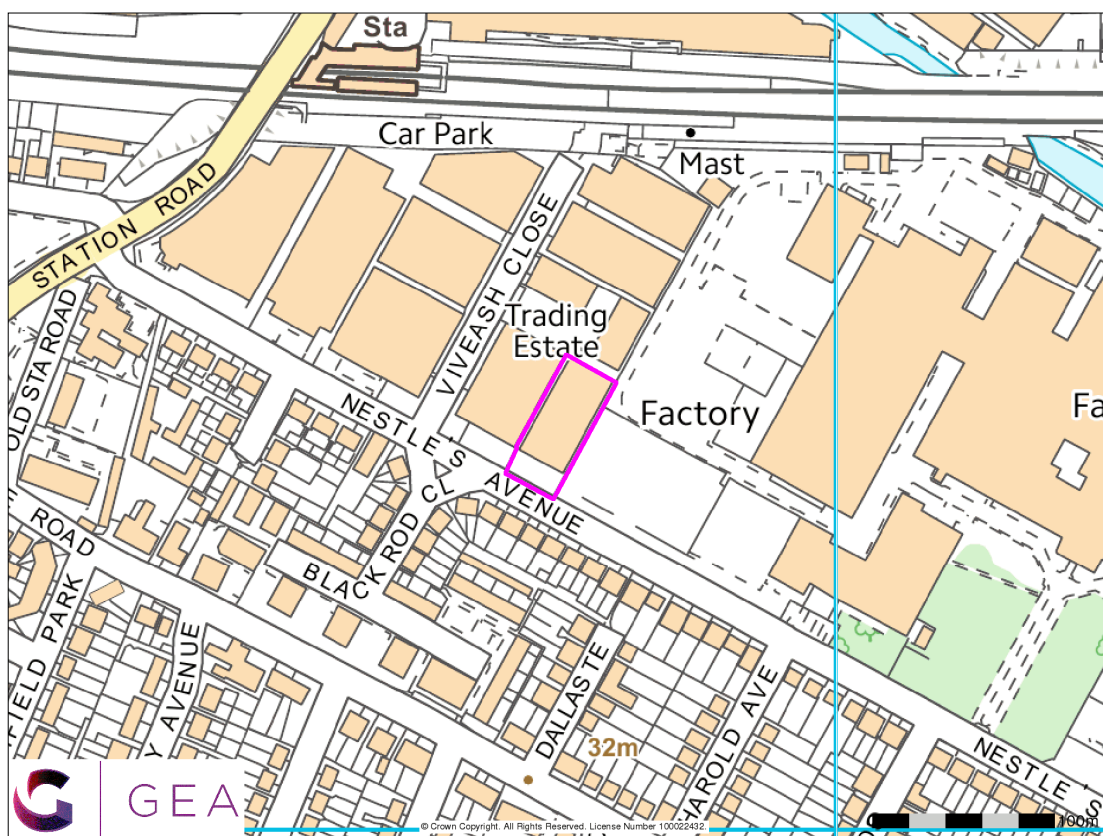
1.4 Limitations

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

2.0 THE SITE

2.1 Site Description

The site is located in the London Borough of Hillingdon, approximately 250 m to the southeast of Hayes and Harlington railway station and approximately 650 m to the west of the junction of the Grand Union Canal and the River Crane. It fronts onto Nestles Avenue to the south and may additionally be located by National Grid Reference 509858, 179225, as shown on the map extract below.



A walkover of the site was carried out by a geotechnical engineer from GEA on 24 July 2018, prior to the fieldwork. The site is rectangular in shape, measuring approximately 75 m northeast to southwest by 30 m northwest to southeast. It is bounded to the west by an alleyway separating the site from No 7 Nestles Avenue, an industrial style building, and to the east by an alleyway separating the site from a vacant parcel of land. It is understood that the vacant area will be developed with residential properties. The rear of the site in the north forms the south-eastern corner of a courtyard, which is surrounded by industrial units that are mainly occupied by vehicle maintenance and servicing garages.

The site is occupied by a double-height industrial style building; office space is present at the very front of the site in the south and warehouse space is provided behind, which extends to the northern site boundary. The building is accessed through a pedestrian front entrance in the south or via two sets of large roller shutter doors to the rear. A roller shutter is also present at the front of the site, but an internal brick wall has been constructed behind this preventing access. At the time of the walkover, the building was vacant, although the project managers have suggested that, until recently, the building was occupied by a printing and manufacturing business. Stains and residues are present on the concrete floor slab in the warehouse area, in particular around the rear shutter in the northwest. During the monitoring, the building was being used for the storage of cars.

The site is essentially level and is almost entirely occupied by the existing building with the exception of a car park fronting onto Nestles Avenue to the southwest and an area of concrete hardstanding at the rear, which allows access through the shutter doors in the northeast of the building. Narrow alleyways are present at either side of the building and contain miscellaneous items and overgrown vegetation.

An above ground suspected diesel tank, with a fuel dispensing tap, is located outside the north-western corner of the building in the alleyway between the site and No 7 Nestles Avenue to the east. A number of tyres, wooden pallets, medium sized plastic containers and plastic barrels have been discarded in the area, with labels indicating some containers to contain 'SOS S/S high gloss emulsion', 'Q8 oils' and 'SOS IPA'. It is likely that the chemicals and oils are associated with the former printing works that had occupied the site and the surrounding vehicle servicing and maintenance garages.

The site is mostly devoid of vegetation, with the exception of the overgrown vegetation present to the east.

2.2 Site History

The earliest map studied, dated 1864, shows the site and immediate surroundings to have been undeveloped and to have formed part of a large field. The existing railway line present 150 m to the north had been established and Hayes station was located approximately 170 m to the northwest of the site, on the other side of the railway line. As at present, the Grand Junction Canal was located around 250 m to the northeast of the site. Brickfields occupied the surrounding area from approximately 250 m to the northwest and northeast of the site and included associated infrastructure such as wells and clay mills. The existing North Hyde Road had been constructed, but not named, approximately 130 m to the south of the site.

By 1895, a carriage shed had been constructed on the far side of the railway line, approximately 170 m to the north. The brickfields, clay mills and wells to the northeast and northwest are not annotated on this map and are presumed to have fallen out of use. An access road had also been constructed from Hayes Station towards the site, by means of an embankment, and the outline of Nestles Avenue is shown on the map dated 1914, with the western end leading from the access road previously built from Hayes Station. A road leading northeast from Nestles Avenue and passing the northwestern corner of the site is also shown, together with two roads linking Nestles Avenue to North Hyde Road, along which were a few houses.

Although no buildings are shown along these new roads on the 1914 map, this is perhaps unsurprising given that the Detailed UXO Risk Assessment indicates that the site lay within the bounds of a National Filling Factory (NFF), constructed during WWI in order to supply munitions for the military. The research suggests that the NFF at Hayes assembled numerous

munitions including projectiles, fusing, exploders and detonators. Whilst the factory was rapidly decommissioned following the end of hostilities in 1918, little detail is known about the exact date that production was ceased and when the factory was unoccupied. Correspondence referred to in the Detailed UXO Risk Assessment shows that by 1920 the canteen and garage of the NFF was being occupied as an Instructional Factory, in order to teach former servicemen the trade of coach-building and car body work. This continued until 1923, when the “keys to the old factory at Hayes were handed to the manager of the Disposal and Liquidation Commission.” It is unclear whether this led to the immediate demolition or clearance of the factory, but the factory is shown to have been cleared prior to the 1934 map edition, at which time the site formed part of a sports ground and comprised open space. Between 1920 and 1934, significant residential development had occurred to the south of Nestles Avenue, most likely housing the workers of the surrounding newly established works and factories, including a cocoa factory located around 170 m to the west. An internet source² indicates that the cocoa factory was built around 1913. The site itself was part of a sports ground, with structures presumed to be associated with this use constructed on the southern side of the railway line. Further development had occurred in the surrounding area, including the construction of canal engineering works around 300 m to the northwest of the site, on the other side of the railway. The carriage shed to the north had been demolished, replaced by railway lines, and more branches had been added in the area previously occupied by mounds further to the north. A smaller ‘goods shed’ had been constructed approximately 175 m to the north of the site.

A large building had been constructed directly to the west of the site by 1938 and it is possible that this is the existing No 7 Nestles Factory, which borders the site to the west. A second building had been constructed to the northwest. Post-War aerial photography, dated 1946, shows an industrial style building on site, presumed to be the existing building and the site has since remained unchanged. The occupancy of the building is however unknown. The aerial photograph also shows that the entire western part of the sports field, including the site, was developed with factory buildings along Viveash Close. The original access road had been replaced with factories and the existing junction with Station Road had been established.

The historical map dated 1963 shows that, by this time, the large industrial style building to the north of the site was in use as government offices and one around 70 m to the northwest was an employment exchange. A coal yard was present in the area to the north of the railway sidings, just over 200 m to the north.

The government offices had been relocated into a building to the south of the employment exchange by 1972. Tanks had been constructed around 115 m to the northeast of the site and a metal works had been constructed 185 m to the north, on the far side of the railway lines. A collection of smaller units around 100 m to the west of the site had been replaced with a single large building annotated as a confectionary works.

An electricity transfer station had been constructed around 480 m to the east of the site by 1974 and it is likely that an electricity substation, known to exist 100 m to the north of the site, was also constructed around this time.

Between 1989 and 1992 the industrial building to the north of the site was replaced by a collection of smaller units labelled ‘Squirrels Trading Estate’, which comprises the existing trading estate. The 1999 aerial photograph shows that by this time, the sports pitch had been replaced with hardstanding used as vehicle parking for the factories to the west, abutting the northeastern corner of the site. The site surroundings have since remained essentially unchanged.

² <https://www.nestle.co.uk/aboutus/history/charlie-chaplin-and-the-chocolate-factory>

Online records indicate a printing works to have occupied the site from 2001, although the use of the building on site before this time is unclear.

The tanks to the north of the site are shown on the aerial photograph dated 1999 but not labelled on the 2017 map, although the mapping after 1992 is only at the larger scale and so it is possible that they were present after this time but not mapped in detail.

2.3 Other Information

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

The Envirocheck report indicates the presence of a historical landfill site 294 m to the northeast of the site east that accepted inert, commercial and household waste, although the last input date is listed as 1936. There are no licensed waste management facilities or registered waste transfer sites within 500 m of the site. Two areas of potentially infilled ground (water) are within 250 m of the site, located 206 m to the northeast and 217 m to the north.

A BGS recorded mineral site is located 47 m to the east of the site at Botwell Brickfield, although opencast activities have ceased at the site and OS mapping indicates the area to have been redeveloped by 1934. The mapping does not however indicate the presence of the brickfield in the area to the east.

Envirocheck records a potential for groundwater flooding to occur at the surface on site and it may therefore be prudent to commission a Flood Risk Assessment from a specialist.

There are no discharge consents within 500 m of the site and no prosecutions relating to controlled waters, integrated pollution control points or integrated pollution prevention and control points within 250 m of the site. A local authority pollution prevention and control point is however located 154 m to the southwest of the site at a Tesco Express petrol filling station and this is authorised; no other points are within 300 m of the site.

Two pollution incidents to controlled waters are located within 250 m of the site, 245 m and 246 m to the north of the site. The former was a Category 2 -significant incident relating to chemical pollutants and which occurred in 1990. The latter was a Category 3 – minor incident relating to unknown sewage in 1991. The distance of these incidents is such that they are unlikely to have affected the site.

A groundwater abstraction point is located 352 m to the east of the site and four entries relate to a groundwater abstraction point 360 m to the east of the site, both of which are within the Nestle UK Limited factory. No end dates for the permits are supplied.

Two contemporary trade directory entries are positioned on site, although both are named as Victoria Litho printers. One is inactive and the other is active, although the printing business has vacated the site.

The following active Contemporary Trade Directory entries are listed within 50 m of the site and an additional 10 inactive entries are within 50 m, although these are not considered to represent an ongoing risk to the site.

CTD Entry name	Type of service	Location
Motormasters	MOT testing centre	11 m NE
M D Motor Services Ltd	Car body repairs	47 m N

South Hayes Express petrol filling station, an active petrol station, is located 150 m to the west of the site.

The site is not within any areas of sensitive land use.

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

2.3.1 Planning History

A search of planning records held by London Borough of Hillingdon has shown that there are two planning applications for the site (51175/96/1522 and 51175/A/97/0919), both of which relate to the change of use of the building on site from business (Class B1) to general industrial (B2) and were approved in 1996 and 1997. No further information is available.

2.4 Detailed UXO Risk Assessment

A Detailed UXO Risk Assessment has been completed by 1st Line Defence (report ref DA5858-00, dated 27th July 2018) and the report is included in the appendix. The risk assessment has been carried out in accordance with the guidelines provided by CIRIA, which state that the likelihood of encountering and detonating UXO below a site should be assessed along with establishing the consequences that may arise. The first phase comprises a preliminary risk assessment, which should be undertaken at an early stage of the development planning. If such an assessment identifies a high level of risk then a detailed risk assessment should be carried out by a UXO specialist, which will identify an appropriate course of action with regard to risk mitigation.

The report indicates that, during World War I (WWI), the site was within the boundary of National Filling Factory No.7 and as such there is potential for contamination from items of allied ordnance to have occurred. The site was cleared between WWI and WWII and, as a result of expected significant intrusive work into the ground, the risk of UXO remaining is considered to have been mitigated at the location of and down to the depth of the post-war foundations. During WWII, the site was located within the Urban District of Hayes and Harlington, which sustained an overall low to moderate density bombing campaign. The site does not appear to have been directly affected by bombing and appears to have escaped serious bomb damage as a result of bomb strikes falling in the surrounding area.

The report concludes that a low risk of encountering items of German aerial delivered ordnance and a low to medium risk of encountering Allied ordnance is present at the site. A site-specific UXO awareness briefing will need to be given to all site workers conducting intrusive works.

2.5 Geology

The British Geological Survey (BGS) map of the area (Sheet 269) indicates that the site is underlain by the Lynch Hill Gravel Member, which is in turn underlain by the London Clay Formation. The Lynch Hill Gravel typically comprises sand and gravel, locally with lenses of clay, silt or peat and may also be absent in part. The London Clay Formation typically comprises homogenous, slightly calcareous silty clay to very silty clay, with some beds of clayey silt grading to silty fine grained sand.

The BGS hold archive records of a borehole (TQ07/185) advanced approximately 100 m to the northeast of the site. The ground conditions encountered comprised the London Clay from the surface to a depth of 58 m, beneath which the Lambeth Group, formerly classified as the Woolwich and Reading Beds, was present and extended to a depth of 77 m. The underlying Thanet Sand was 1 m thick, whereupon the Upper Chalk was encountered at a depth of 78 m and extended to the base of the borehole at 165 m. Soil descriptions are not provided and the presence of made ground or the Lynch Hill Gravel is not recorded.

2.6 Hydrology and Hydrogeology

The Envirocheck report indicates that the superficial deposits beneath the site, the Lynch Hill Gravel, comprise a Principal Aquifer, which refers to layers of rock or drift deposits that have high intergranular and/or fracture permeability, meaning they usually provide a high level of water storage and may support water supply and/or river base flow on a strategic scale. In most cases, Principal Aquifers were previously designated as major aquifers. The underlying London Clay is classified as an Unproductive Stratum, rather than its former classification as a non-aquifer, referring to rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow.

The nearest surface water feature is the Grand Union Canal located 232 m to the northeast of the site. However, this is expected to be lined and therefore not in hydraulic connectivity with the surrounding ground. The nearest natural surface water feature is the River Crane, located approximately 620 m to the southeast of the site. Regional groundwater flow is therefore likely to be in a roughly southeasterly direction towards the river.

A resting groundwater level of 8.59 m is recorded on the aforementioned BGS archive record, although as this appears to be within the London Clay it is unlikely to be representative of a true groundwater table. Groundwater is likely to be present near the boundary between the high permeability Lynch Hill Gravel Member and the low permeability London Clay and is likely to flow in a generally southeasterly direction towards the River Crane.

The site is almost entirely covered by the existing building and hardstanding and therefore infiltration of rainwater into the ground beneath the site is limited, such that the majority of surface runoff is likely to drain into combined sewers in the road.

2.7 Preliminary Risk Assessment

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

2.7.1 Source

On site sources

The desk study findings indicate the site to have a potentially contaminative history, as it has been occupied by a printing works since at least 2001, prior to which the occupancy of the site is unknown but is likely to have been some other industrial factory use. The location of a munitions factory on the site during the second world war may have caused contamination of the near-surface soils, and the site clearance and redevelopment in the inter-war period is likely to have resulted in made ground.

Contamination typically associated with factories and works includes heavy metals from paint, hydrocarbons from machine tools, solvents from paint and degreasers, asbestos used in fire protection, acids and alkalis and PAH from the incomplete combustion of waste wood. In addition to the above, with reference to the relevant Department of the Environment (DoE) Industry Profiles,³ contaminants typically associated with printing works include metals and metalloids, inorganic ions, acids and organics. Similar contaminants are typically associated with historical explosives manufacturing, particularly mercury fulminate.

Within the car parking in the south of the site, hydrocarbon contamination may be encountered as a result of localised spillages of fuel.

An above ground tank is present in the northwest of the site, in between the building and No 7 Nestles Avenue in the west, although it is not known to whom this belongs or whether the tanks remain in use. The presence of a fuel dispensing pump attached to the tank suggests that it is likely that the tank has been used to store fuel in the past and as such, it represents a source of contamination; fuel may have leaked from the tank or been spilt during refuelling.

Off site sources

The site is located in an area with an industrial history. The railway line around 150 m to the north of the site does not in itself represent a source of contamination and the associated infrastructure is at such a distance that they are unlikely to have affected the site.

An electricity substation is present to the north of the site and is of an age when polychlorinated biphenyls (PCBs) are likely to have been used as a coolant. Leakage of PCBs could have occurred, although any contamination would be expected to only affect the immediate substation area and is unlikely to have migrated onto the site, given the distance.

The desk study has identified a historical landfill site located 294 m to the northeast of the site and this could represent a source of migrating landfill gas, although this is not likely to be an ongoing source or a source of significant quantities of migrating gas.

The creosoting works that was present around 750 m to the east of the site from 1897, potentially until 1970, is at such a distance that it is unlikely to have affected the site.

2.6.2 Receptor

The proposed redevelopment of the building for residential purposes will result in the end users representing relatively high sensitivity receptors.

As the site is potentially underlain by a Principal Aquifer, groundwater is also considered to be a sensitive receptor.

³ Department of the Environment Industry Profile (1996) *Profile of Miscellaneous Industries (printers)* and (1995) *Chemical works; explosives, propellants and pyrotechnics manufacturing works*. HMSO

Buried services are likely to come into contact with any contaminants present within the soils through which they pass and site workers are likely to come into contact with any contaminants present in the soils during construction works.

2.6.3 Pathway

Within the site, end users will be isolated from direct contact with any contaminants that may be present within the made ground by the presence of the proposed building and the extent of the hardstanding. However, in areas of soft landscaping, a pathway would exist whereby end users could come into contact with potentially contaminated soils through direct contact. As the areas of soft landscaping are to comprise managed areas, as opposed to communal or private gardens with the potential for produce to be grown, this is not considered to be significant. If the private terraces on the ground floor are not surfaced with hardstanding, they will represent a potential pathway for contaminants.

A pathway is currently in existence in areas of soft landscaping and through cracks or gaps in the hardstanding.

As the site is expected to be underlain by the Lynch Hill Gravel, granular soils would allow the migration of potentially contaminated groundwater or soil gas through the shallow soils to surrounding sites and vice versa.

Buried services and concrete may be exposed to any contaminants present within the soil through direct contact and site workers will come into contact with the soils during construction works.

There is thus considered to be a moderate potential for a contaminant pathway to be present between any potential contaminant source and a target for the particular contaminant.

2.6.4 Preliminary Risk Appraisal

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

3.0 EXPLORATORY WORK

In order to meet the objectives described in Section 1.2, a single cable percussion borehole was advanced to a depth of 30.00 m and five opendrive percussive sampler boreholes were advanced to a maximum depth of 3.00 m. Ground probing radar techniques were used to identify a suitable location at the front of the site, away from buried services, for the cable percussion borehole.

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

Four monitoring standpipes have been installed into a selection of the boreholes in order to carry out gas and groundwater monitoring and to facilitate groundwater sampling, if required in the future. Three monitoring visits have subsequently been carried out.

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

All of the above work was carried out under the supervision of a geotechnical engineer from GEA. The boreholes are appended, together with a site plan indicating the exploratory positions.

3.1 Sampling Strategy

The borehole locations were positioned on site by GEA in order to provide coverage of the site, whilst working within accessible locations and avoiding known and suspected buried services. The cable percussion borehole was positioned in the car park in the south of the site as the most accessible and unrestricted location. The opendrive percussive sampler boreholes were advanced within the footprint of the existing building to provide coverage of the site and to provide an indication of the presence of any contamination.

Ten samples of the made ground have been tested for the presence of contamination. The analytical suite of testing was selected to identify contamination resulting from the former uses of the site and a range of typical industrial contaminants for the purposes of general coverage. For this investigation the analytical suite for the soil included a range of metals, speciation of total petroleum hydrocarbons (TPH), polycyclic aromatic hydrocarbons (PAH), total cyanide and monohydric phenols. Eight samples were also screened for the presence of asbestos.

A selection of the samples was also tested for the presence of semi-volatile organic compounds and volatile organic compounds (SVOCs and VOCs) in order to identify the presence of solvents within the made ground, which may be present as a result of the printing works that occupied the site.

Selected samples were also tested for polychlorinated biphenyls (PCBs) in order to determine whether PCBs had migrated onto the site from the electricity substation to the north.

The contamination analyses were carried out at an MCERTs accredited laboratory with the majority of the testing suite accredited to MCERTS standards. A summary of the MCERTs accreditation and test methods are included with the attached results and further details are available upon request.

Samples of the natural soil were submitted to a laboratory for a programme of geotechnical testing, which included Atterberg limit testing, particle size distribution testing and soluble sulphate and pH analysis.

4.0 GROUND CONDITIONS

The investigation has generally confirmed the expected ground conditions in that, beneath a moderate thickness of made ground, the Lynch Hill Gravel is present over the London Clay Formation, which extends to the maximum depth of investigation of 30.00 m.

4.1 Made Ground

Beneath block paving and a sand subbase, which extended to 0.25 m in the car parking area at the front of the site, a nominal thickness of made ground was encountered, which generally comprised concrete rubble and topsoil extending to a depth of 0.80 m. The made ground included pea gravel, which was surrounding a ceramic drainage run on the northern side of the service pit. The drain appeared to run in a roughly northeasterly direction towards the corner of the building and was not damaged.

A moderate to significant thickness of made ground was encountered beneath the floor slab of the existing building, which comprised high strength aggregate concrete of between 150 mm to 170 mm thick, with 6 mm diameter reinforcement towards the base and a coarse gravel base. The underlying made ground generally comprised dark grey / brown dry clayey slightly gravelly sand or silty sandy gravel and included fragments of brick, clinker, glass and ceramic and rare chalk and plastic fragments; it extended to depths of between 0.85 m and 2.20 m.

Material that appeared to be consistent with Pulverised Fuel Ash (PFA) was encountered in Borehole No 1 at a depth of 0.70 m extending to a depth of 0.90 m, although was not encountered at any other location. It is possible that the site is partly underlain by PFA or that the made ground includes sections of PFA, which has historically been used as an engineering fill material.

4.2 **Lynch Hill Gravel**

This stratum generally comprised dense and very dense yellow-brown and brown sandy gravel and gravelly sand, with some portions comprising slightly silty sandy gravel or with the gravel becoming clayey towards the base. Refusal was reached in all boreholes within the footprint of the building in the very dense granular soils at depths of between 1.00 m and 3.00 m.

Within Borehole No 1, advanced at the front of the building, generally very dense becoming medium dense brown and grey sandy gravel was encountered, and extended to a depth of 5.70 m. The decrease in density is most likely to be attributable to the presence of groundwater.

4.3 **London Clay**

The London Clay comprised an initial weathered layer of firm brown and yellowish brown clay with rare fine gravel, which extended to a depth of 6.80 m. Beneath this was very stiff fissured brownish grey clay with mica and occasional partings of light brownish grey silt and fine sand, which extended to the full depth of investigation of 30.00 m. Foraminifera fossils were present from a depth of 10.50 m to 13.50 m and claystones were encountered at depths of 15.70 m and 25.80 m.

The results of plasticity index tests indicate the clay to be of high volume change potential, and the results of quick undrained triaxial compression tests indicate the clay to be of very high, becoming extremely high strength.

4.4 **Groundwater**

Groundwater was encountered in Borehole No 1 at a depth of 4.80 m during drilling. Combined gas and groundwater monitoring standpipes have been installed into Borehole Nos 1, 2, 3 and 5 and the installation details can be found on the appended logs.

Three return monitoring visits have been carried out, although on each occasion it was not possible to access the building and so only Borehole No 1 could be monitored. Groundwater was measured at a depth of 2.82 m on 30 August, at 2.87 m on 11 October 2018, and at 2.71 m on 15 November 2018.

Additional groundwater monitoring that includes the standpipes not accessible to date is recommended, to confirm the groundwater regime across the site.

4.5 Gas Monitoring

Gas monitoring has been undertaken on three occasions, but access was only possible to Borehole No 1 and the conclusions drawn in this section are therefore based on limited data only. The full monitoring results are appended and indicate that no methane, carbon monoxide or hydrogen sulphide has been detected. A very low concentration of carbon dioxide was measured during the first visit, along with a very slight negative rate of flow of -1.31 l/h, but no flow or carbon dioxide was measured during the subsequent visits. Very low levels of Volatile Organic Compounds of 2.0 ppm were measured on the first visit only.

In determining the significance of soil gas concentrations, both the gas concentrations and borehole flow rates are used to define a characteristic situation for a site based on the limiting borehole gas volume flow, renamed as the Gas Screening Value (GSV) for methane and carbon dioxide. In this case the following GSVs have been determined, in accordance with guidance provided by CIRIA⁴.

Only a positive flow rate would indicate the emission of ground gases, and the negative flow rate has therefore been discounted when calculating the GSVs.

Gas	Max concentration % vol.	Avg flow rate l/hr	GSV
Methane	< 0.1	< 0.1	< 0.001
Carbon dioxide	0.7	< 0.1	< 0.007

The gas screening value is calculated using the following formula:

$$GSV = \text{flow rate} \times (\text{concentration of gas} / 100)$$

The gas screening value of less than 0.07 l/hr indicates Characteristic Situation 1 (CS1). In accordance with BS 8485⁵ the proposed development is likely to be classified as a Type B building, comprising private or commercial buildings of multiple occupancy, with small to medium size rooms with passive ventilation. Table 4 of BS 8485 indicates the minimum gas protection score (points) for each type of building (A-D) using the CS level (1-6) previously determined. A Type B building with CS1 requires zero points in reference to gas protection measures, such that no gas protection measures are required.

The above conclusion should be considered as interim advice only. It is recommended that additional gas monitoring be undertaken, which includes the standpipes not accessible to date, in order to confirm the GSV applicable to the site as a whole.

4.6 Soil Contamination

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

4 Wilson, S, Oliver, S, Mallett, H, Hutchings, H and Card, G (2006) *Assessing risks posed by hazardous ground gases to buildings* CIRIA Report C659
5 The British Standards Institution (2015), *BS 8484:2015 Code of practice for the design of protective measures for methane and carbon dioxide ground gases for new buildings*. 2nd Ed. BSI Standards Ltd

Determinant	Minimum concentration	Maximum concentration	Generic Risk-Based Screening Value	Number of samples above screening value
pH	7.5	8.4	-	-
Arsenic	12	38	37	1
Cadmium	< 0.2	< 0.2	26	0
Chromium	20	33	3000	0
Lead	30	1200	200	4
Mercury	< 0.3	2.6	170	0
Selenium	< 1.0	< 1.0	350	0
Copper	11	130	2330	0
Nickel	16	34	97	0
Zinc	35	250	3750	0
Total Cyanide	< 1	< 1	140	0
Total Phenols	< 1.0	< 1.0	184	0
Total PAH	< 0.80	36.9	62.1	0
Sulphide	< 1.0	1.0	50	0
Benzo(a)pyrene	< 0.05	3.4	4.35	0
Naphthalene	< 0.05	< 0.05	2.20	0
TPH	< 10	200	1000	0
Total Organic Carbon %	0.1	2.5	6	0

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

Asbestos was not detected in any of the eight samples of made ground screened for it.

4.6.1 Generic Quantitative Risk Assessment

The use of a risk-based approach has been adopted to provide an initial screening of the test results to assess the need for subsequent site-specific risk assessments. Contaminants of concern are those that have a value in excess of a generic human health risk based guideline values, which is either the CLEA Soil Guideline Value where available, a Generic Screening Value calculated using the CLEA UK Version 1.06 software assuming a residential end use with plant uptake, or is based on the DEFRA Category 4 Screening values. The key generic assumptions for this end use are as follows:

- ❑ that groundwater will not be a critical risk receptor;
- ❑ that the critical receptor for human health will be young female children aged zero to six years old;
- ❑ that the exposure duration will be six years;
- ❑ that the critical exposure pathways will be direct soil and indoor dust ingestion, consumption of home grown produce, consumption of soil adhering to home grown produce, skin contact with soils and dust, and inhalation of dust and vapours; and
- ❑ that the building type equates to a terraced house.

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

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

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

The chemical analyses have indicated that a single sample of the made ground originating in Borehole No 2 contains an elevated concentration of arsenic, at 38 mg/kg, marginally above the screening value of 37 mg/kg. No other samples contain elevated concentrations of arsenic.

Four samples of the made ground, originating in Borehole Nos 2, 3, 4 and 5, contain elevated concentrations of lead at concentrations of between 420 mg/kg and 1200 mg/kg, above the screening value of 200 mg/kg.

There are no elevated concentrations of SVOCs and VOCs or PCBs in the samples tested and no asbestos was detected.

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

Part 2: DESIGN BASIS REPORT

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

5.0 INTRODUCTION

Consideration is being given to demolition of the existing building and redevelopment to provide a building of ten storeys, comprising residential units on the ground floor and above, with associated landscaping, access, car parking and cycle parking. The nine duplex apartments on the ground floor will have attached private terraces, which will be comprised of hardstanding. There will be car parking under the northwestern side of the building. The landscaping will take the form of two 'garden walk' areas along the southeast and southwest sides of the building. There will be a partial basement under the north of the building, to contain plant equipment.

The proposed loads are not known but are anticipated to be moderate to high.

6.0 GROUND MODEL

The desk study has revealed that the site has a potentially contaminative historical use as it has been occupied by a printing works since around 2001. The site formed part of a National Filing Factory during WWI, although this was cleared in the inter-war period and the existing building was constructed by 1946. The use of the building from this time, up until 2001, is unknown, although planning records suggest a business use until around 1996. On the basis of the fieldwork, the ground conditions at this site can be characterised as follows:

- ❑ below a nominal thickness of made ground in Borehole No 1 and, below a variable thickness of made ground beneath the footprint of the existing building, very dense and dense sands and gravels of the Lynch Hill Gravel are present, beneath which is the London Clay Formation;
- ❑ the made ground typically comprises dark grey / brown clayey slightly gravelly sand or silty sandy gravel including fragments of brick, clinker, glass and ceramic and rare chalk and plastic fragments and extends to depths of between 0.80 m and 2.20 m;
- ❑ the Lynch Hill Gravel generally comprises dense and very dense sands and gravels and extends to a depth of 5.70 m;
- ❑ the underlying London Clay comprises firm brown and yellowish brown clay with rare fine gravel, to a depth of 6.80 m, underlain by very stiff very high strength fissured brownish grey clay with mica and occasional partings of light brownish grey silt and fine sand to the full depth of investigation, of 30.00 m. Claystones were encountered at depths of 15.70 m and 25.80 m;
- ❑ groundwater was encountered within the Lynch Hill Gravel at a depth of around 4.80 m and has subsequently been measured at depths of between 2.87 m and 2.71 m;

- ❑ a single sample of the made ground contains an elevated concentration of arsenic, although the elevation in concentration is marginal, and four samples of the made ground contain elevated concentrations of lead; and
- ❑ there are no other elevated concentrations of contaminants, including SVOCs, VOCs and PCBs, and ground gas and asbestos has not been detected.

7.0 ADVICE AND RECOMMENDATIONS

In view of the anticipated moderate to high loads, it is recommended that the building be founded on piled foundations, for which the London Clay will provide a suitable bearing stratum. It is understood that the highest loads are likely to be placed in the north of the site and therefore additional work will be required to confirm the ground conditions in that area, in particular to determine the depth to the base of the gravel. In conjunction with this additional work, it would be prudent to undertake additional gas and groundwater monitoring, which includes the standpipes not accessible to date, to confirm the groundwater regime across the site and any gas protection measures necessary. The above ground fuel tank in the northwest of the site will need to be decommissioned by a specialist and it is possible that additional investigation will be required in this area to determine whether it has leaked. If any of the underlying soil is impacted with hydrocarbons this will need to be excavated or remediated. A thickness of imported soil will be required in areas of proposed soft landscaping to protect end users and to ensure successful plant growth.

7.1 Piled Foundations

For the ground conditions at this site a bored pile could be adopted. A conventional rotary augered pile could be utilised but consideration will need to be given to the possible instability and water ingress within the made ground and Lynch Hill Gravel. The use of bored piles installed using continuous flight auger (cfa) techniques may therefore be the most appropriate and the limited site access may be a factor in the selection of most appropriate pile type.

The following table of ultimate coefficients may be used for the preliminary design of bored piles, based on the SPT and cohesion / depth graph in the appendix.

Stratum	Depths m	kN / m ²
Ultimate Skin Friction		
Made Ground	GL to 2.0	Ignored
Lynch Hill Gravel	2.0 to 6.0	25
London Clay	6.0 to 30.0	Increasing linearly from 75 to 160
Ultimate End Bearing		
London Clay	10.0 to 30.0	Increasing linearly from 1620 to 2880

In the absence of pile tests, guidance from the London District Surveyors Association (LDSA)⁶ suggests that a factor of safety of 2.6 should be applied to the above coefficients in the computation of safe theoretical working loads. On the basis of the above coefficients, the following pile capacities have been estimated.

⁶ LDSA (2009) *Foundations No 1 – Guidance notes for the design of straight shafted bored piles in London Clay*. LDSA

Pile diameter mm	Depth Below Ground Level m	Safe Working Load kN
600	10	485
	20	1325
	30	6285

The above examples are not intended to constitute any form of recommendation with regard to pile size or type, but merely serve to illustrate the use of the above coefficients. Specialist piling contractors should be consulted with regard to the design of a suitable piling scheme and their attention should be drawn to potential groundwater inflows and instability within the Lynch Hill Gravel and the presence of the London Clay beneath.

It is understood that the highest loads are likely to be placed in the north of the site and therefore additional work, in the form of an additional borehole to 30.00 m, is strongly recommended to confirm that the ground conditions are the same as encountered in the south of the site, in particular to determine the depth to the base of the gravel.

If piles will be required to extend beyond the maximum depth of the investigation of 30.00 m, additional investigation should be carried out to confirm the design parameters.

7.2 Basement Construction

A single-storey basement excavation will be formed within the centre of the site in the north. The majority of the basement will have a depth of 3.00 m, but the tank room will have a maximum depth of 4.20 m. The formation level for the basement is likely to be within the dense and very dense sand and gravel of the Lynch Hill Gravel at a maximum depth of 4.20 m. Groundwater was encountered at a depth of 4.80 m during drilling and has subsequently been measured at a minimum depth of 2.71 m within the standpipe; on this basis inflows of groundwater are likely to be encountered within the basement excavation, although monitoring of the standpipes should be carried out to confirm the groundwater level. Shallow inflows of perched water may also be encountered from within the made ground and ideally a number of trial excavations should be carried out, to depths as close to the full basement depth as possible, to provide an indication of stability and the extent to which the excavation may be affected by groundwater inflows; this is however unlikely to be possible prior to development due to the access restrictions.

The design of basement support in the temporary and permanent conditions needs to take account of the necessity to maintain the stability of the surrounding structures and the likely requirement to control groundwater inflows.

There are a number of methods by which the sides of the basement excavation could be supported in the temporary and permanent conditions. The choice of wall may be governed to a large extent by whether it is to be incorporated into the permanent works and have a load bearing function.

In view of the ground condition, the preferred option for the formation of new retaining walls is to use a piled wall. For the ground conditions at this site a bored pile wall could be utilised to support the basement excavation and could have the advantage of being incorporated into the permanent works to provide support for structural loads. In view of the likely groundwater level and the presence of granular soil, a secant bored pile wall may be required, as groundwater has been monitored at depths of between 2.71 m and 2.68 m, so is likely to be encountered within the basement excavation.

The ground movements associated with the basement excavation will depend on the method of excavation and support and the overall stiffness of the basement structure in the temporary condition. Thus, a suitable amount of propping will be required to provide the necessary rigidity. In this respect the timing of the provision of support to the wall will have an important effect on movements. It is recommended that a quantitative assessment of the potential movements in the form of a Ground Movement Analysis, including a Building Damage Assessment, be carried out once the development proposals have been developed.

7.2.1 Basement Retaining Walls

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

Stratum	Bulk Density (kg/m ³)	Effective Cohesion (c' – kN/m ²)	Effective Friction Angle (ϕ' – degrees)
Made ground	1700	Zero	27
Lynch Hill Gravel	2000	Zero	34
London Clay	2000	Zero	24

Monitoring of the standpipes should be continued to assess the design water level but at this stage it would appear that groundwater may be assumed to be above basement level; the advice in BS8102:2009⁷ should also be followed in this respect.

7.2.2 Basement Heave

The 4.20 m deep excavation of the basement will result in a differential net unloading of the soil, which will result in differential heave of the underlying London Clay. This will comprise immediate elastic movement, which will account for approximately 40 % of the total movement and be expected to be complete during the construction period, and long-term movements, which will theoretically take many years to complete. These movements will, to some extent, be mitigated by the loads applied by the proposed development and the presence of a remaining thickness of gravel below basement level. However, the ground movements associated with the proposed basement excavation and construction will need to be considered in more detail once the development proposals have been developed further.

7.3 Hydrogeological Assessment

The results from the ground investigation have indicated that groundwater is unlikely to be encountered within the basement excavation, but is present just below it, at a depth of approximately 2.71 m below ground level. Groundwater will therefore be able to flow below the basement within the Lynch Hill Gravel.

In conclusion, as the new basement does not close a pathway or create a cut-off, it is considered that the groundwater will follow a pathway beneath the proposed basement and will not build up significantly behind it. The basement should not, therefore, have any noticeable effect on groundwater flow.

Monitoring of the standpipes should be continued for as long as possible prior to construction to confirm this view.

⁷ BS8102 (2009) *Code of practice for protection of below ground structures against water from the ground*

7.4 Shallow Excavations

On the basis of the borehole findings it is considered that it will not be generally feasible to form relatively shallow excavations terminating within the Lynch Hill Gravel without the requirement for lateral support, and localised instabilities are particularly likely where groundwater is encountered.

Significant inflows of groundwater into shallow excavations are not generally anticipated, although seepages may be encountered from perched water tables within the made ground. Such inflows should be suitably controlled by sump pumping.

7.5 Basement Floor Slab

Formation level will be within the granular soils of the Lynch Hill Gravel and it should be possible to adopt a moderately loaded ground bearing floor slab.

7.6 Effect of Sulphates

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

7.7 Contamination Risk Assessment

The desk study findings indicate the site to have a potentially contaminative history, having been occupied by a printing works since around 2001. The site formed part of a National Filing Factory during WWI, although the land was subsequently redeveloped and the existing building was constructed by 1946. The use of the building from this time, up until 2001, is unknown, although planning records suggest a business use until around 1996.

The chemical analyses have indicated that a single sample of the made ground originating in Borehole No 2 contained an elevated concentration of arsenic and that four samples of the made ground, originating in Borehole Nos 2, 3, 4 and 5, contained elevated concentrations of lead. There were no other elevated concentrations of contaminants measured, including SVOCs, VOCs and PCBs, and asbestos has not been detected.

The source of the arsenic and lead contamination is unknown, although the previous known site uses are potential sources, but the made ground was noted as containing fragments of extraneous material and it is possible that fragments of such material, for example, coal or old paint fragments, could account for the elevated concentrations. As a result, the lead and arsenic contamination is not likely to be in a soluble state and should not, therefore, pose a risk to adjacent sites, groundwater or buried services.

End users will be isolated from contact with the made ground by the footprint of the proposed building, but protection measures will be required where end users may be exposed to the made ground in the new areas of soft landscaping included in the design proposals, or if the terraces attached to the ground floor duplexes are to be soft landscaping instead of hardstanding. At this stage it is recommended that a cover thickness of imported subsoil and topsoil of up to 600 mm in thickness should be specified for any new areas of soft landscaping in accordance with recommendations from BRE⁸. It is likely to be possible to reduce the final

⁸ BRE (2004) *Cover systems for land regeneration. Thickness of cover systems for contaminated land*. BRE pub 465

thickness of cover required, but this will need to be determined once final levels have been established and the concentrations of potential contaminants within the imported material and in the soils at formation level are known. Imported soils should be certified as clean with appropriate documentation. The clean cover should include 150 mm thickness of certified topsoil at the surface in planted beds.

As part of the redevelopment, the above ground fuel tank in the northwest of the site will need to be decommissioned by a specialist and it is possible that additional investigation will be required in this area to determine whether it has leaked. If any of the underlying soil is impacted with hydrocarbons, this will need to be excavated or remediated.

The gas monitoring undertaken to date has not indicated that gas protection measures will be required. However, additional gas monitoring is recommended, which includes the standpipes not accessible to date, to confirm whether any gas protection measures are necessary.

The contamination will pose a risk to site workers during the ground works. These risks are further assessed below.

7.7.1 Site Workers

Apart from the physical hazards represented by the fill materials, elevated concentrations of arsenic and lead have been measured in the made ground beneath the footprint of the existing building. Site workers should be made aware of the contamination and a programme of working should be identified to protect workers handling any soil. The method of site working should be in accordance with guidelines set out by HSE and CIRIA⁹ and the requirements of the Local Authority Environmental Health Officer.

7.8 Waste Disposal

Under the European Waste Directive, waste is classified as being either Hazardous or Non-Hazardous and landfills receiving waste are classified as accepting hazardous or non-hazardous wastes or the non-hazardous sub-category of inert waste in accordance with the Waste Directive. Waste classification is a staged process and this investigation represents the preliminary sampling exercise of that process. Once the extent and location of the waste that is to be removed has been defined, further sampling and testing may be necessary. The results from this ground investigation should be used to help define the sampling plan for such further testing, which could include WAC leaching tests where the totals analysis indicates the soil to be a hazardous waste or inert waste from a contaminated site. It should however be noted that the Environment Agency guidance WM3¹⁰ states that landfill WAC analysis, specifically leaching test results, must not be used for waste classification purposes.

Any spoil arising from excavations or landscaping works, which is not to be re-used in accordance with the CL:AIRE¹¹ guidance, will need to be disposed of to a licensed tip. Waste going to landfill is subject to landfill tax at either the standard rate of £94.15 per tonne (about £175 per m³) or at the lower rate of £3.00 per tonne (roughly £5.50 per m³). However, the classifications for tax purposes and disposal purposes differ and currently all made ground and topsoil is taxable at the 'standard' rate and only naturally occurring soil and stones, which are accurately described as such in terms of the 2011 Order, would qualify for the 'lower rate' of landfill tax.

9 CIRIA (1996) *A guide for safe working on contaminated sites* - Report 132, Construction Industry Research and Information Association

10 Environment Agency 2015. *Guidance on the classification and assessment of waste*. Technical Guidance WM3 First Edition

11 CL:AIRE March 2011. *The Definition of Waste: Development Industry Code of Practice* Version 2

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

Soil Type	Waste Classification (Waste Code)	WAC Testing Required Prior to Landfill Disposal?	Current applicable rate of Landfill Tax
Made ground	Non-hazardous (17 05 04)	No	£94.15/tonne (Standard rate)
Natural soils	Inert (17 05 04)	Should not be required but confirm with receiving landfill	£3.00 / tonne (Reduced rate for uncontaminated naturally occurring rocks and soils)

Under the requirements of the European Waste Directive all waste needs to be pre-treated prior to disposal. The pre-treatment process must be physical, thermal, chemical or biological, including sorting. It must change the characteristics of the waste in order to reduce its volume, hazardous nature, facilitate handling or enhance recovery. The waste producer can carry out the treatment but they will need to provide documentation to prove that this has been carried out. Alternatively, the treatment can be carried out by an approved contractor. The Environment Agency has issued a position paper¹² which states that in certain circumstances, segregation at source may be considered as pre-treatment and thus excavated material may not have to be treated prior to landfilling if the soils can be segregated onsite prior to excavation by sufficiently characterising the soils insitu prior to excavation.

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

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

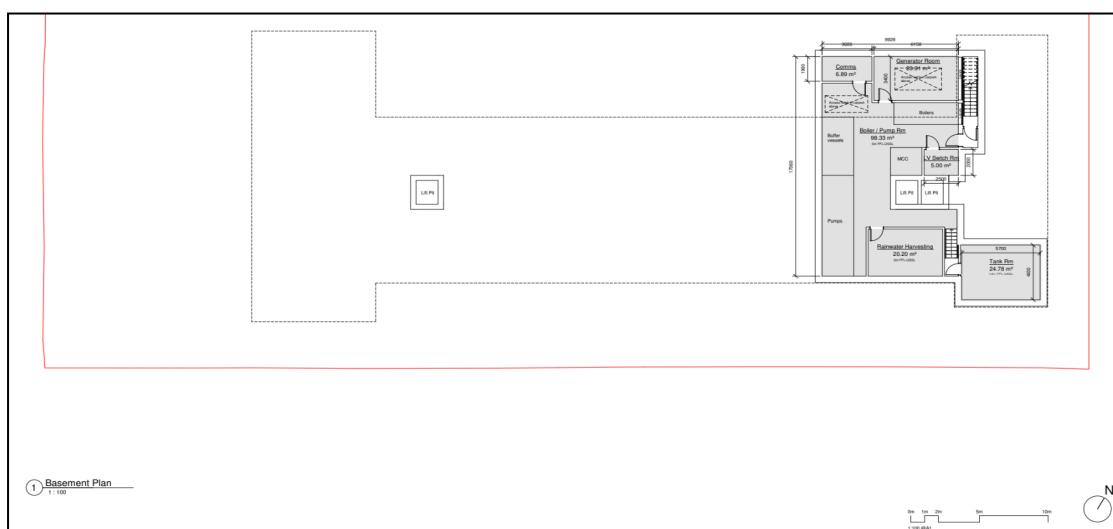
12 Environment Agency 23 Oct 2007 *Regulatory Position Statement Treating non-hazardous waste for landfill - Enforcing the new requirement*

Part 3: BASEMENT IMPACT ASSESSMENT

8.0 INTRODUCTION

The basement guidance provided by the London Borough of Hillingdon indicates that the scheme must be assessed for the impact on drainage, flooding, groundwater conditions and structural stability, but does not specify questions or a specific procedure to follow. In the absence of specific guidance, the methodology specified by London Borough of Camden has been adopted.

9.0 BASEMENT IMPACT SCREENING



Basement floor plan (drawing reference A – (03) – 009), provided by TateHindle

9.1 Screening Assessment

For the purpose of this report the screening questions used by the London Borough of Camden have been adopted with obviously irrelevant questions removed.

The flowchart questions and responses to these questions are tabulated below.

9.1.1 Groundwater Screening Assessment

Question	Response for 9 Nestles Avenue
1a. Is the site located directly above an aquifer?	Yes. The Lynch Hill Gravel is a designated Principal Aquifer.
1b. Will the proposed basement extend beneath the water table surface?	Yes, the indication is that the basement will be up to 4.20 m deep, and monitoring has indicated that groundwater is at 2.71 m to 2.87 m.
2. Is the site within 100 m of a watercourse, well or potential spring line?	No.
4. Will the proposed basement development result in a change in the effective proportion of hard surfaced / paved areas (including impermeable basement rooftops beneath garden areas)?	Yes. The new scheme will include new landscaped areas in the southeast and southwest of the site. However, the basement will be under the footprint of the building.

Question	Response for 9 Nestles Avenue
5. As part of the site drainage, will more surface water (e.g. rainfall and run-off) than at present be discharged to the ground?	<i>Possibly, as increased soft landscaping makes up part of the new scheme.</i>
6. Is the lowest point of the proposed excavation (allowing for any drainage and foundation space under the basement floor) close to or lower than, the mean water level in any local pond?	No.

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

- Q1a The site is located directly above the Lynch Hill Gravel, which is a Principal Aquifer.
- Q1b There is a possibility that the proposed basement will extend below the groundwater table.
- Q4 The new development proposals will increase the amount of landscaping for the site.
- Q5 The increased soft landscaping will allow more surface water infiltration.

9.1.2 Surface Water Screening Assessment

Question	Response for 9 Nestles Avenue
2. As part of the proposed site drainage, will surface water flows paths be materially changed?	<i>Yes, increased soft landscaping will allow for greater surface water infiltration. Gravity discharge solutions will be used to control drainage.</i>
3. Will the proposed basement development result in a change in the proportion of hard surfaced / paved external areas?	<i>Yes, the new proposals include garden walks in the southeast and southwest of the site.</i>
4. Will the proposed basement development result in changes to the profile of the inflows of surface water being received by adjacent properties or downstream watercourses?	<i>Yes, the new proposals include garden walks in the southeast and southwest of the site.</i>
5. Will the proposed basement result in changes to the quantity of surface water being received by adjacent properties or downstream watercourses?	<i>Yes, the new proposals include garden walks in the southeast and southwest of the site, allowing for greater surface water infiltration.</i>
6. Is the site in an area identified as having surface water flood risk according to either the Local Flood Risk Management Strategy or SFRA	No. A flood risk assessment has been conducted, and found the site to be within Flood Zone 1, and flooding is considered to be a low risk.
7. Is there a history of flooding / ponding across the site?	No.

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

- Q2 Surface water flow paths could change under the new scheme
- Q3 The new proposals will increase the proportion of soft landscaping
- Q4 The proposals could change the profile of surface water inflows to neighbouring properties
- Q5 The proposals could result in the change of quantity of surface water to neighbouring properties

9.1.3 Structural Stability Screening Assessment

Question	Response for 9 Nestles Avenue
1. Does the existing site include slopes, natural or manmade, greater than 7°?	No.
2. Will the proposed re-profiling of landscaping at the site change slopes at the property boundary to more than 7°?	No.
3. Does the development neighbour land, including railway cuttings and the like, with a slope greater than 7°?	No.
4. Is the site within a wider hillside setting in which the general slope is greater than 7°?	No.
5. Is the London Clay the shallowest strata at the site?	No.
6. Will any trees be felled as part of the proposed development and / or are any works proposed within any tree protection zones where trees are to be retained?	No.
7. Is there a history of seasonal shrink-swell subsidence in the local area and / or evidence of such effects at the site?	No.
8. Is the site within 100 m of a watercourse or potential spring line?	No.
9. Is the site within an area of previously worked ground?	No.
10a. Is the site within an aquifer?	Yes. The Lynch Hill Gravel is a Principal Aquifer.
10b. Will the proposed basement extend beneath the water table such that dewatering may be required during construction?	Yes, groundwater is expected to be between 2.71 and 2.87 m, which is within the basement.
12. Is the site within 5 m of a highway or pedestrian right of way?	Yes. The site fronts onto Nestles Avenue, and is bounded by alleyways. However, the basement itself will not be within 5 m of any highway or right of way.
13. Will the proposed basement significantly increase the differential depth of foundations relative to neighbouring properties?	No.
14. Is the site over (or within the exclusion zone of) any tunnels, e.g. railway lines?	No.

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

- Q10a The Lynch Hill Gravel is a Principal Aquifer.
- Q10b Groundwater inflows are expected within the basement excavation.
- Q12 The site is within 5 m of a highway or right of way.

9.2 Basement Impact Scoping and Conclusions

The purpose of scoping is to assess in more detail the factors to be investigated by the impact assessment. Potential impacts are assessed for each of the identified potential impact factors and the results of the ground investigation have been used to determine the significance of each impact.

9.2.1 Potential Impacts

The table below summarises the previously identified potential impacts.

Potential Impact	Consequence
The site is located directly above an aquifer	The site is underlain by the Lynch Hill Gravel, which is classified as a Principal Aquifer. This refers to rock or drift deposits that have high intergranular and/or fracture permeability – meaning they usually provide a high level of water storage. They may support water supply and/or river base flow on a strategic scale. There is the potential for the hydrogeological setting to be affected by a basement development. Conclusion: whilst groundwater is present above the depth of the basement, the basement does not extend below the entire site and in any case there is space for groundwater to flow around the site.
The proposed basement extends beneath the water table surface	If a basement extends below the groundwater table, there is a potential for the basement structure to divert groundwater flow such that groundwater level is affected on both the up slope and down slope side of the basement structure. This in turn has the potential to affect the local hydrogeology and any adjacent structures. Conclusion: the basement will not create a total cut-off to groundwater flow and should not therefore have any measurable effect.
The site has potential for groundwater flooding at the surface	London Borough of Hillingdon guidance states that basements in areas with the potential for flooding must be restricted to solely non-residential with no sensitive basement uses permitted. Conclusion: the proposed development will not include residential use at basement level.
The development will result in the change of proportion of hardstanding – surface water flow and infiltration will change	The site is currently covered by hardstanding, with the exception of a few trees and overgrown weeds in the south of the site. The new scheme proposes two soft landscaped garden walks, which will result in a decreased proportion of hardstanding, and therefore more surface water infiltration beneath the site. This is not as a result of the basement, however, as the basement will be within the building footprint and proposed hardstanding for car parking. Conclusion: not relevant.
The site is within 5 m of a highway or public right of way	The site fronts onto Nestles Avenue, and is bounded by alleyways to the west and east. However, the basement will be located in the centre rear of the site, and will not be located within 5 m of a highway or public right of way. Conclusion: the basement is sufficiently distant to not affect the highway

On the basis of the above, the basement is not considered to have a potential to significantly affect surface water, groundwater or structural stability.

A Flood Risk Assessment has been commissioned as part of the planning process, and a draft copy of the assessment has been reviewed by GEA. The flood risk assessment has indicated that the site is within Flood Zone 1, and that the risks of flooding from all sources is considered to be low risk.

If a flood event did occur, flood waters were shown to flow away from building access points and doors. The basement will house plant and tanks, so there is no sensitive end use in the basement, regardless.

10.0 OUTSTANDING RISKS AND ISSUES

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

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

Monitoring of the standpipes should be continued to determine equilibrium groundwater levels and to establish any seasonal fluctuations. In particular, it is recommended that additional monitoring is undertaken of the standpipes that were not accessible during the monitoring undertaken to date, in order to confirm the groundwater levels and any gas protection measures required.

In accordance with the recommendations of the Detailed UXO Risk Assessment, a site-specific UXO awareness briefing will need to be given to all site workers conducting intrusive works.

It is understood that the highest loads are likely to be placed in the north of the site and therefore additional work is strongly recommended, following vacant possession or demolition of the building, to confirm that the ground conditions are the same as encountered in the south of the site, in particular to determine the depth to the base of the gravel.

The above ground fuel tank in the northwest of the site will need to be decommissioned by a specialist and it is possible that additional investigation will be required in this area to determine whether it has leaked. If any of the underlying soil is impacted with hydrocarbons, this will need to be excavated or remediated.

In order to fully assess the potential impacts of the excavation for the basement, it is recommended that a Ground Movement Analysis, including a Building Damage Assessment, is carried out once the development proposals, including loadings, have been finalised.

If during ground works any visual or olfactory evidence of contamination is identified it is recommended that further investigation be carried out and that the risk assessment is reviewed.

These areas of doubt should be drawn to the attention of prospective contractors and further investigation will be required or sufficient contingency should be provided to cover the outstanding risk.

APPENDIX

Borehole Records
SPT & Cohesion/Depth Graph
Geotechnical Test Results
Chemical Test Results
Gas Monitoring Results
Generic Risk Based Screening Values
Envirocheck Extracts
Historical Maps
Preliminary UXO Risk Assessment
Detailed UXO Risk Assessment
Site Plan

 Geotechnical & Environmental Associates Widbury Barn Widbury Hill Ware SG12 7QE							Site 9 Nestles Avenue Hayes		Borehole Number BH1	
Boring Method Cable Percussion		Casing Diameter 150mm cased to 6.00m		Ground Level (mOD)		Client Healey Development Solutions (Hayes) limited		Job Number J18167		
		Location		Dates 31/07/2018-08/08/2018		Engineer		Sheet 1/3		
Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	
0.40	D1					(0.25) 0.25 (0.25) 0.50 (0.30) 0.80	Block paving over sand subbase.			
							Made ground (concrete rubble and topsoil)			
0.80	D2						Pea gravel			
1.20-1.58 1.20	SPT(C) 76/225 B1		DRY	8,15/22,25,29			Dense to very dense yellowish brown and grey sandy GRAVEL of fine to coarse angular to subrounded flint. Rare dead rootlet at 0.8 m			
2.00-2.45 2.00	SPT(C) N60=49 B2		DRY	6,7/8,11,13,14						
3.00-3.45 3.00	SPT(C) N60=33 B3		DRY	3,5/6,8,8,9		(4.90)	... becoming very sandy around 3.00 m.			
4.00-4.45 4.00	SPT(C) N60=26 B4		DRY	4,4/5,6,6,7			... becoming medium dense around 4.00 m.			
5.00	B5			Slow(1) at 4.80m, rose to 4.30m in 20 mins, sealed at 6.00m.			... loose around 5.00 m.			
5.00-5.38	SPT(C) 1*/75 N60=7		4.30	1/1,1,2,3		5.70				
6.00-6.45 6.00	SPT N60=12 S1		DRY	2,1/2,3,3,3		(1.10)	Firm brown and yellowish brown CLAY with rare fine gravel			
6.90	D6					6.80	Very stiff very high strength fissured brownish grey CLAY with mica. Occasional partings of light brownish grey silt and fine sand. Fragments of foraminifera fossils from 10.5 m to 13.5 m.			
7.50-7.95	U1									
8.00	D7									
9.00-9.45 9.00	SPT N60=26 S2		DRY	4,4/5,5,6,8						
Remarks Service pit excavated from ground level to 1.20 m - gravel encasing suspected drainage encountered on northern side of pit (not damaged). Water added from 1.20 m to 5.70 m to aid drilling of the granular soil. Groundwater encountered at 4.80 m. Chiselling through claystones for one hour. Standpipe installed with a response zone between 1.00 m and 7.00 m and a gas tap. Chiselling from 0.00m to 1.20m for 2 hours. Water added from 1.20m to 5.70m.							Scale (approx) 1:50	Logged By SM & KM		
							Figure No. j18167.BH1			



Site	9 Nestles Avenue Hayes
-------------	------------------------

**Borehole
Number**
BH1

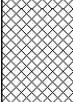
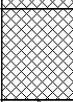
Boring Method Cable Percussion	Casing Diameter 150mm cased to 6.00m	Ground Level (mOD)	Client Healey Development Solutions (Hayes) limited	Job Number J18167
	Location	Dates 31/07/2018-08/08/2018	Engineer	Sheet 2/3

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
10.50-10.95	U2						... with partings of light brown fine sand and fossil traces (foraminifera).		
11.00	D8								
12.00-12.45 12.00	SPT N60=32 S3		DRY	4,5/6,7,8,9					
13.50-13.95	U3								
14.00	D9								
15.00-15.45 15.00	SPT N60=35 S4		DRY	5,5/7,8,9,9					
							... claystone encountered at 15.70 m.		
17.10 17.20-17.65	D10 U4								
17.70	D11								
18.00-18.45 18.00	SPT N60=39 S5		DRY	5,6/8,9,9,11					
						(23.20)			
19.50-19.95	U5								

Remarks	Scale (approx)	Logged By
	1:50	SM & KM
	Figure No. j18167.BH1	

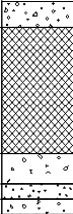
 GEA Geotechnical & Environmental Associates Widbury Barn Widbury Hill Ware SG12 7QE							Site 9 Nestles Avenue Hayes		Borehole Number BH1
Boring Method Cable Percussion		Casing Diameter 150mm cased to 6.00m		Ground Level (mOD)		Client Healey Development Solutions (Hayes) limited		Job Number J18167	
		Location		Dates 31/07/2018-08/08/2018		Engineer		Sheet 3/3	
Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
20.00	D12								
21.00-21.45 21.00	SPT N60=42 S6		DRY	6,6/8,9,10,12					
22.50-22.95	U6						... becoming extremely high strength from 22.50 m.		
23.00	D13								
24.00-24.45 24.00	SPT N60=44 S7		DRY	7,7/8,9,11,13					
25.50-25.95 25.80	U7 D14						... claystone encountered at 25.80 m.		
26.70 27.00-27.45 27.00	D15 SPT N60=46 S8		DRY	7,8/9,9,11,14					
28.50-28.95	U8						... becoming very high strength from 28.50 m, with calcareous traces, claystone fragments and glauconite		
29.00	D16								
29.50-29.95 29.50	SPT N60=50 S9		DRY	7,8/9,10,12,16					
						30.00			
Remarks								Scale (approx) 1:50	Logged By SM & KM
								Figure No. j18167.BH1	

 GEA Geotechnical & Environmental Associates Widbury Barn Widbury Hill Ware SG12 7QE						Site 9 Nestles Avenue Hayes		Number BH2
Excavation Method Opendrive percussive sampler		Dimensions		Ground Level (mOD)		Client Healey Development Solutions (Hayes) limited		Job Number J18167
		Location		Dates 01/08/2018		Engineer		Sheet 1/1
Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.40	C				(0.15) 0.13	Reinforced concrete - high strength aggregate concrete with 6mm reinforcement at 0.12 m and a gravel base.		
0.60	C				(0.55)	Made Ground (brown silty sandy gravel including fragments of brick, ceramics and some organic material over red brown clayey slightly gravelly sand)		
0.80	C				0.70 (0.20) 0.90	Made Ground (dark grey sand with traces of chalk)		
1.00-1.45	SPT(C) N60=55		1,5/9,10,13,17		(0.70)	Made Ground (dry slightly sandy clay becoming slightly gravelly and including fragments of plastic)		
1.00	D				1.60	Brown sandy GRAVEL, becoming clayey at the base. Sand is fine to coarse. Gravel is fine to medium sub-angular to sub-rounded white, grey and black flint.		
1.30	C				(0.30) 1.90	Very dense yellow / brown SAND. Sand is fine to medium.		
1.70	C		5,10/15,20,15		(0.55)	Very dense yellow / brown gravelly SAND. Sand is fine to coarse. Gravel is fine to coarse sub-rounded to angular grey, white and brown flint.		
1.80	D				2.45	... refusal at 3.00 m.		
2.00-2.44	SPT(C) 50/285				(0.55)	Terminated at 3.00m		
2.00	D				3.00			
2.60	D		11,14/17,17,14,2					
3.00-3.45	SPT(C) 50/230							
Remarks Water added during coring of concrete floor slab. Groundwater not encountered. Refusal reached at 3.00 m. Standpipe installed with a response zone between 2.00 m and 3.00 m and a gas tap.							Scale (approx) 1:50	Logged By SM
							Figure No. J18167.BH2	

 GEA Geotechnical & Environmental Associates Widbury Barn Widbury Hill Ware SG12 7QE						Site 9 Nestles Avenue Hayes		Number BH3
Excavation Method Opendrive percussive sampler		Dimensions		Ground Level (mOD)		Client Healey Development Solutions (Hayes) limited		Job Number J18167
		Location		Dates 01/08/2018		Engineer		Sheet 1/1
Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.50	C				(0.16) 0.18 (0.64) 0.80	Reinforced concrete - high strength aggregate concrete with 6mm reinforcement at 0.13 m and a gravel base. Made ground (dark grey / brown dry clayey slightly gravelly sand including fragments of brick, glass, clinker, ceramic, becoming reddish brown sandy slightly gravelly clay towards base)	 	
1.00-1.45 1.00	SPT(C) N60=4 C		1,1/1,1,1,1		(0.80)	Made ground (brown clayey slightly sandy gravel including fragments of brick)		
1.70	C				1.60 (0.60)	Made ground (brown sandy slightly gravelly clay including fragments of brick and organic material / pockets of clinker)		
2.00-2.46 2.30 2.40	SPT(C) 50/310 C D		3,7/10,15,20,5		2.20 (0.80)	Yellow brown slightly silty sandy GRAVEL. Sand is fine to coarse. Gravel is fine to medium rounded to sub angular brown and grey flint. ...becoming light brown from 2.50 m.		
2.80 3.00-3.39	D SPT(C) 50/175		12,13/20,21,9		3.00	Refusal at 3.00 m. Terminated at 3.00m		
Remarks Water added during coring of concrete floor slab. Groundwater not encountered. Refusal reached at 3.00 m. Standpipe installed with a response zone between 2.50 m and 3.00 m and a gas tap.							Scale (approx) 1:50	Logged By SM
							Figure No. J18167.BH3	

 GEA Geotechnical & Environmental Associates Widbury Barn Widbury Hill Ware SG12 7QE						Site 9 Nestles Avenue Hayes		Number BH4
Excavation Method Opendrive percussive sampler		Dimensions Water added during coring of concrete floor slab. to Groundwater not encountered. to Refusal reached at 3.00 m. to		Ground Level (mOD) concrete floor slab. to		Client Healey Development Solutions (Hayes) limited		Job Number J18167
		Location 8.2m from northwest wall 1.1m from southwest wall		Dates 01/08/2018		Engineer		Sheet 1/1
Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.20	C				(0.16) 0.18 (0.44)	Reinforced concrete - high strength aggregate concrete with 6mm reinforcement at 0.15 m and a gravel base.		
0.80	C				0.60 (0.30)	Made ground (dark grey / brown mottled black slightly clayey slightly gravelly sand including organic material, brick, glass, clinker, ceramic and rare chalk)		
1.00-1.36	SPT(C) 50/175		13,12/35,15		0.90 1.00	Made ground (grey mottled red-brown dry slightly sandy clay including rare fragments of red brick and clinker) Very dense brown-grey clayey GRAVEL. Gravel is fine to coarse subangular to subrounded grey, brown and white flint. Terminated at 1.00m		
Remarks Groundwater not encountered. Refusal reached at 1.00 m. Borehole backfilled upon completion. Water added during coring of concrete floor slab.							Scale (approx) 1:50	Logged By SM
							Figure No. J18167.BH4	

 GEA Geotechnical & Environmental Associates Widbury Barn Widbury Hill Ware SG12 7QE						Site 9 Nestles Avenue Hayes		Number BH4A	
Excavation Method Opendrive percussive sampler		Dimensions		Ground Level (mOD)		Client Healey Development Solutions (Hayes) limited		Job Number J18167	
		Location 7 m from northwest wall 9 m from southwest wall		Dates 01/08/2018		Engineer		Sheet 1/1	
Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	
0.50	C		14,11/30,20		(0.17) 0.17	Reinforced concrete - high strength aggregate concrete with 6mm reinforcement at 0.13 m.			
0.90	C				(0.68)	Made ground (soft light grey and brown slightly sandy slightly gravelly clay becoming dark grey slightly clayey slightly gravelly sand including fragments of red brick, chalk, occasional clinker and decaying rootlets) becoming dark grey			
0.90	D				0.85				
1.00-1.40	SPT(C) 50/210				0.95	Firm light brown silty slightly sandy CLAY with rare gravel and a reworked texture. Sand is fine to medium. Gravel is fine to medium angular to rounded brown and white flint.			
1.00	D				1.00	Brown clayey GRAVEL. Gravel is fine to coarse sub angular to sub rounded grey, brown and white flint.			
						Terminated at 1.00m			
Remarks Borehole backfilled upon completion. Water added during coring of concrete floor slab. Groundwater not encountered. Refusal reached at 1.00 m.							Scale (approx) 1:50	Logged By SM	
							Figure No. J18167.BH4A		

 GEA Geotechnical & Environmental Associates Widbury Barn Widbury Hill Ware SG12 7QE						Site 9 Nestles Avenue Hayes		Number BH5
Excavation Method Opendrive percussive sampler		Dimensions		Ground Level (mOD)		Client Healey Development Solutions (Hayes) limited		Job Number J18167
		Location		Dates 01/08/2018		Engineer		Sheet 1/1
Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.50	C		7,9/14,22,14		(0.17) 0.17 (0.83) 1.00 (0.20) 1.20 1.30 1.40	Reinforced concrete - high strength aggregate concrete with 6mm reinforcement at 0.12 m and a gravel base. Made ground (dark grey slightly clayey slightly gravelly sand including fragments of brick, clinker, some organic material and glass) ... including fragments of chalk and ash around 0.90 m. Very dense brown clayey GRAVEL. Gravel is fine to coarse sub angular to sub rounded grey, brown and white flint. Very dense orange-brown SAND. Sand is fine to medium. Very dense brown sandy GRAVEL. Sand is fine - coarse sand. Gravel is fine coarse subangular to subrounded white, grey and black flint) ... refusal at 1.40 m. Terminated at 1.40m		
0.90 1.00-1.33 1.10 1.25 1.35	C SPT(C) 50/175 D D D							
Remarks Water added during coring of concrete floor slab. Groundwater not encountered. Refusal reached at 1.4.00 m. Standpipe installed with a response zone between 0.50 m and 1.40 m and a gas tap.							Scale (approx) 1:50	Logged By SM
							Figure No. J18167.BH5	



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SPT & Cohesion / Depth Graph

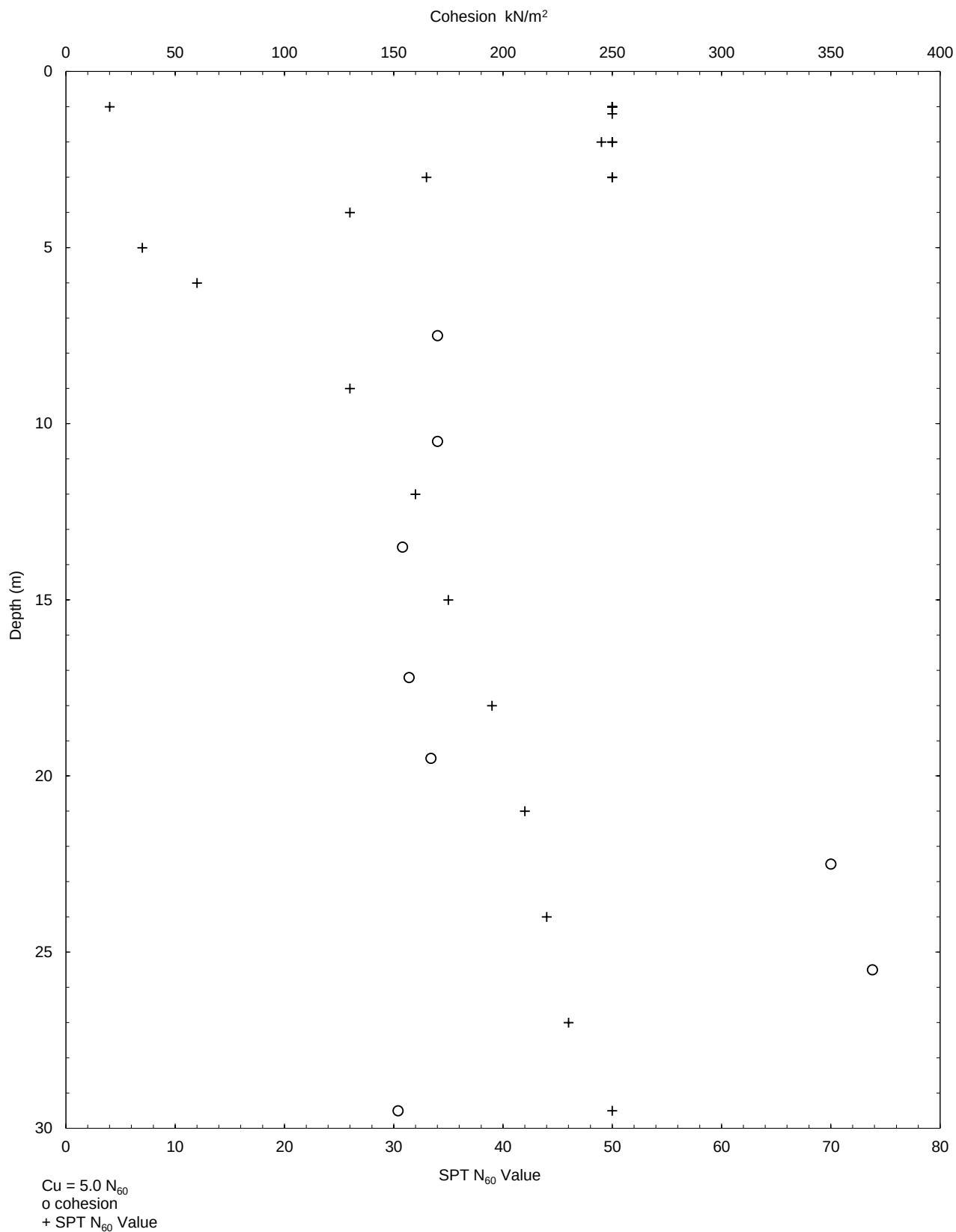
Site 9 Nestles Avenue, Hayes

Client Healey Development Solutions (Hayes) Limited

Engineer

Job Number
J18167

Sheet
1 / 1



SUMMARY OF GEOTECHNICAL TESTING

Sample details					Classification Tests					Density Tests		Undrained Triaxial Compression				Chemical Tests			Other tests and comments
Borehole / Trial Pit	Depth (m)	Sample Ref	Type	Description	WC (%)	LL (%)	PL (%)	PI (%)	<425 µm (%)	Bulk Mg/m³	Dry Mg/m³	Condition	Cell Pressure kPa	Deviator Stress kPa	Shear Stress kPa	pH	2:1 W/S SO4 (g/L)	W/S Mg (mg/L)	
BH1	2.00		B	Yellowish brown sandy GRAVEL.															Particle Size Distribution
BH1	4.00		B	Yellowish brown very sandy GRAVEL.	6.2											8.3	<0.01		Particle Size Distribution
BH1	5.00		B	Yellowish brown very sandy GRAVEL.															Particle Size Distribution
BH1	6.00		B	Brown and yellow brown CLAY with rare fine gravel.	27.6	79	25	54	99							8.0	<0.01		
BH1	6.90		D	Dark brown CLAY.	26.6	77	26	51	100										
BH1	7.50		U	Stiff fissured dark brown CLAY	25.8					2.02	1.61	Undisturbed	150	340	170				
BH1	8.00		D													8.1	0.28		
BH1	10.50		U	Very stiff fissured dark brown CLAY	24.0					2.03	1.64	Undisturbed	210	340	170				
BH1	13.50		U	Stiff fissured dark brown CLAY	25.5					2.00	1.59	Undisturbed	270	307	154				
BH1	17.20		U	Very stiff fissured dark brown CLAY	25.7					2.02	1.61	Undisturbed	344	314	157				

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

Checked and Approved by  S Burke - Senior Technician 04/09/2018	Project Number: GEO / 27938 Project Name: 9 NESTLES AVENUE, HAYES J18167	
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SUMMARY OF GEOTECHNICAL TESTING

Sample details					Classification Tests					Density Tests		Undrained Triaxial Compression				Chemical Tests			Other tests and comments
Borehole / Trial Pit	Depth (m)	Sample Ref	Type	Description	WC (%)	LL (%)	PL (%)	PI (%)	<425 µm (%)	Bulk Mg/m³	Dry Mg/m³	Condition	Cell Pressure kPa	Deviator Stress kPa	Shear Stress kPa	pH	2:1 W/S SO4 (g/L)	W/S Mg (mg/L)	
BH1	19.50		U	Very stiff fissured dark brown CLAY with rare pyrite	26.0					2.01	1.59	Undisturbed	390	334	167				
BH1	20.00		D													8.8	0.18		
BH1	22.50		U	Very stiff fissured dark brown CLAY	24.4					2.05	1.65	Undisturbed	450	701	350				
BH1	25.50		U	Very stiff fissured dark brown CLAY with rare pyrite	24.5					1.99	1.60	Undisturbed	510	737	369				
BH1	28.50		U	Stiff fissured brown CLAY	26.6					2.01	1.59	Undisturbed	570	305	152				

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

Checked and Approved by S Burke S Burke - Senior Technician 04/09/2018	Project Number: Project Name: GEO / 27938 9 NESTLES AVENUE, HAYES J18167	
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PARTICLE SIZE DISTRIBUTION

BH / TP No.
Depth (m)
Sample Type

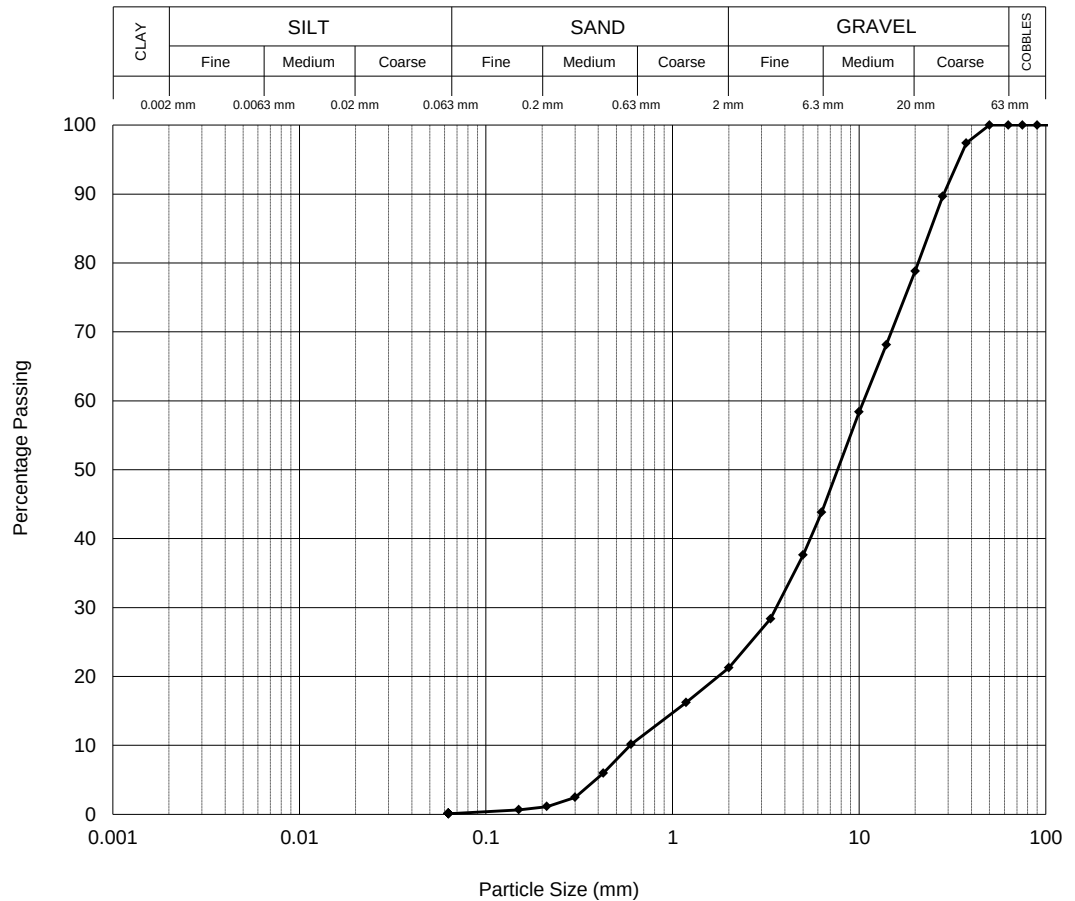
BH1
2.00
B

Description

Yellowish brown sandy GRAVEL.

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

Sieve	
Size	% Pass
200.0 mm	100
125.0 mm	100
90.0 mm	100
75.0 mm	100
63.0 mm	100
50.0 mm	100
37.5 mm	97
28.0 mm	90
20.0 mm	79
14.0 mm	68
10.0 mm	58
6.30 mm	44
5.00 mm	38
3.35 mm	28
2.00 mm	21
1.18 mm	16
600 µm	10
425 µm	6
300 µm	2
212 µm	1
150 µm	1
63 µm	0



Particle Proportions	
Cobbles	0
Gravel	79
Sand	21
Silt & Clay	0

Checked and Approved by

S Burke

S Burke - Senior Technician
04/09/2018

Project Number:

GEO / 27938

Project Name:

**9 NESTLES AVENUE, HAYES
J18167**

GEOLABS



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PARTICLE SIZE DISTRIBUTION

BH / TP No.
Depth (m)
Sample Type

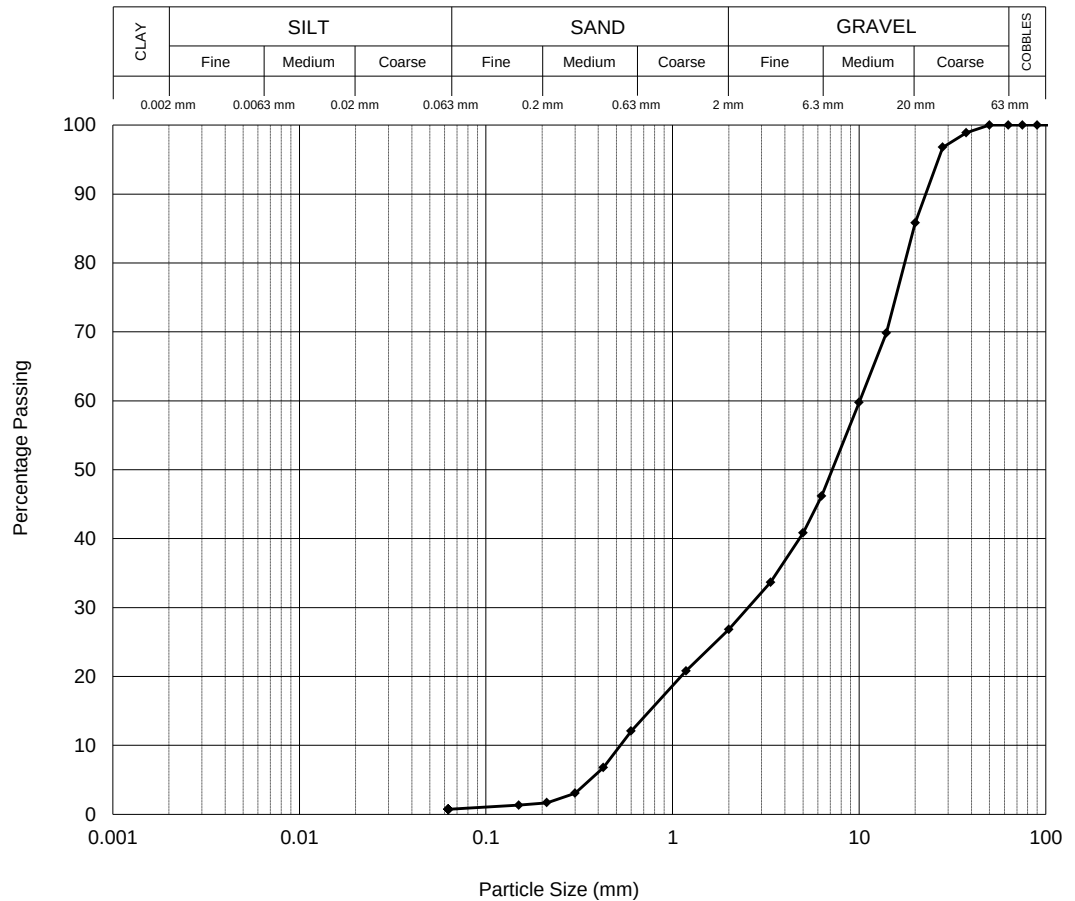
BH1
4.00
B

Description

Yellowish brown very sandy GRAVEL.

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

Sieve	
Size	% Pass
200.0 mm	100
125.0 mm	100
90.0 mm	100
75.0 mm	100
63.0 mm	100
50.0 mm	100
37.5 mm	99
28.0 mm	97
20.0 mm	86
14.0 mm	70
10.0 mm	60
6.30 mm	46
5.00 mm	41
3.35 mm	34
2.00 mm	27
1.18 mm	21
600 µm	12
425 µm	7
300 µm	3
212 µm	2
150 µm	1
63 µm	1



Particle Proportions	
Cobbles	0
Gravel	73
Sand	26
Silt & Clay	1

Checked and Approved by

S Burke

S Burke - Senior Technician
04/09/2018

Project Number:

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**9 NESTLES AVENUE, HAYES
J18167**

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PARTICLE SIZE DISTRIBUTION

BH / TP No.
Depth (m)
Sample Type

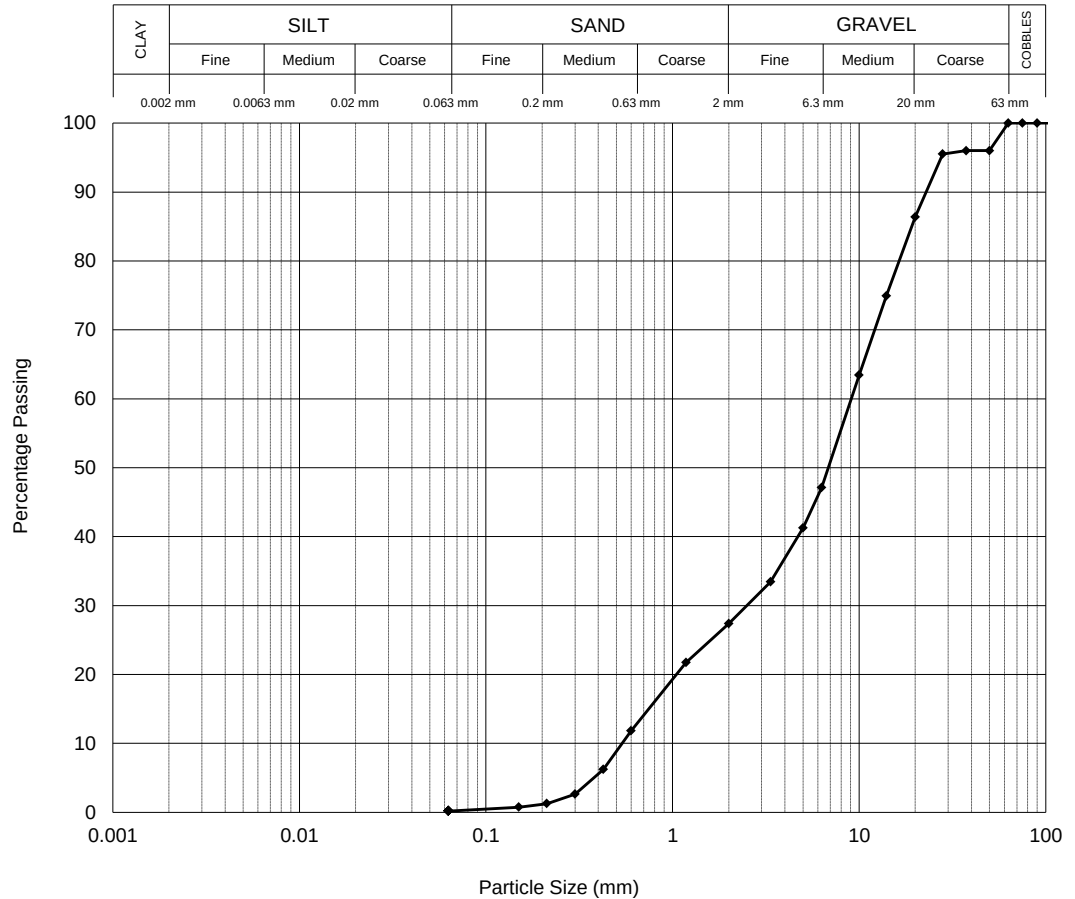
BH1
5.00
B

Description

Yellowish brown very sandy GRAVEL.

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

Sieve	
Size	% Pass
200.0 mm	100
125.0 mm	100
90.0 mm	100
75.0 mm	100
63.0 mm	100
50.0 mm	96
37.5 mm	96
28.0 mm	95
20.0 mm	86
14.0 mm	75
10.0 mm	63
6.30 mm	47
5.00 mm	41
3.35 mm	33
2.00 mm	27
1.18 mm	22
600 µm	12
425 µm	6
300 µm	3
212 µm	1
150 µm	1
63 µm	0



Particle Proportions	
Cobbles	0
Gravel	73
Sand	27
Silt & Clay	0

Checked and Approved by

S Burke

S Burke - Senior Technician
04/09/2018

Project Number:

GEO / 27938

Project Name:

**9 NESTLES AVENUE, HAYES
J18167**

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QUICK UNDRAINED TRIAXIAL COMPRESSION TEST

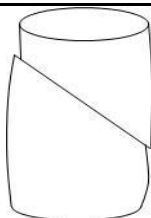
BH/TP No BH1
 Depth (m) 7.50
 Sample Type U

Description:

Stiff fissured dark brown CLAY

Specimen Details

Specimen conditions		Undisturbed
Length	(mm)	202.4
Diameter	(mm)	102.8
Moisture Content	(%)	25.8
Bulk Density	(Mg/m ³)	2.02
Dry Density	(Mg/m ³)	1.61
Test Details		
Latex membrane thickness	(mm)	0.3
Membrane correction	(kPa)	0.5
Axial displacement rate	(%/min)	2.0
Cell pressure	(kPa)	150
Strain at failure	(%)	7.9
Maximum Deviator Stress	(kPa)	340
Shear Stress Cu	(kPa)	170

Mode of failure**Orientation of the sample**

Vertical

Distance from top of tube mm

140

Checked and Approved by:

S Burke - Senior Technician
 04/09/2018

Project Number:

GEO / 27938

Project Name:

9 NESTLES AVENUE, HAYES
J18167

GEOLABS

QUICK UNDRAINED TRIAXIAL COMPRESSION TEST

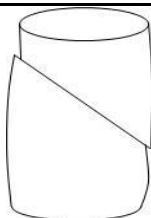
BH/TP No BH1
 Depth (m) 10.50
 Sample Type U

Description:

Very stiff fissured dark brown CLAY

Specimen Details

Specimen conditions		Undisturbed
Length	(mm)	202.7
Diameter	(mm)	102.9
Moisture Content	(%)	24.0
Bulk Density	(Mg/m ³)	2.03
Dry Density	(Mg/m ³)	1.64
Test Details		
Latex membrane thickness	(mm)	0.3
Membrane correction	(kPa)	0.4
Axial displacement rate	(%/min)	2.0
Cell pressure	(kPa)	210
Strain at failure	(%)	5.9
Maximum Deviator Stress	(kPa)	340
Shear Stress Cu	(kPa)	170

Mode of failure

Orientation of the sample	Vertical
Distance from top of tube mm	60

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S Burke - Senior Technician
 04/09/2018

Project Number:

GEO / 27938

Project Name:

9 NESTLES AVENUE, HAYES
J18167

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QUICK UNDRAINED TRIAXIAL COMPRESSION TEST

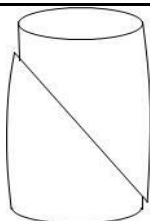
BH/TP No BH1
 Depth (m) 13.50
 Sample Type U

Description:

Stiff fissured dark brown CLAY

Specimen Details

Specimen conditions		Undisturbed
Length	(mm)	202.4
Diameter	(mm)	103.6
Moisture Content	(%)	25.5
Bulk Density	(Mg/m ³)	2.00
Dry Density	(Mg/m ³)	1.59
Test Details		
Latex membrane thickness	(mm)	0.3
Membrane correction	(kPa)	0.2
Axial displacement rate	(%/min)	2.0
Cell pressure	(kPa)	270
Strain at failure	(%)	2.5
Maximum Deviator Stress	(kPa)	307
Shear Stress Cu	(kPa)	154

Mode of failure

Orientation of the sample

Vertical

Distance from top of tube mm

80

Checked and Approved by:

S Burke - Senior Technician
 04/09/2018

Project Number:

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Project Name:

9 NESTLES AVENUE, HAYES
J18167

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QUICK UNDRAINED TRIAXIAL COMPRESSION TEST

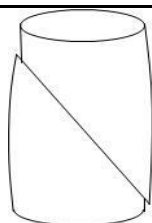
BH/TP No BH1
 Depth (m) 17.20
 Sample Type U

Description:

Very stiff fissured dark brown CLAY

Specimen Details

Specimen conditions		Undisturbed
Length	(mm)	202.3
Diameter	(mm)	103.2
Moisture Content	(%)	25.7
Bulk Density	(Mg/m ³)	2.02
Dry Density	(Mg/m ³)	1.61
Test Details		
Latex membrane thickness	(mm)	0.3
Membrane correction	(kPa)	0.2
Axial displacement rate	(%/min)	2.0
Cell pressure	(kPa)	344
Strain at failure	(%)	2.0
Maximum Deviator Stress	(kPa)	314
Shear Stress Cu	(kPa)	157

Mode of failure

Orientation of the sample	Vertical
Distance from top of tube mm	60

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S Burke - Senior Technician
 04/09/2018

Project Number:

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Project Name:

9 NESTLES AVENUE, HAYES
J18167

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QUICK UNDRAINED TRIAXIAL COMPRESSION TEST

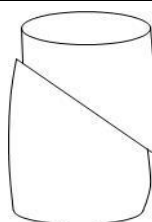
BH/TP No BH1
 Depth (m) 19.50
 Sample Type U

Description:

Very stiff fissured dark brown CLAY with rare pyrite

Specimen Details

Specimen conditions		Undisturbed
Length	(mm)	203.0
Diameter	(mm)	103.4
Moisture Content	(%)	26.0
Bulk Density	(Mg/m ³)	2.01
Dry Density	(Mg/m ³)	1.59
Test Details		
Latex membrane thickness	(mm)	0.3
Membrane correction	(kPa)	0.2
Axial displacement rate	(%/min)	2.0
Cell pressure	(kPa)	390
Strain at failure	(%)	2.7
Maximum Deviator Stress	(kPa)	334
Shear Stress Cu	(kPa)	167

Mode of failure

Orientation of the sample	Vertical
Distance from top of tube mm	100

Checked and Approved by:

S Burke - Senior Technician
 04/09/2018

Project Number:

GEO / 27938

Project Name:

9 NESTLES AVENUE, HAYES
J18167

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QUICK UNDRAINED TRIAXIAL COMPRESSION TEST

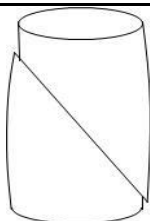
BH/TP No BH1
 Depth (m) 22.50
 Sample Type U

Description:

Very stiff fissured dark brown CLAY

Specimen Details

Specimen conditions		Undisturbed
Length	(mm)	202.7
Diameter	(mm)	103.0
Moisture Content	(%)	24.4
Bulk Density	(Mg/m ³)	2.05
Dry Density	(Mg/m ³)	1.65
Test Details		
Latex membrane thickness	(mm)	0.3
Membrane correction	(kPa)	0.4
Axial displacement rate	(%/min)	1.0
Cell pressure	(kPa)	450
Strain at failure	(%)	5.9
Maximum Deviator Stress	(kPa)	701
Shear Stress Cu	(kPa)	350

Mode of failure

Orientation of the sample

Vertical

Distance from top of tube mm

30

Checked and Approved by:

S Burke

S Burke - Senior Technician
 04/09/2018

Project Number:

GEO / 27938

Project Name:

**9 NESTLES AVENUE, HAYES
 J18167**

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QUICK UNDRAINED TRIAXIAL COMPRESSION TEST

BH/TP No BH1
 Depth (m) 25.50
 Sample Type U

Description:

Very stiff fissured dark brown CLAY with rare pyrite

Specimen Details

Specimen conditions		Undisturbed
Length	(mm)	74.9
Diameter	(mm)	38.3
Moisture Content	(%)	24.5
Bulk Density	(Mg/m ³)	1.99
Dry Density	(Mg/m ³)	1.60
Test Details		
Latex membrane thickness	(mm)	0.3
Membrane correction	(kPa)	1.2
Axial displacement rate	(%/min)	2.0
Cell pressure	(kPa)	510
Strain at failure	(%)	6.0
Maximum Deviator Stress	(kPa)	737
Shear Stress Cu	(kPa)	369

Mode of failure

Orientation of the sample	Vertical
Distance from top of tube mm	250

Checked and Approved by:

S Burke - Senior Technician
 04/09/2018

Project Number:

GEO / 27938

Project Name:

9 NESTLES AVENUE, HAYES
J18167

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QUICK UNDRAINED TRIAXIAL COMPRESSION TEST

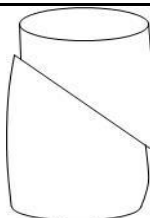
BH/TP No BH1
 Depth (m) 28.50
 Sample Type U

Description:

Stiff fissured brown CLAY

Specimen Details

Specimen conditions		Undisturbed
Length	(mm)	202.5
Diameter	(mm)	103.7
Moisture Content	(%)	26.6
Bulk Density	(Mg/m ³)	2.01
Dry Density	(Mg/m ³)	1.59
Test Details		
Latex membrane thickness	(mm)	0.3
Membrane correction	(kPa)	0.2
Axial displacement rate	(%/min)	1.0
Cell pressure	(kPa)	570
Strain at failure	(%)	2.5
Maximum Deviator Stress	(kPa)	305
Shear Stress Cu	(kPa)	152

Mode of failure**Orientation of the sample**

Vertical

Distance from top of tube mm

30

Checked and Approved by:

S Burke - Senior Technician
 04/09/2018

Project Number:

GEO / 27938

Project Name:

9 NESTLES AVENUE, HAYES
J18167

GEOLABS



Client	Geotechnical & Environmental Associates Limited	TEST RESTRICTION
Project No.	27938	
Project Name	9 NESTLES AVENUE, HAYES	

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

Laboratory ID	BH / TP No.	Sample Ref.	Depth (m)		Type	Test(s) Scheduled			Reason for restriction	Soil Description
308620	BH1		4.00		B	Atterberg Limit			Unsuitable material (No clay)	Yellowish brown very sandy GRAVEL.
Comments / remarks										

Ref. WS 04 - TERE - Issue 1 (07/13)

**Susie Marley**

Geotechnical & Environmental Associates
Widbury Barn
Widbury Hill
Ware
Hertfordshire
SG127QE

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

e: susie@gea-ltd.co.uk

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

Analytical Report Number : 18-95361

Project / Site name:	9 Nestles Avenue, Hayes	Samples received on:	02/08/2018
Your job number:	J18167	Samples instructed on:	06/08/2018
Your order number:	J18167	Analysis completed by:	13/08/2018
Report Issue Number:	1	Report issued on:	13/08/2018
Samples Analysed:	10 soil samples		

Signed:

Jordan Hill
Reporting Manager
For & on behalf of i2 Analytical Ltd.

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

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

Standard sample disposal times, unless otherwise agreed with the laboratory, are :	soils	- 4 weeks from reporting
	leachates	- 2 weeks from reporting
	waters	- 2 weeks from reporting
	asbestos	- 6 months from reporting

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

Analytical Report Number: 18-95361

Project / Site name: 9 Nestles Avenue, Hayes

Your Order No: J18167

Lab Sample Number	1016815	1016816	1016817	1016818	1016819
Sample Reference	BH1	BH2	BH2	BH3	BH3
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	0.80	0.40	0.80	0.50	1.00
Date Sampled	01/08/2018	01/08/2018	01/08/2018	01/08/2018	01/08/2018
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		
Stone Content	%	0.1	NONE	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	7.2	12
Total mass of sample received	kg	0.001	NONE	1.2	0.96

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	-	Not-detected	Not-detected
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General Inorganics

pH - Automated	pH Units	N/A	MCERTS	8.4	7.7	7.9	7.5	8.0
Total Cyanide	mg/kg	1	MCERTS	< 1	< 1	< 1	< 1	< 1
Total Sulphate as SO ₄	mg/kg	50	MCERTS	210	940	400	880	390
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.023	0.17	0.093	0.14	0.078
Sulphide	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	1.0	< 1.0
Water Soluble Chloride (2:1)	mg/kg	1	MCERTS	2.2	79	15	15	9.9
Total Organic Carbon (TOC)	%	0.1	MCERTS	0.1	1.7	0.8	2.1	0.2

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
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Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	1.6	< 0.05	2.9	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	0.28	< 0.05	0.59	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	3.3	< 0.05	5.0	< 0.05
Pyrene	mg/kg	0.05	MCERTS	< 0.05	2.8	< 0.05	4.3	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	1.7	< 0.05	3.1	< 0.05
Chrysene	mg/kg	0.05	MCERTS	< 0.05	1.5	< 0.05	2.2	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	2.5	< 0.05	4.4	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	0.88	< 0.05	1.2	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	2.0	< 0.05	3.4	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	1.0	< 0.05	1.7	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	0.27	< 0.05	0.54	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	1.4	< 0.05	2.2	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	< 0.80	19.3	< 0.80	31.5	< 0.80
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Analytical Report Number: 18-95361

Project / Site name: 9 Nestles Avenue, Hayes

Your Order No: J18167

Lab Sample Number	1016815	1016816	1016817	1016818	1016819
Sample Reference	BH1	BH2	BH2	BH3	BH3
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	0.80	0.40	0.80	0.50	1.00
Date Sampled	01/08/2018	01/08/2018	01/08/2018	01/08/2018	01/08/2018
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		

Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	12	38	13	27	15
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	22	23	20	23	25
Copper (aqua regia extractable)	mg/kg	1	MCERTS	11	110	22	89	19
Lead (aqua regia extractable)	mg/kg	1	MCERTS	45	460	76	420	64
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	1.7	< 0.3	2.6	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	17	25	16	21	22
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	35	150	45	140	42

Petroleum Hydrocarbons

TPH C10 - C40	mg/kg	10	MCERTS	< 10	190	< 10	200	< 10
TPH (C8 - C10)	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH (C10 - C12)	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPH (C12 - C16)	mg/kg	4	MCERTS	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
TPH (C16 - C21)	mg/kg	1	MCERTS	< 1.0	31	< 1.0	35	< 1.0
TPH (C21 - C35)	mg/kg	1	MCERTS	< 1.0	130	< 1.0	140	4.6



Analytical Report Number: 18-95361

Project / Site name: 9 Nestles Avenue, Hayes

Your Order No: J18167

Lab Sample Number	1016815	1016816	1016817	1016818	1016819
Sample Reference	BH1	BH2	BH2	BH3	BH3
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	0.80	0.40	0.80	0.50	1.00
Date Sampled	01/08/2018	01/08/2018	01/08/2018	01/08/2018	01/08/2018
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		

VOCs

Chloromethane	µg/kg	1	ISO 17025	< 1.0	< 1.0	-	< 1.0	< 1.0
Chloroethane	µg/kg	1	NONE	< 1.0	< 1.0	-	< 1.0	< 1.0
Bromomethane	µg/kg	1	ISO 17025	< 1.0	< 1.0	-	< 1.0	< 1.0
Vinyl Chloride	µg/kg	1	NONE	< 1.0	< 1.0	-	< 1.0	< 1.0
Trichlorofluoromethane	µg/kg	1	NONE	< 1.0	< 1.0	-	< 1.0	< 1.0
1,1-Dichloroethene	µg/kg	1	NONE	< 1.0	< 1.0	-	< 1.0	< 1.0
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	1	ISO 17025	< 1.0	< 1.0	-	< 1.0	< 1.0
Cis-1,2-dichloroethene	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
1,1-Dichloroethane	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
2,2-Dichloropropane	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
Trichloromethane	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
1,1,1-Trichloroethane	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
1,2-Dichloroethane	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
1,1-Dichloropropene	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
Trans-1,2-dichloroethene	µg/kg	1	NONE	< 1.0	< 1.0	-	< 1.0	< 1.0
Benzene	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
Tetrachloromethane	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
1,2-Dichloropropane	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
Trichloroethene	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
Dibromomethane	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
Bromodichloromethane	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
Cis-1,3-dichloropropene	µg/kg	1	ISO 17025	< 1.0	< 1.0	-	< 1.0	< 1.0
Trans-1,3-dichloropropene	µg/kg	1	ISO 17025	< 1.0	< 1.0	-	< 1.0	< 1.0
Toluene	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
1,1,2-Trichloroethane	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
1,3-Dichloropropane	µg/kg	1	ISO 17025	< 1.0	< 1.0	-	< 1.0	< 1.0
Dibromochloromethane	µg/kg	1	ISO 17025	< 1.0	< 1.0	-	< 1.0	< 1.0
Tetrachloroethene	µg/kg	1	NONE	< 1.0	< 1.0	-	< 1.0	< 1.0
1,2-Dibromoethane	µg/kg	1	ISO 17025	< 1.0	< 1.0	-	< 1.0	< 1.0
Chlorobenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
1,1,1,2-Tetrachloroethane	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
p & m-Xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
Styrene	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
Tribromomethane	µg/kg	1	NONE	< 1.0	< 1.0	-	< 1.0	< 1.0
o-Xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
1,1,2,2-Tetrachloroethane	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
Isopropylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
Bromobenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
n-Propylbenzene	µg/kg	1	ISO 17025	< 1.0	< 1.0	-	< 1.0	< 1.0
2-Chlorotoluene	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
4-Chlorotoluene	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
1,3,5-Trimethylbenzene	µg/kg	1	ISO 17025	< 1.0	< 1.0	-	< 1.0	< 1.0
tert-Butylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
1,2,4-Trimethylbenzene	µg/kg	1	ISO 17025	< 1.0	< 1.0	-	< 1.0	< 1.0
sec-Butylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
1,3-Dichlorobenzene	µg/kg	1	ISO 17025	< 1.0	< 1.0	-	< 1.0	< 1.0
p-Isopropyltoluene	µg/kg	1	ISO 17025	< 1.0	< 1.0	-	< 1.0	< 1.0
1,2-Dichlorobenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
1,4-Dichlorobenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
Butylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
1,2-Dibromo-3-chloropropane	µg/kg	1	ISO 17025	< 1.0	< 1.0	-	< 1.0	< 1.0
1,2,4-Trichlorobenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
Hexachlorobutadiene	µg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
1,2,3-Trichlorobenzene	µg/kg	1	ISO 17025	< 1.0	< 1.0	-	< 1.0	< 1.0



Analytical Report Number: 18-95361

Project / Site name: 9 Nestles Avenue, Hayes

Your Order No: J18167

Lab Sample Number	1016815	1016816	1016817	1016818	1016819
Sample Reference	BH1	BH2	BH2	BH3	BH3
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	0.80	0.40	0.80	0.50	1.00
Date Sampled	01/08/2018	01/08/2018	01/08/2018	01/08/2018	01/08/2018
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		

SVOCs

Aniline	mg/kg	0.1	NONE	< 0.1	< 0.1	-	< 0.1	< 0.1
Phenol	mg/kg	0.2	ISO 17025	< 0.2	< 0.2	-	< 0.2	< 0.2
2-Chlorophenol	mg/kg	0.1	MCERTS	< 0.1	< 0.1	-	< 0.1	< 0.1
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	< 0.2	< 0.2	-	< 0.2	< 0.2
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	< 0.2	-	< 0.2	< 0.2
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	< 0.1	< 0.1	-	< 0.1	< 0.1
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	< 0.2	-	< 0.2	< 0.2
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	< 0.1	< 0.1	-	< 0.1	< 0.1
2-Methylphenol	mg/kg	0.3	MCERTS	< 0.3	< 0.3	-	< 0.3	< 0.3
Hexachloroethane	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	< 0.05	< 0.05
Nitrobenzene	mg/kg	0.3	MCERTS	< 0.3	< 0.3	-	< 0.3	< 0.3
4-Methylphenol	mg/kg	0.2	NONE	< 0.2	< 0.2	-	< 0.2	< 0.2
Isophorone	mg/kg	0.2	MCERTS	< 0.2	< 0.2	-	< 0.2	< 0.2
2-Nitrophenol	mg/kg	0.3	MCERTS	< 0.3	< 0.3	-	< 0.3	< 0.3
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	< 0.3	< 0.3	-	< 0.3	< 0.3
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	< 0.3	< 0.3	-	< 0.3	< 0.3
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	< 0.3	< 0.3	-	< 0.3	< 0.3
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	< 0.05	< 0.05
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	< 0.3	< 0.3	-	< 0.3	< 0.3
4-Chloroaniline	mg/kg	0.1	NONE	< 0.1	< 0.1	-	< 0.1	< 0.1
Hexachlorobutadiene	mg/kg	0.1	MCERTS	< 0.1	< 0.1	-	< 0.1	< 0.1
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	< 0.1	< 0.1	-	< 0.1	< 0.1
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	< 0.1	< 0.1	-	< 0.1	< 0.1
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	< 0.2	< 0.2	-	< 0.2	< 0.2
2-Methylnaphthalene	mg/kg	0.1	NONE	< 0.1	< 0.1	-	< 0.1	< 0.1
2-Chloronaphthalene	mg/kg	0.1	MCERTS	< 0.1	< 0.1	-	< 0.1	< 0.1
Dimethylphthalate	mg/kg	0.1	MCERTS	< 0.1	< 0.1	-	< 0.1	< 0.1
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	< 0.1	< 0.1	-	< 0.1	< 0.1
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	< 0.05	< 0.05
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	< 0.2	< 0.2	-	< 0.2	< 0.2
Dibenzofuran	mg/kg	0.2	MCERTS	< 0.2	< 0.2	-	< 0.2	< 0.2
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	< 0.3	< 0.3	-	< 0.3	< 0.3
Diethyl phthalate	mg/kg	0.2	MCERTS	< 0.2	< 0.2	-	< 0.2	< 0.2
4-Nitroaniline	mg/kg	0.2	MCERTS	< 0.2	< 0.2	-	< 0.2	< 0.2
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	< 0.05	< 0.05
Azobenzene	mg/kg	0.3	MCERTS	< 0.3	< 0.3	-	< 0.3	< 0.3
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	< 0.2	< 0.2	-	< 0.2	< 0.2
Hexachlorobenzene	mg/kg	0.3	MCERTS	< 0.3	< 0.3	-	< 0.3	< 0.3
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	1.6	-	2.9	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	0.28	-	0.59	< 0.05
Carbazole	mg/kg	0.3	MCERTS	< 0.3	< 0.3	-	0.3	< 0.3
Dibutyl phthalate	mg/kg	0.2	MCERTS	< 0.2	< 0.2	-	< 0.2	< 0.2
Anthraquinone	mg/kg	0.3	MCERTS	< 0.3	< 0.3	-	< 0.3	< 0.3
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	3.3	-	5.0	< 0.05
Pyrene	mg/kg	0.05	MCERTS	< 0.05	2.8	-	4.3	< 0.05
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	< 0.3	< 0.3	-	< 0.3	< 0.3
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	1.7	-	3.1	< 0.05
Chrysene	mg/kg	0.05	MCERTS	< 0.05	1.5	-	2.2	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	2.5	-	4.4	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	0.88	-	1.2	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	2.0	-	3.4	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	1.0	-	1.7	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	0.27	-	0.54	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	1.4	-	2.2	< 0.05

Analytical Report Number: 18-95361

Project / Site name: 9 Nestles Avenue, Hayes

Your Order No: J18167

Lab Sample Number	1016815	1016816	1016817	1016818	1016819
Sample Reference	BH1	BH2	BH2	BH3	BH3
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	0.80	0.40	0.80	0.50	1.00
Date Sampled	01/08/2018	01/08/2018	01/08/2018	01/08/2018	01/08/2018
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		

PCBs by GC-MS

PCB Congener 28	mg/kg	0.001	MCERTS	< 0.001	-	-	< 0.001	-
PCB Congener 52	mg/kg	0.001	MCERTS	< 0.001	-	-	< 0.001	-
PCB Congener 101	mg/kg	0.001	MCERTS	< 0.001	-	-	< 0.001	-
PCB Congener 118	mg/kg	0.001	MCERTS	< 0.001	-	-	< 0.001	-
PCB Congener 138	mg/kg	0.001	MCERTS	< 0.001	-	-	< 0.001	-
PCB Congener 153	mg/kg	0.001	MCERTS	< 0.001	-	-	< 0.001	-
PCB Congener 180	mg/kg	0.001	MCERTS	< 0.001	-	-	< 0.001	-

Total PCBs by GC-MS

Total PCBs	mg/kg	0.007	MCERTS	< 0.007	-	-	< 0.007	-
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Analytical Report Number: 18-95361

Project / Site name: 9 Nestles Avenue, Hayes

Your Order No: J18167

Lab Sample Number	1016820	1016821	1016822	1016823	1016824
Sample Reference	BH3	BH4	BH4	BH5	BH5
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	1.70	0.20	0.80	0.50	0.90
Date Sampled	01/08/2018	01/08/2018	01/08/2018	01/08/2018	01/08/2018
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		
Stone Content	%	0.1	NONE	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	14	15
Total mass of sample received	kg	0.001	NONE	1.5	1.2

Asbestos in Soil	Type	N/A	ISO 17025	-	Not-detected	Not-detected	Not-detected	Not-detected
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General Inorganics

pH - Automated	pH Units	N/A	MCERTS	8.1	7.5	7.7	7.5	7.7
Total Cyanide	mg/kg	1	MCERTS	< 1	< 1	< 1	< 1	< 1
Total Sulphate as SO ₄	mg/kg	50	MCERTS	410	1200	710	960	620
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.058	0.28	0.17	0.16	0.12
Sulphide	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Water Soluble Chloride (2:1)	mg/kg	1	MCERTS	5.4	25	12	15	9.5
Total Organic Carbon (TOC)	%	0.1	MCERTS	0.6	2.5	0.2	2.0	0.5

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
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Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.57	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.27	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	1.8	< 0.05	4.4	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	0.40	< 0.05	0.41	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	4.0	< 0.05	6.8	0.32
Pyrene	mg/kg	0.05	MCERTS	< 0.05	3.6	< 0.05	5.7	0.29
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	2.8	< 0.05	3.2	0.19
Chrysene	mg/kg	0.05	MCERTS	< 0.05	1.9	< 0.05	2.5	0.15
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	4.1	< 0.05	4.6	0.26
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	1.4	< 0.05	1.2	0.08
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	3.2	< 0.05	3.4	0.19
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	1.7	< 0.05	1.6	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	0.48	< 0.05	0.46	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	2.0	< 0.05	1.8	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	< 0.80	27.4	< 0.80	36.9	1.48
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Analytical Report Number: 18-95361

Project / Site name: 9 Nestles Avenue, Hayes

Your Order No: J18167

Lab Sample Number				1016820	1016821	1016822	1016823	1016824
Sample Reference				BH3	BH4	BH4	BH5	BH5
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.70	0.20	0.80	0.50	0.90
Date Sampled				01/08/2018	01/08/2018	01/08/2018	01/08/2018	01/08/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Heavy Metals / Metalloids								
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	15	33	13	25	14
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	26	21	33	22	24
Copper (aqua regia extractable)	mg/kg	1	MCERTS	28	130	23	74	31
Lead (aqua regia extractable)	mg/kg	1	MCERTS	140	500	30	1200	59
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	0.5	2.3	< 0.3	2.4	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	28	23	34	21	26
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	62	250	52	130	53

Petroleum Hydrocarbons

TPH C10 - C40				mg/kg	10	MCERTS	< 10	170	< 10	130	< 10
TPH (C8 - C10)				mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH (C10 - C12)				mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPH (C12 - C16)				mg/kg	4	MCERTS	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
TPH (C16 - C21)				mg/kg	1	MCERTS	< 1.0	24	< 1.0	33	< 1.0
TPH (C21 - C35)				mg/kg	1	MCERTS	4.4	120	< 1.0	78	< 1.0



Analytical Report Number: 18-95361

Project / Site name: 9 Nestles Avenue, Hayes

Your Order No: J18167

Lab Sample Number				1016820	1016821	1016822	1016823	1016824
Sample Reference				BH3	BH4	BH4	BH5	BH5
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.70	0.20	0.80	0.50	0.90
Date Sampled				01/08/2018	01/08/2018	01/08/2018	01/08/2018	01/08/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
VOCs								
Chloromethane	µg/kg	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	-
Chloroethane	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0	< 1.0	-
Bromomethane	µg/kg	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	-
Vinyl Chloride	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0	< 1.0	-
Trichlorofluoromethane	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0	< 1.0	-
1,1-Dichloroethene	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0	< 1.0	-
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	-
Cis-1,2-dichloroethene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	-
1,1-Dichloroethane	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	-
2,2-Dichloropropane	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	-
Trichloromethane	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	-
1,1,1-Trichloroethane	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	-
1,2-Dichloroethane	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	-
1,1-Dichloropropene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	-
Trans-1,2-dichloroethene	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0	< 1.0	-
Benzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	-
Tetrachloromethane	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	-
1,2-Dichloropropane	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	-
Trichloroethene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	-
Dibromomethane	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	-
Bromodichloromethane	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	-
Cis-1,3-dichloropropene	µg/kg	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	-
Trans-1,3-dichloropropene	µg/kg	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	-
Toluene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	-
1,1,2-Trichloroethane	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	-
1,3-Dichloropropane	µg/kg	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	-
Dibromochloromethane	µg/kg	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	-
Tetrachloroethene	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0	< 1.0	-
1,2-Dibromoethane	µg/kg	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	-
Chlorobenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	-
1,1,1,2-Tetrachloroethane	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	-
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	-
p & m-Xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	-
Styrene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	-
Tribromomethane	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0	< 1.0	-
o-Xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	-
1,1,2,2-Tetrachloroethane	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	-
Isopropylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	-
Bromobenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	-
n-Propylbenzene	µg/kg	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	-
2-Chlorotoluene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	-
4-Chlorotoluene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	-
1,3,5-Trimethylbenzene	µg/kg	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	-
tert-Butylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	-
1,2,4-Trimethylbenzene	µg/kg	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	-
sec-Butylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	-
1,3-Dichlorobenzene	µg/kg	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	-
p-Isopropyltoluene	µg/kg	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	-
1,2-Dichlorobenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	-
1,4-Dichlorobenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	-
Butylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	-
1,2-Dibromo-3-chloropropane	µg/kg	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	-
1,2,4-Trichlorobenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	-
Hexachlorobutadiene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	-
1,2,3-Trichlorobenzene	µg/kg	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	-



Analytical Report Number: 18-95361

Project / Site name: 9 Nestles Avenue, Hayes

Your Order No: J18167

Lab Sample Number				1016820	1016821	1016822	1016823	1016824
Sample Reference				BH3	BH4	BH4	BH5	BH5
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.70	0.20	0.80	0.50	0.90
Date Sampled				01/08/2018	01/08/2018	01/08/2018	01/08/2018	01/08/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
SVOCs								
Aniline	mg/kg	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	-
Phenol	mg/kg	0.2	ISO 17025	< 0.2	< 0.2	< 0.2	< 0.2	-
2-Chlorophenol	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	-
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	-
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	-
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	-
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	-
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	-
2-Methylphenol	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	-
Hexachloroethane	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	-
Nitrobenzene	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	-
4-Methylphenol	mg/kg	0.2	NONE	< 0.2	< 0.2	< 0.2	< 0.2	-
Isophorone	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	-
2-Nitrophenol	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	-
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	-
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	-
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	-
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	-
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	-
4-Chloroaniline	mg/kg	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	-
Hexachlorobutadiene	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	-
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	-
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	-
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	-
2-Methylnaphthalene	mg/kg	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	-
2-Chloronaphthalene	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	-
Dimethylphthalate	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	-
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	-
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	-
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.57	-
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	-
Dibenzofuran	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	-
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	< 0.3	< 0.3	< 0.3	< 0.3	-
Diethyl phthalate	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	-
4-Nitroaniline	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	-
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.27	-
Azobenzene	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	-
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	-
Hexachlorobenzene	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	-
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	1.8	< 0.05	4.4	-
Anthracene	mg/kg	0.05	MCERTS	< 0.05	0.40	< 0.05	0.41	-
Carbazole	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	-
Dibutyl phthalate	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	-
Anthraquinone	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	0.3	-
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	4.0	< 0.05	6.8	-
Pyrene	mg/kg	0.05	MCERTS	< 0.05	3.6	< 0.05	5.7	-
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	< 0.3	< 0.3	< 0.3	< 0.3	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	2.8	< 0.05	3.2	-
Chrysene	mg/kg	0.05	MCERTS	< 0.05	1.9	< 0.05	2.5	-
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	4.1	< 0.05	4.6	-
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	1.4	< 0.05	1.2	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	3.2	< 0.05	3.4	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	1.7	< 0.05	1.6	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	0.48	< 0.05	0.46	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	2.0	< 0.05	1.8	-



Analytical Report Number: 18-95361

Project / Site name: 9 Nestles Avenue, Hayes

Your Order No: J18167

Lab Sample Number				1016820	1016821	1016822	1016823	1016824
Sample Reference				BH3	BH4	BH4	BH5	BH5
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.70	0.20	0.80	0.50	0.90
Date Sampled				01/08/2018	01/08/2018	01/08/2018	01/08/2018	01/08/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)				Units	Limit of detection	Accreditation Status		
PCBs by GC-MS								
PCB Congener 28				mg/kg	0.001	MCERTS	-	-
PCB Congener 52				mg/kg	0.001	MCERTS	-	-
PCB Congener 101				mg/kg	0.001	MCERTS	-	-
PCB Congener 118				mg/kg	0.001	MCERTS	-	-
PCB Congener 138				mg/kg	0.001	MCERTS	-	-
PCB Congener 153				mg/kg	0.001	MCERTS	-	-
PCB Congener 180				mg/kg	0.001	MCERTS	-	-
Total PCBs by GC-MS								
Total PCBs				mg/kg	0.007	MCERTS	-	-



Analytical Report Number : 18-95361

Project / Site name: 9 Nestles Avenue, Hayes

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

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

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
1016815	BH1	None Supplied	0.80	Brown sandy clay with gravel.
1016816	BH2	None Supplied	0.40	Brown loam and clay with gravel and brick.
1016817	BH2	None Supplied	0.80	Brown sandy clay with gravel.
1016818	BH3	None Supplied	0.50	Brown loam and sand with gravel and brick.
1016819	BH3	None Supplied	1.00	Brown clay and sand with gravel and brick.
1016820	BH3	None Supplied	1.70	Brown clay with gravel and glass.
1016821	BH4	None Supplied	0.20	Brown loam and sand with gravel.
1016822	BH4	None Supplied	0.80	Brown clay and sand with gravel.
1016823	BH5	None Supplied	0.50	Brown loam and sand with gravel.
1016824	BH5	None Supplied	0.90	Brown clay and sand with gravel and chalk.

Analytical Report Number : 18-95361

Project / Site name: 9 Nestles Avenue, Hayes

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

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Asbestos identification in soil	Asbestos Identification with the use of polarised light microscopy in conjunction with disperion staining techniques.	In house method based on HSG 248	A001-PL	D	ISO 17025
Chloride, water soluble, in soil	Determination of Chloride colorimetrically by discrete analyser.	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests. 2:1 extraction.	L082-PL	D	MCERTS
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically.	In-house method based on BS1377 Part 2, 1990, Chemical and Electrochemical Tests	L019-UK/PL	W	NONE
Monohydric phenols in soil	Determination of phenols in soil by extraction with sodium hydroxide followed by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (skalar)	L080-PL	W	MCERTS
PCB's By GC-MS in soil	Determination of PCB by extraction with acetone and hexane followed by GC-MS.	In-house method based on USEPA 8082	L027-PL	D	MCERTS
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement.	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests	L099-PL	D	MCERTS
Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds in soil by extraction in dichloromethane and hexane followed by GC-MS.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L019-UK/PL	D	NONE
Sulphate, water soluble, in soil (16hr extraction)	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests, 2:1 water:soil extraction, analysis by ICP-OES.	L038-PL	D	MCERTS
Sulphide in soil	Determination of sulphide in soil by acidification and heating to liberate hydrogen sulphide, trapped in an alkaline solution then assayed by ion selective electrode.	In-house method	L010-PL	D	MCERTS
Total cyanide in soil	Determination of total cyanide by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	MCERTS

Analytical Report Number : 18-95361

Project / Site name: 9 Nestles Avenue, Hayes

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

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Total organic carbon (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests"	L009-PL	D	MCERTS
Total sulphate (as SO ₄ in soil)	Determination of total sulphate in soil by extraction with 10% HCl followed by ICP-OES.	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests	L038-PL	D	MCERTS
TPH Banding in Soil by FID	Determination of hexane extractable hydrocarbons in soil by GC-FID.	In-house method, TPH with carbon banding.	L076-PL	W	MCERTS
TPH in (Soil)	Determination of TPH bands by HS-GC-MS/GC-FID	In-house method, TPH with carbon banding.	L076-PL	D	MCERTS
Volatile organic compounds in soil	Determination of volatile organic compounds in soil by headspace GC-MS.	In-house method based on USEPA8260	L073B-PL	W	MCERTS

For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.

For method numbers ending in 'PL' analysis have been carried out in our laboratory in Poland.

Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30°C.



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Gas Monitoring

Site	9 Nestles Avenue, Hayes, UB3 4SA	Job Number
		J18167
		Sheet
Client	Healey Development Solutions (Hayes) Ltd	1/2
Engineer		
Date	30/08/2018	11/10/2018
Air Temperature °C	19	20.5
Barometric Pressure (mB)	1023	1000
Visit No	1	2
Borehole No	1	1
Standpipe Depth	7.1	7.16
Condition of Standpipe	Good	Good
Combustible gas (CH4) % LEL	0	0
Combustible gas (CH4) % vol	0	0
Carbon Dioxide (CO2) % vol	0.6 - 0.7	0
Oxygen (O2) % vol	19.8	20.5
Carbon Monoxide ppm	0 (peak reading of 1)	0
Hydrogen Sulphide (H2S) ppm	0	0
Flow Rate (max) l/hr	-1.31	0
Relative Downhole Pressure mb	-5 (result considered erroneous)	0
Water Level m	2.82	2.87
Remarks	PID: 2.0	PID: 0



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Gas Monitoring

Site	9 Nestles Avenue, Hayes, UB3 4SA	Job Number
Client	Healey Development Solutions (Hayes) Ltd	J18167
Engineer		Sheet
		2/2
Date	15/11/2018	
Air Temperature °C	14.5	
Barometric Pressure (mB)	1019	
Visit No	3	
Borehole No	1	
Standpipe Depth	7.16	
Condition of Standpipe	Good	
Combustible gas (CH4) % LEL	0	
Combustible gas (CH4) % vol	0	
Carbon Dioxide (CO2) % vol	0.2	
Oxygen (O2) % vol	20	
Carbon Monoxide ppm	0	
Hydrogen Sulphide (H2S) ppm	0	
Flow Rate (max) l/hr	0	
Relative Downhole Pressure mb	0	
Water Level m	2.71	
Remarks	PID: 0.028	

Site	9 Nestles Avenue, Hayes UB3 4SA	Job Number J18167
Client	Healey Development Solutions (Hayes) Ltd	Sheet 1 / 1
Engineer		

Proposed End Use Residential with plant uptake

Soil pH 8

Soil Organic Matter content % 1.0

Contaminant	Screening Value mg/kg	Data Source	Contaminant	Screening Value mg/kg	Data Source
Metals			Anions		
Arsenic	37	C4SL	Soluble Sulphate	500 mg/l	Structures
Cadmium	26	C4SL	Sulphide	50	Structures
Chromium (III)	3000	LQM/CIEH	Chloride	400	Structures
Chromium (VI)	21	C4SL	Others		
Copper	2,330	LQM/CIEH	Organic Carbon (%)	6	Methanogenic potential
Lead	200	C4SL	Total Cyanide	140	WRAS
Elemental Mercury	1	SGV	Total Mono Phenols	184	SGV
Inorganic Mercury	170	SGV	PAH		
Nickel	97	LQM/CIEH	Naphthalene	2.20	C4SL exp & LQM/CIEH
Selenium	350	SGV	Acenaphthylene	170	LQM/CIEH
Zinc	3,750	LQM/CIEH	Acenaphthene	210	LQM/CIEH
Hydrocarbons			Fluorene	160	LQM/CIEH
Benzene	0.2	C4SL	Phenanthrene	92	LQM/CIEH
Toluene	120	SGV	Anthracene	2,300	LQM/CIEH
Ethyl Benzene	65	SGV	Fluoranthene	260	LQM/CIEH
Xylene	42	SGV	Pyrene	560	LQM/CIEH
Aliphatic C5-C6	30	LQM/CIEH	Benzo(a) Anthracene	4.3	C4SL exp & LQM/CIEH
Aliphatic C6-C8	73	LQM/CIEH	Chrysene	8	C4SL exp & LQM/CIEH
Aliphatic C8-C10	19	LQM/CIEH	Benzo(b) Fluoranthene	7.7	C4SL exp & LQM/CIEH
Aliphatic C10-C12	93	LQM/CIEH	Benzo(k) Fluoranthene	12.1	C4SL exp & LQM/CIEH
Aliphatic C12-C16	740	LQM/CIEH	Benzo(a) pyrene	4.35	C4SL
Aliphatic C16-C35	45,000	LQM/CIEH	Indeno(1 2 3 cd) Pyrene	4.4	C4SL exp & LQM/CIEH
Aromatic C6-C7	See Benzene	LQM/CIEH	Dibenzo(a h) Anthracene	1.10	C4SL exp & LQM/CIEH
Aromatic C7-C8	See Toluene	LQM/CIEH	Benzo (g h i) Perylene	65	C4SL exp & LQM/CIEH
Aromatic C8-C10	27	LQM/CIEH	Screening value for PAH	62.1	B(a)P / 0.15
Aromatic C10-C12	69	LQM/CIEH	Chlorinated Solvents		
Aromatic C12-C16	140	LQM/CIEH	1,1,1 trichloroethane (TCA)	11.7	LQM/CIEH
Aromatic C16-C21	250	LQM/CIEH	tetrachloroethane (PCA)	0.56	LQM/CIEH
Aromatic C21-C35	890	LQM/CIEH	tetrachloroethene (PCE)	1.01	LQM/CIEH
PRO (C ₅ –C ₁₀)	269	Calc	trichloroethene (TCE)	0.134	LQM/CIEH
DRO (C ₁₂ –C ₂₈)	46,130	Calc	1,2-dichloroethane (DCA)	0.0054	LQM/CIEH
Lube Oil (C ₂₈ –C ₄₄)	45,890	Calc	vinyl chloride (Chloroethene)	0.000953	LQM/CIEH
TPH	1000	Trigger for speciated testing	tetrachloromethane (Carbon tetra	0.018	LQM/CIEH
			trichloromethane (Chloroform)	0.888	LQM/CIEH

Notes

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

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

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

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

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

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

B(a)P / 0.15 - GEA experience indicates that Benzo(a) pyrene (one of the most common and most carcinogenic of the PAHs) rarely exceeds 15% of the total

PAH concentration, hence this Total PAH threshold is regarded as being conservative

Envirocheck[®] Report:

Datasheet

Order Details:

Order Number:

175016424_1_1

Customer Reference:

J18167

National Grid Reference:

509850, 179220

Slice:

A

Site Area (Ha):

0.23

Search Buffer (m):

1000

Site Details:

9 Nestles Avenue

Hayes

UB3 4SA

Client Details:

Mr S Branch

GEA Ltd

Widbury Barn

Widbury Hill

Ware

Herts

SG12 7QE



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Summary	-
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Industrial Land Use	44
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Introduction

The Environment Act 1995 has made site sensitivity a key issue, as the legislation pays as much attention to the pathways by which contamination could spread, and to the vulnerable targets of contamination, as it does the potential sources of contamination.

For this reason, Landmark's Site Sensitivity maps and Datasheet(s) place great emphasis on statutory data provided by the Environment Agency/Natural Resources Wales and the Scottish Environment Protection Agency; it also incorporates data from Natural England (and the Scottish and Welsh equivalents) and Local Authorities; and highlights hydrogeological features required by environmental and geotechnical consultants. It does not include any information concerning past uses of land. The datasheet is produced by querying the Landmark database to a distance defined by the client from a site boundary provided by the client.

In the attached datasheet the National Grid References (NGRs) are rounded to the nearest 10m in accordance with Landmark's agreements with a number of Data Suppliers.

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Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Agency & Hydrological					
BGS Groundwater Flooding Susceptibility	pg 1	Yes	Yes	Yes	n/a
Contaminated Land Register Entries and Notices					
Discharge Consents	pg 1				5
Prosecutions Relating to Controlled Waters			n/a	n/a	n/a
Enforcement and Prohibition Notices					
Integrated Pollution Controls	pg 2			4	2
Integrated Pollution Prevention And Control	pg 3			4	4
Local Authority Integrated Pollution Prevention And Control					
Local Authority Pollution Prevention and Controls	pg 5		1	2	13
Local Authority Pollution Prevention and Control Enforcements					
Nearest Surface Water Feature	pg 7		Yes		
Pollution Incidents to Controlled Waters	pg 7		2	12	42
Prosecutions Relating to Authorised Processes					
Registered Radioactive Substances	pg 17				3
River Quality	pg 17		1		3
River Quality Biology Sampling Points	pg 18				1
River Quality Chemistry Sampling Points					
Substantiated Pollution Incident Register					
Water Abstractions	pg 18			5	3 (*18)
Water Industry Act Referrals	pg 25			1	2
Groundwater Vulnerability	pg 25	Yes	n/a	n/a	n/a
Drift Deposits	pg 25	1	n/a	n/a	n/a
Bedrock Aquifer Designations	pg 25	Yes	n/a	n/a	n/a
Superficial Aquifer Designations	pg 25	Yes	n/a	n/a	n/a
Source Protection Zones					
Extreme Flooding from Rivers or Sea without Defences				n/a	n/a
Flooding from Rivers or Sea without Defences				n/a	n/a
Areas Benefiting from Flood Defences				n/a	n/a
Flood Water Storage Areas				n/a	n/a
Flood Defences				n/a	n/a
OS Water Network Lines	pg 25		3	4	41

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Waste					
BGS Recorded Landfill Sites					
Historical Landfill Sites	pg 32			1	3
Integrated Pollution Control Registered Waste Sites					
Licensed Waste Management Facilities (Landfill Boundaries)	pg 32				1
Licensed Waste Management Facilities (Locations)	pg 33				3
Local Authority Landfill Coverage		1	n/a	n/a	n/a
Local Authority Recorded Landfill Sites					
Potentially Infilled Land (Non-Water)	pg 33			2	3
Potentially Infilled Land (Water)	pg 34		2	1	7
Registered Landfill Sites					
Registered Waste Transfer Sites	pg 34				3
Registered Waste Treatment or Disposal Sites					
Hazardous Substances					
Control of Major Accident Hazards Sites (COMAH)					
Explosive Sites	pg 36			1	
Notification of Installations Handling Hazardous Substances (NIHHS)					
Planning Hazardous Substance Consents					
Planning Hazardous Substance Enforcements					

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Geological					
BGS 1:625,000 Solid Geology	pg 37	Yes	n/a	n/a	n/a
BGS Estimated Soil Chemistry					
BGS Recorded Mineral Sites	pg 37		1	4	12
BGS Urban Soil Chemistry	pg 40		Yes	Yes	Yes
BGS Urban Soil Chemistry Averages	pg 42	Yes			
CBSCB Compensation District			n/a	n/a	n/a
Coal Mining Affected Areas			n/a	n/a	n/a
Mining Instability			n/a	n/a	n/a
Man-Made Mining Cavities					
Natural Cavities					
Non Coal Mining Areas of Great Britain				n/a	n/a
Potential for Collapsible Ground Stability Hazards	pg 43	Yes	Yes	n/a	n/a
Potential for Compressible Ground Stability Hazards				n/a	n/a
Potential for Ground Dissolution Stability Hazards				n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 43	Yes	Yes	n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 43	Yes	Yes	n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 43		Yes	n/a	n/a
Radon Potential - Radon Affected Areas			n/a	n/a	n/a
Radon Potential - Radon Protection Measures			n/a	n/a	n/a
Industrial Land Use					
Contemporary Trade Directory Entries	pg 44	2	50	80	298
Fuel Station Entries	pg 80		1	1	3
Points of Interest - Commercial Services	pg 81		24	31	121
Points of Interest - Education and Health					
Points of Interest - Manufacturing and Production	pg 96		15	39	102
Points of Interest - Public Infrastructure	pg 109		9	2	7
Points of Interest - Recreational and Environmental	pg 110			2	9
Gas Pipelines					
Underground Electrical Cables	pg 111			10	25

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Sensitive Land Use					
Ancient Woodland					
Areas of Adopted Green Belt	pg 115				7
Areas of Unadopted Green Belt					
Areas of Outstanding Natural Beauty					
Environmentally Sensitive Areas					
Forest Parks					
Local Nature Reserves					
Marine Nature Reserves					
National Nature Reserves					
National Parks					
Nitrate Sensitive Areas					
Nitrate Vulnerable Zones	pg 115			1	
Ramsar Sites					
Sites of Special Scientific Interest					
Special Areas of Conservation					
Special Protection Areas					
World Heritage Sites					

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A13NW (N)	0	1	509848 179221
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A13NE (E)	121	1	510000 179221
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NW (N)	197	1	509800 179450
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A18SE (N)	371	1	510000 179600
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A14NW (NE)	424	1	510250 179450
1	Discharge Consents Operator: National Grid Transco Plc Property Type: Undefined Or Other Location: North Hyde Substation North Hyde Gardens Hayes Middlesex Ub3 4qb Authority: Environment Agency, Thames Region Catchment Area: Crane Reference: Canm.0797 Permit Version: 1 Effective Date: 23rd August 2004 Issued Date: 23rd August 2004 Revocation Date: 1st August 2010 Discharge Type: Trade Effluent Discharge-Site Drainage Discharge: Freshwater Stream/River Environment: Receiving Water: Unnamed Trib Of Yeading Brook Status: Revoked under EPR 2010 Positional Accuracy: Located by supplier to within 10m	A14SW (E)	585	2	510440 179080
1	Discharge Consents Operator: National Grid Company Plc Property Type: SUB-STATION/ELECTRICITY/GAS/AIR CONDITIONING SUPPLY Location: North Hyde Substation North Hyde Gardens Hayes Middlesex Ub3 4qb Authority: Environment Agency, Thames Region Catchment Area: Crane Reference: Canm.0257 Permit Version: 1 Effective Date: 26th April 2001 Issued Date: 14th May 2001 Revocation Date: Not Supplied Discharge Type: Trade Effluent Discharge-Site Drainage Discharge: Freshwater Stream/River Environment: Receiving Water: Yeading Brook Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m	A14SW (E)	614	2	510470 179080
2	Discharge Consents Operator: Smallmead Trust Property Type: DOMESTIC PROPERTY (MULTIPLE) (INCL FARM HOUSES) Location: Bulls Bridge Center Off North Hyde Gardens Hayes Middlesex Ub3 4qr Authority: Environment Agency, Thames Region Catchment Area: Not Given Reference: CANM.0043 Permit Version: 1 Effective Date: 6th September 1999 Issued Date: 14th September 1999 Revocation Date: Not Supplied Discharge Type: Miscellaneous Discharges - Mine / Groundwater As Raised Discharge: Into Land Environment: Receiving Water: Into Land Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m	A14NE (E)	797	2	510660 179400

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
3	Discharge Consents Operator: Ubs Ag Property Type: MAKING OF COMPUTERS/ELECTRONICS/OPTICAL PRODUCTS Location: Ubs Ag Clayton Road Hayes Middlesex Ub3 1ax Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Npswqd003883 Permit Version: 2 Effective Date: 26th August 2010 Issued Date: 26th August 2010 Revocation Date: Not Supplied Discharge Type: Trade Discharges - Cooling Water Discharge: Canal Environment: Receiving Water: Grand Union Canal Status: Varied under EPR 2010 Positional Accuracy: Located by supplier to within 10m	A17SE (NW)	808	2	509311 179860
3	Discharge Consents Operator: Ubs Ag Property Type: MAKING OF COMPUTERS/ELECTRONICS/OPTICAL PRODUCTS Location: Ubs Ag Clayton Road Hayes Middlesex Ub3 1ax Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Npswqd003883 Permit Version: 1 Effective Date: 7th December 2008 Issued Date: 7th December 2008 Revocation Date: 25th August 2010 Discharge Type: Trade Discharges - Cooling Water Discharge: Canal Environment: Receiving Water: Grand Union Canal Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m	A17SE (NW)	808	2	509311 179860
4	Prosecutions Relating to Controlled Waters Location: Nestles Avenue, HAYES, Middlesex, UB3 4RF Prosecution Text: EA Data 10/08/1999 (Ref 147/99), Polluting Grand Union Canal with a mixture of heavy fuel oil and diesel due to collapsed sewer that was blocking a drain in July 1998. Also charged with failing to maintain & keep plant and equipment in good repair. Prosecution Act: WRA91 s85(1)(6) : EPA90 s23(1a) Hearing Date: 2nd August 1999 Verdict: Guilty Fine: 15000 Cost: 7000 Positional Accuracy: Manually positioned to the address or location	A13SE (SE)	267	2	510080 179057
5	Integrated Pollution Controls Name: Nestle UK Ltd Location: Nestle Grocery Division, Nestles Avenue, HAYES, Middlesex, UB3 4RF Authority: Environment Agency, Thames Region Permit Reference: BE6986 Dated: 4th December 2002 Process Type: IPC minor (non-substantial) variation to previous variation Description: 1.3 A (A) Combustion processes within the Fuel & Power Industry Status: Revoked - Now IPPC Positional Accuracy: Automatically positioned to the address	A13NE (E)	273	2	510152 179242
5	Integrated Pollution Controls Name: Nestle UK Ltd Location: Nestle Grocery Division, Nestles Avenue, HAYES, Middlesex, UB3 4RF Authority: Environment Agency, Thames Region Permit Reference: BC5938 Dated: 24th November 1998 Process Type: IPC minor (non-substantial) variation to previous variation Description: 1.3 A (A) Combustion processes within the Fuel & Power Industry Status: Authorisation superseded by a substantial or non substantial variation Positional Accuracy: Automatically positioned to the address	A13NE (E)	273	2	510152 179247
5	Integrated Pollution Controls Name: Nestle UK Ltd Location: Nestles Avenue, HAYES, Middlesex, UB3 4RF Authority: Environment Agency, Thames Region Permit Reference: AI5740 Dated: 31st December 1993 Process Type: IPC major (substantial) variation Description: 1.3 A (A) Combustion processes within the Fuel & Power Industry Status: Authorisation superseded by a substantial or non substantial variation Positional Accuracy: Automatically positioned to the address	A13NE (E)	273	2	510152 179247

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
5	Integrated Pollution Controls Name: Nestle Uk Ltd Location: Nestle Grocery Division, Nestles Avenue, HAYES, Middlesex, UB3 4RF Authority: Environment Agency, Thames Region Permit Reference: AF8106 Dated: 29th October 1992 Process Type: IPC new application Description: 1.3 A (C) Combustion processes within the Fuel & Power Industry Status: Authorisation superseded by a substantial or non substantial variation Positional Accuracy: Automatically positioned to the address	A13NE (E)	273	2	510152 179242
6	Integrated Pollution Controls Name: Owen Coyle (anodising) Ltd Location: Alpha Works, Blyth Road, HAYES, Middlesex, UB3 1AN Authority: Environment Agency, Thames Region Permit Reference: AL7146 Dated: Not Supplied Process Type: Withdrawn IPC application Description: 4.3 A (F) Acid processes within the Chemical Industry Status: Application referred to Local Authority for consideration Positional Accuracy: Automatically positioned to the address	A17SE (NW)	562	2	509436 179638
7	Integrated Pollution Controls Name: Powergen Plc Location: Bulls Bridge , Gas Turbine Power Station, North Hyde Gardens, HAYES, Middlesex, UB3 4QU Authority: Environment Agency, Thames Region Permit Reference: AF8084 Dated: 7th October 1992 Process Type: Withdrawn IPC application Description: 1.3 A (A) Combustion processes within the Fuel & Power Industry Status: Application deemed withdrawn Positional Accuracy: Manually positioned to the address or location	A14SE (E)	787	2	510664 179195
8	Integrated Pollution Prevention And Control Name: Nestle Uk Limited Location: Hayes Boiler Houses And Roasters Epr/Vp3332st, North Hyde Gardens, North Hyde Gardens,,, HAYES, Middlesex, UB3 4RF Authority: Environment Agency - South East Region, North East Thames Area Permit Reference: WP3938NU Original Permit Ref: Vp3332st Effective Date: 8th October 2015 Status: Surrender Effective Application Type: Surrender App. Sub Type: Whole Positional Accuracy: Automatically positioned to the address Activity Code: 1.1 A(1) (A) Activity Description: Combustion; Any Fuel Greater Or Equal To 50Mw Primary Activity: Y	A13NE (E)	273	2	510152 179247
8	Integrated Pollution Prevention And Control Name: Nestle Uk Ltd Location: Hayes Boiler Houses And Roasters Epr/Vp3332st, North Hyde Gardens, North Hyde Gardens,,, HAYES, Middlesex, UB3 4RF Authority: Environment Agency - South East Region, North East Thames Area Permit Reference: VP3332ST Original Permit Ref: Vp3332st Effective Date: 27th February 2007 Status: Superseded By Variation Application Type: Application App. Sub Type: New Positional Accuracy: Automatically positioned to the address Activity Code: 1.1 A(1) (A) Activity Description: Combustion; Any Fuel Greater Or Equal To 50Mw Primary Activity: Y	A13NE (E)	273	2	510152 179247
8	Integrated Pollution Prevention And Control Name: Nestle Uk Ltd Location: North Hyde Gardens, Hayes, Middlesex, UB3 4RF Authority: Environment Agency, Thames Region Permit Reference: VP3332ST Original Permit Ref: Vp3332st Effective Date: 27th February 2007 Status: Effective Application Type: Application App. Sub Type: New Positional Accuracy: Automatically positioned to the address Activity Code: 1.1 A(1) (A) Activity Description: Combustion; Any Fuel Greater Or Equal To 50Mw Primary Activity: Y	A13NE (E)	273	2	510152 179247

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
9	Integrated Pollution Prevention And Control Name: Owen Coyle Anodising Limited Location: Owen Coyle (Anodising) Ltd, Alpha Works, Blyth Road, Hayes, Middlesex, UB3 1DE Authority: Environment Agency, Thames Region Permit Reference: Bp0334im Original Permit Ref: Bp0334im Effective Date: 12th January 2005 Status: Superseded By Variation Application Type: Application App. Sub Type: New Positional Accuracy: Manually positioned to the road within the address or location Activity Code: 2.2 B (A) Activity Description: Surface Treating Metals & Plastics; With Release To Air Of Oxides Of Nitrogen Primary Activity: N Activity Code: 2.3 A(1) (A) Activity Description: Surface Treating Metals And Plastics; Electrolytic/Chemical Greater Than 30 Cubic Metres Primary Activity: Y	A13NW (NW)	379	2	509558 179499
10	Integrated Pollution Prevention And Control Name: Fm Conway Ltd Location: Heathrow Depot, Heathrow Depot, North Hyde Gardens,,, HAYES, Middlesex, UB3 4QR Authority: Environment Agency - South East Region, North East Thames Area Permit Reference: VP3630WE Original Permit Ref: Vp3630we Effective Date: 3rd February 2015 Status: Effective Application Type: Application App. Sub Type: New Positional Accuracy: Located by supplier to within 10m Activity Code: 5.3 A(1) a) (vi) Activity Description: DISPOSAL OR RECOVERY OF HAZARDOUS WASTE WITH A CAPACITY EXCEEDING 10 TONNES PER DAY INVOLVING RECYCLING OR RECLAMATION OF INORGANIC MATERIALS OTHER THAN METALS OR METAL COMPOUNDS Primary Activity: Y Activity Code: 0.0 Associated Process Activity Description: Associated Process Primary Activity: N Activity Code: 5.6 A(1) a) Activity Description: TEMPORARY STORAGE OF HAZ WASTE NOT UNDER S 5.2 PENDING ACTIVITIES LISTED IN S 5.1, 5.2, 5.3 AND PARAGRAPH (B) OF THIS SECTION WITH A TOTAL CAPACITY > 50 TONNES, EXCL TEMP STORAGE WHERE GENERATED Primary Activity: N	A9NW (SE)	530	2	510280 178880
11	Integrated Pollution Prevention And Control Name: Owen Coyle Anodising Limited Location: Owen Coyle (Anodising) Ltd, Alpha Works, Blyth Road,,, Hayes, Middlesex, UB3 1DE Authority: Environment Agency - South East Region, North East Thames Area Permit Reference: WP3233MM Original Permit Ref: Bp0334im Effective Date: 1st July 2007 Status: Effective Application Type: Variation App. Sub Type: Standard Positional Accuracy: Located by supplier to within 100m Activity Code: 5.3 A(1) (C) (II) Activity Description: Other Waste Disposal; Non-Hazardous Waste >50T/D By Physico-Chemical Treatment Primary Activity: N Activity Code: 2.3 A(1) (A) Activity Description: Surface Treating Metals And Plastics; Electrolytic/Chemical Greater Than 30 Cubic Metres Primary Activity: Y Activity Code: 2.2 B (A) Activity Description: Surface Treating Metals & Plastics; With Release To Air Of Oxides Of Nitrogen Primary Activity: N	A17SE (NW)	648	2	509300 179600

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
11	Integrated Pollution Prevention And Control Name: Owen Coyle Anodising Limited Location: Owen Coyle (Anodising) Ltd, Alpha Works, Hayes, Middlesex, UB3 1DE Authority: Environment Agency, Thames Region Permit Reference: WP3233MM Original Permit Ref: Bp0334im Effective Date: 1st July 2007 Status: Effective Application Type: Variation App. Sub Type: Standard Positional Accuracy: Located by supplier to within 100m Activity Code: 2.3 A(1) (A) Activity Description: Surface Treating Metals And Plastics; Electrolytic/Chemical Greater Than 30 Cubic Metres Primary Activity: Y Activity Code: 5.3 A(1) (C) (II) Activity Description: Other Waste Disposal; Non-Hazardous Waste >50T/D By Physico-Chemical Treatment Primary Activity: N Activity Code: 2.2 B (A) Activity Description: Surface Treating Metals & Plastics; With Release To Air Of Oxides Of Nitrogen Primary Activity: N	A17SE (NW)	648	2	509300 179600
11	Integrated Pollution Prevention And Control Name: Owen Coyle Anodising Limited Location: Owen Coyle (Anodising) Ltd, Alpha Works, Blyth Road,,, Hayes, Middlesex, UB3 1DE Authority: Environment Agency - South East Region, North East Thames Area Permit Reference: BP0334IM Original Permit Ref: Bp0334im Effective Date: 12th January 2005 Status: Superseded By Variation Application Type: Application App. Sub Type: New Positional Accuracy: Located by supplier to within 100m Activity Code: 2.3 A(1) (A) Activity Description: Surface Treating Metals And Plastics; Electrolytic/Chemical Greater Than 30 Cubic Metres Primary Activity: Y Activity Code: 2.2 B (A) Activity Description: Surface Treating Metals & Plastics; With Release To Air Of Oxides Of Nitrogen Primary Activity: N	A17SE (NW)	648	2	509300 179600
12	Local Authority Pollution Prevention and Controls Name: Tesco Express Location: North Hyde Road, HAYES, Middlesex, UB3 4NE Authority: London Borough of Hillingdon, Environmental Health Department Permit Reference: EPA/SS/1/022/09/1998 Dated: Not Supplied Process Type: Local Authority Air Pollution Control Description: PG1/14 Petrol filling station Status: Authorised Positional Accuracy: Automatically positioned to the address	A13SW (SW)	154	3	509676 179136
13	Local Authority Pollution Prevention and Controls Name: Mays (Pressure Diecasting) Ltd Location: Unit 9 Silverdale Industrial Estate, Silverdale Road, HAYES, Middlesex, UB3 3BL Authority: London Borough of Hillingdon, Environmental Health Department Permit Reference: EPA/B2/12 Dated: Not Supplied Process Type: Local Authority Pollution Prevention and Control Description: PG2/6 Aluminium and aluminium alloy processes Status: Permitted Positional Accuracy: Manually positioned to the address or location	A13NE (NE)	305	3	510046 179500
13	Local Authority Pollution Prevention and Controls Name: Mays (Pressure Diecasting) Ltd Location: Unit 9 Silverdale Industrial Estate, Silverdale Road, HAYES, Middlesex, UB3 3BL Authority: London Borough of Hillingdon, Environmental Health Department Permit Reference: B2/12 Dated: Not Supplied Process Type: Local Authority Air Pollution Control Description: PG2/7 Zinc and zinc alloy processes Status: Authorisation revoked Positional Accuracy: Manually positioned to the address or location	A13NE (NE)	305	3	510046 179500

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
14	Local Authority Pollution Prevention and Controls Name: Dagenham Motors (Hayes) Ltd Location: 37-39 Fairview Industrial Estate, Clayton Road, Hayes, Middlesex, Ub3 1au Authority: London Borough of Hillingdon, Environmental Health Department Permit Reference: B1/01 Dated: Not Supplied Process Type: Local Authority Pollution Prevention and Control Description: PG1/1Waste oil burners, less than 0.4MW net rated thermal input Status: Permitted Positional Accuracy: Manually positioned to the address or location	A18SW (NW)	520	3	509518 179658
15	Local Authority Pollution Prevention and Controls Name: Bace (Bullsbridge) Location: British Airways, Unit 2, Bullsbridge, North Hyde Gardens, Hayes, Ub3 4qr Authority: London Borough of Hillingdon, Environmental Health Department Permit Reference: Not Supplied Dated: Not Supplied Process Type: Local Authority Pollution Prevention and Control Description: PG6/45 Surface cleaning Status: Permitted Positional Accuracy: Manually positioned to the address or location	A14NW (E)	553	3	510426 179324
16	Local Authority Pollution Prevention and Controls Name: Owen Coyle (Anodising) Ltd Location: Alpha Works, Blyth Road, HAYES, Middlesex, UB3 1AN Authority: London Borough of Hillingdon, Environmental Health Department Permit Reference: B2/15 Dated: Not Supplied Process Type: Local Authority Air Pollution Control Description: PG4/1 Processes for the surface treatment of metals Status: Authorised Positional Accuracy: Automatically positioned to the address	A17SE (NW)	559	3	509436 179633
17	Local Authority Pollution Prevention and Controls Name: Thomson Thorm Missile Group Location: 120 Blyth Road, HAYES, Middlesex, UB3 1DL Authority: London Borough of Hillingdon, Environmental Health Department Permit Reference: B3/08 Dated: Not Supplied Process Type: Local Authority Air Pollution Control Description: PG6/23 Coating of metal and plastic Status: Authorisation revoked Positional Accuracy: Manually positioned to the road within the address or location	A17SE (NW)	614	3	509337 179595
18	Local Authority Pollution Prevention and Controls Name: Direct Line Management Limited Location: Clayton Road, HAYES, Middlesex, UB3 1AX Authority: London Borough of Hillingdon, Environmental Health Department Permit Reference: B3/28 Dated: Not Supplied Process Type: Local Authority Air Pollution Control Description: PG6/34 Respraying of road vehicles Status: Authorisation revoked Positional Accuracy: Manually positioned to the road within the address or location	A17SE (NW)	631	3	509384 179684
19	Local Authority Pollution Prevention and Controls Name: Tarmac Roadstone Hayes Location: Hayes Works, Pump Lane, Hayes, Middlesex, Ub3 3Lz Authority: London Borough of Hillingdon, Environmental Health Department Permit Reference: EPA/B2/004 Dated: Not Supplied Process Type: Local Authority Air Pollution Control Description: PG3/1Blending, packing, loading and use of bulk cement Status: Authorised Positional Accuracy: Located by supplier to within 10m	A14NW (NE)	690	3	510518 179504
19	Local Authority Pollution Prevention and Controls Name: Tarmac Roadstone Hayes Location: Hayes Works, Pump Lane, HAYES, Middlesex, UB3 3LZ Authority: London Borough of Hillingdon, Environmental Health Department Permit Reference: EPA/B2/004 Dated: Not Supplied Process Type: Local Authority Air Pollution Control Description: PG3/15 Mineral drying and roadstone coating processes Status: Authorised Positional Accuracy: Manually positioned to the address or location	A14NE (NE)	716	3	510534 179534

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
20	Local Authority Pollution Prevention and Controls Name: Thorn Microwave Devices Ltd Location: 248 Blyth Road, HAYES, Middlesex, UB3 1HR Authority: London Borough of Hillingdon, Environmental Health Department Permit Reference: B3/07 Dated: Not Supplied Process Type: Local Authority Air Pollution Control Description: PG6/23 Coating of metal and plastic Status: Authorisation revoked Positional Accuracy: Automatically positioned to the address	A17SE (NW)	736	3	509193 179589
21	Local Authority Pollution Prevention and Controls Name: Tesco Stores Ltd Location: Bullsbridge Trading Estate, Hayes Road, SOUTHALL, Middlesex, UB2 5LD Authority: London Borough of Hounslow, Environmental Health Department Permit Reference: PPC052 Dated: 22nd March 1999 Process Type: Local Authority Air Pollution Control Description: PG1/14 Petrol filling station Status: Authorised Positional Accuracy: Manually positioned to the address or location	A14SE (E)	762	4	510600 179000
22	Local Authority Pollution Prevention and Controls Name: Fw Conway Location: Bulls Bridge, North Hyde Gardens, Hayes Authority: London Borough of Hillingdon, Environmental Health Department Permit Reference: Not Supplied Dated: Not Supplied Process Type: Local Authority Pollution Prevention and Control Description: PG3/15 Mineral drying and roadstone coating processes Status: Application Not Yet Authorised Positional Accuracy: Located by supplier to within 100m	A14NE (E)	829	3	510699 179367
22	Local Authority Pollution Prevention and Controls Name: Fw Conway Location: Bulls Bridge, North Hyde Gardens, Hayes Authority: London Borough of Hillingdon, Environmental Health Department Permit Reference: Not Supplied Dated: Not Supplied Process Type: Local Authority Pollution Prevention and Control Description: PG3/1B blending, packing, loading and use of bulk cement Status: Permitted Positional Accuracy: Located by supplier to within 100m	A14NE (E)	829	3	510699 179367
23	Local Authority Pollution Prevention and Controls Name: Murco Service Station Location: Hayes Road, SOUTHALL, Middlesex, UB2 5LZ Authority: London Borough of Hounslow, Environmental Health Department Permit Reference: PPC081 Dated: 31st March 1999 Process Type: Local Authority Air Pollution Control Description: PG1/14 Petrol filling station Status: Authorised Positional Accuracy: Located by supplier to within 100m	A14SE (E)	891	4	510700 178900
24	Local Authority Pollution Prevention and Controls Name: Ivo Textiles Ltd Location: 3 Trident Way, SOUTHALL, Middlesex, UB2 5LF Authority: London Borough of Ealing, Environmental Health and Trading Standards Division Permit Reference: P-000053 Dated: 16th March 1993 Process Type: Local Authority Air Pollution Control Description: PG6/16 Printworks Status: Authorised Positional Accuracy: Automatically positioned to the address	A14SE (E)	954	5	510830 179173
	Nearest Surface Water Feature	A13NE (NE)	232	-	510007 179438
25	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Silverdale Road, HAYES Authority: Environment Agency, Thames Region Pollutant: Chemicals - Unknown Note: Confirmed As A Pollution Incident Incident Date: 30th April 1990 Incident Reference: N1900194 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A13NE (N)	245	2	509900 179500

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
26	Pollution Incidents to Controlled Waters Property Type: Not Given Location: HAYES Authority: Environment Agency, Thames Region Pollutant: Unknown Sewage Note: Confirmed As A Pollution Incident Incident Date: 2nd October 1991 Incident Reference: N1910541 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A13NW (N)	246	2	509800 179500
27	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Station Road, HAYES Authority: Environment Agency, Thames Region Pollutant: Unknown Sewage Note: Confirmed As A Pollution Incident Incident Date: 14th March 1991 Incident Reference: N1910127 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A13NW (NW)	280	2	509700 179495
27	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Station Road, HAYES Authority: Environment Agency, Thames Region Pollutant: Chemicals - Unknown Note: Confirmed As A Pollution Incident Incident Date: 27th February 1991 Incident Reference: N1910092 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A13NW (NW)	284	2	509700 179500
28	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Off Nestles Avenue, HAYES Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed incident Incident Date: 6th February 1999 Incident Reference: THNE1999041896 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 10m	A14NW (E)	326	2	510200 179300
29	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Silverdale Road, HAYES Authority: Environment Agency, Thames Region Pollutant: Chemicals - Unknown Note: Yes Incident Date: 6th March 1991 Incident Reference: N1910110 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A13NE (NE)	334	2	510100 179495
29	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Argyle Warehouse Authority: Environment Agency, Thames Region Pollutant: Chemicals - Unknown Note: Confirmed As A Pollution Incident Incident Date: 12th January 1989 Incident Reference: N1890020 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A13NE (NE)	338	2	510100 179500

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
29	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Railway Bridge Over, HAYES Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Not Supplied Incident Date: 16th June 1996 Incident Reference: N1960305 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A13NE (NE)	373	2	510150 179500
30	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Dawley Road, HAYES Authority: Environment Agency, Thames Region Pollutant: Unknown Sewage Note: Confirmed As A Pollution Incident Incident Date: Not Supplied Incident Reference: N1900114 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A18SW (N)	338	2	509805 179595
30	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Silverdale Road Authority: Environment Agency, Thames Region Pollutant: Chemicals - Unknown Note: Confirmed As A Pollution Incident Incident Date: 25th June 1990 Incident Reference: N1900346 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A18SW (N)	339	2	509800 179595
30	Pollution Incidents to Controlled Waters Property Type: Not Given Location: HAYES Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed As A Pollution Incident Incident Date: 28th March 1990 Incident Reference: N1900146 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A18SW (N)	344	2	509800 179600
31	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Station Road, HAYES Authority: Environment Agency, Thames Region Pollutant: Unknown Sewage Note: Confirmed As A Pollution Incident Incident Date: 7th March 1990 Incident Reference: N1900096 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A18SW (N)	443	2	509800 179700
32	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Station Road, HAYES Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed As A Pollution Incident Incident Date: 7th December 1993 Incident Reference: NE930826 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A12NE (W)	465	2	509400 179400

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
33	Pollution Incidents to Controlled Waters Property Type: Not Given Location: HAYES Authority: Environment Agency, Thames Region Pollutant: Chemicals - Unknown Note: Confirmed As A Pollution Incident Incident Date: 19th August 1992 Incident Reference: NE920445 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A17SE (NW)	489	2	509500 179600
34	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Pump Lane, HAYES Authority: Environment Agency, Thames Region Pollutant: Chemicals - Unknown Note: Not Supplied Incident Date: 29th October 1996 Incident Reference: N1960561 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A19SW (NE)	557	2	510200 179700
35	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Printhouse Lane, HAYES Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Not Supplied Incident Date: 2nd October 1997 Incident Reference: THN11997030086 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A17SE (NW)	560	2	509500 179695
35	Pollution Incidents to Controlled Waters Property Type: Not Given Location: HAYES Authority: Environment Agency, Thames Region Pollutant: Unknown Sewage Note: Confirmed As A Pollution Incident Incident Date: Not Supplied Incident Reference: N1910099 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A17SE (NW)	563	2	509500 179700
36	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Bulls Bridge, HAYES Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Not Supplied Incident Date: 7th July 1996 Incident Reference: N1960357 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A14SW (E)	623	2	510500 179195
36	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Bulls Bridge, HAYES Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed As A Pollution Incident Incident Date: 14th July 1989 Incident Reference: N1890378 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A14SW (E)	623	2	510500 179200

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
37	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Cranford Park Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed As A Pollution Incident Incident Date: 17th January 1992 Incident Reference: N1920024 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A14SW (SE)	623	2	510400 178900
37	Pollution Incidents to Controlled Waters Property Type: Not Given Location: HAYES Authority: Environment Agency, Thames Region Pollutant: Miscellaneous - Urban Runoff Note: Confirmed As A Pollution Incident Incident Date: 30th March 1992 Incident Reference: N1920184 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A14SW (SE)	625	2	510400 178895
37	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Northhyde Bridge, HAYES Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Yes Incident Date: 24th April 1991 Incident Reference: N1910223 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A14SW (SE)	630	2	510405 178895
38	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Haves Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed As A Pollution Incident Incident Date: 30th January 1993 Incident Reference: NE930074 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A14NW (E)	624	2	510500 179300
39	Pollution Incidents to Controlled Waters Property Type: Not Given Location: HAYES Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed As A Pollution Incident Incident Date: 3rd November 1994 Incident Reference: NE940821 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A17SE (NW)	704	2	509400 179800
39	Pollution Incidents to Controlled Waters Property Type: Not Given Location: HAYES Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed As A Pollution Incident Incident Date: 1st March 1994 Incident Reference: NE940131 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A17SE (NW)	734	2	509350 179795

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
39	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Printing House, HAYES Authority: Environment Agency, Thames Region Pollutant: Miscellaneous - Unknown Note: Confirmed As A Pollution Incident Incident Date: 23rd September 1989 Incident Reference: N1890505 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A17SE (NW)	737	2	509350 179800
40	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Hayes By-Pass Authority: Environment Agency, Thames Region Pollutant: Chemicals - Unknown Note: Confirmed As A Pollution Incident Incident Date: 5th September 1989 Incident Reference: N1890464 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A14NE (E)	737	2	510600 179395
40	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Cranford Park Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed As A Pollution Incident Incident Date: 18th August 1989 Incident Reference: N1890433 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A14NE (E)	738	2	510600 179400
40	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Bulls Bridge Authority: Environment Agency, Thames Region Pollutant: Chemicals - Unknown Note: Confirmed As A Pollution Incident Incident Date: 12th September 1989 Incident Reference: N1890474 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 1 - Major Incident Positional Accuracy: Located by supplier to within 100m	A14NE (E)	742	2	510605 179395
41	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Near Bulls Bridge Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed As A Pollution Incident Incident Date: 10th September 1989 Incident Reference: N1890479 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A14NE (E)	765	2	510600 179500
42	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Western International Market, HESTON Authority: Environment Agency, Thames Region Pollutant: General Note: Not Supplied Incident Date: 6th January 1997 Incident Reference: THN11997030858 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A9NW (SE)	769	2	510400 178650

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
42	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Western International Market, HESTON Authority: Environment Agency, Thames Region Pollutant: General Note: Not Supplied Incident Date: 17th January 1997 Incident Reference: THN11997030912 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A9NW (SE)	772	2	510400 178645
43	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Pump Lane, HAYES Authority: Environment Agency, Thames Region Pollutant: General Note: Not Supplied Incident Date: 21st October 1998 Incident Reference: THNE1998040946 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A19SW (NE)	770	2	510500 179700
44	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Watersplash Lane, HAYES Authority: Environment Agency, Thames Region Pollutant: Unknown Sewage Note: Confirmed As A Pollution Incident Incident Date: 2nd October 1995 Incident Reference: N1950546 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A9NW (SE)	774	2	510450 178700
45	Pollution Incidents to Controlled Waters Property Type: Not Given Location: HAYES Authority: Environment Agency, Thames Region Pollutant: Miscellaneous - Unknown Note: Confirmed As A Pollution Incident Incident Date: 9th March 1995 Incident Reference: N1950111 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A17SE (NW)	779	2	509400 179895
45	Pollution Incidents to Controlled Waters Property Type: Not Given Location: HAYES Authority: Environment Agency, Thames Region Pollutant: Agricultural: General Note: Confirmed As A Pollution Incident Incident Date: 3rd October 1991 Incident Reference: N1910542 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A17NE (NW)	783	2	509400 179900
46	Pollution Incidents to Controlled Waters Property Type: Not Given Location: HAYES Authority: Environment Agency, Thames Region Pollutant: Unknown Sewage Note: Confirmed As A Pollution Incident Incident Date: 6th February 1990 Incident Reference: N1900053 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A17SE (NW)	801	2	509310 179850

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
46	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Coldharbour, HAYES Authority: Environment Agency, Thames Region Pollutant: Chemicals - Unknown Note: Confirmed As A Pollution Incident Incident Date: Not Supplied Incident Reference: N1890570 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A17SE (NW)	841	2	509300 179895
47	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Hayes-By-Pass Authority: Environment Agency, Thames Region Pollutant: Chemicals - Unknown Note: Confirmed As A Pollution Incident Incident Date: 6th September 1990 Incident Reference: N1900503 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A14NE (E)	835	2	510700 179395
47	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Cranford Park Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed As A Pollution Incident Incident Date: 18th April 1989 Incident Reference: N1890209 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A14NE (E)	836	2	510700 179400
47	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Trident Way Industrial Estate Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed As A Pollution Incident Incident Date: 21st November 1991 Incident Reference: N1910637 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A14NE (E)	840	2	510705 179395
47	Pollution Incidents to Controlled Waters Property Type: Not Given Location: HAYES Authority: Environment Agency, Thames Region Pollutant: Chemicals - Unknown Note: Confirmed As A Pollution Incident Incident Date: 29th April 1990 Incident Reference: N1900190 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 1 - Major Incident Positional Accuracy: Located by supplier to within 100m	A14NE (E)	844	2	510700 179440
48	Pollution Incidents to Controlled Waters Property Type: Not Given Location: West Int Market 0/F, HAYES Authority: Environment Agency, Thames Region Pollutant: Agricultural: Unknown Note: Not Supplied Incident Date: 25th July 1996 Incident Reference: N1960394 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A9NW (SE)	840	2	510450 178600

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
49	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Blythe Road Authority: Environment Agency, Thames Region Pollutant: Chemicals - Unknown Note: Confirmed As A Pollution Incident Incident Date: Not Supplied Incident Reference: N1890411 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A17NE (NW)	845	2	509300 179900
50	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Cranford Park Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed As A Pollution Incident Incident Date: 29th March 1989 Incident Reference: N1890174 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 1 - Major Incident Positional Accuracy: Located by supplier to within 100m	A14SE (E)	857	2	510700 179000
51	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Pump Lane Authority: Environment Agency, Thames Region Pollutant: Miscellaneous - Unknown Note: Confirmed As A Pollution Incident Incident Date: 23rd October 1991 Incident Reference: N1910575 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A14NE (E)	859	2	510700 179495
51	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Pump Lane, HAYES Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed As A Pollution Incident Incident Date: 5th December 1990 Incident Reference: N1900641 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A14NE (E)	860	2	510700 179500
51	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Pump Lane, HAYES Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Yes Incident Date: 10th August 1990 Incident Reference: N1900462 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A14NE (E)	863	2	510705 179495
51	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Hayes Bypass, HAYES Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Not Supplied Incident Date: 26th June 1996 Incident Reference: N1960330 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A14NE (E)	908	2	510750 179500

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
52	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Bulls Bridge, SOUTHALL Authority: Environment Agency, Thames Region Pollutant: Unknown Sewage Note: Not Supplied Incident Date: 17th May 1997 Incident Reference: THN11997032176 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A14SE (E)	873	2	510750 179200
53	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Parkway Road, CRANFORD Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed As A Pollution Incident Incident Date: 22nd October 1992 Incident Reference: NE920580 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A9SW (SE)	879	2	510400 178500
54	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Bullsbridge, HAYES Authority: Environment Agency, Thames Region Pollutant: Unknown Sewage Note: Not Supplied Incident Date: 23rd May 1997 Incident Reference: THN11997032531 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A14NE (E)	881	2	510760 179250
55	Pollution Incidents to Controlled Waters Property Type: Not Given Location: HAYES Authority: Environment Agency, Thames Region Pollutant: Miscellaneous - Other Note: Confirmed incident Incident Date: 30th March 1999 Incident Reference: THNE1999042361 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 10m	A19SE (NE)	910	2	510600 179800
56	Pollution Incidents to Controlled Waters Property Type: Not Given Location: British Rail, HAYES Authority: Environment Agency, Thames Region Pollutant: Miscellaneous - Unknown Note: Yes Incident Date: 2nd May 1990 Incident Reference: N1900203 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A14NE (E)	934	2	510800 179400
57	Pollution Incidents to Controlled Waters Property Type: Not Given Location: HAYES Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed As A Pollution Incident Incident Date: 13th June 1995 Incident Reference: N1950308 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A14SE (E)	953	2	510800 179000

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
58	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Bulls Bridge, HAYES Authority: Environment Agency, Thames Region Pollutant: Unknown Sewage Note: Yes Incident Date: 21st August 1991 Incident Reference: N1910465 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A14NE (E)	956	2	510800 179500
59	Registered Radioactive Substances Name: Saunders Roe Ltd Location: 7E & 7F Millington Road, HAYES, Middlesex, UB3 4NB Authority: Environment Agency, Thames Region Permit Reference: AC6395 Dated: 31st March 1991 Process Type: Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7) Description: Authorisation under RSA Status: Authorisation superseded by a substantial or non substantial variation Positional Accuracy: Unknown	A12SE (W)	581	2	509238 179217
60	Registered Radioactive Substances Name: Bs Pension Fund Trustee Ltd Location: 7e And 7f Millington Road,, Hayes, Middlesex, Ub3 4az Authority: Environment Agency, Thames Region Permit Reference: Bm7391 Dated: 25th April 2005 Process Type: Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7) Description: Authorisation under RSA Status: Authorisation either revoked or cancelled Positional Accuracy: Manually positioned to the address or location	A12SW (W)	675	2	509148 179118
61	Registered Radioactive Substances Name: Saunders Roe Ltd Location: 7E & 7F Millington Road, HAYES, Middlesex, UB3 4AZ Authority: Environment Agency, Thames Region Permit Reference: AO8181 Dated: 14th October 1994 Process Type: Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7) Description: Minor variation to authorisation under RSA Status: Authorisation either revoked or cancelled Positional Accuracy: Unknown	A12NW (W)	691	2	509133 179281
	River Quality Name: Guc (Cowley Reach) GQA Grade: River Quality D Reach: Iron Bridge - Brent Estimated Distance (km): 8.4 Flow Rate: Flow greater than 80 cumecs Flow Type: Canal Year: 2000	A13NE (NE)	215	2	509966 179443
	River Quality Name: Yeading Bk GQA Grade: River Quality D Reach: Conf Yeading Bk East And West - Crane Estimated Distance (km): 7.8 Flow Rate: Flow less than 0.31 cumecs Flow Type: River Year: 2000	A14SW (SE)	676	2	510483 178940
	River Quality Name: Crane GQA Grade: River Quality D Reach: Yeading Bk - Duke Of N'S R (Lower) Estimated Distance (km): 10.2 Flow Rate: Flow less than 0.62 cumecs Flow Type: River Year: 2000	A9NW (SE)	782	2	510441 178676

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	River Quality Name: Guc (Paddington Arm) GQA Grade: River Quality E Reach: Bull'S Bridge - Canal Feeder Estimated Distance (km): 14 Flow Rate: Flow greater than 80 cumecs Flow Type: Canal Year: 2000	A14SE (E)	854	2	510693 178988
62	River Quality Biology Sampling Points Name: Crane Reach: Yeading Brook To Duke Of N'S River (Lower) Estimated Distance: 10.20 Positional Accuracy: Located by supplier to within 10m Year: 1990 GQA Grade: River Quality Biology GQA Grade D - Fair Year: 1995 GQA Grade: River Quality Biology GQA Grade C - Fairly Good Year: 2000 GQA Grade: River Quality Biology GQA Grade C - Fairly Good Year: 2002 GQA Grade: River Quality Biology GQA Grade C - Fairly Good Year: 2003 GQA Grade: River Quality Biology GQA Grade C - Fairly Good Year: 2004 GQA Grade: River Quality Biology GQA Grade C - Fairly Good Year: 2005 GQA Grade: River Quality Biology GQA Grade C - Fairly Good Year: 2006 GQA Grade: River Quality Biology GQA Grade C - Fairly Good Year: 2007 GQA Grade: River Quality Biology GQA Grade C - Fairly Good Year: 2008 GQA Grade: River Quality Biology GQA Grade C - Fairly Good Year: 2009 GQA Grade: River Quality Biology GQA Grade C - Fairly Good	A9NW (SE)	771	2	510430 178680
63	Water Abstractions Operator: Nestle Uk Limited Licence Number: 28/39/36/0072 Permit Version: 1 Location: Nestle Coffee Factory-Borehole Authority: Environment Agency, Thames Region Abstraction: Other Industrial/Commercial/Public Services: Evaporative Cooling Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Nestle Coffee Factory, Off North Hyde Gardens, Hayes, Middlesex. Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 12th August 2005 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A14NW (E)	352	2	510230 179260
63	Water Abstractions Operator: Nestle Uk Limited Licence Number: Th/039/0036/011 Permit Version: 2 Location: Nestle Coffee Factory-Borehole Authority: Environment Agency, Thames Region Abstraction: Other Industrial/Commercial/Public Services: Evaporative Cooling Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Nestle Coffee Factory, Off North Hyde Gardens, Hayes, Middlesex. Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 12th June 2014 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A14NW (E)	360	2	510238 179269

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
63	Water Abstractions Operator: Nestle Uk Limited Licence Number: Th/039/0036/011 Permit Version: 2 Location: Nestle Coffee Factory-Borehole Authority: Environment Agency, Thames Region Abstraction: Other Industrial/Commercial/Public Services: Boiler Feed Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Nestle Coffee Factory, Off North Hyde Gardens, Hayes, Middlesex. Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 12th June 2014 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A14NW (E)	360	2	510238 179269
63	Water Abstractions Operator: Nestle Uk Limited Licence Number: Th/039/0036/011 Permit Version: 1 Location: Nestle Coffee Factory-Borehole Authority: Environment Agency, Thames Region Abstraction: Other Industrial/Commercial/Public Services: Boiler Feed Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Nestle Coffee Factory, Off North Hyde Gardens, Hayes, Middlesex. Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 1st April 2013 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A14NW (E)	360	2	510238 179269
63	Water Abstractions Operator: Nestle Uk Limited Licence Number: Th/039/0036/011 Permit Version: 1 Location: Nestle Coffee Factory-Borehole Authority: Environment Agency, Thames Region Abstraction: Other Industrial/Commercial/Public Services: Evaporative Cooling Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Nestle Coffee Factory, Off North Hyde Gardens, Hayes, Middlesex. Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 1st April 2013 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A14NW (E)	360	2	510238 179269
64	Water Abstractions Operator: Thorn Emi Electronics Ltd Licence Number: 28/39/36/0049 Permit Version: Not Supplied Location: Blyth Road, HAYES Authority: Environment Agency, Thames Region Abstraction: Manufacture (Boiler) Abstraction Type: Not Supplied Source: Groundwater Daily Rate (m3): 2932 Yearly Rate (m3): 2400 Details: Additional Purposes - Process (357600) Cooling (40000) Manufacture (2400). Chalk (Undifferentiated) Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A12NE (NW)	599	2	509300 179500

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
65	Water Abstractions Operator: Canal And River Trust Licence Number: 28/39/36/0075 Permit Version: 2 Location: Grand Union Canal At Ubs Data Processing Centre, Hayes Authority: Environment Agency, Thames Region Abstraction: Other Industrial/Commercial/Public Services: Non-Evaporative Cooling Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: N/A Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 22nd September 2010 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A17SE (NW)	869	2	509249 179886
65	Water Abstractions Operator: British Waterways Board Licence Number: 28/39/36/0075 Permit Version: 1 Location: Grand Union Canal At Ubs Data Processing Centre, Hayes Authority: Environment Agency, Thames Region Abstraction: Other Industrial/Commercial/Public Services: Non-Evaporative Cooling Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Ubs Data Processing Centre, Clayton Rd, Hayes, Middx Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 15th October 2008 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A17SE (NW)	869	2	509249 179886
	Water Abstractions Operator: Virtus Hayes Limited Licence Number: Th/039/0036/013 Permit Version: 1 Location: Western International Market, Hayes Road, Southall, London Authority: Environment Agency, Thames Region Abstraction: Business Parks: Evaporative Cooling Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 1st April 2015 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A10NW (SE)	1122	2	510876 178731
	Water Abstractions Operator: Virtus Hayes Limited Licence Number: Th/039/0036/013 Permit Version: 1 Location: Western International Market, Hayes Road, Southall, London Authority: Environment Agency, Thames Region Abstraction: Business Parks: Evaporative Cooling Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 17th November 2014 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A10NW (SE)	1122	2	510876 178731

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Usc Europe Uk Ltd Licence Number: 28/39/36/0010 Permit Version: 100 Location: Borehole At Apexes Works, Scotts Road, Southall Authority: Environment Agency, Thames Region Abstraction: Other Industrial/Commercial/Public Services: Non-Evaporative Cooling Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): 114 Yearly Rate (m3): 40914 Details: Apexes Works, Scotts Road, Southall Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 11th September 1996 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A15NW (E)	1132	2	511000 179400
	Water Abstractions Operator: Harleyford Aggregates Limited Licence Number: 28/39/36/0060 Permit Version: 103 Location: Wet Pit At High Street, Harlington, Middlesex Authority: Environment Agency, Thames Region Abstraction: Mineral Products: Mineral Washing Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: High Street, Harlington, Middlesex Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 23rd January 2018 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A2NE (S)	1262	2	509400 178000
	Water Abstractions Operator: Henry Streeter (Sand & Ballast) Limited Licence Number: 28/39/36/0060 Permit Version: 102 Location: Wet Pit At High Street, Harlington, Middlesex Authority: Environment Agency, Thames Region Abstraction: Mineral Products: Mineral Washing Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: High Street, Harlington, Middlesex Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 22nd February 2016 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A2NE (S)	1262	2	509400 178000
	Water Abstractions Operator: Henry Streeter (Sand & Ballast) Limited Licence Number: 28/39/36/0060 Permit Version: 101 Location: Wet Pit At High Street, Harlington, Middlesex Authority: Environment Agency, Thames Region Abstraction: Mineral Products: Mineral Washing Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: High Street, Harlington, Middlesex Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st March 2006 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A2NE (S)	1262	2	509400 178000

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Henry Streeter (Sand & Ballast) Limited Licence Number: 28/39/36/0060 Permit Version: 100 Location: Wet Pit At High Street, Harlington, Middlesex Authority: Environment Agency, Thames Region Abstraction: Mineral Products: Mineral Washing Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): 2455 Yearly Rate (m3): 649318 Details: High Street, Harlington, Middlesex Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 6th December 1994 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A2NE (S)	1262	2	509400 178000
	Water Abstractions Operator: Chancerygate Group Limited Licence Number: 28/39/36/0010 Permit Version: 102 Location: Apexes Works, Scotts Road, Southall-Borehole A Authority: Environment Agency, Thames Region Abstraction: Other Industrial/Commercial/Public Services: Non-Evaporative Cooling Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Apexes Works, Scotts Road, Southall Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 9th December 2005 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A15NW (E)	1281	2	511150 179400
	Water Abstractions Operator: Chelsea Limited Partnership Licence Number: 28/39/36/0010 Permit Version: 101 Location: Apexes Works, Scotts Road, Southall-Borehole A Authority: Environment Agency, Thames Region Abstraction: Other Industrial/Commercial/Public Services: Non-Evaporative Cooling Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Apexes Works, Scotts Road, Southall Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 16th September 2002 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A15NW (E)	1281	2	511150 179400
	Water Abstractions Operator: Stockley Park Estates Company Limited Licence Number: Th/039/0036/003 Permit Version: 2 Location: Stockley Park, Uxbridge, Borehole A Authority: Environment Agency, Thames Region Abstraction: Business Parks: Spray Irrigation - Storage Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Stockley Park, Uxbridge Authorised Start: 01 April Authorised End: 31 October Permit Start Date: 15th July 2016 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A16NW (NW)	1796	2	508340 180230

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Stockley Park Estate Management Limited Licence Number: Th/039/0036/003 Permit Version: 1 Location: Stockley Park, Uxbridge- Borehole A Authority: Environment Agency, Thames Region Abstraction: Business Parks: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Stockley Park, Uxbridge Authorised Start: 01 April Authorised End: 31 October Permit Start Date: 2nd February 2010 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A16NW (NW)	1796	2	508340 180230
	Water Abstractions Operator: Stockley Park Management Ltd Licence Number: 28/39/36/0065 Permit Version: 3 Location: Stockley Park, Uxbridge- Borehole A Authority: Environment Agency, Thames Region Abstraction: Business Parks: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Stockley Park, Uxbridge Authorised Start: 01 April Authorised End: 31 October Permit Start Date: 14th April 2003 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A16NW (NW)	1796	2	508340 180230
	Water Abstractions Operator: Stockley Park Management Ltd Licence Number: 28/39/36/0065 Permit Version: 3 Location: Stockley Park, Uxbridge- Borehole A Authority: Environment Agency, Thames Region Abstraction: Business Parks: Make-Up or Top Up Water Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Stockley Park, Uxbridge Authorised Start: 01 April Authorised End: 31 October Permit Start Date: 14th April 2003 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A16NW (NW)	1796	2	508340 180230
	Water Abstractions Operator: Stockley Park Management Ltd Licence Number: 28/39/36/0065 Permit Version: 2 Location: Borehole At Stockley Park Authority: Environment Agency, Thames Region Abstraction: Business Parks: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Stockley Park, Uxbridge Authorised Start: 01 April Authorised End: 31 October Permit Start Date: 25th September 2002 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A16NW (NW)	1796	2	508340 180230

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Stockley Park Management Ltd Licence Number: 28/39/36/0065 Permit Version: 2 Location: Borehole At Stockley Park Authority: Environment Agency, Thames Region Abstraction: Business Parks: Make-Up or Top Up Water Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Stockley Park, Uxbridge Authorised Start: 01 April Authorised End: 31 October Permit Start Date: 25th September 2002 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A16NW (NW)	1796	2	508340 180230
	Water Abstractions Operator: Stockley Park Management Ltd Licence Number: 28/39/36/0065 Permit Version: 1 Location: Borehole At Stockley Park Authority: Environment Agency, Thames Region Abstraction: Business Parks: Make-Up or Top Up Water Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Stockley Park, Uxbridge Authorised Start: 01 April Authorised End: 31 October Permit Start Date: 25th October 2000 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A16NW (NW)	1796	2	508340 180230
	Water Abstractions Operator: Stockley Park Management Ltd Licence Number: 28/39/36/0065 Permit Version: 1 Location: Borehole At Stockley Park Authority: Environment Agency, Thames Region Abstraction: Business Parks: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Stockley Park, Uxbridge Authorised Start: 01 April Authorised End: 31 October Permit Start Date: 25th October 2000 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A16NW (NW)	1796	2	508340 180230
	Water Abstractions Operator: Stockley Park Management Ltd Licence Number: 28/39/36/0056 Permit Version: Not Supplied Location: Stockley Park, UXBRIDGE Authority: Environment Agency, Thames Region Abstraction: Lake Reservoir Filling For Spray Irrigation (Various Types) Abstraction Type: Not Supplied Source: Groundwater Daily Rate (m3): 720 Yearly Rate (m3): 4409 Details: Additional Purpose - Lake /Reservoir Filling For Spray Irrigation (4409). Chalk (Undifferentiated) Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A16NW (NW)	1814	2	508300 180200

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
66	Water Industry Act Referrals Name: British Airways Plc Location: MAIN OFFICE, SPEEDMARQUE CENTRE, NORTH HYDE GARDENS, HAYES, MIDDLESEX, UB3 4QR Authority: Environment Agency, Thames Region Permit Reference: Bx9293 Dated: 14th May 2004 Process Type: Permissions or amendments to discharge under the Water Industry Act 1991 Description: Processes which result in the discharge of Special Category effluents under The Trade Effluents (Prescribed Processes and Substances) Regulations Status: Application received by the EA but is not yet authorised Positional Accuracy: Manually positioned to the road within the address or location	A14SW (E)	459	2	510320 179120
67	Water Industry Act Referrals Name: Metadalic Ltd Location: UNIT 6, BILTON WAY, HAYES, MIDDLESEX, UB3 3NF Authority: Environment Agency, Thames Region Permit Reference: AE1637 Dated: 18th February 1992 Process Type: Permissions or amendments to discharge under the Water Industry Act 1991 Description: Processes which result in the discharge of Special Category effluents under The Trade Effluents (Prescribed Processes and Substances) Regulations Status: Application cancelled Positional Accuracy: Manually positioned to the address or location	A19SE (NE)	804	2	510568 179659
68	Water Industry Act Referrals Name: Pro-Tech Precision Ltd Location: WATKINS CLOUD LTD, UNIT 3, PASADENA CLOSE, HILLINGDON, UXBIDGE, MIDDLESEX, UB10 0TJ Authority: Environment Agency, Thames Region Permit Reference: Ba5937 Dated: 21st January 1998 Process Type: Permissions or amendments to discharge under the Water Industry Act 1991 Description: Processes which result in the discharge of Special Category effluents under The Trade Effluents (Prescribed Processes and Substances) Regulations Status: Application received by the EA but is not yet authorised Positional Accuracy: Manually positioned to the address or location	A19SE (NE)	826	2	510551 179725
	Groundwater Vulnerability Soil Classification: Soils of High Leaching Potential (U) - Soil information for restored mineral workings and urban areas is based on fewer observations than elsewhere. A worst case vulnerability classification (H) assumed, until proved otherwise Map Sheet: Sheet 39 West London Scale: 1:100,000	A13NW (N)	0	2	509848 179221
	Drift Deposits Drift Deposit: Low permeability drift deposits occurring at the surface and overlying Major and Minor Aquifers are head, clay-with-flints, brickearth, peat, river terrace deposits and marine and estuarine alluvium Map Sheet: Sheet 39 West London Scale: 1:100,000	A13NW (N)	0	2	509848 179221
	Bedrock Aquifer Designations Aquifer Designation: Unproductive Strata	A13NW (N)	0	1	509848 179221
	Superficial Aquifer Designations Aquifer Designation: Principal Aquifer	A13NW (N)	0	1	509848 179221
	Extreme Flooding from Rivers or Sea without Defences None				
	Flooding from Rivers or Sea without Defences None				
	Areas Benefiting from Flood Defences None				
	Flood Water Storage Areas None				
	Flood Defences None				
69	OS Water Network Lines Watercourse Form: Canal Watercourse Length: 470.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Grand Union Canal Catchment Name: Thames Primacy: 1	A13NE (NE)	240	6	510005 179448

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
70	OS Water Network Lines Watercourse Form: Canal Watercourse Length: 204.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Grand Union Canal Catchment Name: Thames Primacy: 1	A13NE (N)	244	6	509951 179483
71	OS Water Network Lines Watercourse Form: Canal Watercourse Length: 71.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A13NE (NE)	246	6	509962 179480
72	OS Water Network Lines Watercourse Form: Canal Watercourse Length: 16.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Grand Union Canal Catchment Name: Thames Primacy: 1	A18SW (N)	335	6	509792 179590
73	OS Water Network Lines Watercourse Form: Canal Watercourse Length: 1995.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Grand Union Canal Catchment Name: Thames Primacy: 1	A18SW (N)	347	6	509779 179599
74	OS Water Network Lines Watercourse Form: Canal Watercourse Length: 15.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Grand Union Canal Catchment Name: Thames Primacy: 1	A14SW (E)	471	6	510349 179218
75	OS Water Network Lines Watercourse Form: Canal Watercourse Length: 212.7 Watercourse Level: suspendedOrElevated Permanent: True Watercourse Name: Grand Union Canal Catchment Name: Thames Primacy: 1	A14SW (E)	485	6	510362 179212
76	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 155.5 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Yeading Brook Catchment Name: Thames Primacy: 1	A14SW (E)	627	6	510464 179017
77	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 65.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Yeading Brook Catchment Name: Thames Primacy: 1	A14SW (E)	630	6	510454 178987
78	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 5.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A14SW (E)	630	6	510454 178987

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
79	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 54.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Yeading Brook Catchment Name: Thames Primacy: 1	A14SW (SE)	640	6	510434 178925
80	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 133.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Yeading Brook Catchment Name: Thames Primacy: 1	A14SW (E)	646	6	510514 179129
81	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 443.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: River Crane Catchment Name: Thames Primacy: 1	A9NW (SE)	650	6	510416 178875
82	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 3.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A14NE (E)	674	6	510553 179265
83	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 16.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Yeading Brook Catchment Name: Thames Primacy: 1	A14NE (E)	678	6	510556 179252
84	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 3.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Yeading Brook Catchment Name: Thames Primacy: 1	A14NE (E)	678	6	510556 179265
85	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 5.6 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Yeading Brook Catchment Name: Thames Primacy: 1	A14NE (E)	679	6	510558 179268
86	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 80.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Yeading Brook Catchment Name: Thames Primacy: 1	A14NE (E)	681	6	510559 179273
87	OS Water Network Lines Watercourse Form: Canal Watercourse Length: 145.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Grand Union Canal Catchment Name: Thames Primacy: 1	A14SE (E)	683	6	510551 179126

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
88	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 5.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A14NE (E)	748	6	510624 179306
89	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 103.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Yeading Brook Catchment Name: Thames Primacy: 1	A14NE (E)	750	6	510625 179311
90	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 5.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A14NE (E)	819	6	510684 179391
91	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 3.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Yeading Brook Catchment Name: Thames Primacy: 1	A14NE (E)	819	6	510684 179391
92	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 35.4 Watercourse Level: Underground Permanent: True Watercourse Name: Yeading Brook Catchment Name: Thames Primacy: 1	A14NE (E)	819	6	510684 179394
93	OS Water Network Lines Watercourse Form: Canal Watercourse Length: 167.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Grand Union Canal Catchment Name: Thames Primacy: 1	A14SE (E)	823	6	510683 179070
94	OS Water Network Lines Watercourse Form: Canal Watercourse Length: 23.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Grand Union Canal Catchment Name: Thames Primacy: 2	A14SE (E)	823	6	510683 179070
95	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 26.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Yeading Brook Catchment Name: Thames Primacy: 1	A14NE (E)	826	6	510684 179429
96	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 66.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A9SW (SE)	828	6	510278 178476

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
97	OS Water Network Lines Watercourse Form: Canal Watercourse Length: 1170.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Grand Union Canal Catchment Name: Thames Primacy: 2	A14SE (E)	829	6	510693 179091
98	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 854.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A14NE (E)	833	6	510684 179457
99	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 466.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Yeading Brook Catchment Name: Thames Primacy: 1	A14NE (E)	834	6	510686 179456
100	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 121.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A9SW (SE)	835	6	510273 178465
101	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 1.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A9SW (SE)	839	6	510314 178486
102	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 160.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A9SW (SE)	841	6	510316 178485
103	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 65.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A9SW (SE)	900	6	510366 178449
104	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 123.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: River Crane Catchment Name: Thames Primacy: 1	A9SW (SE)	900	6	510366 178449
105	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 65.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A9SW (SE)	939	6	510255 178337

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
106	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 144.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A9SW (S)	940	6	510204 178313
107	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 78.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A9SW (SE)	947	6	510430 178437
108	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 41.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A9SW (SE)	967	6	510319 178340
109	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 223.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Frogs Ditch Catchment Name: Thames Primacy: 1	A7SE (SW)	972	6	509437 178299
110	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 584.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Frogs Ditch Catchment Name: Thames Primacy: 1	A7SE (S)	974	6	509491 178274
111	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 234.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 2	A7SE (SW)	988	6	509277 178369
112	OS Water Network Lines Watercourse Form: Canal Watercourse Length: 159.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Grand Union Canal Catchment Name: Thames Primacy: 1	A14SE (E)	988	6	510839 179012
113	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 46.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A7SE (SW)	988	6	509277 178369
114	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 187.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A7SE (SW)	988	6	509277 178369

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
115	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 232.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A8SE (S)	988	6	510109 178230
116	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 24.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: River Crane Catchment Name: Thames Primacy: 1	A9SW (SE)	998	6	510358 178326

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
117	Historical Landfill Sites Licence Holder: London Borough of Ealing Location: Hays Town, Hillingdon, London Name: Bulls Bridge Area Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD11124 First Input Date: Not Supplied Last Input Date: 31st December 1936 Specified Waste: Deposited Waste included Inert, Commercial and Household Waste Type: EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: 5270/0007 BGS Ref: Not Supplied Other Ref: 8EA008, EAL008	A13NE (NE)	294	2	510143 179374
118	Historical Landfill Sites Licence Holder: Not Supplied Location: Southall Name: Bulls Bridge Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD11065 First Input Date: Not Supplied Last Input Date: 31st December 1949 Specified Waste: Deposited Waste included Inert, Industrial, Commercial, Household and Type: Special Waste EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: 5540/0068 BGS Ref: Not Supplied Other Ref: 8HO050	A14SE (E)	707	2	510548 179014
119	Historical Landfill Sites Licence Holder: Not Supplied Location: Hayes, Middlesex Name: Land at Yeading Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD34557 First Input Date: Not Supplied Last Input Date: Not Supplied Specified Waste: Not Supplied Type: EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: Not Supplied BGS Ref: Not Supplied Other Ref: Not Supplied	A14NE (E)	832	2	510690 179428
120	Historical Landfill Sites Licence Holder: H Streeter (Sand and Ballast) Limited Location: Harlington, West Drayton, Hillingdon, London Name: Crane Meadow Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD11309 First Input Date: 31st October 1986 Last Input Date: 31st October 1989 Specified Waste: Deposited Waste included Inert Waste Type: EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: 5510/0032 BGS Ref: Not Supplied Other Ref: DL292, 8HI016, HIL017	A8SW (S)	991	2	509544 178237
121	Licensed Waste Management Facilities (Landfill Boundaries) Name: The Gravel Pit Licence Number: 80066 Location: The Gravel Pit, High Street, Harlington, Hayes, Middlesex, UB3 5DA Licence Holder: Henry Streeter (Sand & Ballast) Ltd Authority: Environment Agency - South East Region, North East Thames Area Site Category: Landfills Taking Other Wastes (Construction, Demolition, Dredgings) Max Input Rate: Not Supplied Licence Status: Closure Issued: 28th September 1977 Positional Accuracy: Positioned by the supplier Boundary Accuracy: As Supplied	A7SE (SW)	973	2	509428 178301

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
122	Licensed Waste Management Facilities (Locations) Licence Number: 80404 Location: Unit 1 & 2, Pump Lane Industrial Estate, Hayes, Middlesex, UB3 3NB Operator Name: Personnel Hygiene Services Ltd Operator Location: Not Supplied Authority: Environment Agency - Thames Region, North East Area Site Category: Clinical Waste Transfer Stations Licence Status: Modified Issued: 8th January 1999 Last Modified: 13th September 2017 Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 100m	A19SW (NE)	551	2	510300 179600
123	Licensed Waste Management Facilities (Locations) Licence Number: 80057 Location: Units 5 & 6, Pump Lane, Pump Lane Ind Est, Hayes, Middlesex, UB3 3NB Operator Name: Rentokil Initial U K Ltd Operator Location: Not Supplied Authority: Environment Agency - Thames Region, North East Area Site Category: Special Waste Transfer Stations Licence Status: Surrendered Issued: 27th September 1994 Last Modified: 29th August 1997 Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: 23rd December 2008 IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m	A19SW (NE)	729	2	510445 179703
124	Licensed Waste Management Facilities (Locations) Licence Number: 401791 Location: North Hyde Gardens, Hayes, Middlesex, UB3 4QR Operator Name: F M Conway Limited Operator Location: Not Supplied Authority: Environment Agency - Thames Region, North East Area Site Category: Physical Treatment Facilities Licence Status: Issued Issued: 3rd February 2015 Last Modified: Not Supplied Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m	A14NE (E)	864	2	510740 179317
	Local Authority Landfill Coverage Name: London Borough of Hillingdon - Has not been able to supply Landfill data		0	3	509848 179221
	Local Authority Landfill Coverage Name: London Borough of Hounslow - Has no landfill data to supply		627	4	510468 179029
	Local Authority Landfill Coverage Name: London Borough of Ealing - Has supplied landfill data		818	7	510676 179061
125	Potentially Infilled Land (Non-Water) Bearing Ref: NE Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1989	A13NE (NE)	257	10	510012 179465
126	Potentially Infilled Land (Non-Water) Bearing Ref: NW Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1989	A13NW (NW)	284	10	509659 179468
127	Potentially Infilled Land (Non-Water) Bearing Ref: NW Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1989	A17SE (NW)	722	10	509285 179708
128	Potentially Infilled Land (Non-Water) Bearing Ref: W Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1989	A12NW (W)	872	10	508967 179386

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
129	Potentially Infilled Land (Non-Water) Bearing Ref: NW Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1989	A17SW (NW)	986	10	509001 179758
130	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1881	A13NE (NE)	206	10	509970 179430
131	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1897	A13NE (N)	217	10	509868 179476
132	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1881	A14NW (NE)	466	10	510288 179467
133	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1881	A14NW (E)	631	10	510471 179462
134	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1881	A18NE (N)	705	10	509886 179964
135	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1881	A18NE (N)	718	10	509892 179977
136	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1881	A18NE (N)	752	10	509898 180010
137	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1881	A18NW (N)	754	10	509828 180013
138	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1960	A9SW (SE)	810	10	510344 178544
139	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1960	A7SE (SW)	852	10	509465 178418
140	Registered Waste Transfer Sites Licence Holder: Personnel Hygiene Services Ltd Licence Reference: WML80404 Site Location: Unit 1 Pump Lane Industrial Estate, Junc. Pump Lane/Silverdale Road, Hayes, Middlesex, UB3 3nb Operator Location: Western Industrial Estate, CAERPHILLY, Mid Glamorgan, CF83 1XH Authority: Environment Agency - Thames Region, North East Area Site Category: Transfer Max Input Rate: Very Small (Less than 10,000 tonnes per year) Waste Source: No known restriction on source of waste Restrictions: Licence Status: Operational as far as is known Dated: 8th January 1999 Preceded By: Not Given Licence: Superseded By: Not Given Licence: Positional Accuracy: Manually positioned within the geographical locality Boundary Quality: Not Supplied Authorised Waste: Clinical Waste Grps A, B, C, E Special Waste (As In Epa 1990:S62 Of 1996 Regs) - Comprising Prohibited Waste: Waste Not Otherwise Specified	A19SW (NE)	551	2	510300 179600

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
141	Registered Waste Transfer Sites Licence Holder: Rentokil Initial Plc Licence Reference: DL273 Site Location: Units 5 & 6 Pump Lane Industrial Estate, HAYES, Middlesex, UB3 3NB Operator Location: Felcourt, East Grinstead, West Sussex, RH19 2JY Authority: Environment Agency - Thames Region, North East Area Site Category: Transfer Max Input Rate: Very Small (Less than 10,000 tonnes per year) Waste Source: No known restriction on source of waste Restrictions: Licence Status: May not be working (licence suspended)Suspended Dated: 27th September 1994 Preceded By: DL273 Licence: Superseded By: Not Given Licence: Positional Accuracy: Manually positioned to the address or location Boundary Quality: Not Supplied Authorised Waste: Clinical Wastes Drugs/Marketed Chemicals (Ex Manuf.) Gen. Medical Wastes Sanitary Wastes Sharps Prohibited Waste: Other Clinical Wastes N.O.S. Special Wastes N.O.S. Waste N.O.S.	A19SW (NE)	717	2	510440 179690
141	Registered Waste Transfer Sites Licence Holder: Rentokil Ltd Licence Reference: DL273 Site Location: Units 5 & 6 Pump Lane Industrial Estate, HAYES, Middlesex, UB3 3NB Operator Location: As Site Address Authority: Environment Agency - Thames Region, North East Area Site Category: Transfer Max Input Rate: Very Small (Less than 10,000 tonnes per year) Waste Source: No known restriction on source of waste Restrictions: Licence Status: Record supersededSuperseded Dated: 1st February 1988 Preceded By: Not Given Licence: Superseded By: DL273 Licence: Positional Accuracy: Manually positioned to the address or location Boundary Quality: Not Supplied Authorised Waste: Agar Plates Or Blood Samples (Sealed) Catheter Tubes Contam.Waste From Treatment Areas Disposable Nappies, Incontinence Pads Max.Waste Permitted By Licence(Stated) Sanitary Towels, Soiled Dressings Sharps, Ampoules & Phials Prohibited Waste: Other Clin.Waste -Clause 2,4 Hsc'82 Special Wastes	A19SW (NE)	717	2	510440 179690

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
142	Explosive Sites Name: Thomson Thorn Missile Electronics Ltd Location: 120 Blyth Road, HAYES, Middlesex, UB3 1BY Status: Not Active Positional Accuracy: Manually positioned to the address or location	A12NE (NW)	492	8	509413 179482

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS 1:625,000 Solid Geology Description: Thames Group	A13NW (N)	0	1	509848 179221
	BGS Estimated Soil Chemistry No data available				
143	BGS Recorded Mineral Sites Site Name: Botwell Brickfield Location: Not Supplied Source: British Geological Survey, National Geoscience Information Service Reference: 19735 Type: Opencast Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Quaternary Geology: Langley Silt Formation Commodity: Common Clay and Shale Positional Accuracy: Located by supplier to within 10m	A13NE (E)	47	1	509925 179250
144	BGS Recorded Mineral Sites Site Name: Botwell Brick Field Location: Not Supplied Source: British Geological Survey, National Geoscience Information Service Reference: 232479 Type: Opencast Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Quaternary, Devensian Geology: Langley Silt Member Commodity: Common Clay and Shale Positional Accuracy: Located by supplier to within 10m	A13NE (NE)	364	1	510100 179533
145	BGS Recorded Mineral Sites Site Name: Botwell Brickfield Location: Not Supplied Source: British Geological Survey, National Geoscience Information Service Reference: 19729 Type: Opencast Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Quaternary Geology: Langley Silt Formation Commodity: Common Clay and Shale Positional Accuracy: Located by supplier to within 10m	A18SE (N)	425	1	509917 179680
146	BGS Recorded Mineral Sites Site Name: Botwell Brickfield Location: Not Supplied Source: British Geological Survey, National Geoscience Information Service Reference: 19730 Type: Opencast Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Quaternary Geology: Langley Silt Formation Commodity: Common Clay and Shale Positional Accuracy: Located by supplier to within 10m	A18SW (NW)	447	1	509520 179560
147	BGS Recorded Mineral Sites Site Name: Bulls Bridge Brick Field Location: Not Supplied Source: British Geological Survey, National Geoscience Information Service Reference: 232481 Type: Opencast Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Quaternary, Devensian Geology: Langley Silt Member Commodity: Common Clay and Shale Positional Accuracy: Located by supplier to within 10m	A14NW (E)	460	1	510331 179328

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
148	BGS Recorded Mineral Sites Site Name: Botwell Brick Field Location: Not Supplied Source: British Geological Survey, National Geoscience Information Service Reference: 232534 Type: Opencast Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Quaternary, Devensian Geology: Langley Silt Member Commodity: Common Clay and Shale Positional Accuracy: Located by supplier to within 10m	A18SE (N)	557	1	510015 179792
149	BGS Recorded Mineral Sites Site Name: Hayes Aggregate Terminal Location: Not Supplied Source: British Geological Survey, National Geoscience Information Service Reference: 11241 Type: Rail Depot Status: Active Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Not Available Geology: Quarry (Hard Rock) Commodity: Crushed Rock Positional Accuracy: Located by supplier to within 10m	A14NW (E)	558	1	510405 179430
150	BGS Recorded Mineral Sites Site Name: Bulls Bridge Brick Field Location: Not Supplied Source: British Geological Survey, National Geoscience Information Service Reference: 232480 Type: Opencast Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Quaternary, Devensian Geology: Langley Silt Member Commodity: Common Clay and Shale Positional Accuracy: Located by supplier to within 10m	A14NW (E)	609	1	510485 179298
151	BGS Recorded Mineral Sites Site Name: Botwell Brick Field Location: Not Supplied Source: British Geological Survey, National Geoscience Information Service Reference: 232537 Type: Opencast Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Quaternary, Devensian Geology: Langley Silt Member Commodity: Common Clay and Shale Positional Accuracy: Located by supplier to within 10m	A18SE (NE)	647	1	510155 179831
152	BGS Recorded Mineral Sites Site Name: Botwell Brick Field Location: Not Supplied Source: British Geological Survey, National Geoscience Information Service Reference: 232535 Type: Opencast Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Quaternary, Devensian Geology: Langley Silt Member Commodity: Common Clay and Shale Positional Accuracy: Located by supplier to within 10m	A18NE (N)	648	1	509957 179899
153	BGS Recorded Mineral Sites Site Name: Botwell Brick Field Location: Not Supplied Source: British Geological Survey, National Geoscience Information Service Reference: 232536 Type: Opencast Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Quaternary, Devensian Geology: Langley Silt Member Commodity: Common Clay and Shale Positional Accuracy: Located by supplier to within 10m	A18SE (N)	665	1	510063 179890

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
154	BGS Recorded Mineral Sites Site Name: Botwell Brick Field Location: Not Supplied Source: British Geological Survey, National Geoscience Information Service Reference: 232538 Type: Opencast Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Quaternary, Devensian Geology: Langley Silt Member Commodity: Common Clay and Shale Positional Accuracy: Located by supplier to within 10m	A18NE (N)	759	1	510143 179960
155	BGS Recorded Mineral Sites Site Name: Botwell House Brickfield Location: Not Supplied Source: British Geological Survey, National Geoscience Information Service Reference: 19731 Type: Opencast Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Quaternary Geology: Langley Silt Formation Commodity: Common Clay and Shale Positional Accuracy: Located by supplier to within 10m	A17NE (NW)	789	1	509470 179950
156	BGS Recorded Mineral Sites Site Name: Dawley Brickfield Location: Not Supplied Source: British Geological Survey, National Geoscience Information Service Reference: 19732 Type: Opencast Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Quaternary Geology: Langley Silt Formation Commodity: Common Clay and Shale Positional Accuracy: Located by supplier to within 10m	A17SE (NW)	843	1	509180 179770
157	BGS Recorded Mineral Sites Site Name: Botwell Brick Field Location: Not Supplied Source: British Geological Survey, National Geoscience Information Service Reference: 232540 Type: Opencast Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Quaternary, Devensian Geology: Langley Silt Member Commodity: Common Clay and Shale Positional Accuracy: Located by supplier to within 10m	A19NW (NE)	862	1	510379 179947
158	BGS Recorded Mineral Sites Site Name: Botwell Brick Field Location: Not Supplied Source: British Geological Survey, National Geoscience Information Service Reference: 232539 Type: Opencast Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Quaternary, Devensian Geology: Langley Silt Member Commodity: Common Clay and Shale Positional Accuracy: Located by supplier to within 10m	A19NW (NE)	890	1	510207 180075
159	BGS Recorded Mineral Sites Site Name: Clayton Road Gravel Pit Location: Not Supplied Source: British Geological Survey, National Geoscience Information Service Reference: 19733 Type: Opencast Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Quaternary Geology: Lynch Hill Gravel Member, Maidenhead Formation (River Thames Gravel) Commodity: Sand and Gravel Positional Accuracy: Located by supplier to within 10m	A17SW (NW)	926	1	509130 179840

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 509788, 179204 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured 19.00 mg/kg Concentration: Cadmium Measured 2.00 mg/kg Concentration: Chromium Measured 62.00 mg/kg Concentration: Lead Measured 298.20 mg/kg Concentration: Nickel Measured 31.90 mg/kg Concentration:	A13SW (W)	32	1	509788 179204
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 509799, 178840 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured 12.90 mg/kg Concentration: Cadmium Measured 0.40 mg/kg Concentration: Chromium Measured 78.60 mg/kg Concentration: Lead Measured 105.50 mg/kg Concentration: Nickel Measured 24.00 mg/kg Concentration:	A8NW (S)	344	1	509799 178840
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 510303, 179271 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured 17.20 mg/kg Concentration: Cadmium Measured 2.50 mg/kg Concentration: Chromium Measured 85.40 mg/kg Concentration: Lead Measured 230.30 mg/kg Concentration: Nickel Measured 66.70 mg/kg Concentration:	A14NW (E)	425	1	510303 179271
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 509772, 179696 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured 17.20 mg/kg Concentration: Cadmium Measured 0.60 mg/kg Concentration: Chromium Measured 71.10 mg/kg Concentration: Lead Measured 152.80 mg/kg Concentration: Nickel Measured 29.20 mg/kg Concentration:	A18SW (N)	443	1	509772 179696
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 509173, 179158 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured 26.70 mg/kg Concentration: Cadmium Measured 1.00 mg/kg Concentration: Chromium Measured 69.50 mg/kg Concentration: Lead Measured 235.90 mg/kg Concentration: Nickel Measured 25.70 mg/kg Concentration:	A12SW (W)	646	1	509173 179158

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 510325, 178714 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured 11.30 mg/kg Concentration: Cadmium Measured 0.40 mg/kg Concentration: Chromium Measured 78.30 mg/kg Concentration: Lead Measured 81.40 mg/kg Concentration: Nickel Measured 19.30 mg/kg Concentration:	A9NW (SE)	671	1	510325 178714
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 510256, 179828 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured 15.00 mg/kg Concentration: Cadmium Measured 0.60 mg/kg Concentration: Chromium Measured 54.90 mg/kg Concentration: Lead Measured 273.60 mg/kg Concentration: Nickel Measured 22.10 mg/kg Concentration:	A19SW (NE)	695	1	510256 179828
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 509299, 178726 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured 17.00 mg/kg Concentration: Cadmium Measured 1.70 mg/kg Concentration: Chromium Measured 78.20 mg/kg Concentration: Lead Measured 477.20 mg/kg Concentration: Nickel Measured 27.60 mg/kg Concentration:	A7NE (SW)	700	1	509299 178726
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 509255, 179782 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured 18.60 mg/kg Concentration: Cadmium Measured 0.60 mg/kg Concentration: Chromium Measured 60.40 mg/kg Concentration: Lead Measured 371.50 mg/kg Concentration: Nickel Measured 20.20 mg/kg Concentration:	A17SE (NW)	793	1	509255 179782
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 509842, 180164 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured 13.80 mg/kg Concentration: Cadmium Measured 0.60 mg/kg Concentration: Chromium Measured 70.90 mg/kg Concentration: Lead Measured 122.60 mg/kg Concentration: Nickel Measured 18.80 mg/kg Concentration:	A18NW (N)	904	1	509842 180164

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 510685, 178819 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured 13.80 mg/kg Concentration: Cadmium Measured 1.10 mg/kg Concentration: Chromium Measured 74.40 mg/kg Concentration: Lead Measured 100.30 mg/kg Concentration: Nickel Measured 22.00 mg/kg Concentration:	A9NE (SE)	912	1	510685 178819
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 510792, 179254 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured 18.60 mg/kg Concentration: Cadmium Measured 1.00 mg/kg Concentration: Chromium Measured 49.80 mg/kg Concentration: Lead Measured 205.90 mg/kg Concentration: Nickel Measured 31.50 mg/kg Concentration:	A14NE (E)	913	1	510792 179254
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 509724, 178216 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured 12.90 mg/kg Concentration: Cadmium Measured 0.70 mg/kg Concentration: Chromium Measured 83.10 mg/kg Concentration: Lead Measured 146.60 mg/kg Concentration: Nickel Measured 23.70 mg/kg Concentration:	A8SW (S)	973	1	509724 178216
	BGS Urban Soil Chemistry Averages Source: British Geological Survey, National Geoscience Information Service Sample Area: London Count Id: 7209 Arsenic Minimum 1.00 mg/kg Concentration: Arsenic Average 17.00 mg/kg Concentration: Arsenic Maximum 161.00 mg/kg Concentration: Cadmium Minimum 0.10 mg/kg Concentration: Cadmium Average 0.90 mg/kg Concentration: Cadmium Maximum 165.20 mg/kg Concentration: Chromium Minimum 13.00 mg/kg Concentration: Chromium Average 79.00 mg/kg Concentration: Chromium Maximum 2094.00 mg/kg Concentration: Lead Minimum 11.00 mg/kg Concentration: Lead Average 280.00 mg/kg Concentration: Lead Maximum 10000.00 mg/kg Concentration: Nickel Minimum 2.00 mg/kg Concentration: Nickel Average 28.00 mg/kg Concentration: Nickel Maximum 506.00 mg/kg Concentration:	A13NW (N)	0	1	509848 179221

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Coal Mining Affected Areas In an area that might not be affected by coal mining				
	Non Coal Mining Areas of Great Britain No Hazard				
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NW (N)	0	1	509848 179221
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (E)	121	1	510000 179221
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SW (SW)	128	1	509769 179076
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NW (N)	0	1	509848 179221
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (E)	121	1	510000 179221
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NW (N)	0	1	509848 179221
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (E)	121	1	510000 179221
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NW (N)	0	1	509848 179221
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (E)	121	1	510000 179221
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NW (N)	0	1	509848 179221
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (E)	121	1	510000 179221
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SW (SW)	128	1	509769 179076
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NW (N)	0	1	509848 179221
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (E)	121	1	510000 179221
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SW (SW)	128	1	509769 179076
	Radon Potential - Radon Affected Areas Affected Area: The property is in a Lower probability radon area (less than 1% of homes are estimated to be at or above the Action Level). Source: British Geological Survey, National Geoscience Information Service	A13NW (N)	0	1	509848 179221
	Radon Potential - Radon Protection Measures Protection Measure: No radon protective measures are necessary in the construction of new dwellings or extensions Source: British Geological Survey, National Geoscience Information Service	A13NW (N)	0	1	509848 179221

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
160	Contemporary Trade Directory Entries Name: Victoria Litho Location: Stanford House, 9, Nestles Avenue, Hayes, UB3 4SA Classification: Printers Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NE (NE)	0	-	509852 179229
160	Contemporary Trade Directory Entries Name: Victoria Litho Location: Stanford House, 9, Nestles Avenue, HAYES, Middlesex, UB3 4SA Classification: Printers Status: Active Positional Accuracy: Automatically positioned to the address	A13NE (NE)	0	-	509852 179230
160	Contemporary Trade Directory Entries Name: Oslers Ltd Location: 7, Nestles Avenue, Hayes, Middlesex, UB3 4SA Classification: Catering Equipment Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NW (NW)	17	-	509825 179246
160	Contemporary Trade Directory Entries Name: Silver Bullet Ltd Location: 6, Viveash Close, Hayes, Middlesex, UB3 4RY Classification: Road Haulage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NW (NW)	17	-	509825 179246
160	Contemporary Trade Directory Entries Name: Lockheard Catering Location: 7, Nestles Avenue, Hayes, Middlesex, UB3 4SA Classification: Catering Equipment Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NW (NW)	17	-	509825 179246
161	Contemporary Trade Directory Entries Name: Belmont Vinyl Pressing Ltd Location: 233 Nestles Av, Hayes, Middlesex, UB3 4SA Classification: Record, Tape & CD Manufacturers & Wholesalers Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A13SW (SW)	7	-	509828 179182
162	Contemporary Trade Directory Entries Name: Motormasters Location: 7 Viveash Close, Hayes, Middlesex, UB3 4RY Classification: Mot Testing Centres Status: Active Positional Accuracy: Manually positioned to the address or location	A13NE (NE)	11	-	509875 179259
162	Contemporary Trade Directory Entries Name: Fast Lane Car Care Location: Unit 7, Squirrels Trading Estate, Viveash Close, Hayes, UB3 4RZ Classification: Car Body Repairs Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NE (NE)	11	-	509875 179259
162	Contemporary Trade Directory Entries Name: Hayes Bodyshop (London) Ltd Location: Unit 5-6, Squirrels Trading Estate, Viveash Close, Hayes, Middlesex, UB3 4RZ Classification: Car Body Repairs Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NE (NE)	21	-	509879 179268
162	Contemporary Trade Directory Entries Name: Helm Products Ltd Location: 4, Squirrels Trading Estate, Viveash Close, Hayes, Middlesex, UB3 4RZ Classification: Soft Furnishings - Manufacturers Status: Inactive Positional Accuracy: Automatically positioned in the proximity of the address	A13NE (N)	30	-	509866 179286
162	Contemporary Trade Directory Entries Name: Peter Bellingham Ltd Location: Unit 2, Squirrels Trading Estate, Viveash Close, Hayes, Middlesex, UB3 4RZ Classification: Office Furniture & Equipment Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NE (N)	42	-	509850 179302

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
162	Contemporary Trade Directory Entries Name: Van Matic Location: 1a, Viveash Close, Hayes, UB3 4RY Classification: Gearboxes Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NW (N)	47	-	509840 179305
162	Contemporary Trade Directory Entries Name: M D I Motor Services Ltd Location: Unit 1, Squirrels Trading Estate, Viveash Close, Hayes, Middlesex, UB3 4RZ Classification: Car Body Repairs Status: Active Positional Accuracy: Automatically positioned to the address	A13NW (N)	47	-	509840 179305
162	Contemporary Trade Directory Entries Name: Vm Transmission Products Location: 1a, Viveash Close, Hayes, Middlesex, UB3 4RY Classification: Gearboxes Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NW (N)	47	-	509840 179305
162	Contemporary Trade Directory Entries Name: Vm Transmission Products Location: 1a, Viveash Close, Hayes, Middlesex, UB3 4RY Classification: Gearboxes Status: Inactive Positional Accuracy: Automatically positioned in the proximity of the address	A13NW (N)	58	-	509844 179317
162	Contemporary Trade Directory Entries Name: Paramount Powders Uk Ltd Location: 4, Viveash Close, HAYES, Middlesex, UB3 4RY Classification: Powder Coatings Status: Active Positional Accuracy: Automatically positioned to the address	A13NE (N)	61	-	509876 179316
162	Contemporary Trade Directory Entries Name: Wrench Ltd Location: 1a, Viveash Close, Hayes, UB3 4RY Classification: Window Tinting Status: Active Positional Accuracy: Automatically positioned to the address	A13NW (N)	75	-	509809 179321
162	Contemporary Trade Directory Entries Name: T K O London Location: 1a, Viveash Close, Hayes, UB3 4RY Classification: Car Customisation & Conversion Specialists Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NW (N)	75	-	509809 179321
163	Contemporary Trade Directory Entries Name: Jcs Location: 56, Nestles Avenue, Hayes, Middlesex, UB3 4QB Classification: Commercial Cleaning Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A13SW (W)	85	-	509735 179211
164	Contemporary Trade Directory Entries Name: Cab Mates Location: 233-236, Nestles Avenue, Hayes, UB3 4SH Classification: Car Engine Tuning & Diagnostic Services Status: Active Positional Accuracy: Automatically positioned to the address	A13NW (NW)	88	-	509758 179272
165	Contemporary Trade Directory Entries Name: Lords Commercial Services Location: 2, Viveash Close, HAYES, Middlesex, UB3 4RY Classification: Garage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NW (N)	104	-	509809 179354
165	Contemporary Trade Directory Entries Name: Sterling Performance Cars Ltd Location: 2b, Viveash Close, Hayes, UB3 4RY Classification: Car Dealers Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NW (N)	106	-	509828 179363
166	Contemporary Trade Directory Entries Name: Muddy Fox Ltd Location: Building 233, Nestles Av, Hayes, Middlesex, UB3 4SB Classification: Cycle Manufacturers & Wholesalers Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A13SE (SE)	131	-	509955 179112

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
167	Contemporary Trade Directory Entries Name: Monaghan Grinding Services Location: Unit 1, Sandow Commercial Estate, Sandow Crescent, HAYES, Middlesex, UB3 4QH Classification: Grinding Equipment & Services Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A13NW (W)	135	-	509686 179223
167	Contemporary Trade Directory Entries Name: P W Auto'S Location: Unit 1/B, Sandow Commercial Estate, Sandow Crescent, HAYES, Middlesex, UB3 4QH Classification: Garage Services Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A13NW (W)	136	-	509686 179224
167	Contemporary Trade Directory Entries Name: Harlington Services Location: Unit 1 Sandow Crescent, Hayes, Middlesex, UB3 4QH Classification: Garage Services Status: Active Positional Accuracy: Manually positioned within the geographical locality	A13SW (W)	159	-	509660 179213
168	Contemporary Trade Directory Entries Name: Esso Location: 40-42, North Hyde Road, Hayes, Middlesex, UB3 4NE Classification: Petrol Filling Stations Status: Inactive Positional Accuracy: Automatically positioned to the address	A13SW (W)	152	-	509673 179152
168	Contemporary Trade Directory Entries Name: Tesco Express Location: 40-42, North Hyde Road, Hayes, Middlesex, UB3 4NE Classification: Petrol Filling Stations Status: Inactive Positional Accuracy: Automatically positioned to the address	A13SW (W)	152	-	509673 179152
168	Contemporary Trade Directory Entries Name: North Hyde Service Station Location: North Hyde Road, Hayes, Middlesex, UB3 4NE Classification: Petrol Filling Stations - 24 Hour Status: Inactive Positional Accuracy: Automatically positioned to the address	A13SW (SW)	154	-	509676 179136
168	Contemporary Trade Directory Entries Name: Esso Location: 40-42, North Hyde Road, Hayes, UB3 4NE Classification: Petrol Filling Stations Status: Active Positional Accuracy: Automatically positioned to the address	A13SW (SW)	171	-	509657 179140
168	Contemporary Trade Directory Entries Name: Tesco Express Location: 38, North Hyde Road, Hayes, Middlesex, UB3 4NE Classification: Petrol Filling Stations Status: Inactive Positional Accuracy: Automatically positioned to the address	A13SW (W)	177	-	509644 179164
169	Contemporary Trade Directory Entries Name: Grange Carriages Ltd Location: 37-39, North Hyde Road, Hayes, Middlesex, UB3 4NN Classification: Car Dealers - Used Status: Inactive Positional Accuracy: Automatically positioned in the proximity of the address	A13SW (SW)	161	-	509735 179058
170	Contemporary Trade Directory Entries Name: Custom Bmw Werks Location: North Hyde Rd, Hayes, Middlesex, UB3 4NF Classification: Garage Services Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A13SE (S)	165	-	509850 179016
171	Contemporary Trade Directory Entries Name: Walia Motors Location: 37-39, North Hyde Road, Hayes, Middlesex, UB3 4NN Classification: Garage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A13SW (SW)	180	-	509680 179080

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
171	Contemporary Trade Directory Entries Name: Victoria Carriages Location: 37-39, North Hyde Road, Hayes, Middlesex, UB3 4NN Classification: Car Dealers - Used Status: Inactive Positional Accuracy: Automatically positioned to the address	A13SW (SW)	180	-	509680 179080
171	Contemporary Trade Directory Entries Name: North Hyde Trade Centre Location: North Hyde Trade Centre, 37-39, North Hyde Road, Hayes, UB3 4NN Classification: Mot Testing Centres Status: Active Positional Accuracy: Automatically positioned to the address	A13SW (SW)	181	-	509677 179083
172	Contemporary Trade Directory Entries Name: Atlas Freight Connect Location: 1, Nestles Avenue, Hayes, Middlesex, UB3 4UZ Classification: Freight Forwarders Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NW (NW)	186	-	509671 179317
172	Contemporary Trade Directory Entries Name: Swift Cargo Location: 1, Nestles Avenue, Hayes, UB3 4UZ Classification: Cargo Handling Services Status: Active Positional Accuracy: Automatically positioned to the address	A13NW (NW)	186	-	509671 179317
172	Contemporary Trade Directory Entries Name: Brussels Waffle Wagon Location: 1, Nestles Avenue, Hayes, Middlesex, UB3 4SH Classification: Food Products - Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NW (NW)	186	-	509671 179317
172	Contemporary Trade Directory Entries Name: Orbital Epos Systems Ltd Location: 1, Nestles Avenue, Hayes, Middlesex, UB3 4SH Classification: Cash Registers & Check-Out Equipment Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NW (NW)	186	-	509671 179317
172	Contemporary Trade Directory Entries Name: T C Transport Location: 1, Nestles Avenue, Hayes, Middlesex, UB3 4SH Classification: Road Haulage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NW (NW)	186	-	509671 179317
172	Contemporary Trade Directory Entries Name: Cleantech Ltd Location: 1, Nestles Avenue, Hayes, Middlesex, UB3 4SH Classification: Commercial Cleaning Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NW (NW)	186	-	509671 179317
172	Contemporary Trade Directory Entries Name: Transport Partnerships Location: 1, Nestles Avenue, Hayes, Middlesex, UB3 4SH Classification: Road Haulage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NW (NW)	186	-	509671 179317
172	Contemporary Trade Directory Entries Name: Tj Project Services Location: 1, Nestles Avenue, Hayes, Middlesex, UB3 4UZ Classification: Distribution Services Status: Inactive Positional Accuracy: Manually positioned to the address or location	A13NW (NW)	186	-	509671 179317
172	Contemporary Trade Directory Entries Name: Montag Watch Location: 1, Nestles Avenue, Hayes, Middlesex, UB3 4UZ Classification: Manufacturers Status: Inactive Positional Accuracy: Manually positioned to the address or location	A13NW (NW)	186	-	509671 179317
172	Contemporary Trade Directory Entries Name: X-Tra Baggage Location: 1, Nestles Avenue, Hayes, Middlesex, UB3 4UZ Classification: Freight Forwarders Status: Inactive Positional Accuracy: Manually positioned to the address or location	A13NW (NW)	186	-	509671 179317

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
172	Contemporary Trade Directory Entries Name: Walltastic Ltd Location: 1, Nestles Avenue, Hayes, Middlesex, UB3 4UZ Classification: Wallpapers & Wall Coverings Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NW (NW)	186	-	509671 179317
172	Contemporary Trade Directory Entries Name: Uasie 79 Location: 3010 Nestles Av, Hayes, Middlesex, UB3 4UZ Classification: Freight Forwarders Status: Inactive Positional Accuracy: Manually positioned within the geographical locality	A13NW (NW)	186	-	509671 179317
173	Contemporary Trade Directory Entries Name: Pirtek Hydraulics (Kings Cross) Location: Station Yard, Station Approach, Hayes, Middlesex, UB3 4DW Classification: Hydraulic Engineers Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NW (N)	192	-	509807 179446
173	Contemporary Trade Directory Entries Name: Phoenix Trading Co Location: Station Yard, Station Approach, Hayes, Middlesex, UB3 4DW Classification: Tyre Dealers Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NW (N)	219	-	509822 179477
174	Contemporary Trade Directory Entries Name: Spotclean Solutions Ltd Location: Bridge House, 119-123, Station Road, Hayes, Middlesex, UB3 4BX Classification: Commercial Cleaning Services Status: Active Positional Accuracy: Automatically positioned to the address	A13NW (NW)	227	-	509739 179457
174	Contemporary Trade Directory Entries Name: Alamgeer Foods (Uk) Ltd Location: Bridge House, 119-123, Station Road, Hayes, Middlesex, UB3 4BX Classification: Food Products - Manufacturers Status: Inactive Positional Accuracy: Manually positioned to the address or location	A13NW (NW)	227	-	509739 179457
175	Contemporary Trade Directory Entries Name: Blue Sky Garage Location: Silverdale Road, Hayes, Middlesex, UB3 3BN Classification: Car Customisation & Conversion Specialists Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NE (NE)	267	-	510027 179467
175	Contemporary Trade Directory Entries Name: Rinx Tech Ltd Location: Silverdale Works, Hayes, Middlesex, UB3 3BH Classification: Commercial Vehicle Servicing, Repairs, Parts & Accessories Status: Inactive Positional Accuracy: Manually positioned within the geographical locality	A13NE (NE)	267	-	510027 179467
175	Contemporary Trade Directory Entries Name: Spearhead Environmental Location: Unit 9, Crauford Business Park, Silverdale Road, Hayes, Middlesex, UB3 3BN Classification: Air Conditioning & Refrigeration Contractors Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NE (NE)	310	-	510044 179507
175	Contemporary Trade Directory Entries Name: World Cleaners Ltd Location: Chalfont House, Silverdale Road, Hayes, Middlesex, UB3 3BN Classification: Commercial Cleaning Services Status: Inactive Positional Accuracy: Manually positioned to the address or location	A13NE (NE)	321	-	510014 179537
176	Contemporary Trade Directory Entries Name: Nestle UK Ltd Location: North Hyde Gardens, Hayes, Middlesex, UB3 4RF Classification: Food Products - Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NE (E)	273	-	510152 179247
177	Contemporary Trade Directory Entries Name: Enertech Industries Ltd Location: Flat 511, Vantage Building, Station Approach, Hayes, UB3 4FA Classification: Transformer Manufacturers Status: Active Positional Accuracy: Automatically positioned to the address	A13NW (N)	274	-	509786 179526

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
288	Contemporary Trade Directory Entries Name: Ontime Automotive Location: Pasadena Centre, Pasadena Close, Hayes, Middlesex, UB3 3NQ Classification: Breakdown and Recovery Status: Inactive Positional Accuracy: Automatically positioned to the address	A19SE (NE)	942	-	510646 179791
289	Contemporary Trade Directory Entries Name: Tesco Petrol Filling Station Location: Bulls Bridge Industrial Estate, Southall, Middlesex, UB2 5LN Classification: Petrol Filling Stations Status: Active Positional Accuracy: Automatically positioned to the address	A14SE (E)	945	-	510762 178911
290	Contemporary Trade Directory Entries Name: Ivo Textiles Ltd Location: 3, Trident Way, Southall, Middlesex, UB2 5LF Classification: Screen Process Printers Status: Inactive Positional Accuracy: Automatically positioned to the address	A14SE (E)	954	-	510830 179173
290	Contemporary Trade Directory Entries Name: Camgate Litho Ltd Location: Unit 7a, International Trading Estate, Boeing Way, Southall, Middlesex, UB2 5LB Classification: Printers Status: Inactive Positional Accuracy: Automatically positioned to the address	A14SE (E)	954	-	510830 179173
290	Contemporary Trade Directory Entries Name: Ivo Textiles Ltd Location: 3, Trident Way, Southall, Middlesex, UB2 5LF Classification: Textile Manufacturing Status: Inactive Positional Accuracy: Automatically positioned to the address	A14SE (E)	954	-	510830 179173
291	Contemporary Trade Directory Entries Name: Dazzler'S Cleaning Services Location: 3 Orchard Cottages, Dawley Road, Hayes, Middlesex, UB3 1EL Classification: Commercial Cleaning Services Status: Active Positional Accuracy: Automatically positioned to the address	A17SW (NW)	966	-	508998 179712
292	Contemporary Trade Directory Entries Name: Home Care Cleaning Services Location: 33, Waltham Avenue, Hayes, Middlesex, UB3 1TA Classification: Carpet, Curtain & Upholstery Cleaners Status: Inactive Positional Accuracy: Automatically positioned to the address	A12NW (W)	970	-	508849 179231
293	Contemporary Trade Directory Entries Name: M W Air Conditioning & Refrigeration Location: 43, Pinkwell Avenue, Hayes, UB3 1NQ Classification: Air Conditioning & Refrigeration Contractors Status: Active Positional Accuracy: Automatically positioned to the address	A7NW (W)	998	-	508890 178830
294	Contemporary Trade Directory Entries Name: Sophia Cargo Location: W8, Western International Market, Hayes Road, Southall, UB2 5XJ Classification: Road Haulage Services Status: Active Positional Accuracy: Automatically positioned to the address	A9NE (SE)	998	-	510704 178675
295	Fuel Station Entries Name: South Hayes Express Location: 38-42, North Hyde Road, , Hayes, Outer London, UB3 4NE Brand: ESSO Premises Type: Petrol Station Status: Open Positional Accuracy: Manually positioned to the address or location	A13SW (W)	150	-	509674 179153
296	Fuel Station Entries Name: Asda Hayes Automat Location: Millington Road, , Hayes, Outer London, UB3 4AZ Brand: Asda Premises Type: Hypermarket Status: Open Positional Accuracy: Manually positioned to the address or location	A12SE (W)	466	-	509367 179078

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
297	Fuel Station Entries Name: M & W Motors Location: Printing House Lane , , Hayes, Outer London, UB3 1AP Brand: UK Premises Type: Not Applicable Status: Obsolete Positional Accuracy: Manually positioned to the address or location	A17NE (NW)	902	-	509456 180071
298	Fuel Station Entries Name: Tesco Hayes Bulls Bridge Extra Location: Hayes Road , Southall Green , Southall, Outer London, UB2 5LN Brand: Tesco Extra Premises Type: Hypermarket Status: Open Positional Accuracy: Manually positioned to the address or location	A14SE (E)	929	-	510747 178915
299	Fuel Station Entries Name: Hayes Service Station Location: 141, Hayes Road , Southall Green , Southall, Outer London, UB2 5LZ Brand: Bp Premises Type: Petrol Station Status: Open Positional Accuracy: Manually positioned to the address or location	A9NE (SE)	939	-	510729 178846
300	Points of Interest - Commercial Services Name: Motor Masters Location: 7 Viveash Close, Hayes, Middlesex, UB3 4RY Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A13NE (NE)	11	9	509875 179259
300	Points of Interest - Commercial Services Name: Motormasters Location: Unit 7 Squirrels Trading Estate, Viveash Close, Hayes, UB3 4RZ Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A13NE (NE)	11	9	509875 179259
300	Points of Interest - Commercial Services Name: Boyce Brown & Wilson Ltd Location: Unit 7 Squirrels Trading Estate, Viveash Close, Hayes, UB3 4RZ Category: Construction Services Class Code: Metalworkers Including Blacksmiths Positional Accuracy: Positioned to address or location	A13NE (NE)	12	9	509875 179260
300	Points of Interest - Commercial Services Name: Hayes Bodyshop (London) Ltd Location: Unit 5-6 Squirrels Trading Estate, Viveash Close, Hayes, UB3 4RZ Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A13NE (NE)	21	9	509879 179268
300	Points of Interest - Commercial Services Name: Hayes Body Repairs Ltd Location: Unit 6 Squirrels Trading Estate, Viveash Close, Hayes, UB3 4RZ Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A13NE (NE)	21	9	509879 179268
300	Points of Interest - Commercial Services Name: M D I Motor Services Ltd Location: Unit 1 Squirrels Trading Estate, Viveash Close, Hayes, UB3 4RZ Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A13NW (N)	47	9	509840 179305
300	Points of Interest - Commercial Services Name: M D I Motor Services Ltd Location: Unit 1 Squirrels Trading Estate, Viveash Close, Hayes, UB3 4RZ Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A13NW (N)	47	9	509840 179305
300	Points of Interest - Commercial Services Name: Wrench Ltd Location: 1a Viveash Close, Hayes, UB3 4RY Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A13NW (N)	75	9	509809 179321

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
300	Points of Interest - Commercial Services Name: T K O London Location: 1a Viveash Close, Hayes, UB3 4RY Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A13NW (N)	75	9	509809 179321
300	Points of Interest - Commercial Services Name: Vanmatic Ltd Location: 1 Viveash Close, Hayes, UB3 4RY Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A13NW (NW)	94	9	509782 179323
301	Points of Interest - Commercial Services Name: Harlington Services Location: Unit 1 Sandow Commercial Estate, Sandow Crescent, Hayes, UB3 4QH Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A13SW (W)	170	9	509648 179196
301	Points of Interest - Commercial Services Name: Pw Autos Location: Unit 1/B Sandow Commercial Estate, Sandow Crescent, Hayes, UB3 4QH Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A13SW (W)	180	9	509638 179194
301	Points of Interest - Commercial Services Name: P W Auto's Location: Unit 1/B Sandow Commercial Estate, Sandow Crescent, Hayes, UB3 4QH Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A13SW (W)	180	9	509638 179194
302	Points of Interest - Commercial Services Name: Walia Motors Location: 37-39 North Hyde Road, Hayes, UB3 4NN Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A13SW (SW)	180	9	509680 179080
302	Points of Interest - Commercial Services Name: North Hyde Trade Centre Location: 37-39 North Hyde Road, Hayes, UB3 4NN Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A13SW (SW)	180	9	509680 179080
302	Points of Interest - Commercial Services Name: Valia's Hand Car Wash Location: 37-39 North Hyde Road, Hayes, UB3 4NN Category: Personal, Consumer and other Services Class Code: Vehicle Cleaning Services Positional Accuracy: Positioned to address or location	A13SW (SW)	180	9	509680 179080
302	Points of Interest - Commercial Services Name: Valias Hand Car Wash Location: 37-39 North Hyde Road, Hayes, UB3 4NN Category: Personal, Consumer and other Services Class Code: Vehicle Cleaning Services Positional Accuracy: Positioned to address or location	A13SW (SW)	180	9	509680 179080
302	Points of Interest - Commercial Services Name: North Hyde Trade Centre Location: 37-39 North Hyde Road, Hayes, UB3 4NN Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A13SW (SW)	181	9	509679 179080
303	Points of Interest - Commercial Services Name: Ugl Korea Ltd Location: 1 Nestles Avenue, Hayes, UB3 4UZ Category: Transport, Storage and Delivery Class Code: Distribution and Haulage Positional Accuracy: Positioned to address or location	A13NW (NW)	186	9	509671 179317
303	Points of Interest - Commercial Services Name: Atlas Freight Connect Location: 1 Nestles Avenue, Hayes, UB3 4UZ Category: Transport, Storage and Delivery Class Code: Distribution and Haulage Positional Accuracy: Positioned to address or location	A13NW (NW)	186	9	509671 179317

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
303	Points of Interest - Commercial Services Name: Swift Cargo Location: 1 Nestles Avenue, Hayes, UB3 4UZ Category: Transport, Storage and Delivery Class Code: Distribution and Haulage Positional Accuracy: Positioned to address or location	A13NW (NW)	186	9	509671 179317
303	Points of Interest - Commercial Services Name: X-Tra Baggage Location: 1 Nestles Avenue, Hayes, UB3 4UZ Category: Transport, Storage and Delivery Class Code: Distribution and Haulage Positional Accuracy: Positioned to address or location	A13NW (NW)	186	9	509671 179317
303	Points of Interest - Commercial Services Name: X-Tra Baggage Location: 1 Nestles Avenue, Hayes, UB3 4UZ Category: Transport, Storage and Delivery Class Code: Distribution and Haulage Positional Accuracy: Positioned to address or location	A13NW (NW)	186	9	509671 179317
303	Points of Interest - Commercial Services Name: Netcargos International UK Ltd Location: 1 Nestles Avenue, Hayes, UB3 4UZ Category: Transport, Storage and Delivery Class Code: Distribution and Haulage Positional Accuracy: Positioned to address or location	A13NW (NW)	186	9	509671 179317
304	Points of Interest - Commercial Services Name: Autozilla Ltd Location: Crauford Business Park, Silverdale Road, Hayes, UB3 3BN Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A13NE (N)	290	9	509936 179537
304	Points of Interest - Commercial Services Name: Calibre Motors Ltd Location: Unit 5 Crauford Business Park, Silverdale Road, Hayes, UB3 3BN Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A13NE (N)	291	9	509936 179538
305	Points of Interest - Commercial Services Name: Zumm Logistics Ltd Location: 14a Clayton Road, Hayes, UB3 1AX Category: Transport, Storage and Delivery Class Code: Distribution and Haulage Positional Accuracy: Positioned to address or location	A13NW (NW)	335	9	509687 179551
305	Points of Interest - Commercial Services Name: K & S Autocare Location: 24 Clayton Road, Hayes, UB3 1AZ Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A13NW (NW)	354	9	509654 179554
305	Points of Interest - Commercial Services Name: K & S Autocare Location: 24B Clayton Road, Hayes, UB3 1AZ Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A13NW (NW)	354	9	509654 179554
305	Points of Interest - Commercial Services Name: E & H Car Centre Garage Services Location: 24B Clayton Road, Hayes, UB3 1AZ Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A13NW (NW)	354	9	509654 179554
305	Points of Interest - Commercial Services Name: Karan Motors Location: 24b Clayton Road, Hayes, UB3 1AZ Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A13NW (NW)	354	9	509654 179554
305	Points of Interest - Commercial Services Name: J C B Environmental Services Location: 52 Clayton Road, Hayes, UB3 1AZ Category: Contract Services Class Code: Pest and Vermin Control Positional Accuracy: Positioned to address or location	A18SW (NW)	409	9	509598 179581

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
346	Points of Interest - Manufacturing and Production Name: Factory Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A13SE (E)	113	9	509986 179209
346	Points of Interest - Manufacturing and Production Name: Factory Location: UB3 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to address or location	A13NE (E)	137	9	510016 179243
347	Points of Interest - Manufacturing and Production Name: Tank Location: UB3 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A13NE (NE)	118	9	509922 179355
347	Points of Interest - Manufacturing and Production Name: Tank Location: UB3 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A13NE (NE)	119	9	509916 179360
347	Points of Interest - Manufacturing and Production Name: Tank Location: UB3 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A13NE (N)	120	9	509908 179365
347	Points of Interest - Manufacturing and Production Name: Tanks Location: UB3 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A13NE (NE)	123	9	509924 179360
348	Points of Interest - Manufacturing and Production Name: Tank Location: UB3 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A13SW (W)	142	9	509680 179163
349	Points of Interest - Manufacturing and Production Name: Tank Location: UB3 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A13NE (NE)	184	9	510035 179342
349	Points of Interest - Manufacturing and Production Name: Tank Location: UB3 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A13NE (NE)	200	9	510059 179330
349	Points of Interest - Manufacturing and Production Name: Tank Location: UB3 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A13NE (NE)	200	9	510034 179371
349	Points of Interest - Manufacturing and Production Name: Tanks Location: UB3 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A13NE (NE)	200	9	510039 179365
349	Points of Interest - Manufacturing and Production Name: Tank Location: UB3 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A13NE (NE)	202	9	510063 179328

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
349	Points of Interest - Manufacturing and Production Name: Tank Location: UB3 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A13NE (NE)	206	9	510068 179325
349	Points of Interest - Manufacturing and Production Name: Tanks Location: UB3 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A13NE (E)	237	9	510108 179305
350	Points of Interest - Manufacturing and Production Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A13NE (N)	242	9	509855 179502
351	Points of Interest - Manufacturing and Production Name: Tanks Location: UB3 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A13NE (NE)	263	9	510124 179339
351	Points of Interest - Manufacturing and Production Name: Tank Location: UB3 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A13NE (NE)	267	9	510127 179344
351	Points of Interest - Manufacturing and Production Name: Tank Location: UB3 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A13NE (E)	268	9	510141 179299
351	Points of Interest - Manufacturing and Production Name: Tanks Location: UB3 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A13NE (E)	268	9	510139 179307
351	Points of Interest - Manufacturing and Production Name: Tank Location: UB3 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A13NE (NE)	273	9	510135 179340
351	Points of Interest - Manufacturing and Production Name: Tank Location: UB3 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A13NE (E)	284	9	510151 179326
351	Points of Interest - Manufacturing and Production Name: Tank Location: UB3 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A13NE (E)	303	9	510172 179319
351	Points of Interest - Manufacturing and Production Name: Tank Location: UB3 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A13NE (NE)	327	9	510183 179363
352	Points of Interest - Manufacturing and Production Name: Works Location: UB3 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A13NE (NE)	265	9	509990 179486

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
384	Points of Interest - Public Infrastructure Name: Esso Location: 40-42 North Hyde Road, Hayes, UB3 4NE Category: Road And Rail Class Code: Petrol and Fuel Stations Positional Accuracy: Positioned to address or location	A13SW (W)	150	9	509674 179153
384	Points of Interest - Public Infrastructure Name: Esso Location: North Hyde Road, Hayes, UB3 4NE Category: Road And Rail Class Code: Petrol and Fuel Stations Positional Accuracy: Positioned to address or location	A13SW (W)	150	9	509674 179153
384	Points of Interest - Public Infrastructure Name: South Hayes Express Location: 40-42 North Hyde Road, Hayes, UB3 4NE Category: Road And Rail Class Code: Petrol and Fuel Stations Positional Accuracy: Positioned to address or location	A13SW (W)	150	9	509674 179153
384	Points of Interest - Public Infrastructure Name: Tesco Express Location: 40-42 North Hyde Road, Hayes, UB3 4NE Category: Road And Rail Class Code: Petrol and Fuel Stations Positional Accuracy: Positioned to address or location	A13SW (W)	152	9	509673 179152
384	Points of Interest - Public Infrastructure Name: Tesco Express Location: 40-42 North Hyde Road, Hayes, UB3 4NE Category: Road And Rail Class Code: Petrol and Fuel Stations Positional Accuracy: Positioned to address or location	A13SW (W)	152	9	509673 179152
384	Points of Interest - Public Infrastructure Name: Tesco Filling Station Location: 40-42 North Hyde Road, Hayes, UB3 4NE Category: Road And Rail Class Code: Petrol and Fuel Stations Positional Accuracy: Positioned to address or location	A13SW (W)	152	9	509673 179152
384	Points of Interest - Public Infrastructure Name: Tesco Express Location: 38 North Hyde Road, Hayes, UB3 4NE Category: Road And Rail Class Code: Petrol and Fuel Stations Positional Accuracy: Positioned to address or location	A13SW (W)	177	9	509644 179164
385	Points of Interest - Public Infrastructure Name: Hayes & Harlington Rail Station Location: Station Approach, UB3 Category: Public Transport, Stations and Infrastructure Class Code: Railway Stations, Junctions and Halts Positional Accuracy: Positioned to address or location	A13NW (NW)	188	9	509753 179420
385	Points of Interest - Public Infrastructure Name: Hayes and Harlington Station Location: Station Approach, UB3 Category: Public Transport, Stations and Infrastructure Class Code: Railway Stations, Junctions and Halts Positional Accuracy: Positioned to address or location	A13NW (NW)	188	9	509753 179420
386	Points of Interest - Public Infrastructure Name: Asda Hayes Automat Location: UB3 Category: Road And Rail Class Code: Petrol and Fuel Stations Positional Accuracy: Positioned to address or location	A12SE (W)	466	9	509367 179078
386	Points of Interest - Public Infrastructure Name: Asda Petrol Location: Millington Road, Hayes, UB3 4AZ Category: Road And Rail Class Code: Petrol and Fuel Stations Positional Accuracy: Positioned to address or location	A12SE (W)	468	9	509365 179081
387	Points of Interest - Public Infrastructure Name: Weir Location: UB3 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A14SW (E)	608	9	510479 179147

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
388	Points of Interest - Public Infrastructure Name: Weir Location: UB3 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A14SW (SE)	649	9	510442 178922
389	Points of Interest - Public Infrastructure Name: Tesco Hayes Bulls Bridge Extra Location: Hayes Road, Southall Green, Southall, UB2 5NB Category: Road And Rail Class Code: Petrol and Fuel Stations Positional Accuracy: Positioned to address or location	A14SE (E)	929	9	510747 178915
389	Points of Interest - Public Infrastructure Name: Hayes Murco Service Station Location: Hayes Road, Southall, Middlesex, UB2 5LZ Category: Road And Rail Class Code: Petrol and Fuel Stations Positional Accuracy: Positioned to address or location	A9NE (SE)	938	9	510728 178846
389	Points of Interest - Public Infrastructure Name: BP Service Station Location: Hayes Road, Southall, UB2 5LZ Category: Road And Rail Class Code: Petrol and Fuel Stations Positional Accuracy: Positioned to address or location	A9NE (SE)	939	9	510729 178847
389	Points of Interest - Public Infrastructure Name: Hayes Service Station Location: 141 Hayes Road, Not Known, Southall Green, Southall, Middlesex, UB2 5XF Category: Road And Rail Class Code: Petrol and Fuel Stations Positional Accuracy: Positioned to address or location	A9NE (SE)	939	9	510729 178846
389	Points of Interest - Public Infrastructure Name: Tesco Petrol Filling Station Location: Bulls Bridge Industrial Estate, Southall, UB2 5LN Category: Road And Rail Class Code: Petrol and Fuel Stations Positional Accuracy: Positioned to address or location	A14SE (E)	944	9	510762 178911
390	Points of Interest - Recreational and Environmental Name: Play Area Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A18SW (N)	329	9	509840 179589
390	Points of Interest - Recreational and Environmental Name: Play Area Location: Western View, UB3 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A18SW (N)	332	9	509842 179592
391	Points of Interest - Recreational and Environmental Name: Play Area Location: Lundy Drive, UB3 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A7NE (SW)	654	9	509468 178643
391	Points of Interest - Recreational and Environmental Name: Play Area Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A7NE (SW)	655	9	509469 178641
392	Points of Interest - Recreational and Environmental Name: Playground Location: Hoskins Close, UB3 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A8SW (S)	720	9	509601 178504
392	Points of Interest - Recreational and Environmental Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A8SW (S)	726	9	509599 178498

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
392	Points of Interest - Recreational and Environmental Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A8SW (S)	756	9	509553 178484
392	Points of Interest - Recreational and Environmental Name: Playground Location: Croyde Avenue, UB3 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A8SW (S)	759	9	509546 178483
393	Points of Interest - Recreational and Environmental Name: Playground Location: UB3 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A18NE (N)	730	9	509883 179989
393	Points of Interest - Recreational and Environmental Name: Playground Location: East Avenue, UB3 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A18NE (N)	745	9	509884 180004
393	Points of Interest - Recreational and Environmental Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A18NE (N)	746	9	509884 180005
394	Underground Electrical Cables Unique Feature Identifier: 265804 Cable Status: Commissioned Cable Type: Pilot (Communication) Record Last Updated: 4th June 2013	A14SW (E)	468	10	510325 179103
395	Underground Electrical Cables Unique Feature Identifier: 262818 Cable Status: Commissioned Cable Type: Alternating Current Record Last Updated: 4th June 2013	A14SW (E)	468	10	510325 179103
396	Underground Electrical Cables Unique Feature Identifier: 266467 Cable Status: Commissioned Cable Type: Pilot (Communication) Record Last Updated: 4th June 2013	A14SW (E)	469	10	510325 179102
397	Underground Electrical Cables Unique Feature Identifier: 266392 Cable Status: Commissioned Cable Type: Pilot (Communication) Record Last Updated: 4th June 2013	A14SW (E)	473	10	510323 179084
398	Underground Electrical Cables Unique Feature Identifier: 259502 Cable Status: Commissioned Cable Type: Alternating Current Record Last Updated: 4th June 2013	A14SW (E)	473	10	510324 179084
399	Underground Electrical Cables Unique Feature Identifier: 266417 Cable Status: Commissioned Cable Type: Pilot (Communication) Record Last Updated: 4th June 2013	A14SW (E)	473	10	510323 179084

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
400	Underground Electrical Cables Unique Feature Identifier: 266356 Cable Status: Commissioned Cable Type: Pilot (Communication) Record Last Updated: 4th June 2013	A14SW (E)	474	10	510324 179083
401	Underground Electrical Cables Unique Feature Identifier: 266368 Cable Status: Commissioned Cable Type: Pilot (Communication) Record Last Updated: 4th June 2013	A14SW (SE)	492	10	510298 178986
402	Underground Electrical Cables Unique Feature Identifier: 262819 Cable Status: Commissioned Cable Type: Alternating Current Record Last Updated: 4th June 2013	A14SW (SE)	492	10	510298 178986
403	Underground Electrical Cables Unique Feature Identifier: 266466 Cable Status: Commissioned Cable Type: Pilot (Communication) Record Last Updated: 4th June 2013	A14SW (SE)	493	10	510299 178986
404	Underground Electrical Cables Unique Feature Identifier: 266391 Cable Status: Commissioned Cable Type: Pilot (Communication) Record Last Updated: 4th June 2013	A14SW (SE)	518	10	510305 178945
405	Underground Electrical Cables Unique Feature Identifier: 262839 Cable Status: Commissioned Cable Type: Alternating Current Record Last Updated: 4th June 2013	A14SW (SE)	518	10	510306 178945
406	Underground Electrical Cables Unique Feature Identifier: 266416 Cable Status: Commissioned Cable Type: Pilot (Communication) Record Last Updated: 4th June 2013	A14SW (SE)	518	10	510305 178945
407	Underground Electrical Cables Unique Feature Identifier: 266355 Cable Status: Commissioned Cable Type: Pilot (Communication) Record Last Updated: 4th June 2013	A14SW (SE)	519	10	510306 178945
408	Underground Electrical Cables Unique Feature Identifier: 266465 Cable Status: Commissioned Cable Type: Pilot (Communication) Record Last Updated: 4th June 2013	A9SW (SE)	785	10	510281 178528
409	Underground Electrical Cables Unique Feature Identifier: 259497 Cable Status: Commissioned Cable Type: Alternating Current Record Last Updated: 4th June 2013	A9SW (SE)	785	10	510280 178529

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
410	Underground Electrical Cables Unique Feature Identifier: 264658 Cable Status: Commissioned Cable Type: Pilot (Communication) Record Last Updated: 4th June 2013	A9SW (SE)	785	10	510280 178529
411	Underground Electrical Cables Unique Feature Identifier: 262838 Cable Status: Commissioned Cable Type: Alternating Current Record Last Updated: 4th June 2013	A9SW (SE)	815	10	510282 178494
412	Underground Electrical Cables Unique Feature Identifier: 264164 Cable Status: Commissioned Cable Type: Pilot (Communication) Record Last Updated: 4th June 2013	A9SW (SE)	815	10	510283 178494
413	Underground Electrical Cables Unique Feature Identifier: 266390 Cable Status: Commissioned Cable Type: Pilot (Communication) Record Last Updated: 4th June 2013	A9SW (SE)	815	10	510282 178494
414	Underground Electrical Cables Unique Feature Identifier: 266415 Cable Status: Commissioned Cable Type: Pilot (Communication) Record Last Updated: 4th June 2013	A9SW (SE)	815	10	510282 178494
415	Underground Electrical Cables Unique Feature Identifier: 266367 Cable Status: Commissioned Cable Type: Pilot (Communication) Record Last Updated: 4th June 2013	A8SW (S)	845	10	509593 178375
416	Underground Electrical Cables Unique Feature Identifier: 262817 Cable Status: Commissioned Cable Type: Alternating Current Record Last Updated: 4th June 2013	A8SW (S)	845	10	509593 178374
417	Underground Electrical Cables Unique Feature Identifier: 264151 Cable Status: Commissioned Cable Type: Pilot (Communication) Record Last Updated: 4th June 2013	A8SW (S)	846	10	509593 178374
418	Underground Electrical Cables Unique Feature Identifier: 264648 Cable Status: Commissioned Cable Type: Pilot (Communication) Record Last Updated: 4th June 2013	A8SW (S)	848	10	509592 178372
419	Underground Electrical Cables Unique Feature Identifier: 259501 Cable Status: Commissioned Cable Type: Alternating Current Record Last Updated: 4th June 2013	A8SW (S)	848	10	509592 178372

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
420	Underground Electrical Cables Unique Feature Identifier: 266414 Cable Status: Commissioned Cable Type: Pilot (Communication) Record Last Updated: 4th June 2013	A8SW (S)	848	10	509592 178372
421	Underground Electrical Cables Unique Feature Identifier: 266354 Cable Status: Commissioned Cable Type: Pilot (Communication) Record Last Updated: 4th June 2013	A8SW (S)	849	10	509591 178371
422	Underground Electrical Cables Unique Feature Identifier: 266366 Cable Status: Commissioned Cable Type: Pilot (Communication) Record Last Updated: 4th June 2013	A7SE (S)	892	10	509502 178358
423	Underground Electrical Cables Unique Feature Identifier: 266464 Cable Status: Commissioned Cable Type: Pilot (Communication) Record Last Updated: 4th June 2013	A7SE (S)	893	10	509502 178357
424	Underground Electrical Cables Unique Feature Identifier: 262816 Cable Status: Commissioned Cable Type: Alternating Current Record Last Updated: 4th June 2013	A7SE (S)	893	10	509502 178357
425	Underground Electrical Cables Unique Feature Identifier: 262837 Cable Status: Commissioned Cable Type: Alternating Current Record Last Updated: 4th June 2013	A7SE (S)	901	10	509490 178353
426	Underground Electrical Cables Unique Feature Identifier: 266389 Cable Status: Commissioned Cable Type: Pilot (Communication) Record Last Updated: 4th June 2013	A7SE (S)	901	10	509490 178354
427	Underground Electrical Cables Unique Feature Identifier: 266413 Cable Status: Commissioned Cable Type: Pilot (Communication) Record Last Updated: 4th June 2013	A7SE (S)	901	10	509490 178354
428	Underground Electrical Cables Unique Feature Identifier: 266353 Cable Status: Commissioned Cable Type: Pilot (Communication) Record Last Updated: 4th June 2013	A7SE (S)	902	10	509489 178353

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
429	Areas of Adopted Green Belt Authority: London Borough of Hillingdon Plan Name: Hillingdon Unitary Development Plan Status: Adopted Plan Date: 30th September 1998	A9NW (SE)	585	11	510338 178869
430	Areas of Adopted Green Belt Authority: London Borough of Hounslow Plan Name: Proposal Map Status: Adopted Plan Date: 15th September 2015	A14SW (E)	625	12	510453 178997
431	Areas of Adopted Green Belt Authority: London Borough of Hillingdon Plan Name: Hillingdon Unitary Development Plan Status: Adopted Plan Date: 30th September 1998	A14NE (E)	794	11	510652 179426
432	Areas of Adopted Green Belt Authority: London Borough of Hillingdon Plan Name: Hillingdon Unitary Development Plan Status: Adopted Plan Date: 30th September 1998	A17SE (NW)	795	11	509341 179870
433	Areas of Adopted Green Belt Authority: London Borough of Hillingdon Plan Name: Hillingdon Unitary Development Plan Status: Adopted Plan Date: 30th September 1998	A14NE (E)	859	11	510682 179549
434	Areas of Adopted Green Belt Authority: London Borough of Hillingdon Plan Name: Hillingdon Unitary Development Plan Status: Adopted Plan Date: 30th September 1998	A8SW (S)	907	11	509715 178283
435	Areas of Adopted Green Belt Authority: London Borough of Hillingdon Plan Name: Hillingdon Unitary Development Plan Status: Adopted Plan Date: 30th September 1998	A7SE (SW)	988	11	509182 178439
436	Nitrate Vulnerable Zones Name: Colne And Guc (From Confluence With Chess To Ash) Nvz Description: Surface Water Source: Environment Agency, Head Office	A12NE (NW)	456	13	509500 179550

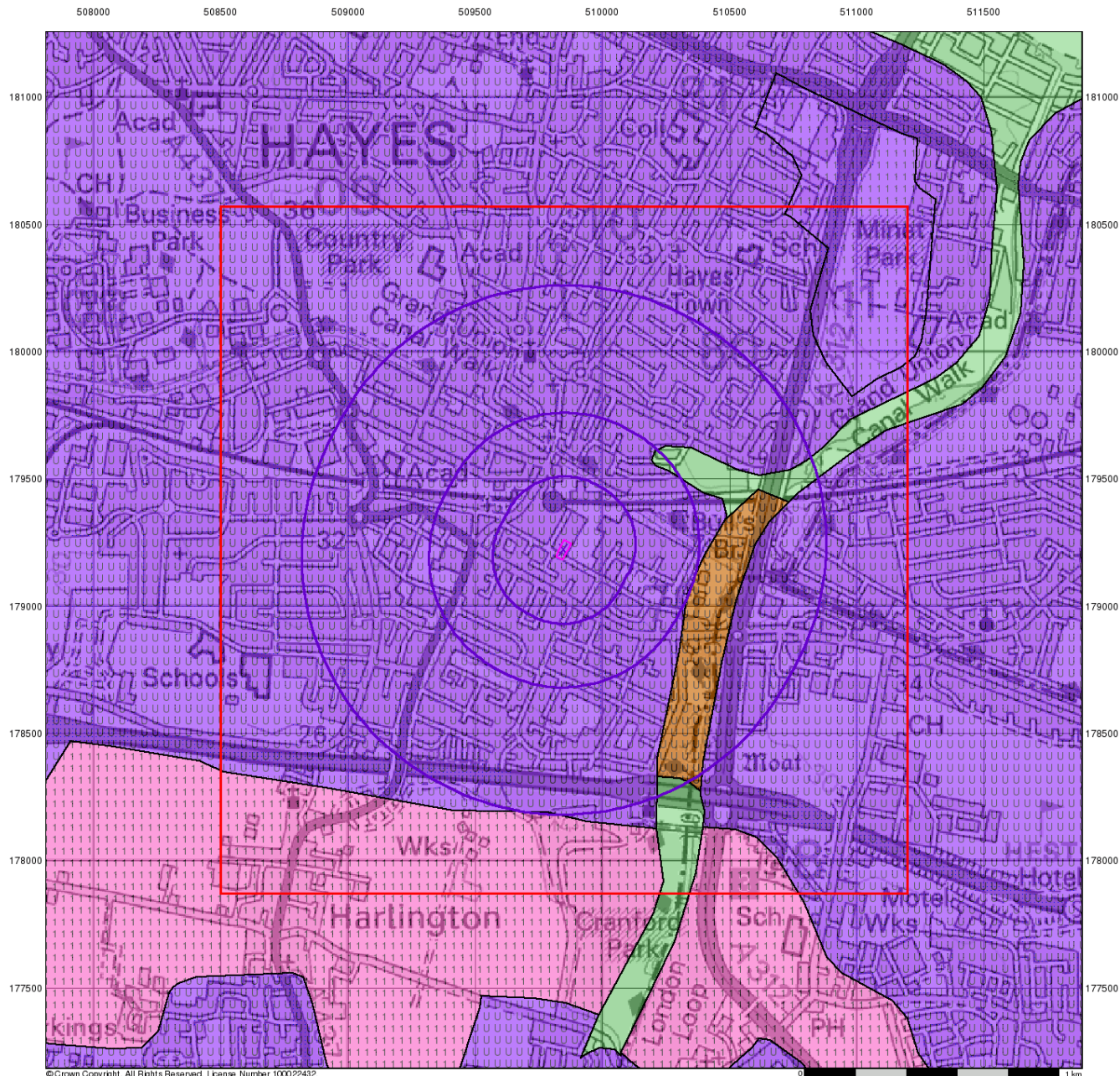
A selection of organisations who provide data within this report

Data Supplier	Data Supplier Logo
Ordnance Survey	
Environment Agency	
Scottish Environment Protection Agency	
The Coal Authority	
British Geological Survey	 British Geological Survey NATURAL ENVIRONMENT RESEARCH COUNCIL
Centre for Ecology and Hydrology	 Centre for Ecology & Hydrology NATURAL ENVIRONMENT RESEARCH COUNCIL
Natural Resources Wales	
Scottish Natural Heritage	
Natural England	
Public Health England	
Ove Arup	
Peter Brett Associates	



Contact	Name and Address	Contact Details
1	British Geological Survey - Enquiry Service British Geological Survey, Environmental Science Centre, Keyworth, Nottingham, Nottinghamshire, NG12 5GG	Telephone: 0115 936 3143 Fax: 0115 936 3276 Email: enquiries@bgs.ac.uk Website: www.bgs.ac.uk
2	Environment Agency - National Customer Contact Centre (NCCC) PO Box 544, Templeborough, Rotherham, S60 1BY	Telephone: 03708 506 506 Email: enquiries@environment-agency.gov.uk
3	London Borough of Hillingdon - Environmental Health Department Civic Centre, High Street, Uxbridge, Middlesex, UB8 1UW	Telephone: 01895 250111 Fax: 01895 277443 Website: www.hillingdon.gov.uk
4	London Borough of Hounslow - Environmental Health Department Civic Centre, Lampton Road, Hounslow, Middlesex, TW3 4DN	Telephone: 020 8583 2000 Website: www.hounslow.gov.uk
5	London Borough of Ealing - Environmental Health and Trading Standards Division Perceville House, 14-16 Uxbridge Way, London, W5 2HL	Telephone: 020 8579 2424 Fax: 020 8758 8214 Website: www.ealing.gov.uk
6	Ordnance Survey Adanac Drive, Southampton, Hampshire, SO16 0AS	Telephone: 03456 05 05 05 Email: customerservices@ordnancesurvey.co.uk Website: www.ordnancesurvey.gov.uk
7	London Borough of Ealing Perceville House, 14-16 Uxbridge Way, London, W5 2HL	Telephone: 020 8825 5000 Fax: 020 8758 8171 Website: www.ealing.gov.uk
8	Health and Safety Executive 5S.2 Redgrave Court, Merton Road, Bootle, L20 7HS	Website: www.hse.gov.uk
9	PointX 7 Abbey Court, Eagle Way, Sowton, Exeter, Devon, EX2 7HY	Website: www.pointx.co.uk
10	Landmark Information Group Limited Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0844 844 9966 Fax: 0844 844 9951 Email: helpdesk@landmark.co.uk Website: www.landmark.co.uk
11	London Borough of Hillingdon Civic Centre, High Street, Uxbridge, Middlesex, UB8 1UW	Telephone: 01895 250111 Fax: 01895 250830 Website: www.hillingdon.gov.uk
12	London Borough of Hounslow Civic Centre, Lampton Road, Hounslow, Middlesex, TW3 4DN	Telephone: 020 8862 5970 Fax: 020 8862 5801 Website: www.hounslow.gov.uk
13	Environment Agency - Head Office Rio House, Waterside Drive, Aztec West, Almondsbury, Bristol, Avon, BS32 4UD	Telephone: 01454 624400 Fax: 01454 624409
-	Public Health England - Radon Survey, Centre for Radiation, Chemical and Environmental Hazards Chilton, Didcot, Oxfordshire, OX11 0RQ	Telephone: 01235 822622 Fax: 01235 833891 Email: radon@phe.gov.uk Website: www.ukradon.org
-	Landmark Information Group Limited Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0844 844 9952 Fax: 0844 844 9951 Email: customerservices@landmarkinfo.co.uk Website: www.landmarkinfo.co.uk

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



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GEA

Groundwater Vulnerability

General

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

Agency and Hydrological

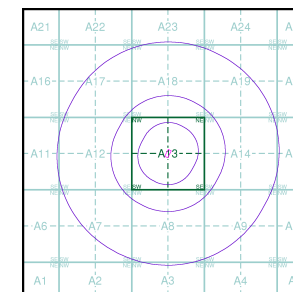
Geological Classes

- Major Aquifer (Highly Permeable)
- Minor Aquifer (Variably Permeable)
- Non Aquifer (Negligibly Permeable)
- Water or Sea
- Drift Deposit

Soil Classes

- High (H) 1, 2, 3, U
- Intermediate (I) 1, 2
- Low
- High (H) 1, 2, 3, U
- Intermediate (I) 1, 2
- Low

Site Sensitivity Context Map - Slice A



Order Details

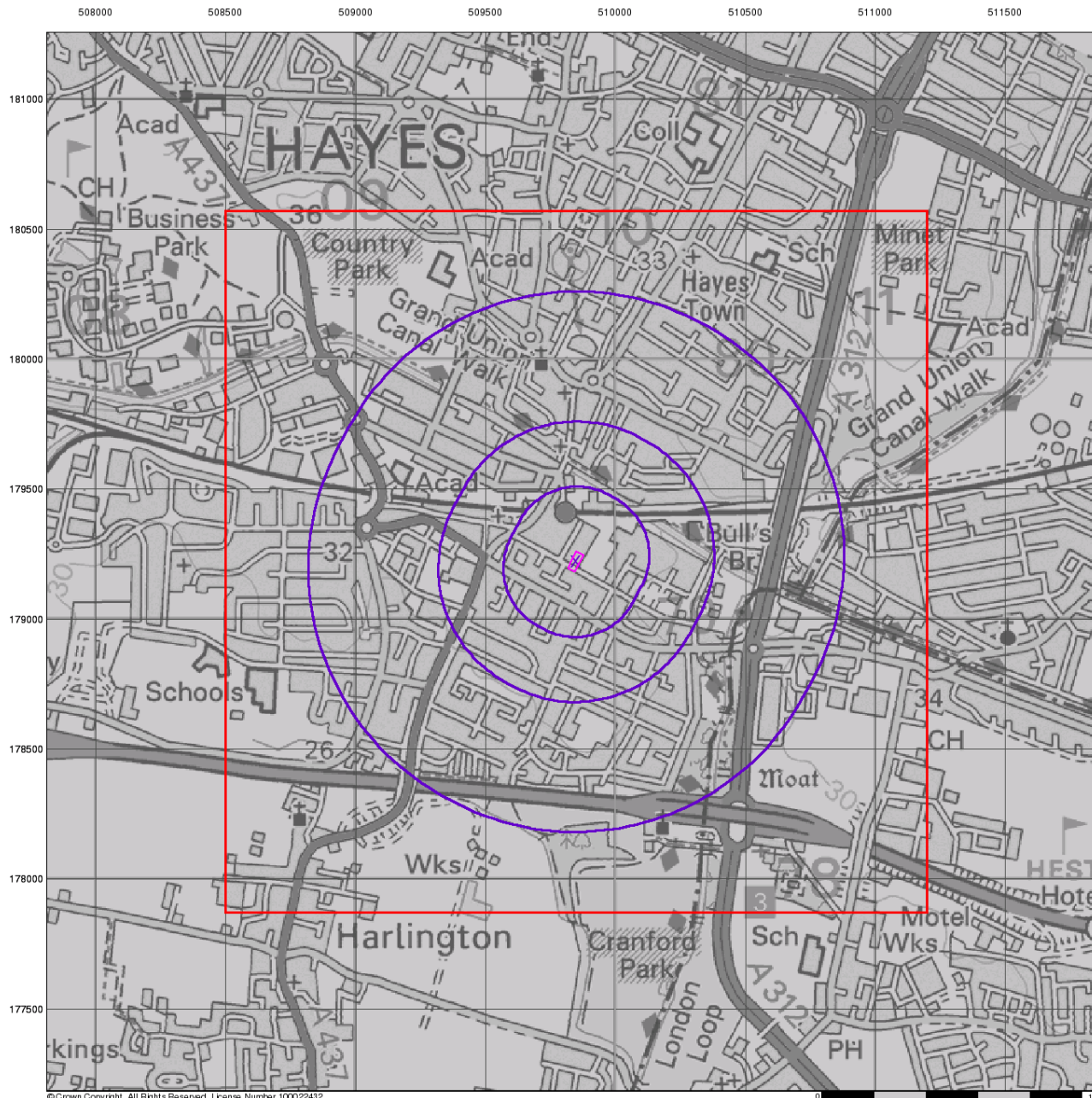
Order Number: 175016424_1_1
Customer Ref: J18167
National Grid Reference: 509850, 179220
Slice: A
Site Area (Ha): 0.23
Search Buffer (m): 1000

Site Details

9 Nestles Avenue, Hayes, UB3 4SA

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GEA

Bedrock Aquifer Designation

General

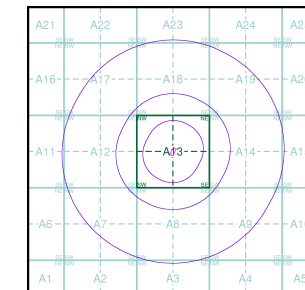
- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Agency and Hydrological

Geological Classes

- Principal Aquifer
- Secondary A Aquifer
- Secondary B Aquifer
- Secondary Undifferentiated
- Unproductive Strata
- Unknown
- Unknown (Lakes and Landslip)

Site Sensitivity Context Map - Slice A



Order Details

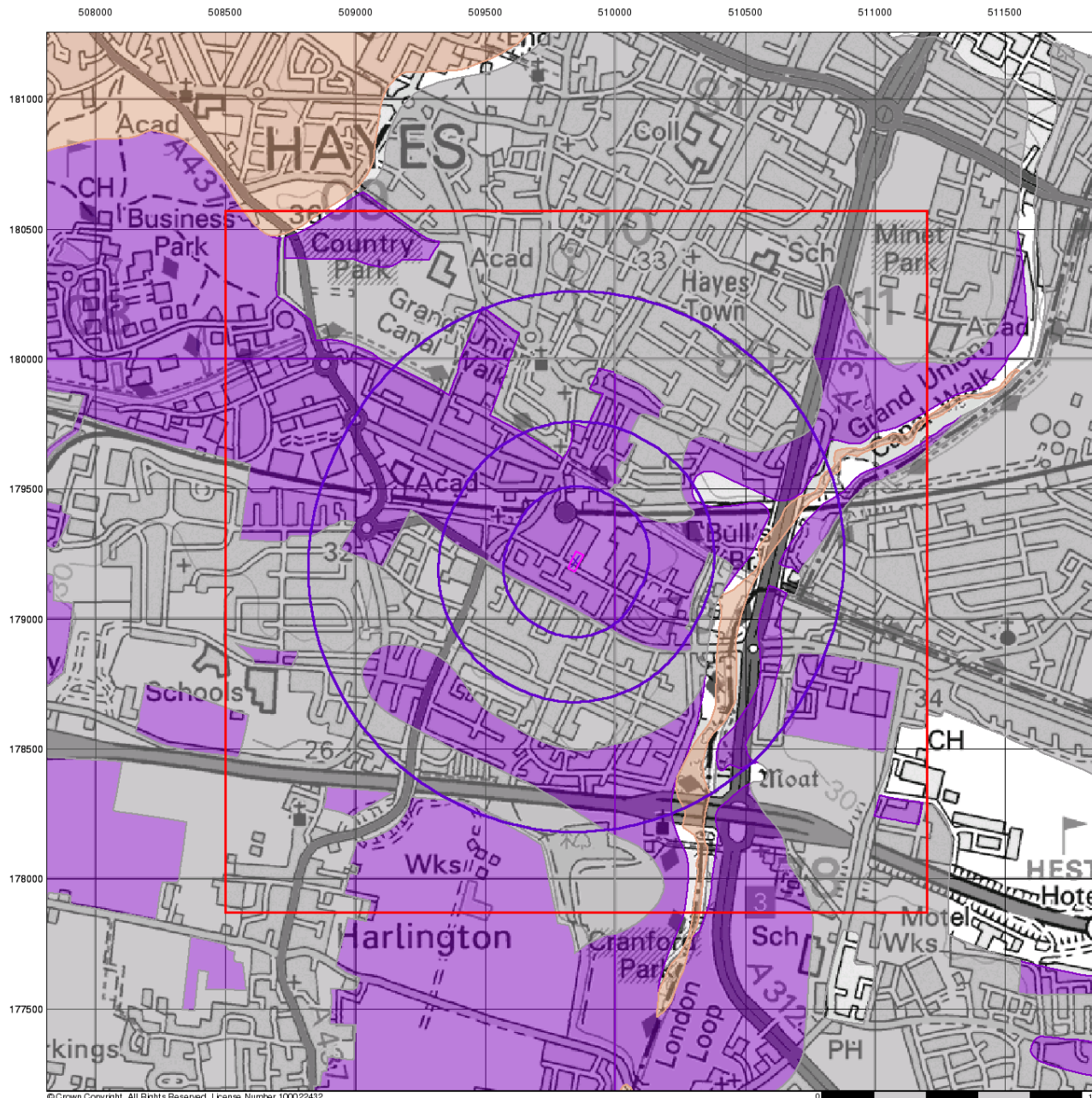
Order Number: 175016424_1_1
 Customer Ref: J18167
 National Grid Reference: 509850, 179220
 Slice: A
 Site Area (Ha): 0.23
 Search Buffer (m): 1000

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Superficial Aquifer Designation

General

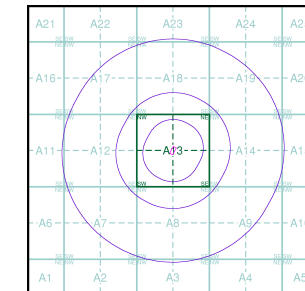
- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Agency and Hydrological

Geological Classes

- Principal Aquifer
- Secondary A Aquifer
- Secondary B Aquifer
- Secondary Undifferentiated
- Unproductive Strata
- Unknown
- Unknown (Lakes and Landslip)

Site Sensitivity Context Map - Slice A



Order Details

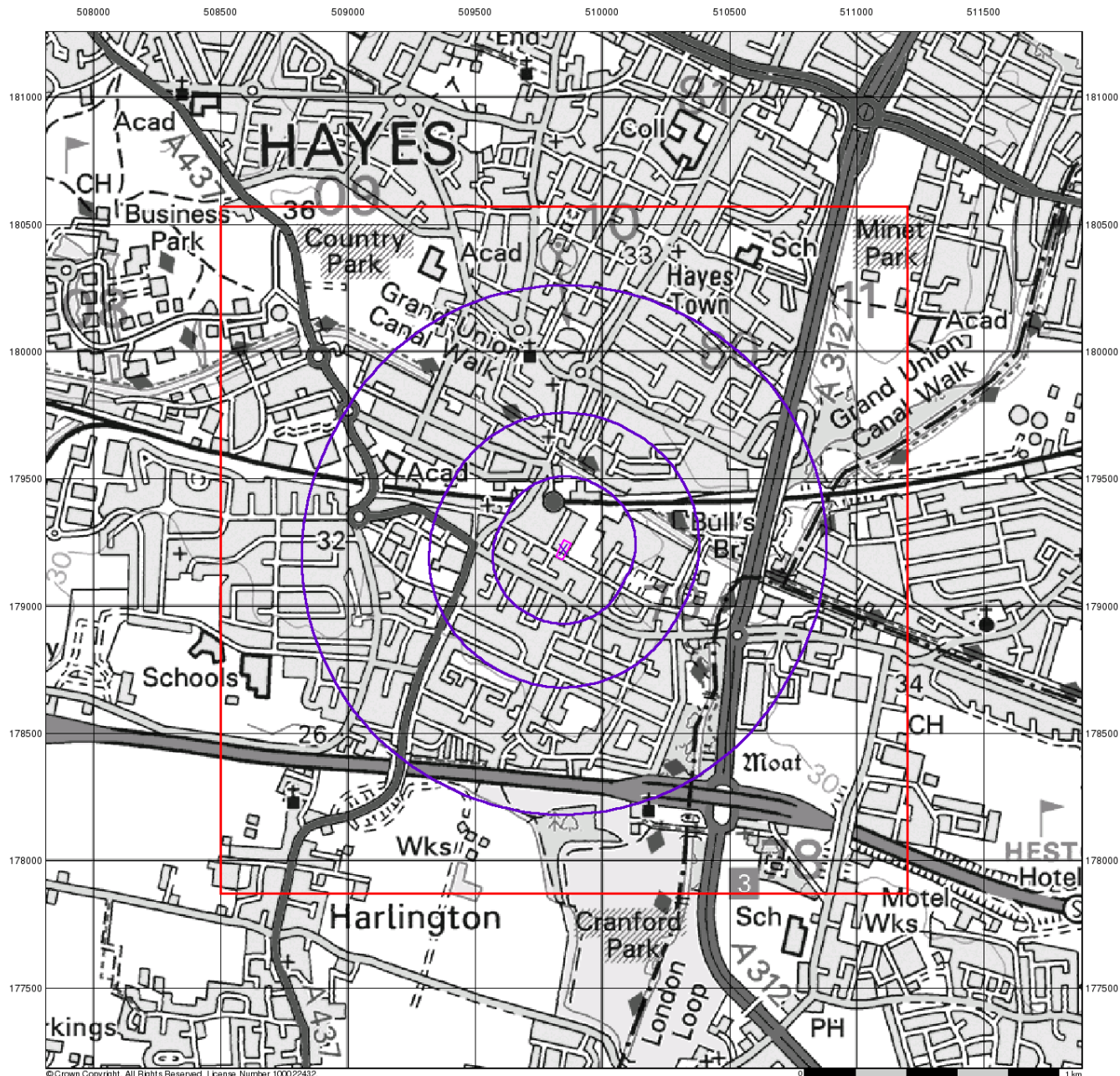
Order Number: 175016424_1_1
 Customer Ref: J18167
 National Grid Reference: 509850, 179220
 Slice: A
 Site Area (Ha): 0.23
 Search Buffer (m): 1000

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GEA

Source Protection Zones

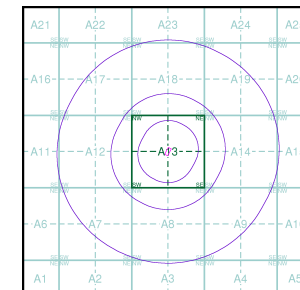
General

- ◆ Specified Site ○ Specified Buffer(s) X Bearing Reference Point
- Slice 8 Map ID

Agency and Hydrological

- Inner zone (Zone 1)
- ▨ Inner zone - subsurface activity only (Zone 1c)
- Outer zone (Zone 2)
- ▨ Outer zone - subsurface activity only (Zone 2c)
- Total catchment (Zone 3)
- ▨ Total catchment - subsurface activity only (Zone 3c)
- Special interest (Zone 4)

Site Sensitivity Context Map - Slice A



Order Details

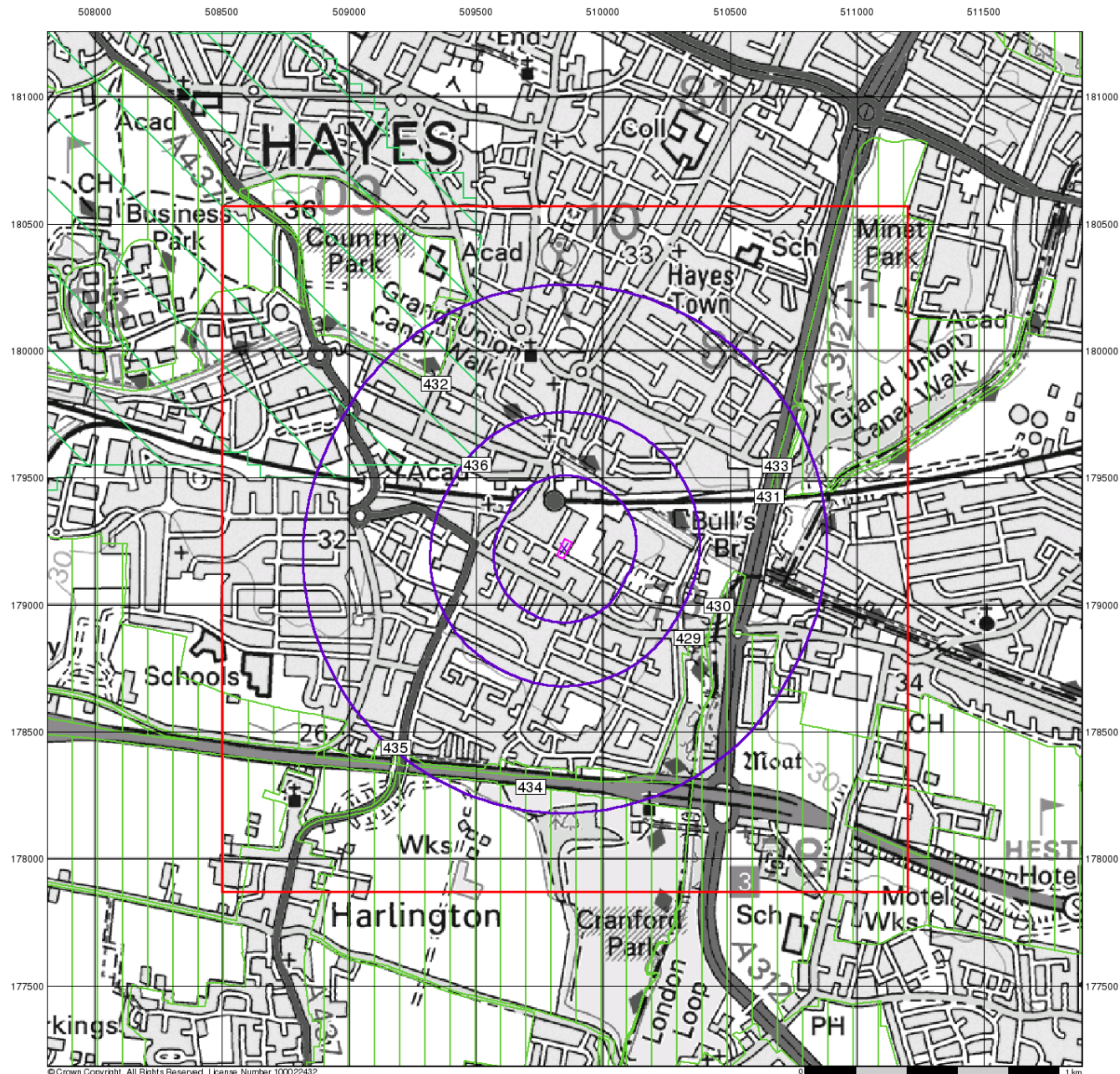
Order Number: 175016424_1_1
 Customer Ref: J18167
 National Grid Reference: 509850, 179220
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 Site Area (Ha): 0.23
 Search Buffer (m): 1000

Site Details

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Sensitive Land Uses

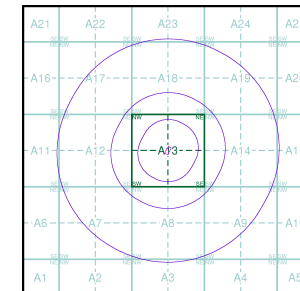
General

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

Sensitive Land Uses

- Ancient Woodland
- Area of Adopted Green Belt
- Area of Unadopted Green Belt
- Area of Outstanding Natural Beauty
- Environmentally Sensitive Area
- Forest Park
- Local Nature Reserve
- Marine Nature Reserve
- National Nature Reserve
- National Park
- Nitrate Sensitive Area
- Nitrate Vulnerable Zone
- Ramsar Site
- Site of Special Scientific Interest
- Special Area of Conservation
- Special Protection Area
- World Heritage Sites

Site Sensitivity Context Map - Slice A



Order Details

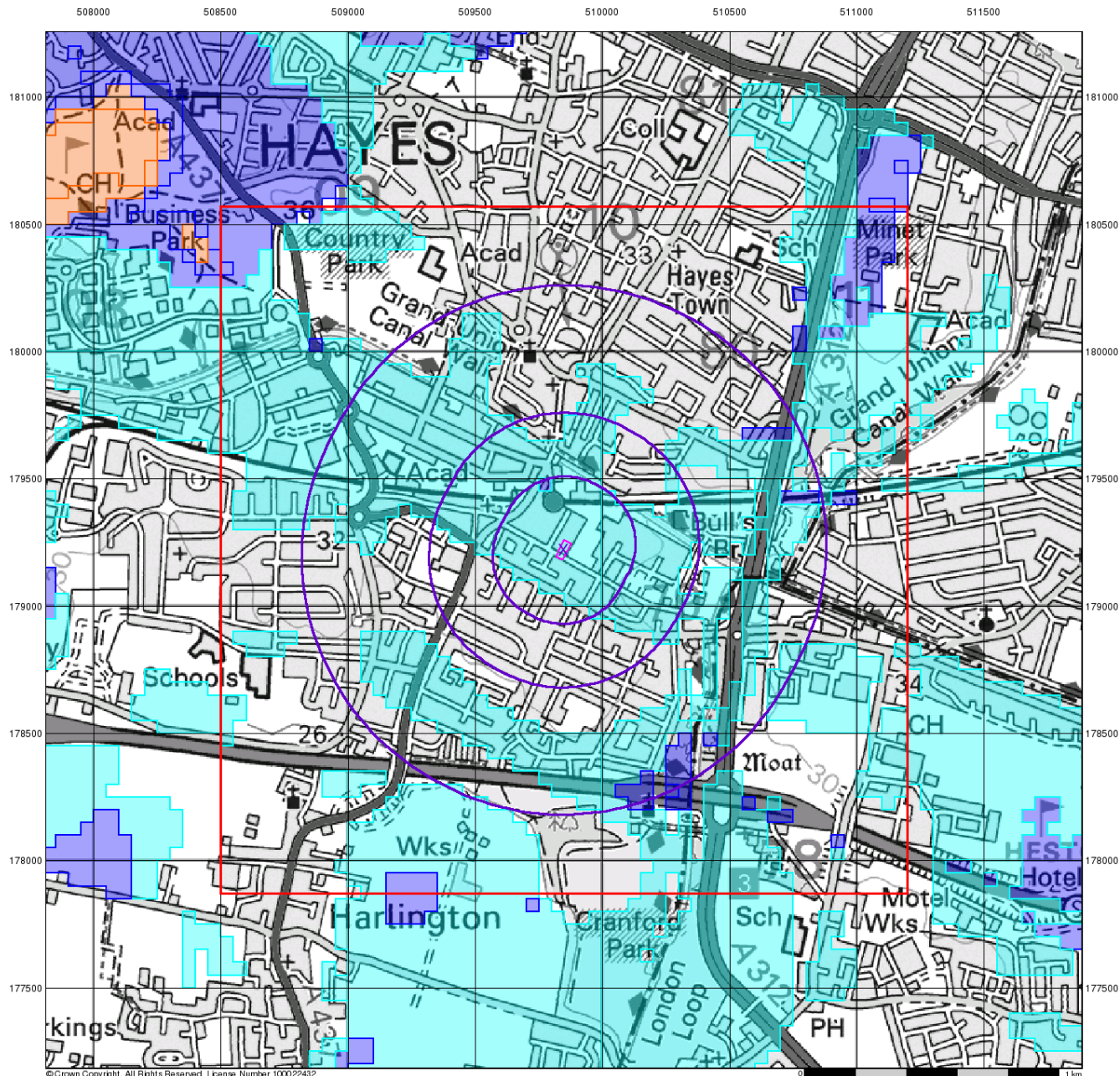
Order Number: 175016424_1_1
 Customer Ref: J18167
 National Grid Reference: 509850, 179220
 Slice: A
 Site Area (Ha): 0.23
 Search Buffer (m): 1000

Site Details

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GEA

BGS Flood GFS Data

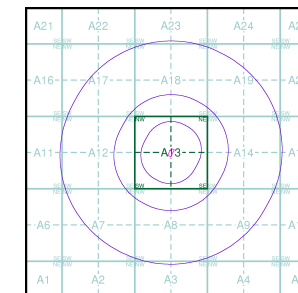
General

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

Agency and Hydrological (Flood)

- Limited Potential for Groundwater Flooding to Occur
- Potential for Groundwater Flooding of Property Situated Below Ground Level
- Potential for Groundwater Flooding to Occur at Surface

Site Sensitivity Context Map - Slice A



Order Details

Order Number: 175016424_1_1
 Customer Ref: J18167
 National Grid Reference: 509850, 179220
 Slice: A
 Site Area (Ha): 0.23
 Search Buffer (m): 1000

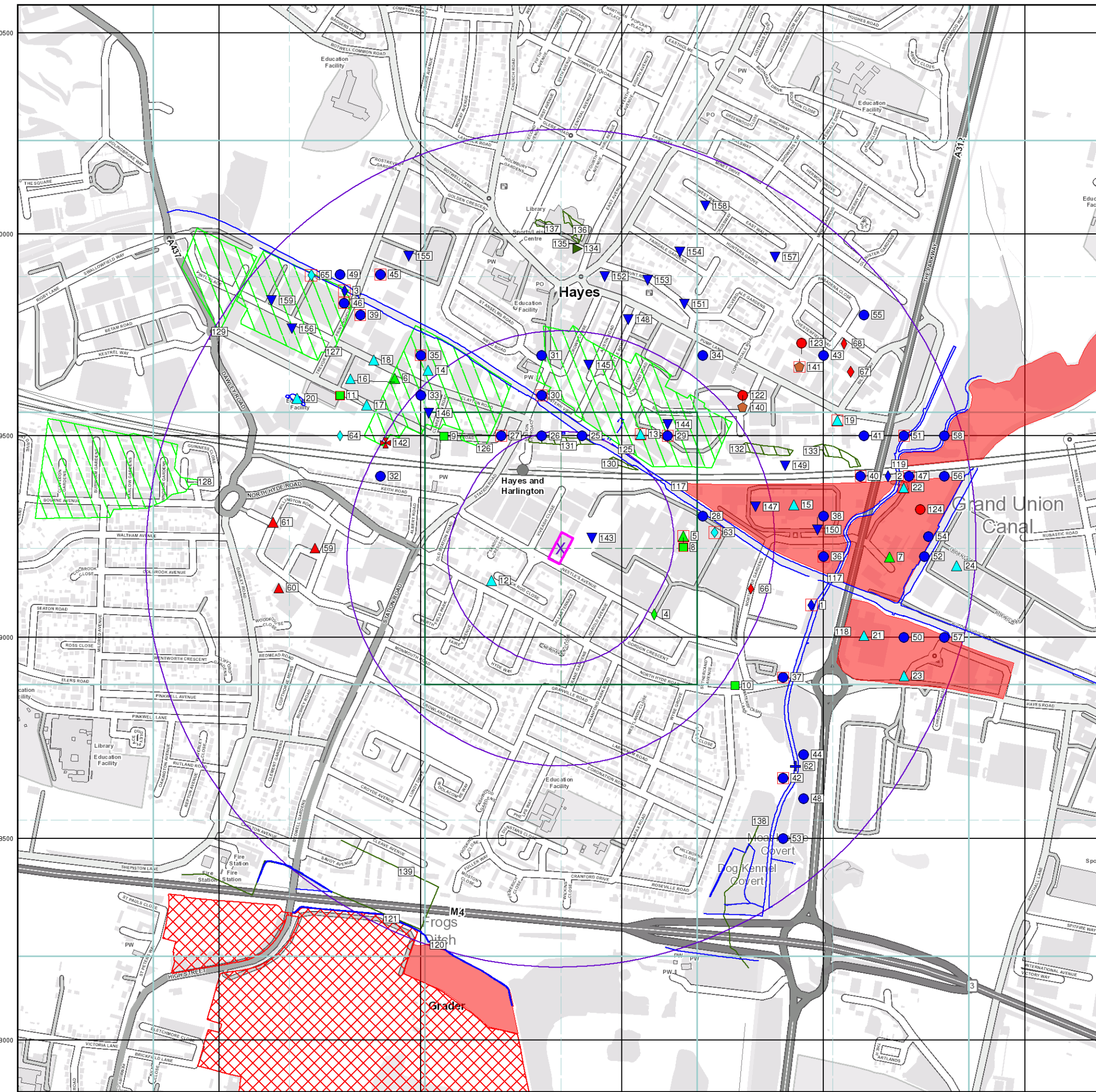
Site Details

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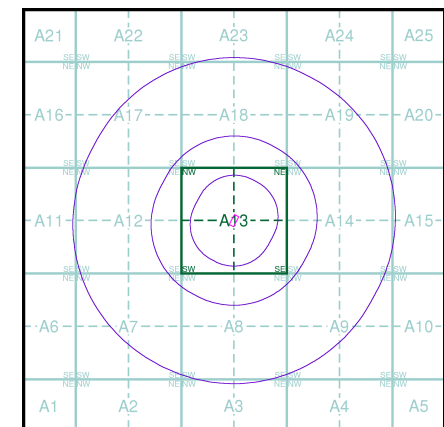
Tel: 0844 844 9952
 Fax: 0844 844 9951
 Web: www.envirocheck.co.uk

508500 509000 509500 510000 510500 511000



- General**
- Specified Site
 - Specified Buffer(s)
 - Bearing Reference Point
 - Map ID
- Agency and Hydrological**
- Contaminated Land Register Entry or Notice (Location)
 - Contaminated Land Register Entry or Notice
 - Discharge Consent
 - Enforcement or Prohibition Notice
 - Integrated Pollution Control
 - Integrated Pollution Prevention Control
 - Local Authority Integrated Pollution Prevention and Control
 - Local Authority Pollution Prevention and Control Enforcement
 - Pollution Incident to Controlled Waters
 - Prosecution Relating to Authorised Processes
 - Prosecution Relating to Controlled Waters
 - Registered Radioactive Substance
 - River Network or Water Feature
 - River Quality Sampling Point
 - Substantiated Pollution Incident Register
 - Water Abstraction
 - Water Industry Act Referral
- Hazardous Substances**
- COMAH Site
 - Explosive Site
 - NIHHS Site
 - Planning Hazardous Substance Consent
 - Planning Hazardous Substance Enforcement
- Geological**
- BGS Recorded Mineral Site
- Waste**
- BGS Recorded Landfill Site (Location)
 - BGS Recorded Landfill Site
 - EA Historic Landfill (Buffered Point)
 - EA Historic Landfill (Polygon)
 - Integrated Pollution Control Registered Waste Site
 - Licensed Waste Management Facility (Landfill Boundary)
 - Licensed Waste Management Facility (Location)
 - Local Authority Recorded Landfill Site (Location)
 - Local Authority Recorded Landfill Site
 - Potentially Infilled Land (Non-water)
 - Potentially Infilled Land (Non-water)
 - Potentially Infilled Land (Non-water)
 - Potentially Infilled Land (Water)
 - Potentially Infilled Land (Water)
 - Potentially Infilled Land (Water)
 - Registered Landfill Site
 - Registered Landfill Site (Location)
 - Registered Landfill Site (Point Buffered to 100m)
 - Registered Landfill Site (Point Buffered to 250m)
 - Registered Waste Transfer Site (Location)
 - Registered Waste Transfer Site
 - Registered Waste Treatment or Disposal Site (Location)
 - Registered Waste Treatment or Disposal Site

Site Sensitivity Map - Slice A



Order Details

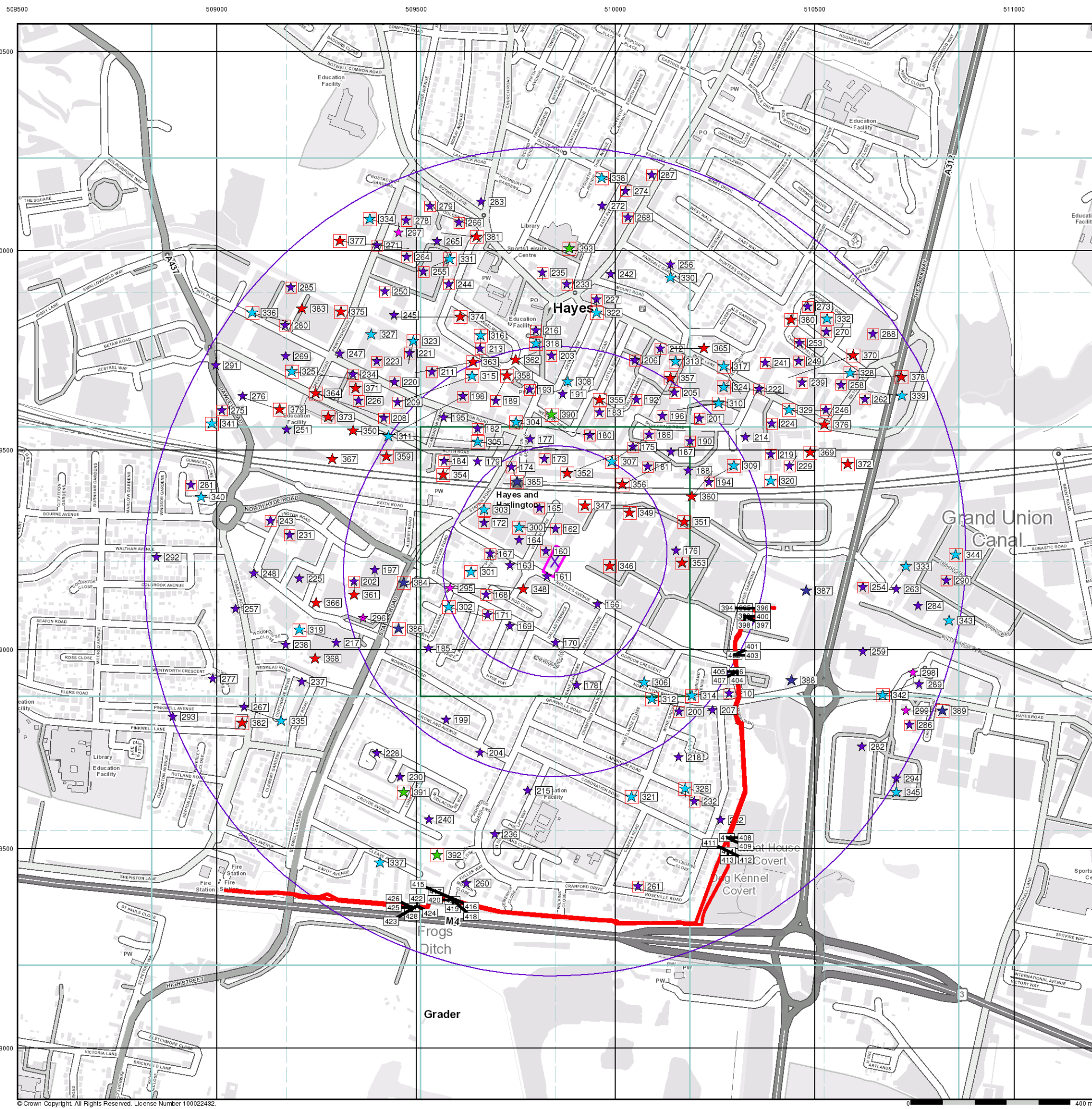
Order Number: 175016424_1_1
Customer Ref: J18167
National Grid Reference: 509850, 179220
Slice: A
Site Area (Ha): 0.23
Search Buffer (m): 1000

Site Details

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Industrial Land Use Map

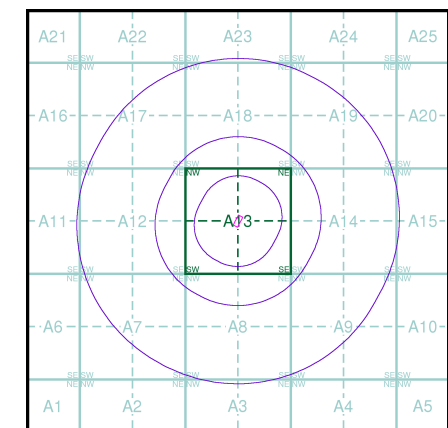
General

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

Industrial Land Use

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

Industrial Land Use Map - Slice A



Order Details

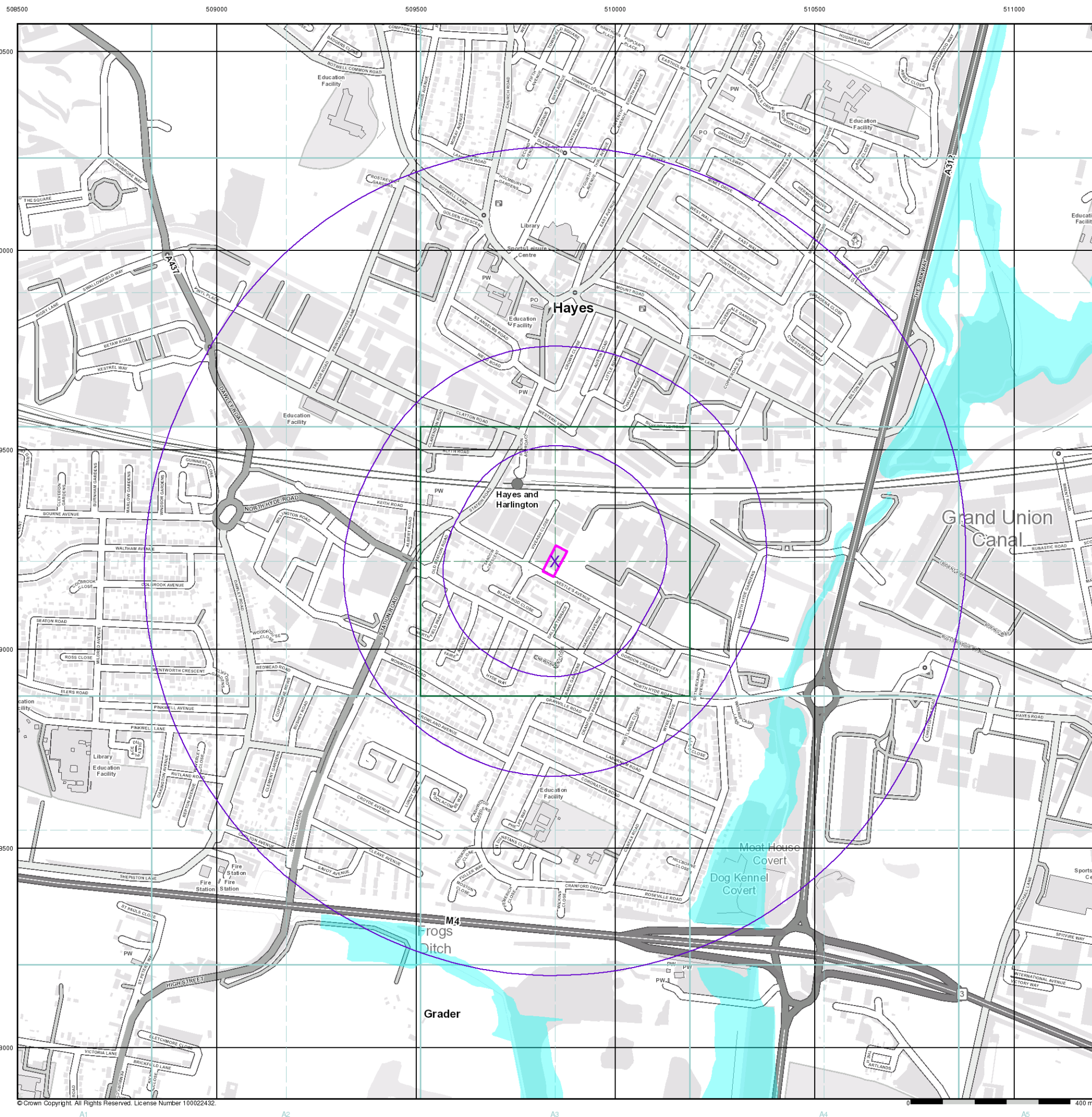
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Customer Ref: J18167
National Grid Reference: 509850, 179220
Slice: A
Site Area (Ha): 0.23
Search Buffer (m): 1000

Site Details

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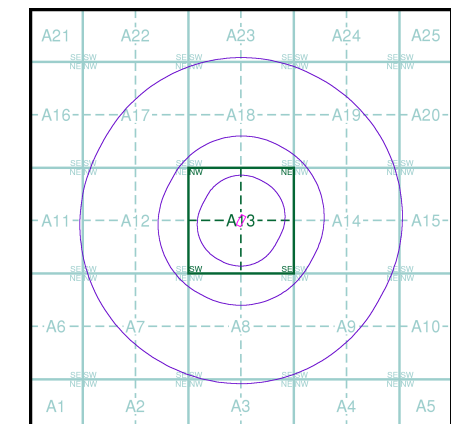
General

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

Agency and Hydrological (Flood)

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

Flood Map - Slice A



Order Details

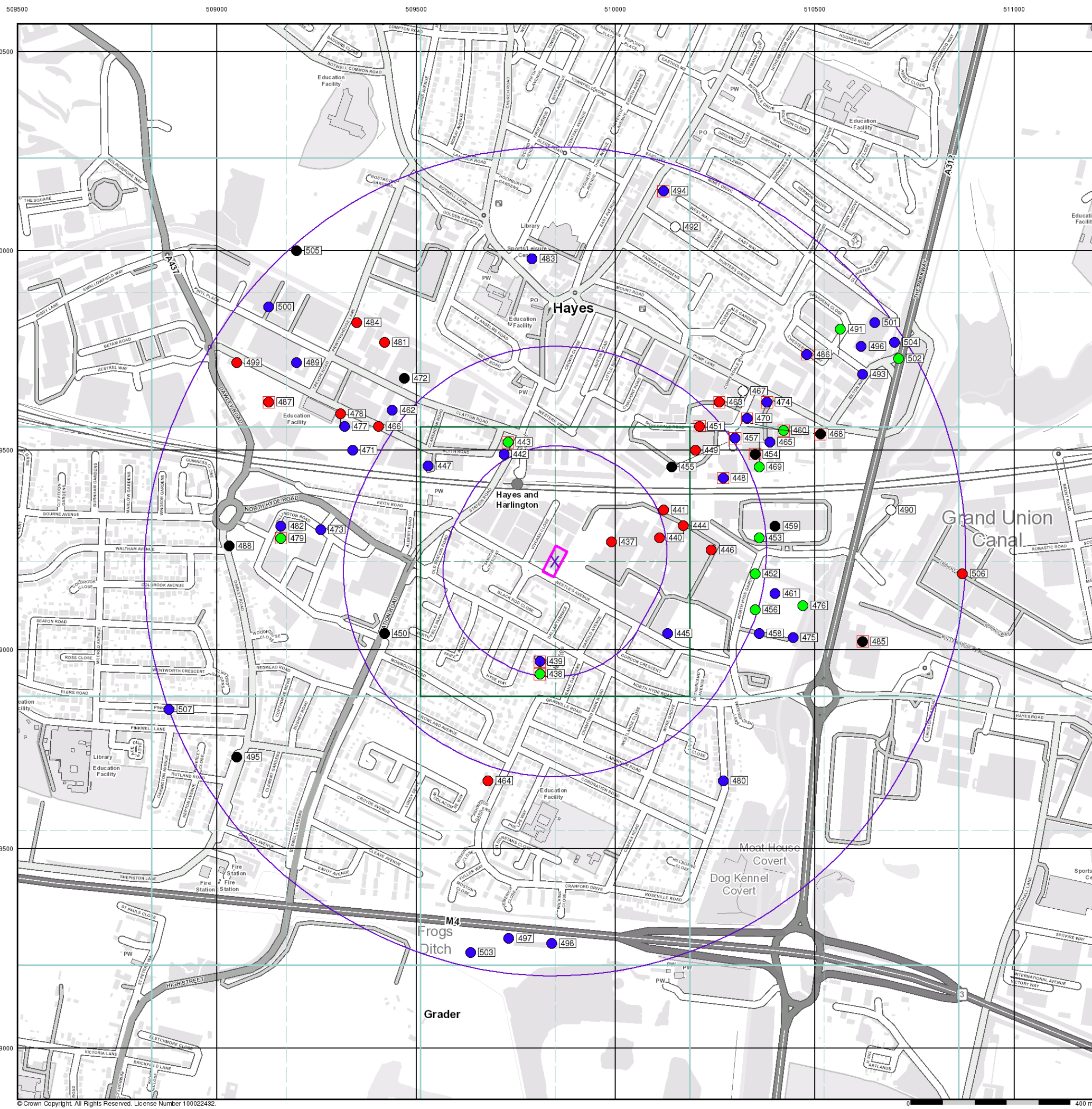
Order Number: 175016424_1_1
Customer Ref: J18167
National Grid Reference: 509850, 179220
Slice: A
Site Area (Ha): 0.23
Search Buffer (m): 1000

Site Details

9 Nestles Avenue, Hayes, UB3 4SA

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General

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

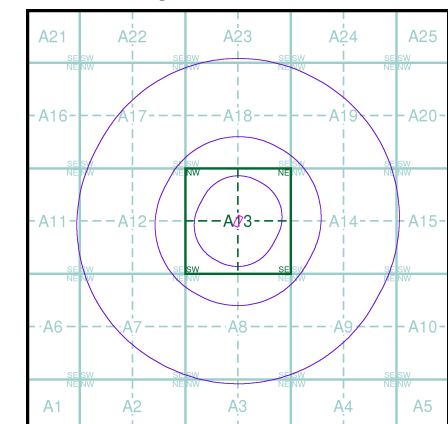
Agency and Hydrological (Boreholes)

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

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

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

Borehole Map - Slice A



Order Details

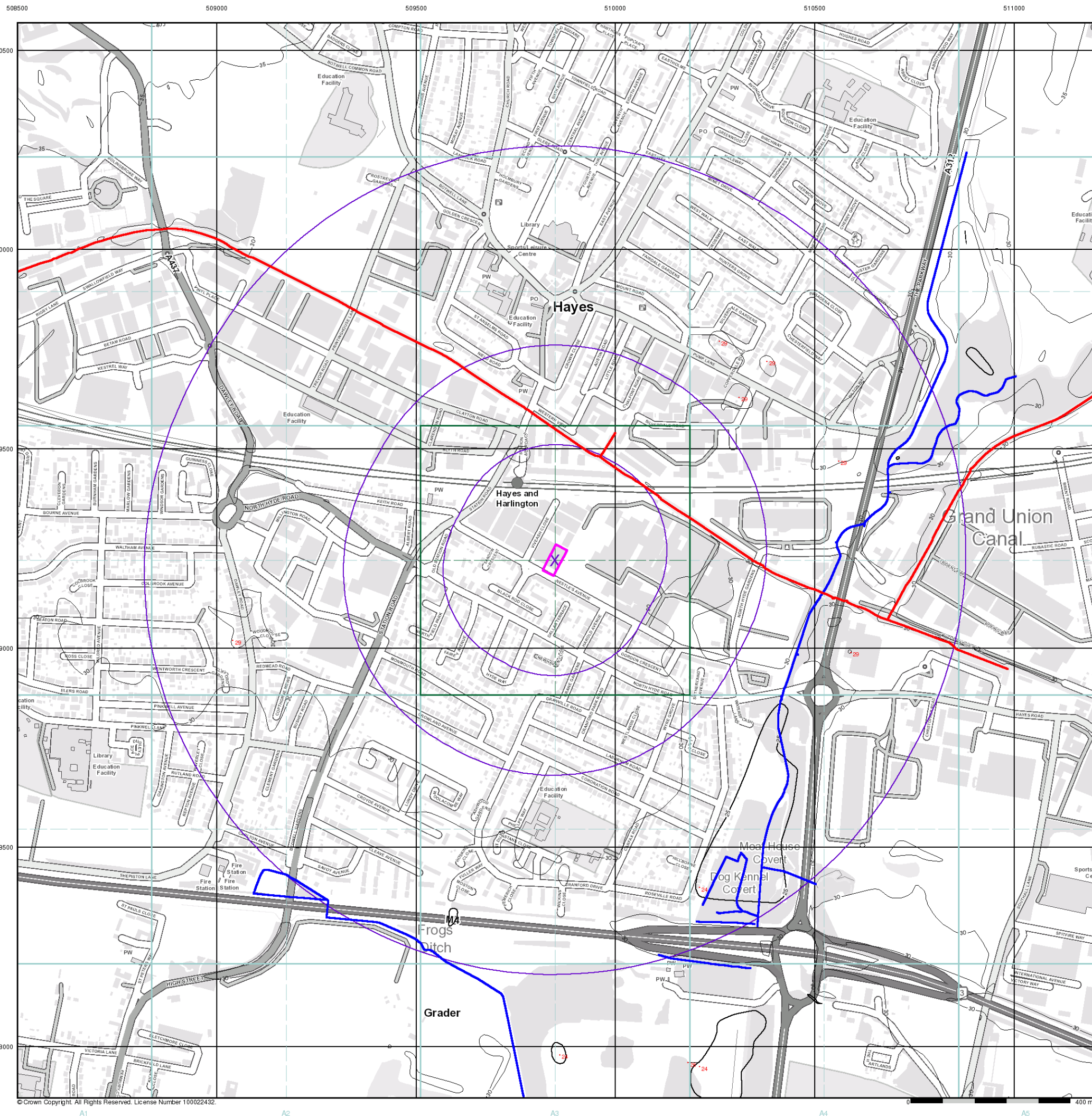
Order Number: 175016424_1_1
Customer Ref: J18167
National Grid Reference: 509850, 179220
Slice: A
Site Area (Ha): 0.23
Search Buffer (m): 1000

Site Details

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General

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

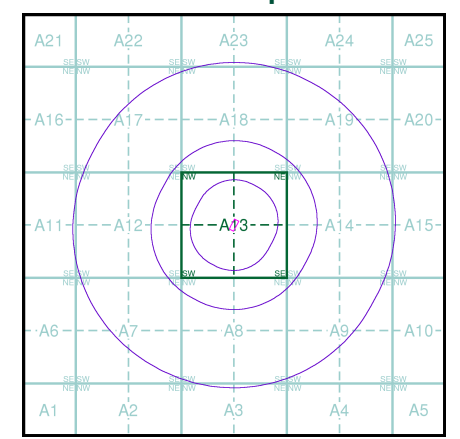
OS Water Network Data

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

Contours (height in meters)

- Standard Contour: 105, 100, 95
- Master Contour: 105, 100, 95
- Spot Height: 167.3
- MLW: Mean Low Water
- MHW: Mean High Water

OS Water Network Map - Slice A



Order Details

Order Number: 175016424_1_1
Customer Ref: J18167
National Grid Reference: 509850, 179220
Slice: A
Site Area (Ha): 0.23
Search Buffer (m): 1000

Site Details

9 Nestles Avenue, Hayes, UB3 4SA



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