

# 1MCo4 Main Works - Contract Lot S1

## Site Condition Report - Waste Transfer and Treat Station - Ruislip Southern Sustainable Placement S2

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# 1 Introduction

- 1.1.1 Phase One of HS2 is the first phase of a new high-speed railway network proposed by the Government to connect major cities in Britain. It will bring significant benefits for inter-urban rail travellers through increased capacity and improved connectivity between London, the Midlands, and the North. It will release capacity on the existing rail network between London, Birmingham and the West Midlands and so provide opportunities to improve existing commuter, regional passenger, and freight services.
- 1.1.2 The Materials Management Plan Framework (ref. HS2-HS2-EV-STD-000-000006) for the HS2 scheme sets out a framework for materials reuse within the scheme. As part of the Materials Management Plan Framework, the Ruislip Southern Sustainable Placement Waste Transfer and Treat Station (RSSP-WTS) will be used as an inert and non-hazardous transfer station, operated by Skanska Costain STRABAG Joint Venture (SCSJV).
- 1.1.3 In line with current waste legislation, the handling of excavated material at the site will need to be undertaken in line with the Environmental Permitting (England and Wales) Regulations 2016. In accordance with the HS2 Technical Standard HS2-HS2-EV-STD-000-000007, the screening process for the proposed waste facility at RSSP-WTS has identified the need for a Bespoke Permit application.
- 1.1.4 This document describes the condition of the land at permit issue and the permitted activities. It is one of a suite of documents that together will be submitted to the Environment Agency (EA) as part of an application for an environmental permit.

## 1.1 Objectives

- 1.1.1 This report represents the SCR for the proposed waste transfer station at RSSP-WTS and has been prepared in accordance with the Environment Agency H5 Guidance on Site Condition Report for Environmental Permitting Regulations [R1].
- 1.1.2 The objectives of this report are to:
- Identify the environmental setting and land pollution history of the RSSP-WTS site at the time of application;
  - Identify the substances that will be present on-site as part of the proposed facility;
  - Describe and record the condition of the land, water, and groundwater at the point at which the application is made.
- 1.1.3 The Site Condition Report will follow EA guidance note H5 'Site Condition Report'.

## 1.2 Associated Documents

- 1.2.1 This report should be read in conjunction with the following documents:

- Environmental Permit Application Forms;
- Non-technical summary
- Site Operating Plan;
- Management Systems and Procedures;
- Noise Quality Management Plan;
- Air Quality Management Plan.

1.2.2 Documents associated with the RSSP-WTS area are cross referenced where appropriate.

## 1.3 Limitations

1.3.1 This report has been prepared for and on behalf of SCSJV in response to their particular instructions. It is not intended for and should not be relied upon by any third party and any duty to such a party using this report for any purpose is excluded.

## 2 Reviewed Information Sources

2.1.1 The following information has been used to inform this report:

- Envirocheck Analysis Report (Appendix A)
- British Geological Survey (BGS) mapping (Sheet 255 1:50,000) 'Beaconsfield, bedrock and superficial deposits'
- British Geological Survey (BGS) GeolIndex Onshore online database
- British Geological Survey (BGS), Hydrogeological map of the area between Cambridge and Maidenhead, 1:100,000 scale
- Department for Environment, Food and Rural Affairs (DEFRA), MAGIC Map Application
- JV Maps - includes Greenspace Information for Greater London (GIGL), Environment Agency (EA) and Natural England (NE) information
- Relevant reports and map books from the HS2 Phase One Environmental Statement (<https://www.gov.uk/government/collections/hs2-phase-one-environmental-statement-documents>)
- Fugro GeoServices Limited, 2017. 1Go89 Draft Factual Report West Ruislip, Document no.: 1Go89-FES-GT-REP-000-000007

## 3 Condition of the Land at Permit Issue

### 3.1 Site Location and Description

- 3.1.1 The site is an area of semi-rural, former agricultural land located immediately north west of Ickenham and to the west of West Ruislip (London Borough of Hillingdon), centred around Grid Reference TQ06517 87233. The area of the site is roughly 10.5ha. The RSSP-WTS site is currently accessed via the Copthall South construction site office entrance, which is accessed through a secured site entrance along the western perimeter of the site off Harvil Road. This Copthall South Office includes concrete hardstanding, car parking and temporary building structures and machinery in the western part of the site (e.g., portacabins and cranes).
- 3.1.2 The main storage and treatment area proposed as part of the RSSP-WTS facility will be located directly to the east of the Copthall South Office, in an area that is currently occupied by reworked ground. The RSSP-WTS permit boundary is designed so that it does not intercept the forested covert 'Copthall Covert' (1.5ha), which is an area of secondary semi-natural broad-leaved woodland. This area is located directly south of the main storage and treatment area and the Copthall South Office. Directly north and west of the permit boundary is an isolated residential dwelling 'Shorthill Cottage'.
- 3.1.3 South of the main proposed treatment area for RSSP-WTS, the permit boundary narrows so that it avoids the forested Copthall Covert to the east. To the south of Copthall Covert, the permit boundary widens so that it incorporates a larger area that is currently occupied by agricultural fields separated by hedgerows. This area will be used to accommodate supporting and ancillary infrastructure of the RSSP-WTS facility (e.g., haul roads) and a large area is also proposed as topsoil storage.
- 3.1.4 The Chiltern Main Line railway is located directly north of the permit boundary, beyond which is a pharmaceutical research facility and fields. To the west of the permit boundary and beyond the Copthall South Office is Harvil Road, beyond which industrial buildings are located such as the Harefield Oil Depot. To the east of the site is farmland associated with Brackenbury Farm (220m east) and Copthall Farm (250m south east), the latter of which is moated. Beyond the farmland to the east is Breakspear Road South and residential estates associated with Ickenham (315m south east).

Site Details	
Name of the applicant	Skanska Costain Strabag (SCS)
Activity address	Copthall South Site Office Ickenham, Uxbridge UB9 6JL

National grid reference	TQ06517 87233
Document reference and dates for Site Condition Report at permit application and surrender	1MCo4-SCJ_SDH-EV-REP-SSo5_SLo7-000009 (2021)
Document references for site plans (including location and boundaries)	1MCo4-SCJ_SDH-EV-REP-SSo5_SLo7-000009 (2021)

Table 1 – Site details

## 3.2 Historic Land Use

3.2.1 The following section presents a review of the site history based on information provided in the Envirocheck report and from previous permitted activities.

3.2.2 A review of the historical Ordnance Survey mapping for the site is provided in Table 2 and the historical maps are provided in Appendix A.

OS Map Dates	On Site – The Permit Site	Off Site – Wider WTS Site
1868-1883	The site comprises agricultural fields that are separated by hedgerows.	<p>A small, forested area is present immediately south of the proposed storage and treatment area, in the area of the present-day Copthall Covert forested area.</p> <p>The areas surrounding the site are also occupied by agricultural fields, as well as farm buildings. Brackenbury Farm is present approximately 220m to the east of the site. Copthall Farm is present approximately 250m south east of the site.</p> <p>Two roads bound the site and the surrounding agricultural fields, roughly trending north to south. The configuration of these roads is similar to the modern-day Harvil Road and Breakspear Road South respectively.</p> <p>The River Pinn is located approximately 450m east of the site.</p>
1897-1916	<p>There is no noticeable change in land use on the site.</p> <p>A footpath is located 100m south of Copthall Covert, within the southern part of the RSSP-WTS boundary. This trends roughly east to west.</p>	<p>The forested area identified south of the proposed storage and treatment area previously is now labelled 'Copthall Covert'.</p> <p>A small building is located to the west of Copthall Covert.</p> <p>Brackenbury Farm is still present and is surrounded by a moat which is now labelled</p>

OS Map Dates	On Site – The Permit Site	Off Site – Wider WTS Site
		on the historical mapping. The flow direction of the River Pinn is noted to be from north to south. Another moated area is labelled on the banks of the River Pinn, approximately 500m south east of the permit boundary
1920-1938	There is no noticeable change in land use on the site.	<p>The Great Western &amp; Great Central Joint Railway Line is located to the north of the site and roughly trends ESE to WNW.</p> <p>Denham East Junction is located approximately 670m north west of the site, as one of the Great Western Railway junctions travels south towards Uxbridge and Denham.</p> <p>Some small rectangular outbuildings are present between Copthall and Brackenbury Farms, approximately 180m south east of the site.</p> <p>The two roads present that bound the wider agricultural fields are now labelled 'Harefield Road' and 'Breakspear Road South'.</p> <p>There has been significant urban development approximately 400m to the south-east off Breakspear Road South, associated with Ickenham and West Ruislip.</p>
1950-1960	There is no noticeable change in land use on the site.	A golf course is present directly west of Harefield Road, approximately 250m south-west of the site.
1968-1975	There is no noticeable change in land use on the site.	<p>The building to the west of Copthall Covert is now labelled 'Shorthill Cottage'</p> <p>A depot has been constructed 210m to the north west of the site. This comprises four buildings, as well as a works area further west which is on the southern perimeter of the mainline railway.</p> <p>A 'research farm' (pharmaceutical facility) has been constructed to the north of the railway, approximately 260m north east of the site.</p>
1985-1999	There is no noticeable change in land use on the site.	Depot to the north west of the site has expanded and is now labelled as an 'oil depot' (Harefield Oil Terminal). The oil depot sits within an area of wider industrial development to the north west of the site.

OS Map Dates	On Site – The Permit Site	Off Site – Wider WTS Site
2006-Present	Available satellite imagery indicates that the site was extensively reprofiled and landscaped, with heaped stockpiles of materials present in the western part of the site. By 2014, the site has been restored to rough grassland and in 2018, the area directly west of the site has been partially developed into the HS2 site compound which includes car parking and site compounds.	An electricity substation is present within the area of the oil depot to the north-west of the site. Other industries have been constructed within the area of Harefield Oil Terminal and include GBN Services (skip hire), Thames Materials Ltd (material recycling), RCS Group (excavating contractor), Tower Associates (architectural design) and Breakfast in Bread (Takeaway).

Table 2 – Review of Historic OS Mapping

### 3.3 Geology

- 3.3.1 The geology of the site and its surrounding area is shown on the 1:50,000 geological map published by the British Geological Survey (BGS) Sheet 255 'Beaconsfield, bedrock and superficial deposits'.
- 3.3.2 The published data indicates that the site is directly underlain by the London Clay Formation, which the map sheet describes as 'stiff bluish grey clay' (Eocene age). The London Clay Formation is subsequently underlain by Reading Beds, which is also from the Eocene. The BGS Lexicon of lithological descriptions provides a more detailed description of the London Clay Formation, as below:
- 3.3.3 'Bioturbated or poorly laminated, blue-grey or grey-brown, slightly calcareous, silty to very silty clay, clayey silt and sometimes silt, with some layers of sandy clay. It commonly contains thin courses of carbonate concretions ('cementstone nodules') and disseminated pyrite. It also includes a few thin beds of shells and fine sand partings or pockets of sand, which commonly increase towards the base and towards the top of the formation. At the base, and at some other levels, thin beds of black rounded flint gravel occur in places. Glauconite is present in some of the sands and in some clay beds, and white mica occurs at some levels.
- 3.3.4 The London Clay Formation is directly underlain by the Harwich Formation and the Lambeth Group, which includes the Lower Mottled Clay and Upnor Formation. This is subsequently underlain by the Seaford Chalk Formation.
- 3.3.5 Geological map sheet 255 indicates that there are no superficial deposits present underlying the site. There is an outcrop of Glacial Sand and Gravel within 100m west of the site, as well as alluvium associated with the River Pinn 450m east.
- 3.3.6 There are no available boreholes records for the site. A review of the available nearby BGS borehole records indicates that there are only three boreholes within 500m of the site that

extend to depths equal to or greater than 10m below ground level. All three of these boreholes are located approximately 260 to 280m north east of the site, within the grounds of the research facility: TQo8NE181, TQo8NE182 and TQo8NE183. These boreholes generally indicate that the London Clay Formation is present up to 9 to 10m below ground level, below which the Woolwich and Reading Beds are present. However, the Woolwich and Reading Beds are only noted to be present in borehole TQo8NE183.

### 3.4 Hydrogeology

- 3.4.1 The underlying bedrock is classified by the Environment Agency as unproductive strata (uncoloured), these are deposits with low permeability that have negligible significant for water supply or river base flow. This has been informed by the review of the Envirocheck environmental information, as presented in Appendix A.
- 3.4.2 The BGS Hydrogeological map of the area between Cambridge and Maidenhead (which includes the site) indicates that the hydrogeological significance of the London Clay Formation is that it acts as a confining layer to the Chalk aquifer in the London Basin to the south of the district. The underlying chalk is classified as a Principal aquifer.
- 3.4.3 Given the underlying geology, it is not anticipated that groundwater in the London Clay Formation will constitute a sensitive receptor in relation to the site contamination risks.
- 3.4.4 The site is located within a designated groundwater Source Protection Zone (SPZ); SPZ 1, 2 and 3 (inner (1), outer (2) and total catchment (3)).

### 3.5 Hydrology and flooding

- 3.5.1 The nearest major surface water feature to the site is the River Pinn, which at its closest point is located approximately 420m east of the site. Available Ordnance Survey mapping indicates that there are three ponds located to the east of the site, adjacent to the existing railway line and the pharmaceutical research facility. There are also several culverted watercourses associated with Uxbridge Golf Course (approximately 270m west), beyond which are several lakes associated with Denham Country Park (630m west of the site).
- 3.5.2 Review of Environment Agency flooding data (Appendix A) indicates that the site is not located within a zone 2 or 3 flood zone, nor is it at risk from flooding from rivers and sea. However, zone 2 and 3 flooding areas are present surrounding the site, associated with the River Pinn and the lakes to the west associated with Denham Country Park.
- 3.5.3 The Envirocheck report (Appendix A) indicates that the site is not in an area considered by the BGS to be susceptible to groundwater flooding.

### 3.6 Environmental Information

- 3.6.1 The following environmental information has been obtained from a review of the Envirocheck report included as Appendix A.



- 3.6.2 The following information on permitted activities has been obtained from the Envirocheck report and should be read in conjunction with the known permitting history of the site as set out in the section on permitting history.

### 3.7 Environmental Permits

- 3.7.1 There are no Integrated Pollution controls within 500m of the site boundary (Appendix A).
- 3.7.2 There are no records of Integrated Pollution Prevention and Control Permits (IPPC) within 500m of the site boundary (Appendix A).
- 3.7.3 One Local Authority Pollution Prevention and Control (LA PPC) permit exists within 500m of the site boundary. This is located approximately 330m north-west of the site and relates to mobile screening and crushing processes (PG3/16) at Thames Materials Ltd. There are no remaining LA PPCs within 500m of the site boundary (Appendix A).

### 3.8 Recorded Pollution Incidents

- 3.8.1 The Envirocheck report (Appendix A) indicates that a total of nine pollution incidents to controlled waters are recorded within 500m of the site boundary. Eight of these incidents were deemed to be Category 3 Minor Incidents, with one incident classified as Category 2 Significant Incident (discussed further below). The majority of these incidents are located within the vicinity of Harefield Oil Depot, as well as two incidents to the east of the site surrounding Brackenbury Farm.
- 3.8.2 The closest pollution incidents are located within 230m and 240m west of the site (three pollution incidents. These pollution incidents to controlled waters are all associated with the Harefield Oil Terminal and took place in the following years and pertained to certain pollutants: 1990 (oils), 1992 (unknown sewage) and 1996 (oils) respectively. All three incidents were designated Category 3 Minor Incidents.
- 3.8.3 Five of the six remaining pollution incidents were classified as Category 3 Minor Incidents. However, one pollution incident was classified as a Category 2 Significant Incident, which is located approximately 370m north west of the site and is also associated with Harefield Oil Depot. This event relates to unknown oils impacting a controlled water, which given the location, is also likely to be one of the culverted watercourses associated with Uxbridge Golf Course. This took place in 1993.
- 3.8.4 Eight of the pollution incidents to controlled waters within 500m of the site occurred in the 1990's. One of the pollution incidents at Harefield does not have a corresponding date, however it was classified as a Category 3 Minor Incident. On the basis of the distance of these incidents from the site boundary, the classification of the incidents and the time elapsed since the incidents (including the classified Category 2 Significant Incident), it is not considered likely that they will have impacted on the proposed facility.

- 3.8.5 There is one incident within 500m of the site area pertaining to Prosecution Relating to Controlled Waters. This incident took place directly west of the site area at Harefield Oil Terminal, Uxbridge (UB9 6JL) and concerned "*causing polluting matter to enter an unnamed tributary of the River Frays*" (hearing date 17/02/1999, verdict guilty).

### 3.9 Environmental Consents

- 3.9.1 No current or historical groundwater abstractions are located within 500m of the site (Appendix A).
- 3.9.2 One historical discharge consent is noted at approximately 420m north west of the site, which relates to the discharges of trade effluent into site drainage from Uxbridge Skip Hire Ltd. This was issued in 1993 and the revocation date is not supplied (see Appendix A).
- 3.9.3 There are no Water Industry Act Referrals within 500m of the site boundary.

### 3.10 Environmental Registers

- 3.10.1 There is one registered area of radioactive substances that is within 500m of the site boundary, which is approximately 420m north east for S-P Veterinary Holdings Ltd under S13 RSA for the disposal of Radioactive Wastes (see Appendix A).
- 3.10.2 One Licensed Waste Management Facilities exists within 500m of the site boundary. This is the G B N Services Ltd, which is a household, commercial and industrial transfer station located approximately 370m north west of the site (see Appendix A).

### 3.11 Environmental and Human Receptors

- 3.11.1 The Envirocheck report and MAGIC website have been consulted to determine nearby sensitive environmental receptors. The SCSJV internal JV Maps database has also been reviewed, which includes environmental data from Greenspace for Greater London (GIGL) and Natural England environmental data.
- 3.11.2 Residential and sensitive commercial receptors that may be impacted by the works at the RSSP-WTS facility have been determined using available satellite and OS mapping.
- 3.11.3 Table 3 provides a list of the considered receptors within 1000m of the RSSP-WTS permit site, as shown below.

Site Name	Designation	Approximate direction and closest distance from site boundary.	Drawing and reference
<b>Statutory Designations</b>			
Fray's Valley	Local Nature Reserve	570m west	1MC04-SCJ_SDH-LS-DGA-SS05_SL07-711019 – Ref 1

Fray's Farm Meadows	Site of Special Scientific Interest	670m south west	1MC04-SCJ_SDH-LS-DGA-SS05_SL07-711019 – Ref 2
Denham Country Park	Local Nature Reserve	790m west	1MC04-SCJ_SDH-LS-DGA-SS05_SL07-711019 – Ref 3
Denham Lock Wood	Site of Special Scientific Interest	880m south west	1MC04-SCJ_SDH-LS-DGA-SS05_SL07-711019 – Ref 4
<b>Non-Statutory Designations</b>			
Source Protection Zone(s) I (Inner Protection Zone) and II (Outer Protection Zone)	Source Protection Zone	Site and north	1MC04-SCJ_SDH-LS-DGA-SS05_SL07-711019 – Ref 5
Thames_SWS GZ4015, 4016_Cookham Teddington & Wey	Drinking Water Safeguard Zones (Surface Water)	Site and its surroundings	-
London Area Greenbelt	Green Belt	Site and its surroundings	-
Ickenham (Hillingdon)	Sites of Important Nature Conservation (GIGL)	Directly west	1MC04-SCJ_SDH-LS-DGA-SS05_SL07-711019 – Ref 6
Brackenbury Railway Cutting	Special Area of Conservation	50m north	1MC04-SCJ_SDH-LS-DGA-SS05_SL07-711019 – Ref 7
Brackenbury Farm moated site	Scheduled Monument	210m east	1MC04-SCJ_SDH-LS-DGA-SS05_SL07-711019 – Ref 8
Brackenbury Farmhouse	Grade II Listed Building	290m east	See drawing 1MC04-SCJ_SDH-LS-DGA-SS05_SL07-711020
Copthall Farmhouse	Grade II Listed Building	330m south east	See drawing 1MC04-SCJ_SDH-LS-DGA-SS05_SL07-711020
North Lodge	Grade II Listed Building	390m south	See drawing 1MC04-SCJ_SDH-LS-DGA-SS05_SL07-711020

Newyears Green	Special Area of Conservation, Ancient Woodland	400m north	1MC04-SCJ_SDH-LS-DGA-SS05_SL07-711019 – Ref 9
West Ruislip Golf Course and Old Priory Meadows	Special Area of Conservation	445m east	1MC04-SCJ_SDH-LS-DGA-SS05_SL07-711019 – Ref 10
Mad Field Covert, Railway Mead, and the River Pinn	Special Area of Conservation	460m east	1MC04-SCJ_SDH-LS-DGA-SS05_SL07-711019 – Ref 11
Medieval moated site	Scheduled Monuments	495m south east	1MC04-SCJ_SDH-LS-DGA-SS05_SL07-711019 – Ref 12
The Pinnocks Wood	Ancient Woodland	570m south west	1MC04-SCJ_SDH-LS-DGA-SS05_SL07-711019 – Ref 13
Harefield Place	Grade II Listed Building	600m south west	See drawing 1MC04-SCJ_SDH-LS-DGA-SS05_SL07-711020
Highway Farmhouse, Forecourt walls to South Highway Farmhouse and Barn and Shelter Shed to south east of Highway Farmhouse	Grade II Listed Buildings	840m to 880m north west	See drawing 1MC04-SCJ_SDH-LS-DGA-SS05_SL07-711020
<b>Residential and sensitive commercial receptors</b>			
Shorthill Cottage	Residential area	Directly north and west of the site	See drawing 1MC04-SCJ_SDH-LS-DGA-SS05_SL07-711020
Ickenham residential properties	Residential areas	Large areas west, south, and east. Closest areas are 180m south west, 300m east	See drawing 1MC04-SCJ_SDH-LS-DGA-SS05_SL07-711020
Harvil Farm	Farm/residential area	140m south west	See drawing 1MC04-SCJ_SDH-LS-DGA-SS05_SL07-711020

Brackenbury Farm	Farm/residential area	190m east	See drawing 1MC04-SCJ_SDH-LS-DGA-SS05_SL07-711020
Copthall Farm	Farm/residential area	210m south east	See drawing 1MC04-SCJ_SDH-LS-DGA-SS05_SL07-711020
West London School of Guitar	School	240m south west	See drawing 1MC04-SCJ_SDH-LS-DGA-SS05_SL07-711020
Dunster Cottage	Farm/residential area	740m north east	See drawing 1MC04-SCJ_SDH-LS-DGA-SS05_SL07-711020
Ruislip and Newyears Green Farm Buildings	Farm/residential area	560m north east, 725m north west, 800m north west, and 900m north west	See drawing 1MC04-SCJ_SDH-LS-DGA-SS05_SL07-711020
The Breakspear School	School	700m south east	See drawing 1MC04-SCJ_SDH-LS-DGA-SS05_SL07-711020
Wallasey Medical Centre – Dr K Patel	Doctors Surgery	930m south east	See drawing 1MC04-SCJ_SDH-LS-DGA-SS05_SL07-711020
No hospitals located within 1000m of the permit boundary			

Table 3 – A list of key environmental and human potential receptors

- 3.11.4 It is noted that aside from the above there are no other sensitive environmental designated sites within 1000m of the RSSP-WTS site boundary. The Ruislip Woods SSSI and National Nature Reserve (NNR) is located approximately 1250m to the north of the site.
- 3.11.5 It is also noted that, for the Noise and Vibration Management Plan (NVMP) and associated assessment (1MCo4-SCJ\_SDH-EV-PLN-SSo5\_SL07-000015), the receptors considered for the potential impact of noise include: Shorthill Cottage, Brackenbury House, Brackenbury Barn, Oak Farm, The Bungalow, Harvil Farm, 160 Hoylake Crescent, 178 Hoylake Crescent and 77 The Greenway. The receptors considered in the NVMP are largely associated with the potential noise impacts from the conveyor, which will traverse a large section of land adjacent to the existing railway line. For the specific receptors identified in the noise assessment, see 1MCo4-SCJ\_SDH-EV-PLN-SSo5\_SL07-000015.

## 4 Previous Site Investigations

### 4.1 Fugro Ground Investigation

- 4.1.1 As part of the enabling works for HS2, Fugro GeoServices Limited (FGSL) were instructed to undertake a ground investigation along part of the proposed HS2 railway route from Breakspear Road South to Harvil Road. This includes the area of the proposed RSSP-WTS facility which is the subject of this report.
- 4.1.2 The ground investigation was carried out between 24<sup>th</sup> October 2016 and 16<sup>th</sup> February 2017.
- 4.1.3 Exploratory holes included in the FGSL Factual Report include the prefix 'MLo25' for each exploratory hole, for clarity this prefix has been removed from the exploratory holes references in this report (e.g., MLo25-CP115 will be referred to as CP115 in this report).
- 4.1.4 This investigation undertaken at the site encompasses the wider areas surrounding the proposed RSSP-WTS facility. Three exploratory holes were excavated within the redline boundary of the RSSP-WTS facility, including CP114 (extending to 25.9mbgl), TPo8o and TPo62. An additional five exploratory holes were excavated within 150m of the redline boundary for the RSSP-WTS facility. This includes two-rotary cored boreholes (maximum depth of 41.7mbgl), one cable percussive borehole (CP115, extending to 10mbgl) and two trial pits. Reference has been made to all eight available exploratory holes (within the redline boundary and within the immediate vicinity of), in order to form the basis of the ground conditions discussion within this report.
- 4.1.5 The exploratory hole logs are presented in Appendix B of this report.
- 4.1.6 The general purpose of this investigation was to characterise the geotechnical, chemical, geological, and hydrogeological properties of the underlying ground conditions. Deeper rotary-cored boreholes were supplemented with more shallow cable percussive boreholes and trial pits in order to gain a wider appreciation of the ground conditions.
- 4.1.7 Geotechnical laboratory testing was undertaken in samples obtained from exploratory holes, including Particle Size Distribution tests (PSDs), Atterberg's Limits tests, MC, and strength data testing. Three falling head in-situ permeability tests were also carried out in the boreholes. SPTs using a split spoon (S) were carried out in the light cable percussion boreholes. Groundwater level monitoring was also undertaken as part of this investigation.
- 4.1.8 Geo-environmental testing was also undertaken during the investigation, and the results are presented in Appendix C of this report. This included soil dry weight and soil leachate testing, groundwater chemical analysis and soil-borne gas monitoring. In total, a total of four soil dry weight samples (natural ground) were obtained and tested for a suite of contaminants including metals, asbestos identification, and quantification (where required), general inorganics, BTEX, TPHs, EPHs and PAHs. The same four samples were obtained and tested for a suite of leachable contaminants including metals and general inorganics.

4.1.9 Eight samples of groundwater were obtained and were tested for a suite of contaminants including general inorganics, metals, TPHs, Total EPH, pesticides, VOCs and SVOCs (including PAHs). Additionally, due to the potential presence of radiological materials within the pharmaceutical research facility to the north of the RSSP-WTS site, the ground investigation made provisions for the inclusion of testing for radiological contamination in groundwater samples. Radiological screening of all exploratory holes was also carried out (Amec).

4.1.10 Details of the constructed installations in boreholes for groundwater monitoring and sampling within the RSSP-WTS permit boundary are shown in Table 4.

Borehole	Installation depth	Date of installation depth	Installation type	Geology	Top of response zone	Base of response zone
CP114	16.2	08/11/2016	SPIE	Sand unit in LMG	15.5	16.5
RC020	24.5	15/11/2016	SPIE	LMG	23.5	26
RC020	33	15/11/2016	SP	CHK	28.2	33
RC054	19.7	14/02/2017	SPIE	LMG	19	20
RC054	36	14/02/2017	SP	CHK	34	36

Table 4 - Installation details for boreholes advanced within the WTS site

## 4.2 Encountered ground conditions

4.2.1 A summary of the encountered ground conditions is provided in Table 5.

Strata	Depth to base (m bgl)	Thickness (m bgl)	Description
Topsoil	0.5	Absent to 0.5	Grass over topsoil. Firm dark brown slightly sandy slightly gravelly clay with occasional rootlets. Gravel is angular to subrounded fine to coarse flint.
Made Ground	0.6	Absent to 0.6	Firm light brown slightly sandy slightly gravelly clay with frequent rootlets. Sand is fine to coarse. Gravel is angular to subrounded fine to coarse flint, concrete, brick, and anthropogenic materials (rare ash, plastic, rebar, and carpet fragments).
London Clay Formation	Proven to 13.1	3.7 to 12.8	Stiff brown and blueish grey mottled orangish brown sandy locally silty clay with rare gravel. Sand is fine to coarse.
Harwich Formation	Proven to 13.15	Absent to 1.65	Stiff brown slightly sandy slightly gravelly clay. Sand is fine to coarse. Gravel is subangular to round fine and medium flint. Rare shells and

			calcretes and fragments of pyrite (<5mm) and lignite (<8mm).
Lower Mottled Clay	Proven to 28.5	14.1 to 15.4 (where boreholes extended below the base of the layer)	Stiff to very stiff light bluish grey and orangish brown mottled greyish purple slightly sandy clay with rare gravel with pockets of sandy clay. Progressive increase of subangular to subrounded calcretes (<20mm) further down sequence.
Upnor Formation	Proven to 28.9	0.4 to 3.7	Stiff greenish grey and greyish brown sandy clay possibly glauconitic with rare gravel with pockets of greenish grey sandy silt. Sand is fine.
Seaford Chalk	Proven to 41.7	Up to 12.8	Weak medium and high-density off-white chalk.

Table 5 - Summary of encountered ground conditions

- 4.2.2 The encountered ground conditions observed during the ground investigation are in general agreement to those expected from the review of the published geology. This includes London Clay overlying the Harwich Formation, Lambeth Group and Seaford Chalk. One notable difference between the published geology review and the ground investigation was the presence of Made Ground, which was identified during the ground investigation (TPo50, TPo62, TPo80 and TPo81).
- 4.2.3 A review of the exploratory hole logs indicates that groundwater was not encountered in the majority of exploratory holes excavated on the RSSP-WTS site. However, it should be noted that groundwater strikes are unable to be seen during rotary-cored drilling. In CP114 groundwater was encountered at 15.5mbgl (Lower Mottled Clay) and 22.5mbgl (Upnor Formation rose through to Lower Mottled Clay) during drilling. These strikes rose to 14.95mbgl and 19.75mbgl respectively. Given the general cohesive nature of this strata and that no groundwater strikes were recorded in this stratum elsewhere, the identified groundwater is likely to represent perched groundwater or may represent water from drilling (however this is not noted on the log).
- 4.2.4 Apart from the anthropogenic inclusions listed in the description of Made Ground in Table 5, there is no discernible evidence of any visual and/or olfactory evidence of contamination from the available exploratory hole logs.
- 4.2.5 The encountered Made Ground within the permit boundary was in exploratory holes TPo62 and TPo80. The descriptions of the Made Ground encountered in TPo62 and TPo80 is similar to those identified in TPo50 and TPo81, which are located to the west of the permit boundary. As discussed in the overview of the site history (Table 2), from 2008 the northern extent of the permit boundary and the area occupied by the existing Copthall South Office were extensively reprofiled, and aerial photography indicates that this area was reworked. This is likely to be associated with groundworks for the construction of the HS2 compound facilities. It is likely that the Made Ground identified during the ground investigation represents reworked ground



during these site preparations, and that this may be present across the extent of the northern part of the permit boundary.

- 4.2.6 It should also be noted that since the ground investigation took place in 2017, satellite imagery indicates that the area encompassing the northern part of the permit boundary has been reprofiled again. Therefore, it is possible that this ground investigation has not identified the most recent conditions of the site ground condition.

## 4.3 Chemical analysis results – soils

- 4.3.1 A summary of the results of the analysis of the tested soils are presented in Table 6. The results are also presented in Appendix C. It should be noted that all of the available historical chemical testing for soils pertains to the underlying natural strata, and no Made Ground was tested during the historical ground investigations.

Determinand	Units	No: of samples	Range
Asbestos – Fibres	%	1	Not detected
pH	pH units	4	6.5 to 7.8
Boron (Hot Water Soluble)	mg/kg	4	1 to 2.5
Cyanide (Total)	mg/kg	4	<0.1 to 0.4
Arsenic	mg/kg	4	12 to 15
Barium	mg/kg	4	25 to 67
Beryllium	mg/kg	4	0.9 to 1.3
Cadmium	mg/kg	4	<0.1 to 0.2
Copper	mg/kg	4	26 to 36
Mercury	mg/kg	4	<0.05 to 0.14
Nickel	mg/kg	4	17 to 48
Lead	mg/kg	4	15 to 61
Selenium	mg/kg	4	<0.5
Vanadium	mg/kg	4	57 to 69
Zinc	mg/kg	4	64 to 73
Chromium (Trivalent)	mg/kg	4	29 to 39
Chromium (Hexavalent)	mg/kg	4	<1
Benzene	µg/kg	4	<0.01
Toluene	µg/kg	4	<0.01
Ethylbenzene	µg/kg	4	<0.01
m & p-Xylene	µg/kg	4	<0.01
o-Xylene	µg/kg	4	<0.01

Aliphatic TPH >C5-C6	mg/kg	2	<0.01
Aliphatic TPH >C6-C8	mg/kg	2	<0.01
Aliphatic TPH >C8-C10	mg/kg	2	<0.01 – 0.01
Aliphatic TPH >C10-C12	mg/kg	2	<1.5
Aliphatic TPH >C12-C16	mg/kg	2	<1.2
Aliphatic TPH >C16-C21	mg/kg	2	<1.5
Aliphatic TPH >C21-C35	mg/kg	2	<3.4
Aliphatic TPH >C35-C44	mg/kg	2	<3.4
Aromatic TPH >C5-C7	mg/kg	2	<0.01
Aromatic TPH >C7-C8	mg/kg	2	<0.01
Aromatic TPH >C8-C10	mg/kg	2	<0.01
Aromatic TPH >C10-C12	mg/kg	2	<0.9
Aromatic TPH >C12-C16	mg/kg	2	<0.5
Aromatic TPH >C16-C21	mg/kg	2	<0.6
Aromatic TPH >C21-C35	mg/kg	2	<1.4
Aromatic TPH >C35-C44	mg/kg	2	<1.4
EPH >C10-12	mg/kg	4	<10
EPH >C12-16	mg/kg	4	<10
EPH >C16-21	mg/kg	4	<10
EPH >C10-40	mg/kg	4	<10
EPH/TPH >C21-36	mg/kg	4	<10
EPH/TPH >C36-40	mg/kg	4	<10
Acenaphthene	mg/kg	4	<0.03
Acenaphthylene	mg/kg	4	<0.03
Anthracene	mg/kg	4	<0.03
Benzo[a]anthracene	mg/kg	4	<0.03
Benzo[a]pyrene	mg/kg	4	<0.03
Benzo[b]fluoranthene	mg/kg	4	<0.03
Benzo[g,h,i]perylene	mg/kg	4	<0.03
Benzo[k]fluoranthene	mg/kg	4	<0.03
Chrysene	mg/kg	4	<0.03
Dibenz(a,h)Anthracene	mg/kg	4	<0.03
Fluoranthene	mg/kg	4	<0.03 to 0.05
Fluorene	mg/kg	4	<0.03

Indeno(1,2,3-c,d)Pyrene	mg/kg	4	<0.03
Naphthalene	mg/kg	4	<0.03
Phenanthrene	mg/kg	4	<0.03
Pyrene	mg/kg	4	<0.03 to 0.04
Total Phenols	mg/kg	4	<0.3 to 1.5

Table 6 - Natural ground chemical analysis summary

### Soil Analysis

- 4.3.2 To facilitate the assessment of contamination concentrations within the soil, consideration is required with regards to the end use of the site and therefore the potential exposure pathways present.
- 4.3.3 The site development proposal is a waste transfer station which will be capped at surface with hardstanding, workers on site are likely to be the main health receptor to onsite with respect to potential harm to human health. However, given the site will be effectively capped it is considered unlikely that site workers will be exposed to soil contamination via direct contact or dust inhalation and that the only plausible pathway would be via vapour inhalation.
- 4.3.4 In addition, due to the generally short term nature of the sites use as a HS2 waste transfer station, the exposure duration is unlikely to constitute timeframes considered as representing chronic exposure. However, for the purpose of an initial screen of contamination concentrations on site, the results of the soils analysis will be compared to published C<sub>4</sub>SL and S<sub>4</sub>UL values for a commercial end use setting. It is noted that given the site use this approach is likely to be conservative.
- 4.3.5 The result of the contamination testing of natural soils has not indicated concentrations of contaminants above the published commercial end use screening criteria. In fact, the recorded concentrations of determinands in the soil are well within the limits set by the commercial guideline values (both C<sub>4</sub>SL and S<sub>4</sub>UL limits). The recorded concentrations of the analysed determinands are roughly those expected from natural soils on a site that has undergone limited historical development.

## 4.4 Chemical analysis results – controlled waters

- 4.4.1 The following section presents a summary of the chemical analysis undertaken on leachate and groundwater samples within the RSSP-WTS permit site. Records of analysis where the results were not detected above the laboratory limit of detection are not included. Summary sheets of the full results are presented in Appendix C.
- 4.4.2 For the purpose of assessing the baseline conditions on site for the permit application, a summary of the range of leachate and groundwater contaminant concentrations are presented in Table 7 and Table 8 in the following sections.

## Leachate Chemical Results

4.4.3 A summary of the results of the analysis of leachate preparations from samples of the natural ground soils are presented in Table 7.

Determinand	Units	No: of samples	Range
pH	pH units	4	5.9 to 7.3
Boron	µg/l	4	3.46 to 49.6
Arsenic	µg/l	4	0.15 to 0.64
Barium	µg/l	4	2.7 to 18.7
Cadmium	µg/l	4	<0.03 to 0.013
Chromium (Trivalent)	µg/l	4	0.02 to 0.47
Copper	µg/l	4	0.21 to 2
Mercury	µg/l	4	0.003 to 0.007
Nickel	µg/l	4	0.04 to 0.56
Lead	µg/l	4	<0.09 to 0.47
Selenium	µg/l	4	0.09 to 1.3
Vanadium	µg/l	4	0.18 to 1.5
Zinc	µg/l	4	1 to 2.7

Table 7 - Summary of soil leachate analysis results

## Groundwater Chemical Results

4.4.4 A summary of the results of the analysis of groundwater samples are presented Table 8.

Determinand	Units	No: of samples	Range
pH	pH units	8	6.9 to 7.6
Total hardness	mg/l	8	350 to 2780
Electrical Conductivity	µS/cm	8	950 to 4520
Suspended Solids At 105C	mg/l	8	37 to 6700
Total Dissolved Solids	mg/l	8	700 to 4400
Dissolved Oxygen	mg O2/l	8	3.1 to 10.8
Alkalinity (Total)	mg/l	8	240 to 520
Chloride	mg/l	8	<10 to 200
Ammoniacal Nitrogen	mg/l	8	<0.015 to 4.3
Nitrite as N	mg/l	8	<0.035 to 0.28
Nitrate as N	mg/l	8	<0.1 to 2.3
Phosphorus (Total)	mg/l	8	23 to 1700
Sulphate	mg/l	8	33 to 2000
Cyanide (Total)	µg/l	8	<0.1 to 0.9
Nitrogen (Total)	mg/l	8	1.1 to 21
Calcium	mg/l	8	110 to 440
Potassium	mg/l	8	5 to 32
Magnesium	mg/l	8	18 to 410
Sodium	mg/l	8	24 to 190
Arsenic (Dissolved)	µg/l	8	<0.16 to 1.1
Boron (Dissolved)	µg/l	8	120 to 1500
Barium (Dissolved)	µg/l	8	25 to 90
Beryllium (Dissolved)	µg/l	8	<0.1
Cadmium (Dissolved)	µg/l	8	<0.03
Copper (Dissolved)	µg/l	8	<0.4 to 2.1
Iron	µg/l	5	7400 to 54000
Nickel (Dissolved)	µg/l	8	6.7 to 12
Lead (Dissolved)	µg/l	8	<0.09 to 0.19
Manganese	µg/l	5	140 to 860

Selenium (Dissolved)	µg/l	8	0.31 to 2.2
Vanadium (Dissolved)	µg/l	8	<0.6 to 3.9
Zinc (Dissolved)	µg/l	8	1.7 to 31
Mercury (Dissolved)	µg/l	8	<0.01 to 0.04
Chromium (Hexavalent)	µg/l	8	<7 (Max total chromium is 2.2)
Chromium (Trivalent)	µg/l	8	<1 to 2.2
Total Organic Carbon	mg/l	3	3.1 to 16
Phenol	µg/l	8	<0.5 to 2.7
Aromatics >C21-35	µg/l	4	<1 to 19
EPH >C10-40	µg/l	8	<10 to 240
Chloroform	µg/l	4	<1 to 2
Benzyl Alcohol	µg/l	4	<1 to 1.3

Table 8 - Summary of groundwater chemical analysis results

### Controlled Waters - Discussion of Chemical Results

- 4.4.5 The risk to controlled waters has been assessed in accordance with the Environment Agency Remedial Targets Methodology (Environment Agency, 2006) which provides a tiered approach towards risk assessment. The assessment starts with an initial screen of leachate and groundwater data against Environmental Standards. This ignores the potential effects of dilution, dispersion, and attenuation along the pathway between source and receptor.
- 4.4.6 A Tier 1 screening assessment has been undertaken to establish whether dissolved concentrations of contaminants are above threshold values.
- 4.4.7 Concentrations of leachable contaminants and concentrations of dissolved groundwater contaminants have been screened against criteria based on published water quality standards which included data from the following sources:
- Freshwater environmental quality standards (FEQS);
  - UK drinking water standards (UK DWS); and
  - World Health Organisation (WHO).
- 4.4.8 The underlying geology is classified as an unproductive aquifer characterised by soils and rock with low permeability and negligible significance for water supply or river base flow. The underlying London Clay and Lambeth Group act as a confining layer to the Principal Aquifer beneath them (Chalk). Given the significant thicknesses of vertically confining strata (e.g., London Clay and Lambeth Group) between the main potential source of contamination (Made Ground soils on the site) and the Principal Chalk aquifer (top chalk horizon proven 25.6mbgl

and Made Ground proven to a depth of 0.6mbgl), the underlying chalk aquifer is unlikely to be a receptor of the works taking place at the RSSP-WTS. Additionally, the maximum depth of construction proposed is likely to be no more than 3mbgl, as all of the equipment/structures required will be on shallow foundations (no piling). This further indicates that there is no pathway to the underlying chalk aquifer.

- 4.4.9 Drainage will be constructed as a management measure during construction. As the drainage that will be constructed outfalls into a surface water feature, it is assumed that surface water will be the most sensitive controlled waters receptor. As such, FEQS will be used to screen the leachate and groundwater contaminant concentrations.

### **Leachate**

- 4.4.10 Assessment of the concentrations of leachable contaminants from samples of the natural ground on site have shown that the recorded concentrations of all the analysed contaminants fall short of the published FEQS guideline values. This is with the exception of the recorded concentrations of leachable copper in TP050 (0.5mbgl and 3mbgl), which were recorded to be 2 and 1.6 µg/l respectively (FEQS of copper is 1 µg/l). However, it should be noted that this is the recorded concentration of total copper relative to the bioavailable FEQS threshold value and is therefore likely to be conservative. It was not possible to derive the actual concentration of the more ecotoxic bioavailable concentration of copper in soil leachate as the concentration of Dissolved Organic Carbon at the critical receptor was not recorded during the ground investigation.

### **Groundwater**

- 4.4.11 Assessment of the concentrations of contaminants in groundwater indicates that the majority of the analysed determinands have been recorded below their respective FEQS values and laboratory limits of detection. This is with the exception of manganese (5 out of 5 sample), nickel (8 out of 8 samples) and copper (5 out of 8 samples) which recorded several exceedances of the applied FEQS in groundwater, the number of which is indicated in the parenthesis. It should be noted that the recorded concentrations of all three of these contaminants represent the total concentrations and not the more ecotoxic bioavailable form, which is the basis of their FEQS values. Similar to soil leachate, the bioavailable form of each contaminant was not derived due to the absence of the necessary data recorded at the critical receptor. It is therefore anticipated that the exceedances are likely to be conservative.
- 4.4.12 However, given that the site will be effectively capped by hardstanding, and surface water will be captured in site drainage, it is considered that the potential for leachate generation will be relatively low. The ground investigation has not identified any laterally continuous groundwater body within the made ground or London Clay/Lambeth Group and as such definitive evidence of a pollutant linkage between the site and any nearby surface water receptors has not been identified.

## 5 Permitted Activities

### 5.1 Site Activities

- 5.1.1 The RSSP-WTS will receive Tunnel Boring Machine (TBM) spoil arisings via a conveyor system from West Ruislip Portal. This material will be temporarily stored and, if required, treated within the extent of the RSSP-WTS. The material arisings are to be treated with lime additives to ensure that they have suitable properties (geotechnical and chemical) for placement in the following areas: Ruislip Southern Sustainable Placement (RSSP) and Copthall Cutting East (Copthall backfill).
- 5.1.2 Once materials are treated at the RSSP-WTS facility, onward transport of treated materials will be via a return conveyor to Copthall backfill. Materials will be transported to RSSP to the south of the treatment area via dump trucks along haul roads.
- 5.1.3 In order to facilitate the operational requirements of the RSSP-WTS facility, the following activities will take place (reference to specific plant is also included):
- Machine conveyor belt transportation of excavated TBM arisings. This includes a conveyor for material input and material output;
  - Materials stockpiling and stockpile distribution for materials storage. Conveyor system will offload untreated TBM arisings into storage arisings bins. The dimensions of these bins are included within the Site Operating Plan;
  - Lime silo operation areas for treatment of TBM arisings. Delivery lorries will be utilised to deliver the lime and/or ggbs. The silos will be topped up using compressed air to blow the new materials in;
  - Site drainage measures, including an attenuation pond. Tractor bowser will be used to extract water from the attenuation pond for dust suppression measures;
  - Silt-buster and associated generator will be in operation 24/7; and
  - Vehicular transport of materials to the RSSP facility via haul road. Transporting mechanisms include 3 x loading shovels, 1 x 40t excavator and 5 x 30-35t ADT dumpers which will transport treated materials down to the RSSP facility and around the RSSP-WTS facility.
- 5.1.4 A detailed description of the site layout and operating procedures is provided in the Site Operating Plan (1MCo4-SCJ\_SDH-EV-PLN-SSo5\_SLo7-000016).
- 5.1.5 A site layout plan is included as 1MCo4-SCJ\_EN-SKE -SSo5\_SLo8-000048.



## 6 Site Conceptual Model

### 6.1 Introduction

- 6.1.1 A conceptual site model (CSM) describes the scenario in which the risks to human health and the environment are assessed. The following CSM describes the ground and surface conditions as defined by baseline assessment and the potential risks associated with the operation of the proposed facility. In particular, the CSM identifies and describes the sources of the potential contamination, the behaviour of the contamination in the environmental media such as soil and groundwater, surface water and air. It also identifies and characterises potential human health and environmental receptors, and plausible pathways.
- 6.1.2 The potential risks to human health and the environment have been considered in the context of a source-pathway-receptor (SPR) model of the site, identifying:
- The principal pollutant hazards associated with the site (the contaminants);
  - The principal receptors at risk from the identified hazards; and
  - The existence, or absence, of plausible pathways which may exist between the identified hazards and receptor.
- 6.1.3 For risks to be present at the site, all three elements (contaminant-pathway-receptor) of a plausible pollutant linkage must be present.

### 6.2 Potential Contamination Sources

- 6.2.1 The following potential sources of contamination have been identified from the review of the historic site uses, environmental information included in the Envirocheck report, review of intrusive investigations within the permit site boundary and assessment of the processes and materials being used at the proposed facility. These are summarised in Table 9.

Potential sources of contamination	Main potential contaminants associated with land use
<b>On Site</b>	
Made Ground	Metals, asbestos, total petroleum hydrocarbons (TPHs) and polycyclic aromatic hydrocarbons (PAHs). Trial pit logs from the ground investigation indicate that Made Ground was encountered up to 0.6mbgl and comprises predominantly cohesive materials with occasional anthropogenic inclusions. The encountered Made Ground is likely to reflect the site's historical preparation as a works area for HS2 works.
Relevant sources of contamination used during the site operation	Inert and non-hazardous waste soils imported to the site: Given the nature of these materials they are likely to pose a low contamination risk.

Potential sources of contamination	Main potential contaminants associated with land use
	<p>Non-Inert waste soils imported to the site: While the exact nature of these materials is currently unknown there remains a very slight possibility that during the tunnelling non-inert soils may be encountered (e.g., Made Ground). If unsuitable material is identified on the conveyor it will be segregated off the conveyor via a tipper unit. This material would be segregated from inert and non-hazardous material and into the non-inert stockpile.</p> <p>Additives used for the treatment of TBM arisings: The laboratory on site is primarily for earthworks and concrete testing and will hold a very limited amount of chemicals in as minor additives rather than in bulk. Lime will be stored on site as it will be used to improve soil characteristics.</p> <p>Fuels used in plant on-site: The site will utilise plant for management of materials, haulage vehicles and staff vehicles will be present on site, plant such as generators (dust) will use fuels. Fuel storage will not be undertaken within the permit boundary, rather on the Copthall South Office site adjacent. While re-fuelling will not be undertaken on site, there is potential for leaks or spills to occur (hydrocarbons and organic contamination).</p> <p>Hydraulic oils: As above, plant will be used across the site which will likely use hydraulic oils. While servicing will be undertaken elsewhere, there is potential for leaks or spills to occur on site (e.g., leaking diesel tanker).</p> <p>Lubricants: As above, plant will be used on site and lubricants will be used. Potential for leaks and spills during routine maintenance.</p>
<b>Off Site</b>	
Great Western & Great Central Joint Railway Line (directly north)	Metals, asbestos, lubricants, chlorinated solvents, and organics including TPHs and PAHs.
Harefield Oil Distribution Depot (230m north west)	Given the use of the site as an oil distribution depot and considering the nature of previous pollution incidents associated with the depot, this is likely to be a potential source of hydrocarbons, organic contamination, unknown oils, and unknown sewage.
Pharmaceutical Research Facility (260m north west)	Potential contaminants include organics (non-halogenated solvents, halogenated solvents, coal tar, fuel oils), inorganics and metals.
S-P Veterinary Holdings Ltd (330m north east)	A known site of radioactive wastes. This may be a potential source of radiological contaminants in groundwater.

Table 9 - Potential sources of contamination

## 6.3 Receptors

6.3.1 Potential receptors are summarised in Table 10.

Potential receptors to sources of contamination	
On Site	
Construction workers	Construction workers establishing the RSSP-WTS site area may come into contact with contaminants, albeit this will be temporary.
Site operatives – during RSSP-WTS operation	Site end users of the transfer facility, albeit the facility is a temporary operation and thus site workers will be transient in nature.
Maintenance workers	Maintenance workers that may be needed during the life of the facility.
Shallow groundwater	Understood to be formed from localised pockets within the cohesive deposits.
Off Site	
Site neighbours	See residential receptors in Table 3
Nearby surface water	Potential impact to controlled waters and ecological receptors, e.g., golf course field drains (240m west) and River Pinn (420m east).

Table 10 - Potential Receptors

## 6.4 Pathways

6.4.1 The pathways identified as possible linkages between potential sources of contamination and receptors are summarised in Table 11.

Potential pathways	
Ingestion of soil and dust	Given the proposed site hardstanding it is not likely that site users will come into contact with site soils and dust. Construction workers are likely to come into contact during the proposed works to the sites surface and drainage network and maintenance workers may do throughout the life of the facility.  Site workers and site neighbours may come into contact with soils and dust from waste soils
Dermal contact with soil and dust	Given the proposed site hardstanding, it is not likely that site users will come into contact with site soils and dust. Additionally, the majority of the interfaces with incoming TBM arisings will be dealt with via mechanical means, further reducing this risk.  Construction/maintenance workers may come into contact with potentially contaminated surface and drainage water whilst maintaining the drainage network.
Inhalation of dust, vapours, and gasses	Inhalation of dust from site soils is considered unlikely for site workers since the site will be provided with hardstanding. Inhalation of dust from waste soils is considered likely for site workers. Gases and vapour are not considered relevant given the nature of the waste operation.

Potential pathways	
	Site neighbours may be exposed to dust from site soils during the construction of the facility and waste soils during the operation phase. Construction workers and maintenance workers are likely to come into contact with dust.
Leachate generation and migration	Given the site proposals include hardstanding surfacing and surface water drainage, it is considered unlikely that leachate generation from infiltration of surface water will occur.
Lateral and vertical migration of contaminated groundwater.	The investigations to date have not identified a continuous groundwater body across the site. On this basis lateral migration of contamination is not considered likely. Leaks and spills on site are considered unlikely given that there will be no bulk storage of liquids or refuelling. Hardstanding and surface water drainage would intercept any surface spills and prevent them entering the underlying soils.
Surface water run off	The site will be provided with surface water drainage systems to collect and manage surface water. In addition, maintenance and operation plans will be in place to keep these systems fully operational and ensure that the site's surface is kept free of excessive build-up of spoil. Wheel wash plant will be provided to ensure roadways are not soiled.

Table 11 - Potential Pathways

## 6.5 Preliminary Risk Assessment

- 6.5.1 The purpose of this section is to determine whether the risks associated with the proposed facility are acceptable, and if not determine the need for further action.
- 6.5.2 The following method of risk evaluation is a qualitative method of interpreting the SPR linkages identified in the CSM and is based on guidance given in CIRIA C552 (CIRIA, 2001) and involves the classification of the magnitude of the potential consequence (severity) of a risk occurring and the magnitude of the probability of the risk occurring.
- 6.5.3 Once the consequence and probability have been classified these can then be compared to produce a risk category. The basis of this assessment has been extracted from CIRIA C552 (CIRIA, 2001).
- 6.5.4 The site (RSSP-WTS) will be capped with a concrete hardstanding and concrete haul roads will be implemented, as shown on 1MCo4-SCJ\_EN-SKE-SSo5\_SLo8-000048. All of the works proposed will be via machinery and as a result, personnel working on site are unlikely to come into direct contact with materials. There is currently no detailed design for the construction works at RSSP-WTS.
- 6.5.5 A review of the required facilities (Section 5) indicates that the larger structures are likely to be pre-cast formations and as a result there are no requirements for piling (e.g., storage arisings bin walls will be based on pre-cast units).

- 6.5.6 Drainage will be implemented as part of the scheme construction, which is anticipated to be placed at 1.5m below the existing ground level and is unlikely to be placed greater than 3m below the existing ground level.
- 6.5.7 The proposed drainage at the site comprises perimeter perforated filter drains surrounding the main works area, which will collect water running off concrete hardstanding areas. The drains connect at an eastern confluence of the main works area and will transport effluent into a carrier pipe which connects to an attenuation pond. An oil interceptor is located at the interface between the carrier pipe and the attenuation pond. Remaining effluent will enter the attenuation pond where it will remain until effluent gradually outfalls into a surface water course at a constant rate (16 l/s).

The identification and justification of the SPR linkages and the associated risk classification are presented in Table 12 below.

Potential Source	Potential Receptor	Possible Pathway	Probability	Consequence	Pre-Mitigation Risk	Proposed Mitigation / Comment	Post Mitigation Risk
On Site Made Ground	Construction Workers (A1 to A5)	A1 - Direct dermal	Likely	Mild	Moderate/Low	Construction of the facility may bring construction workers into direct contact with the site soils beneath the existing hardstanding. The recorded concentrations of chemical determinands in soils at the site indicate very low concentrations of tested chemical species within the soil, and no contamination has been identified (Section 4). Areas of localised contamination may be apparent where Made Ground is present in the subsurface and this poses a residual risk to construction workers. Contaminants associated with Made Ground include asbestos, metals, and hydrocarbons. It is considered that the risks to construction workers would be suitably mitigated by the provisions of safe working practices, site welfare provisions and the use of appropriate PPE. Post mitigation, the identified risks are considered to be low.	Low
		A2 - Ingestion	Likely	Mild	Moderate/Low		Low
		A3 - Inhalation of vapours /ground gas	Likely	Mild	Moderate/Low		Low
		A4 - Inhalation of dust	Likely	Mild	Moderate		Low
		A5 - Contact with contaminated groundwater	Likely	Mild	Moderate/Low		Low
	Site operatives – during operation (B1 to B9)	B1 - Direct dermal – site soils	Low likelihood	Mild	Low	Given the site will be provided with hard surfacing it is considered unlikely that site end users will come into direct contact with contaminated materials in the subsurface, including Made Ground.	Low
		B2 - Direct dermal – imported soils	Low likelihood	Mild	Low		Low

Potential Source	Potential Receptor	Possible Pathway	Probability	Consequence	Pre-Mitigation Risk	Proposed Mitigation / Comment	Post Mitigation Risk
		B3 - Ingestion – site soils	Low likelihood	Mild	Low	All of the works proposed will be via machinery and as a result, personnel working on site are unlikely to come into direct contact with materials. Site workers may inadvertently come into contact with imported materials to the site which are to be treated (inert and non-hazardous soils) but given their nature it is not considered likely that even if the dermal and ingestion pathways are realised that a significant risk to human health would be present. Site operatives will be provided with suitable PPE to limit accidental exposure.  No sources of ground gas have been identified with respect to the proposed development. Previous contamination data (Section 4) indicates insignificant levels of volatile contamination within the subsurface and given the nature of the imported inert and non-hazardous waste soils, soils with low volatiles content is anticipated (as such no vapours).  Precautions will be undertaken as part of the Dust Management Plan which further reduces inhalation risks, e.g. damping down to prevent dust generation particularly	Low
		B4 - Ingestion – imported soils	Low likelihood	Mild	Low		Low
		B5 - Inhalation of vapours / ground gas	Low	Low	Low		Low

Potential Source	Potential Receptor	Possible Pathway	Probability	Consequence	Pre-Mitigation Risk	Proposed Mitigation / Comment	Post Mitigation Risk
						during dry weather and road sweeping. Refer to Dust Management Plan Site haulage speeds will be controlled to minimise possible dust entrainment. Appropriate instruction will be issued to all vehicle drivers.	
		B6 - Inhalation of dust – site soils	Low likelihood	Mild	Low	Given the site will be provided with hard surfacing, it is considered unlikely that site end users will inhale dust from site soils, including Made Ground soils.	Low
		B7 - Inhalation of dust – imported soils	Likely	Medium	Moderate	Dust may be generated through the transfer of imported waste soils. Dust control measures as necessary e.g. damping down to prevent dust generation particularly during dry weather and road sweeping. Refer to Air Quality Management Plan	Low
		B8 - Contact with contaminated groundwater	Low likelihood	Mild	Low	It is not considered plausible that site workers will encounter site groundwater.	Low
		B9 - Dermal, ingestion, inhalation contact with	Low likelihood	Medium	Moderate/ Low	It is considered that there is a low probability of this occurring. However, in the event that spills, and leaks occur, site management systems (spill kits etc.) will be	Low



Potential Source	Potential Receptor	Possible Pathway	Probability	Consequence	Pre-Mitigation Risk	Proposed Mitigation / Comment	Post Mitigation Risk
		fuels, oils, lubricants from spills/leaks				implemented to mitigate the risk. Exposure would be short duration and additionally PPE would provide protection.	
	Maintenance Workers	C1 - Direct dermal	Low likelihood	Mild	Low	It is considered unlikely that maintenance workers will encounter site soils beneath the hardstanding and potential contamination beneath the site.	Low
		C2 - Ingestion	Low likelihood	Mild	Low		Low
		C3 - Inhalation of vapours /ground gas	Low likelihood	Mild	Low	As part of standard maintenance practices, maintenance workers will follow the appropriate provisions of safe working practices, which includes the use of appropriate PPE, which will act as further mitigation.	Low
		C4 - Inhalation of dust	Low likelihood	Mild	Low		Low
	Site Neighbours	D1 – Inhalation of contaminated dusts	Low likelihood	Medium	Moderate/Low	<p>Dusts will be generated as part of the waste transfer and treatment processes during the operational lifecycle of the facility.</p> <p>No residential areas have been identified within a 500m vicinity of the scheme boundary; however, dust generation may impact adjacent commercial/industrial users.</p> <p>Specific mitigations relating to dust management are covered as part of the Dust Environmental Management Plan (DEMP). This will ensure that all unacceptable risks with respect to dust</p>	Low

Potential Source	Potential Receptor	Possible Pathway	Probability	Consequence	Pre-Mitigation Risk	Proposed Mitigation / Comment	Post Mitigation Risk
						generation will be mitigated as part of the works.	
	Perched shallow groundwater within cohesive natural deposits	E1 - Leachate generation and migration within subsurface	Low likelihood	Mild	Low	The provision of hardstanding and surface water drainage is considered likely to reduce the potential for leachate generation from surface water infiltration.	Low
		E2 - Preferential pathway for migration through existing and historic service runs	Low likelihood	Mild	Low	Leachate analysis of the underling soils indicates limited contamination, and the intrusive investigation has indicated that generally groundwater within the cohesive deposits is in isolated pockets and as such significant lateral transport is considered unlikely given the lack of a driving head of infiltration.	Low
		E3 - Fuels, oils, lubricants from spills/leaks	Low likelihood	Medium	Moderate/Low	Surface cover and drainage will capture leaks and spills at surface. Management systems such as absorbent spill kits on site reduce the risk further. Vertical migration unlikely given geology beneath the site (London Clay).	Low
	Surface water (field drains)	F1 - Surface water run off	Likely	Mild	Moderate/Low	Surface water will be managed on site to prevent surface water runoff and as such this risk will be mitigated in the design.	Low

Potential Source	Potential Receptor	Possible Pathway	Probability	Consequence	Pre-Mitigation Risk	Proposed Mitigation / Comment	Post Mitigation Risk
		F2 - Direct discharge	Likely	Mild	Moderate/Low	The scheme drainage will outfall into an attenuation pond, which will then be discharged at a controlled rate within a surface water ditch. This will have to be compliant with an environmental permit, which will ensure that no unacceptable levels of chemicals/additives will be released into controlled waters.  Risks posed by dust generation to surface water courses is considered as part of the Dust Environmental Management Plan, including mitigations.	Low
		F3 - Dusts settling on watercourses	Low likelihood	Mild	Low		Low

Table 12 – Risk Category

## 6.6 Summary

6.6.1 The following section presents a summary of the preliminary risk assessment for the proposed facility:

- A low risk has been identified in relation to workers constructing the facility from Made Ground. Construction workers may come into contact with site soils during the construction phase of the proposed RSSP-WTS facility. Made Ground has been identified on site from previous ground investigations. No testing of the Made Ground has taken place during previous ground investigations, and as such the contaminative properties of the Made Ground are unknown. No evidence of visual/olfactory properties within the Made Ground were observed during the ground investigations. It is considered that the risks to these receptors (construction workers) can be suitably mitigated by provision of safe working practices, welfare, and suitable PPE;
- A low risk has been identified in relation to contamination from site won and imported soils with respect to site operatives. Prior to the operational phase of the RSSP-WTS facility, the site will be capped with hardstanding and as such there will be no pathway between site won soils and site operatives.

With respect to imported soils, all of the works proposed will be via machinery and as a result, site operatives are unlikely to come into direct contact with materials. Additionally, the material imported and treated at the site are likely to pertain to relatively low levels of contamination, by virtue of their inert and non-hazardous material classification;

- A low risk has been identified in relation to the identified surface water and groundwater receptors.

With respect to surface water, surface water run-off will be managed by a surface water drainage system that will be implemented as part of construction. This will ensure that any contaminated surface water run-off will be collected and treated within the system (e.g. via oil interceptor and subsequent attenuation pond), prior to outfall into a surface water ditch. Dust generated during the works will be managed through the mitigations presented in the Dust Environmental Management Plan (DEMP), to avoid the settling of dusts on surface water courses.

With respect to groundwater, the Conceptual Site Model indicates that there is no plausible pollutant linkage between the main potential source of contamination (Made Ground) and the underlying Principal Chalk aquifer beneath the site. This is due to the fact that the top of the chalk horizon has been proven at 25mbgl, and all of the operational requirements of the RSSP-WTS facility will be on shallow foundations (no piling), with proposed construction depths unlikely to exceed 3mbgl. Additionally, the significant thicknesses of low permeability strata (e.g. London Clay and Lambeth Group) will act as a vertically confining layer for any groundwater movement.

The provision of hardstanding will ensure that there is no leachate generated from underlying soils during construction/operation, which may impact isolated pockets of perched groundwater in the underlying cohesive deposits.

- A low risk has been identified for site operatives and site neighbours from the inhalation of dust from imported waste soils.

6.6.2 In summary, it is not considered that the proposed facility will have an impact on the environment provided suitable mitigation and management procedures are in place and maintained throughout the duration of the works.

## 7 Conclusions

- 7.1.1 The Site Condition Report (SCR) is based on a desk study review of the historical land use, a review of previous investigations undertaken at the site and details of the proposed operations at the facility.
- 7.1.2 The SCR indicates that the ground conditions beneath the RSSP-WTS site comprise intermittent topsoil/localised Made Ground from surface level, below which is a significant thickness of predominantly low permeability clays associated with the following formations: London Clay, Harwich, Lower Mottled Clay and Upnor. Occasional lenses of sand are noted throughout the sequences of clay within the above formations. The Seaford Chalk Formation is located at significant depth below the surface (proven at 25mbgl).
- 7.1.3 The review of the site history indicates that site was occupied by agricultural fields separated by hedgerows throughout the majority of the site history, until the HS2 compound was established from circa 2014. The site history indicates that there is a relatively low risk of contamination posed by site-won soils, however Made Ground containing anthropogenic materials have been encountered during previous ground investigations. The contaminative properties of this are unknown as the Made Ground was not subject to chemical testing.
- 7.1.4 Based on the history of the site and previous ground investigations, there is a residual risk of contamination being present and plausible pathways to potential receptors have been identified.
- 7.1.5 Following construction of the proposed development, the principal potential receptors for existing and future contamination are considered to comprise construction workers, site operatives, shallow groundwater, and surface water.
- 7.1.6 The proposed development includes a number of measures which will limit the risks posed by contamination. This includes containment measures for material transfer areas which will limit the potential for spills or leaching of pollutants from the site directly to the underlying soils. Additionally, the working area will be capped with hardstanding, further limiting potential impacts to ground quality, and alternatively, blocking the pathway between site operatives/construction workers and site-won soils. The surface water drainage system will collect run-off from the storage and treatment area, roads, and other areas of hard impermeable surfacing, reducing the potential risks to controlled waters.
- 7.1.7 Appropriate health, safety and environmental mitigation and monitoring measures are proposed as part of the development.
- 7.1.8 It is considered that the permitted activities to be undertaken at the site will not present a significant risk of pollution or harm due to the permitted activities and containment measures provided by site infrastructure and the implementation of a planned preventative maintenance programme.

## References

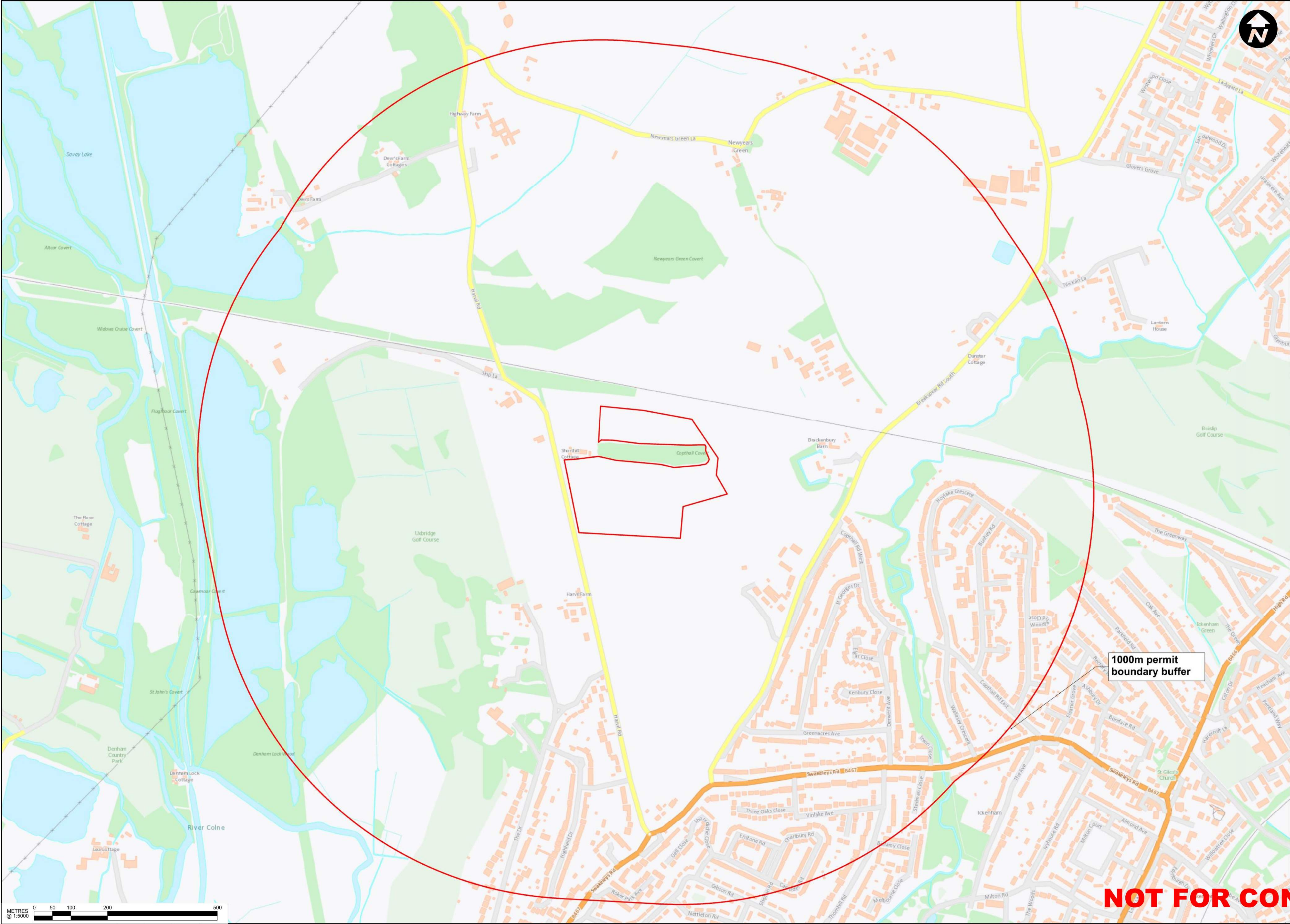
The following documents have been referred to:

Reference No.	Title	Document Number
R1	Environment Agency - Environmental Permitting Regulations: Guidance for Applicants H5, Site Condition Report - Guidance and Templates, 2013	N/A
R2	Ordnance Survey Website. [Accessed: May 2021] <a href="https://www.ordnancesurvey.co.uk">OS Maps: online mapping and walking, running and cycling routes (ordnancesurvey.co.uk)</a>	N/A
R3	British Geological Survey GeoIndex. [Accessed: May 2021] <a href="https://www.bgs.ac.uk">GeoIndex - British Geological Survey (bgs.ac.uk)</a>	N/A
R4	DEFRA MAGIC website. [Accessed: May 2021] <a href="https://www.defra.gov.uk">Magic Map Application (defra.gov.uk)</a>	N/A
R5	Fugro GeoServices Limited, 2017. 1G089 Draft Factual Report West Ruislip	1G089-FES-GT-REP-000-000007
R6	Environment Agency, 2006, Remedial Targets Methodology – hydrogeological risk assessment for land contamination, Bristol.	N/A

Table 13 - References

# Drawings





HS2 Asset ID	HS2-000026Q53	Suitability	S0
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**Legend**

RSSP-WTS Permit Boundary

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G3. Chainages are expressed in metres and measured from Euston Station.  
G4. Global coordinates are indicated by Eastings (E) and Northings (N) to the project snake grid.  
G5. All angles are in degrees (0°-360°) unless noted otherwise.  
G6. Dimensions are not to be scaled from the drawing.

**HS2**

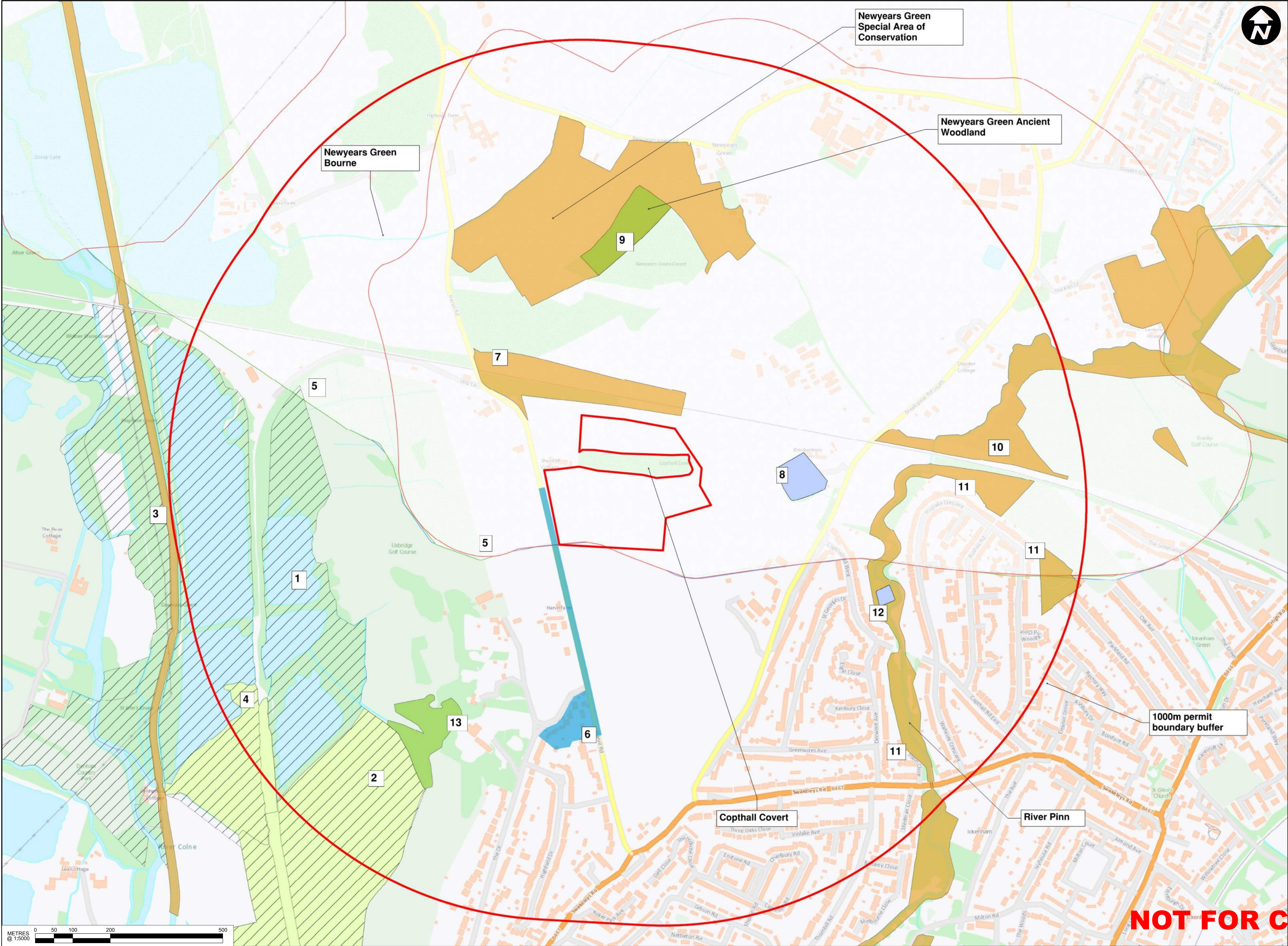
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	Design Stage	Detailed Design		Discipline/Function					Landscaping
	Drawing Title	Ruislip Sustainable Placements-Southern		Drawn	---	Checked	---	Approved	---
		WTS Permit Application		Date	21/07/21	Scale	1:5000	Size	A1
		Site Location Plan							
Creator/Originator	SCS JV - Design House		D-SCR1		Drawing No.			Rev.	
				1MC04-SCJ_SDH-LS-DGA-SS05_SL07-711018			P01.1		





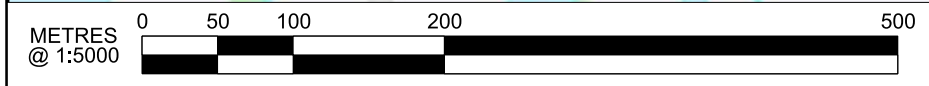
Legend

- RSSP-WTS Permit Boundary
- ENV\_NATEN\_AncientWoodland\_Ply
- ENV\_GIGLL\_SitesImpNatureConservation\_AoD
- ScheduledMonuments
- ENV\_GIGLL\_SpecialAreasConservation\_NonStatutorySites
- Local\_Nature\_Reserves\_England\_Natural\_England
- Sites\_of\_Special\_Scientific\_Interest\_England\_Natural\_England

Source\_Protection\_Zones\_Merged

- 1
- 2
- 3
- 3c
- 4

Note: Numbers on the drawing corresponds to the receptor reference provided in Table 3 of document 1MC04-SCJ\_SDH-EV-REP-SS05\_SL07-000009



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P01	RSSP-WTS Submission	PK 22/07/21	GB 23/07/21			
P02	RSSP-WTS_Final Submission	PK 23/09/21	NP 23/09/21			
Rev	Description	Drawn	Checked	Con App	HS2 App	Scale with caution as distortion can occur.

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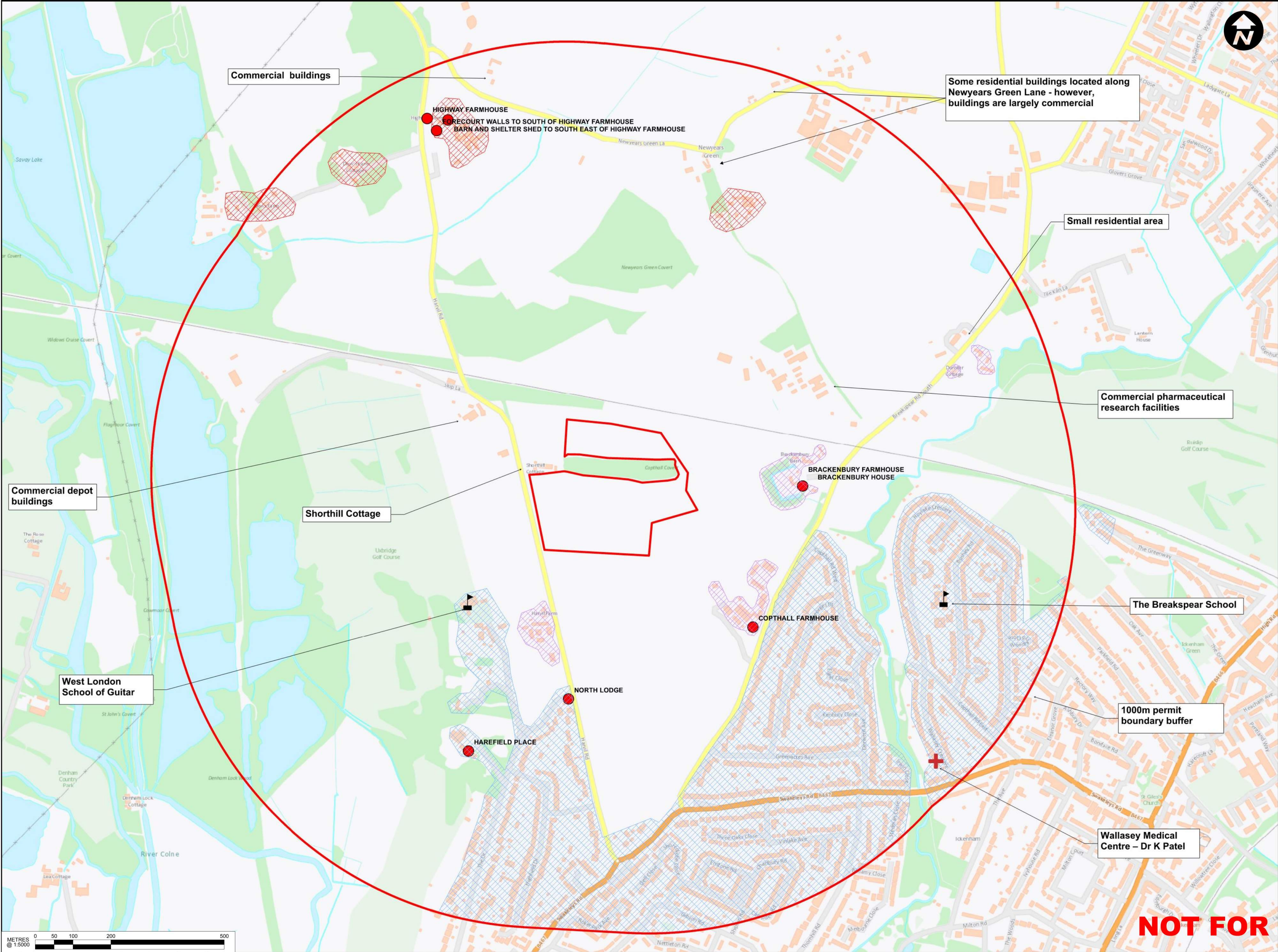
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Zone	Ruislip Sustainable Placements	
Design Stage	Detailed Design	
Drawing Title	Ruislip Sustainable Placements-Southern WTS Permit Application Environmental Receptors Plan D-SCR2	

Project/Contract HS2-MWCC SCS Sector S2		
Discipline/Function Landscaping		
Drawn P Kluz	Checked N.Phelps	Approved M.Gaby
Date 24/09/21	Scale 1:5000	Size A1
Drawing No. 1MC04-SCJ_SDH-LS-DGA-SS05_SL07-711019		Rev. P02





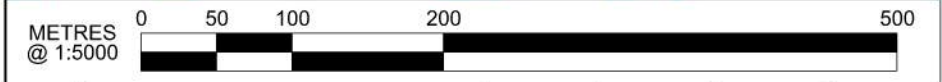
HS2 Asset ID

HS2-000026Q53

Suitability

S0

- Legend**
- RSSP-WTS Permit Boundary
  - Schools
  - + GP Surgeries
  - Ickenham Farm Buildings
  - Ruislip and Newyears Green Residential and Farm Buildings
  - Ickenham Residential
  - Listed\_Buildings



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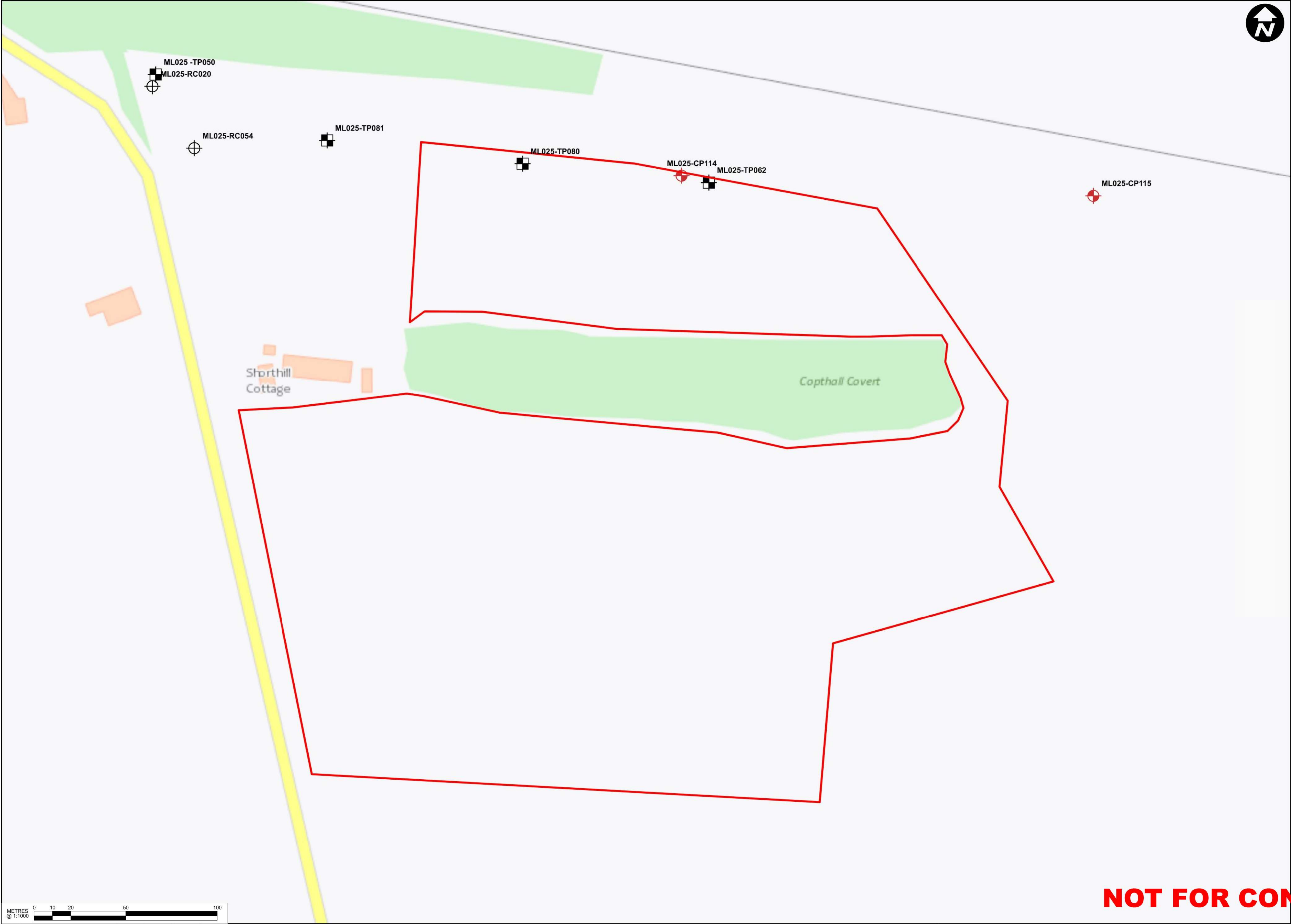
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Drawing Title	Ruislip Sustainable Placements-Southern			Discipline/Function		
	WTS Permit Application			Landscaping		
	Human Receptors Plan			Drawn	Checked	Approved
	D-SCR3			---	---	---
	Date	Scale	Size			
	21/07/21	1:5000	A1			
	Drawing No.			Rev.		
	1MC04-SCJ_SDH-LS-DGA-SS05_SL07-711020			P01.1		





HS2 Asset ID	HS2-000026Q53	Suitability	S0
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- Type**
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P01.1									<div>GI Location Plan</div>	<div>Drawing No.</div> <div>1MC04-SCJ_SDH-LS-DGA-SS05_SL07-711021</div>	<div>Rev.</div> <div>P01.1</div>	
Rev	Description	Drawn	Checked	Con App	HS2 App	Scale with caution as distortion can occur.						

# Appendix A - Envirocheck Report

## Envirocheck<sup>®</sup> Report:

### Datasheet

#### Order Details:

**Order Number:**

140402875\_1\_1

**Customer Reference:**

256905

**National Grid Reference:**

506350, 187450

**Slice:**

A

**Site Area (Ha):**

14.32

**Search Buffer (m):**

1000

#### Site Details:

Site at 506720, 187630

#### Client Details:

Mr J Bottomley  
Ove Arup & Partners International Ltd  
13 Fitzroy Street  
London  
W1T 4BQ

Report Section	Page Number
Summary	-
Agency & Hydrological	1
Waste	36
Hazardous Substances	-
Geological	42
Industrial Land Use	54
Sensitive Land Use	60
Data Currency	62
Data Suppliers	69
Useful Contacts	70

#### 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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#### Report Version v53.0

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
<b>Agency &amp; Hydrological</b>					
BGS Groundwater Flooding Susceptibility	pg 1	Yes	Yes	Yes	n/a
Contaminated Land Register Entries and Notices	pg 2				1
Discharge Consents	pg 2		1	3	2
Prosecutions Relating to Controlled Waters			n/a	n/a	n/a
Enforcement and Prohibition Notices					
Integrated Pollution Controls					
Integrated Pollution Prevention And Control	pg 4				2
Local Authority Integrated Pollution Prevention And Control					
Local Authority Pollution Prevention and Controls	pg 4		2	2	
Local Authority Pollution Prevention and Control Enforcements					
Nearest Surface Water Feature	pg 5	Yes			
Pollution Incidents to Controlled Waters	pg 5		4	8	13
Prosecutions Relating to Authorised Processes	pg 9				1
Registered Radioactive Substances	pg 9		1		
River Quality	pg 9	1			3
River Quality Biology Sampling Points	pg 10				1
River Quality Chemistry Sampling Points					
Substantiated Pollution Incident Register	pg 10		2	1	12
Water Abstractions	pg 12			14	2 (*28)
Water Industry Act Referrals					
Groundwater Vulnerability	pg 23	Yes	n/a	n/a	n/a
Drift Deposits			n/a	n/a	n/a
Bedrock Aquifer Designations	pg 23	Yes	n/a	n/a	n/a
Superficial Aquifer Designations	pg 23	Yes	n/a	n/a	n/a
Source Protection Zones	pg 23	3		1	1
Extreme Flooding from Rivers or Sea without Defences	pg 24	Yes	Yes	n/a	n/a
Flooding from Rivers or Sea without Defences	pg 27	Yes	Yes	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 27	4	11	19	34



Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
<b>Waste</b>					
BGS Recorded Landfill Sites	pg 36				1
Historical Landfill Sites	pg 36		1	2	2
Integrated Pollution Control Registered Waste Sites					
Licensed Waste Management Facilities (Landfill Boundaries)					
Licensed Waste Management Facilities (Locations)	pg 37		1	2	7
Local Authority Landfill Coverage		1	n/a	n/a	n/a
Local Authority Recorded Landfill Sites					
Potentially Infilled Land (Non-Water)	pg 39		1	1	3
Potentially Infilled Land (Water)	pg 40				2
Registered Landfill Sites					
Registered Waste Transfer Sites	pg 40		2		3
Registered Waste Treatment or Disposal Sites					
<b>Hazardous Substances</b>					
Control of Major Accident Hazards Sites (COMAH)					
Explosive Sites					
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)
<b>Geological</b>					
BGS 1:625,000 Solid Geology	pg 42	Yes	n/a	n/a	n/a
BGS Estimated Soil Chemistry	pg 42	Yes	Yes		Yes
BGS Recorded Mineral Sites	pg 43		1	1	11
BGS Urban Soil Chemistry	pg 46	Yes	Yes	Yes	Yes
BGS Urban Soil Chemistry Averages	pg 50	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	pg 50				1
Non Coal Mining Areas of Great Britain	pg 50	Yes	Yes	n/a	n/a
Potential for Collapsible Ground Stability Hazards	pg 50	Yes		n/a	n/a
Potential for Compressible Ground Stability Hazards	pg 51	Yes	Yes	n/a	n/a
Potential for Ground Dissolution Stability Hazards	pg 51	Yes	Yes	n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 51	Yes	Yes	n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 52	Yes	Yes	n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 52	Yes	Yes	n/a	n/a
Radon Potential - Radon Affected Areas	pg 52	Yes	n/a	n/a	n/a
Radon Potential - Radon Protection Measures			n/a	n/a	n/a
<b>Industrial Land Use</b>					
Contemporary Trade Directory Entries	pg 54		8	4	25
Fuel Station Entries	pg 57		1		
Points of Interest - Commercial Services	pg 57		1	5	6
Points of Interest - Education and Health					
Points of Interest - Manufacturing and Production	pg 58		7	2	2
Points of Interest - Public Infrastructure	pg 59		1	1	2
Points of Interest - Recreational and Environmental					
Gas Pipelines					
Underground Electrical Cables					

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
<b>Sensitive Land Use</b>					
Ancient Woodland	pg 60		1		1
Areas of Adopted Green Belt	pg 60	3			3
Areas of Unadopted Green Belt					
Areas of Outstanding Natural Beauty					
Environmentally Sensitive Areas					
Forest Parks					
Local Nature Reserves	pg 60			1	2
Marine Nature Reserves					
National Nature Reserves	pg 60				1
National Parks					
Nitrate Sensitive Areas					
Nitrate Vulnerable Zones	pg 60	1			
Ramsar Sites					
Sites of Special Scientific Interest	pg 61				1
Special Areas of Conservation					
Special Protection Areas					
World Heritage Sites					

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<b>BGS Groundwater Flooding Susceptibility</b> Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A8SW (SE)	0	1	507200 187000
	<b>BGS Groundwater Flooding Susceptibility</b> Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A8NE (E)	0	1	507350 187200
	<b>BGS Groundwater Flooding Susceptibility</b> Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A8NE (E)	0	1	507400 187200
	<b>BGS Groundwater Flooding Susceptibility</b> Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A8NE (E)	6	1	507450 187250
	<b>BGS Groundwater Flooding Susceptibility</b> Flooding Type: Limited Potential for Groundwater Flooding to Occur	A10SE (NW)	24	1	505950 187650
	<b>BGS Groundwater Flooding Susceptibility</b> Flooding Type: Limited Potential for Groundwater Flooding to Occur	A10NE (NW)	41	1	506150 187750
	<b>BGS Groundwater Flooding Susceptibility</b> Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A10NE (NW)	51	1	505950 187700
	<b>BGS Groundwater Flooding Susceptibility</b> Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A8NE (E)	68	1	507500 187300
	<b>BGS Groundwater Flooding Susceptibility</b> Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A10SW (W)	97	1	505850 187600
	<b>BGS Groundwater Flooding Susceptibility</b> Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A10SE (W)	138	1	505900 187450
	<b>BGS Groundwater Flooding Susceptibility</b> Flooding Type: Potential for Groundwater Flooding to Occur at Surface	(E)	179	1	507550 187450
	<b>BGS Groundwater Flooding Susceptibility</b> Flooding Type: Limited Potential for Groundwater Flooding to Occur	A11NW (N)	186	1	506250 187800
	<b>BGS Groundwater Flooding Susceptibility</b> Flooding Type: Limited Potential for Groundwater Flooding to Occur	A10SW (W)	211	1	505750 187450
	<b>BGS Groundwater Flooding Susceptibility</b> Flooding Type: Limited Potential for Groundwater Flooding to Occur	A10SW (W)	247	1	505700 187500
	<b>BGS Groundwater Flooding Susceptibility</b> Flooding Type: Limited Potential for Groundwater Flooding to Occur	A10SW (W)	258	1	505700 187450
	<b>BGS Groundwater Flooding Susceptibility</b> Flooding Type: Limited Potential for Groundwater Flooding to Occur	A10NW (NW)	262	1	505800 187850
	<b>BGS Groundwater Flooding Susceptibility</b> Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A10NW (W)	272	1	505700 187700
	<b>BGS Groundwater Flooding Susceptibility</b> Flooding Type: Limited Potential for Groundwater Flooding to Occur	A7NW (SW)	276	1	506250 187200
	<b>BGS Groundwater Flooding Susceptibility</b> Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A10SW (W)	278	1	505700 187450
	<b>BGS Groundwater Flooding Susceptibility</b> Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A10SW (W)	345	1	505600 187550
	<b>BGS Groundwater Flooding Susceptibility</b> Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A10SW (W)	396	1	505550 187500
	<b>BGS Groundwater Flooding Susceptibility</b> Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A15SW (N)	440	1	506400 188050

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<b>BGS Groundwater Flooding Susceptibility</b> Flooding Type: Limited Potential for Groundwater Flooding to Occur	A9SE (W)	452	1	505500 187450
	<b>BGS Groundwater Flooding Susceptibility</b> Flooding Type: Limited Potential for Groundwater Flooding to Occur	A6NW (W)	453	1	505700 187200
	<b>BGS Groundwater Flooding Susceptibility</b> Flooding Type: Limited Potential for Groundwater Flooding to Occur	A10SW (W)	457	1	505550 187350
	<b>BGS Groundwater Flooding Susceptibility</b> Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A15SW (N)	458	1	506200 188100
	<b>BGS Groundwater Flooding Susceptibility</b> Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A6NW (SW)	473	1	505750 187150
	<b>BGS Groundwater Flooding Susceptibility</b> Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A9SE (W)	480	1	505500 187400
	<b>BGS Groundwater Flooding Susceptibility</b> Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A6NW (W)	485	1	505550 187300
	<b>BGS Groundwater Flooding Susceptibility</b> Flooding Type: Limited Potential for Groundwater Flooding to Occur	A9SE (W)	496	1	505450 187500
1	<b>Contaminated Land Register Entries and Notices</b> Location: New Years Green Lane Landfill Site Notice Type: Contaminated Land Record Of Determination Reference: Not Supplied Dated: 26th May 2011 Positional Accuracy: Positioned by the supplier Boundary Quality: Good	A15SW (N)	502	2	506490 188024
2	<b>Discharge Consents</b> Operator: Uxbridge Skip Hire Ltd. Property Type: WASTE COLLECTION/TREATMENT/DISPOSAL/MATERIALS RECOVERY Location: Uxbridge Skip Hire, Skip Lane, Harvil Road, Harefield, Middlesex Authority: Environment Agency, Thames Region Catchment Area: Not Given Reference: CNTM.1219 Permit Version: 1 Effective Date: 24th December 1993 Issued Date: 24th December 1993 Revocation Date: Not Supplied Discharge Type: Trade Effluent Discharge-Site Drainage Discharge: Freshwater Stream/River Environment: Receiving Water: Tiles Ditch <b>Status: New Consent, by Application (Water Resources Act 1991, Section 88)</b> Positional Accuracy: Located by supplier to within 100m	A10SE (W)	219	3	505950 187350
3	<b>Discharge Consents</b> Operator: Affinity Water Limited Property Type: WTW/WATER COLLECTION/TREATMENT/SUPPLY Location: Ickenham Pumping Station Breakspear Road South Ruislip Greater London Ub9 6ls Authority: Environment Agency, Thames Region Catchment Area: Colne Reference: Eprub3899nu Permit Version: 1 Effective Date: 10th January 2014 Issued Date: 10th January 2014 Revocation Date: 18th January 2016 Discharge Type: Trade Discharge - Process Water Discharge: Freshwater Stream/River Environment: Receiving Water: A Trib Of The River Pinn <b>Status: Surrendered under EPR 2010</b> Positional Accuracy: Located by supplier to within 10m	A12SE (E)	313	3	507505 187505

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
4	<b>Discharge Consents</b> Operator: Thames Water Utilities Ltd Property Type: PUMPING STATION ON SEWERAGE NETWORK (WATER COMPANY) Location: Dewes Farm, Harefielddewes Farmharefield Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Temp.0833 Permit Version: 2 Effective Date: 3rd September 2010 Issued Date: 3rd September 2010 Revocation Date: 13th October 2015 Discharge Type: Sewage Discharges - Pumping Station - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: New Years Green Bourne <b>Status: Surrendered under EPR 2010</b> Positional Accuracy: Located by supplier to within 100m	A9NE (W)	496	3	505500 187800
4	<b>Discharge Consents</b> Operator: Thames Water Utilities Ltd Property Type: PUMPING STATION ON SEWERAGE NETWORK (WATER COMPANY) Location: Dewes Farm, Harefielddewes Farmharefield Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Temp.0833 Permit Version: 1 Effective Date: 2nd November 1989 Issued Date: 2nd November 1989 Revocation Date: 2nd September 2010 Discharge Type: Sewage Discharges - Pumping Station - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: New Years Green Bourne <b>Status: Temporary Consents (Water Act 1989, Section 113)</b> Positional Accuracy: Located by supplier to within 100m	A9NE (W)	496	3	505500 187800
5	<b>Discharge Consents</b> Operator: Pioneer Willment Concrete Limited Property Type: MAKING OF GLASS/CERAMICS/CEMENT/CUTTING STONE Location: Mineral Workings, Harvil Road, Harefield, Middlesex Authority: Environment Agency, Thames Region Catchment Area: Not Given Reference: CNTM.0832 Permit Version: 1 Effective Date: 30th April 1993 Issued Date: 30th April 1993 Revocation Date: 13th June 2017 Discharge Type: Trade Discharge - Mineral Workings Discharge: Freshwater Stream/River Environment: Receiving Water: New Years Green Bourne <b>Status: Surrendered under EPR 2010</b> Positional Accuracy: Located by supplier to within 100m	A5NE (W)	589	3	505500 187195
6	<b>Discharge Consents</b> Operator: The Occupier Property Type: DOMESTIC PROPERTY (SINGLE) (INCL FARM HOUSE) Location: The Bungalow, Harvil Road, Harefield, Middx Authority: Environment Agency, Thames Region Catchment Area: Not Given Reference: Ctcu.1302 Permit Version: 1 Effective Date: 31st January 1983 Issued Date: 31st January 1983 Revocation Date: 1st October 1996 Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Into Land Environment: Receiving Water: Deposits Ovr Read'G Bed Strata <b>Status: Lapsed (under Environment Act 1995, Schedule 23)</b> Positional Accuracy: Located by supplier to within 100m	A14NE (N)	722	3	506000 188380
7	<b>Prosecutions Relating to Controlled Waters</b> Location: Harefield Oil Terminal, Harvil Road, Harefield, UXBRIDGE, Middlesex, UB9 6JL Prosecution Text: EA Data 17/02/1999, Causing polluting matter to enter an unnamed tributary of the River Frays. Prosecution Act: WRA91 Hearing Date: 17th February 1999 Verdict: Guilty Fine: 5000 Cost: 808.5 Positional Accuracy: Manually positioned to the road within the address or location	A7NW (SW)	183	3	506235 187301

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
8	<b>Prosecutions Relating to Controlled Waters</b> Location: Pylon Farm, New Years Green Lane, Harefield, UXBRIDGE, Middlesex, UB9 6LX Prosecution Text: EA Data 03/08/1999 (Ref 144/99), Two offences of polluting the Mad Bess Brook with slurry and food waste. Prosecution Act: WRA91 s85(1)(6) Hearing Date: 26th July 1999 Verdict: Guilty Fine: 6000 Cost: 850 Positional Accuracy: Manually positioned to the address or location	A16SW (NE)	713	3	507084 188058
9	<b>Integrated Pollution Prevention And Control</b> Name: West London Composting Limited Location: High View Farm Epr/Up3893ec, New Years Green Lane, Harefield, Middlesex, UB9 6LX Authority: Environment Agency - South East Region, North East Thames Area Permit Reference: NP3034WL Original Permit Ref: Np3034wl Effective Date: 9th October 2015 <b>Status: Superseded By Variation</b> Application Type: Application App. Sub Type: New Positional Accuracy: Automatically positioned to the address Activity Code: 5.4 A(1) b) (i) Activity Description: RECOVERY OR A MIX OF RECOVERY AND DISPOSAL OF > 50 T/D NON-HAZARDOUS WASTE (> 100 T/D IF ONLY AD) INVOLVING BIOLOGICAL TREATMENT Primary Activity: Y	A16SW (NE)	734	3	507150 188058
10	<b>Integrated Pollution Prevention And Control</b> Name: West London Composting Limited Location: Highview Farm, New Years Green Lane, Harefield, Uxbridge, UB9 6LX Authority: Environment Agency - South East Region, North East Thames Area Permit Reference: DP3032RK Original Permit Ref: Np3034wl Effective Date: 9th June 2016 <b>Status: Effective</b> Application Type: Variation App. Sub Type: Standard Positional Accuracy: Automatically positioned to the address Activity Code: 5.4 A(1) b) (i) Activity Description: RECOVERY OR A MIX OF RECOVERY AND DISPOSAL OF > 50 T/D NON-HAZARDOUS WASTE (> 100 T/D IF ONLY AD) INVOLVING BIOLOGICAL TREATMENT Primary Activity: Y	A16SE (NE)	740	3	507216 188044
11	<b>Local Authority Pollution Prevention and Controls</b> Name: Pitman Moore Location: Breakspear Road South, HAREFIELD, Middlesex, UB9 Authority: London Borough of Hillingdon, Environmental Health Department Permit Reference: B1/07 Dated: Not Supplied Process Type: Local Authority Air Pollution Control Description: PG5/1 Clinical waste incineration processes under 1 tonne an hour <b>Status: Authorisation revokedRevoked</b> Positional Accuracy: Manually positioned within the geographical locality	A8NE (E)	112	4	507358 187341
12	<b>Local Authority Pollution Prevention and Controls</b> Name: Thames Materials Ltd. Location: Skip Lane, Uxbridge, Middlesex, Ub9 6jw Authority: London Borough of Hillingdon, Environmental Health Department Permit Reference: EPA/B2/17 Dated: Not Supplied Process Type: Local Authority Pollution Prevention and Control Description: PG3/16 Mobile screening and crushing processes <b>Status: Permitted</b> Positional Accuracy: Located by supplier to within 10m	A10SE (W)	146	4	506083 187386
13	<b>Local Authority Pollution Prevention and Controls</b> Name: Thames Materials Ltd. Location: Skip Lane, Off Harvil Road, Harefield, Middlesex, Ub9 6jw Authority: London Borough of Hillingdon, Environmental Health Department Permit Reference: EPA/B2/17 Dated: Not Supplied Process Type: Local Authority Pollution Prevention and Control Description: PG3/16 Mobile screening and crushing processes <b>Status: Permitted</b> Positional Accuracy: Located by supplier to within 100m	A10SW (W)	353	4	505622 187439



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
14	<b>Local Authority Pollution Prevention and Controls</b> Name: Hanson Premix Denham Location: Skip Lane, Harvil Road, Ickenham, UXBRIDGE, Middlesex, UB9 Authority: London Borough of Hillingdon, Environmental Health Department Permit Reference: EPA/B2/07 Dated: Not Supplied Process Type: Local Authority Air Pollution Control Description: PG3/1Blending, packing, loading and use of bulk cement <b>Status: Authorised</b> Positional Accuracy: Manually positioned to the address or location	A10SW (W)	444	4	505554 187371
	<b>Nearest Surface Water Feature</b>	A8NE (E)	0	-	507357 187171
15	<b>Pollution Incidents to Controlled Waters</b> Property Type: Not Given Location: ICKENHAM Authority: Environment Agency, Thames Region Pollutant: General Note: Not Supplied Incident Date: 20th October 1997 Incident Reference: THN11997030577 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	A8NW (E)	28	3	507100 187200
16	<b>Pollution Incidents to Controlled Waters</b> Property Type: Not Given Location: ICKENHAM Authority: Environment Agency, Thames Region Pollutant: Agricultural: General Note: Confirmed As A Pollution Incident Incident Date: 31st March 1994 Incident Reference: N1940125 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	A12SE (E)	181	3	507400 187400
17	<b>Pollution Incidents to Controlled Waters</b> Property Type: Not Given Location: Harefield Place Authority: Environment Agency, Thames Region Pollutant: Unknown Sewage Note: Confirmed As A Pollution Incident Incident Date: Not Supplied Incident Reference: N1910622 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	A6NE (SW)	224	3	506100 187300
18	<b>Pollution Incidents to Controlled Waters</b> Property Type: Not Given Location: On Golf Course, RUISLIP Authority: Environment Agency, Thames Region Pollutant: Unknown Sewage Note: Not Supplied Incident Date: 8th August 1996 Incident Reference: N1960426 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	A8SW (SE)	249	3	507000 187000
19	<b>Pollution Incidents to Controlled Waters</b> Property Type: Not Given Location: HAREFIELD Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed As A Pollution Incident Incident Date: 21st July 1993 Incident Reference: N1930251 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	A6NE (SW)	253	3	506000 187300



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
19	<b>Pollution Incidents to Controlled Waters</b> Property Type: Not Given Location: Uxbridge Golf Course Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Yes Incident Date: 21st July 1991 Incident Reference: N1910396 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	A6NE (SW)	258	3	506000 187295
20	<b>Pollution Incidents to Controlled Waters</b> Property Type: Not Given Location: HAREFIELD Authority: Environment Agency, Thames Region Pollutant: Unknown Sewage Note: Yes Incident Date: 23rd May 1991 Incident Reference: N1910269 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	A6NE (W)	282	3	505900 187300
21	<b>Pollution Incidents to Controlled Waters</b> Property Type: Not Given Location: Harefield Oil Terminal Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed As A Pollution Incident Incident Date: 23rd August 1990 Incident Reference: N1900487 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	A6NE (SW)	319	3	506100 187200
21	<b>Pollution Incidents to Controlled Waters</b> Property Type: Not Given Location: Harvil Road, HAREFIELD Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Not Supplied Incident Date: 25th June 1996 Incident Reference: N1960329 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	A6NE (SW)	323	3	506105 187195
21	<b>Pollution Incidents to Controlled Waters</b> Property Type: Not Given Location: Harefield Oil Terminal Authority: Environment Agency, Thames Region Pollutant: Unknown Sewage Note: Confirmed As A Pollution Incident Incident Date: 10th March 1992 Incident Reference: N1920138 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	A6NE (SW)	324	3	506100 187195
22	<b>Pollution Incidents to Controlled Waters</b> Property Type: Not Given Location: New Years Green Authority: Environment Agency, Thames Region Pollutant: Chemicals - Unknown Note: Not Supplied Incident Date: 25th November 1998 Incident Reference: THNE1998041224 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	A10NW (NW)	404	3	505600 187800

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
23	<b>Pollution Incidents to Controlled Waters</b> Property Type: Not Given Location: ICKENHAM Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed As A Pollution Incident Incident Date: 30th December 1993 Incident Reference: N1930401 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	A8SE (SE)	463	3	507250 186700
24	<b>Pollution Incidents to Controlled Waters</b> Property Type: Not Given Location: HAREFIELD Authority: Environment Agency, Thames Region Pollutant: Miscellaneous - Natural Note: Confirmed As A Pollution Incident Incident Date: 9th January 1994 Incident Reference: N1940008 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	A11NE (NE)	512	3	506600 188000
25	<b>Pollution Incidents to Controlled Waters</b> Property Type: Not Given Location: ICKENHAM Authority: Environment Agency, Thames Region Pollutant: Miscellaneous - Unknown Note: Confirmed As A Pollution Incident Incident Date: 3rd August 1992 Incident Reference: N1920444 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	A4NE (SE)	544	3	507300 186600
26	<b>Pollution Incidents to Controlled Waters</b> Property Type: Not Given Location: Newyears Green, HAREFIELD Authority: Environment Agency, Thames Region Pollutant: Chemicals - Unknown Note: Confirmed incident Incident Date: 17th February 1999 Incident Reference: THNE1999041998 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	A14SE (N)	555	3	506100 188200
27	<b>Pollution Incidents to Controlled Waters</b> Property Type: Not Given Location: Newyears Green Lane, RUISLIP Authority: Environment Agency, Thames Region Pollutant: Storm Sewage Note: Not Supplied Incident Date: 24th March 1997 Incident Reference: THN11997029223 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	A11NE (NE)	573	3	506800 188000
28	<b>Pollution Incidents to Controlled Waters</b> Property Type: Not Given Location: ICKENHAM Authority: Environment Agency, Thames Region Pollutant: Miscellaneous - Unknown Note: Confirmed As A Pollution Incident Incident Date: 2nd May 1995 Incident Reference: N1950225 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	A4NW (SE)	573	3	507200 186600

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
29	<b>Pollution Incidents to Controlled Waters</b> Property Type: Not Given Location: EASTCOTE Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed As A Pollution Incident Incident Date: 1st March 1993 Incident Reference: N1930072 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	A4NE (SE)	640	3	507300 186500
30	<b>Pollution Incidents to Controlled Waters</b> Property Type: Not Given Location: HAREFIELD Authority: Environment Agency, Thames Region Pollutant: Miscellaneous - Natural Note: Confirmed As A Pollution Incident Incident Date: 21st August 1995 Incident Reference: N1950460 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	A9SE (W)	649	3	505300 187650
31	<b>Pollution Incidents to Controlled Waters</b> Property Type: Not Given Location: HAREFIELD Authority: Environment Agency, Thames Region Pollutant: Miscellaneous - Unknown Note: Yes Incident Date: 25th October 1990 Incident Reference: N1900591 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	A5NE (W)	665	3	505400 187200
32	<b>Pollution Incidents to Controlled Waters</b> Property Type: Not Given Location: HAREFIELD Authority: Environment Agency, Thames Region Pollutant: Agricultural: General Note: Yes Incident Date: 23rd January 1991 Incident Reference: N1910025 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	A16SW (NE)	698	3	506900 188100
33	<b>Pollution Incidents to Controlled Waters</b> Property Type: Not Given Location: ICKENHAM Authority: Environment Agency, Thames Region Pollutant: Miscellaneous - Unknown Note: Confirmed As A Pollution Incident Incident Date: 7th July 1992 Incident Reference: N1920399 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	A4NE (SE)	736	3	507300 186400
34	<b>Pollution Incidents to Controlled Waters</b> Property Type: Not Given Location: DENHAM Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed incident Incident Date: 8th April 1999 Incident Reference: THNE1999042557 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	A9SE (W)	745	3	505200 187600

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
35	<b>Pollution Incidents to Controlled Waters</b> Property Type: Not Given Location: ICKENHAM Authority: Environment Agency, Thames Region Pollutant: Miscellaneous - Unknown Note: Confirmed As A Pollution Incident Incident Date: 14th September 1993 Incident Reference: N1930301 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	A4SE (SE)	802	3	507400 186300
36	<b>Pollution Incidents to Controlled Waters</b> Property Type: Not Given Location: ICKENHAM Authority: Environment Agency, Thames Region Pollutant: Unknown Sewage Note: Yes Incident Date: Not Supplied Incident Reference: N1900430 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	A4SE (SE)	831	3	507300 186300
37	<b>Prosecutions Relating to Authorised Processes</b> Location: Civic Amenity Centre, New Years Green Lane, Harefield, UXBRIDGE, Middlesex, UB9 6LX Prosecution Text: EA Data 01/07/1999 (Ref 119/99), Depositing waste on 8th February 1999. (Spotted by an EA officer dumping a roll of linoleum and a door.) Prosecution Act: EPA90 s33(1a) Hearing Date: 21st June 1999 Verdict: Guilty Fine: 150 Costs: 240 Positional Accuracy: Manually positioned to the address or location	A14SE (N)	600	3	506107 188245
38	<b>Registered Radioactive Substances</b> Name: S-P Veterinary Holdings Ltd Location: Breakspear Road South, Harefield, UXBRIDGE, Middlesex, UB9 6LS Authority: Environment Agency, Thames Region Permit Reference: AC5518 Dated: 31st March 1991 Process Type: Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7) Description: Authorisation under RSA <b>Status: Authorisation either revoked or cancelledCancelled</b> Positional Accuracy: Manually positioned to the address or location	A12SW (E)	51	3	507081 187364
	<b>River Quality</b> Name: Pinn GQA Grade: River Quality E Reach: Cannon Bk - Frays Estimated Distance (km): 9.5 Flow Rate: Flow less than 0.31 cumecs Flow Type: River Year: 2000	A8SE (SE)	0	3	507222 186988
	<b>River Quality</b> Name: Colne GQA Grade: River Quality B Reach: Guc (Harefield Reach) - Misbourne Estimated Distance (km): 6.8 Flow Rate: Flow less than 5 cumecs Flow Type: River Year: 2000	A5NE (W)	653	3	505342 187258
	<b>River Quality</b> Name: New Years Green Bourne GQA Grade: River Quality F Reach: Head Of Gravel Pit - Frays Estimated Distance (km): 1.2 Flow Rate: Flow less than 0.31 cumecs Flow Type: River Year: 2000	A9SE (W)	670	3	505276 187543

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<b>River Quality</b> Name: Guc (Denham Reach) GQA Grade: River Quality D Reach: Source - New Denham Strm Estimated Distance (km): 5.3 Flow Rate: Flow greater than 80 cumecs Flow Type: Canal Year: 2000	A5NW (W)	863	3	505131 187294
39	<b>River Quality Biology Sampling Points</b> Name: Frays River Reach: Head Of Gravel Pit To Frays Estimated Distance: 1.20 Positional Accuracy: Located by supplier to within 10m Year: 1990 GQA Grade: River Quality Biology GQA Grade F - Bad Year: 1995 GQA Grade: River Quality Biology GQA Grade B - Good Year: 2000 GQA Grade: River Quality Biology GQA Grade B - Good Year: 2002 GQA Grade: River Quality Biology GQA Grade B - Good Year: 2003 GQA Grade: River Quality Biology GQA Grade B - Good Year: 2004 GQA Grade: River Quality Biology GQA Grade B - Good Year: 2005 GQA Grade: River Quality Biology GQA Grade A - Very Good Year: 2006 GQA Grade: River Quality Biology GQA Grade A - Very Good Year: 2007 GQA Grade: River Quality Biology GQA Grade A - Very Good Year: 2008 GQA Grade: River Quality Biology GQA Grade B - Good Year: 2009 GQA Grade: River Quality Biology GQA Grade B - Good	A9SE (W)	664	3	505290 187470
40	<b>Substantiated Pollution Incident Register</b> Authority: Environment Agency - Thames Region, North East Area Incident Date: 6th May 2014 Incident Reference: 1232924 Water Impact: Category 4 - No Impact Air Impact: Category 2 - Significant Incident Land Impact: Category 4 - No Impact Positional Accuracy: Located by supplier to within 10m Pollutant: Other Pollutant	A10SE (W)	152	3	506042 187393
41	<b>Substantiated Pollution Incident Register</b> Authority: Environment Agency - Thames Region, North East Area Incident Date: 6th January 2005 Incident Reference: 285784 Water Impact: Category 2 - Significant Incident Air Impact: Category 4 - No Impact Land Impact: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 10m Pollutant: Contaminated Water: Suspended Solids	A12SE (E)	155	3	507250 187420
42	<b>Substantiated Pollution Incident Register</b> Authority: Environment Agency - Thames Region, North East Area Incident Date: 21st April 2006 Incident Reference: 392510 Water Impact: Category 4 - No Impact Air Impact: Category 4 - No Impact Land Impact: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 10m Pollutant: Asbestos Waste Pollutant: Specific Waste Materials: Contaminated Construction & Demolition Material & Waste	A11NE (NE)	495	3	506824 187911
43	<b>Substantiated Pollution Incident Register</b> Authority: Environment Agency - Thames Region, North East Area Incident Date: 5th July 2015 Incident Reference: 1351818 Water Impact: Category 2 - Significant Incident Air Impact: Category 4 - No Impact Land Impact: Category 4 - No Impact Positional Accuracy: Located by supplier to within 10m Pollutant: Pollutant Not Identified: Not Identified	A4NE (SE)	534	3	507267 186621

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
44	<b>Substantiated Pollution Incident Register</b> Authority: Environment Agency - Thames Region, North East Area Incident Date: 10th August 2005 Incident Reference: 336801 Water Impact: Category 4 - No Impact Air Impact: Category 2 - Significant Incident Land Impact: Category 4 - No Impact Positional Accuracy: Located by supplier to within 10m Pollutant: Atmospheric Pollutants And Effects: Effects On Humans	A12NE (NE)	631	3	507271 187912
45	<b>Substantiated Pollution Incident Register</b> Authority: Environment Agency - Thames Region, North East Area Incident Date: 23rd June 2011 Incident Reference: 896353 Water Impact: Category 4 - No Impact Air Impact: Category 2 - Significant Incident Land Impact: Category 4 - No Impact Positional Accuracy: Located by supplier to within 10m Pollutant: Atmospheric Pollutants And Effects: Other Atmospheric Pollutant Or Effect	A12NW (NE)	669	3	507191 187978
45	<b>Substantiated Pollution Incident Register</b> Authority: Environment Agency - Thames Region, North East Area Incident Date: 9th September 2010 Incident Reference: 821092 Water Impact: Category 4 - No Impact Air Impact: Category 2 - Significant Incident Land Impact: Category 4 - No Impact Positional Accuracy: Located by supplier to within 10m Pollutant: Atmospheric Pollutants And Effects: Other Atmospheric Pollutant Or Effect	A12NW (NE)	688	3	507175 188003
45	<b>Substantiated Pollution Incident Register</b> Authority: Environment Agency - Thames Region, North East Area Incident Date: 16th September 2010 Incident Reference: 823033 Water Impact: Category 4 - No Impact Air Impact: Category 2 - Significant Incident Land Impact: Category 4 - No Impact Positional Accuracy: Located by supplier to within 10m Pollutant: Atmospheric Pollutants And Effects: Other Atmospheric Pollutant Or Effect	A12NW (NE)	698	3	507172 188014
46	<b>Substantiated Pollution Incident Register</b> Authority: Environment Agency - Thames Region, North East Area Incident Date: 30th June 2008 Incident Reference: 600583 Water Impact: Category 4 - No Impact Air Impact: Category 2 - Significant Incident Land Impact: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 10m Pollutant: Atmospheric Pollutants And Effects: Dust Pollutant: Inert : Construction / Demolition Material	A7SW (S)	673	3	506359 186752
47	<b>Substantiated Pollution Incident Register</b> Authority: Environment Agency - Thames Region, North East Area Incident Date: 9th March 2009 Incident Reference: 659752 Water Impact: Category 4 - No Impact Air Impact: Category 2 - Significant Incident Land Impact: Category 4 - No Impact Positional Accuracy: Located by supplier to within 10m Pollutant: Atmospheric Pollutants And Effects: Other Atmospheric Pollutant Or Effect	A16SW (NE)	723	3	507173 188040
48	<b>Substantiated Pollution Incident Register</b> Authority: Environment Agency - Thames Region, North East Area Incident Date: 21st April 2015 Incident Reference: 1330791 Water Impact: Category 4 - No Impact Air Impact: Category 2 - Significant Incident Land Impact: Category 4 - No Impact Positional Accuracy: Located by supplier to within 10m Pollutant: Atmospheric Pollutants And Effects: Dust	A6SE (S)	727	3	506160 186756
49	<b>Substantiated Pollution Incident Register</b> Authority: Environment Agency - Thames Region, North East Area Incident Date: 24th March 2009 Incident Reference: 664114 Water Impact: Category 4 - No Impact Air Impact: Category 2 - Significant Incident Land Impact: Category 4 - No Impact Positional Accuracy: Located by supplier to within 10m Pollutant: Atmospheric Pollutants And Effects: Other Atmospheric Pollutant Or Effect	A16SE (NE)	732	3	507224 188033



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
50	<b>Substantiated Pollution Incident Register</b> Authority: Environment Agency - Thames Region, North East Area Incident Date: 6th March 2009 Incident Reference: 659488 Water Impact: Category 4 - No Impact Air Impact: Category 2 - Significant Incident Land Impact: Category 4 - No Impact Positional Accuracy: Located by supplier to within 10m Pollutant: Atmospheric Pollutants And Effects: Other Atmospheric Pollutant Or Effect	A16SE (NE)	807	3	507300 188088
50	<b>Substantiated Pollution Incident Register</b> Authority: Environment Agency - Thames Region, North East Area Incident Date: 10th December 2008 Incident Reference: 639838 Water Impact: Category 4 - No Impact Air Impact: Category 2 - Significant Incident Land Impact: Category 4 - No Impact Positional Accuracy: Located by supplier to within 10m Pollutant: Organic Chemicals/Products: Other Organic Chemical Or Product	A16SE (NE)	808	3	507312 188085
51	<b>Substantiated Pollution Incident Register</b> Authority: Environment Agency - Thames Region, North East Area Incident Date: 4th March 2016 Incident Reference: 1416015 Water Impact: Category 2 - Significant Incident Air Impact: Category 4 - No Impact Land Impact: Category 4 - No Impact Positional Accuracy: Located by supplier to within 10m Pollutant: Contaminated Water: Suspended Solids	A16SE (NE)	954	3	507210 188270
52	<b>Water Abstractions</b> Operator: Affinity Water Limited Licence Number: 28/39/28/0480 Permit Version: 105 Location: Ickenham Pumping Station 'J2' Authority: Environment Agency, Thames Region Abstraction: Public Water Supply: Potable Water Supply - Direct 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 2017 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A12SE (E)	273	3	507350 187512
52	<b>Water Abstractions</b> Operator: Affinity Water Limited Licence Number: 28/39/28/0480 Permit Version: 104 Location: Ickenham Pumping Station 'J2' Authority: Environment Agency, Thames Region Abstraction: Public Water Supply: Potable Water Supply - Direct 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: 28th March 2014 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A12SE (E)	273	3	507350 187512
53	<b>Water Abstractions</b> Operator: Affinity Water Limited Licence Number: 28/39/28/0480 Permit Version: 103 Location: Ickenham Pumping Station 'J' Authority: Environment Agency, Thames Region Abstraction: Public Water Supply: Potable Water Supply - Direct 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: 14th November 2012 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A12SE (E)	277	3	507400 187500

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
53	<b>Water Abstractions</b> Operator: Veolia Water Central Limited Licence Number: 28/39/28/0480 Permit Version: 102 Location: Ickenham Pumping Station 'J' Authority: Environment Agency, Thames Region Abstraction: Public Water Supply: Potable Water Supply - Direct 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: 20th July 2009 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A12SE (E)	277	3	507400 187500
53	<b>Water Abstractions</b> Operator: Three Valleys Water Plc Licence Number: 28/39/28/0480 Permit Version: 101 Location: Ickenham Pumping Station 'J' Authority: Environment Agency, Thames Region Abstraction: Public Water Supply: Potable Water Supply - Direct 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: 5th September 2003 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A12SE (E)	277	3	507400 187500
53	<b>Water Abstractions</b> Operator: Three Valleys Water Plc Licence Number: 28/39/28/0480 Permit Version: 100 Location: Ickenham Pumping Station 'J' Authority: Environment Agency, Thames Region Abstraction: Public Water Supply: Potable Water Supply - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): 18184 Yearly Rate (m3): 1 Details: Annual Abstraction Total Aggregated To Another Licence For Quantity Purposes. Chalk (Undifferentiate) Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 21st January 1998 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A12SE (E)	277	3	507400 187500
53	<b>Water Abstractions</b> Operator: Affinity Water Limited Licence Number: 28/39/28/0480 Permit Version: 105 Location: Ickenham Pumping Station 'J3' Authority: Environment Agency, Thames Region Abstraction: Public Water Supply: Potable Water Supply - Direct 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 2017 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A12SE (E)	283	3	507363 187518



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
53	<b>Water Abstractions</b> Operator: Affinity Water Limited Licence Number: 28/39/28/0480 Permit Version: 104 Location: Ickenham Pumping Station 'J3' Authority: Environment Agency, Thames Region Abstraction: Public Water Supply: Potable Water Supply - Direct 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: 28th March 2014 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A12SE (E)	283	3	507363 187518
54	<b>Water Abstractions</b> Operator: Affinity Water Limited Licence Number: 28/39/28/0480 Permit Version: 103 Location: Ickenham Pumping Station 'K' Authority: Environment Agency, Thames Region Abstraction: Public Water Supply: Potable Water Supply - Direct 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: 14th November 2012 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A12SE (E)	307	3	507500 187500
54	<b>Water Abstractions</b> Operator: Veolia Water Central Limited Licence Number: 28/39/28/0480 Permit Version: 102 Location: Ickenham Pumping Station 'K' Authority: Environment Agency, Thames Region Abstraction: Public Water Supply: Potable Water Supply - Direct 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: 20th July 2009 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A12SE (E)	307	3	507500 187500
54	<b>Water Abstractions</b> Operator: Three Valleys Water Plc Licence Number: 28/39/28/0480 Permit Version: 101 Location: Ickenham Pumping Station 'K' Authority: Environment Agency, Thames Region Abstraction: Public Water Supply: Potable Water Supply - Direct 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: 5th September 2003 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A12SE (E)	307	3	507500 187500

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
54	<b>Water Abstractions</b> Operator: Three Valleys Water Plc Licence Number: 28/39/28/0480 Permit Version: 100 Location: Ickenham Pumping Station 'K' Authority: Environment Agency, Thames Region Abstraction: Public Water Supply: Potable Water Supply - Direct 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: 21st January 1998 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A12SE (E)	307	3	507500 187500
54	<b>Water Abstractions</b> Operator: Affinity Water Limited Licence Number: 28/39/28/0480 Permit Version: 105 Location: Ickenham Pumping Station 'J1' Authority: Environment Agency, Thames Region Abstraction: Public Water Supply: Potable Water Supply - Direct 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 2017 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A12SE (E)	323	3	507491 187520
54	<b>Water Abstractions</b> Operator: Affinity Water Limited Licence Number: 28/39/28/0480 Permit Version: 104 Location: Ickenham Pumping Station 'J1' Authority: Environment Agency, Thames Region Abstraction: Public Water Supply: Potable Water Supply - Direct 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: 28th March 2014 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A12SE (E)	323	3	507491 187520
55	<b>Water Abstractions</b> Operator: Hanson Quarry Products Europe Ltd Licence Number: 28/39/28/0509 Permit Version: 101 Location: Wet Pit At Harvil Road, South Harefield 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: Harvil Road, South Harefield Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 13th August 2012 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A5NE (W)	586	3	505500 187200

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
55	<b>Water Abstractions</b> Operator: Hanson Quarry Products Europe Ltd Licence Number: 28/39/28/0509 Permit Version: 100 Location: Wet Pit At Harvil Road, South Harefield 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): 1091 Yearly Rate (m3): 272760 Details: Harvil Road, South Harefield Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 10th November 2000 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A5NE (W)	586	3	505500 187200
	<b>Water Abstractions</b> Operator: Buckinghamshire Golf Co Ltd Licence Number: 28/39/28/0491 Permit Version: 100 Location: River Colne At Denham Court, Denham, Bucks Authority: Environment Agency, Thames Region Abstraction: Golf Courses: Make-Up Or Top Up Water Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Denham Court, Denham, Bucks Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 3rd September 1992 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A9SW (W)	1060	3	504900 187400
	<b>Water Abstractions</b> Operator: Buckinghamshire Golf Co Ltd Licence Number: 28/39/28/0491 Permit Version: 100 Location: River Colne At Denham Court Golf Club, Denham Authority: Environment Agency, Thames Region Abstraction: Golf Courses: Make-Up Or Top Up Water Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): 3000 Yearly Rate (m3): 1095000 Details: Denham Court, Denham, Bucks Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 3rd September 1992 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A5SW (SW)	1226	3	505000 186800
	<b>Water Abstractions</b> Operator: London Borough Of Hillingdon Licence Number: 28/39/28/0577 Permit Version: 1 Location: Swakeleys Lake, Ickenham- Borehole Authority: Environment Agency, Thames Region Abstraction: Municipal Grounds: 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: Swakeleys Lake, Ickenham, Middlesex Authorised Start: 01 April Authorised End: 30 September Permit Start Date: 2nd April 2003 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(SE)	1230	3	507310 185880

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<b>Water Abstractions</b> Operator: Mr J J Palmer Licence Number: 28/39/28/0275 Permit Version: 100 Location: Well At Denham Court Nursery, Denham, Middlesex Authority: Environment Agency, Thames Region Abstraction: Horticulture And Nurseries: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): 45 Yearly Rate (m3): 340 Details: Denham Court Nursery, Denham, Middlesex Authorised Start: 01 April Authorised End: 30 September Permit Start Date: 13th February 1967 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A5SW (W)	1247	3	504900 186900
	<b>Water Abstractions</b> Operator: Mr J J Palmer Licence Number: 28/39/28/0275 Permit Version: 100 Location: Well At Denham Court Nursery, Denham, Middlesex Authority: Environment Agency, Thames Region Abstraction: Horticulture and Nurseries: Spray Irrigation - Spray Irrigation Definition Order Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Denham Court Nursery, Denham, Middlesex Authorised Start: 01 October Authorised End: 30 September Permit Start Date: 13th February 1967 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A5SW (W)	1247	3	504900 186900
	<b>Water Abstractions</b> Operator: Affinity Water Limited Licence Number: 28/39/28/0480 Permit Version: 105 Location: Blackford Pumping Station ' I1' Authority: Environment Agency, Thames Region Abstraction: Public Water Supply: Potable Water Supply - Direct 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 2017 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A13NW (NW)	1354	3	504881 188450
	<b>Water Abstractions</b> Operator: Affinity Water Limited Licence Number: 28/39/28/0480 Permit Version: 104 Location: Blackford Pumping Station ' I1' Authority: Environment Agency, Thames Region Abstraction: Public Water Supply: Potable Water Supply - Direct 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: 28th March 2014 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A13NW (NW)	1354	3	504881 188450

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<b>Water Abstractions</b> Operator: Affinity Water Limited Licence Number: 28/39/28/0480 Permit Version: 105 Location: Blackford Pumping Station 'I2' Authority: Environment Agency, Thames Region Abstraction: Public Water Supply: Potable Water Supply - Direct 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 2017 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(NW)	1377	3	504839 188430
	<b>Water Abstractions</b> Operator: Affinity Water Limited Licence Number: 28/39/28/0480 Permit Version: 104 Location: Blackford Pumping Station 'I2' Authority: Environment Agency, Thames Region Abstraction: Public Water Supply: Potable Water Supply - Direct 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: 28th March 2014 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(NW)	1377	3	504839 188430
	<b>Water Abstractions</b> Operator: Affinity Water Limited Licence Number: 28/39/28/0480 Permit Version: 103 Location: Blackford Pumping Station 'I' Authority: Environment Agency, Thames Region Abstraction: Public Water Supply: Potable Water Supply - Direct 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: 14th November 2012 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	(NW)	1393	3	504800 188400
	<b>Water Abstractions</b> Operator: Veolia Water Central Limited Licence Number: 28/39/28/0480 Permit Version: 102 Location: Blackford Pumping Station 'I' Authority: Environment Agency, Thames Region Abstraction: Public Water Supply: Potable Water Supply - Direct 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: 20th July 2009 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	(NW)	1393	3	504800 188400

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<b>Water Abstractions</b> Operator: Three Valleys Water Plc Licence Number: 28/39/28/0480 Permit Version: 101 Location: Blackford Pumping Station 'I' Authority: Environment Agency, Thames Region Abstraction: Public Water Supply: Potable Water Supply - Direct 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: 5th September 2003 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	(NW)	1393	3	504800 188400
	<b>Water Abstractions</b> Operator: Three Valleys Water Plc Licence Number: 28/39/28/0480 Permit Version: 100 Location: Blackford Pumping Station 'I' Authority: Environment Agency, Thames Region Abstraction: Public Water Supply: Potable Water Supply - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): 20457 Yearly Rate (m3): 1 Details: Annual Abstraction Total Aggregated To Another Licence For Quantity Purposes. Chalk (Undifferentiate) Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 21st January 1998 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(NW)	1393	3	504800 188400
	<b>Water Abstractions</b> Operator: Affinity Water Limited Licence Number: 28/39/28/0480 Permit Version: 103 Location: Blackford Pumping Station 'L' Authority: Environment Agency, Thames Region Abstraction: Public Water Supply: Potable Water Supply - Direct 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: 14th November 2012 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	(NW)	1449	3	504800 188500
	<b>Water Abstractions</b> Operator: Veolia Water Central Limited Licence Number: 28/39/28/0480 Permit Version: 102 Location: Blackford Pumping Station 'L' Authority: Environment Agency, Thames Region Abstraction: Public Water Supply: Potable Water Supply - Direct 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: 20th July 2009 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	(NW)	1449	3	504800 188500

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<b>Water Abstractions</b> Operator: Three Valleys Water Plc Licence Number: 28/39/28/0480 Permit Version: 101 Location: Blackford Pumping Station 'L' Authority: Environment Agency, Thames Region Abstraction: Public Water Supply: Potable Water Supply - Direct 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: 5th September 2003 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	(NW)	1449	3	504800 188500
	<b>Water Abstractions</b> Operator: Three Valleys Water Plc Licence Number: 28/39/28/0480 Permit Version: 100 Location: Blackford Pumping Station 'L' Authority: Environment Agency, Thames Region Abstraction: Public Water Supply: Potable Water Supply - Direct 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: 21st January 1998 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(NW)	1449	3	504800 188500
	<b>Water Abstractions</b> Operator: Affinity Water Limited Licence Number: 28/39/28/0480 Permit Version: 105 Location: Blackford Pumping Station 'I3' Authority: Environment Agency, Thames Region Abstraction: Public Water Supply: Potable Water Supply - Direct 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 2017 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(NW)	1463	3	504830 188563
	<b>Water Abstractions</b> Operator: Affinity Water Limited Licence Number: 28/39/28/0480 Permit Version: 104 Location: Blackford Pumping Station 'I3' Authority: Environment Agency, Thames Region Abstraction: Public Water Supply: Potable Water Supply - Direct 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: 28th March 2014 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(NW)	1463	3	504830 188563



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<b>Water Abstractions</b> Operator: Harleyford Aggregates Limited Licence Number: 28/39/28/0037 Permit Version: 101 Location: Wet Gravel Pit At Harefield Moor 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): 582 Yearly Rate (m3): 166419 Details: Harefield Moor, Middlesex Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st October 1999 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(NW)	1628	3	504860 188840
	<b>Water Abstractions</b> Operator: Anoopam Mission Ltd Licence Number: 28/39/28/0230 Permit Version: 100 Location: Well At The Lea, Western Avenue, Denham Authority: Environment Agency, Thames Region Abstraction: Hotels; Public Houses And Conference Centres: Drinking; Cooking; Sanitary; Washing; (Small Garden) Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): 11 Yearly Rate (m3): 4159 Details: The Lea, Western Avenue, Denham Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 20th June 1979 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A1SW (SW)	1705	3	505100 186100
	<b>Water Abstractions</b> Operator: Tarmac Aggregates Limited Licence Number: 28/39/28/0052 Permit Version: 104 Location: Broadwater, Harefield Moor-Wet Gravel Pit 'A' 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: Broadwater, Harefield Moor, Middlesex Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 26th October 2015 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	(NW)	1927	3	504700 189100
	<b>Water Abstractions</b> Operator: Lafarge Aggregates Limited Licence Number: 28/39/28/0052 Permit Version: 103 Location: Broadwater, Harefield Moor-Wet Gravel Pit 'A' 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: Broadwater, Harefield Moor, Middlesex Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 26th September 2013 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	(NW)	1927	3	504700 189100



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<b>Water Abstractions</b> Operator: Lafarge Aggregates Limited Licence Number: 28/39/28/0052 Permit Version: 102 Location: Broadwater, Harefield Moor-Wet Gravel Pit 'A' 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: Broadwater, Harefield Moor, Middlesex Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 13th November 2003 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	(NW)	1927	3	504700 189100
	<b>Water Abstractions</b> Operator: Lafarge Aggregates Limited Licence Number: 28/39/28/0052 Permit Version: 101 Location: Wet Gravel Pit 'A' At Broadwater, Harefield Moor 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: Broadwater, Harefield Moor Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 2nd January 2001 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	(NW)	1927	3	504700 189100
	<b>Water Abstractions</b> Operator: Lafarge Redland Aggregates Limited Licence Number: 28/39/28/0052 Permit Version: 100 Location: Wet Gravel Pit 'A' At Broadwater, Harefield Moor 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): 1541 Yearly Rate (m3): 53188 Details: Broadwater, Harefield Heath Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st June 1998 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	(NW)	1927	3	504700 189100
	<b>Water Abstractions</b> Operator: Roussel Laboratories Ltd Licence Number: 28/39/28/0468 Permit Version: 100 Location: Borehole At North Orbital Road, Denham Authority: Environment Agency, Thames Region Abstraction: Research Non-University/College: Drinking, Cooking, Sanitary, Washing, (Small Garden) Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): 205 Yearly Rate (m3): 4546 Details: North Orbital Road, Denham Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 10th May 1988 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	(NW)	1976	3	504300 188700

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<b>Water Abstractions</b> Operator: Roussel Laboratories Ltd Licence Number: 28/39/28/0468 Permit Version: 100 Location: Borehole At North Orbital Road, Denham Authority: Environment Agency, Thames Region Abstraction: Research Non-University/College: 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: North Orbital Road, Denham Authorised Start: 01 October Authorised End: 30 September Permit Start Date: 10th May 1988 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(NW)	1976	3	504300 188700
	<b>Groundwater Vulnerability</b> 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	A8NW (SE)	0	3	507053 187136
	<b>Groundwater Vulnerability</b> Soil Classification: Soils of Low Leaching Potential - Soils in which pollutants are unlikely to penetrate the soil layer because water movement is largely horizontal or they have large ability to attenuate diffuse pollutants. Lateral flow from these soils contribute to groundwater recharge elsewhere in the catchment Map Sheet: Sheet 39 West London Scale: 1:100,000	A8NW (E)	0	3	507135 187226
	<b>Groundwater Vulnerability</b> Soil Classification: Not classified Map Sheet: Sheet 39 West London Scale: 1:100,000	A11SW (NE)	0	3	506355 187450
	<b>Groundwater Vulnerability</b> Soil Classification: Soils of Low Leaching Potential - Soils in which pollutants are unlikely to penetrate the soil layer because water movement is largely horizontal or they have large ability to attenuate diffuse pollutants. Lateral flow from these soils contribute to groundwater recharge elsewhere in the catchment Map Sheet: Sheet 39 West London Scale: 1:100,000	A11SW (W)	0	3	506211 187501
	<b>Drift Deposits</b> None				
	<b>Bedrock Aquifer Designations</b> Aquifer Designation: Secondary Aquifer - A	A8NW (SE)	0	1	507053 187125
	<b>Bedrock Aquifer Designations</b> Aquifer Designation: Secondary Aquifer - A	A11SW (SW)	0	1	506247 187374
	<b>Bedrock Aquifer Designations</b> Aquifer Designation: Unproductive Strata	A11SW (NE)	0	1	506355 187450
	<b>Superficial Aquifer Designations</b> Aquifer Designation: Secondary Aquifer - A	A8SE (SE)	0	1	507217 186999
56	<b>Source Protection Zones</b> Name: Various Source: Environment Agency, Head Office Reference: Not Supplied Type: Zone III (Total Catchment): The total area needed to support the discharge from the protected groundwater source.	A11SW (NE)	0	3	506355 187450
57	<b>Source Protection Zones</b> Name: Ickenham Source: Environment Agency, Head Office Reference: Th174 Type: Zone I (Inner Protection Zone): Travel time of 50 days or less to the groundwater source.	A11SW (NE)	0	3	506355 187450

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
58	<b>Source Protection Zones</b> Name: Various Source: Environment Agency, Head Office Reference: Not Supplied Type: Zone II (Outer Protection Zone): Either 25% of the source area or a 400 day travel time whichever is greater.	A11SW (NE)	0	3	506355 187450
59	<b>Source Protection Zones</b> Name: Ickenham Source: Environment Agency, Head Office Reference: Th174 Type: Groundwater Source	A12SE (E)	281	3	507350 187520
60	<b>Source Protection Zones</b> Name: Various Source: Environment Agency, Head Office Reference: Not Supplied Type: Zone I (Inner Protection Zone): Travel time of 50 days or less to the groundwater source.	A14SW (NW)	550	3	505671 188133
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Events Boundary Accuracy: As Supplied	A8NE (E)	0	3	507360 187152
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Events Boundary Accuracy: As Supplied	A8NE (E)	0	3	507448 187174
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Events Boundary Accuracy: As Supplied	A8NE (E)	0	3	507357 187182
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Events Boundary Accuracy: As Supplied	A8NE (E)	0	3	507368 187186
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Events Boundary Accuracy: As Supplied	A8NE (E)	0	3	507349 187162
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Events Boundary Accuracy: As Supplied	A8NE (E)	0	3	507328 187198
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Events Boundary Accuracy: As Supplied	A8NE (E)	0	3	507330 187196
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Events Boundary Accuracy: As Supplied	A8NE (E)	0	3	507314 187202
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Events Boundary Accuracy: As Supplied	A8NE (E)	0	3	507486 187180
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models and Fluvial Events Boundary Accuracy: As Supplied	A8NW (SE)	0	3	507172 187042
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models and Fluvial Events Boundary Accuracy: As Supplied	A8NE (E)	0	3	507311 187207
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A8NE (E)	0	3	507360 187156

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A8NW (SE)	0	3	507178 187060
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A8NE (E)	0	3	507450 187173
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A8NE (E)	0	3	507367 187184
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A8NE (E)	0	3	507368 187186
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A8NE (E)	0	3	507336 187195
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A8NE (E)	0	3	507324 187197
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A8NE (E)	0	3	507278 187230
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A8NE (E)	7	3	507360 187142
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Events Boundary Accuracy: As Supplied	A8NE (E)	32	3	507362 187116
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A8NE (E)	37	3	507359 187110
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A11NW (NW)	37	3	506205 187770
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Events Boundary Accuracy: As Supplied	A8NE (E)	39	3	507356 187110
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A8NE (E)	43	3	507355 187106
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Events Boundary Accuracy: As Supplied	A8NE (E)	45	3	507350 187104
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A8NE (E)	51	3	507349 187100
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Events Boundary Accuracy: As Supplied	A8NE (E)	52	3	507344 187098

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Events Boundary Accuracy: As Supplied	A8NE (E)	56	3	507374 187280
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A8NE (E)	58	3	507343 187094
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Events Boundary Accuracy: As Supplied	A8NE (E)	59	3	507338 187092
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Events Boundary Accuracy: As Supplied	A8NE (E)	59	3	507373 187282
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A8NE (E)	59	3	507374 187281
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A8NE (E)	60	3	507370 187286
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Events Boundary Accuracy: As Supplied	A8NE (E)	63	3	507370 187293
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A8NE (E)	64	3	507327 187078
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A8NE (E)	65	3	507537 187263
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A8NE (E)	73	3	507370 187298
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Events Boundary Accuracy: As Supplied	A8NE (E)	79	3	507326 187078
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A8NE (E)	81	3	507317 187067
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Events Boundary Accuracy: As Supplied	A8NE (E)	127	3	507424 187336
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A8NE (E)	128	3	507424 187338
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Events Boundary Accuracy: As Supplied	A12SE (E)	129	3	507422 187370
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A12SE (E)	146	3	507458 187354

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Events Boundary Accuracy: As Supplied	A8NW (SE)	147	3	507168 187039
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A12SE (E)	154	3	507457 187356
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Events Boundary Accuracy: As Supplied	A12SE (E)	156	3	507456 187357
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A12SE (E)	157	3	507455 187358
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Events Boundary Accuracy: As Supplied	A8SE (SE)	203	3	507290 186959
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A8SE (SE)	204	3	507290 186958
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A12SE (E)	247	3	507524 187456
	<b>Flooding from Rivers or Sea without Defences</b> Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A8NE (E)	0	3	507228 187142
	<b>Flooding from Rivers or Sea without Defences</b> Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A8NE (E)	0	3	507290 187214
	<b>Flooding from Rivers or Sea without Defences</b> Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A11NW (NW)	38	3	506200 187770
	<b>Areas Benefiting from Flood Defences</b> None				
	<b>Flood Water Storage Areas</b> None				
	<b>Flood Defences</b> None				
61	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 8.6 Watercourse Level: Not Supplied Permanent: True Watercourse Name: River Pinn Catchment Name: Thames Primacy: 1	A8NE (E)	0	5	507354 187171
62	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 405.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: River Pinn Catchment Name: Thames Primacy: 1	A8NE (E)	0	5	507358 187195



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
63	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 30.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A8NW (E)	0	5	506964 187321
64	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 1512.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: River Pinn Catchment Name: Thames Primacy: 1	A8SE (SE)	0	5	507217 186996
65	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 596.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A10NE (NW)	79	5	506067 187757
66	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 186.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A8NW (SE)	98	5	506960 187120
67	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 14.6 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A10NE (NW)	120	5	506081 187760
68	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 462.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A10NE (NW)	127	5	506156 187801
69	<b>OS Water Network Lines</b> Watercourse Form: Lake Watercourse Length: 9.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A8NW (SE)	170	5	507088 187050
70	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 7.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A8NW (SE)	172	5	507055 187064
71	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 29.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A8NW (SE)	175	5	507060 187059

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
72	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 28.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A8NW (SE)	175	5	507034 187062
73	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 39.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A6NE (W)	211	5	506030 187334
74	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 3.6 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A6NE (W)	227	5	505991 187329
75	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 102.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A6NE (W)	228	5	505988 187329
76	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 50.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A10SW (W)	258	5	505776 187348
77	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 18.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A6NE (W)	269	5	505887 187317
78	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 105.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A6NE (W)	269	5	505887 187317
79	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 77.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A12SE (E)	270	5	507493 187464
80	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 31.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A12SE (E)	273	5	507540 187452



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
81	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 8.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A12SE (E)	273	5	507532 187454
82	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 7.2 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A6NE (W)	285	5	505890 187300
83	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 16.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A10SW (W)	288	5	505776 187348
84	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 76.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A6NE (W)	291	5	505892 187293
85	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 23.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A6NW (W)	299	5	505779 187332
86	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 66.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A6NW (W)	318	5	505782 187308
87	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 6.7 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A6NE (SW)	357	5	505910 187219
88	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 137.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A8SE (SE)	360	5	507206 186798
89	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 121.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A6NE (SW)	362	5	505912 187212

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
90	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 3.4 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A6NW (W)	368	5	505718 187291
91	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 28.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A6NW (W)	371	5	505715 187290
92	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 183.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A6NE (SW)	438	5	506050 187078
93	<b>OS Water Network Lines</b> Watercourse Form: Lake Watercourse Length: 233.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A10NW (W)	458	5	505523 187759
94	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 177.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A6NE (SW)	480	5	505934 187082
95	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 388.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A15SW (N)	516	5	506499 188035
96	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 7.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A15SW (N)	529	5	506367 188091
97	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 368.1 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A15SW (N)	536	5	506369 188098
98	<b>OS Water Network Lines</b> Watercourse Form: Lake Watercourse Length: 134.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A9NE (W)	606	5	505349 187692

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
99	<b>OS Water Network Lines</b> Watercourse Form: Lake Watercourse Length: 532.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A9NE (W)	606	5	505349 187692
100	<b>OS Water Network Lines</b> Watercourse Form: Lake Watercourse Length: 493.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A5NE (W)	666	5	505387 187140
101	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 22.5 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A9SE (W)	672	5	505284 187461
102	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 145.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A9SE (W)	692	5	505263 187467
103	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 4.9 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A9SE (W)	693	5	505252 187601
104	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 1190.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A9SE (W)	694	5	505271 187403
105	<b>OS Water Network Lines</b> Watercourse Form: Canal Watercourse Length: 2676.8 Watercourse Level: suspendedOrElevated Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A5NE (W)	729	5	505270 187237
106	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 175.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A15SE (N)	737	5	506665 188218
107	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 192.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A15SE (N)	744	5	506652 188227

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
108	<b>OS Water Network Lines</b> Watercourse Form: Lake Watercourse Length: 118.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A5SE (SW)	780	5	505435 186991
109	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 69.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A6SE (SW)	787	5	505905 186771
110	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 646.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: River Colne Catchment Name: Thames Primacy: 2	A9SW (W)	808	5	505166 187366
111	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 405.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A5NE (W)	812	5	505185 187295
112	<b>OS Water Network Lines</b> Watercourse Form: Lake Watercourse Length: 8.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A13SE (NW)	828	5	505373 188222
113	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 472.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: River Colne Catchment Name: Thames Primacy: 1	A5NW (W)	829	5	505156 187321
114	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 171.2 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A5NW (W)	831	5	505156 187321
115	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 394.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: River Colne Catchment Name: Thames Primacy: 1	A5NW (W)	831	5	505156 187321
116	<b>OS Water Network Lines</b> Watercourse Form: Lake Watercourse Length: 29.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A13SE (NW)	835	5	505365 188224

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
117	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 262.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A6SW (SW)	845	5	505844 186729
118	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 100.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A6SW (SW)	850	5	505814 186709
119	<b>OS Water Network Lines</b> Watercourse Form: Lake Watercourse Length: 61.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A15NW (N)	855	5	506340 188441
120	<b>OS Water Network Lines</b> Watercourse Form: Lake Watercourse Length: 77.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A6SW (SW)	858	5	505729 186750
121	<b>OS Water Network Lines</b> Watercourse Form: Lake Watercourse Length: 174.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A5SE (SW)	868	5	505464 186843
122	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 846.2 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A15NW (N)	915	5	506366 188497
123	<b>OS Water Network Lines</b> Watercourse Form: Lake Watercourse Length: 127.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A6SW (SW)	919	5	505664 186706
124	<b>OS Water Network Lines</b> Watercourse Form: Lake Watercourse Length: 52.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 2	A6SW (SW)	919	5	505664 186706
125	<b>OS Water Network Lines</b> Watercourse Form: Lake Watercourse Length: 466.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A6SW (SW)	943	5	505541 186728

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
126	<b>OS Water Network Lines</b> Watercourse Form: Lake Watercourse Length: 34.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 2	A2NW (SW)	966	5	505696 186647
127	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 175.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 2	A2NW (SW)	966	5	505696 186647
128	<b>OS Water Network Lines</b> Watercourse Form: Lake Watercourse Length: 73.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 2	A2NW (SW)	969	5	505662 186654

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
129	<b>BGS Recorded Landfill Sites</b> Site Name: New Years Green Lane Location: Landfill Site, Harefield, UXBRIDGE, Middlesex Authority: British Geological Survey, National Geoscience Information Service Ground Water: Information not available Surface Water: Information not available Geology: N/A Positional Accuracy: Positioned by the supplier Boundary Accuracy: Derived	A15SW (N)	513	-	506360 188082
130	<b>Historical Landfill Sites</b> Licence Holder: Pioneer Willment Limited Location: Harvil Road Name: Land off Harvil Road Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD11319 First Input Date: 31st December 1967 Last Input Date: 31st December 1973 Specified Waste: Not Supplied Type: EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: 5510/0064 BGS Ref: Not Supplied Other Ref: 8HI022	A10SW (W)	185	3	505832 187434
131	<b>Historical Landfill Sites</b> Licence Holder: Not Supplied Location: South Harefield, Hillingdon, London Name: Dews Farm Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD11323 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: 8HI025	A10NE (NW)	287	3	506029 187990
132	<b>Historical Landfill Sites</b> Licence Holder: Mr R E Webb Location: Newyears Green, Hillingdon, London Name: New Years Farm Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD11341 First Input Date: Not Supplied Last Input Date: 31st December 1989 Specified Waste: Not Supplied Type: EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: 5510/0010 BGS Ref: Not Supplied Other Ref: 8HI059, HIL068	A11NE (NE)	397	3	506630 187870
133	<b>Historical Landfill Sites</b> Licence Holder: Gretaer London Council Location: Pinewood Road, Iver Heath Name: Park Lodge Farm Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD11331 First Input Date: 31st December 1944 Last Input Date: 31st December 1974 Specified Waste: Deposited Waste included Commercial and Household Waste Type: EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: 5510/0009 BGS Ref: 1108 Other Ref: 8HI038, HIL045	A15SW (N)	507	3	506493 188029

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
134	<b>Historical Landfill Sites</b> Licence Holder: Hoveringham's Limited and S W Boyer Location: South Harefield, Hillingdon, London Name: Harefield Marina Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD11325 First Input Date: 31st December 1947 Last Input Date: Not Supplied Specified Waste: Deposited Waste included Inert, Industrial, Commercial and Household Waste Type: EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: 5510/0022 BGS Ref: Not Supplied Other Ref: 8HI033, HIL039	A13SE (NW)	903	3	505391 188347
135	<b>Licensed Waste Management Facilities (Locations)</b> Licence Number: 80072 Location: Skip Lane, Harvil Road, Harefield, Uxbridge, Middlesex, UB9 6JL Operator Name: G B N Services Ltd Operator Location: Not Supplied Authority: Environment Agency - Thames Region, North East Area Site Category: Household, Commercial And Industrial Transfer Stations <b>Licence Status: Modified</b> Issued: 19th December 1991 Last Modified: 11th October 2016 Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m	A10SE (W)	172	3	506011 187381
136	<b>Licensed Waste Management Facilities (Locations)</b> Licence Number: 401566 Location: Skip Lane, Harvil Road, Harefield, Uxbridge, Middlesex, UB9 6RP Operator Name: Thames Materials Limited Operator Location: Not Supplied Authority: Environment Agency - Thames Region, North East Area Site Category: Physical Treatment Facilities <b>Licence Status: Issued</b> Issued: 29th January 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	A10SW (W)	416	3	505571 187399
137	<b>Licensed Waste Management Facilities (Locations)</b> Licence Number: 103857 Location: B F A Recycling Ltd, New Years Green Lane, Harefield, Uxbridge, Middlesex, UB9 6LX Operator Name: B F A Recycling Ltd Operator Location: Not Supplied Authority: Environment Agency - Thames Region, North East Area Site Category: Metal recycling site <b>Licence Status: Issued</b> Issued: 3rd April 2012 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	A11NW (N)	447	3	506466 187974



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
138	<b>Licensed Waste Management Facilities (Locations)</b> Licence Number: 403434 Location: Newyears Green Lane, Harefield, Middlesex, UB9 6LX Operator Name: West London Composting Ltd Operator Location: Not Supplied Authority: Environment Agency - Thames Region, North East Area Site Category: Physical Treatment Facilities <b>Licence Status: Issued</b> Issued: 9th June 2016 Last Modified: Not Supplied Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Manually positioned to the road within the address or location	A11NE (NE)	554	3	506803 187980
139	<b>Licensed Waste Management Facilities (Locations)</b> Licence Number: 80676 Location: Crow's Nest Farm, Breakspear Road South, Harefield, Uxbridge, Middlesex, UB9 6LT Operator Name: Country Compost Ltd Operator Location: Not Supplied Authority: Environment Agency - Thames Region, North East Area Site Category: Composting <b>Licence Status: Modified</b> Issued: 23rd March 2005 Last Modified: 4th May 2011 Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m	A12NE (E)	619	3	507436 187848
140	<b>Licensed Waste Management Facilities (Locations)</b> Licence Number: 80043 Location: New Years Green Lane C A Site, New Years Green Lane, Harefield, Uxbridge, Middlesex, UB9 6LX Operator Name: London Borough of Hillingdon Operator Location: Not Supplied Authority: Environment Agency - Thames Region, North East Area Site Category: HCI Waste Transfer Station <b>Licence Status: Modified</b> Issued: 8th November 1989 Last Modified: 10th December 2012 Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m	A14SE (N)	641	3	506130 188282
141	<b>Licensed Waste Management Facilities (Locations)</b> Licence Number: 80037 Location: High View Farm, New Years Green Lane, Harefield, Middlesex, UB9 6LX Operator Name: L J Grundon & Sons Ltd Operator Location: Not Supplied Authority: Environment Agency - Thames Region, North East Area Site Category: Household, Commercial And Industrial Transfer Stations <b>Licence Status: Modified</b> Issued: 11th April 1995 Last Modified: 11th April 1995 Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m	A12NW (NE)	694	3	507150 188017

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
142	<b>Licensed Waste Management Facilities (Locations)</b> Licence Number: 80615 Location: Pylon Farm, New Years Green Lane, Harefield, Uxbridge, Middlesex, UB9 6LX Operator Name: West London Composting Ltd Operator Location: Not Supplied Authority: Environment Agency - Thames Region, North East Area Site Category: Composting <b>Licence Status: Issued</b> Issued: 9th July 2004 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	A16SW (NE)	768	3	507133 188100
142	<b>Licensed Waste Management Facilities (Locations)</b> Licence Number: 80785 Location: New Years Green Lane, Harefield, Middlesex, UB9 6LX Operator Name: West London Composting Limited Operator Location: Not Supplied Authority: Environment Agency - Thames Region, North East Area Site Category: Composting <b>Licence Status: To PPC</b> Issued: 25th September 2007 Last Modified: 9th October 2015 Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: NP3034WL Positional Accuracy: Located by supplier to within 10m	A16SW (NE)	806	3	507132 188140
143	<b>Licensed Waste Management Facilities (Locations)</b> Licence Number: 80037 Location: High View Farm, New Years Green Lane, Harefield, Middlesex, UB9 6LX Operator Name: L J Grundon & Sons Ltd Operator Location: Pylon Farm, New Years Green Lane, Harefield Lane, Harefield, Middlesex, UB9 6LX Authority: Environment Agency - Thames Region, North East Area Site Category: Household, Commercial And Industrial Transfer Stations <b>Licence Status: Modified</b> Issued: 11th April 1995 Last Modified: 11th April 1995 Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m	A16SE (NE)	828	3	507251 188125
	<b>Local Authority Landfill Coverage</b> Name: London Borough of Hillingdon - Has not been able to supply Landfill data		0	4	506355 187450
	<b>Local Authority Landfill Coverage</b> Name: Buckinghamshire County Council - Has supplied landfill data		829	6	505153 187337
	<b>Local Authority Landfill Coverage</b> Name: South Buckinghamshire District Council - Has supplied landfill data		829	7	505153 187337
144	<b>Potentially Infilled Land (Non-Water)</b> Bearing Ref: NW Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1989	A10NE (NW)	177	-	505941 187841
145	<b>Potentially Infilled Land (Non-Water)</b> Bearing Ref: NW Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1989	A10NE (NW)	290	-	505987 187982
146	<b>Potentially Infilled Land (Non-Water)</b> Bearing Ref: N Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1989	A15SW (N)	722	-	506486 188256
147	<b>Potentially Infilled Land (Non-Water)</b> Bearing Ref: NW Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1989	A13SE (NW)	858	-	505363 188255

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
148	<b>Potentially Infilled Land (Non-Water)</b> Bearing Ref: NW Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1989	A14NE (NW)	980	-	505859 188631
149	<b>Potentially Infilled Land (Water)</b> Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1960	A15SW (N)	533	-	506365 188096
150	<b>Potentially Infilled Land (Water)</b> Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1960	A15NW (N)	878	-	506343 188465
151	<b>Registered Waste Transfer Sites</b> Licence Holder: Uxbridge Skip Hire Ltd Licence Reference: DL367 Site Location: Yard D Harvil Road, Harefield, Hillingdon, Uxbridge, Middlesex, Ub9 6jl Operator Location: 91 Burns Road, Alperton, WEMBLEY, Middlesex, HA0 1JR Authority: Environment Agency - Thames Region, North East Area Site Category: Transfer Max Input Rate: Large (Equal to or greater than 75,000 and less than 250,000 tonnes per year) Waste Source: No known restriction on source of waste Restrictions: Licence Status: Operational as far as is knownOperational Dated: 26th May 1999 Preceded By: DL367 Licence: Superseded By: Not Given Licence: Positional Accuracy: Located by supplier to within 100m Boundary Quality: Not Supplied Authorised Waste: Lwra Cat Bii Gen. Scrap Metal Some Of Lwra Cat. A = Inert Wastes Lwra Cat. Bi Gen.Non-Putresc Lwra Cat. C 'Putresc' Some Of Prohibited Waste: Special Waste (As In Epa 1990:S62 Of 1996 Regs) Waste N.O.S.	A10SE (W)	171	3	505920 187410
151	<b>Registered Waste Transfer Sites</b> Licence Holder: Uxbridge Skip Hire Ltd Licence Reference: DL367 Site Location: Yard D Harvil Road, Harefield, Hillingdon, Uxbridge, Middlesex, Ub9 6jl Operator Location: 91 Burns Road, Alperton, WEMBLEY, Middlesex, HA0 1JR Authority: Environment Agency - Thames Region, North East Area Site Category: Transfer Max Input Rate: Large (Equal to or greater than 75,000 and less than 250,000 tonnes per year) Waste Source: No known restriction on source of waste Restrictions: Licence Status: Record supersededSuperseded Dated: 12th December 1991 Preceded By: Not Given Licence: Superseded By: DL367 Licence: Positional Accuracy: Located by supplier to within 100m Boundary Quality: Not Supplied Authorised Waste: Lead/Acid Batteries Lwra Cat Bii Gen. Scrap Metal Some Of Lwra Cat. A = Inert Wastes Lwra Cat. Bi Gen.Non-Putresc Lwra Cat. C 'Putresc' Some Of Max.Waste Permitted By Licence- Stated Prohibited Waste: Clinical - As In Coll/Disp.Reggs Of '88 Special Wastes N.O.S. Waste N.O.S.	A10SE (W)	171	3	505920 187410

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
152	<b>Registered Waste Transfer Sites</b> Licence Holder: L.B. of Hillingdon Licence Reference: CR/022 Site Location: New Years Green Lane, Harefield, Uxbridge, Middlesex Operator Location: As Site Address Authority: Environment Agency - Thames Region, North East Area Site Category: Civic Amenity - with transfer Max Input Rate: Large (Equal to or greater than 75,000 and less than 250,000 tonnes per year) Waste Source: No known restriction on source of waste Restrictions: Licence Status: Licence lapsed/cancelled/defunct/not applicable/surrenderedCancelled Dated: 1st June 1977 Preceded By: Not Given Licence: Superseded By: Not Given Licence: Positional Accuracy: Manually positioned to the address or location Boundary Quality: Not Supplied Authorised Waste: Civic Amenity/Refuse Amenity Waste House, Com + Ind.Waste Waste Oil Prohibited Waste: Clinical Wastes Difficult Waste N.O.S Notifiable Wastes N.O.S	A11NE (NE)	573	3	506800 188000
153	<b>Registered Waste Transfer Sites</b> Licence Holder: L.B. of Hillingdon Licence Reference: DL442 Site Location: New Years Green Lane C.A.Site, Harefield, UXBRIDGE, Middlesex, UB9 6LX Operator Location: Environment Group, Civic Centre, UXBRIDGE, Middlesex, UB8 1UW Authority: Environment Agency - Thames Region, North East Area Site Category: Civic Amenity - with transfer Max Input Rate: Small (Equal to or greater than 10,000 and less than 25,000 tonnes per year) Waste Source: No known restriction on source of waste Restrictions: Licence Status: Operational as far as is knownOperational Dated: 9th March 1993 Preceded By: Not Given Licence: Superseded By: Not Given Licence: Positional Accuracy: Manually positioned to the address or location Boundary Quality: Not Supplied Authorised Waste: Lead/Acid Batteries Lwra Cat. A = Inert Wastes Lwra Cat. Bi Gen.Non-Putresc (Some) Lwra Cat. C 'Putresc' (Some) Lwra Cat. E = Difficult Gen.W. (Some) Max.Waste Permitted By Licence Waste Mineral Oils Prohibited Waste: Clinical - As In Control.Waste Regs'92 Special Wastes N.O.S. Waste N.O.S.	A14SE (N)	615	3	506150 188250
154	<b>Registered Waste Transfer Sites</b> Licence Holder: L J Grundon & Sons Ltd Licence Reference: DL588 Site Location: High View Farm, New Years Green Lane, Harefield, UXBRIDGE, Middlesex, UB9 6LX Operator Location: Pylon Farm, New Years Green Lane, Harefield, UXBRIDGE, Middlesex, UB9 6LX 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 knownOperational Dated: 11th April 1995 Preceded By: Not Given Licence: Superseded By: Not Given Licence: Positional Accuracy: Located by supplier to within 100m Boundary Quality: Not Supplied Authorised Waste: Lwra Cat. A = Inert Wastes Lwra Cat. Bi Gen.Non-Putresc Lwra Cat. C 'Putresc' Max.Waste Permitted By Licence Prohibited Waste: Clinical - As In Coll/Disp.Reg's Of '88 Special Wastes Waste N.O.S.	A16SE (NE)	823	3	507250 188120

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<b>BGS 1:625,000 Solid Geology</b> Description: Lambeth Group	A11SW (NW)	0	1	506238 187523
	<b>BGS 1:625,000 Solid Geology</b> Description: Thames Group	A11SW (NE)	0	1	506355 187450
	<b>BGS Estimated Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic no data Concentration: Cadmium <1.8 mg/kg Concentration: Chromium no data Concentration: Lead Concentration: <100 mg/kg Nickel no data Concentration:	A11SW (NE)	0	1	506355 187450
	<b>BGS Estimated Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 15 - 30 mg/kg Concentration:	A10NE (NW)	30	1	506000 187701
	<b>BGS Estimated Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic no data Concentration: Cadmium <1.8 mg/kg Concentration: Chromium no data Concentration: Lead Concentration: <100 mg/kg Nickel no data Concentration:	A5NE (W)	524	1	505490 187320
	<b>BGS Estimated Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 30 - 45 mg/kg Concentration:	A6SW (SW)	609	1	505761 187000
	<b>BGS Estimated Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 15 - 30 mg/kg Concentration:	A6SW (SW)	621	1	505726 187000

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<b>BGS Estimated Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic no data Concentration: Cadmium <1.8 mg/kg Concentration: Chromium no data Concentration: Lead Concentration: <100 mg/kg Nickel no data Concentration:	A6SW (SW)	636	1	505697 186993
	<b>BGS Estimated Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic no data Concentration: Cadmium <1.8 mg/kg Concentration: Chromium no data Concentration: Lead Concentration: <100 mg/kg Nickel no data Concentration:	A6SW (SW)	858	1	505739 186746
	<b>BGS Estimated Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 15 - 30 mg/kg Concentration:	A9SW (W)	945	1	505000 187450
	<b>BGS Estimated Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic no data Concentration: Cadmium <1.8 mg/kg Concentration: Chromium no data Concentration: Lead Concentration: <100 mg/kg Nickel no data Concentration:	A6SW (SW)	977	1	505543 186675
155	<b>BGS Recorded Mineral Sites</b> Site Name: Dews Farm Sand Pit Location: , South Harefield, Northwood, Middlesex Source: British Geological Survey, National Geoscience Information Service Reference: 19806 Type: Opencast <b>Status: Ceased</b> Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Palaeocene Geology: Lambeth Group (Woolwich & Reading Beds) Commodity: Sand Positional Accuracy: Located by supplier to within 10m	A10NE (NW)	233	1	505925 187885
156	<b>BGS Recorded Mineral Sites</b> Site Name: Harefield Halt & Embankment Location: , Harefield, Ickenham, Uxbridge, Middlesex Source: British Geological Survey, National Geoscience Information Service Reference: 19793 Type: Opencast <b>Status: Ceased</b> Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Present Day Geology: Rail Embankment Commodity: Mineral Positional Accuracy: Located by supplier to within 10m	A6NW (W)	466	1	505555 187325

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
157	<b>BGS Recorded Mineral Sites</b> Site Name: Uxbridge Road Sand Pit Location: Uxbridge Road, South Harefield, Northwood, Middlesex Source: British Geological Survey, National Geoscience Information Service Reference: 19801 Type: Opencast <b>Status: Ceased</b> Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Palaeocene Geology: Lambeth Group (Woolwich & Reading Beds) Commodity: Sand Positional Accuracy: Located by supplier to within 10m	A14SE (NW)	518	1	505940 188175
158	<b>BGS Recorded Mineral Sites</b> Site Name: Dews Farm Sand Pit Location: , South Harefield, Northwood, Middlesex Source: British Geological Survey, National Geoscience Information Service Reference: 19805 Type: Opencast <b>Status: Ceased</b> Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Palaeocene Geology: Lambeth Group (Woolwich & Reading Beds) Commodity: Sand Positional Accuracy: Located by supplier to within 10m	A14SW (NW)	673	1	505640 188240
159	<b>BGS Recorded Mineral Sites</b> Site Name: Uxbridge Road Sand Pit Location: , Harefield, Uxbridge, Hillingdon Source: British Geological Survey, National Geoscience Information Service Reference: 169880 Type: Opencast <b>Status: Ceased</b> Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Palaeocene Geology: Lambeth Group Commodity: Sand Positional Accuracy: Located by supplier to within 10m	A15SW (N)	715	1	506490 188247
160	<b>BGS Recorded Mineral Sites</b> Site Name: Harefield Halt Location: Harvil Lane, Ickenham, Uxbridge, Middlesex Source: British Geological Survey, National Geoscience Information Service Reference: 2397 Type: Opencast <b>Status: Ceased</b> Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Quaternary Geology: River Colne Gravel Commodity: Sand and Gravel Positional Accuracy: Located by supplier to within 10m	A5NE (W)	725	1	505430 187070
161	<b>BGS Recorded Mineral Sites</b> Site Name: Broadwater Lake Location: , South Harefield, Northwood, Middlesex Source: British Geological Survey, National Geoscience Information Service Reference: 16548 Type: Opencast <b>Status: Ceased</b> Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Quaternary Geology: Shepperton Gravel Member Commodity: Sand and Gravel Positional Accuracy: Located by supplier to within 10m	A9NE (NW)	733	1	505300 187935
162	<b>BGS Recorded Mineral Sites</b> Site Name: Home Farm Location: , Denham Lock, Ickenham, Uxbridge, Middlesex Source: British Geological Survey, National Geoscience Information Service Reference: 19790 Type: Opencast <b>Status: Ceased</b> Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Quaternary Geology: Shepperton Gravel Member Commodity: Sand and Gravel Positional Accuracy: Located by supplier to within 10m	A6SW (SW)	835	1	505650 186800



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
163	<b>BGS Recorded Mineral Sites</b> Site Name: Uxbridge Road Sand Pit Location: Uxbridge Road, Newyears Green, Ruislip, Middlesex Source: British Geological Survey, National Geoscience Information Service Reference: 19803 Type: Opencast <b>Status: Ceased</b> Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Palaeocene Geology: Lambeth Group (Woolwich & Reading Beds) Commodity: Sand Positional Accuracy: Located by supplier to within 10m	A14NE (N)	839	1	506090 188490
164	<b>BGS Recorded Mineral Sites</b> Site Name: Uxbridge Road Sand Pit Location: Uxbridge Road, Newyears Green, Ruislip, Middlesex Source: British Geological Survey, National Geoscience Information Service Reference: 19804 Type: Opencast <b>Status: Ceased</b> Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Palaeocene Geology: Lambeth Group (Woolwich & Reading Beds) Commodity: Sand Positional Accuracy: Located by supplier to within 10m	A15NW (N)	869	1	506470 188415
165	<b>BGS Recorded Mineral Sites</b> Site Name: Uxbridge Road Sand Pit Location: Uxbridge Road, South Harefield, Northwood, Middlesex Source: British Geological Survey, National Geoscience Information Service Reference: 19802 Type: Opencast <b>Status: Ceased</b> Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Palaeocene Geology: Lambeth Group (Woolwich & Reading Beds) Commodity: Sand Positional Accuracy: Located by supplier to within 10m	A14NW (NW)	875	1	505775 188510
166	<b>BGS Recorded Mineral Sites</b> Site Name: Home Farm Location: , Denham Lock, Ickenham, Uxbridge, Middlesex Source: British Geological Survey, National Geoscience Information Service Reference: 19791 Type: Opencast <b>Status: Ceased</b> Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Quaternary Geology: Shepperton Gravel Member Commodity: Sand and Gravel Positional Accuracy: Located by supplier to within 10m	A6SW (SW)	932	1	505655 188695
167	<b>BGS Recorded Mineral Sites</b> Site Name: Uxbridge Road Sand Pit Location: , Harefield, Uxbridge, Hillingdon Source: British Geological Survey, National Geoscience Information Service Reference: 169882 Type: Opencast <b>Status: Ceased</b> Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Palaeocene Geology: Lambeth Group Commodity: Sand Positional Accuracy: Located by supplier to within 10m	A14NE (N)	975	1	506089 188628



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<b>BGS Measured Urban Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Grid: 507262, 187247 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured 17.20 mg/kg Concentration: Cadmium Measured 0.60 mg/kg Concentration: Chromium Measured 75.40 mg/kg Concentration: Lead Measured 160.00 mg/kg Concentration: Nickel Measured 25.80 mg/kg Concentration:	A8NE (E)	0	1	507262 187247
	<b>BGS Measured Urban Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Grid: 506784, 187194 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured 14.80 mg/kg Concentration: Cadmium Measured 0.60 mg/kg Concentration: Chromium Measured 93.50 mg/kg Concentration: Lead Measured 54.60 mg/kg Concentration: Nickel Measured 21.40 mg/kg Concentration:	A7NE (SE)	126	1	506784 187194
	<b>BGS Measured Urban Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Grid: 505703, 187653 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured 14.70 mg/kg Concentration: Cadmium Measured 0.60 mg/kg Concentration: Chromium Measured 85.40 mg/kg Concentration: Lead Measured 54.80 mg/kg Concentration: Nickel Measured 28.00 mg/kg Concentration:	A10SW (W)	253	1	505703 187653
	<b>BGS Measured Urban Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Grid: 506241, 187886 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured 11.00 mg/kg Concentration: Cadmium Measured 0.30 mg/kg Concentration: Chromium Measured 68.40 mg/kg Concentration: Lead Measured 56.40 mg/kg Concentration: Nickel Measured 18.50 mg/kg Concentration:	A11NW (N)	296	1	506241 187886
	<b>BGS Measured Urban Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Grid: 506271, 187161 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured 12.70 mg/kg Concentration: Cadmium Measured 0.70 mg/kg Concentration: Chromium Measured 91.10 mg/kg Concentration: Lead Measured 72.40 mg/kg Concentration: Nickel Measured 21.50 mg/kg Concentration:	A7NW (S)	307	1	506271 187161

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<b>BGS Measured Urban Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Grid: 506878, 187701 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured 14.80 mg/kg Concentration: Cadmium Measured 0.50 mg/kg Concentration: Chromium Measured 81.90 mg/kg Concentration: Lead Measured 51.40 mg/kg Concentration: Nickel Measured 21.70 mg/kg Concentration:	A12NW (NE)	311	1	506878 187701
	<b>BGS Measured Urban Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Grid: 507338, 186823 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured 12.80 mg/kg Concentration: Cadmium Measured 0.40 mg/kg Concentration: Chromium Measured 80.60 mg/kg Concentration: Lead Measured 90.90 mg/kg Concentration: Nickel Measured 28.60 mg/kg Concentration:	A8SE (SE)	320	1	507338 186823
	<b>BGS Measured Urban Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Grid: 505716, 187251 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured 16.60 mg/kg Concentration: Cadmium Measured 0.40 mg/kg Concentration: Chromium Measured 88.80 mg/kg Concentration: Lead Measured 59.00 mg/kg Concentration: Nickel Measured 44.30 mg/kg Concentration:	A6NW (W)	402	1	505716 187251
	<b>BGS Measured Urban Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Grid: 507287, 187750 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured 14.00 mg/kg Concentration: Cadmium Measured 0.40 mg/kg Concentration: Chromium Measured 91.40 mg/kg Concentration: Lead Measured 50.90 mg/kg Concentration: Nickel Measured 22.50 mg/kg Concentration:	A12NE (E)	481	1	507287 187750
	<b>BGS Measured Urban Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Grid: 506201, 188144 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured 15.90 mg/kg Concentration: Cadmium Measured 0.50 mg/kg Concentration: Chromium Measured 91.70 mg/kg Concentration: Lead Measured 54.30 mg/kg Concentration: Nickel Measured 21.90 mg/kg Concentration:	A15SW (N)	530	1	506201 188144

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<b>BGS Measured Urban Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Grid: 506752, 186746 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured 12.60 mg/kg Concentration: Cadmium Measured 0.60 mg/kg Concentration: Chromium Measured 85.90 mg/kg Concentration: Lead Measured 71.90 mg/kg Concentration: Nickel Measured 18.40 mg/kg Concentration:	A7SE (SE)	564	1	506752 186746
	<b>BGS Measured Urban Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Grid: 506178, 186816 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured 15.00 mg/kg Concentration: Cadmium Measured 1.00 mg/kg Concentration: Chromium Measured 65.30 mg/kg Concentration: Lead Measured 70.20 mg/kg Concentration: Nickel Measured 23.80 mg/kg Concentration:	A6SE (S)	664	1	506178 186816
	<b>BGS Measured Urban Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Grid: 505684, 188274 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured 12.90 mg/kg Concentration: Cadmium Measured 1.30 mg/kg Concentration: Chromium Measured 53.10 mg/kg Concentration: Lead Measured 63.70 mg/kg Concentration: Nickel Measured 17.50 mg/kg Concentration:	A14SW (NW)	683	1	505684 188274
	<b>BGS Measured Urban Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Grid: 506767, 188244 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured 14.40 mg/kg Concentration: Cadmium Measured 0.40 mg/kg Concentration: Chromium Measured 94.10 mg/kg Concentration: Lead Measured 88.00 mg/kg Concentration: Nickel Measured 32.20 mg/kg Concentration:	A15SE (NE)	795	1	506767 188244
	<b>BGS Measured Urban Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Grid: 507369, 186309 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured 15.10 mg/kg Concentration: Cadmium Measured 0.90 mg/kg Concentration: Chromium Measured 76.40 mg/kg Concentration: Lead Measured 176.50 mg/kg Concentration: Nickel Measured 42.40 mg/kg Concentration:	A4SE (SE)	803	1	507369 186309

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<b>BGS Measured Urban Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Grid: 505159, 187762 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured 14.50 mg/kg Concentration: Cadmium Measured 0.80 mg/kg Concentration: Chromium Measured 31.90 mg/kg Concentration: Lead Measured 82.30 mg/kg Concentration: Nickel Measured 22.00 mg/kg Concentration:	A9NW (W)	807	1	505159 187762
	<b>BGS Measured Urban Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Grid: 505849, 186737 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured 14.00 mg/kg Concentration: Cadmium Measured 0.60 mg/kg Concentration: Chromium Measured 60.10 mg/kg Concentration: Lead Measured 95.30 mg/kg Concentration: Nickel Measured 22.80 mg/kg Concentration:	A6SW (SW)	835	1	505849 186737
	<b>BGS Measured Urban Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Grid: 505161, 187280 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured 15.70 mg/kg Concentration: Cadmium Measured 1.30 mg/kg Concentration: Chromium Measured 78.90 mg/kg Concentration: Lead Measured 84.80 mg/kg Concentration: Nickel Measured 41.70 mg/kg Concentration:	A5NW (W)	840	1	505161 187280
	<b>BGS Measured Urban Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Grid: 505358, 188255 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured 10.10 mg/kg Concentration: Cadmium Measured 0.40 mg/kg Concentration: Chromium Measured 30.20 mg/kg Concentration: Lead Measured 25.80 mg/kg Concentration: Nickel Measured 15.60 mg/kg Concentration:	A13SE (NW)	861	1	505358 188255
	<b>BGS Measured Urban Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Grid: 507215, 188184 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured 13.80 mg/kg Concentration: Cadmium Measured 0.80 mg/kg Concentration: Chromium Measured 69.70 mg/kg Concentration: Lead Measured 151.40 mg/kg Concentration: Nickel Measured 26.80 mg/kg Concentration:	A16SE (NE)	873	1	507215 188184

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<b>BGS Measured Urban Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Grid: 506780, 186360 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured Concentration: 14.70 mg/kg Cadmium Measured Concentration: 0.60 mg/kg Chromium Measured Concentration: 73.50 mg/kg Lead Measured Concentration: 191.40 mg/kg Nickel Measured Concentration: 25.10 mg/kg	A3NE (S)	925	1	506780 186360
	<b>BGS Urban Soil Chemistry Averages</b> Source: British Geological Survey, National Geoscience Information Service Sample Area: London Count Id: 7209 Arsenic Minimum Concentration: 1.00 mg/kg Arsenic Average Concentration: 17.00 mg/kg Arsenic Maximum Concentration: 161.00 mg/kg Cadmium Minimum Concentration: 0.10 mg/kg Cadmium Average Concentration: 0.90 mg/kg Cadmium Maximum Concentration: 165.20 mg/kg Chromium Minimum Concentration: 13.00 mg/kg Chromium Average Concentration: 79.00 mg/kg Chromium Maximum Concentration: 2094.00 mg/kg Lead Minimum Concentration: 11.00 mg/kg Lead Average Concentration: 280.00 mg/kg Lead Maximum Concentration: 10000.00 mg/kg Nickel Minimum Concentration: 2.00 mg/kg Nickel Average Concentration: 28.00 mg/kg Nickel Maximum Concentration: 506.00 mg/kg	A11SW (NE)	0	1	506355 187450
	<b>Coal Mining Affected Areas</b> In an area that might not be affected by coal mining				
	<b>Natural Cavities</b> Easting: 507100 Northing: 187900 Distance: 568 Quadrant Reference: A12 Quadrant Reference: NW Bearing Ref: NE Cavity Type: Solution Widened Joint or Fissure x 2 Solid Geology Detail: Chalk Group, Lambeth Group, London Clay Formation Superficial Geology: No Details Detail:	A12NW (NE)	568	8	507100 187900
	<b>Non Coal Mining Areas of Great Britain</b> Risk: Unlikely Source: British Geological Survey, National Geoscience Information Service	A8NE (SE)	0	1	507308 187026
	<b>Non Coal Mining Areas of Great Britain</b> Risk: Unlikely Source: British Geological Survey, National Geoscience Information Service	A11SW (NE)	0	1	506355 187450
	<b>Non Coal Mining Areas of Great Britain</b> Risk: Highly Unlikely Source: British Geological Survey, National Geoscience Information Service	A10NE (NW)	82	1	506151 187775
	<b>Potential for Collapsible Ground Stability Hazards</b> Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A11SW (NE)	0	1	506355 187450

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<b>Potential for Collapsible Ground Stability Hazards</b> Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A8NE (SE)	0	1	507308 187026
	<b>Potential for Collapsible Ground Stability Hazards</b> Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A8SE (SE)	0	1	507217 186999
	<b>Potential for Collapsible Ground Stability Hazards</b> Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A10NE (NW)	22	1	506108 187748
	<b>Potential for Compressible Ground Stability Hazards</b> Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A8SE (SE)	0	1	507217 186999
	<b>Potential for Compressible Ground Stability Hazards</b> Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A11SW (NE)	0	1	506355 187450
	<b>Potential for Compressible Ground Stability Hazards</b> Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A8NE (SE)	0	1	507308 187026
	<b>Potential for Compressible Ground Stability Hazards</b> Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A10NE (NW)	22	1	506108 187748
	<b>Potential for Compressible Ground Stability Hazards</b> Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A10SE (W)	140	1	505923 187432
	<b>Potential for Ground Dissolution Stability Hazards</b> Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A11NW (NW)	0	1	506218 187702
	<b>Potential for Ground Dissolution Stability Hazards</b> Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A11SW (NE)	0	1	506355 187450
	<b>Potential for Ground Dissolution Stability Hazards</b> Hazard Potential: High Source: British Geological Survey, National Geoscience Information Service	A10NE (NW)	30	1	506108 187748
	<b>Potential for Ground Dissolution Stability Hazards</b> Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A10NE (NW)	82	1	506151 187775
	<b>Potential for Ground Dissolution Stability Hazards</b> Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A10SW (W)	227	1	505720 187552
	<b>Potential for Landslide Ground Stability Hazards</b> Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A11SW (NE)	0	1	506355 187450
	<b>Potential for Landslide Ground Stability Hazards</b> Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A11SW (SE)	0	1	506366 187440
	<b>Potential for Landslide Ground Stability Hazards</b> Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A11SW (NW)	0	1	506245 187534
	<b>Potential for Landslide Ground Stability Hazards</b> Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A7NE (E)	0	1	506764 187336
	<b>Potential for Landslide Ground Stability Hazards</b> Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A8NE (E)	5	1	507220 187158
	<b>Potential for Landslide Ground Stability Hazards</b> Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A10NE (NW)	82	1	506151 187775
	<b>Potential for Landslide Ground Stability Hazards</b> Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A7NE (SE)	85	1	506554 187286
	<b>Potential for Landslide Ground Stability Hazards</b> Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A6NE (SW)	219	1	506102 187302



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<b>Potential for Running Sand Ground Stability Hazards</b> Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A11SW (NE)	0	1	506355 187450
	<b>Potential for Running Sand Ground Stability Hazards</b> Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A8NE (E)	0	1	507531 187065
	<b>Potential for Running Sand Ground Stability Hazards</b> Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A8NW (SE)	0	1	507053 187125
	<b>Potential for Running Sand Ground Stability Hazards</b> Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A8NE (SE)	0	1	507308 187026
	<b>Potential for Running Sand Ground Stability Hazards</b> Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A8SE (SE)	0	1	507217 186999
	<b>Potential for Running Sand Ground Stability Hazards</b> Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A11SW (SW)	0	1	506247 187374
	<b>Potential for Running Sand Ground Stability Hazards</b> Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A10NE (NW)	22	1	506108 187748
	<b>Potential for Running Sand Ground Stability Hazards</b> Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A10NE (NW)	82	1	506151 187775
	<b>Potential for Shrinking or Swelling Clay Ground Stability Hazards</b> Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A8NW (SE)	0	1	507053 187125
	<b>Potential for Shrinking or Swelling Clay Ground Stability Hazards</b> Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A11SW (SW)	0	1	506246 187374
	<b>Potential for Shrinking or Swelling Clay Ground Stability Hazards</b> Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A11SW (NE)	0	1	506355 187450
	<b>Potential for Shrinking or Swelling Clay Ground Stability Hazards</b> Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A10NE (NW)	30	1	506108 187748
	<b>Potential for Shrinking or Swelling Clay Ground Stability Hazards</b> Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A10NE (NW)	82	1	506151 187775
	<b>Radon Potential - Radon Affected Areas</b> 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	A8NE (SE)	0	1	507376 187025
	<b>Radon Potential - Radon Affected Areas</b> 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	A11SW (NE)	0	1	506355 187450
	<b>Radon Potential - Radon Affected Areas</b> Affected Area: The property is in an Intermediate probability radon area (1 to 3% of homes are estimated to be at or above the Action Level). Source: British Geological Survey, National Geoscience Information Service	A10SE (NW)	0	1	506151 187675
	<b>Radon Potential - Radon Affected Areas</b> Affected Area: The property is in an Intermediate probability radon area (1 to 3% of homes are estimated to be at or above the Action Level). Source: British Geological Survey, National Geoscience Information Service	A8NW (SE)	0	1	507151 187050
	<b>Radon Potential - Radon Protection Measures</b> Protection Measure: No radon protective measures are necessary in the construction of new dwellings or extensions Source: British Geological Survey, National Geoscience Information Service	A8NE (SE)	0	1	507376 187025
	<b>Radon Potential - Radon Protection Measures</b> Protection Measure: No radon protective measures are necessary in the construction of new dwellings or extensions Source: British Geological Survey, National Geoscience Information Service	A11SW (NE)	0	1	506355 187450

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<b>Radon Potential - Radon Protection Measures</b> Protection Measure: No radon protective measures are necessary in the construction of new dwellings or extensions Source: British Geological Survey, National Geoscience Information Service	A10SE (NW)	0	1	506151 187675
	<b>Radon Potential - Radon Protection Measures</b> Protection Measure: No radon protective measures are necessary in the construction of new dwellings or extensions Source: British Geological Survey, National Geoscience Information Service	A8NW (SE)	0	1	507151 187050



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
168	<b>Contemporary Trade Directory Entries</b> Name: M S D Animal Health Location: Breakspear Road South, Harefield, Uxbridge, Middlesex, UB9 6LS Classification: Veterinary Pharmacies <b>Status: Active</b> Positional Accuracy: Manually positioned within the geographical locality	A8NE (E)	19	-	507299 187262
168	<b>Contemporary Trade Directory Entries</b> Name: Intervet Uk Ltd Location: Breakspear Road South, Harefield, Uxbridge, Middlesex, UB9 6LS Classification: Laboratories <b>Status: Inactive</b> Positional Accuracy: Manually positioned within the geographical locality	A8NE (E)	19	-	507299 187262
169	<b>Contemporary Trade Directory Entries</b> Name: Hanson Premix Location: Harvil Road, Harefield, Uxbridge, Middlesex, UB9 6JL Classification: Concrete & Mortar Ready Mixed <b>Status: Inactive</b> Positional Accuracy: Manually positioned within the geographical locality	A6NE (SW)	198	-	506191 187299
169	<b>Contemporary Trade Directory Entries</b> Name: Ltc Southern Location: Harefield Oil Terminal, Harvil Road, Harefield, Uxbridge, Middlesex, UB9 6JL Classification: Scaffolding & Work Platforms <b>Status: Inactive</b> Positional Accuracy: Automatically positioned to the address	A6NE (SW)	199	-	506191 187299
169	<b>Contemporary Trade Directory Entries</b> Name: Advance Fuels Location: Harefield Oil Terminal, Harvil Road, Harefield, Uxbridge, UB9 6JL Classification: Oil Companies <b>Status: Active</b> Positional Accuracy: Automatically positioned to the address	A6NE (SW)	199	-	506191 187298
169	<b>Contemporary Trade Directory Entries</b> Name: Pace Fuelcare Location: Harefield Oil Terminal, Harvil Road, Harefield, Uxbridge, UB9 6JL Classification: Oil Fuel Distributors <b>Status: Active</b> Positional Accuracy: Automatically positioned to the address	A6NE (SW)	199	-	506191 187298
169	<b>Contemporary Trade Directory Entries</b> Name: British Benzol Location: Harefield Oil Terminal, Harvil Rd, Harefield, Uxbridge, Middlesex, UB9 6JL Classification: Oil Companies <b>Status: Inactive</b> Positional Accuracy: Manually positioned to the address or location	A6NE (SW)	199	-	506190 187298
169	<b>Contemporary Trade Directory Entries</b> Name: Refuels Ltd Location: Harefield Oil Terminal, Harvil Road, Harefield, Uxbridge, UB9 6JL Classification: Oil Recycling & Disposal Services <b>Status: Active</b> Positional Accuracy: Automatically positioned to the address	A6NE (SW)	199	-	506191 187298
170	<b>Contemporary Trade Directory Entries</b> Name: Camair Location: Square Orchard, Breakspear Road South, Harefield, Uxbridge, UB9 6LS Classification: Air Compressors <b>Status: Active</b> Positional Accuracy: Automatically positioned to the address	A12SE (E)	261	-	507504 187451
170	<b>Contemporary Trade Directory Entries</b> Name: Camair Compressors Ltd Location: Square Orchard, Breakspear Road South, Harefield, Uxbridge, UB9 6LS Classification: Air Compressors <b>Status: Active</b> Positional Accuracy: Automatically positioned to the address	A12SE (E)	261	-	507504 187451
171	<b>Contemporary Trade Directory Entries</b> Name: G C R Carriage Co Location: Harvil Ho, Harvil Rd, Ickenham, Uxbridge, Middlesex, UB10 8AJ Classification: Car Dealers <b>Status: Inactive</b> Positional Accuracy: Manually positioned to the road within the address or location	A7NW (S)	272	-	506283 187194
172	<b>Contemporary Trade Directory Entries</b> Name: R M C Garages Location: 2 Dewes Farm Cottages, Harvil Road, Harefield, Uxbridge, UB9 6JN Classification: Garage Services <b>Status: Active</b> Positional Accuracy: Automatically positioned to the address	A10NE (NW)	300	-	505861 187934

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
173	<b>Contemporary Trade Directory Entries</b> Name: Fireplace & Stove Co Location: 73, St. Georges Drive, Ickenham, UXBRIDGE, Middlesex, UB10 8HP Classification: Fireplaces & Mantelpieces <b>Status:</b> Active Positional Accuracy: Automatically positioned to the address	A8SW (SE)	511	-	507039 186714
174	<b>Contemporary Trade Directory Entries</b> Name: Lloyd Metal Spinners Ltd Location: Copthall Farm, Breakspear Road South, Ickenham, Uxbridge, Middlesex, UB10 8HB Classification: Metal Spinners <b>Status:</b> Active Positional Accuracy: Automatically positioned to the address	A7SE (SE)	525	-	506847 186758
175	<b>Contemporary Trade Directory Entries</b> Name: Start Location: Breakspear Road South, Ickenham, Uxbridge, Middlesex, UB10 8HB Classification: Garage Services <b>Status:</b> Inactive Positional Accuracy: Automatically positioned to the address	A8SW (SE)	544	-	506912 186719
175	<b>Contemporary Trade Directory Entries</b> Name: Key Line Press Location: Copthall Farm, Breakspear Road South, Ickenham, Uxbridge, Middlesex, UB10 8HB Classification: Printers <b>Status:</b> Inactive Positional Accuracy: Automatically positioned to the address	A8SW (SE)	544	-	506912 186719
175	<b>Contemporary Trade Directory Entries</b> Name: Area Screen Printers Ltd Location: Copthall Farm, Breakspear Road South, Ickenham, Uxbridge, Middlesex, UB10 8HB Classification: Screen Process Printers <b>Status:</b> Active Positional Accuracy: Automatically positioned to the address	A8SW (SE)	544	-	506912 186719
175	<b>Contemporary Trade Directory Entries</b> Name: Keyline Press Ltd Location: Copthall Farm, Breakspear Road South, Ickenham, Uxbridge, UB10 8HB Classification: Printers <b>Status:</b> Active Positional Accuracy: Automatically positioned to the address	A8SW (SE)	545	-	506911 186718
175	<b>Contemporary Trade Directory Entries</b> Name: Residential Sprinkler Solutions Location: Copthall Farm, Breakspear Road South, Ickenham, Uxbridge, UB10 8HB Classification: Firefighting Equipment <b>Status:</b> Active Positional Accuracy: Automatically positioned to the address	A8SW (SE)	545	-	506911 186718
175	<b>Contemporary Trade Directory Entries</b> Name: Windmill Furniture Ltd Location: Copthall Farm, Breakspear Road South, Ickenham, Uxbridge, UB10 8HB Classification: Kitchen Furniture Manufacturers <b>Status:</b> Inactive Positional Accuracy: Automatically positioned to the address	A8SW (SE)	545	-	506911 186718
175	<b>Contemporary Trade Directory Entries</b> Name: Windmill Furniture Ltd Location: Copthall Farm, Breakspear Road South, Ickenham, Uxbridge, UB10 8HB Classification: Cabinet Makers <b>Status:</b> Active Positional Accuracy: Automatically positioned to the address	A8SW (SE)	545	-	506911 186718
176	<b>Contemporary Trade Directory Entries</b> Name: B F A Recycling Location: New Years Green Lane, Harefield, Uxbridge, Middlesex, UB9 6LX Classification: Scrap Metal Merchants <b>Status:</b> Active Positional Accuracy: Automatically positioned to the address	A14SE (N)	607	-	506130 188246
177	<b>Contemporary Trade Directory Entries</b> Name: Uxbridge Recycling Location: Harvil Rd, Harefield, Uxbridge, Middlesex, UB9 6JL Classification: Reclaiming - Waste Products <b>Status:</b> Inactive Positional Accuracy: Manually positioned to the road within the address or location	A7SW (S)	658	-	506384 186760

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
177	<b>Contemporary Trade Directory Entries</b> Name: Quantum Tuning Location: 1, Harvil Farm, Harvil Road, Ickenham, Uxbridge, Middlesex, UB10 8AJ Classification: Car Engine Tuning & Diagnostic Services <b>Status:</b> Inactive Positional Accuracy: Automatically positioned to the address	A7SW (S)	672	-	506359 186753
177	<b>Contemporary Trade Directory Entries</b> Name: Molly Maid Location: 1, Harvil Farm, Harvil Road, Ickenham, Uxbridge, Middlesex, UB10 8AJ Classification: Cleaning Services - Domestic <b>Status:</b> Inactive Positional Accuracy: Automatically positioned to the address	A7SW (S)	672	-	506359 186753
177	<b>Contemporary Trade Directory Entries</b> Name: Baylis Recycling Ltd Location: Harvil Farm, Harvil Road, Harefield, Uxbridge, Middlesex, UB9 6JL Classification: Recycling Centres <b>Status:</b> Inactive Positional Accuracy: Automatically positioned to the address	A7SW (S)	672	-	506359 186753
177	<b>Contemporary Trade Directory Entries</b> Name: Premier Wheel Refurbishment Location: 1, Harvil Farm, Harvil Road, Ickenham, Uxbridge, Middlesex, UB10 8AJ Classification: Wheel Manufacturers <b>Status:</b> Inactive Positional Accuracy: Automatically positioned to the address	A7SW (S)	672	-	506359 186753
177	<b>Contemporary Trade Directory Entries</b> Name: Ragnar Classic Engineering Location: Harvil Farm, Harvil Rd, Ickenham, Uxbridge, Middlesex, UB10 8AJ Classification: Classic Car Specialists <b>Status:</b> Inactive Positional Accuracy: Manually positioned to the address or location	A7SW (S)	673	-	506358 186752
177	<b>Contemporary Trade Directory Entries</b> Name: Ncw Distributors Location: Harvil Farm, Harvil Rd, Ickenham, Uxbridge, Middlesex, UB10 8AJ Classification: Paint Varnish & Lacquer <b>Status:</b> Inactive Positional Accuracy: Manually positioned to the address or location	A7SW (S)	673	-	506358 186752
178	<b>Contemporary Trade Directory Entries</b> Name: Robert Service Company Location: 20, Wallasey Crescent, Ickenham, Uxbridge, Middlesex, UB10 8SA Classification: Air Conditioning & Refrigeration Contractors <b>Status:</b> Inactive Positional Accuracy: Automatically positioned to the address	A4NE (SE)	661	-	507401 186447
179	<b>Contemporary Trade Directory Entries</b> Name: F Smith Location: The Shrubs, New Years Green La, Harefield, Uxbridge, Middlesex, UB9 6LX Classification: Car Breakers & Dismantlers <b>Status:</b> Inactive Positional Accuracy: Manually positioned to the road within the address or location	A16SW (NE)	724	-	506940 188114
180	<b>Contemporary Trade Directory Entries</b> Name: L J Grundon & Sons Ltd Location: Highview Farm, New Years Green Lane, Harefield, Uxbridge, UB9 6LX Classification: Waste Disposal Services <b>Status:</b> Active Positional Accuracy: Automatically positioned to the address	A16SE (NE)	740	-	507216 188044
181	<b>Contemporary Trade Directory Entries</b> Name: Stair Right Joinery Ltd Location: Pond Farm, New Years Green Lane, Harefield, Uxbridge, Middlesex, UB9 6LX Classification: Staircase, Balustrade & Handrail Manufacturers <b>Status:</b> Inactive Positional Accuracy: Automatically positioned to the address	A16SW (NE)	759	-	507075 188109
182	<b>Contemporary Trade Directory Entries</b> Name: Southern Pest Control Location: 1, New Years Green Lane, Harefield, Uxbridge, Middlesex, UB9 6LX Classification: Pest & Vermin Control <b>Status:</b> Inactive Positional Accuracy: Automatically positioned to the address	A16SW (NE)	797	-	507006 188170

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
183	<b>Contemporary Trade Directory Entries</b> Name: West London Composting Ltd Location: Highview Farm, New Years Green La, Harefield, Uxbridge, Middlesex, UB9 6LX Classification: Recycling Services <b>Status: Inactive</b> Positional Accuracy: Manually positioned to the address or location	A16SE (NE)	807	-	507216 188114
184	<b>Contemporary Trade Directory Entries</b> Name: J M Motors Ltd Location: Elm Tree Farm, Newyears Green Lane, Harefield, UB9 6LX Classification: Car Dealers - Used <b>Status: Active</b> Positional Accuracy: Automatically positioned to the address	A16SE (NE)	820	-	507336 188090
185	<b>Contemporary Trade Directory Entries</b> Name: Vaillant Boiler Specialists Location: 25, Greenacres Avenue, Uxbridge, Middlesex, UB10 8HQ Classification: Boilers - Servicing, Replacements & Repairs <b>Status: Active</b> Positional Accuracy: Automatically positioned to the address	A4NW (SE)	859	-	507030 186354
186	<b>Fuel Station Entries</b> Name: Harefield Oil Terminal Location: Harvile Road, Harefield, Ickenham, Hillingdon, Middlesex, Ub9 6jl Brand: Unbranded Premises Type: Petrol Station <b>Status: Non-Retail</b> Positional Accuracy: Manually positioned to the address or location	A6NE (SW)	199	-	506191 187298
187	<b>Points of Interest - Commercial Services</b> Name: Refuels Ltd Location: Harefield Oil Terminal Harvil Road, Harefield, Uxbridge, Middlesex, UB9 6JL Category: Recycling Services Class Code: Recycling, Reclamation and Disposal Positional Accuracy: Positioned to address or location	A6NE (SW)	199	9	506191 187298
188	<b>Points of Interest - Commercial Services</b> Name: R M C Garages Location: 2 Dewes Farm Cottages, Harvil Road, Harefield, Uxbridge, UB9 6JN Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A10NE (NW)	300	9	505861 187934
189	<b>Points of Interest - Commercial Services</b> Name: Scrap Yard Location: UB9 Category: Recycling Services Class Code: Scrap Metal Merchants Positional Accuracy: Positioned to address or location	A11NW (N)	440	9	506486 187960
189	<b>Points of Interest - Commercial Services</b> Name: Scrap Yard Location: Not Supplied Category: Recycling Services Class Code: Scrap Metal Merchants Positional Accuracy: Positioned to an adjacent address or location	A11NW (N)	445	9	506483 187966
189	<b>Points of Interest - Commercial Services</b> Name: Scrap Yard Location: UB9 Category: Recycling Services Class Code: Scrap Metal Merchants Positional Accuracy: Positioned to an adjacent address or location	A15SW (N)	487	9	506436 188025
190	<b>Points of Interest - Commercial Services</b> Name: B F A Recycling Location: New Years Green Farm, New Years Green Lane, Harefield, Uxbridge, UB9 6LX Category: Recycling Services Class Code: Scrap Metal Merchants Positional Accuracy: Positioned to address or location	A11NE (NE)	485	9	506741 187927
191	<b>Points of Interest - Commercial Services</b> Name: Start Location: Breakspear Road South, Ickenham, Uxbridge, UB10 8HB Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A8SW (SE)	544	9	506912 186719

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
191	<b>Points of Interest - Commercial Services</b> Name: Start Location: Copthall Farm, Breakspear Road South, Ickenham, Uxbridge, UB10 8HB Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A8SW (SE)	544	9	506912 186719
192	<b>Points of Interest - Commercial Services</b> Name: Quantum Tuning Ltd Location: 1 Harvil Farm, Harvil Road, Ickenham, Uxbridge, UB10 8AJ Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A7SW (S)	672	9	506359 186753
192	<b>Points of Interest - Commercial Services</b> Name: Autorevive London Location: Harvil Farm, Harvil Road, Ickenham, Uxbridge, UB10 8AJ Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A7SW (S)	673	9	506358 186752
193	<b>Points of Interest - Commercial Services</b> Name: Southern Pest Control Location: 1 New Years Green Lane, Harefield, Uxbridge, UB9 6LX Category: Contract Services Class Code: Pest and Vermin Control Positional Accuracy: Positioned to address or location	A16SW (NE)	797	9	507006 188170
193	<b>Points of Interest - Commercial Services</b> Name: Southern Pest Control Location: 1 New Years Green Lane, Harefield, Uxbridge, UB9 6LX Category: Contract Services Class Code: Pest and Vermin Control Positional Accuracy: Positioned to address or location	A16SW (NE)	797	9	507006 188170
194	<b>Points of Interest - Manufacturing and Production</b> Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A10SE (W)	160	9	506038 187385
194	<b>Points of Interest - Manufacturing and Production</b> Name: Wks Location: UB9 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A10SE (W)	165	9	506033 187382
194	<b>Points of Interest - Manufacturing and Production</b> Name: Works Location: UB9 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A10SE (W)	186	9	505974 187378
194	<b>Points of Interest - Manufacturing and Production</b> Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A10SE (W)	188	9	505974 187376
194	<b>Points of Interest - Manufacturing and Production</b> Name: Works Location: UB9 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A10SE (W)	188	9	506057 187350
194	<b>Points of Interest - Manufacturing and Production</b> Name: Works Location: UB9 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A10SE (W)	190	9	505916 187391
195	<b>Points of Interest - Manufacturing and Production</b> Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A10SE (W)	183	9	506066 187353

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
196	<b>Points of Interest - Manufacturing and Production</b> Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A6NW (W)	483	9	505540 187317
196	<b>Points of Interest - Manufacturing and Production</b> Name: Works Location: UB10 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A6NW (W)	491	9	505531 187317
197	<b>Points of Interest - Manufacturing and Production</b> Name: Tank Location: UB9 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A16SW (NE)	739	9	507196 188049
198	<b>Points of Interest - Manufacturing and Production</b> Name: Superior Stone Location: Pond Farm, New Years Green Lane, Harefield, Uxbridge, UB9 6LX Category: Extractive Industries Class Code: Stone Quarrying and Preparation Positional Accuracy: Positioned to address or location	A16SW (NE)	758	9	507075 188108
199	<b>Points of Interest - Public Infrastructure</b> Name: Refuels Ltd Location: Harefield Oil Terminal, Harvil Road, Harefield, Uxbridge, UB9 6JL Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to address or location	A6NE (SW)	199	9	506191 187298
200	<b>Points of Interest - Public Infrastructure</b> Name: Outfall Location: UB10 Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to an adjacent address or location	A8SE (SE)	438	9	507228 186733
201	<b>Points of Interest - Public Infrastructure</b> Name: L J Grundon & Sons Ltd Location: High View Farm, New Years Green Lane, Harefield, Uxbridge, UB9 6LX Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to address or location	A16SE (NE)	785	9	507228 188088
201	<b>Points of Interest - Public Infrastructure</b> Name: West London Composting Ltd Location: Highview Farm, New Years Green La, Harefield, Uxbridge, Middlesex, UB9 6LX Category: Infrastructure and Facilities Class Code: Recycling Centres Positional Accuracy: Positioned to address or location	A16SE (NE)	807	9	507216 188114



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
202	<b>Ancient Woodland</b> Name: Newyears Green Covert Reference: 1504749 Area(m²): 21589.59 Type: Ancient and Semi-Natural Woodland	A11SW (NE)	129	10	506464 187641
203	<b>Ancient Woodland</b> Name: The Pinnocks Wood Reference: 1496315 Area(m²): 22373.81 Type: Ancient and Semi-Natural Woodland	A2NE (S)	982	10	506071 186516
204	<b>Areas of Adopted Green Belt</b> Authority: London Borough of Hillingdon Plan Name: Hillingdon Unitary Development Plan Status: <b>Adopted</b> Plan Date: 30th September 1998	A11SW (NE)	0	11	506355 187450
205	<b>Areas of Adopted Green Belt</b> Authority: London Borough of Hillingdon Plan Name: Hillingdon Unitary Development Plan Status: <b>Adopted</b> Plan Date: 30th September 1998	A8NW (SE)	0	11	507129 187095
206	<b>Areas of Adopted Green Belt</b> Authority: London Borough of Hillingdon Plan Name: Hillingdon Unitary Development Plan Status: <b>Adopted</b> Plan Date: 30th September 1998	A7NW (SW)	0	11	506223 187304
207	<b>Areas of Adopted Green Belt</b> Authority: London Borough of Hillingdon Plan Name: Hillingdon Unitary Development Plan Status: <b>Adopted</b> Plan Date: 30th September 1998	(E)	763	11	507641 187934
208	<b>Areas of Adopted Green Belt</b> Authority: South Buckinghamshire District Council, Development Control Department Plan Name: Proposal Map Status: <b>Adopted</b> Plan Date: 22nd February 2011	A5NW (W)	830	12	505153 187331
209	<b>Areas of Adopted Green Belt</b> Authority: London Borough of Hillingdon Plan Name: Hillingdon Unitary Development Plan Status: <b>Adopted</b> Plan Date: 30th September 1998	A4SE (SE)	835	11	507327 186270
210	<b>Local Nature Reserves</b> Name: Frays Valley Multiple Area: Y Area (m2): 718709.89 Source: Natural England Designation Date: 1st January 2000	A6NW (W)	360	10	505698 187252
211	<b>Local Nature Reserves</b> Name: Denham Quarry Park (Mapped Boundary Not Verified) Multiple Area: Y Area (m2): 296145.07 Source: Natural England Designation Date: Not Supplied	A5NE (W)	735	10	505265 187231
212	<b>Local Nature Reserves</b> Name: Denham Country Park (Mapped Boundary Not Verified) Multiple Area: N Area (m2): 198236.53 Source: Natural England Designation Date: 24th July 1997	A5NE (W)	735	10	505265 187231
213	<b>National Nature Reserves</b> Name: Ruislip Woods Multiple Areas: Y Total Area (m2): 2954882.55 Source: Natural England Reference: 1006764 Designation Date: Not Supplied	A15NE (NE)	970	10	506800 188417
214	<b>Nitrate Vulnerable Zones</b> Name: Colne And Guc (From Confluence With Chess To Ash) Nvz Description: Surface Water Source: Environment Agency, Head Office	A11SW (NE)	0	13	506355 187450

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
215	<b>Sites of Special Scientific Interest</b> Name: Ruislip Woods Multiple Areas: Y Total Area (m2): 3074584.52 Source: Natural England Reference: 1003633 Designation Details: Local Nature Reserve Designation Date: 23rd April 1990 Date Type: Notified Designation Details: Local Wildlife Site Designation Date: 23rd April 1990 Date Type: Notified Designation Details: Nature Conservation Review Designation Date: 23rd April 1990 Date Type: Notified Designation Details: National Nature Reserve Designation Date: 23rd April 1990 Date Type: Notified Designation Details: Site Of Special Scientific Interest Designation Date: 23rd April 1990 Date Type: Notified	A15NE (NE)	970	10	506800 188417



Agency & Hydrological	Version	Update Cycle
<b>Contaminated Land Register Entries and Notices</b> Chiltern District Council - Environmental Health Three Rivers District Council - Environmental Health Department London Borough of Hillingdon - Environmental Protection Unit South Buckinghamshire District Council - Environmental Health Department	April 2014 January 2015 March 2015 October 2014	Annual Rolling Update Annual Rolling Update Annual Rolling Update Annual Rolling Update
<b>Discharge Consents</b> Environment Agency - Thames Region	July 2017	Quarterly
<b>Enforcement and Prohibition Notices</b> Environment Agency - Thames Region	March 2013	As notified
<b>Integrated Pollution Controls</b> Environment Agency - Thames Region	October 2008	Not Applicable
<b>Integrated Pollution Prevention And Control</b> Environment Agency - South East Region - North East Thames Area Environment Agency - South East Region - West Thames Area Environment Agency - Thames Region	July 2017 July 2017 July 2017	Quarterly Quarterly Quarterly
<b>Local Authority Integrated Pollution Prevention And Control</b> London Borough of Hillingdon - Environmental Health Department Three Rivers District Council - Environmental Health Department Chiltern District Council - Environmental Health South Buckinghamshire District Council - Environmental Health Department	August 2014 February 2015 October 2014 September 2014	Annual Rolling Update Annual Rolling Update Annual Rolling Update Annual Rolling Update
<b>Local Authority Pollution Prevention and Controls</b> London Borough of Hillingdon - Environmental Health Department Three Rivers District Council - Environmental Health Department Chiltern District Council - Environmental Health South Buckinghamshire District Council - Environmental Health Department	August 2014 February 2015 October 2014 September 2014	Annual Rolling Update Annual Rolling Update Annual Rolling Update Annual Rolling Update
<b>Local Authority Pollution Prevention and Control Enforcements</b> London Borough of Hillingdon - Environmental Health Department Three Rivers District Council - Environmental Health Department Chiltern District Council - Environmental Health South Buckinghamshire District Council - Environmental Health Department	August 2014 February 2015 October 2014 September 2014	Annual Rolling Update Annual Rolling Update Annual Rolling Update Annual Rolling Update
<b>Nearest Surface Water Feature</b> Ordnance Survey	May 2017	
<b>Pollution Incidents to Controlled Waters</b> Environment Agency - Thames Region	September 1999	Not Applicable
<b>Prosecutions Relating to Authorised Processes</b> Environment Agency - Thames Region	March 2013	As notified
<b>Prosecutions Relating to Controlled Waters</b> Environment Agency - Thames Region	March 2013	As notified
<b>Registered Radioactive Substances</b> Environment Agency - Thames Region	January 2015	
<b>River Quality</b> Environment Agency - Head Office	November 2001	Not Applicable
<b>River Quality Biology Sampling Points</b> Environment Agency - Head Office	July 2012	Annually
<b>River Quality Chemistry Sampling Points</b> Environment Agency - Head Office	July 2012	Annually
<b>Substantiated Pollution Incident Register</b> Environment Agency - South East Region - North East Thames Area Environment Agency - South East Region - West Thames Area Environment Agency - Thames Region - North East Area	July 2017 July 2017 July 2017	Quarterly Quarterly Quarterly
<b>Water Abstractions</b> Environment Agency - Thames Region	July 2017	Quarterly

Agency & Hydrological	Version	Update Cycle
<b>Water Industry Act Referrals</b> Environment Agency - Thames Region	July 2017	Quarterly
<b>Groundwater Vulnerability</b> Environment Agency - Head Office	April 2015	Not Applicable
<b>Drift Deposits</b> Environment Agency - Head Office	January 1999	Not Applicable
<b>Bedrock Aquifer Designations</b> British Geological Survey - National Geoscience Information Service	August 2015	As notified
<b>Superficial Aquifer Designations</b> British Geological Survey - National Geoscience Information Service	August 2015	As notified
<b>Source Protection Zones</b> Environment Agency - Head Office	July 2017	Quarterly
<b>Extreme Flooding from Rivers or Sea without Defences</b> Environment Agency - Head Office	August 2017	Quarterly
<b>Flooding from Rivers or Sea without Defences</b> Environment Agency - Head Office	August 2017	Quarterly
<b>Areas Benefiting from Flood Defences</b> Environment Agency - Head Office	August 2017	Quarterly
<b>Flood Water Storage Areas</b> Environment Agency - Head Office	August 2017	Quarterly
<b>Flood Defences</b> Environment Agency - Head Office	August 2017	Quarterly
<b>OS Water Network Lines</b> Ordnance Survey	July 2017	6 Weekly
<b>Surface Water 1 in 30 year Flood Extent</b> Environment Agency - Head Office	October 2013	As notified
<b>Surface Water 1 in 100 year Flood Extent</b> Environment Agency - Head Office	October 2013	As notified
<b>Surface Water 1 in 1000 year Flood Extent</b> Environment Agency - Head Office	October 2013	As notified
<b>Surface Water Suitability</b> Environment Agency - Head Office	October 2013	As notified
<b>BGS Groundwater Flooding Susceptibility</b> British Geological Survey - National Geoscience Information Service	May 2013	Annually

Waste	Version	Update Cycle
<b>BGS Recorded Landfill Sites</b> British Geological Survey - National Geoscience Information Service	June 1996	Not Applicable
<b>Historical Landfill Sites</b> Environment Agency - Head Office	May 2017	Quarterly
<b>Integrated Pollution Control Registered Waste Sites</b> Environment Agency - Thames Region	October 2008	Not Applicable
<b>Licensed Waste Management Facilities (Landfill Boundaries)</b> Environment Agency - South East Region - North East Thames Area Environment Agency - South East Region - West Thames Area Environment Agency - Thames Region - North East Area	May 2017 May 2017 May 2017	Quarterly Quarterly Quarterly
<b>Licensed Waste Management Facilities (Locations)</b> Environment Agency - South East Region - North East Thames Area Environment Agency - South East Region - West Thames Area Environment Agency - Thames Region - North East Area	July 2017 July 2017 July 2017	Quarterly Quarterly Quarterly
<b>Local Authority Landfill Coverage</b> Buckinghamshire County Council Chiltern District Council - Environmental Health Hertfordshire County Council - Spatial Planning and Economy Unit London Borough of Hillingdon - Environmental Health Department South Buckinghamshire District Council Three Rivers District Council - Environmental Health Department	May 2000 May 2000 May 2000 May 2000 May 2000 May 2000	Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable
<b>Local Authority Recorded Landfill Sites</b> South Buckinghamshire District Council Buckinghamshire County Council Chiltern District Council - Environmental Health Hertfordshire County Council - Spatial Planning and Economy Unit London Borough of Hillingdon - Environmental Health Department Three Rivers District Council - Environmental Health Department	August 2006 May 2000 May 2000 May 2000 May 2000 May 2000	Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable
<b>Potentially Infilled Land (Non-Water)</b> Landmark Information Group Limited	December 1999	Not Applicable
<b>Potentially Infilled Land (Water)</b> Landmark Information Group Limited	December 1999	Not Applicable
<b>Registered Landfill Sites</b> Environment Agency - Thames Region - North East Area	March 2003	Not Applicable
<b>Registered Waste Transfer Sites</b> Environment Agency - Thames Region - North East Area	March 2003	Not Applicable
<b>Registered Waste Treatment or Disposal Sites</b> Environment Agency - Thames Region - North East Area	June 2015	Not Applicable

Hazardous Substances	Version	Update Cycle
<b>Control of Major Accident Hazards Sites (COMAH)</b> Health and Safety Executive	September 2017	Bi-Annually
<b>Explosive Sites</b> Health and Safety Executive	March 2017	Bi-Annually
<b>Notification of Installations Handling Hazardous Substances (NIHHS)</b> Health and Safety Executive	November 2000	Not Applicable
<b>Planning Hazardous Substance Enforcements</b> Buckinghamshire County Council Chiltern District Council - Planning Department Hertfordshire County Council - Spatial Planning and Economy Unit South Buckinghamshire District Council - Development Control Department Three Rivers District Council London Borough of Hillingdon	February 2016 February 2016 February 2016 February 2016 February 2016 January 2016	Annual Rolling Update Annual Rolling Update Annual Rolling Update Annual Rolling Update Annual Rolling Update Annual Rolling Update
<b>Planning Hazardous Substance Consents</b> Buckinghamshire County Council Chiltern District Council - Planning Department Hertfordshire County Council - Spatial Planning and Economy Unit South Buckinghamshire District Council - Development Control Department Three Rivers District Council London Borough of Hillingdon	February 2016 February 2016 February 2016 February 2016 February 2016 January 2016	Annual Rolling Update Annual Rolling Update Annual Rolling Update Annual Rolling Update Annual Rolling Update Annual Rolling Update

Geological	Version	Update Cycle
<b>BGS 1:625,000 Solid Geology</b> British Geological Survey - National Geoscience Information Service	January 2009	Not Applicable
<b>BGS Estimated Soil Chemistry</b> British Geological Survey - National Geoscience Information Service	October 2015	As notified
<b>BGS Recorded Mineral Sites</b> British Geological Survey - National Geoscience Information Service	April 2017	Bi-Annually
<b>BGS Urban Soil Chemistry</b> British Geological Survey - National Geoscience Information Service	October 2015	As notified
<b>BGS Urban Soil Chemistry Averages</b> British Geological Survey - National Geoscience Information Service	October 2015	As notified
<b>CBSCB Compensation District</b> Cheshire Brine Subsidence Compensation Board (CBSCB)	August 2011	Not Applicable
<b>Coal Mining Affected Areas</b> The Coal Authority - Property Searches	March 2014	As notified
<b>Mining Instability</b> Ove Arup & Partners	October 2000	Not Applicable
<b>Non Coal Mining Areas of Great Britain</b> British Geological Survey - National Geoscience Information Service	May 2015	Not Applicable
<b>Potential for Collapsible Ground Stability Hazards</b> British Geological Survey - National Geoscience Information Service	June 2015	Annually
<b>Potential for Compressible Ground Stability Hazards</b> British Geological Survey - National Geoscience Information Service	June 2015	Annually
<b>Potential for Ground Dissolution Stability Hazards</b> British Geological Survey - National Geoscience Information Service	June 2015	Annually
<b>Potential for Landslide Ground Stability Hazards</b> British Geological Survey - National Geoscience Information Service	June 2015	Annually
<b>Potential for Running Sand Ground Stability Hazards</b> British Geological Survey - National Geoscience Information Service	June 2015	Annually
<b>Potential for Shrinking or Swelling Clay Ground Stability Hazards</b> British Geological Survey - National Geoscience Information Service	June 2015	Annually
<b>Radon Potential - Radon Affected Areas</b> British Geological Survey - National Geoscience Information Service	July 2011	As notified
<b>Radon Potential - Radon Protection Measures</b> British Geological Survey - National Geoscience Information Service	July 2011	As notified

Industrial Land Use	Version	Update Cycle
<b>Contemporary Trade Directory Entries</b> Thomson Directories	June 2017	Quarterly
<b>Fuel Station Entries</b> Catalist Ltd - Experian	August 2017	Quarterly
<b>Gas Pipelines</b> National Grid	July 2014	Quarterly
<b>Points of Interest - Commercial Services</b> PointX	September 2017	Quarterly
<b>Points of Interest - Education and Health</b> PointX	September 2017	Quarterly
<b>Points of Interest - Manufacturing and Production</b> PointX	September 2017	Quarterly
<b>Points of Interest - Public Infrastructure</b> PointX	September 2017	Quarterly
<b>Points of Interest - Recreational and Environmental</b> PointX	September 2017	Quarterly
<b>Underground Electrical Cables</b> National Grid	December 2015	Bi-Annually

Sensitive Land Use	Version	Update Cycle
<b>Ancient Woodland</b> Natural England	May 2017	Bi-Annually
<b>Areas of Adopted Green Belt</b> Chiltern District Council - Planning Department London Borough of Hillingdon South Buckinghamshire District Council - Development Control Department Three Rivers District Council	May 2017 May 2017 May 2017 May 2017	As notified As notified As notified As notified
<b>Areas of Unadopted Green Belt</b> Chiltern District Council - Planning Department London Borough of Hillingdon South Buckinghamshire District Council - Development Control Department Three Rivers District Council	May 2017 May 2017 May 2017 May 2017	As notified As notified As notified As notified
<b>Areas of Outstanding Natural Beauty</b> Natural England	August 2017	Bi-Annually
<b>Environmentally Sensitive Areas</b> Natural England	January 2017	Annually
<b>Forest Parks</b> Forestry Commission	April 1997	Not Applicable
<b>Local Nature Reserves</b> Natural England	August 2017	Bi-Annually
<b>Marine Nature Reserves</b> Natural England	August 2017	Bi-Annually
<b>National Nature Reserves</b> Natural England	August 2017	Bi-Annually
<b>National Parks</b> Natural England	August 2017	Bi-Annually
<b>Nitrate Vulnerable Zones</b> Environment Agency - Head Office Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	June 2017 October 2015	Bi-Annually
<b>Ramsar Sites</b> Natural England	August 2017	Bi-Annually
<b>Sites of Special Scientific Interest</b> Natural England	August 2017	Bi-Annually
<b>Special Areas of Conservation</b> Natural England	August 2017	Bi-Annually
<b>Special Protection Areas</b> Natural England	August 2017	Bi-Annually

A selection of organisations who provide data within this report

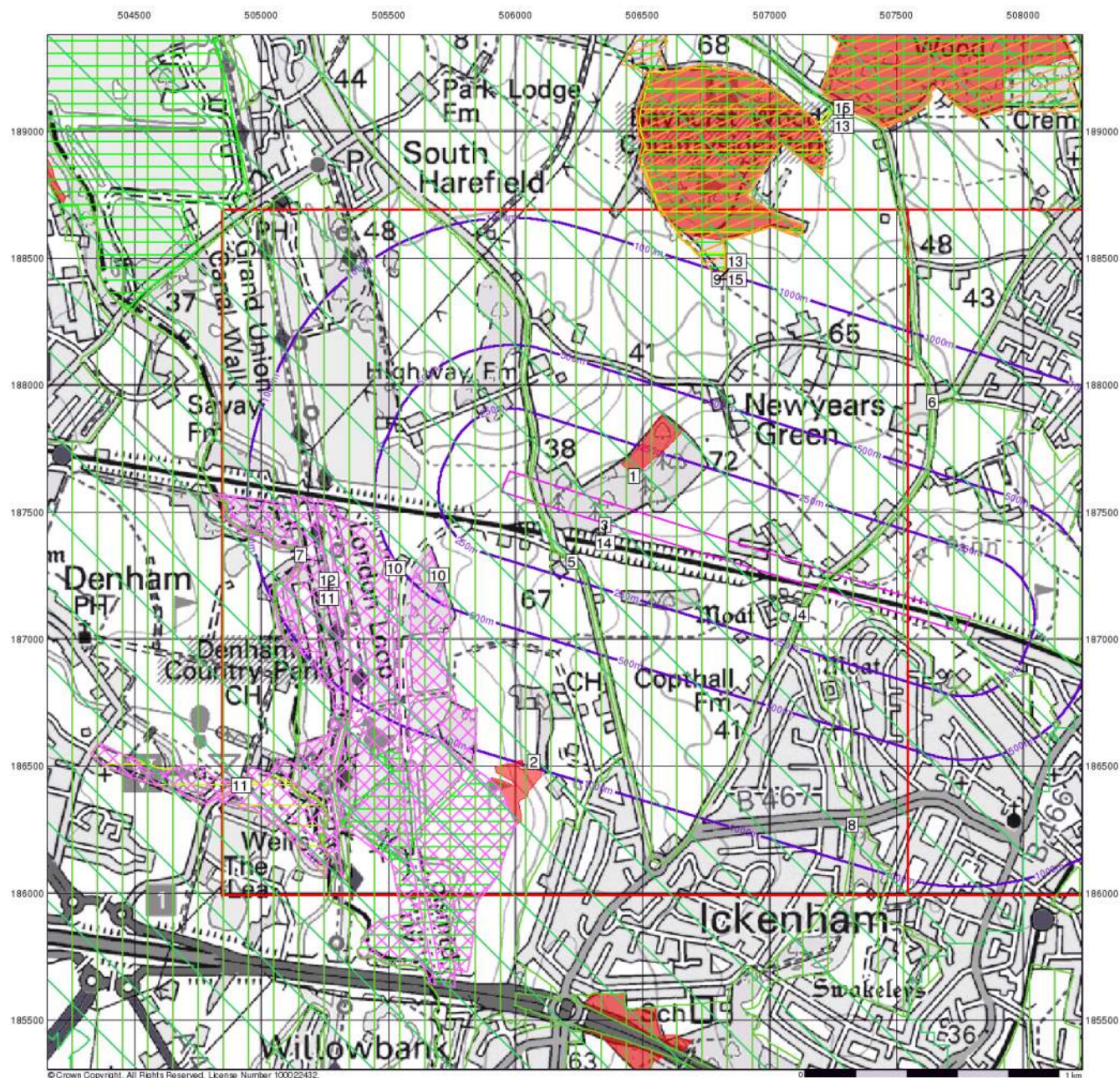
Data Supplier	Data Supplier Logo
Ordnance Survey	
Environment Agency	
Scottish Environment Protection Agency	
The Coal Authority	
British Geological Survey	 British Geological Survey NATURAL ENVIRONMENT RESEARCH COUNCIL
Centre for Ecology and Hydrology	 Centre for Ecology & Hydrology NATURAL ENVIRONMENT 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	<b>British Geological Survey - Enquiry Service</b> British Geological Survey, Kingsley Dunham 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	<b>London Borough of Hillingdon - Environmental Protection Unit</b> Civic Centre, High Street, Uxbridge, Middlesex, UB8 1UW	Telephone: 01895 250111 Fax: 01895 277443 Website: www.hillingdon.gov.uk
3	<b>Environment Agency - National Customer Contact Centre (NCCC)</b> PO Box 544, Templeborough, Rotherham, S60 1BY	Telephone: 03708 506 506 Email: enquiries@environment-agency.gov.uk
4	<b>London Borough of Hillingdon - Environmental Health Department</b> Civic Centre, High Street, Uxbridge, Middlesex, UB8 1UW	Telephone: 01895 250111 Fax: 01895 277443 Website: www.hillingdon.gov.uk
5	<b>Ordnance Survey</b> Adanac Drive, Southampton, Hampshire, SO16 0AS	Telephone: 023 8079 2000 Email: customerservices@ordnancesurvey.co.uk Website: www.ordnancesurvey.gov.uk
6	<b>Buckinghamshire County Council</b> County Hall, Aylesbury, Buckinghamshire, HP20 1UA	Telephone: 01296 395900 Fax: 01296 88887 Website: www.bucksccl.gov.uk
7	<b>South Buckinghamshire District Council</b> Capswood, Oxford Road, Denham, Berkshire, UB9 4LH	Telephone: 01895 837200 Website: www.southbucks.gov.uk
8	<b>Peter Brett Associates</b> Caversham Bridge House, Waterman Place, Reading, Berkshire, RG1 8DN	Telephone: 0118 950 0761 Fax: 0118 959 7498 Email: reading@pba.co.uk Website: www.pba.co.uk
9	<b>PointX</b> 7 Abbey Court, Eagle Way, Sowton, Exeter, Devon, EX2 7HY	Website: www.pointx.co.uk
10	<b>Natural England</b> County Hall, Spetchley Road, Worcester, WR5 2NP	Telephone: 0300 060 3900 Email: enquiries@naturalengland.org.uk Website: www.naturalengland.org.uk
11	<b>London Borough of Hillingdon</b> Civic Centre, High Street, Uxbridge, Middlesex, UB8 1UW	Telephone: 01895 250111 Fax: 01895 250830 Website: www.hillingdon.gov.uk
12	<b>South Buckinghamshire District Council - Development Control Department</b> Capswood, Oxford Road, Denham, Berkshire, UB9 4LH	Telephone: 01895 837200 Website: www.southbucks.gov.uk
13	<b>Environment Agency - Head Office</b> Rio House, Waterside Drive, Aztec West, Almondsbury, Bristol, Avon, BS32 4UD	Telephone: 01454 624400 Fax: 01454 624409
-	<b>Public Health England - Radon Survey, Centre for Radiation, Chemical and Environmental Hazards</b> Chilton, Didcot, Oxfordshire, OX11 0RQ	Telephone: 01235 822622 Fax: 01235 833891 Email: radon@phe.gov.uk Website: www.ukradon.org
-	<b>Landmark Information Group Limited</b> 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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## Ecology

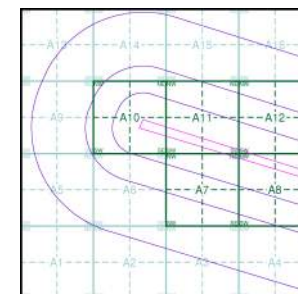
### General

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

### Ecology

- Ancient Woodland
- Area of Adopted Green Belt
- Area of Outstanding Natural Beauty
- Area of Unadopted Green Belt
- Country Parks
- 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

### Ecology - Slice A



### Order Details

Order Number: 140402875\_1\_1  
 Customer Ref: 256905  
 National Grid Reference: 506350, 187450  
 Slice: A  
 Site Area (Ha): 14.32  
 Search Buffer (m): 1000

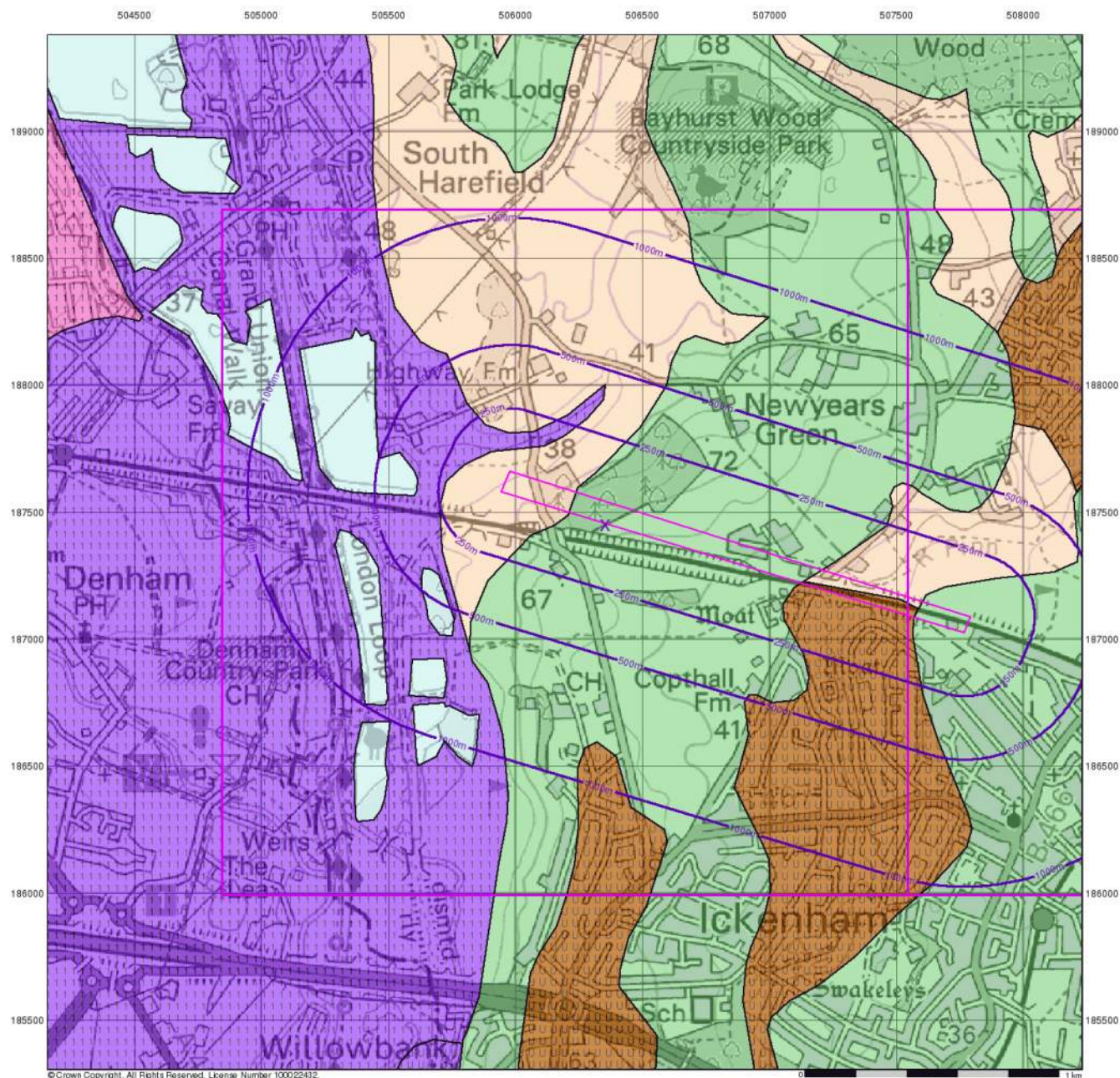
### Site Details

Site at 506720, 187630

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





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## Water and Hydrology

### General

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

### Groundwater Vulnerability

#### Geological Classes

**Major Aquifer  
(Highly Permeable)**

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

**Minor Aquifer  
(Variably Permeable)**

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

**Non Aquifer  
(Negligibly Permeable)**

- 

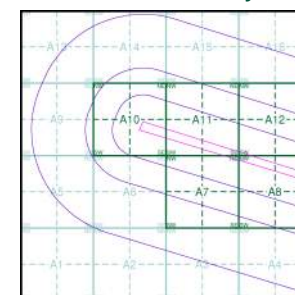
**Water or Sea**

- 

**Drift Deposit**

- 

### Groundwater Vulnerability - Slice A



### Order Details

Order Number: 140402875\_1\_1  
 Customer Ref: 256905  
 National Grid Reference: 506350, 187450  
 Slice: A  
 Site Area (Ha): 14.32  
 Search Buffer (m): 1000

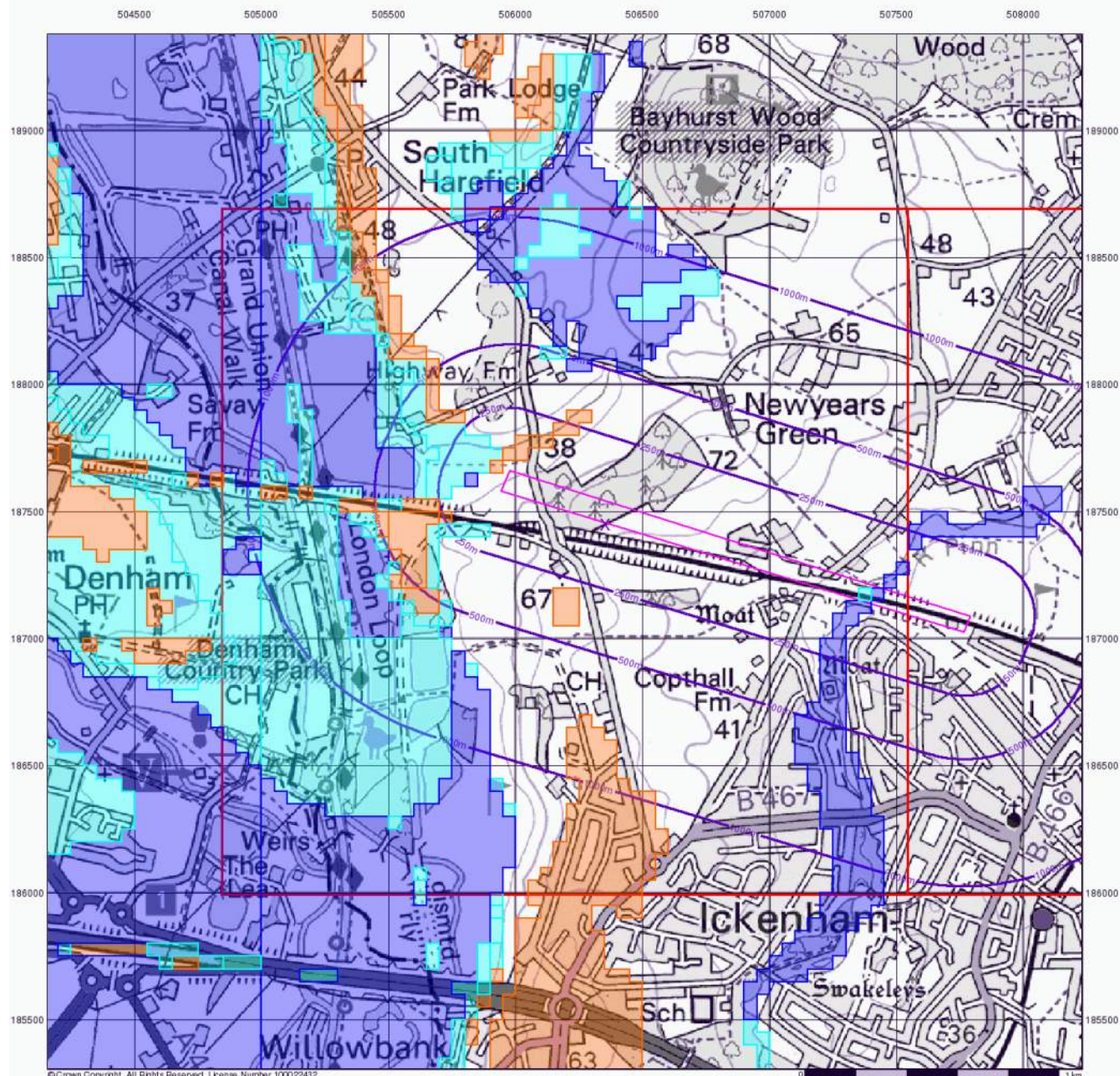
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## Water and Hydrology

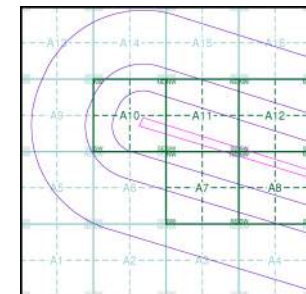
### General

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

### Groundwater Flooding Susceptibility

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

### Groundwater Flooding Susceptibility - Slice A



### Order Details

Order Number: 140402875\_1\_1  
 Customer Ref: 256905  
 National Grid Reference: 506350, 187450  
 Slice: A  
 Site Area (Ha): 14.32  
 Search Buffer (m): 1000

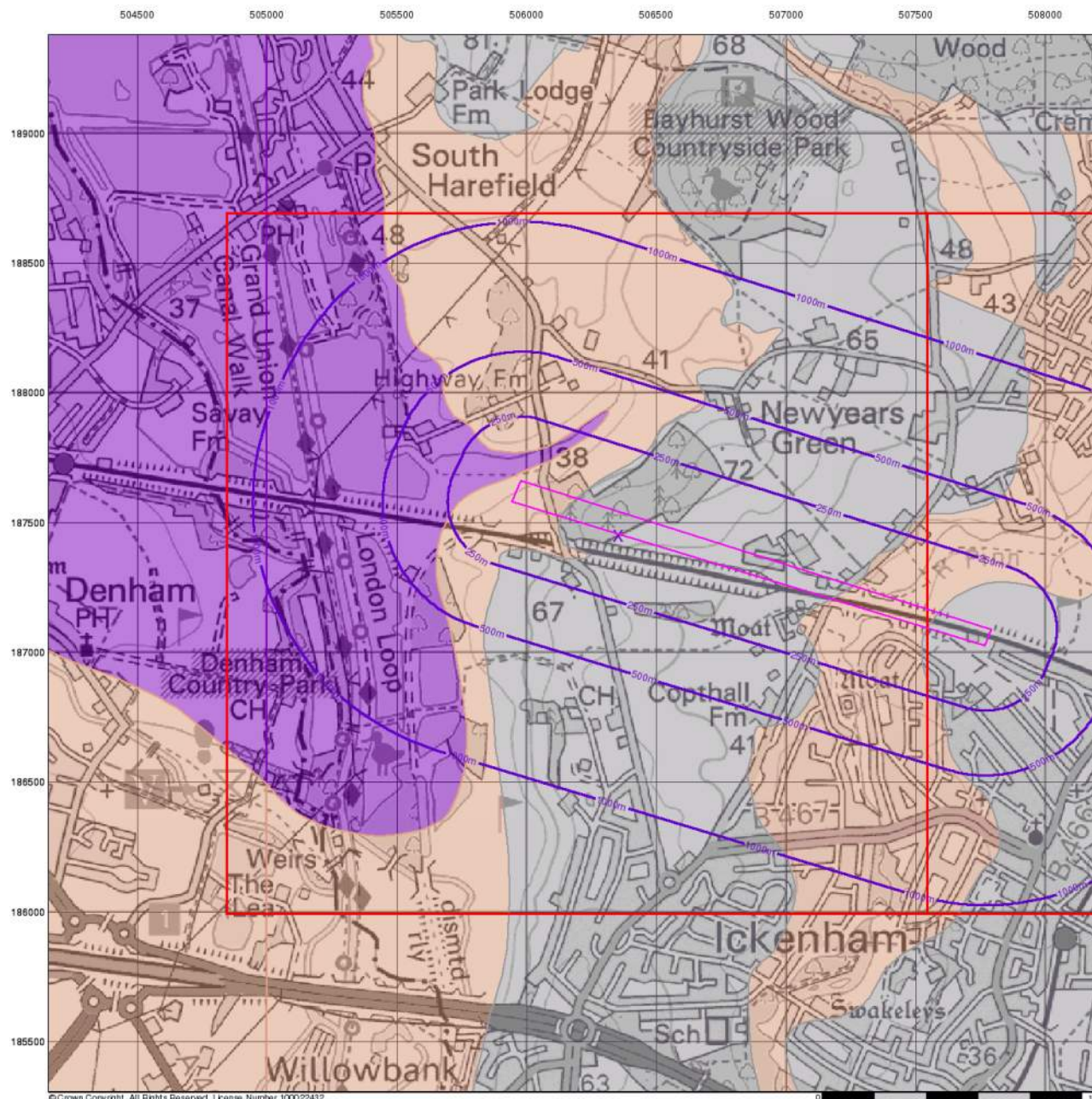
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## Water and Hydrology

### General

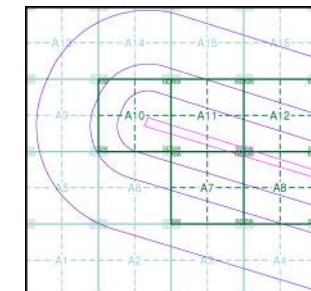
- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

## Bedrock Aquifer Designations

### Geological Classes

- Principal Aquifer
- Secondary A Aquifer
- Secondary B Aquifer
- Secondary Undifferentiated
- Unproductive Strata
- Unknown

## Bedrock Aquifer Designations - Slice A



## Order Details

Order Number: 140402875\_1\_1  
 Customer Ref: 256905  
 National Grid Reference: 506350, 187450  
 Slice: A  
 Site Area (Ha): 14.32  
 Search Buffer (m): 1000

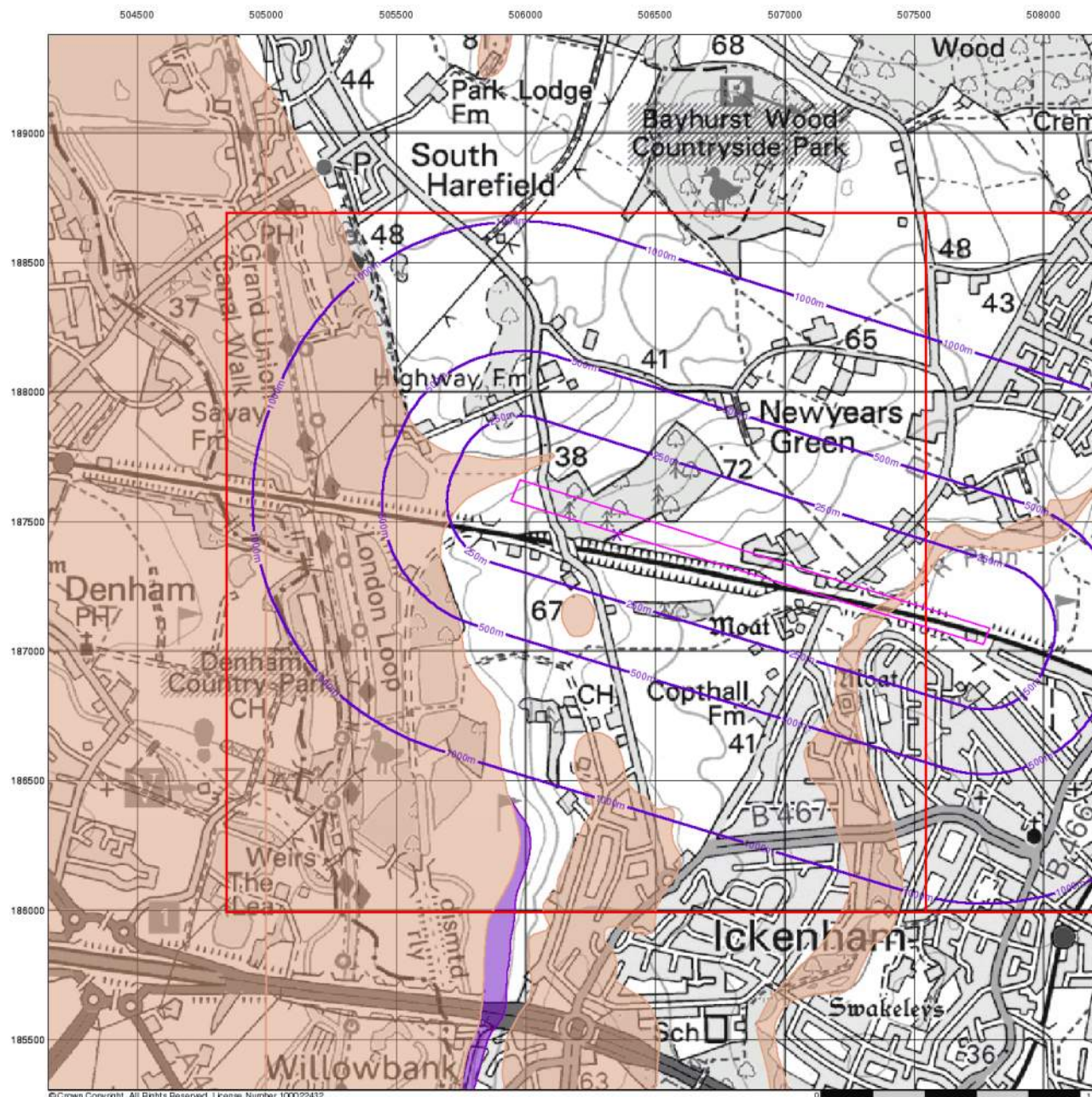
## Site Details

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## Water and Hydrology

### General

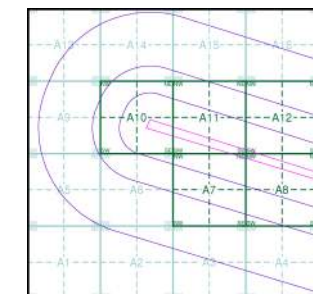
- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

## Superficial Aquifer Designations

### Geological Classes

- Principal Aquifer
- Secondary A Aquifer
- Secondary B Aquifer
- Secondary Undifferentiated
- Unproductive Strata
- Unknown

## Superficial Aquifer Designations - Slice A



### Order Details

Order Number: 140402875\_1\_1  
 Customer Ref: 256905  
 National Grid Reference: 506350, 187450  
 Slice: A  
 Site Area (Ha): 14.32  
 Search Buffer (m): 1000

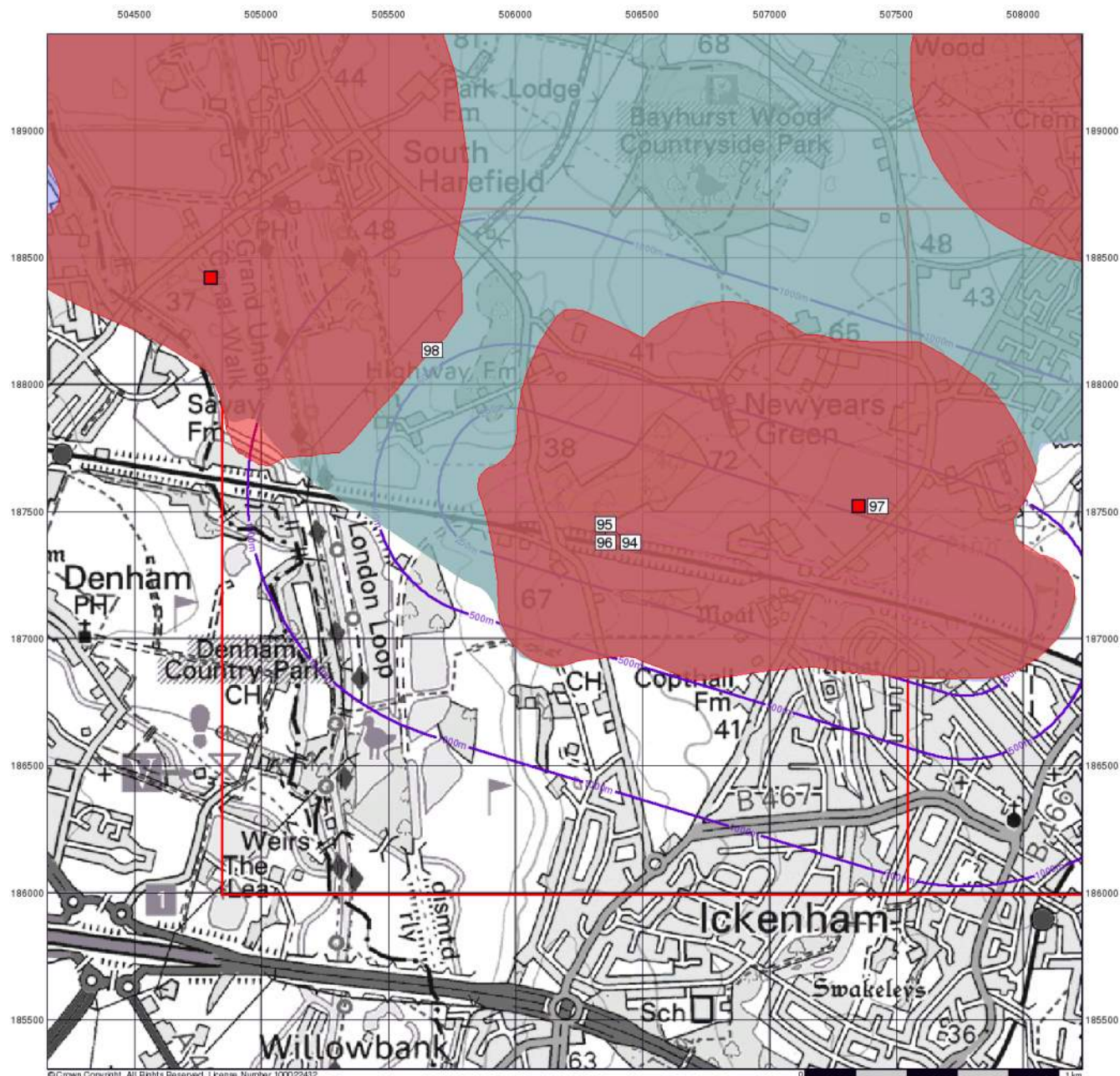
### Site Details

Site at 506720, 187630

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## Water and Hydrology

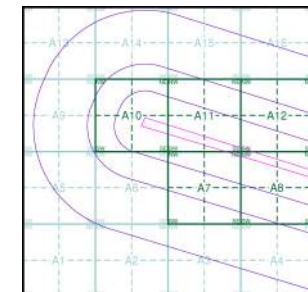
### General

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

### Source Protection Zones

- 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)
- Source Protection Zone Borehole

### Source Protection Zones - Slice A



### Order Details

Order Number: 140402875\_1\_1  
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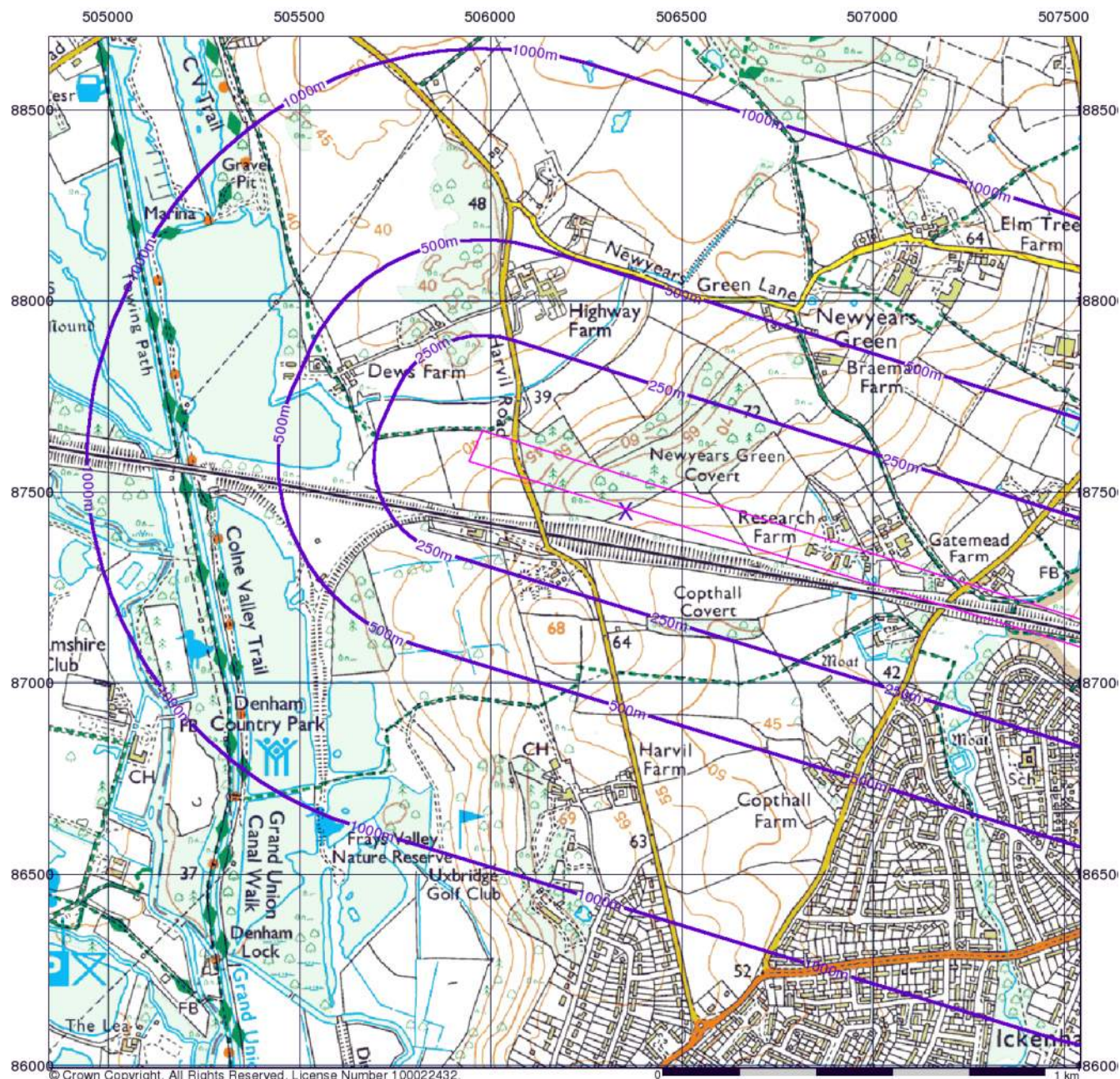
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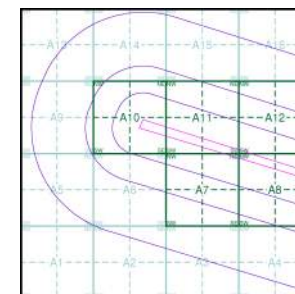
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## Site Location

### General

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

## Site Location - Slice A



### Order Details

Order Number: 140402875\_1\_1  
 Customer Ref: 256905  
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 Site Area (Ha): 14.32  
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# OS Explorer Map / 1:25 000 Scale Colour Raster

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## Communications

### ROADS AND PATHS

Not necessarily rights of way



Service area



Junction number

	Motorway
	Dual carriageway
	Main road
	Secondary road
	Narrow road with passing places
	Road under construction
	Road generally more than 4 m wide
	Road generally less than 4 m wide
	Other road, drive or track, fenced and unfenced
	Gradient: steeper than 20% (1 in 5); 14% (1 in 7) to 20% (1 in 5)
	Ferry; Ferry P - passenger only
	Path

### RAILWAYS

	Multiple track	standard gauge
	Single track	
	{ Narrow gauge or Light rapid transit system (LRTS) and station	
	Road over; road under; level crossing	
	Cutting; tunnel; embankment	
	Station, open to passengers; siding	

### PUBLIC RIGHTS OF WAY

(Rights of way are not shown on maps of Scotland)

	Footpath
	Bridleway
	Byway open to all traffic
	Restricted byway (not for use by mechanically propelled vehicles)

Public rights of way shown on this map have been taken from local authority definitive maps and later amendments.

Rights of way are liable to change and may not be clearly defined on the ground. Please check with the relevant local authority for the latest information

**The representation on this map of any other road, track or path is no evidence of the existence of a right of way**

### OTHER PUBLIC ACCESS

Other routes with public access (not normally shown in urban areas)  
The exact nature of the rights on these routes and the existence of any restrictions may be checked with the local highway authority. Alignments are based on the best information available

	National Trail / Long Distance Route		Recreational Route
	Permissive footpath	Footpaths and bridleways along which landowners have permitted public use but which are not rights of way. The agreement may be withdrawn	
	Permissive bridleway		
	Traffic-free cycle route		
	National cycle network route number - traffic free		National cycle network route number - on road

### Scotland

In Scotland, everyone has access rights in law\* over most land and inland water, provided access is exercised responsibly. **This includes walking, cycling, horse-riding and water access, for recreational and educational purposes, and for crossing land or water.**

Access rights do not apply to motorised activities, hunting, shooting or fishing, nor if your dog is not under proper control. The **Scottish Outdoor Access Code** is the reference point for responsible behaviour, and can be obtained at [www.outdooraccess-scotland.com](http://www.outdooraccess-scotland.com) or by phoning your local Scottish Natural Heritage office. \* Land Reform (Scotland) Act 2003



National Trust for Scotland, always open / limited opening - observe local signs



Forestry Commission Land / Woodland Trust Land

### England & Scotland



Firing and test ranges in the area. Danger! Observe warning notices  
Champs de tir et d'essai. Danger! Se conformer aux avertissements  
Schuss und Erprobungsgelände. Gefahr! Warnschilder beachten  
Visit [www.access.mod.uk](http://www.access.mod.uk) for information

### ACCESS LAND

#### England

Portrayal of access land on this map is intended as a guide to land which is normally available for access on foot, for example access land created under the Countryside and Rights of Way Act 2000, and land managed by the National Trust, Forestry Commission and Woodland Trust. Access for other activities may also exist. Some restrictions will apply; some land will be excluded from open access rights. The depiction of rights of access does not imply or express any warranty as to its accuracy or completeness. Observe local signs and follow the Countryside Code.

Visit [www.countrysideaccess.gov.uk](http://www.countrysideaccess.gov.uk) for up-to-date information



Access land boundary and tint



Access land in woodland area



Access information point



Access permitted within managed controls for example, local byelaws  
Visit [www.access.mod.uk](http://www.access.mod.uk) for information



## General Information

### VEGETATION

Limits of vegetation are defined by positioning of symbols

	Coniferous trees		Scrub		Orchard
	Non-coniferous trees		Bracken, heath or rough grassland		
	Coppice		Marsh, reeds or saltings		

### GENERAL FEATURES

+	Place of worship		Gravel pit		Sand pit
Current or former place of worship	<ul style="list-style-type: none"> <li> with tower</li> <li> with spire, minaret or dome</li> </ul>		Other pit or quarry		Landfill site or slag/spoil heap
	Building; important building	BP/BS	Boundary post/stone		
	Glasshouse	CG	Cattle grid		
	Youth hostel	CH	Clubhouse		
	Bunkhouse/camping barn/other hostel	FB	Footbridge		
	Bus or coach station	MP; MS	Milepost; milestone		
	Lighthouse; disused lighthouse; beacon	Mon	Monument		
	Triangulation pillar; mast	PO	Post office		
	Windmill, with or without sails	Pol Sta	Police station		
	Wind pump; wind turbine	Sch	School		
	Electricity transmission line	TH	Town hall		
	Slopes	NTL	Normal tidal limit		
		-W; Spr	Well; spring		

### BOUNDARIES

	National
	County (England)
	Unitary Authority (UA), Metropolitan District (Met Dist), London Borough (LB) or District (Scotland & Wales are solely Unitary Authorities)
	Civil Parish (CP) (England) or Community (C) (Wales)
	National Park boundary

### HEIGHTS AND NATURAL FEATURES

52	Ground survey height	Surface heights are to the nearest metre above mean sea level. Where two heights are shown, the first height is to the base of the triangulation pillar and the second (in brackets) to the highest natural point of the hill
284	Air survey height	
	Vertical face/cliff	
	Loose rock	
	Boulders	
	Outcrop	
	Scree	
	Water	
	Mud	
	Sand; sand & shingle	

### ARCHAEOLOGICAL AND HISTORICAL INFORMATION

	Site of antiquity	VILLA	Roman
	Site of battle (with date)	Castle	Non-Roman
	Visible earthwork		

Information provided by English Heritage for England and the Royal Commissions on the Ancient and Historical Monuments for Scotland and Wales

## Selected Tourist and Leisure Information

### RENSEIGNEMENTS TOURISME ET LOISIRS SÉLECTIONNÉS

### AUSGEWÄHLTE INFORMATIONEN ZU TOURISTIK UND FREIZEITGESTALTUNG

	Parking / Park & Ride, all year/seasonal Parking / Parking et navette, ouvert toute l'année/en saison Parkplatz / Park & Ride, ganzjährig/saisonal
	Information centre, all year/seasonal Office de tourisme, ouvert toute l'année/en saison Informationsbüro, ganzjährig/saisonal
	Visitor centre Centre pour visiteurs Besucherzentrum
	Forestry Commission visitor centre Commission Forestière: Centre de visiteurs Staatsforst Besucherzentrum
	Public convenience Toilettes Öffentliche Toilette
	Telephone, public/roadside assistance/emergency Téléphone, public/borne d'appel d'urgence/urgence Telefon, öffentlich/Notrufsäule/Notruf
	Camp site/caravan site Terrain de camping/Terrain pour caravanes Campingplatz/Wohnwagenplatz
	Recreation/leisure/sports centre Centre de détente/loisirs/sports Erholungs-/Freizeit-/Sportzentrum
	Golf course or links Terrain de golf Golfplatz
	Theme/pleasure park Parc à thèmes/Parc d'agrément Vergnügungs-/Freizeitpark
	Preserved railway Chemin de fer touristique Museumseisenbahn
	Public house/s Pub/s Gaststätte/n
	Craft centre Centre artisanal Zentrum für Kunsthandwerk

	Walks/trails Promenades Wanderwege
	Cycle trail Piste cyclable Radfahrweg
	Mountain bike trail Chemin pour VTT Mountainbike-Strecke
	Cycle hire Location de vélos Fahrradverleih
	Horse riding Equitation Reitstall
	Viewpoint Point de vue Aussichtspunkt
	Picnic site Emplacement de pique-nique Picknickplatz
	Country park Parc naturel Landschaftspark
	Garden/arboretum Jardin/Arboretum Garten/Baumgarten
	Water activities Jeux aquatiques Wassersport
	Slipway Cale Helling
	Boat trips Croisières en bateau Bootsfahrten
	Boat hire Location de bateau Bootsverleih

	Nature reserve Réserve naturelle Naturschutzgebiet
	Fishing Pêche Angeln
	Other tourist feature Autre site intéressant Sonstige Sehenswürdigkeit
	Cathedral/Abbey Cathédrale/Abbaye Kathedrale/Abtei
	Museum Musée Museum
	Castle/fort Château/Fortification Burg/Festung
	Building of historic interest Bâtiment d'intérêt historique Historisches Gebäude
	Heritage centre Centre d'héritage Heimatismuseum
	National Trust
	English Heritage
	Historic Scotland

## Envirocheck<sup>®</sup> Report:

### Datasheet

#### Order Details:

**Order Number:**

140402875\_1\_1

**Customer Reference:**

256905

**National Grid Reference:**

506350, 187450

**Slice:**

A

**Site Area (Ha):**

14.32

**Search Buffer (m):**

1000

#### Site Details:

Site at 506720, 187630

#### Client Details:

Mr J Bottomley  
Ove Arup & Partners International Ltd  
13 Fitzroy Street  
London  
W1T 4BQ

Report Section	Page Number
Summary	-
Ecology	1
Heritage	3
Water & Hydrology	5
Visual and Landscape	-
Data Currency	18
Data Suppliers	20
Useful Contacts	21

#### Introduction

The process of an Environmental Impact Assessment is governed by the Town and Country Planning (Environmental Impact Assessment) Regulations 2011. These regulations apply the EU directive "on the assessment of the effects of certain public and private projects on the environment" (usually referred to as the Environmental Impact Assessment Directive) to the planning system in England.

The aim of the Envirocheck Environmental Impact Assessment Report is to provide the necessary site-specific environmental data required to assess the potential environmental effects of a development. Ultimately this assessment is required by the local planning authority in order to decide whether or not to grant planning permission for a project, so as to protect the environment. The regulations set out a procedure for identifying those projects which should be subject to an Environmental Impact Assessment, and for assessing, consulting and coming to a decision on those projects which are likely to have significant environmental effects.

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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#### Report Version v53.0



Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m
<b>Ecology</b>					
Ancient Woodland	pg 1		1		1
Areas of Adopted Green Belt	pg 1	3			3
Areas of Outstanding Natural Beauty					
Areas of Unadopted Green Belt					
Country Parks	pg 1				1
Environmentally Sensitive Areas					
Local Nature Reserves	pg 1			1	2
Marine Nature Reserves					
National Nature Reserves	pg 1				1
National Parks					
Nitrate Sensitive Areas					
Nitrate Vulnerable Zones	pg 2	1			
Ramsar Sites					
Sites of Special Scientific Interest	pg 2				1
Special Areas of Conservation					
Special Protection Areas					
<b>Heritage</b>					
Historic Battlefields					
Listed Buildings	pg 3		1	3	5
Scheduled Monuments	pg 4		1	1	
World Heritage Sites					
<b>Water &amp; Hydrology</b>					
Areas Benefiting from Flood Defences				n/a	n/a
BGS Groundwater Flooding Susceptibility	pg 5	Yes	n/a	n/a	n/a
Bedrock Aquifer Designations	pg 5	Yes	n/a	n/a	n/a
Superficial Aquifer Designations	pg 5	Yes	n/a	n/a	n/a
OS Water Network Lines	pg 5	4	11	19	34
Extreme Flooding from Rivers or Sea without Defences	pg 12	Yes	Yes	n/a	n/a
Flooding from Rivers or Sea without Defences	pg 16	Yes	Yes	n/a	n/a
Flood Defences				n/a	n/a
Flood Water Storage Areas				n/a	n/a
Groundwater Vulnerability	pg 16	Yes	n/a	n/a	n/a
Drift Deposits			n/a	n/a	n/a
Historic Flood Events	pg 16	Yes		n/a	n/a
Source Protection Zones	pg 16	3		1	1
<b>Visual and Landscape</b>					
Historic Parks, Gardens and Designed Landscapes					

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
1	<b>Ancient Woodland</b> Name: Newyears Green Covert Reference: 1504749 Area(m²): 21589.59 Type: Ancient and Semi-Natural Woodland	A11SW (NE)	129	1	506464 187641
2	<b>Ancient Woodland</b> Name: The Pinnocks Wood Reference: 1496315 Area(m²): 22373.81 Type: Ancient and Semi-Natural Woodland	A2NE (S)	982	1	506071 186516
3	<b>Areas of Adopted Green Belt</b> Authority: London Borough of Hillingdon Plan Name: Hillingdon Unitary Development Plan Status: <b>Adopted</b> Plan Date: 30th September 1998	A11SW (NE)	0	2	506355 187450
4	<b>Areas of Adopted Green Belt</b> Authority: London Borough of Hillingdon Plan Name: Hillingdon Unitary Development Plan Status: <b>Adopted</b> Plan Date: 30th September 1998	A8NW (SE)	0	2	507129 187095
5	<b>Areas of Adopted Green Belt</b> Authority: London Borough of Hillingdon Plan Name: Hillingdon Unitary Development Plan Status: <b>Adopted</b> Plan Date: 30th September 1998	A7NW (SW)	0	2	506223 187304
6	<b>Areas of Adopted Green Belt</b> Authority: London Borough of Hillingdon Plan Name: Hillingdon Unitary Development Plan Status: <b>Adopted</b> Plan Date: 30th September 1998	(E)	763	2	507641 187934
7	<b>Areas of Adopted Green Belt</b> Authority: South Buckinghamshire District Council, Development Control Department Plan Name: Proposal Map Status: <b>Adopted</b> Plan Date: 22nd February 2011	A5NW (W)	830	3	505153 187331
8	<b>Areas of Adopted Green Belt</b> Authority: London Borough of Hillingdon Plan Name: Hillingdon Unitary Development Plan Status: <b>Adopted</b> Plan Date: 30th September 1998	A4SE (SE)	835	2	507327 186270
9	<b>Country Parks</b> Name: Bayhurst Wood Reference: 1421809 Area(m²): 363212.53	A15NE (NE)	969	1	506796 188417
10	<b>Local Nature Reserves</b> Name: Frays Valley Multiple Area: Y Area(m²): 718709.89 Source: Natural England Designation Date: 1st January 2000	A6NW (W)	360	1	505698 187252
11	<b>Local Nature Reserves</b> Name: Denham Quarry Park (Mapped Boundary Not Verified) Multiple Area: Y Area(m²): 296145.07 Source: Natural England Designation Date: Not Supplied	A5NE (W)	735	1	505265 187231
12	<b>Local Nature Reserves</b> Name: Denham Country Park (Mapped Boundary Not Verified) Multiple Area: N Area(m²): 198236.53 Source: Natural England Designation Date: 24th July 1997	A5NE (W)	735	1	505265 187231
13	<b>National Nature Reserves</b> Name: Ruislip Woods Multiple Areas: Y Total Area(m²): 2954882.55 Source: Natural England Reference: 1006764 Designation Date: Not Supplied	A15NE (NE)	970	1	506800 188417

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
14	<b>Nitrate Vulnerable Zones</b> Name: Colne And Guc (From Confluence With Chess To Ash) Nvz Description: Surface Water Source: Environment Agency, Head Office	A11SW (NE)	0	4	506355 187450
15	<b>Sites of Special Scientific Interest</b> Name: Ruislip Woods Multiple Areas: Y Total Area(m²): 3074584.52 Source: Natural England Reference: 1003633 Designation Details: Local Nature Reserve Designation Date: 23rd April 1990 Date Type: Notified Designation Details: Local Wildlife Site Designation Date: 23rd April 1990 Date Type: Notified Designation Details: Nature Conservation Review Designation Date: 23rd April 1990 Date Type: Notified Designation Details: National Nature Reserve Designation Date: 23rd April 1990 Date Type: Notified Designation Details: Site Of Special Scientific Interest Designation Date: 23rd April 1990 Date Type: Notified	A15NE (NE)	970	1	506800 188417

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
16	<b>Listed Buildings</b> Name: Brackenbury Farmhouse Brackenbury House Location: Not Supplied Reference: 1080265 Other Reference: 202698 Grade: Grade II Listed Building Registered Date: 8th May 1950 Source: Historic England Positional Accuracy: Positioned by the supplier	A8NW (SE)	148	5	507043 187092
17	<b>Listed Buildings</b> Name: Forecourt Walls To South Of Highway Farmhouse Location: Not Supplied Reference: 1285962 Other Reference: 202795 Grade: Grade II Listed Building Registered Date: 6th September 1974 Source: Historic England Positional Accuracy: Positioned by the supplier	A14SE (NW)	387	5	506075 188033
17	<b>Listed Buildings</b> Name: Highway Farmhouse Location: Not Supplied Reference: 1193888 Other Reference: 202797 Grade: Grade II Listed Building Registered Date: 6th September 1974 Source: Historic England Positional Accuracy: Positioned by the supplier	A14SE (NW)	413	5	506050 188065
18	<b>Listed Buildings</b> Name: Barn And Shelter Shed To South East Of Highway Farmhouse Location: Not Supplied Reference: 1358376 Other Reference: 202796 Grade: Grade II Listed Building Registered Date: 6th September 1974 Source: Historic England Positional Accuracy: Positioned by the supplier	A14SE (N)	422	5	506105 188061
19	<b>Listed Buildings</b> Name: Copthall Farmhouse Location: Not Supplied Reference: 1358358 Other Reference: 202697 Grade: Grade II Listed Building Registered Date: 6th September 1974 Source: Historic England Positional Accuracy: Positioned by the supplier	A8SW (SE)	543	5	506912 186719
20	<b>Listed Buildings</b> Name: Footbridge Across River Colne, To North Of Denham Court Location: Not Supplied Reference: 1065962 Other Reference: 422552 Grade: Grade II* Listed Building Registered Date: 30th June 1986 Source: Historic England Positional Accuracy: Positioned by the supplier	A5NW (W)	829	5	505155 187330
20	<b>Listed Buildings</b> Name: Footbridge Across River Colne, To South Of Denham Court Location: Not Supplied Reference: 1200391 Other Reference: 350325 Grade: Grade II* Listed Building Registered Date: 30th May 1986 Source: Historic England Positional Accuracy: Positioned by the supplier	A5NW (W)	833	5	505151 187330
21	<b>Listed Buildings</b> Name: St Leonards Farmhouse Location: Not Supplied Reference: 1080146 Other Reference: 202927 Grade: Grade II Listed Building Registered Date: 6th September 1974 Source: Historic England Positional Accuracy: Positioned by the supplier	A16SW (NE)	845	5	507121 188184



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
22	<b>Listed Buildings</b> Name: North Lodge Location: Not Supplied Reference: 1080220 Other Reference: 202794 Grade: Grade II Listed Building Registered Date: 6th September 1974 Source: Historic England Positional Accuracy: Positioned by the supplier	A3NW (S)	868	5	506424 186528
23	<b>Scheduled Monuments</b> Name: Brackenbury Farm Moated Site 3/4 Mile (1210m) Nw Of Ickenham Church Reference: 1005555 Other Reference: LO 127 Area(m²): 10588.42 Source: Historic England Registered Date: 27th February 1975	A8NW (SE)	83	6	506942 187129
24	<b>Scheduled Monuments</b> Name: Medieval Moated Site 382m South-East Of Brackenbury Farm Reference: 1002001 Other Reference: LO 126 Area(m²): 1789.22 Source: Historic England Registered Date: 8th July 1974	A8SW (SE)	355	6	507205 186800

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<b>Areas Benefiting from Flood Defences</b> None				
	<b>BGS Groundwater Flooding Susceptibility</b> Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A8SW (SE)	0	7	507200 187000
	<b>BGS Groundwater Flooding Susceptibility</b> Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A8NE (E)	0	7	507350 187200
	<b>BGS Groundwater Flooding Susceptibility</b> Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A8NE (E)	0	7	507400 187200
	<b>Bedrock Aquifer Designations</b> Aquifer Desination: Secondary Aquifer - A	A8NW (SE)	0	7	507053 187125
	<b>Bedrock Aquifer Designations</b> Aquifer Desination: Secondary Aquifer - A	A11SW (SW)	0	7	506247 187374
	<b>Bedrock Aquifer Designations</b> Aquifer Desination: Unproductive Strata	A11SW (NE)	0	7	506355 187450
	<b>Superficial Aquifer Designations</b> Aquifer Designation: Secondary Aquifer - A	A8SE (SE)	0	7	507217 186999
25	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 8.6 Watercourse Level: Not Supplied Watercourse Name: River Pinn Permanent: True Catchment Name: Thames Primacy: 1	A8NE (E)	0	8	507354 187171
26	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 405.8 Watercourse Level: On ground surface Watercourse Name: River Pinn Permanent: True Catchment Name: Thames Primacy: 1	A8NE (E)	0	8	507358 187195
27	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 30.1 Watercourse Level: On ground surface Watercourse Name: Not Supplied Permanent: True Catchment Name: Thames Primacy: 1	A8NW (E)	0	8	506964 187321
28	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 1512.2 Watercourse Level: On ground surface Watercourse Name: River Pinn Permanent: True Catchment Name: Thames Primacy: 1	A8SE (SE)	0	8	507217 186996
29	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 596.8 Watercourse Level: On ground surface Watercourse Name: Not Supplied Permanent: True Catchment Name: Thames Primacy: 1	A10NE (NW)	79	8	506067 187757
30	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 186.2 Watercourse Level: On ground surface Watercourse Name: Not Supplied Permanent: True Catchment Name: Thames Primacy: 1	A8NW (SE)	98	8	506960 187120

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
31	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 14.6 Watercourse Level: Underground Watercourse Name: Not Supplied Permanent: True Catchment Name: Thames Primacy: 1	A10NE (NW)	120	8	506081 187760
32	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 462.5 Watercourse Level: On ground surface Watercourse Name: Not Supplied Permanent: True Catchment Name: Thames Primacy: 1	A10NE (NW)	127	8	506156 187801
33	<b>OS Water Network Lines</b> Watercourse Form: Lake Watercourse Length: 9.0 Watercourse Level: On ground surface Watercourse Name: Not Supplied Permanent: True Catchment Name: Thames Primacy: 1	A8NW (SE)	170	8	507088 187050
34	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 7.3 Watercourse Level: On ground surface Watercourse Name: Not Supplied Permanent: True Catchment Name: Thames Primacy: 1	A8NW (SE)	172	8	507055 187064
35	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 29.7 Watercourse Level: On ground surface Watercourse Name: Not Supplied Permanent: True Catchment Name: Thames Primacy: 1	A8NW (SE)	175	8	507060 187059
36	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 28.6 Watercourse Level: On ground surface Watercourse Name: Not Supplied Permanent: True Catchment Name: Thames Primacy: 1	A8NW (SE)	175	8	507034 187062
37	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 39.0 Watercourse Level: On ground surface Watercourse Name: Not Supplied Permanent: True Catchment Name: Thames Primacy: 1	A6NE (W)	211	8	506030 187334
38	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 3.6 Watercourse Level: Underground Watercourse Name: Not Supplied Permanent: True Catchment Name: Thames Primacy: 1	A6NE (W)	227	8	505991 187329
39	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 102.0 Watercourse Level: On ground surface Watercourse Name: Not Supplied Permanent: True Catchment Name: Thames Primacy: 1	A6NE (W)	228	8	505988 187329

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
40	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 50.5 Watercourse Level: On ground surface Watercourse Name: Not Supplied Permanent: True Catchment Name: Thames Primacy: 1	A10SW (W)	258	8	505776 187348
41	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 18.1 Watercourse Level: On ground surface Watercourse Name: Not Supplied Permanent: True Catchment Name: Thames Primacy: 1	A6NE (W)	269	8	505887 187317
42	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 105.5 Watercourse Level: On ground surface Watercourse Name: Not Supplied Permanent: True Catchment Name: Thames Primacy: 1	A6NE (W)	269	8	505887 187317
43	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 77.5 Watercourse Level: On ground surface Watercourse Name: Not Supplied Permanent: True Catchment Name: Thames Primacy: 1	A12SE (E)	270	8	507493 187464
44	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 31.2 Watercourse Level: On ground surface Watercourse Name: Not Supplied Permanent: True Catchment Name: Thames Primacy: 1	A12SE (E)	273	8	507540 187452
45	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 8.8 Watercourse Level: On ground surface Watercourse Name: Not Supplied Permanent: True Catchment Name: Thames Primacy: 1	A12SE (E)	273	8	507532 187454
46	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 7.2 Watercourse Level: Underground Watercourse Name: Not Supplied Permanent: True Catchment Name: Thames Primacy: 1	A6NE (W)	285	8	505890 187300
47	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 16.2 Watercourse Level: On ground surface Watercourse Name: Not Supplied Permanent: True Catchment Name: Thames Primacy: 1	A10SW (W)	288	8	505776 187348
48	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 76.0 Watercourse Level: On ground surface Watercourse Name: Not Supplied Permanent: True Catchment Name: Thames Primacy: 1	A6NE (W)	291	8	505892 187293



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
49	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 23.9 Watercourse Level: On ground surface Watercourse Name: Not Supplied Permanent: True Catchment Name: Thames Primacy: 1	A6NW (W)	299	8	505779 187332
50	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 66.5 Watercourse Level: On ground surface Watercourse Name: Not Supplied Permanent: True Catchment Name: Thames Primacy: 1	A6NW (W)	318	8	505782 187308
51	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 6.7 Watercourse Level: Underground Watercourse Name: Not Supplied Permanent: True Catchment Name: Thames Primacy: 1	A6NE (SW)	357	8	505910 187219
52	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 137.9 Watercourse Level: On ground surface Watercourse Name: Not Supplied Permanent: True Catchment Name: Thames Primacy: 1	A8SE (SE)	360	8	507206 186798
53	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 121.5 Watercourse Level: On ground surface Watercourse Name: Not Supplied Permanent: True Catchment Name: Thames Primacy: 1	A6NE (SW)	362	8	505912 187212
54	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 3.4 Watercourse Level: Underground Watercourse Name: Not Supplied Permanent: True Catchment Name: Thames Primacy: 1	A6NW (W)	368	8	505718 187291
55	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 28.4 Watercourse Level: On ground surface Watercourse Name: Not Supplied Permanent: True Catchment Name: Thames Primacy: 1	A6NW (W)	371	8	505715 187290
56	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 183.7 Watercourse Level: On ground surface Watercourse Name: Not Supplied Permanent: True Catchment Name: Thames Primacy: 1	A6NE (SW)	438	8	506050 187078
57	<b>OS Water Network Lines</b> Watercourse Form: Lake Watercourse Length: 233.9 Watercourse Level: On ground surface Watercourse Name: Not Supplied Permanent: True Catchment Name: Thames Primacy: 1	A10NW (W)	458	8	505523 187759

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
58	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 177.5 Watercourse Level: On ground surface Watercourse Name: Not Supplied Permanent: True Catchment Name: Thames Primacy: 1	A6NE (SW)	480	8	505934 187082
59	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 388.2 Watercourse Level: On ground surface Watercourse Name: Not Supplied Permanent: True Catchment Name: Thames Primacy: 1	A15SW (N)	516	8	506499 188035
60	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 7.3 Watercourse Level: On ground surface Watercourse Name: Not Supplied Permanent: True Catchment Name: Thames Primacy: 1	A15SW (N)	529	8	506367 188091
61	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 368.1 Watercourse Level: Not Supplied Watercourse Name: Not Supplied Permanent: True Catchment Name: Thames Primacy: 1	A15SW (N)	536	8	506369 188098
62	<b>OS Water Network Lines</b> Watercourse Form: Lake Watercourse Length: 134.0 Watercourse Level: On ground surface Watercourse Name: Not Supplied Permanent: True Catchment Name: Thames Primacy: 1	A9NE (W)	606	8	505349 187692
63	<b>OS Water Network Lines</b> Watercourse Form: Lake Watercourse Length: 532.2 Watercourse Level: On ground surface Watercourse Name: Not Supplied Permanent: True Catchment Name: Thames Primacy: 1	A9NE (W)	606	8	505349 187692
64	<b>OS Water Network Lines</b> Watercourse Form: Lake Watercourse Length: 493.5 Watercourse Level: On ground surface Watercourse Name: Not Supplied Permanent: True Catchment Name: Thames Primacy: 1	A5NE (W)	666	8	505387 187140
65	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 22.5 Watercourse Level: Not Supplied Watercourse Name: Not Supplied Permanent: True Catchment Name: Thames Primacy: 1	A9SE (W)	672	8	505284 187461
66	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 145.8 Watercourse Level: On ground surface Watercourse Name: Not Supplied Permanent: True Catchment Name: Thames Primacy: 1	A9SE (W)	692	8	505263 187467

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
67	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 4.9 Watercourse Level: Underground Watercourse Name: Not Supplied Permanent: True Catchment Name: Thames Primacy: 1	A9SE (W)	693	8	505252 187601
68	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 1190.8 Watercourse Level: On ground surface Watercourse Name: Not Supplied Permanent: True Catchment Name: Thames Primacy: 1	A9SE (W)	694	8	505271 187403
69	<b>OS Water Network Lines</b> Watercourse Form: Canal Watercourse Length: 2676.8 Watercourse Level: suspendedOrElevated Watercourse Name: Not Supplied Permanent: True Catchment Name: Thames Primacy: 1	A5NE (W)	729	8	505270 187237
70	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 175.8 Watercourse Level: On ground surface Watercourse Name: Not Supplied Permanent: True Catchment Name: Thames Primacy: 1	A15SE (N)	737	8	506665 188218
71	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 192.1 Watercourse Level: On ground surface Watercourse Name: Not Supplied Permanent: True Catchment Name: Thames Primacy: 1	A15SE (N)	744	8	506652 188227
72	<b>OS Water Network Lines</b> Watercourse Form: Lake Watercourse Length: 118.2 Watercourse Level: On ground surface Watercourse Name: Not Supplied Permanent: True Catchment Name: Thames Primacy: 1	A5SE (SW)	780	8	505435 186991
73	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 69.8 Watercourse Level: On ground surface Watercourse Name: Not Supplied Permanent: True Catchment Name: Thames Primacy: 1	A6SE (SW)	787	8	505905 186771
74	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 646.9 Watercourse Level: On ground surface Watercourse Name: River Colne Permanent: True Catchment Name: Thames Primacy: 2	A9SW (W)	808	8	505166 187366
75	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 405.4 Watercourse Level: On ground surface Watercourse Name: Not Supplied Permanent: True Catchment Name: Thames Primacy: 1	A5NE (W)	812	8	505185 187295

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
76	<b>OS Water Network Lines</b> Watercourse Form: Lake Watercourse Length: 8.2 Watercourse Level: On ground surface Watercourse Name: Not Supplied Permanent: True Catchment Name: Thames Primacy: 1	A13SE (NW)	828	8	505373 188222
77	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 472.9 Watercourse Level: On ground surface Watercourse Name: River Colne Permanent: True Catchment Name: Thames Primacy: 1	A5NW (W)	829	8	505156 187321
78	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 171.2 Watercourse Level: Not Supplied Watercourse Name: Not Supplied Permanent: True Catchment Name: Thames Primacy: 1	A5NW (W)	831	8	505156 187321
79	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 394.7 Watercourse Level: On ground surface Watercourse Name: River Colne Permanent: True Catchment Name: Thames Primacy: 1	A5NW (W)	831	8	505156 187321
80	<b>OS Water Network Lines</b> Watercourse Form: Lake Watercourse Length: 29.3 Watercourse Level: On ground surface Watercourse Name: Not Supplied Permanent: True Catchment Name: Thames Primacy: 1	A13SE (NW)	835	8	505365 188224
81	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 262.4 Watercourse Level: On ground surface Watercourse Name: Not Supplied Permanent: True Catchment Name: Thames Primacy: 1	A6SW (SW)	845	8	505844 186729
82	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 100.6 Watercourse Level: On ground surface Watercourse Name: Not Supplied Permanent: True Catchment Name: Thames Primacy: 1	A6SW (SW)	850	8	505814 186709
83	<b>OS Water Network Lines</b> Watercourse Form: Lake Watercourse Length: 61.1 Watercourse Level: On ground surface Watercourse Name: Not Supplied Permanent: True Catchment Name: Thames Primacy: 1	A15NW (N)	855	8	506340 188441
84	<b>OS Water Network Lines</b> Watercourse Form: Lake Watercourse Length: 77.7 Watercourse Level: On ground surface Watercourse Name: Not Supplied Permanent: True Catchment Name: Thames Primacy: 1	A6SW (SW)	858	8	505729 186750



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
85	<b>OS Water Network Lines</b> Watercourse Form: Lake Watercourse Length: 174.8 Watercourse Level: On ground surface Watercourse Name: Not Supplied Permanent: True Catchment Name: Thames Primacy: 1	A5SE (SW)	868	8	505464 186843
86	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 846.2 Watercourse Level: Not Supplied Watercourse Name: Not Supplied Permanent: True Catchment Name: Thames Primacy: 1	A15NW (N)	915	8	506366 188497
87	<b>OS Water Network Lines</b> Watercourse Form: Lake Watercourse Length: 127.2 Watercourse Level: On ground surface Watercourse Name: Not Supplied Permanent: True Catchment Name: Thames Primacy: 1	A6SW (SW)	919	8	505664 186706
88	<b>OS Water Network Lines</b> Watercourse Form: Lake Watercourse Length: 52.0 Watercourse Level: On ground surface Watercourse Name: Not Supplied Permanent: True Catchment Name: Thames Primacy: 2	A6SW (SW)	919	8	505664 186706
89	<b>OS Water Network Lines</b> Watercourse Form: Lake Watercourse Length: 466.3 Watercourse Level: On ground surface Watercourse Name: Not Supplied Permanent: True Catchment Name: Thames Primacy: 1	A6SW (SW)	943	8	505541 186728
90	<b>OS Water Network Lines</b> Watercourse Form: Inland river Watercourse Length: 175.9 Watercourse Level: On ground surface Watercourse Name: Not Supplied Permanent: True Catchment Name: Thames Primacy: 2	A2NW (SW)	966	8	505696 186647
91	<b>OS Water Network Lines</b> Watercourse Form: Lake Watercourse Length: 34.0 Watercourse Level: On ground surface Watercourse Name: Not Supplied Permanent: True Catchment Name: Thames Primacy: 2	A2NW (SW)	966	8	505696 186647
92	<b>OS Water Network Lines</b> Watercourse Form: Lake Watercourse Length: 73.6 Watercourse Level: On ground surface Watercourse Name: Not Supplied Permanent: True Catchment Name: Thames Primacy: 2	A2NW (SW)	969	8	505662 186654
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Events Boundary Accuracy: As Supplied	A8NE (E)	0	9	507360 187152
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Events Boundary Accuracy: As Supplied	A8NE (E)	0	9	507448 187174

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Events Boundary Accuracy: As Supplied	A8NE (E)	0	9	507357 187182
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Events Boundary Accuracy: As Supplied	A8NE (E)	0	9	507368 187186
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Events Boundary Accuracy: As Supplied	A8NE (E)	0	9	507349 187162
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Events Boundary Accuracy: As Supplied	A8NE (E)	0	9	507328 187198
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Events Boundary Accuracy: As Supplied	A8NE (E)	0	9	507330 187196
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Events Boundary Accuracy: As Supplied	A8NE (E)	0	9	507314 187202
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Events Boundary Accuracy: As Supplied	A8NE (E)	0	9	507486 187180
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models and Fluvial Events Boundary Accuracy: As Supplied	A8NW (SE)	0	9	507172 187042
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models and Fluvial Events Boundary Accuracy: As Supplied	A8NE (E)	0	9	507311 187207
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A8NE (E)	0	9	507360 187156
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A8NW (SE)	0	9	507178 187060
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A8NE (E)	0	9	507450 187173
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A8NE (E)	0	9	507367 187184
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A8NE (E)	0	9	507368 187186
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A8NE (E)	0	9	507336 187195
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A8NE (E)	0	9	507324 187197

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A8NE (E)	0	9	507278 187230
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A8NE (E)	7	9	507360 187142
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Events Boundary Accuracy: As Supplied	A8NE (E)	32	9	507362 187116
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A8NE (E)	37	9	507359 187110
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A11NW (NW)	37	9	506205 187770
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Events Boundary Accuracy: As Supplied	A8NE (E)	39	9	507356 187110
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A8NE (E)	43	9	507355 187106
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Events Boundary Accuracy: As Supplied	A8NE (E)	45	9	507350 187104
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A8NE (E)	51	9	507349 187100
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Events Boundary Accuracy: As Supplied	A8NE (E)	52	9	507344 187098
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Events Boundary Accuracy: As Supplied	A8NE (E)	56	9	507374 187280
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A8NE (E)	58	9	507343 187094
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Events Boundary Accuracy: As Supplied	A8NE (E)	59	9	507338 187092
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Events Boundary Accuracy: As Supplied	A8NE (E)	59	9	507373 187282
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A8NE (E)	59	9	507374 187281
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A8NE (E)	60	9	507370 187286

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Events Boundary Accuracy: As Supplied	A8NE (E)	63	9	507370 187293
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A8NE (E)	64	9	507327 187078
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A8NE (E)	65	9	507537 187263
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A8NE (E)	73	9	507370 187298
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Events Boundary Accuracy: As Supplied	A8NE (E)	79	9	507326 187078
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A8NE (E)	81	9	507317 187067
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Events Boundary Accuracy: As Supplied	A8NE (E)	127	9	507424 187336
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A8NE (E)	128	9	507424 187338
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Events Boundary Accuracy: As Supplied	A12SE (E)	129	9	507422 187370
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A12SE (E)	146	9	507458 187354
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Events Boundary Accuracy: As Supplied	A8NW (SE)	147	9	507168 187039
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A12SE (E)	154	9	507457 187356
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Events Boundary Accuracy: As Supplied	A12SE (E)	156	9	507456 187357
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A12SE (E)	157	9	507455 187358
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Events Boundary Accuracy: As Supplied	A8SE (SE)	203	9	507290 186959
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A8SE (SE)	204	9	507290 186958



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<b>Extreme Flooding from Rivers or Sea without Defences</b> Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A12SE (E)	247	9	507524 187456
	<b>Flooding from Rivers or Sea without Defences</b> Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A8NE (E)	0	9	507228 187142
	<b>Flooding from Rivers or Sea without Defences</b> Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A8NE (E)	0	9	507290 187214
	<b>Flooding from Rivers or Sea without Defences</b> Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A11NW (NW)	38	9	506200 187770
	<b>Flood Defences</b> None				
	<b>Flood Water Storage Areas</b> None				
	<b>Groundwater Vulnerability</b> 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	A8NW (SE)	0	9	507053 187136
	<b>Groundwater Vulnerability</b> Soil Classification: Soils of Low Leaching Potential - Soils in which pollutants are unlikely to penetrate the soil layer because water movement is largely horizontal or they have large ability to attenuate diffuse pollutants. Lateral flow from these soils contribute to groundwater recharge elsewhere in the catchment Map Sheet: Sheet 39 West London Scale: 1:100,000	A8NW (E)	0	9	507135 187226
	<b>Groundwater Vulnerability</b> Soil Classification: Not classified Map Sheet: Sheet 39 West London Scale: 1:100,000	A11SW (NE)	0	9	506355 187450
	<b>Groundwater Vulnerability</b> Soil Classification: Soils of Low Leaching Potential - Soils in which pollutants are unlikely to penetrate the soil layer because water movement is largely horizontal or they have large ability to attenuate diffuse pollutants. Lateral flow from these soils contribute to groundwater recharge elsewhere in the catchment Map Sheet: Sheet 39 West London Scale: 1:100,000	A11SW (W)	0	9	506211 187501
	<b>Drift Deposits</b> None				
93	<b>Historic Flood Events</b> Flood Event Type: Historic Flood Event - Fluvial Flooding Cause: Channel Capacity Exceeded (no raised defences) Source: Environment Agency, Head Office Flood Event Start Date: 1st January 1977 Flood Event End Date: 12th December 1977	A8NW (SE)	0	9	507168 187039
94	<b>Source Protection Zones</b> Name: Various Source: Environment Agency, Head Office Reference: Not Supplied Type: Zone III (Total Catchment): The total area needed to support the discharge from the protected groundwater source.	A11SW (NE)	0	9	506355 187450
95	<b>Source Protection Zones</b> Name: Ickenham Source: Environment Agency, Head Office Reference: Th174 Type: Zone I (Inner Protection Zone): Travel time of 50 days or less to the groundwater source.	A11SW (NE)	0	9	506355 187450









Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
96	<b>Source Protection Zones</b> Name: Various Source: Environment Agency, Head Office Reference: Not Supplied Type: Zone II (Outer Protection Zone): Either 25% of the source area or a 400 day travel time whichever is greater.	A11SW (NE)	0	9	506355 187450
97	<b>Source Protection Zones</b> Name: Ickenham Source: Environment Agency, Head Office Reference: Th174 Type: Groundwater Source	A12SE (E)	281	9	507350 187520
98	<b>Source Protection Zones</b> Name: Various Source: Environment Agency, Head Office Reference: Not Supplied Type: Zone I (Inner Protection Zone): Travel time of 50 days or less to the groundwater source.	A14SW (NW)	550	9	505671 188133

Ecology	Version	Update Cycle
<b>Ancient Woodland</b> Natural England	May 2017	Bi-Annually
<b>Areas of Outstanding Natural Beauty</b> Natural England	August 2017	Bi-Annually
<b>Country Parks</b> Natural England	January 2017	Annually
<b>Environmentally Sensitive Areas</b> Natural England	January 2017	Annually
<b>Local Nature Reserves</b> Natural England	August 2017	Bi-Annually
<b>Marine Nature Reserves</b> Natural England	August 2017	Bi-Annually
<b>National Nature Reserves</b> Natural England	August 2017	Bi-Annually
<b>National Parks</b> Natural England	August 2017	Bi-Annually
<b>Nitrate Vulnerable Zones</b> Environment Agency - Head Office Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	June 2017 October 2015	Bi-Annually
<b>Ramsar Sites</b> Natural England	August 2017	Bi-Annually
<b>Sites of Special Scientific Interest</b> Natural England	August 2017	Bi-Annually
<b>Special Areas of Conservation</b> Natural England	August 2017	Bi-Annually
<b>Special Protection Areas</b> Natural England	August 2017	Bi-Annually
Heritage	Version	Update Cycle
<b>Listed Buildings</b> Historic England	August 2017	Bi-Annually
<b>Scheduled Monuments</b> Historic England	May 2017	Bi-Annually

Agency & Hydrological	Version	Update Cycle
<b>Areas Benefiting from Flood Defences</b> Environment Agency - Head Office	August 2017	Quarterly
<b>BGS Groundwater Flooding Susceptibility</b> British Geological Survey - National Geoscience Information Service	May 2013	Annually
<b>Bedrock Aquifer Designations</b> British Geological Survey - National Geoscience Information Service	August 2015	As notified
<b>Superficial Aquifer Designations</b> British Geological Survey - National Geoscience Information Service	August 2015	As notified
<b>OS Water Network Lines</b> Ordnance Survey	July 2017	6 Weekly
<b>Extreme Flooding from Rivers or Sea without Defences</b> Environment Agency - Head Office	August 2017	Quarterly
<b>Flooding from Rivers or Sea without Defences</b> Environment Agency - Head Office	August 2017	Quarterly
<b>Flood Defences</b> Environment Agency - Head Office	August 2017	Quarterly
<b>Flood Water Storage Areas</b> Environment Agency - Head Office	August 2017	Quarterly
<b>Groundwater Vulnerability</b> Environment Agency - Head Office	April 2015	Not Applicable
<b>Drift Deposits</b> Environment Agency - Head Office	January 1999	Not Applicable
<b>Historic Flood Events</b> Environment Agency - Head Office	August 2017	Quarterly
<b>Source Protection Zones</b> Environment Agency - Head Office	July 2017	Quarterly

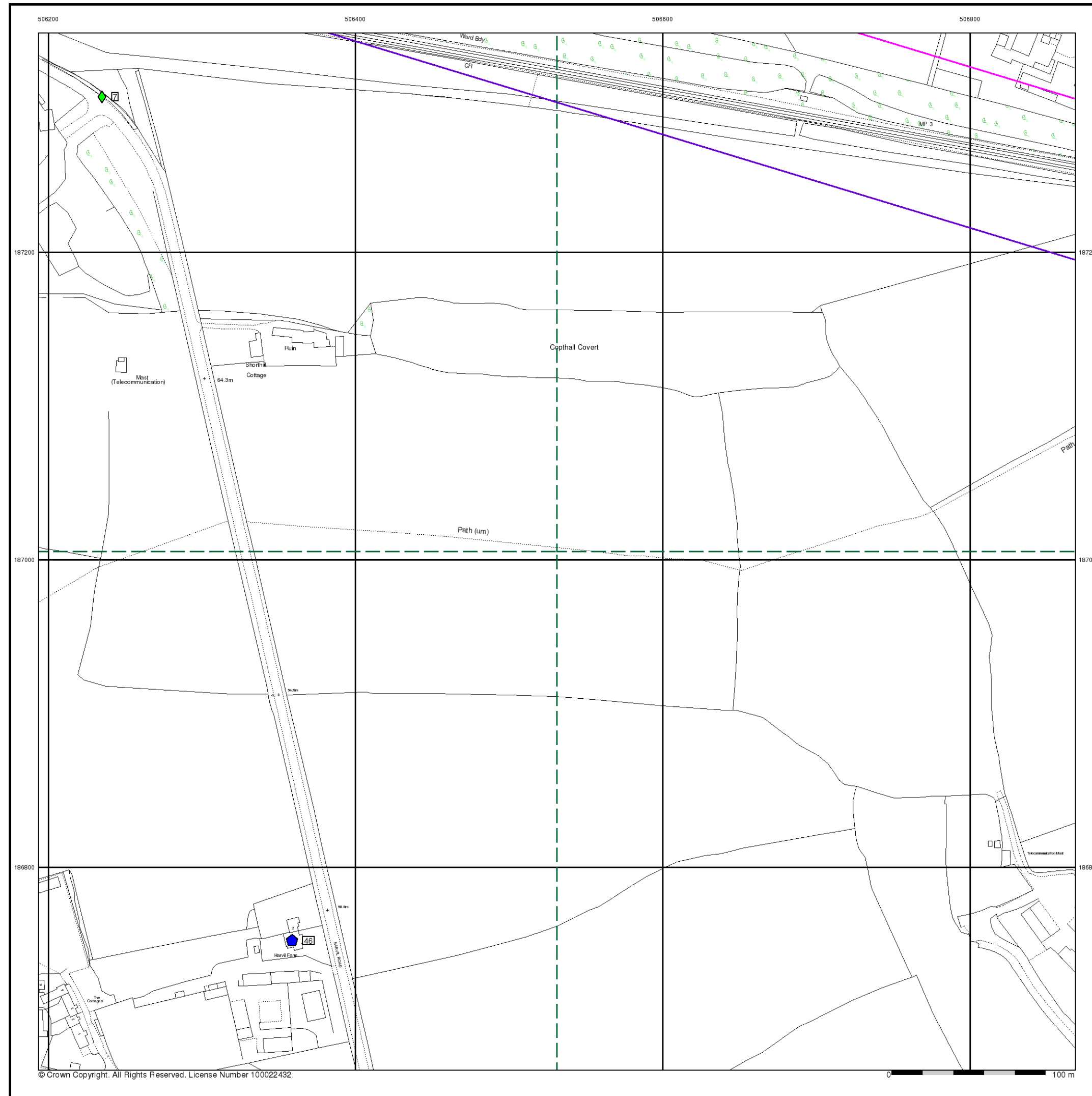


A selection of organisations who provide data within this report

Data Supplier	Data Supplier Logo
Ordnance Survey	
Environment Agency	
Scottish Environment Protection Agency	
British Geological Survey	 <b>British Geological Survey</b> NATURAL ENVIRONMENT RESEARCH COUNCIL
Centre for Ecology and Hydrology	 <b>Centre for Ecology &amp; Hydrology</b> NATURAL ENVIRONMENT RESEARCH COUNCIL
Natural Resources Wales	
Scottish Natural Heritage	
Natural England	

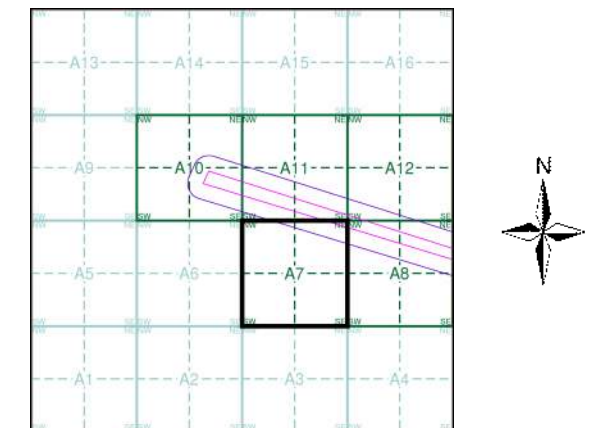
Contact	Name and Address	Contact Details
1	<b>Natural England</b> County Hall, Spetchley Road, Worcester, WR5 2NP	Telephone: 0300 060 3900 Email: <a href="mailto:enquiries@naturalengland.org.uk">enquiries@naturalengland.org.uk</a> Website: <a href="http://www.naturalengland.org.uk">www.naturalengland.org.uk</a>
2	<b>London Borough of Hillingdon</b> Civic Centre, High Street, Uxbridge, Middlesex, UB8 1UW	Telephone: 01895 250111 Fax: 01895 250830 Website: <a href="http://www.hillingdon.gov.uk">www.hillingdon.gov.uk</a>
3	<b>South Buckinghamshire District Council - Development Control Department</b> Capswood, Oxford Road, Denham, Berkshire, UB9 4LH	Telephone: 01895 837200 Website: <a href="http://www.southbucks.gov.uk">www.southbucks.gov.uk</a>
4	<b>Environment Agency - Head Office</b> Rio House, Waterside Drive, Aztec West, Almondsbury, Bristol, Avon, BS32 4UD	Telephone: 01454 624400 Fax: 01454 624409
5	<b>Landmark Information Group Limited</b> Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0844 844 9966 Fax: 0844 844 9951 Email: <a href="mailto:helpdesk@landmark.co.uk">helpdesk@landmark.co.uk</a> Website: <a href="http://www.landmark.co.uk">www.landmark.co.uk</a>
6	<b>Historic England</b> 1 Waterhouse Square, 138 - 142 Holborn, London, EC1N 2ST	Telephone: 0370 333 0607 Email: <a href="mailto:customers@historicengland.org.uk">customers@historicengland.org.uk</a> Website: <a href="http://www.historicengland.org.uk">www.historicengland.org.uk</a>
7	<b>British Geological Survey - Enquiry Service</b> British Geological Survey, Kingsley Dunham Centre, Keyworth, Nottingham, Nottinghamshire, NG12 5GG	Telephone: 0115 936 3143 Fax: 0115 936 3276 Email: <a href="mailto:enquiries@bgs.ac.uk">enquiries@bgs.ac.uk</a> Website: <a href="http://www.bgs.ac.uk">www.bgs.ac.uk</a>
8	<b>Ordnance Survey</b> Adanac Drive, Southampton, Hampshire, SO16 0AS	Telephone: 023 8079 2000 Email: <a href="mailto:customerservices@ordnancesurvey.co.uk">customerservices@ordnancesurvey.co.uk</a> Website: <a href="http://www.ordnancesurvey.gov.uk">www.ordnancesurvey.gov.uk</a>
9	<b>Environment Agency - National Customer Contact Centre (NCCC)</b> PO Box 544, Templeborough, Rotherham, S60 1BY	Telephone: 03708 506 506 Email: <a href="mailto:enquiries@environment-agency.gov.uk">enquiries@environment-agency.gov.uk</a>
-	<b>Landmark Information Group Limited</b> Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0844 844 9952 Fax: 0844 844 9951 Email: <a href="mailto:customerservices@landmarkinfo.co.uk">customerservices@landmarkinfo.co.uk</a> Website: <a href="http://www.landmarkinfo.co.uk">www.landmarkinfo.co.uk</a>

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



- ### 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
  - 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
  - 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 (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 - Segment A7



**Order Details**

Order Number: 140402875\_1\_1  
Customer Ref: 256905  
National Grid Reference: 506350, 187450  
Slice: A  
Site Area (Ha): 14.32  
Plot Buffer (m): 100

**Site Details**

Site at 506720, 187630



## General

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

## Agency and Hydrological

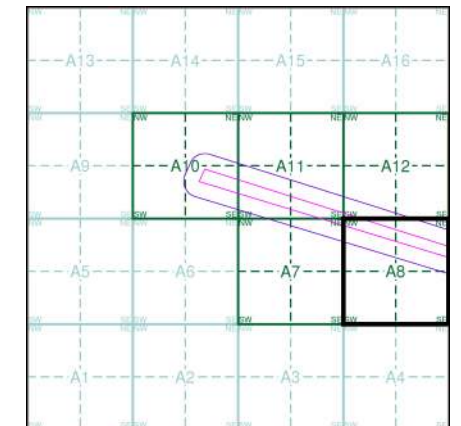
- Contaminated Land Register Entry or Notice (Location)
- Contaminated Land Register Entry or Notice
- Discharge Consent
- Enforcement or Prohibition Notice
- Integrated Pollution Control
- Integrated Pollution Prevention Control
- Local Authority Integrated Pollution Prevention and Control
- Local Authority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

## Hazardous Substances

- COMAH Site
- Explosive Site
- NIHHS Site
- Planning Hazardous Substance Consent
- Planning Hazardous Substance Enforcement
- BGS Recorded Mineral Site
- 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

## Geological

## Site Sensitivity Map - Segment A8



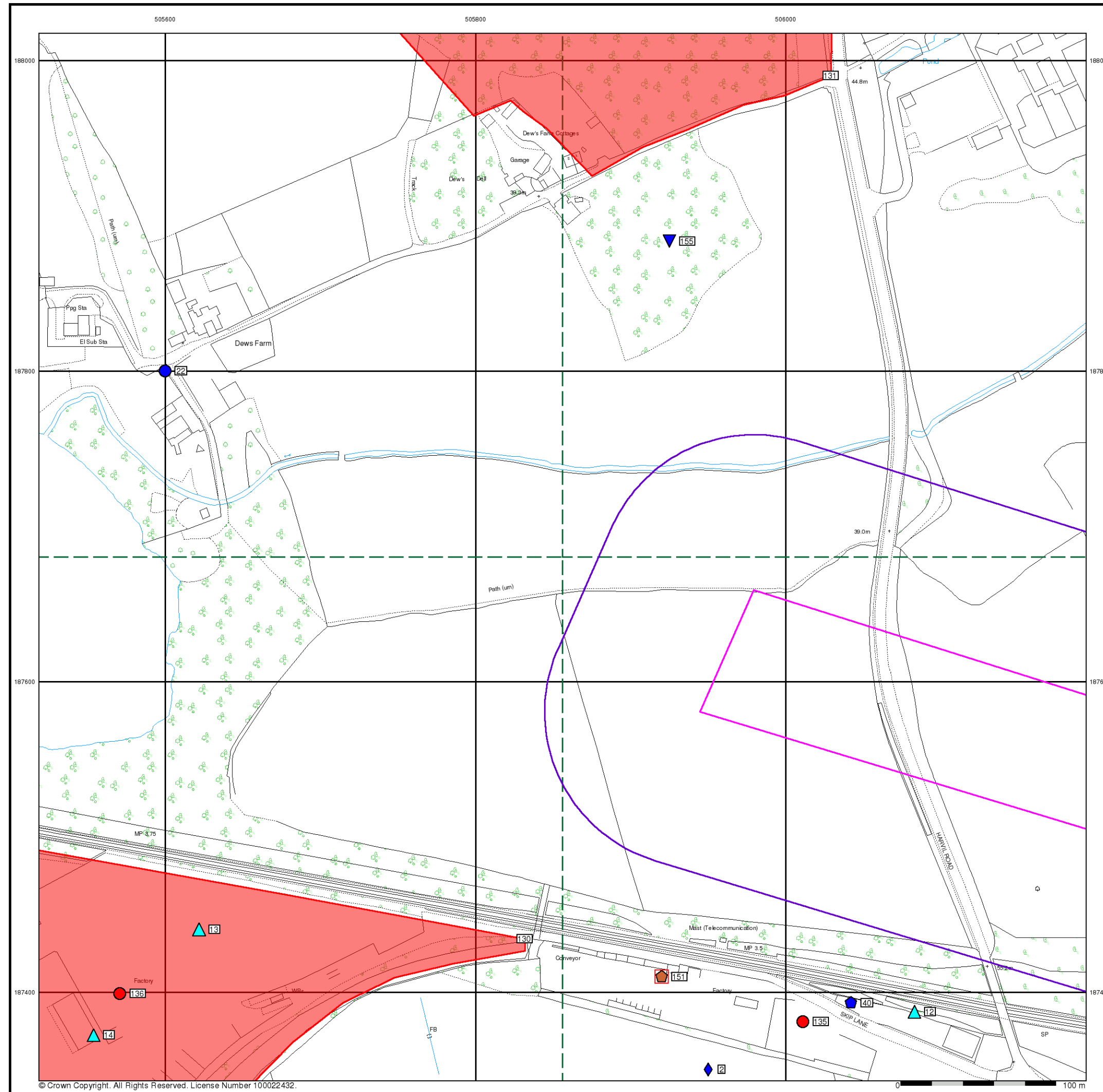
## Order Details

Order Number: 140402875\_1\_1  
Customer Ref: 256905  
National Grid Reference: 506350, 187450  
Slice: A  
Site Area (Ha): 14.32  
Plot Buffer (m): 100

## Site Details

Site at 506720, 187630

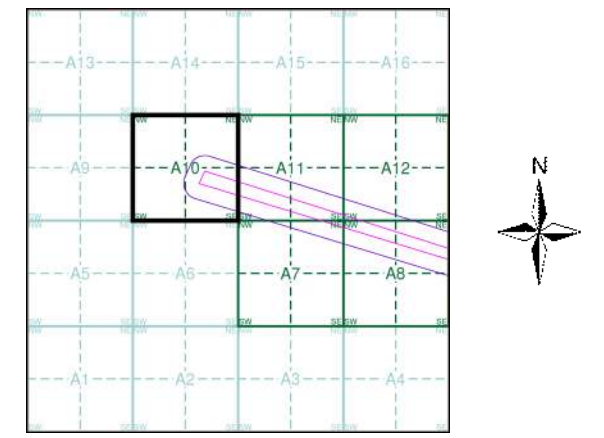




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- ### General
- Specified Site
  - Specified Buffer(s)
  - Bearing Reference Point
  - Map ID
- ### Agency and Hydrological
- Contaminated Land Register Entry or Notice (Location)
  - Contaminated Land Register Entry or Notice
  - Discharge Consent
  - 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
  - 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 (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 - Segment A10

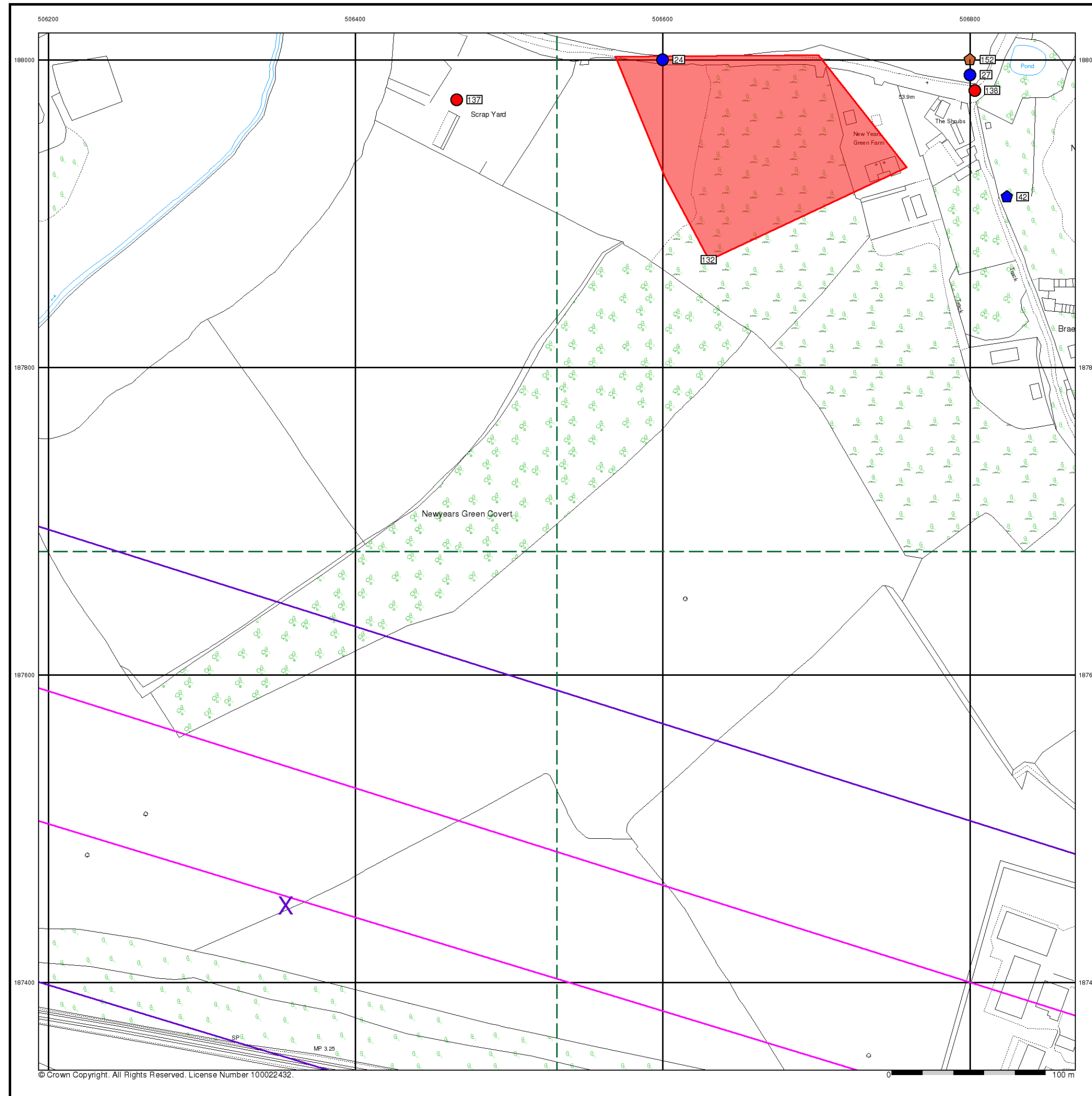


### Order Details

Order Number: 140402875\_1\_1  
Customer Ref: 256905  
National Grid Reference: 506350, 187450  
Slice: A  
Site Area (Ha): 14.32  
Plot Buffer (m): 100

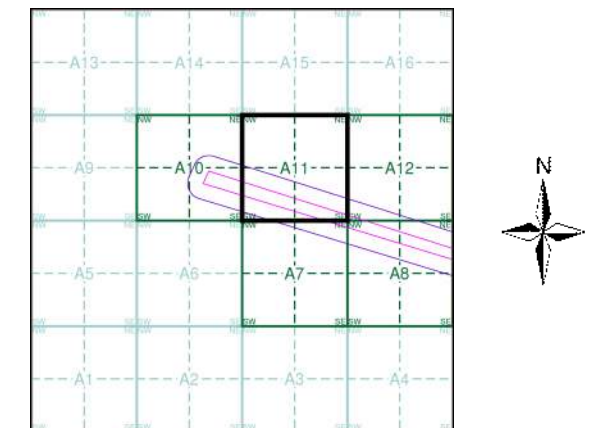
### Site Details

Site at 506720, 187630



- ### 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
  - 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
  - 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 (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

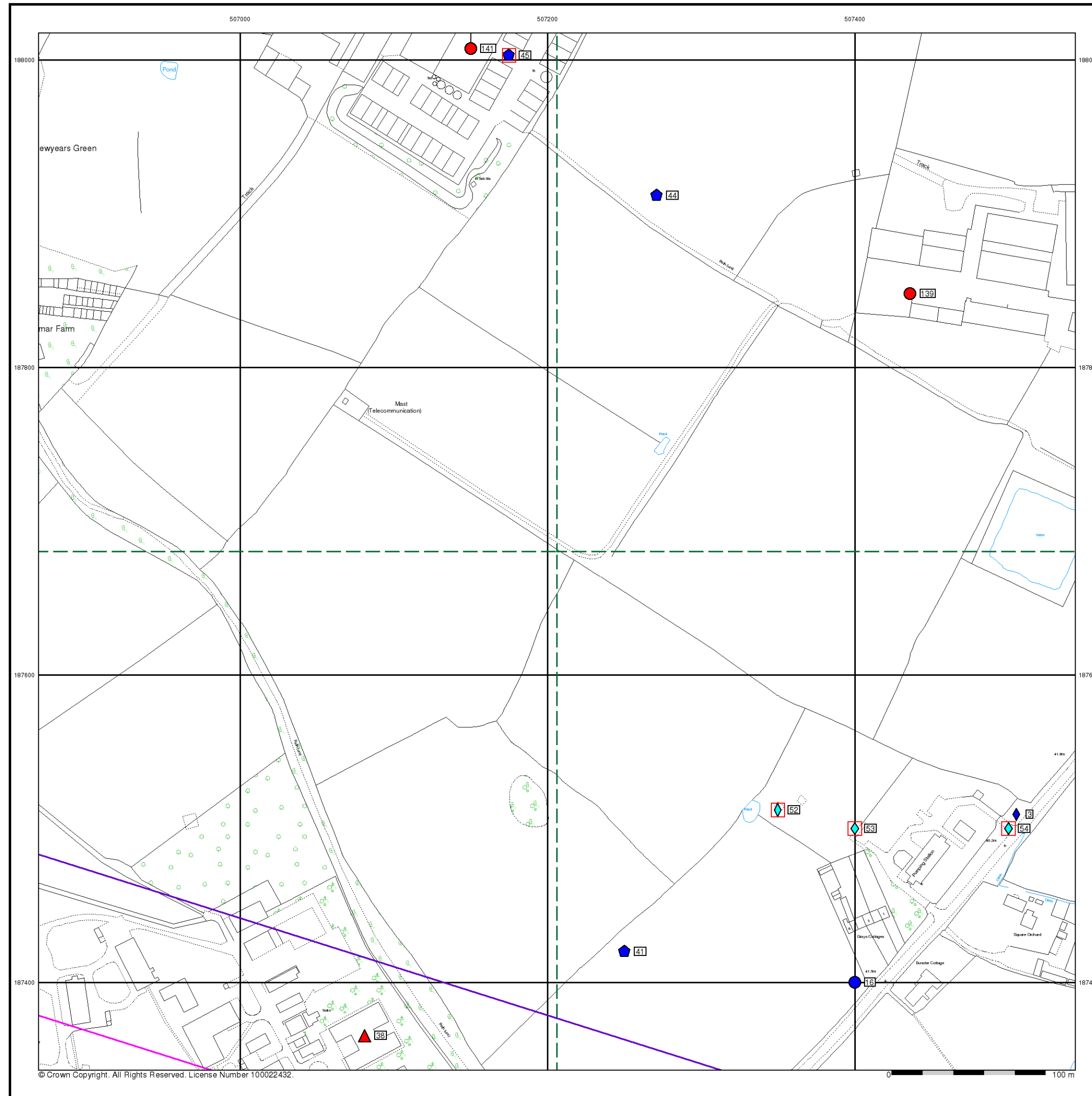
## Site Sensitivity Map - Segment A11



**Order Details**  
Order Number: 140402875\_1\_1  
Customer Ref: 256905  
National Grid Reference: 506350, 187450  
Slice: A  
Site Area (Ha): 14.32  
Plot Buffer (m): 100

**Site Details**  
Site at 506720, 187630





### General

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

### Agency and Hydrological

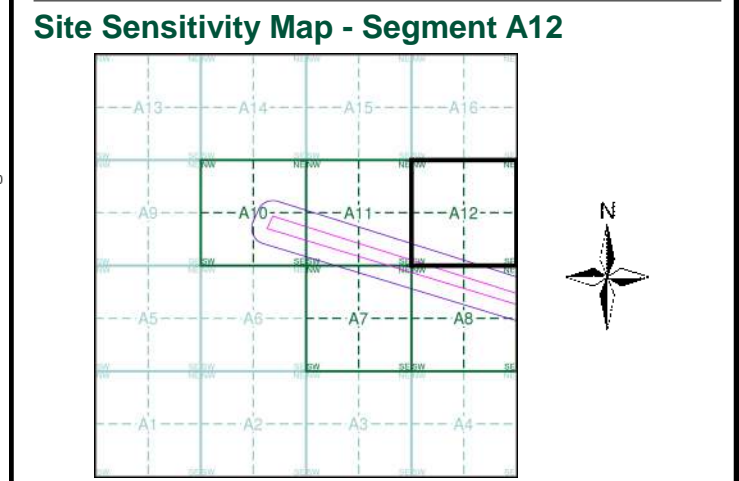
- Contaminated Land Register Entry or Notice (Location)
- Contaminated Land Register Entry or Notice
- Discharge Consent
- Enforcement or Prohibition Notice
- Integrated Pollution Control
- Integrated Pollution Prevention Control
- Local Authority Integrated Pollution Prevention and Control
- Local Authority Pollution Prevention and Control Enforcement
- 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
- 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 (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



### Order Details

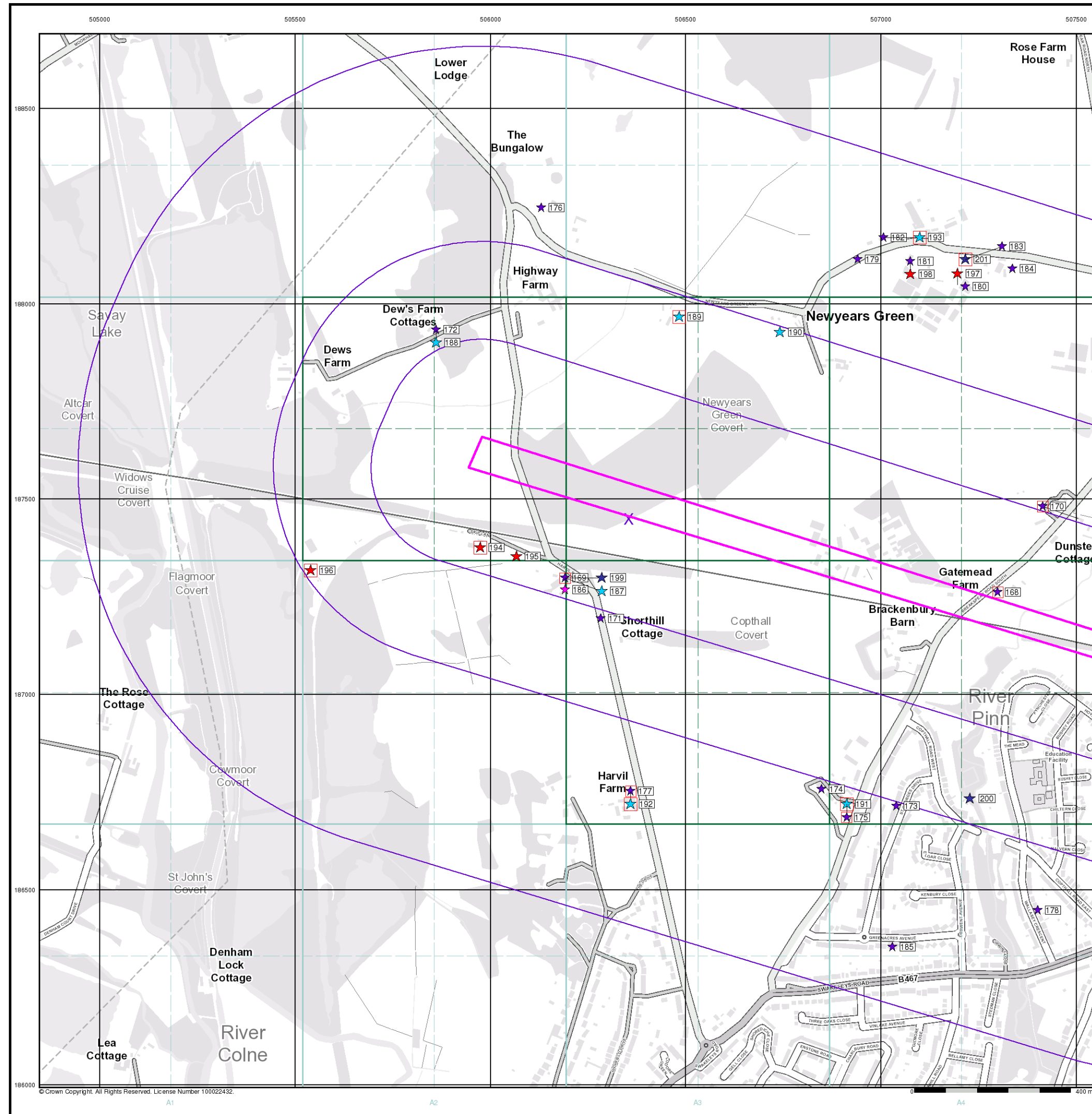
Order Number: 140402875\_1\_1  
Customer Ref: 256905  
National Grid Reference: 506350, 187450  
Slice: A  
Site Area (Ha): 14.32  
Plot Buffer (m): 100

### Site Details

Site at 506720, 187630







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Industrial Land Use Map

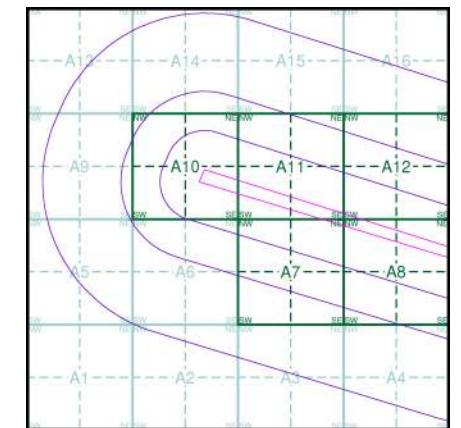
General

- 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



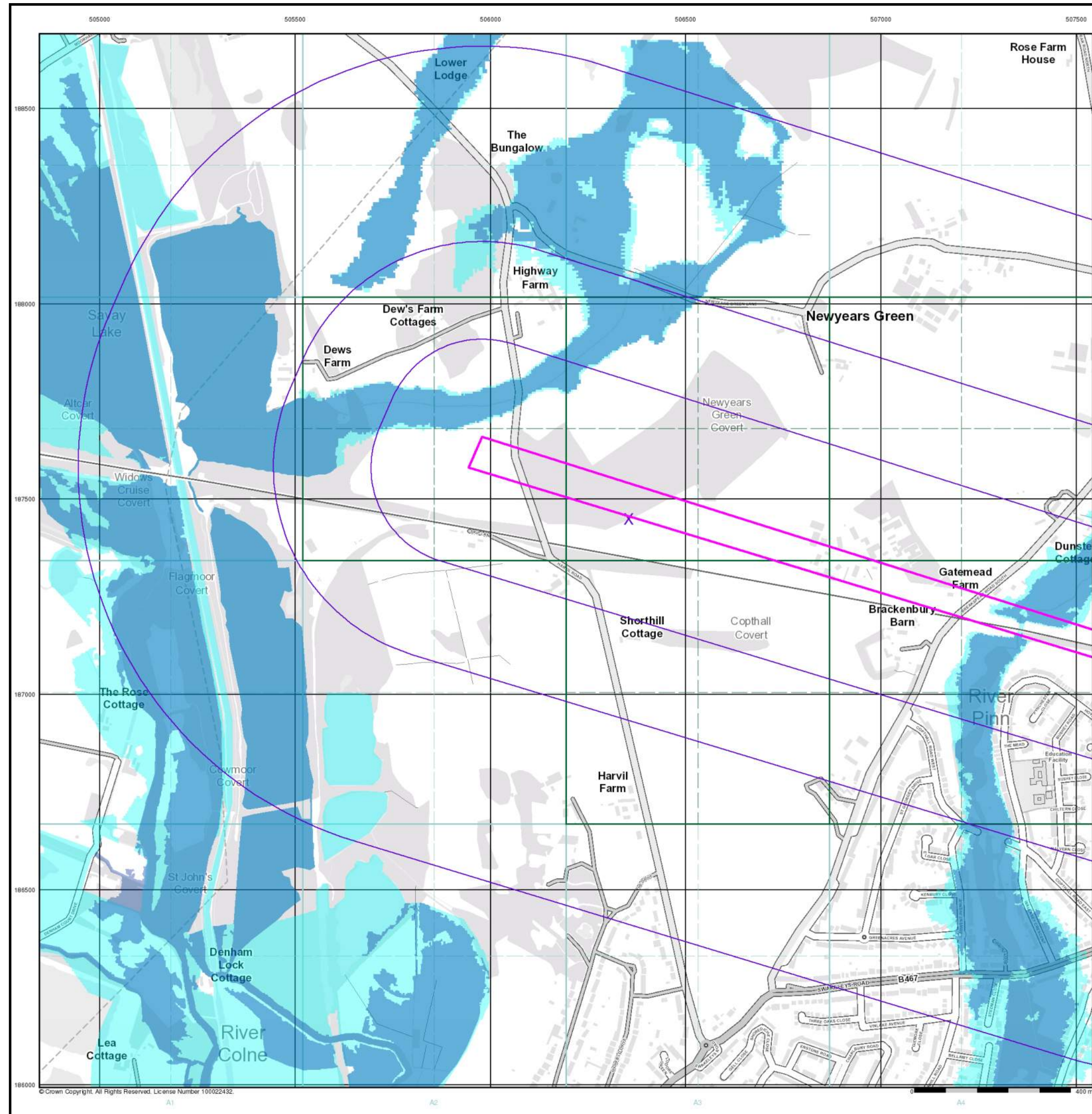
Order Details

Order Number: 140402875\_1\_1  
 Customer Ref: 256905  
 National Grid Reference: 506350, 187450  
 Slice: A  
 Site Area (Ha): 14.32  
 Search Buffer (m): 1000

Site Details

Site at 506720, 187630





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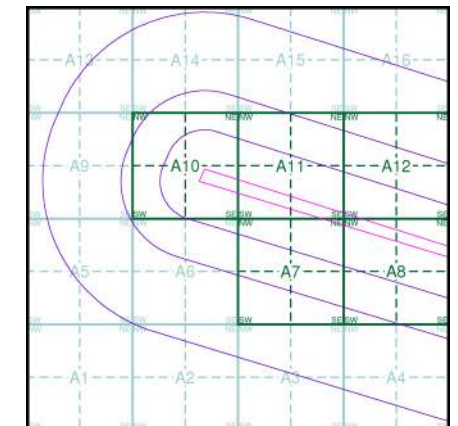
## General

- 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



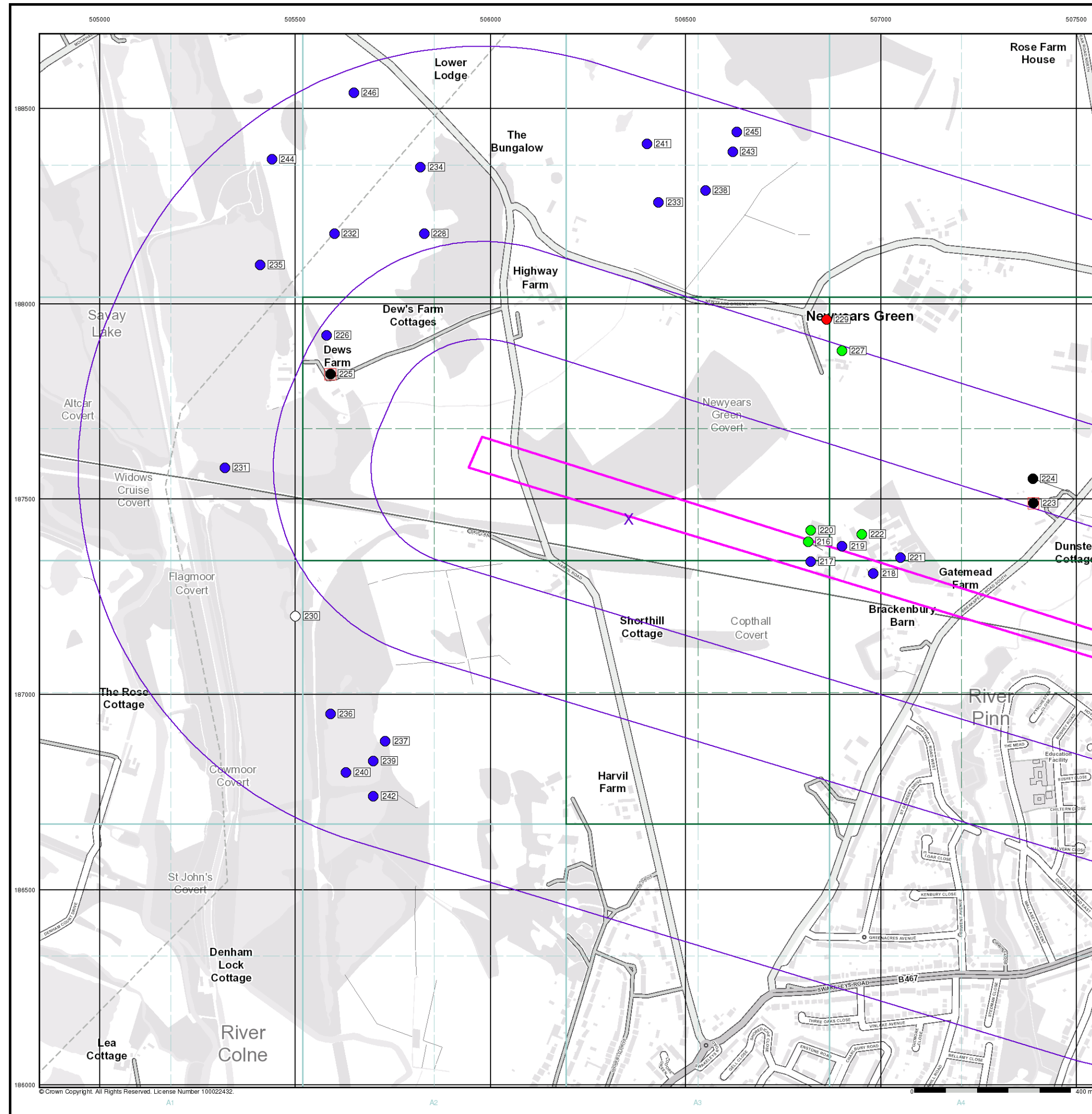
## Order Details

Order Number: 140402875\_1\_1  
Customer Ref: 256905  
National Grid Reference: 506350, 187450  
Slice: A  
Site Area (Ha): 14.32  
Search Buffer (m): 1000

## Site Details

Site at 506720, 187630





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## General

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

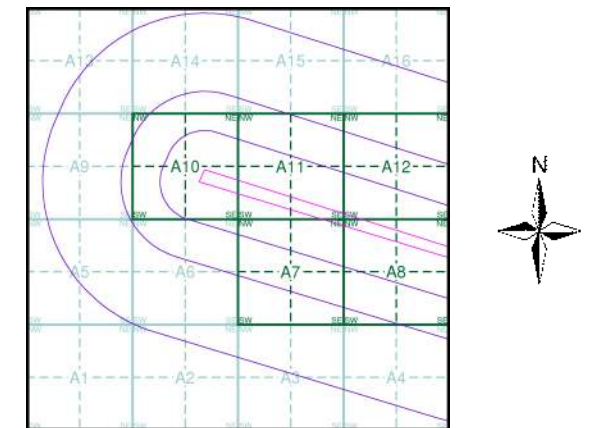
## Agency and Hydrological (Boreholes)

- 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](http://www.envirocheck.co.uk).

## Borehole Map - Slice A

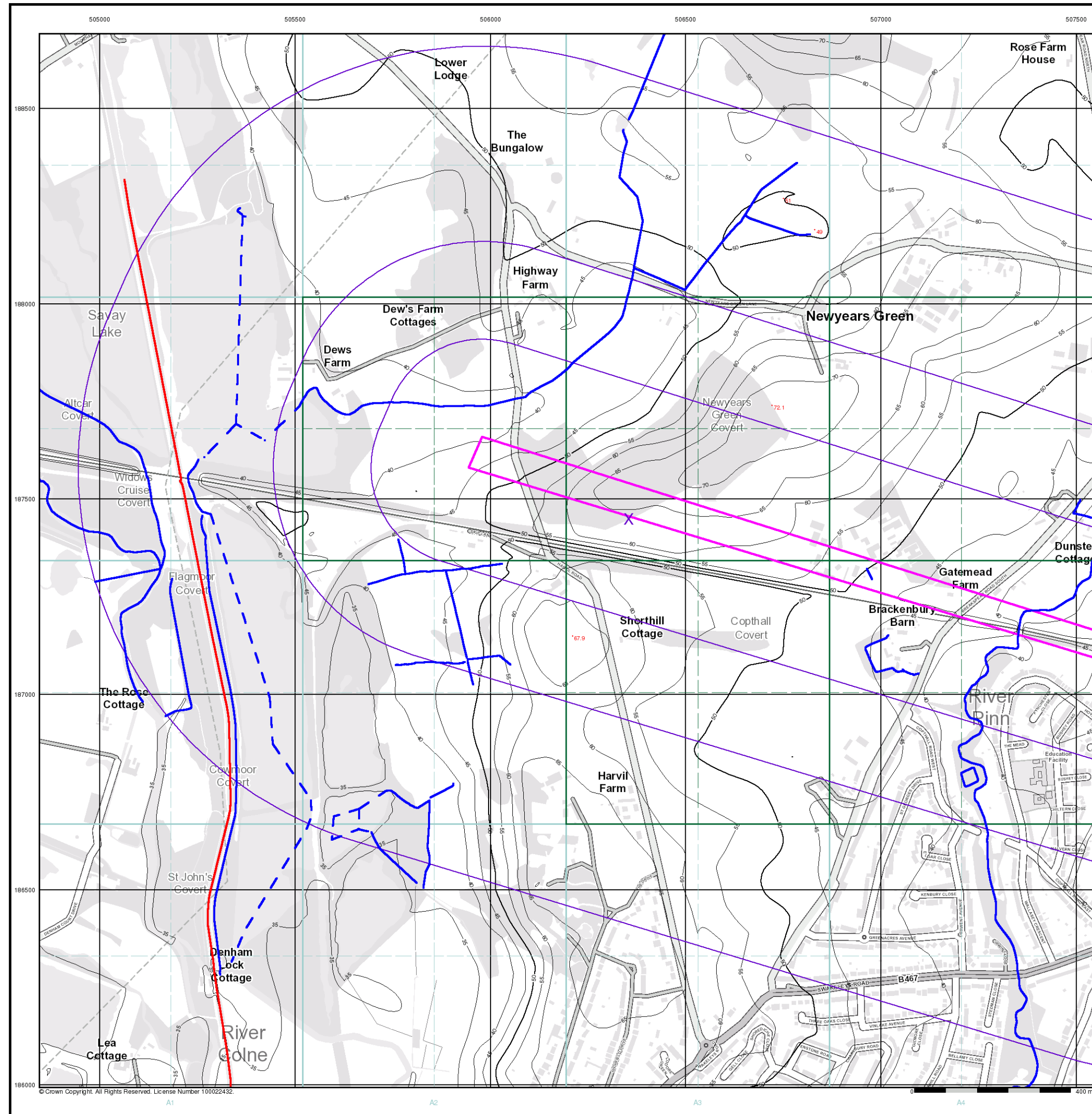


## Order Details

Order Number: 140402875\_1\_1  
Customer Ref: 256905  
National Grid Reference: 506350, 187450  
Slice: A  
Site Area (Ha): 14.32  
Search Buffer (m): 1000

## Site Details

Site at 506720, 187630



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## General

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

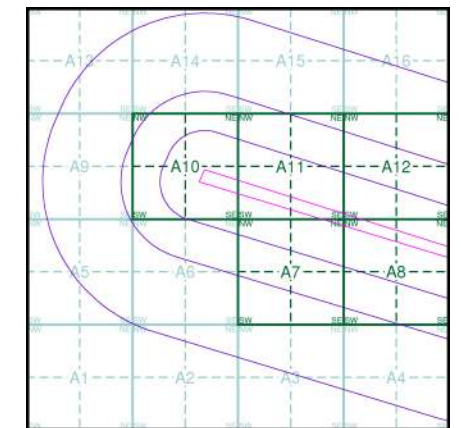
## OS Water Network Data

- |              |                         |
|--------------|-------------------------|
| 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: 140402875\_1\_1  
Customer Ref: 256905  
National Grid Reference: 506350, 187450  
Slice: A  
Site Area (Ha): 14.32  
Search Buffer (m): 1000

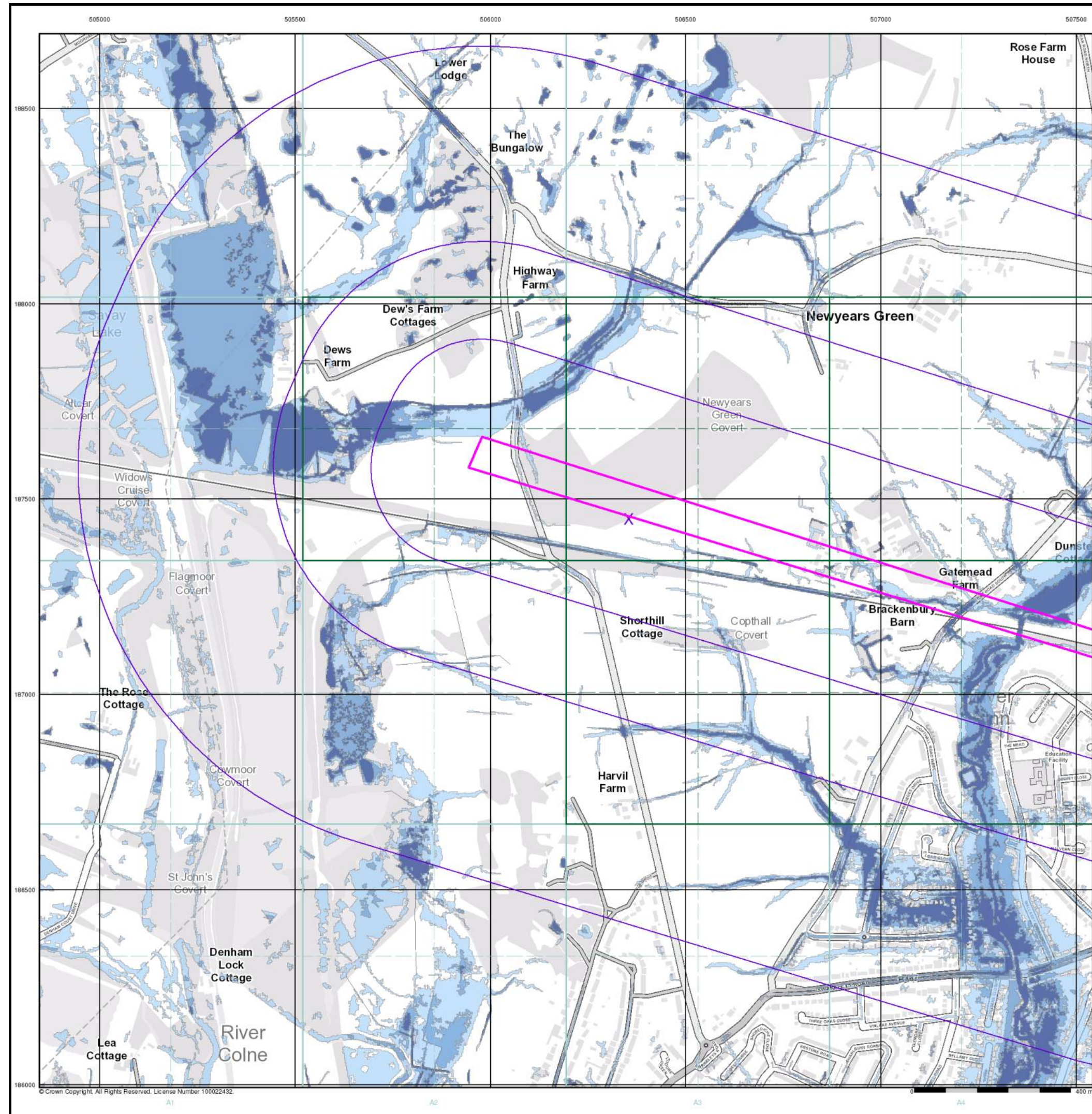
## Site Details

Site at 506720, 187630

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Web: www.envirocheck.co.uk





## General

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

## Risk of Flooding from Surface Water

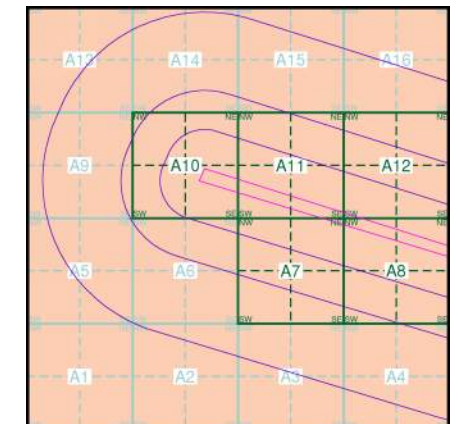
- High - 30 Year Return
- Medium - 100 Year Return
- Low - 1000 Year Return

## Suitability

See the suitability map below

- National to county
- County to town
- Town to street
- Street to parcels of land
- Property

## EANRW Suitability Map - Slice A



## Order Details

Order Number: 140402875\_1\_1  
Customer Ref: 256905  
National Grid Reference: 506350, 187450  
Slice: A  
Site Area (Ha): 14.32  
Search Buffer (m): 1000

## Site Details

Site at 506720, 187630



506200

506400

506600






506800

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## Site Sensitivity


### General

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


### Ecology

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

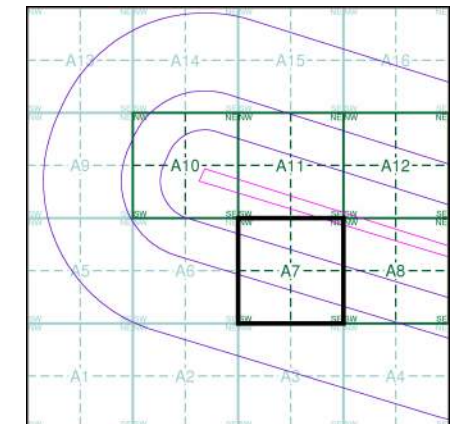
### Heritage

-  Historic Battlefields
  Listed Buildings
-  Scheduled Monuments
  World Heritage Sites

### Visual and Landscape

-  Historic Parks, Gardens and Designed Landscapes

## Site Sensitivity - Segment A7



## Order Details

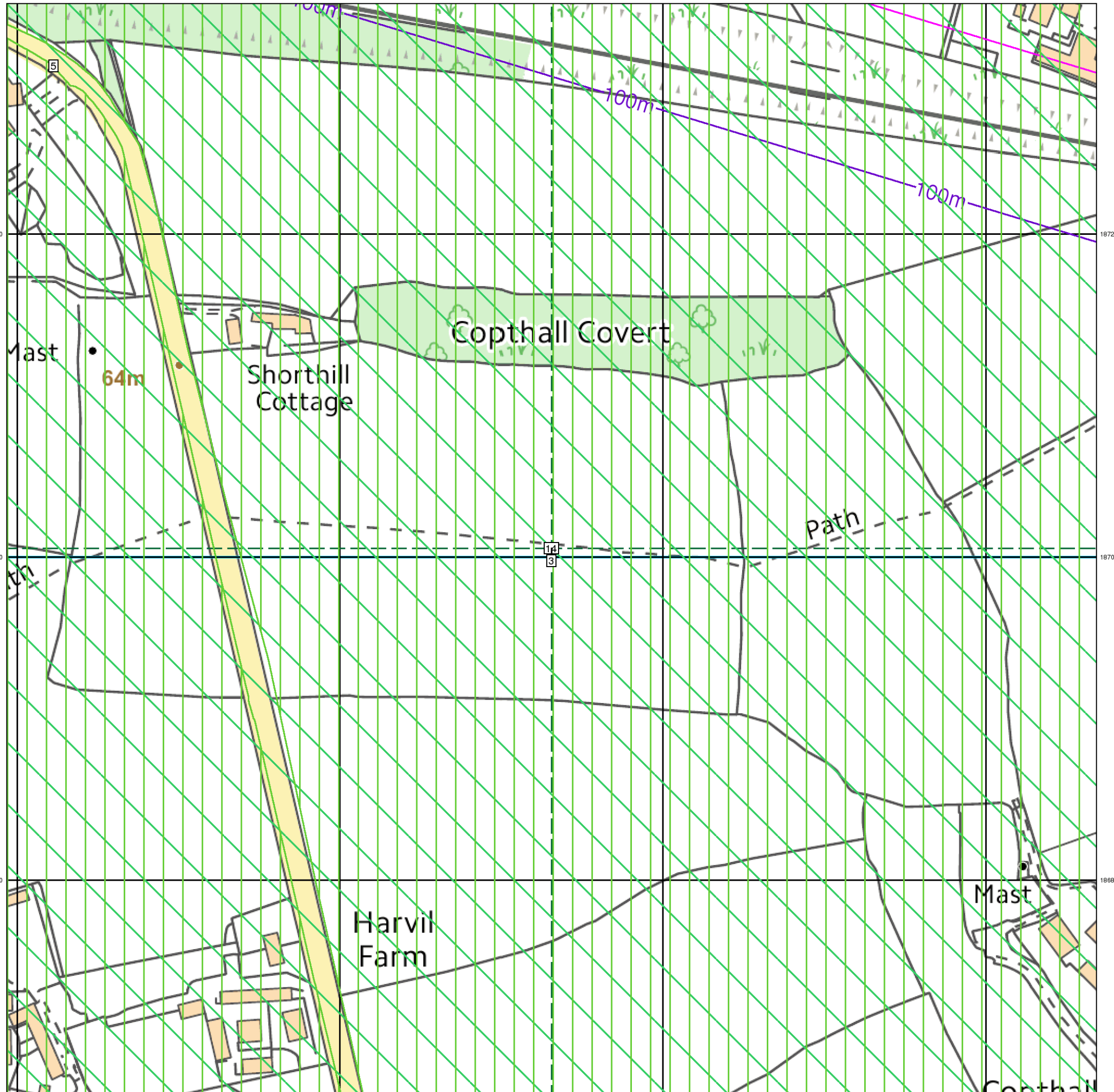
Order Number: 140402875\_1\_1  
 Customer Ref: 256905  
 National Grid Reference: 506350, 187450  
 Slice: A  
 Site Area (Ha): 14.32

## Site Details

Site at 506720, 187630

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## Site Sensitivity




### General

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


### Ecology

-  Ancient Woodland
-  Area of Adopted Green Belt
-  Area of Unadopted Green Belt
-  Area of Outstanding Natural Beauty
-  Country Parks
-  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

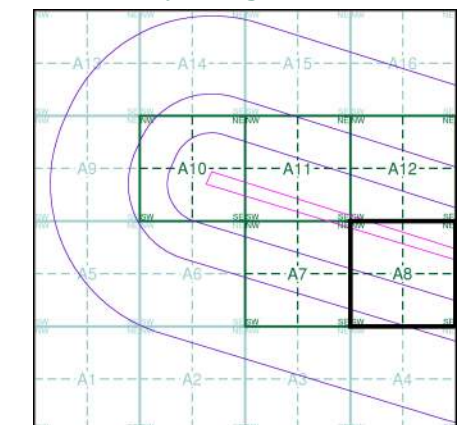
### Heritage

-  Historic Battlefields
-  Scheduled Monuments
-  Listed Buildings
-  World Heritage Sites

### Visual and Landscape

-  Historic Parks, Gardens and Designed Landscapes

## Site Sensitivity - Segment A8

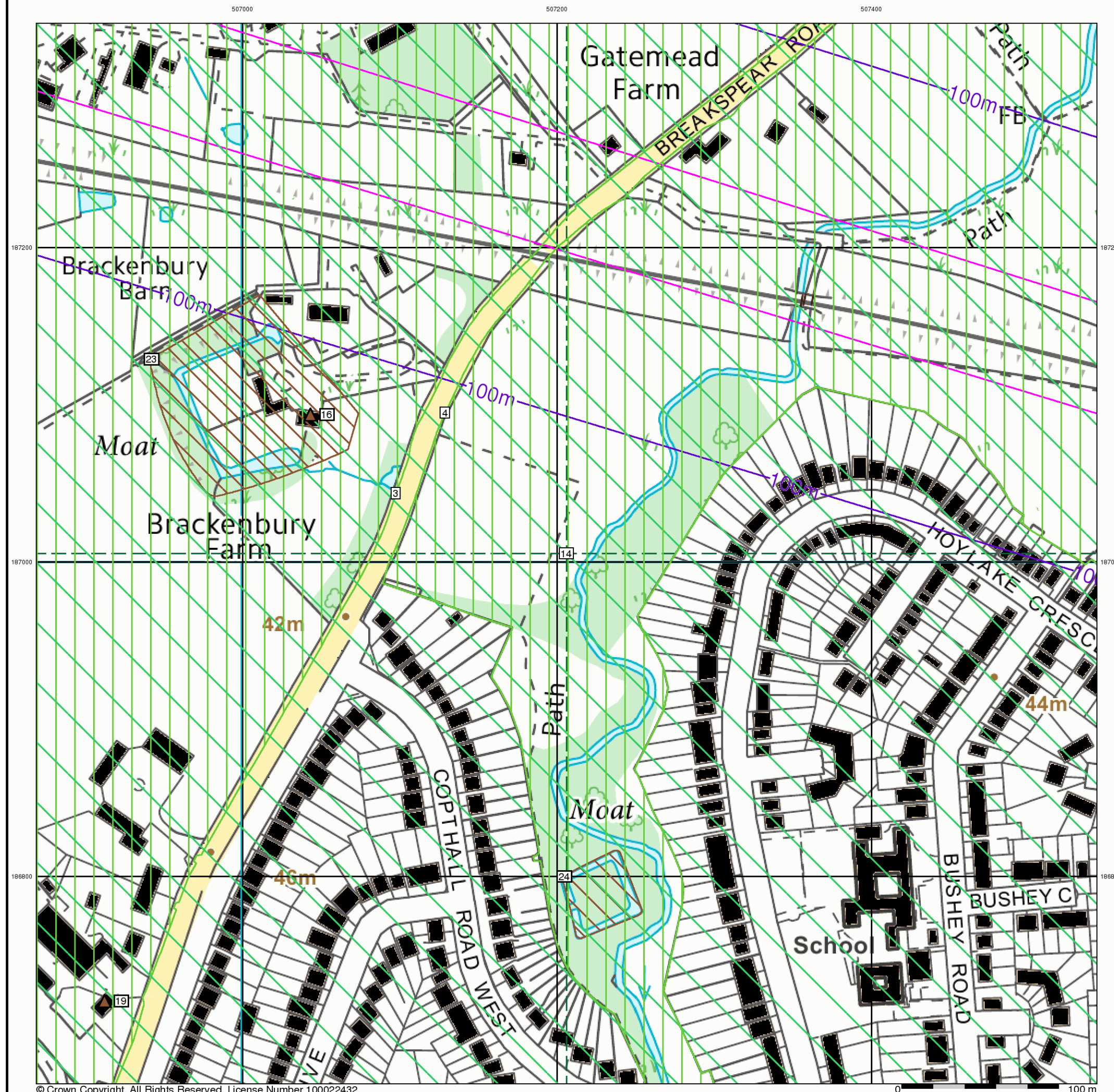


## Order Details

Order Number: 140402875\_1\_1  
 Customer Ref: 256905  
 National Grid Reference: 506350, 187450  
 Slice: A  
 Site Area (Ha): 14.32

## Site Details






Site at 506720, 187630






















## Site Sensitivity

### General

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

### Ecology

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

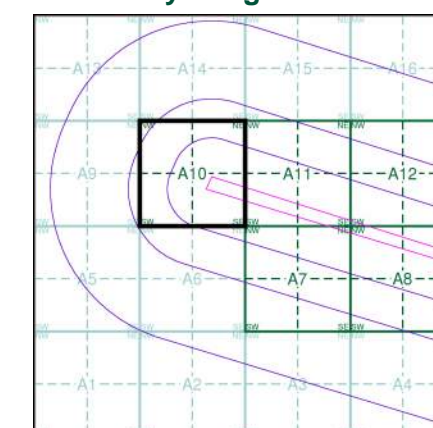
### Heritage

-  Historic Battlefields
-  Listed Buildings
-  Scheduled Monuments
-  World Heritage Sites

### Visual and Landscape

-  Historic Parks, Gardens and Designed Landscapes

## Site Sensitivity - Segment A10

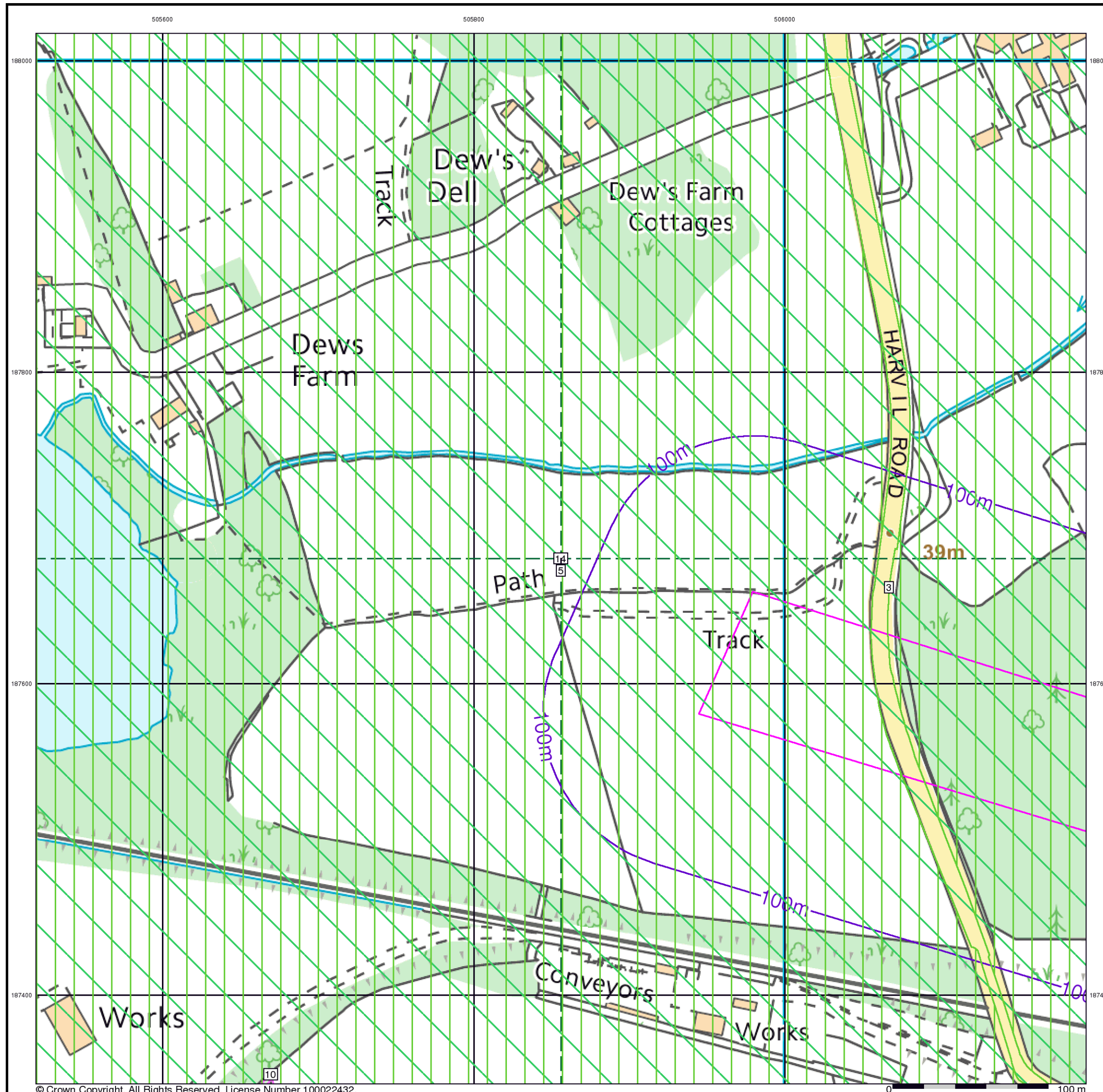


## Order Details

Order Number: 140402875\_1\_1  
 Customer Ref: 256905  
 National Grid Reference: 506350, 187450  
 Slice: A  
 Site Area (Ha): 14.32

## Site Details

Site at 506720, 187630





506200

506400

506600

506800

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## Site Sensitivity

### General

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

### Ecology

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

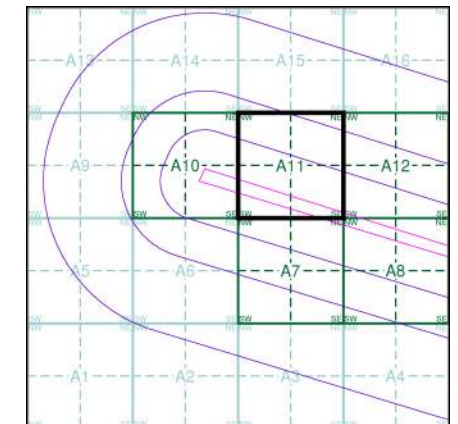
### Heritage

- Historic Battlefields   
 Listed Buildings  
 Scheduled Monuments   
 World Heritage Sites

### Visual and Landscape

- Historic Parks, Gardens and Designed Landscapes

## Site Sensitivity - Segment A11



## Order Details

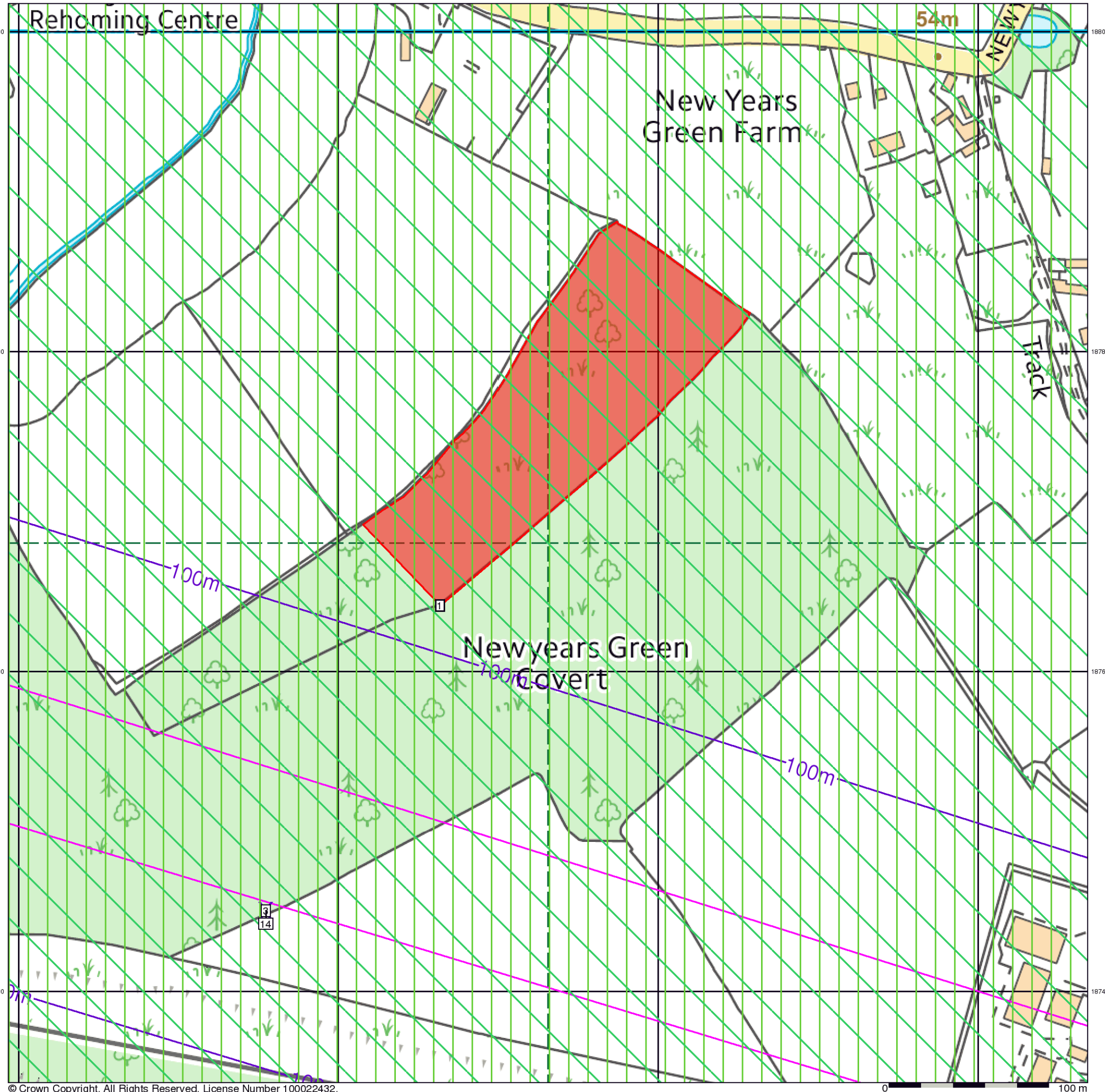
Order Number: 140402875\_1\_1  
 Customer Ref: 256905  
 National Grid Reference: 506350, 187450  
 Slice: A  
 Site Area (Ha): 14.32

## Site Details

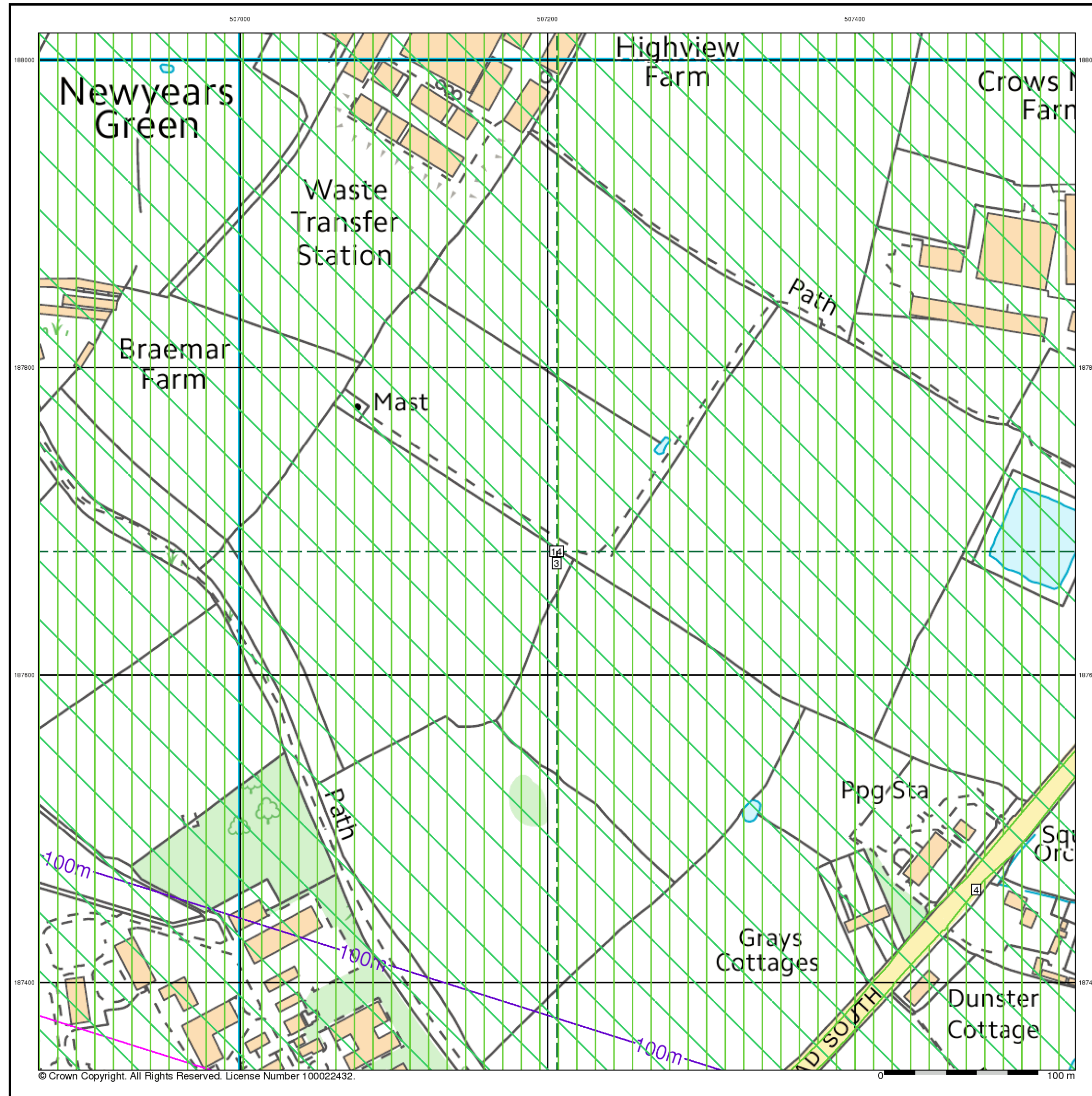
Site at 506720, 187630

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## Site Sensitivity

### General

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

### Ecology

- Ancient Woodland
- Area of Adopted Green Belt
- Area of Unadopted Green Belt
- Area of Outstanding Natural Beauty
- Country Parks
- 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

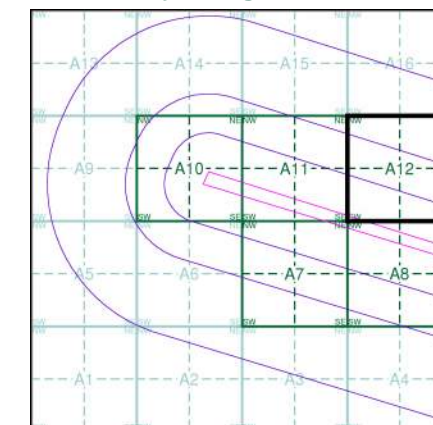
### Heritage

- Historic Battlefields
- Scheduled Monuments
- Listed Buildings
- World Heritage Sites

### Visual and Landscape

- Historic Parks, Gardens and Designed Landscapes

## Site Sensitivity - Segment A12



## Order Details

Order Number: 140402875\_1\_1  
Customer Ref: 256905  
National Grid Reference: 506350, 187450  
Slice: A  
Site Area (Ha): 14.32

## Site Details

Site at 506720, 187630



506200

506400

506600

506800

187200

187200

187000

187000

186800

186800



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0 100 m

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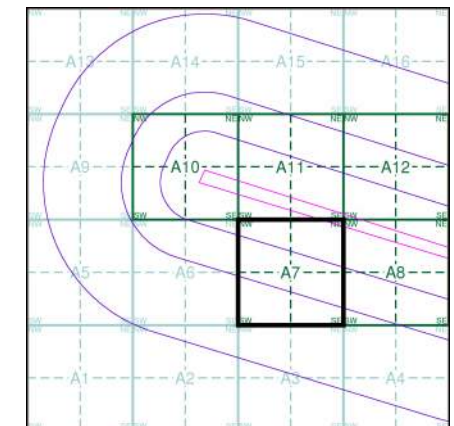
## Aerial Photo

### General

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

**Published Date(s):**  
2015

## Aerial Photo - Segment A7



## Order Details

Order Number: 140402875\_1\_1  
Customer Ref: 256905  
National Grid Reference: 506350, 187450  
Slice: A  
Site Area (Ha): 14.32

## Site Details

Site at 506720, 187630

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0 100 m

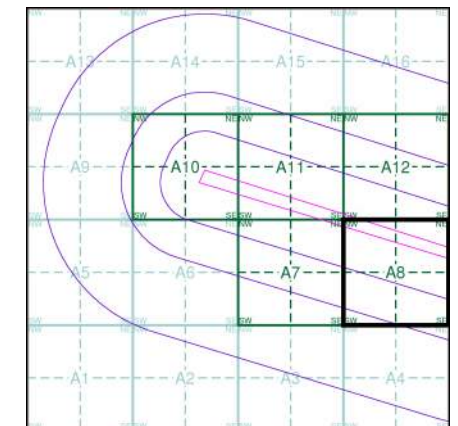
## Aerial Photo

### General

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

**Published Date(s):**  
2015

## Aerial Photo - Segment A8



## Order Details

Order Number: 140402875\_1\_1  
Customer Ref: 256905  
National Grid Reference: 506350, 187450  
Slice: A  
Site Area (Ha): 14.32

## Site Details

Site at 506720, 187630



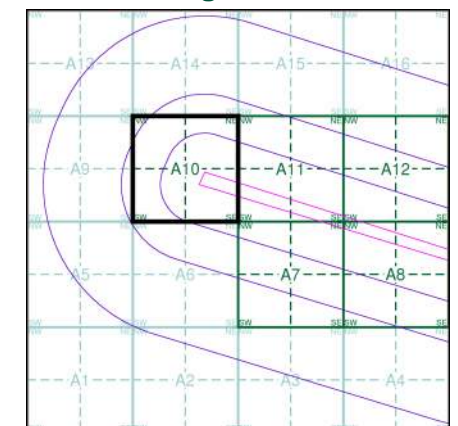
## Aerial Photo

### General

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

**Published Date(s):**  
2015

## Aerial Photo - Segment A10



## Order Details

Order Number: 140402875\_1\_1  
Customer Ref: 256905  
National Grid Reference: 506350, 187450  
Slice: A  
Site Area (Ha): 14.32

## Site Details

Site at 506720, 187630







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0 100 m

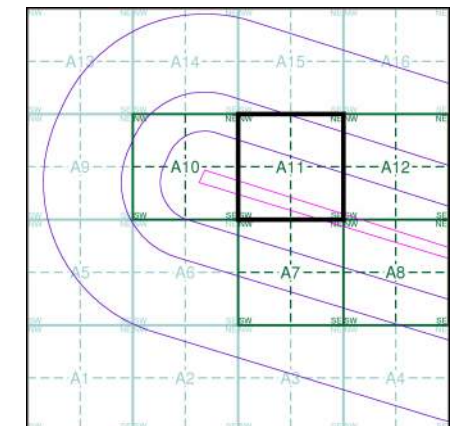
## Aerial Photo

### General

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

**Published Date(s):**  
2015

## Aerial Photo - Segment A11



## Order Details

Order Number: 140402875\_1\_1  
Customer Ref: 256905  
National Grid Reference: 506350, 187450  
Slice: A  
Site Area (Ha): 14.32

## Site Details

Site at 506720, 187630





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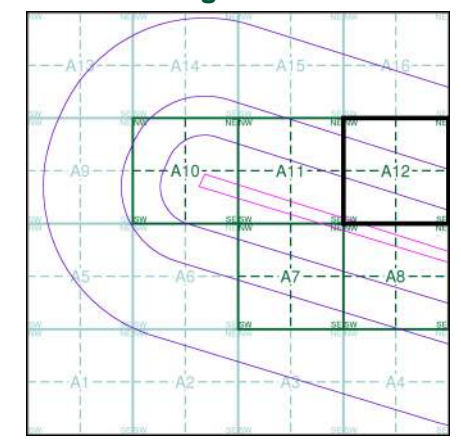
## Aerial Photo

### General

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

**Published Date(s):**  
2015

## Aerial Photo - Segment A12



## Order Details

Order Number: 140402875\_1\_1  
Customer Ref: 256905  
National Grid Reference: 506350, 187450  
Slice: A  
Site Area (Ha): 14.32




## Site Details

Site at 506720, 187630










## Geology 1:50,000 Maps Legends




### Artificial Ground and Landslip

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	WMGR	Infilled Ground	Artificial Deposit	Cenozoic - Cenozoic
	MGR	Made Ground (Undivided)	Artificial Deposit	Holocene - Holocene
	WGR	Worked Ground (Undivided)	Void	Holocene - Holocene

### Superficial Geology

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	ALV	Alluvium	Clay, Silt, Sand and Gravel	Flandrian - Flandrian
	SHGR	Shepperton Gravel Member	Sand and Gravel	Devensian - Devensian
	LASI	Langley Silt Member	Clay and Silt	Devensian - Devensian
	TPGR	Taplow Gravel Formation	Sand and Gravel	Wolstonian - Wolstonian
	LHGR	Lynch Hill Gravel Member	Sand and Gravel	Wolstonian - Wolstonian
	BPGR	Black Park Gravel Member	Sand and Gravel	Anglian - Anglian
	GCGR	Gerrards Cross Gravel	Sand and Gravel	Anglian - Cromerian

### Bedrock and Faults

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	LC	London Clay Formation	Clay, Silt and Sand	Eocene - Eocene
	LMBE	Lambeth Group	Clay, Silt and Sand	Paleocene - Paleocene
	SNCK	Seaford Chalk Formation and Newhaven Chalk Formation (Undifferentiated)	Chalk	Campanian - Coniacian

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### Geology 1:50,000 Maps

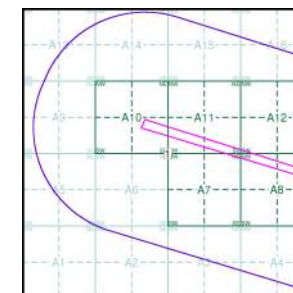
This report contains geological map extracts taken from the BGS Digital Geological map of Great Britain at 1:50,000 scale and is designed for users carrying out preliminary site assessments who require geological maps for the area around the site. This mapping may be more up to date than previously published paper maps.

The various geological layers - artificial and landslip deposits, superficial geology and solid (bedrock) geology are displayed in separate maps, but superimposed on the final 'Combined Surface Geology' map. All map legends feature on this page. Not all layers have complete nationwide coverage, so availability of data for relevant map sheets is indicated below.

### Geology 1:50,000 Maps Coverage

Map ID:	1
Map Sheet No:	255
Map Name:	Beaconsfield
Map Date:	2005
Bedrock Geology:	Available
Superficial Geology:	Available
Artificial Geology:	Available
Faults:	Not Supplied
Landslip:	Available
Rock Segments:	Not Supplied

### Geology 1:50,000 Maps - Slice A



### Order Details:

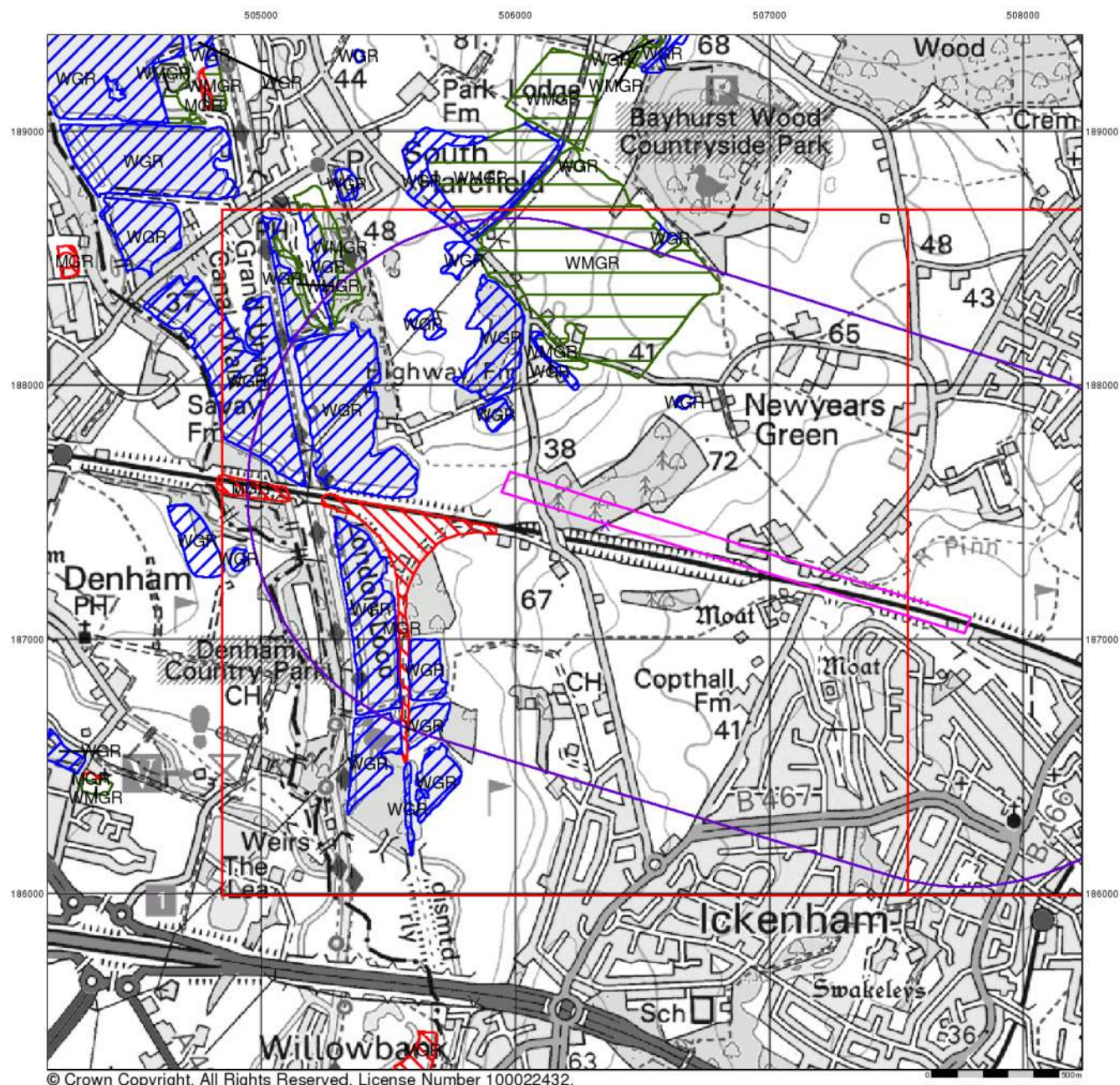
Order Number:	140402875_1_1
Customer Reference:	256905
National Grid Reference:	506350, 187450
Slice:	A
Site Area (Ha):	14.32
Search Buffer (m):	1000

### Site Details:

Site at 506720, 187630

**Landmark**  
INFORMATION GROUP

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



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## Artificial Ground and Landfill

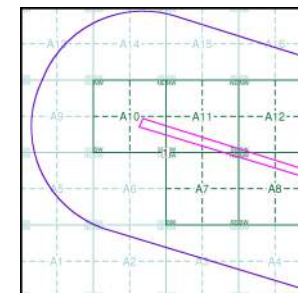
Artificial ground is a term used by BGS for those areas where the ground surface has been significantly modified by human activity. Information about previously developed ground is especially important, as it is often associated with potentially contaminated material, unpredictable engineering conditions and unstable ground.

Artificial ground includes:

- Made ground - man-made deposits such as embankments and spoil heaps on the natural ground surface.
- Worked ground - areas where the ground has been cut away such as quarries and road cuttings.
- Infilled ground - areas where the ground has been cut away then wholly or partially backfilled.
- Landscaped ground - areas where the surface has been reshaped.
- Disturbed ground - areas of ill-defined shallow or near surface mineral workings where it is impracticable to map made and worked ground separately.

Mass movement (landslip) deposits on BGS geological maps are primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground. The dataset also includes foundered strata, where the ground has collapsed due to subsidence.

## Artificial Ground and Landfill Map - Slice A



## Order Details:

Order Number: 140402875\_1\_1  
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 Slice: A  
 Site Area (Ha): 14.32  
 Search Buffer (m): 1000

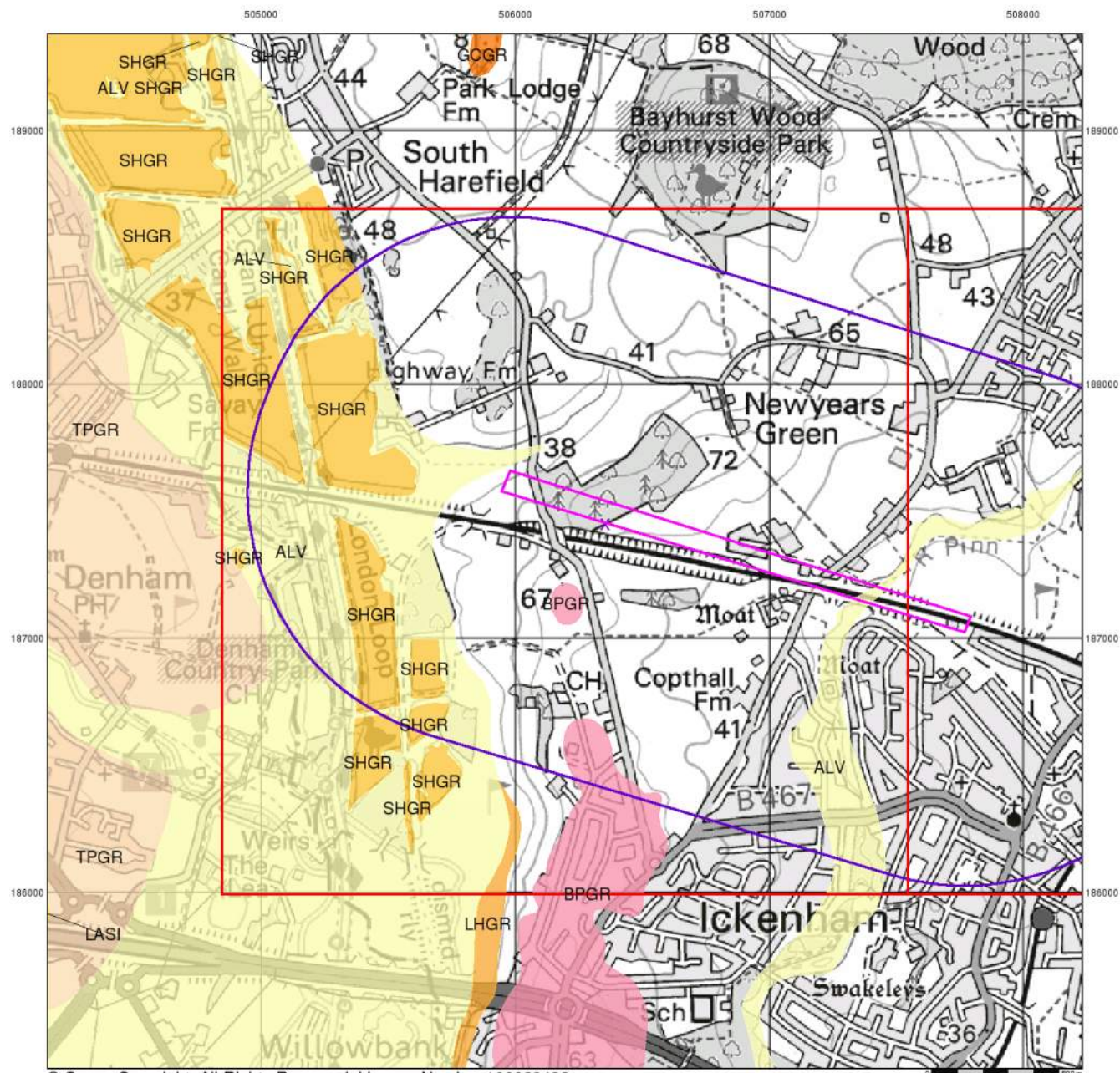
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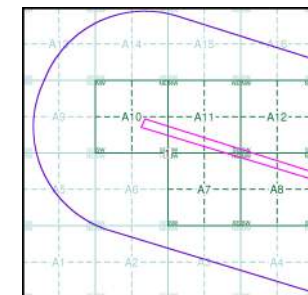
## Superficial Geology

Superficial Deposits are the youngest geological deposits formed during the most recent period of geological time, the Quaternary, which extends back about 1.8 million years from the present.

They rest on older deposits or rocks referred to as Bedrock. This dataset contains Superficial deposits that are of natural origin and 'in place'. Other superficial strata may be held in the Mass Movement dataset where they have been moved, or in the Artificial Ground dataset where they are of man-made origin.

Most of these Superficial deposits are unconsolidated sediments such as gravel, sand, silt and clay, and onshore they form relatively thin, often discontinuous patches or larger spreads.

## Superficial Geology Map - Slice A



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 Slice: A  
 Site Area (Ha): 14.32  
 Search Buffer (m): 1000

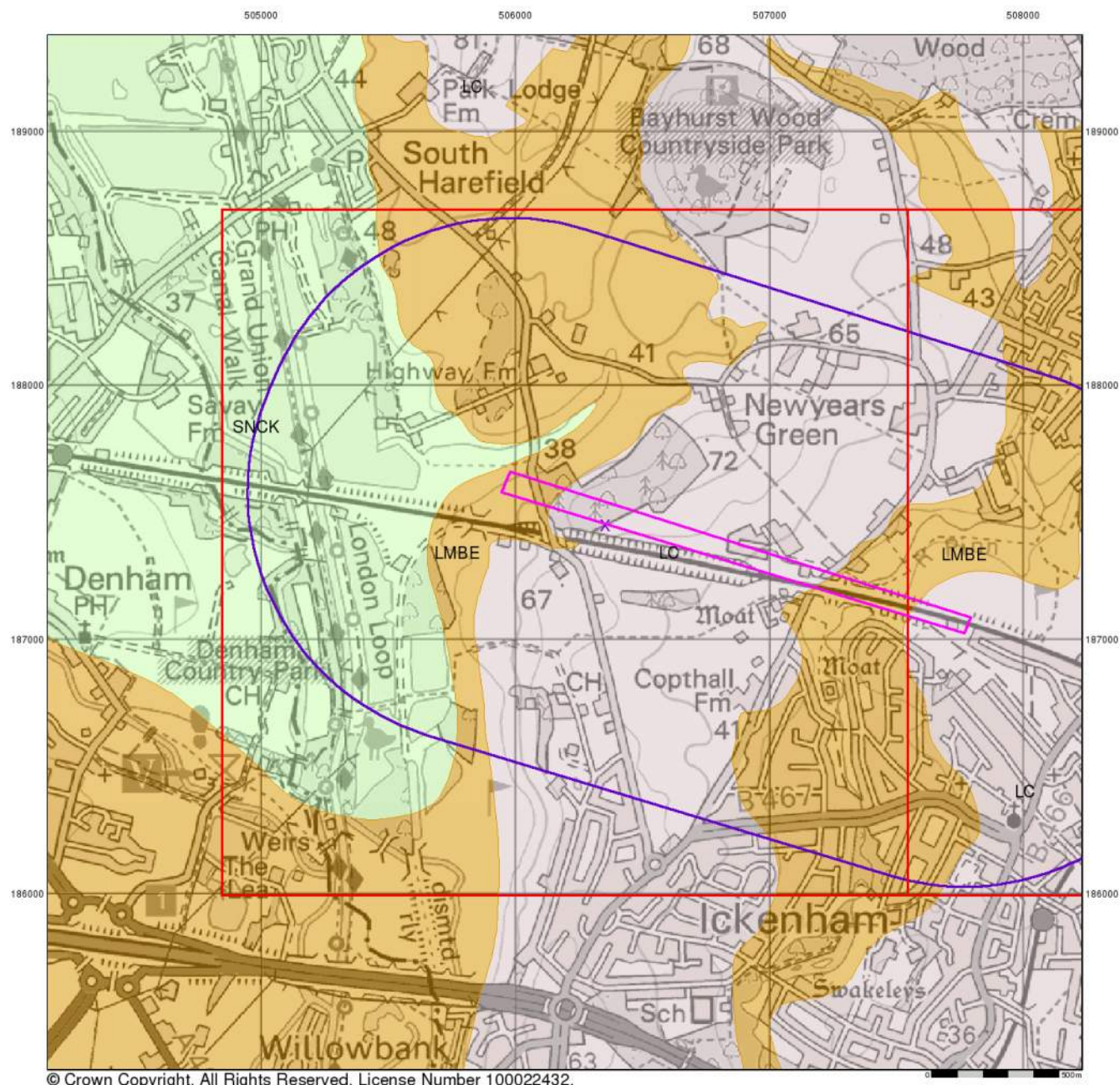
## Site Details:

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## Bedrock and Faults

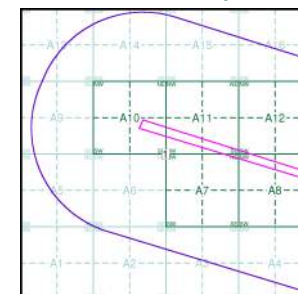
Bedrock geology is a term used for the main mass of rocks forming the Earth and are present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

The bedrock has formed over vast lengths of geological time ranging from ancient and highly altered rocks of the Proterozoic, some 2500 million years ago, or older, up to the relatively young Pliocene, 1.8 million years ago.

The bedrock geology includes many lithologies, often classified into three types based on origin: igneous, metamorphic and sedimentary.

The BGS Faults and Rock Segments dataset includes geological faults (e.g. normal, thrust), and thin beds mapped as lines (e.g. coal seam, gypsum bed). Some of these are linked to other particular 1:50,000 Geology datasets, for example, coal seams are part of the bedrock sequence, most faults and mineral veins primarily affect the bedrock but cut across the strata and post date its deposition.

## Bedrock and Faults Map - Slice A



## Order Details:

Order Number: 140402875\_1\_1  
Customer Reference: 256905  
National Grid Reference: 506350, 187450  
Slice: A  
Site Area (Ha): 14.32  
Search Buffer (m): 1000

## Site Details:

Site at 506720, 187630

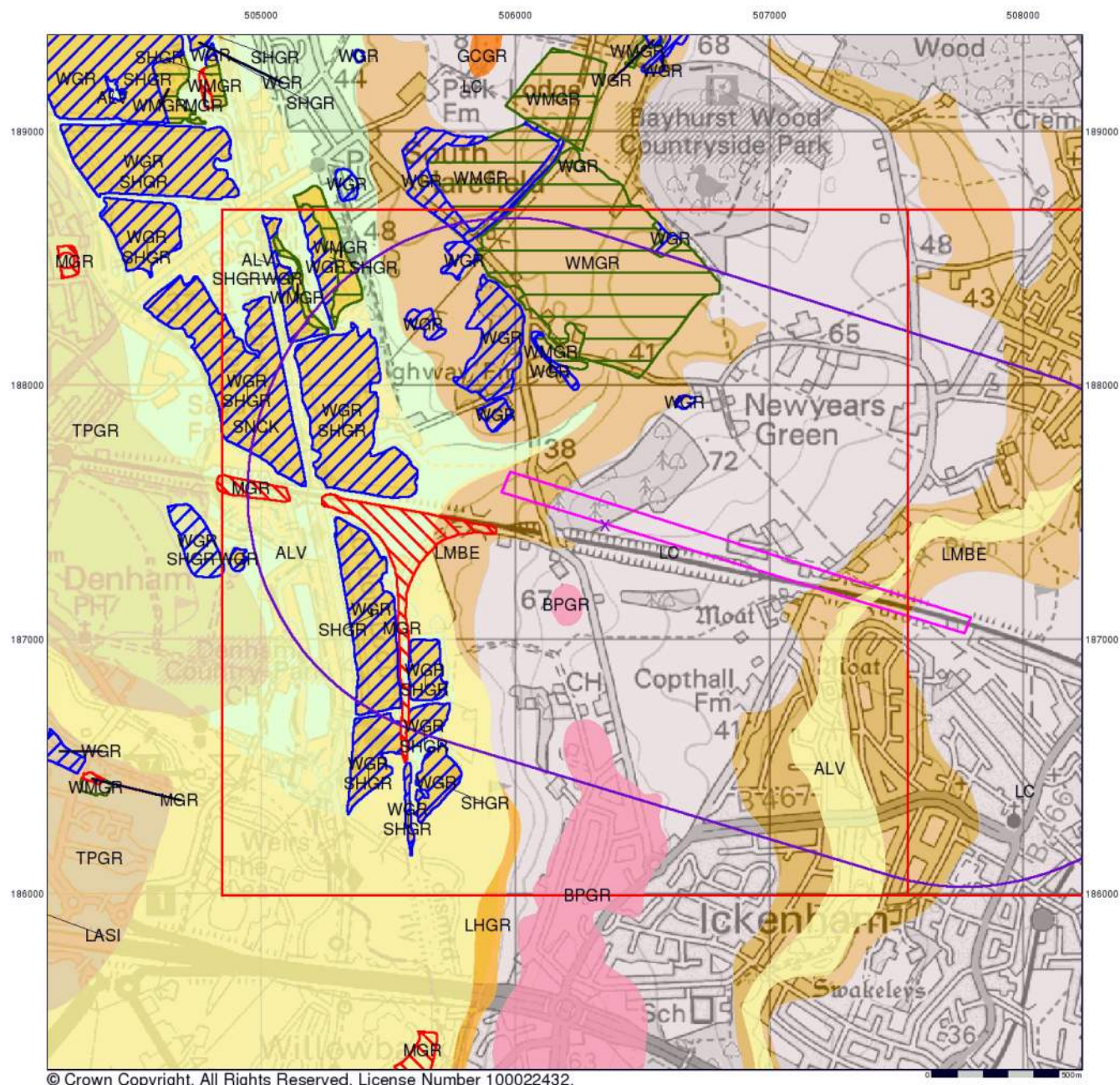
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v15.0 22-Sep-2017

Page 4 of 5





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## Combined Surface Geology

The Combined Surface Geology map combines all the previous maps into one combined geological overview of your site.

Please consult the legends to the previous maps to interpret the Combined "Surface Geology" map.

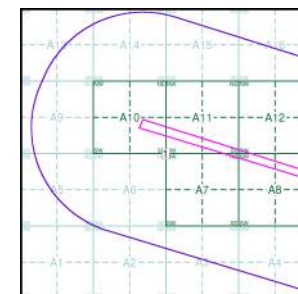
## Additional Information

More information on 1:50,000 Geological mapping and explanations of rock classifications can be found on the BGS website. Using the LEX Codes in this report, further descriptions of rock types can be obtained by interrogating the 'BGS Lexicon of Named Rock Units'. This database can be accessed by following the 'Information and Data' link on the BGS website.

## Contact

British Geological Survey  
Kingsley Dunham Centre  
Keyworth  
Nottingham  
NG12 5GG  
Telephone: 0115 936 3143  
Fax: 0115 936 3276  
email: enquiries@bgs.ac.uk  
website: www.bgs.ac.uk

## Combined Geology Map - Slice A



## Order Details:

Order Number: 140402875\_1\_1  
Customer Reference: 256905  
National Grid Reference: 506350, 187450  
Slice: A  
Site Area (Ha): 14.32  
Search Buffer (m): 1000

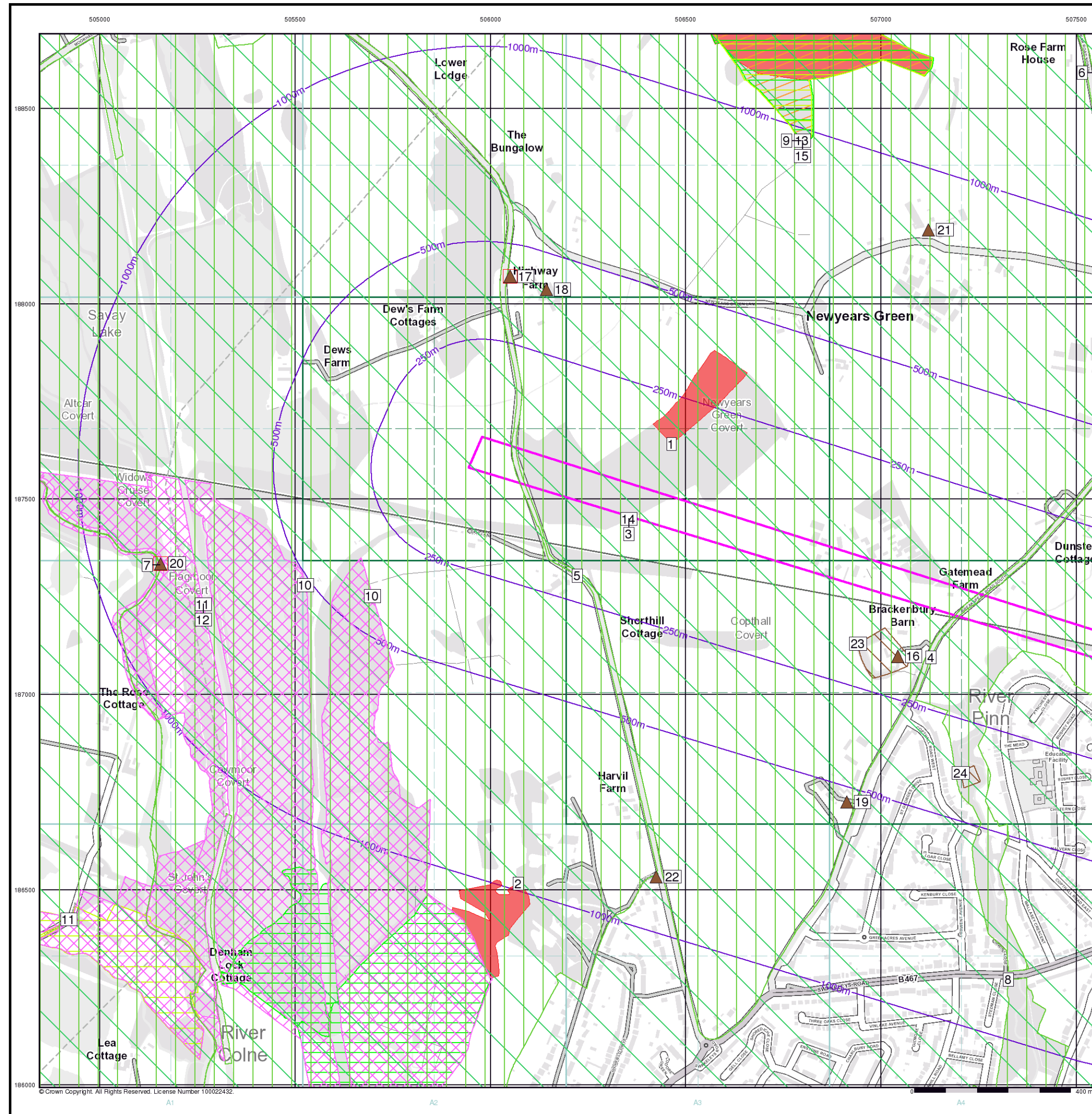
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## Site Sensitivity

### General

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

### Ecology

- Ancient Woodland
- Area of Adopted Green Belt
- Area of Unadopted Green Belt
- Area of Outstanding Natural Beauty
- Country Parks
- 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

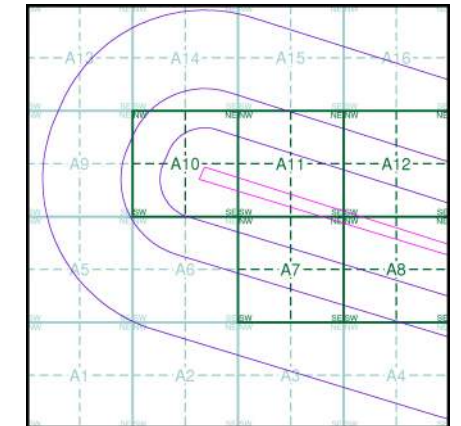
### Heritage

- Historic Battlefields
- Scheduled Monuments
- Listed Buildings
- World Heritage Sites

### Visual and Landscape

- Historic Parks, Gardens and Designed Landscapes

## Site Sensitivity - Slice A



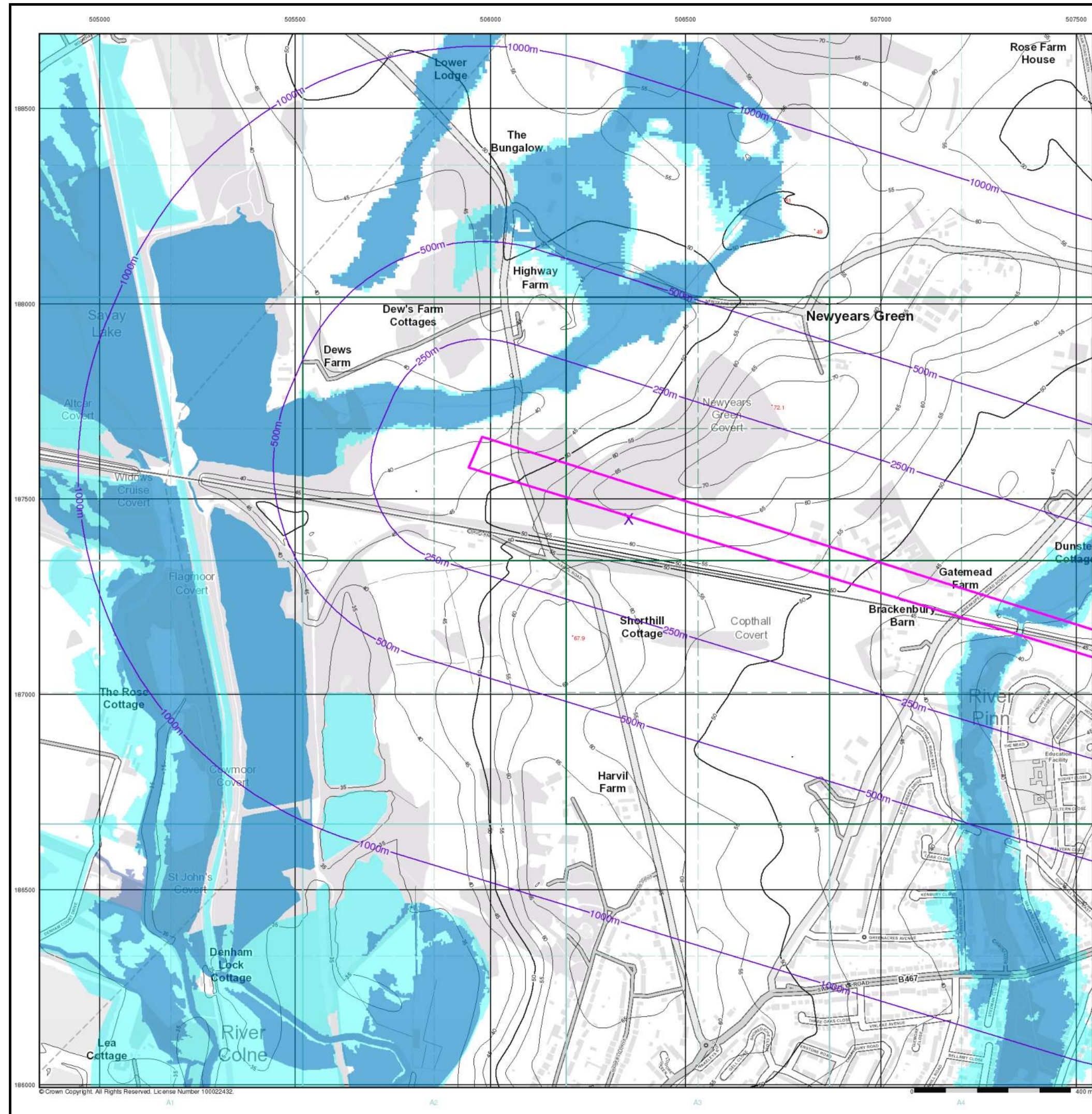
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Customer Ref: 256905  
National Grid Reference: 506350, 187450  
Slice: A  
Site Area (Ha): 14.32  
Search Buffer (m): 1000

## Site Details

Site at 506720, 187630





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## Water and Hydrology

### General

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

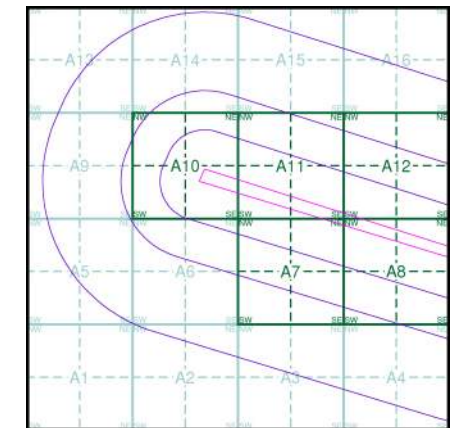
### Flood

- 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

### Contours (height in meters)

- Standard Contour
- Master Contour
- Spot Height
- MLW Mean Low Water
- MHW Mean High Water

## Flood - Slice A



## Order Details

Order Number: 140402875\_1\_1  
Customer Ref: 256905  
National Grid Reference: 506350, 187450  
Slice: A  
Site Area (Ha): 14.32  
Search Buffer (m): 1000

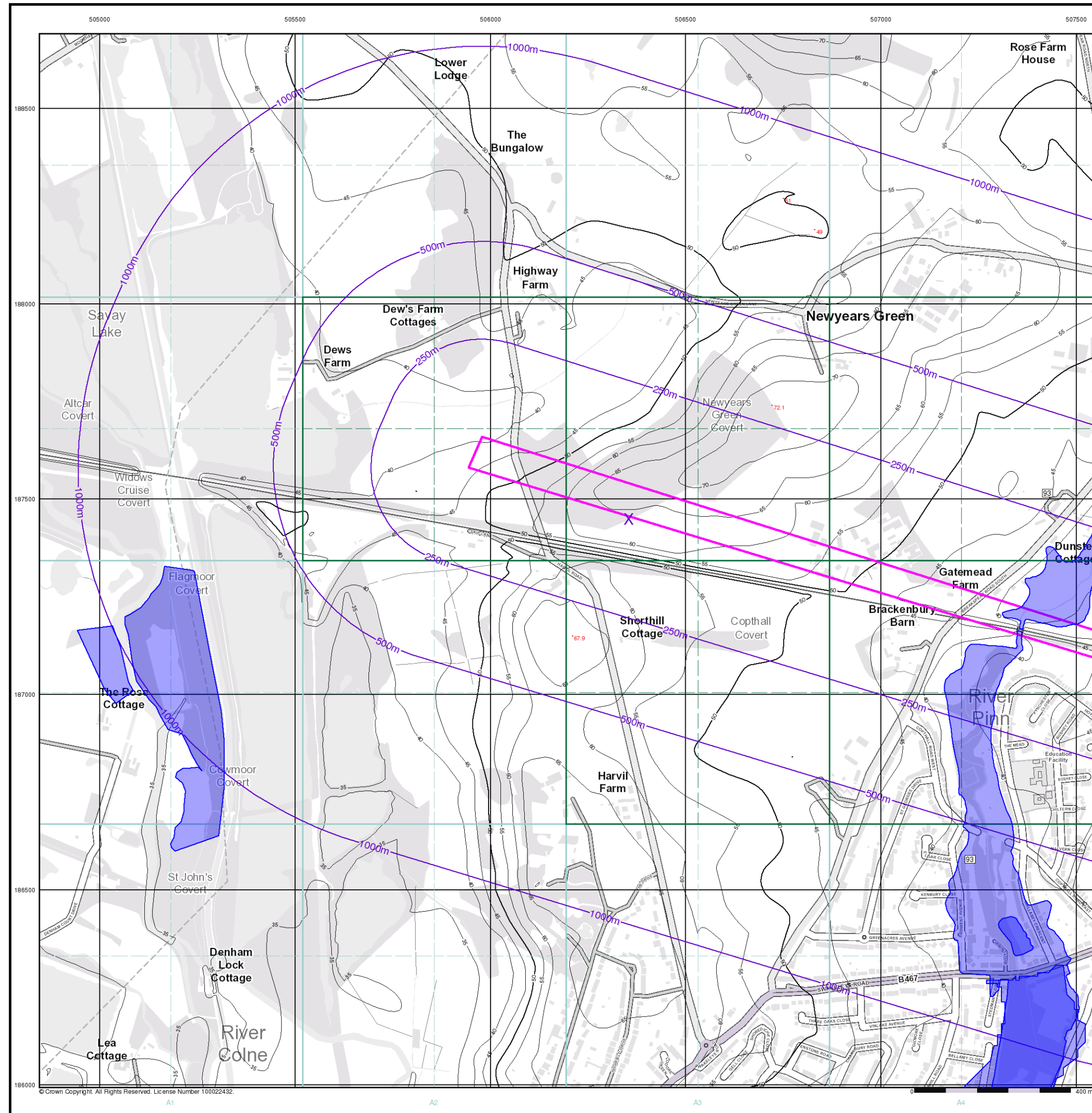
## Site Details

Site at 506720, 187630

























## Water and Hydrology

## General

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

## Historic Flood

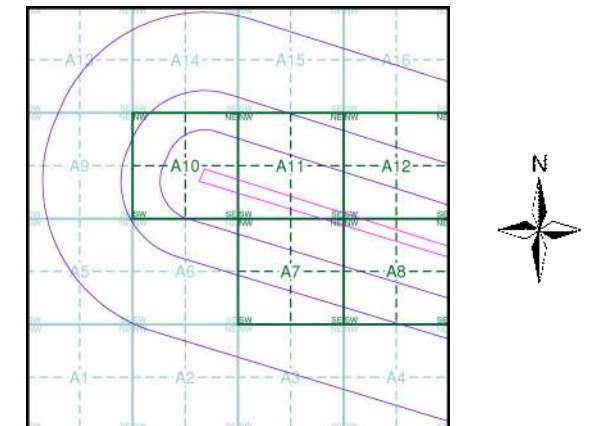
- |   |   |   |   |
|---|---|---|---|
|  | Channel Capacity Exceeded<br>(no raised defences) |  | Obstruction/Blockage - Culvert            |
|  | Groundwater/High Water Table                      |  | Obstruction/Blockage -<br>Debris Screen   |
|  | Local Drainage/Surface Water                      |  | Operational Failure/<br>Breach of Defence |
|  | Mechanical Failure                                |  | Other                                     |
|  | Obstruction/Blockage - Bridge                     |  | Overtopping of Defences                   |
|  | Obstruction/Blockage - Channel                    |  | Unknown                                   |

- Historical Flood Liabilities

### Contours (height in meters)

- Standard Contour 105 100 95
- Master Contour
- Spot Height \*167.8
- MLW Mean Low Water
- MHW Mean High Water

### Historic Flood - Slice A



## Order Details

Order Number:	140402875_1_1
Customer Ref:	256905
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Site Area (Ha):	14.32
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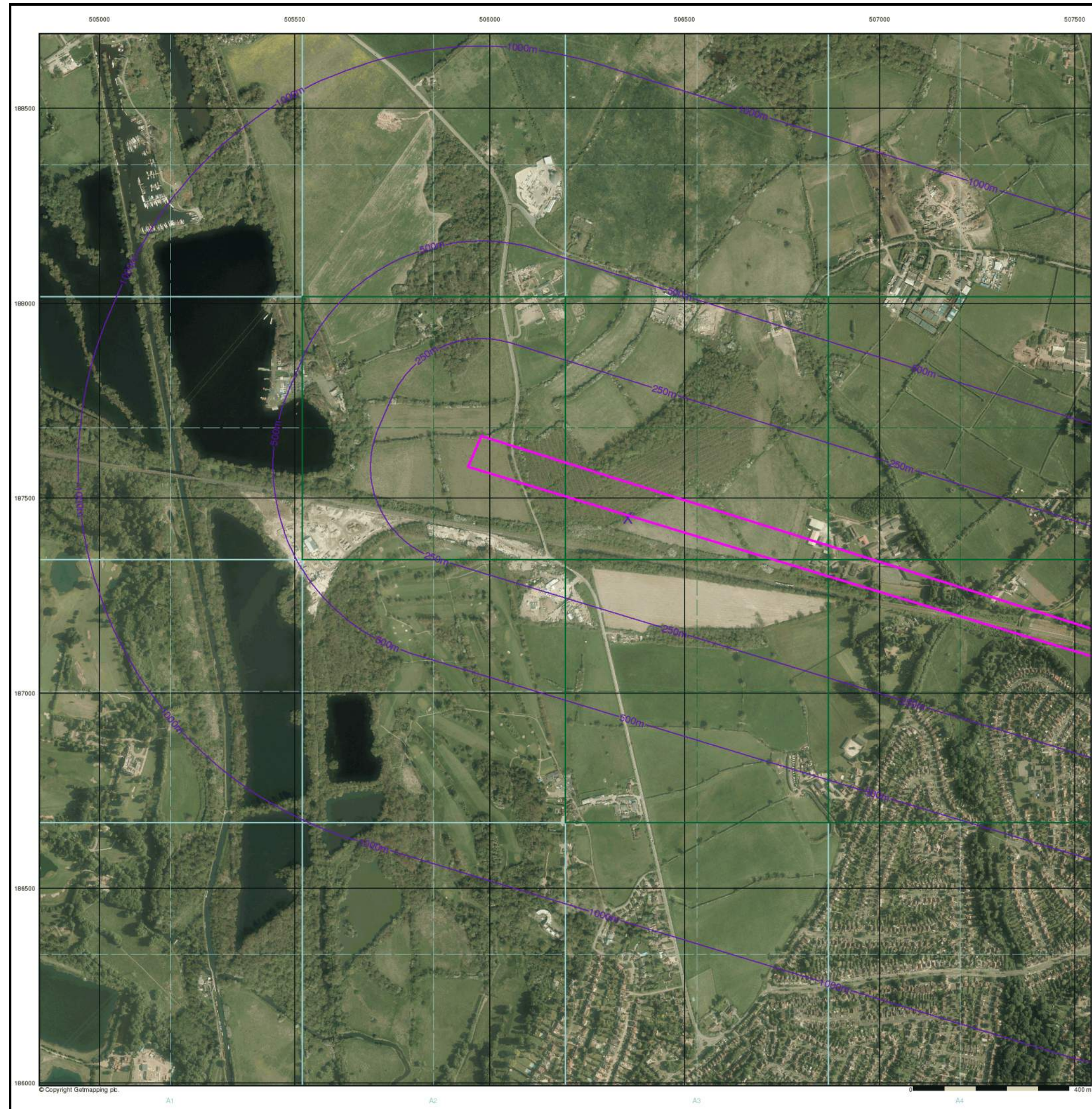
## Site Details

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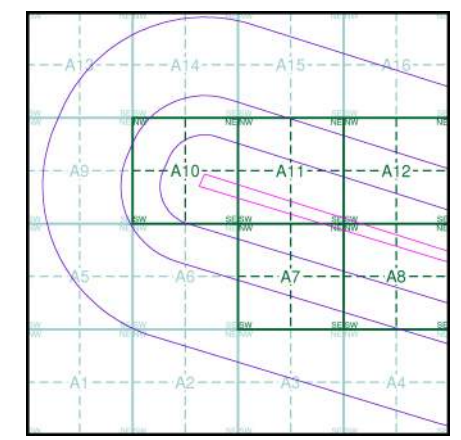
## Aerial Photo

### General

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

**Published Date(s):**  
2015

## Aerial Photo - Slice A



## Order Details

Order Number: 140402875\_1\_1  
Customer Ref: 256905  
National Grid Reference: 506350, 187450  
Slice: A  
Site Area (Ha): 14.32  
Search Buffer (m): 1000

## Site Details

Site at 506720, 187630







# OS VectorMap® Local

## Colour Raster version

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### COMMUNICATIONS (TRANSPORT)

Depicted roads are not necessarily rights of way

	Motorway
	Primary road
	Main road ('A' road)
	Secondary road ('B' road)
	Minor road
	Local street
	Private road with public access
	Pedestrianised street
	Multiple track railway
	Single track railway or siding
	Narrow gauge railway
	Road or rail tunnel







### SETTLEMENT

	Building		Important building
	Glasshouse		
	Overhead building line		

### VEGETATION

	Broad-leaved woodland		Coniferous woodland
	Mixed woodland		Orchard
	Shrub		Unimproved grass
	Heathland		Marsh
	Reeds		

### WATER FEATURES

	Water (surface or tidal)
	Water
	Mean high water
	Mean low water
	Direction of flow arrows
	Water point features (for example Wells, Springs)

### HEIGHT









Surface heights are in metres above mean sea level

57m Height

### LANDFORMS

	Ornament
	Inland rock
	Boulders
	Shingle
	Cliff
	Large slopes
	Standard slopes
	Mud
	Sand
	Gravel pit
	Sand pit
	Refuse tip or slag heap

### POINT & LINE FEATURES

	General line detail
	Overhead detail
	Telephone line
	Electricity transmission line
	Pylon
	Triangulation station
	Point features (for example Shafts, Posts)
	Site of antiquity

### COMMON ABBREVIATIONS

CG.....	Cattle grid
Chy.....	Chimney
Coll.....	College
Ct.....	Court
El Sub Sta.....	Electricity sub station
FB.....	Footbridge
Fl Sk.....	Flare stack
Fn.....	Fountain
FS.....	Flagstaff
GP.....	Guide post
LC.....	Level crossing
Liby.....	Library
Meml.....	Memorial
MHW(s).....	Mean high water (springs)
MLW(s).....	Mean low water (springs)
Mon.....	Monument
MP, MS.....	Mile post or stone
NTL.....	Normal tidal water
P, Ps.....	Post(s) or pole(s)
PH.....	Public House
PO.....	Post office
Pol Sta.....	Police Station
PW.....	Place of worship
Sch.....	School
Spr.....	Spring
Sta.....	Station
Tk.....	Tank or track
W.....	Well

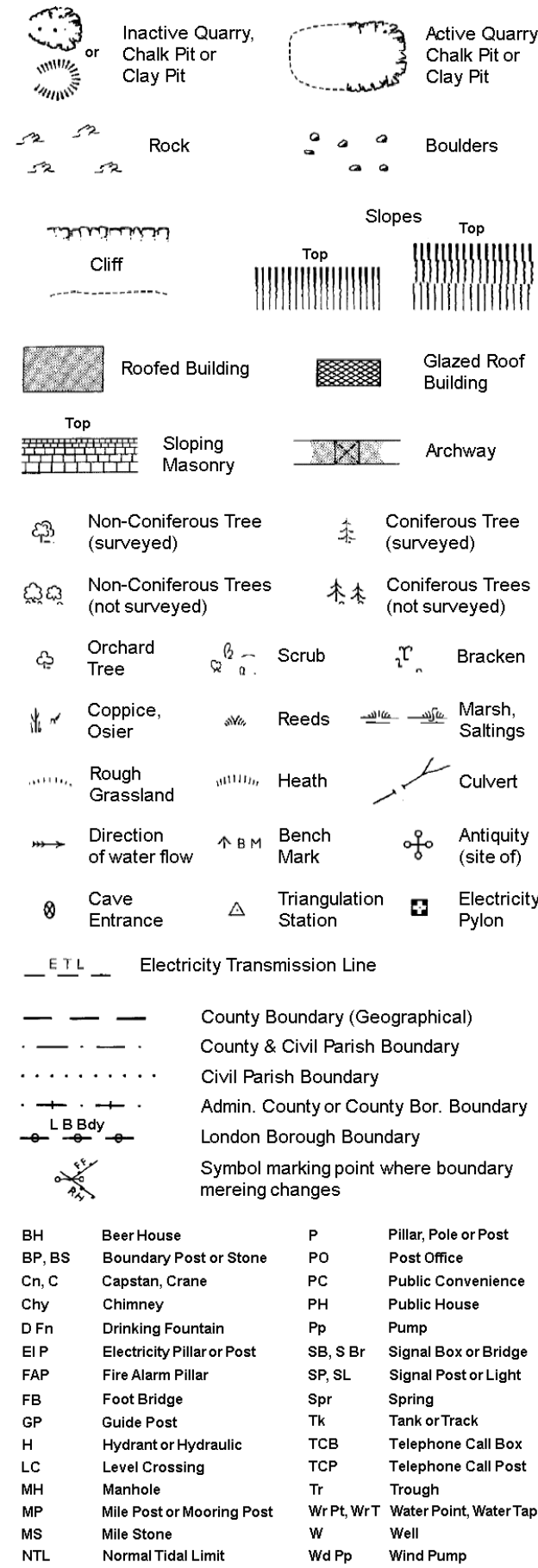


# Historical Mapping Legends

## Ordnance Survey County Series and Ordnance Survey Plan 1:2,500



## Ordnance Survey Plan, Additional SIMs and Supply of Unpublished Survey Information 1:2,500 and 1:1,250



## Large-Scale National Grid Data 1:2,500 and 1:1,250



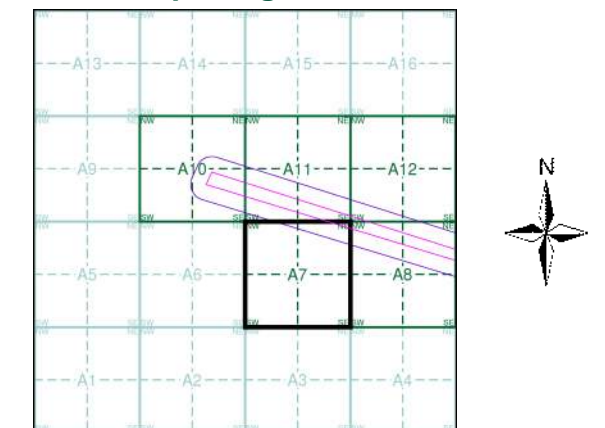
# Envirocheck

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## Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Buckinghamshire	1:2,500	1875 - 1885	2
Middlesex	1:2,500	1891	3
Middlesex	1:2,500	1896	4
Buckinghamshire	1:2,500	1899	5
Middlesex	1:2,500	1914	6
Buckinghamshire	1:2,500	1932 - 1938	7
Middlesex	1:2,500	1934	8
Ordnance Survey Plan	1:1,250	1962	9
Ordnance Survey Plan	1:2,500	1963 - 1972	10
Supply of Unpublished Survey Information	1:1,250	1973	11
Large-Scale National Grid Data	1:2,500	1992	12
Large-Scale National Grid Data	1:1,250	1992	13
Large-Scale National Grid Data	1:2,500	1992	14
Historical Aerial Photography	1:2,500	1999	15

## Historical Map - Segment A7



## Order Details

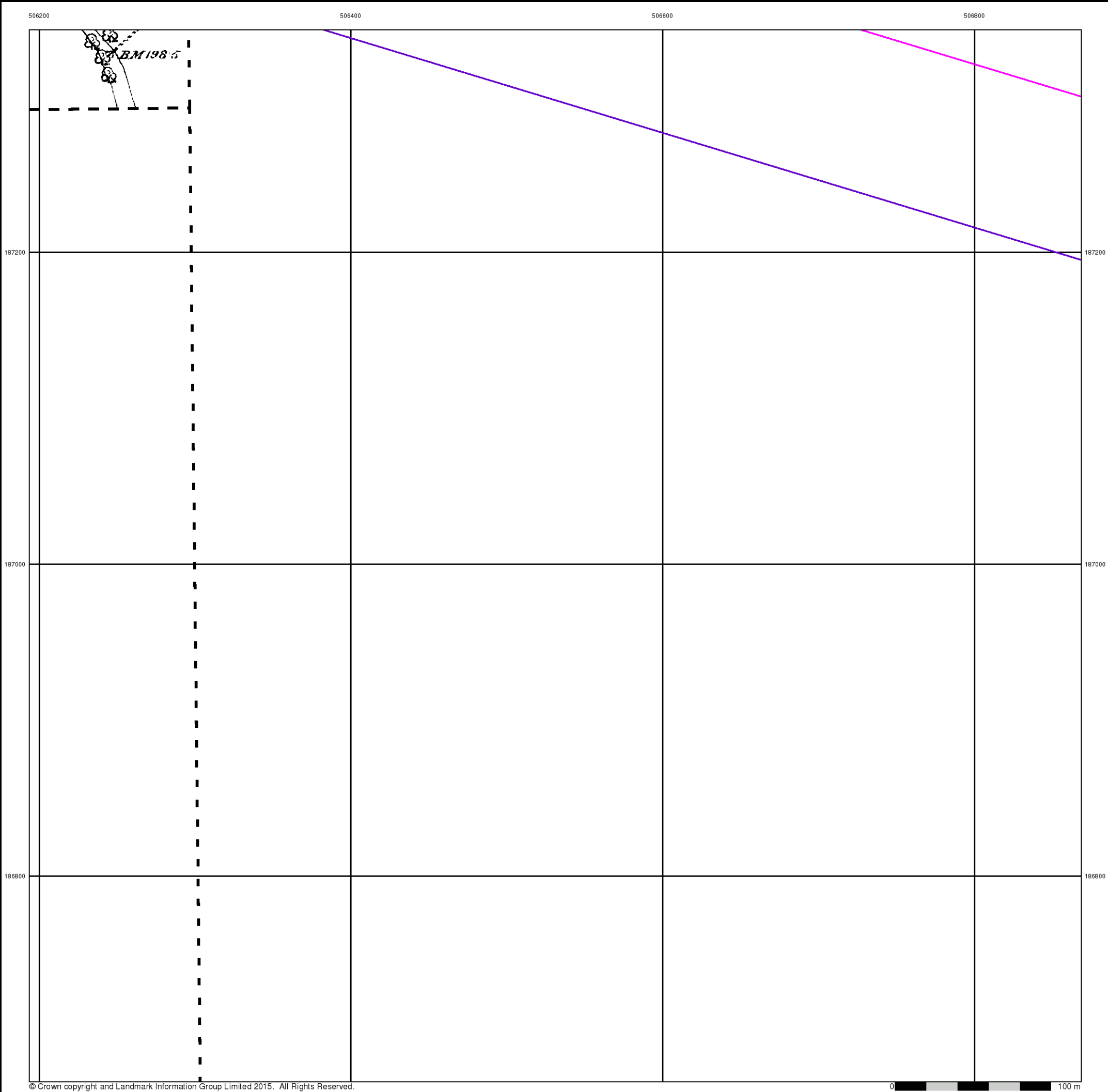
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Customer Ref: 256905  
National Grid Reference: 506350, 187450  
Slice: A  
Site Area (Ha): 14.32  
Search Buffer (m): 100

## Site Details

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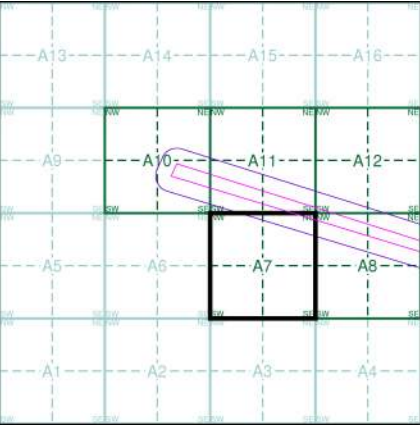
**Buckinghamshire**  
**Published 1875 - 1885**  
**Source map scale - 1:2,500**

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

**Map Name(s) and Date(s)**

049_13 1885 1:2,500	
054_01 1875 1:2,500	

**Historical Map - Segment A7**

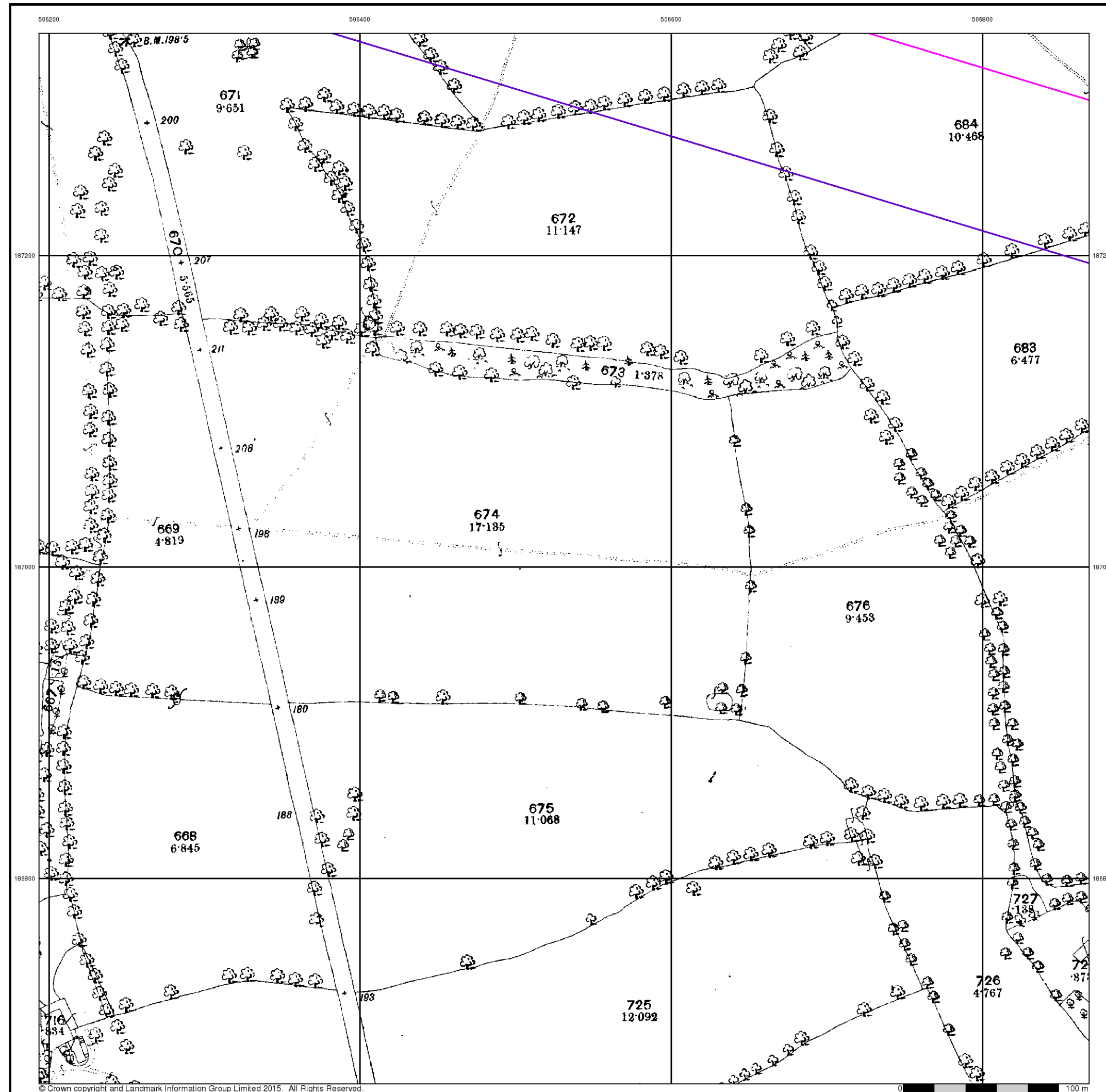


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**Site Details**

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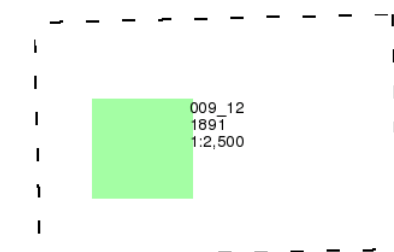
## Middlesex

**Published 1891**

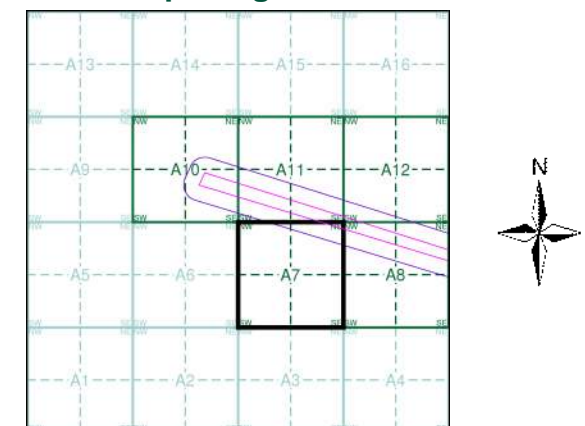
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The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

## Map Name(s) and Date(s)



### Historical Map - Segment A7



## Order Details

Order Number: 140402875\_1\_1  
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National Grid Reference: 506350, 187450  
Slice: A  
Site Area (Ha): 14.32  
Search Buffer (m): 100

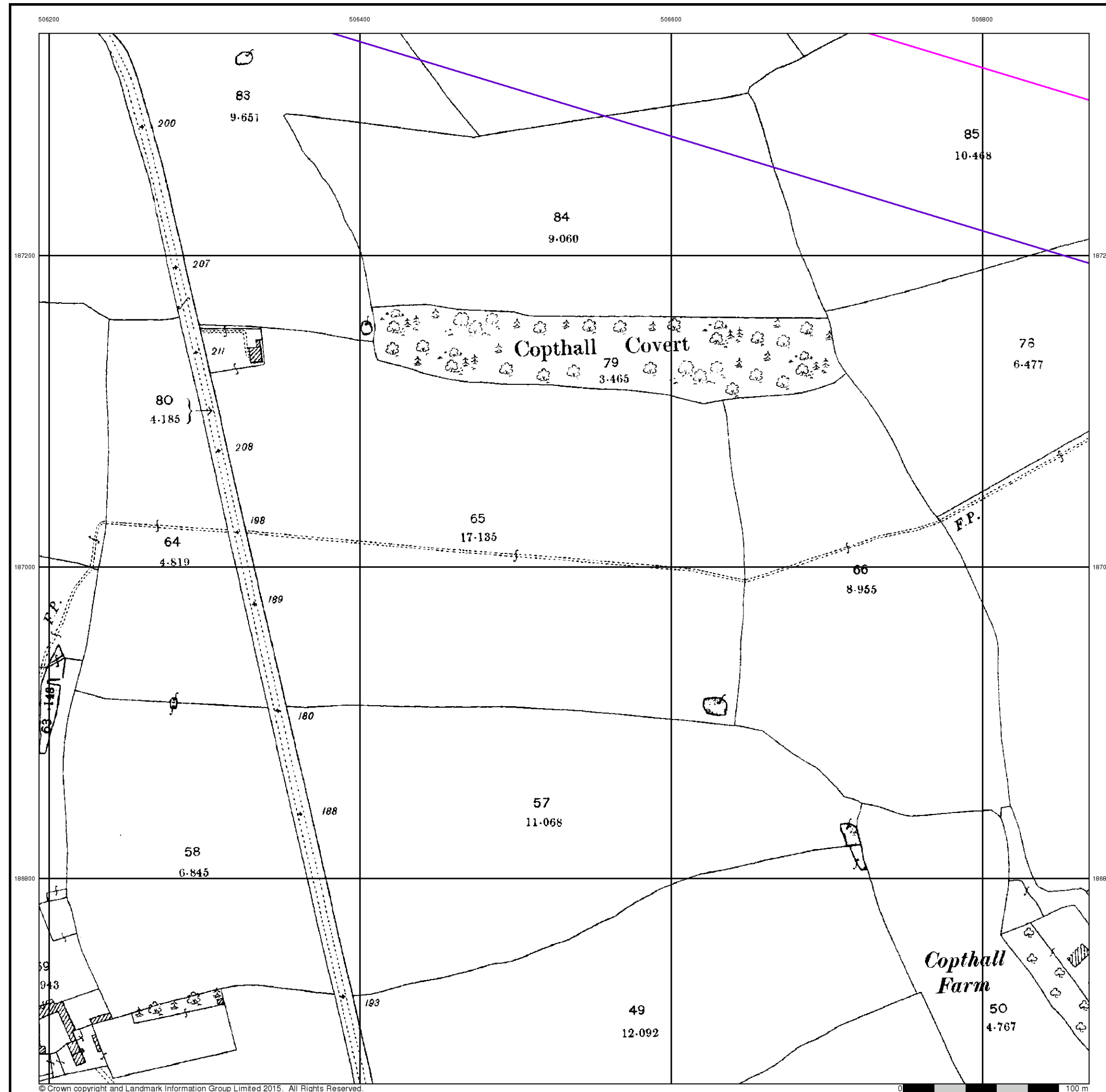
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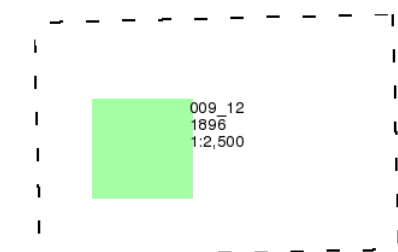
## Middlesex

**Published 1896**

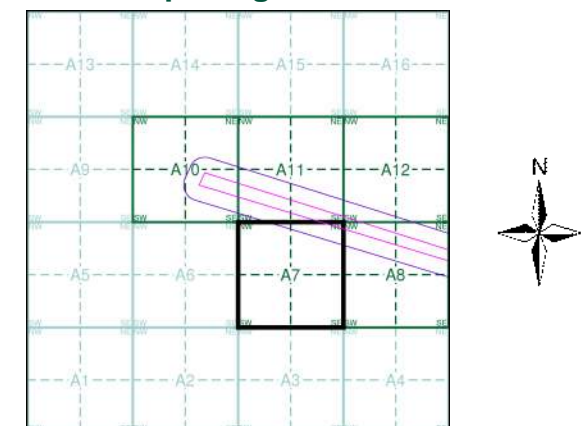
**Source map scale - 1:2,500**

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

## Map Name(s) and Date(s)



### Historical Map - Segment A7



## Order Details

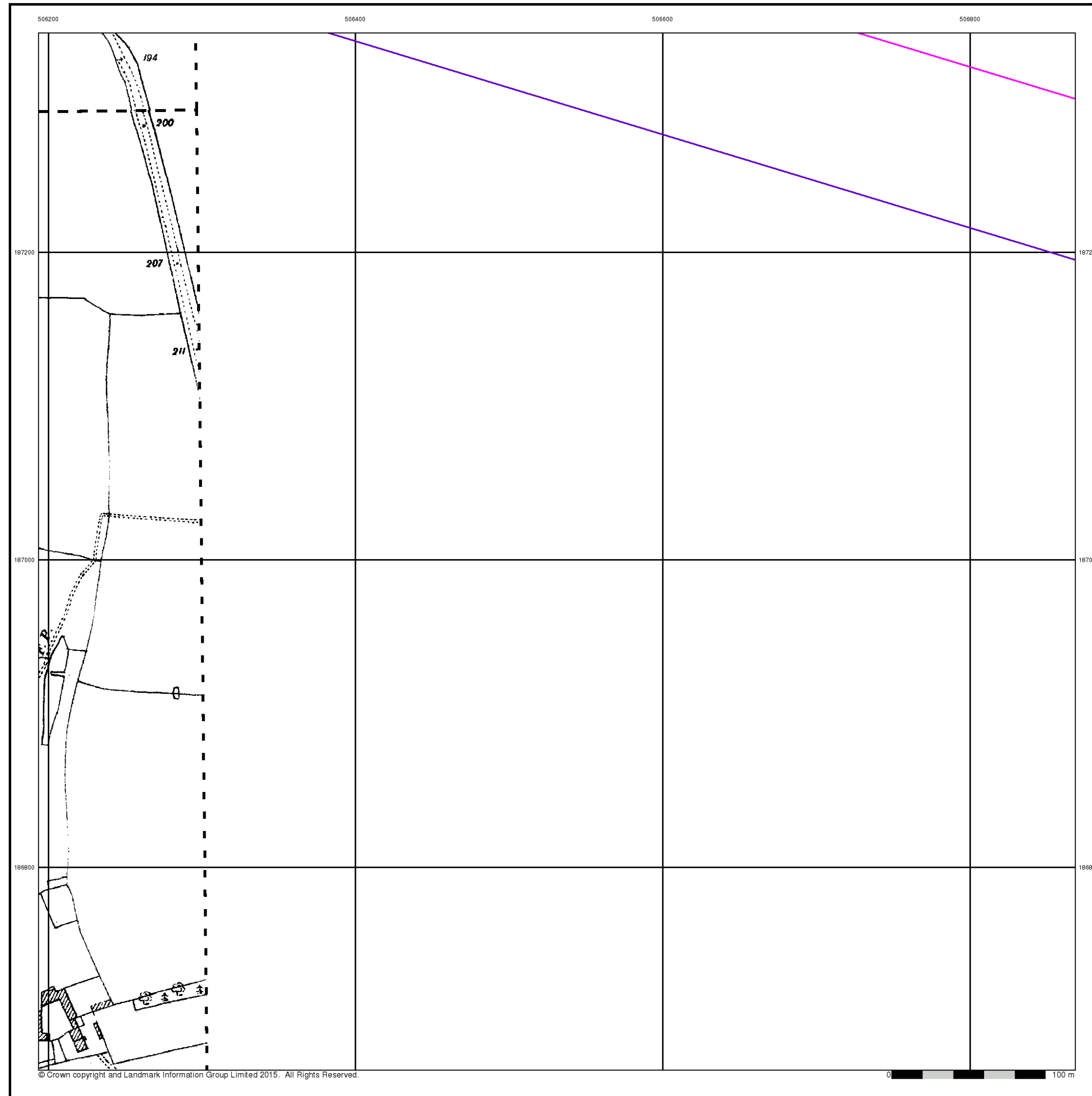
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Customer Ref: 256905  
National Grid Reference: 506350, 187450  
Slice: A  
Site Area (Ha): 14.32  
Search Buffer (m): 100

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Site at 506720, 187630

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## Buckinghamshire

Published 1899

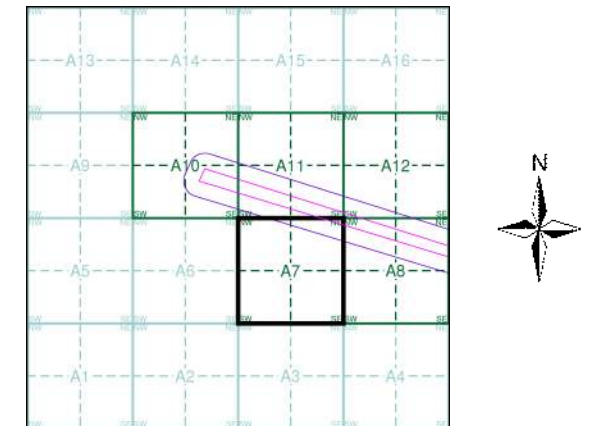
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The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

### Map Name(s) and Date(s)

049_13 1899 1:2,500	
054_01 1899 1:2,500	

### Historical Map - Segment A7

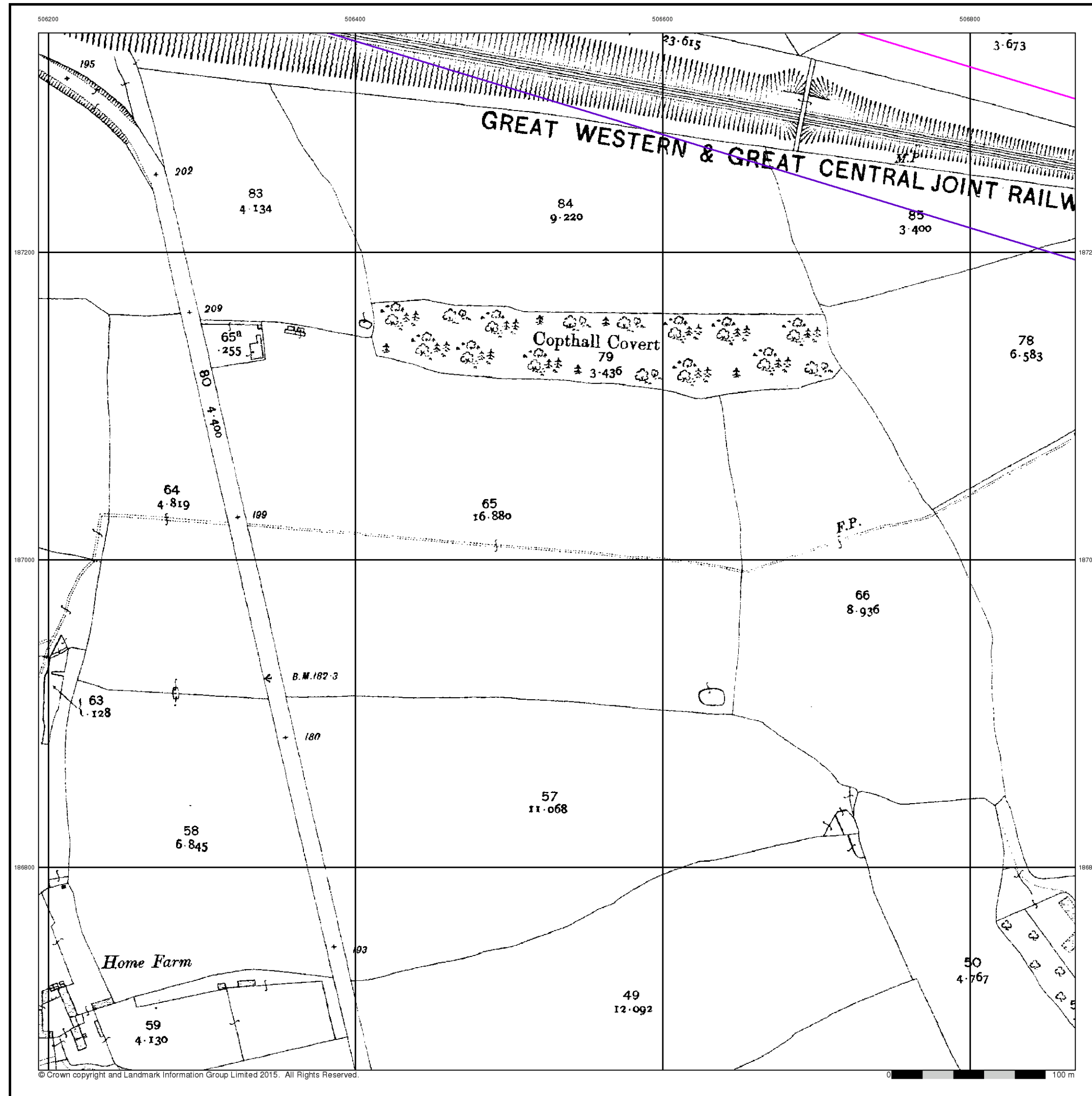


### Order Details

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Slice: A  
Site Area (Ha): 14.32  
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### Site Details

Site at 506720, 187630



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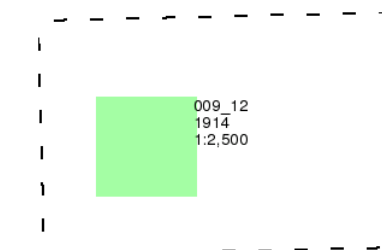
Middlesex

Published 1914

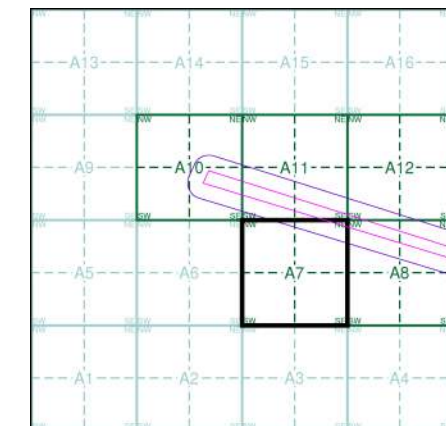
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

## Map Name(s) and Date(s)



## Historical Map - Segment A7



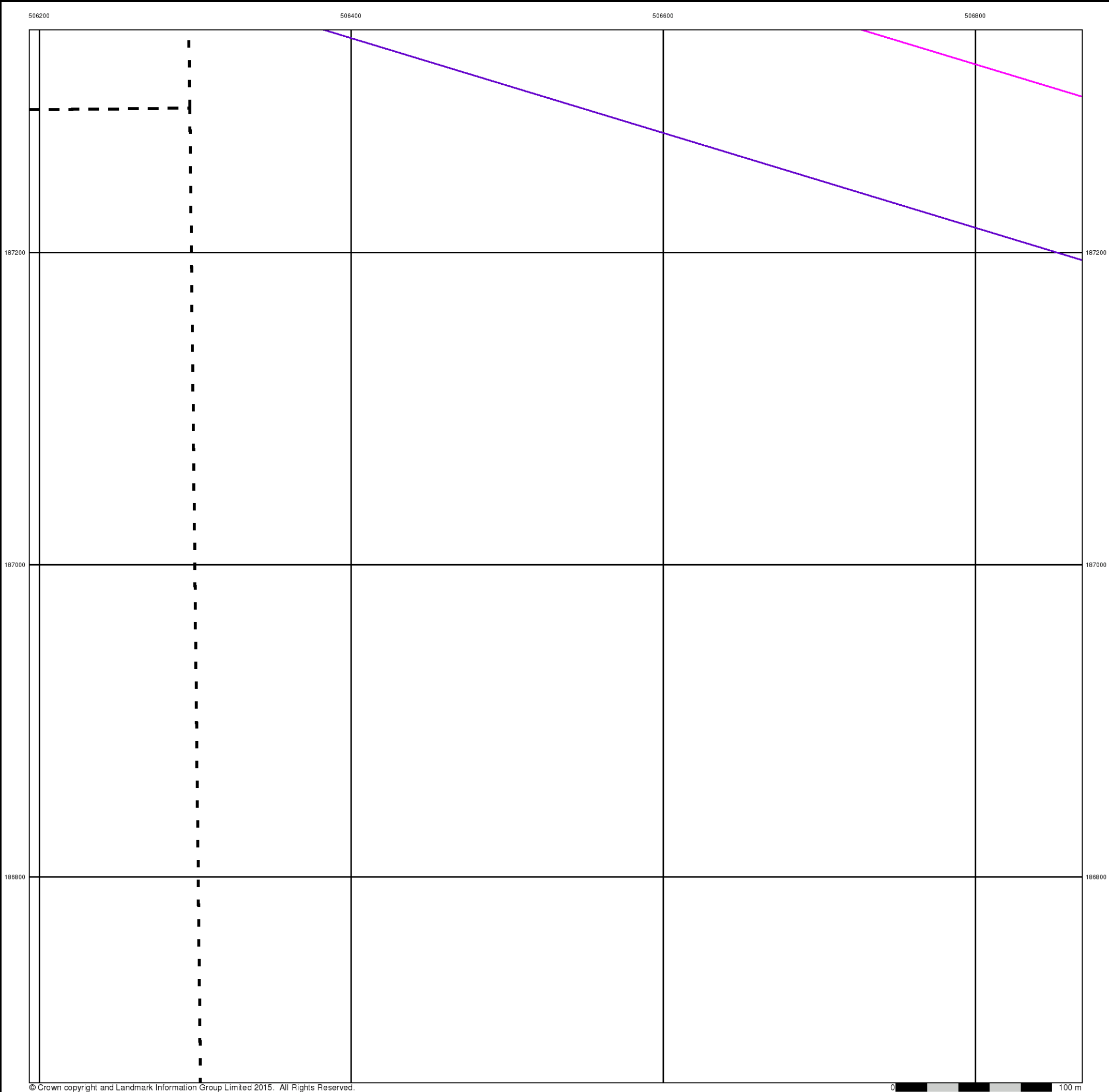
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Slice: A  
Site Area (Ha): 14.32  
Search Buffer (m): 100

## Site Details

Site at 506720, 187630





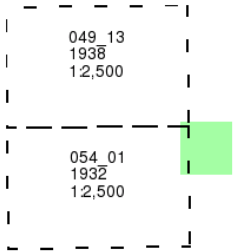
Buckinghamshire

Published 1932 - 1938

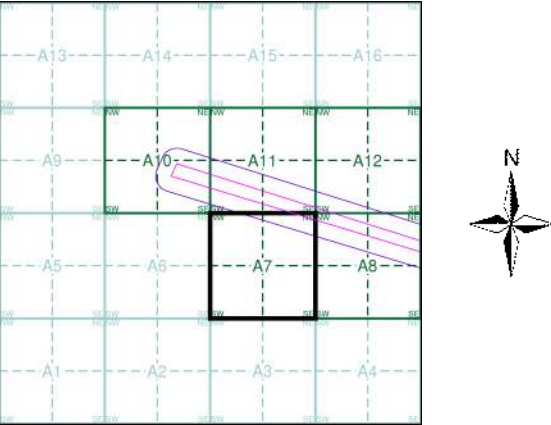
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)



Historical Map - Segment A7



Order Details

Order Number:

140402875\_1\_1

Customer Ref:

256905

National Grid Reference:

506350, 187450

Slice:

A

Site Area (Ha):

14.32

Search Buffer (m):

100

Site Details

Site at 506720, 187630



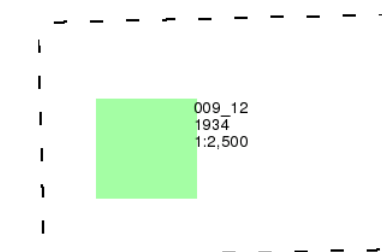
Middlesex

Published 1934

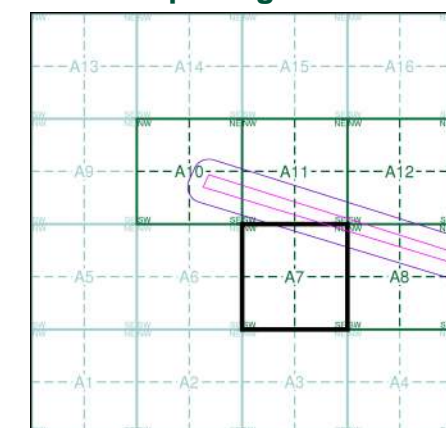
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

## Map Name(s) and Date(s)



## Historical Map - Segment A7



## Order Details

Order Number: 140402875\_1\_1  
Customer Ref: 256905  
National Grid Reference: 506350, 187450  
Slice: A  
Site Area (Ha): 14.32  
Search Buffer (m): 100

## Site Details

Site at 506720, 187630



## Ordnance Survey Plan

Published 1962

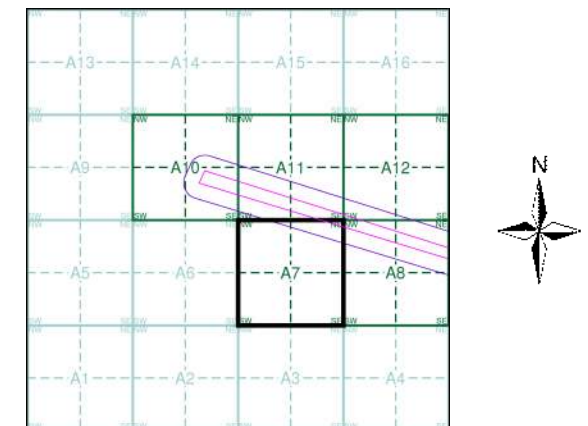
Source map scale - 1:1,250

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

### Map Name(s) and Date(s)

TQ0686NW		TQ0686NE	
1962		1962	
1:1,250		1:1,250	

### Historical Map - Segment A7



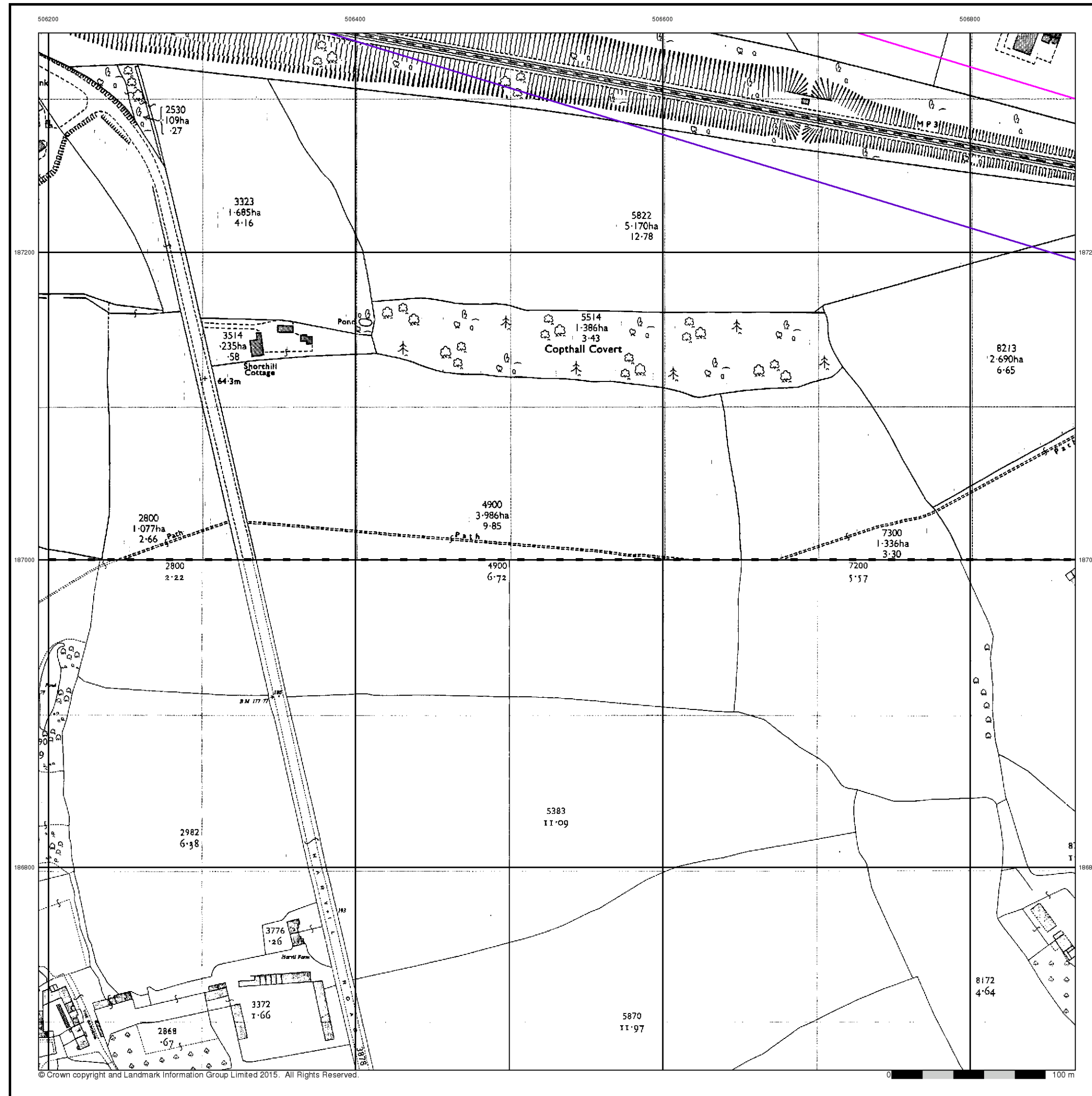
### Order Details

Order Number: 140402875\_1\_1  
Customer Ref: 256905  
National Grid Reference: 506350, 187450  
Slice: A  
Site Area (Ha): 14.32  
Search Buffer (m): 100

### Site Details

Site at 506720, 187630





## Ordnance Survey Plan

Published 1963 - 1972

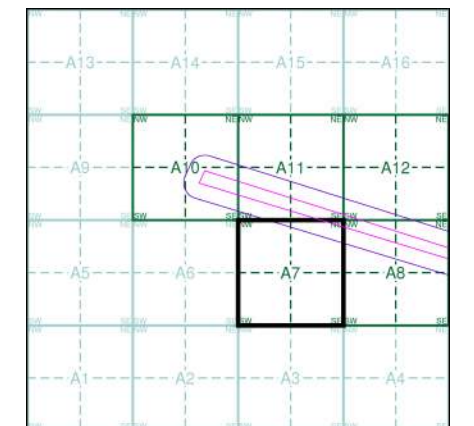
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

### Map Name(s) and Date(s)

TQ0687
1972
1:2,500
TQ0686
1963
1:2,500

### Historical Map - Segment A7

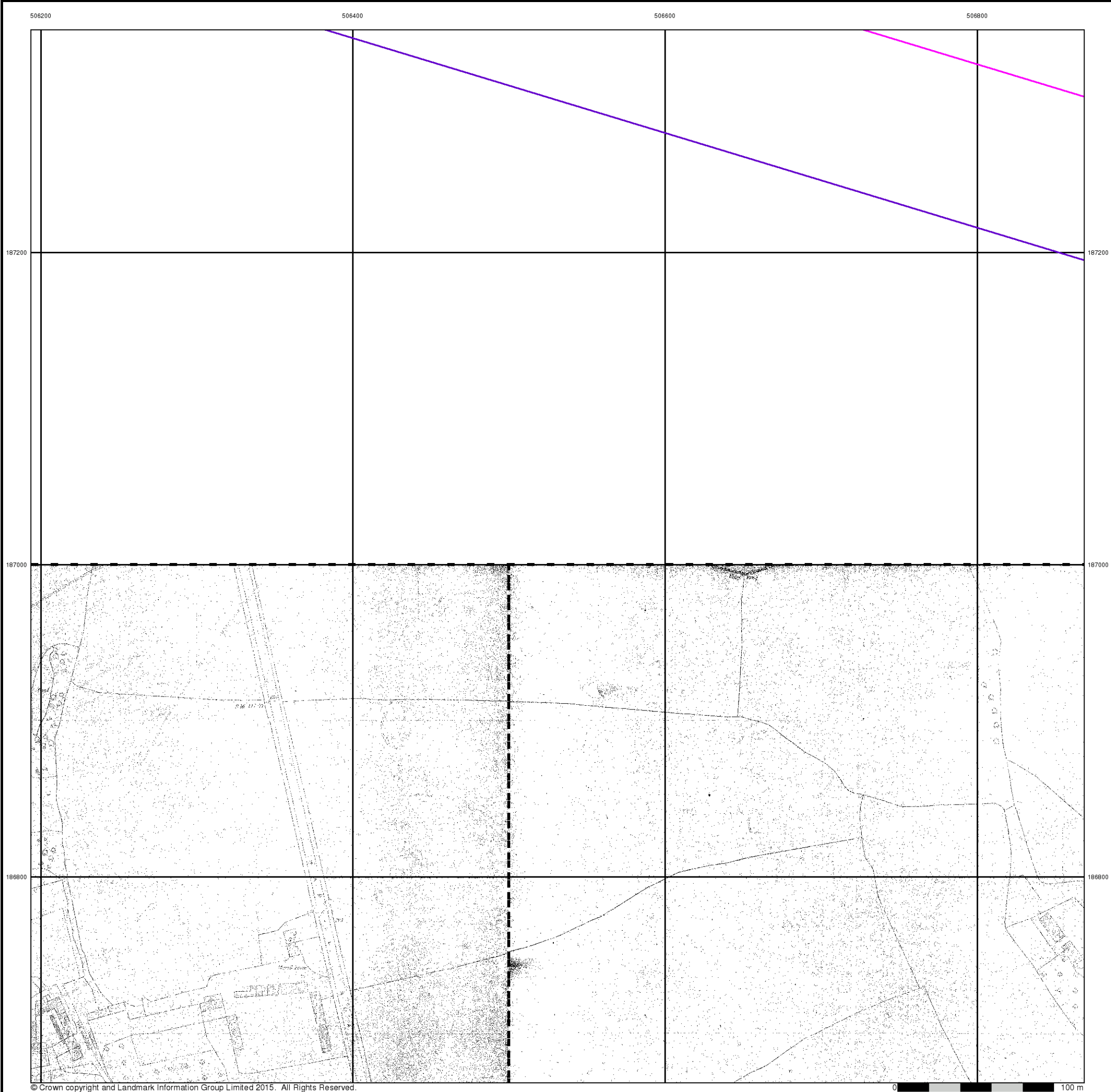


### Order Details

Order Number: 140402875\_1\_1  
Customer Ref: 256905  
National Grid Reference: 506350, 187450  
Slice: A  
Site Area (Ha): 14.32  
Search Buffer (m): 100

### Site Details

Site at 506720, 187630



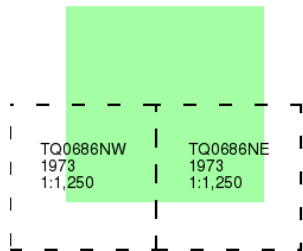
Supply of Unpublished Survey Information

Published 1973

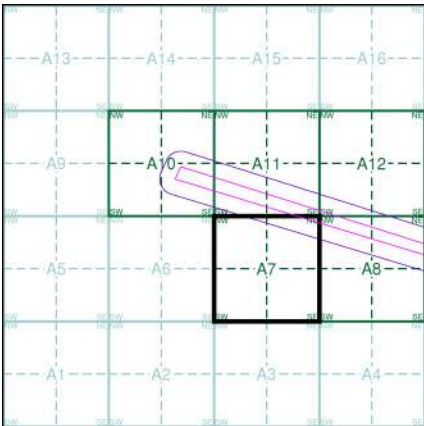
Source map scale - 1:1,250

SUSI maps (Supply of Unpublished Survey Information) were produced between 1972 and 1977, mainly for internal use at Ordnance Survey. These were more of a 'work-in-progress' plan as they showed updates of individual areas on a map. These maps were unpublished, and they do not represent a single moment in time. They were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)



Historical Map - Segment A7

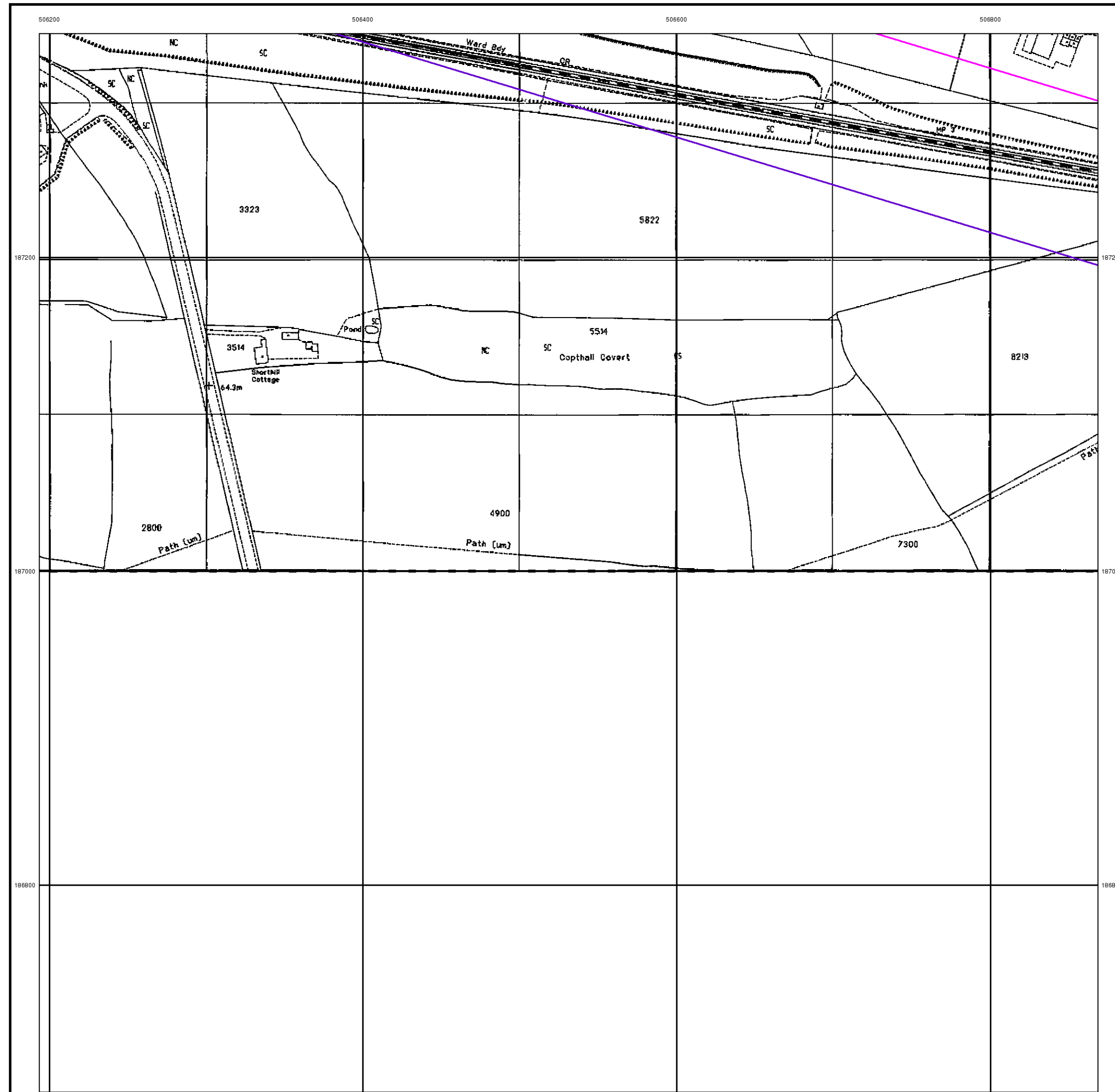


Order Details

Order Number: 140402875\_1\_1  
Customer Ref: 256905  
National Grid Reference: 506350, 187450  
Slice: A  
Site Area (Ha): 14.32  
Search Buffer (m): 100

Site Details

Site at 506720, 187630



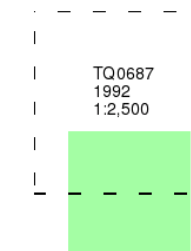
## Large-Scale National Grid Data

Published 1992

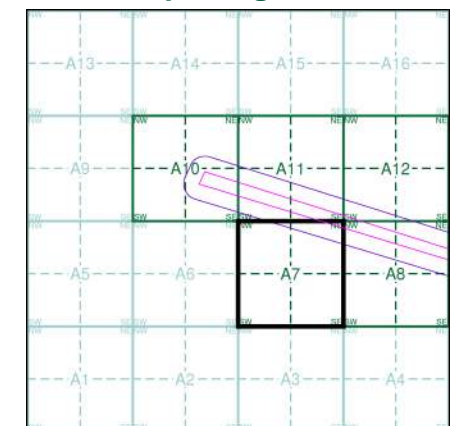
Source map scale - 1:2,500

'Large Scale National Grid Data' superseded SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') in 1992, and continued to be produced until 1999. These maps were the fore-runners of digital mapping and so provide detailed information on houses and roads, but tend to show less topographic features such as vegetation. These maps were produced at both 1:2,500 and 1:1,250 scales.

### Map Name(s) and Date(s)



### Historical Map - Segment A7



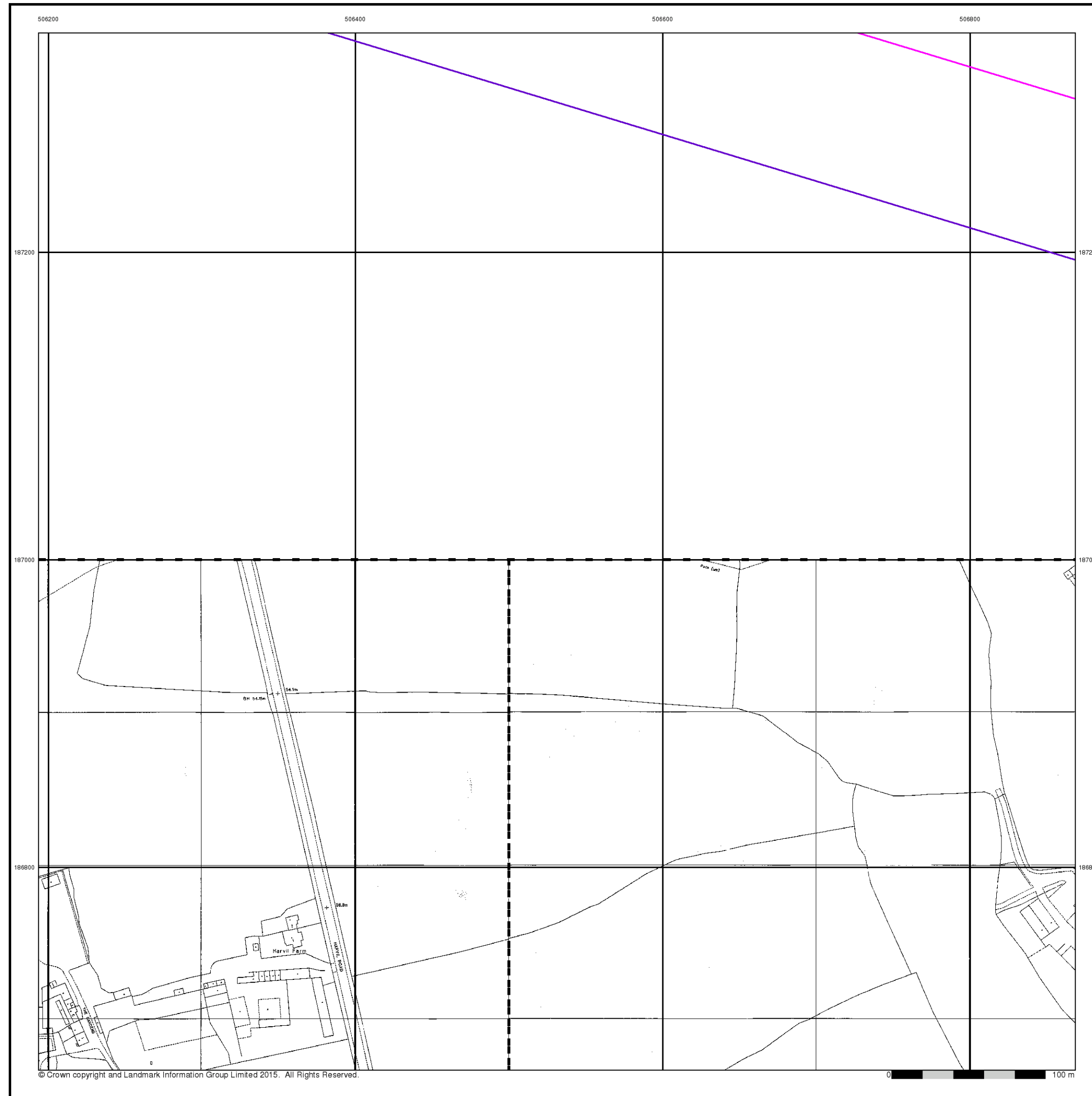
### Order Details

Order Number: 140402875\_1\_1  
Customer Ref: 256905  
National Grid Reference: 506350, 187450  
Slice: A  
Site Area (Ha): 14.32  
Search Buffer (m): 100

### Site Details

Site at 506720, 187630





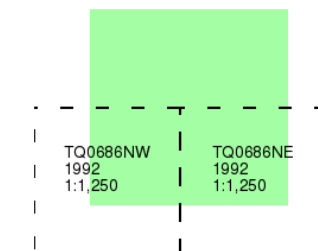
## Large-Scale National Grid Data

Published 1992

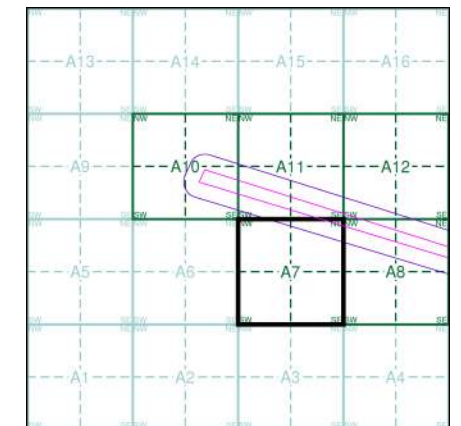
Source map scale - 1:1,250

'Large Scale National Grid Data' superseded SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') in 1992, and continued to be produced until 1999. These maps were the fore-runners of digital mapping and so provide detailed information on houses and roads, but tend to show less topographic features such as vegetation. These maps were produced at both 1:2,500 and 1:1,250 scales.

### Map Name(s) and Date(s)



### Historical Map - Segment A7

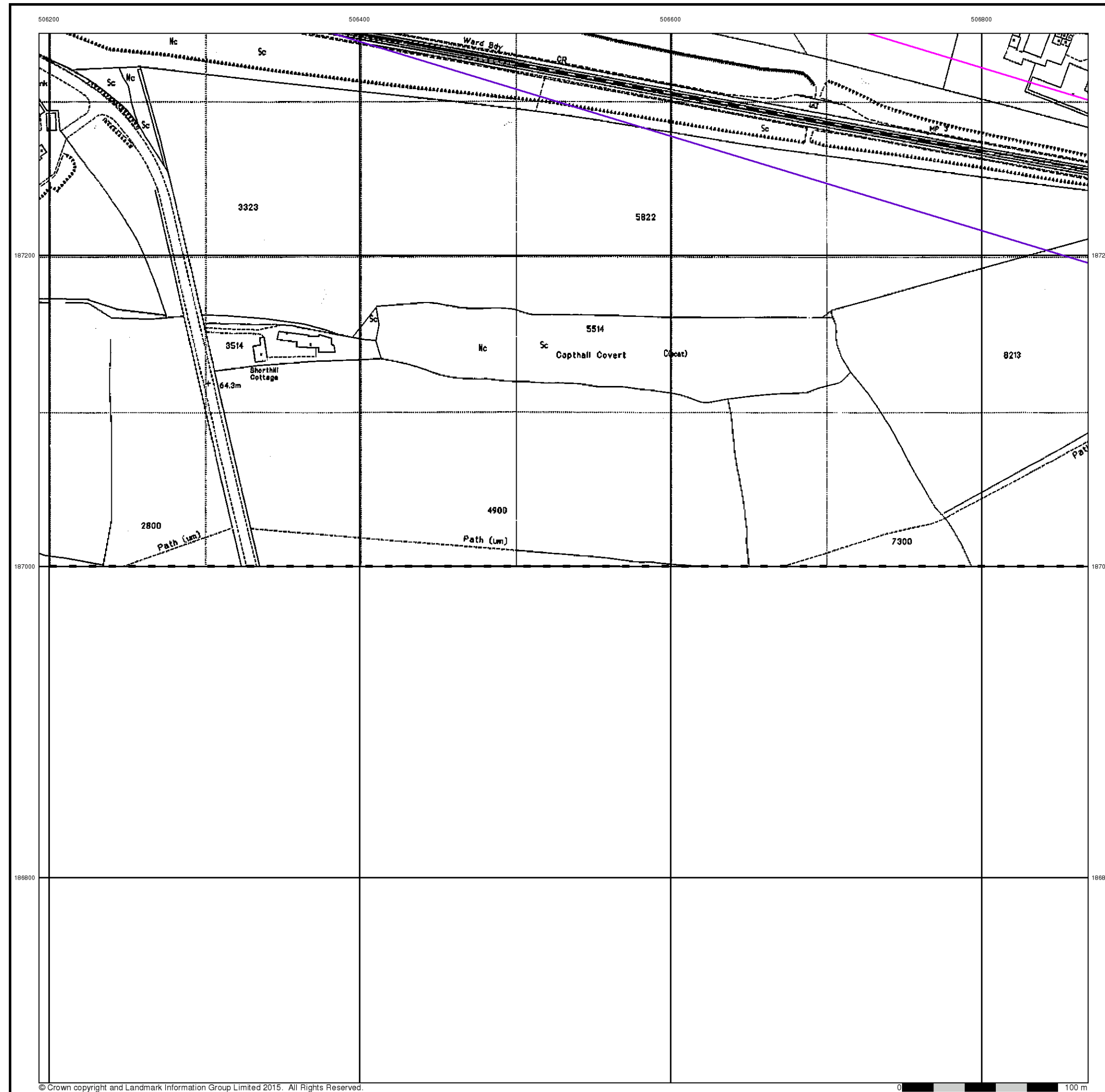


### Order Details

Order Number: 140402875\_1\_1  
Customer Ref: 256905  
National Grid Reference: 506350, 187450  
Slice: A  
Site Area (Ha): 14.32  
Search Buffer (m): 100

### Site Details

Site at 506720, 187630



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0 100 m

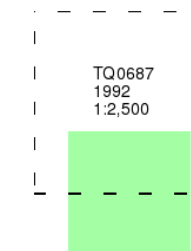
## Large-Scale National Grid Data

Published 1992

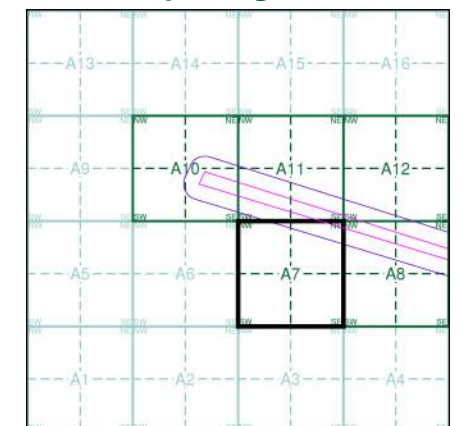
Source map scale - 1:2,500

'Large Scale National Grid Data' superseded SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') in 1992, and continued to be produced until 1999. These maps were the fore-runners of digital mapping and so provide detailed information on houses and roads, but tend to show less topographic features such as vegetation. These maps were produced at both 1:2,500 and 1:1,250 scales.

### Map Name(s) and Date(s)



### Historical Map - Segment A7



### Order Details

Order Number: 140402875\_1\_1  
Customer Ref: 256905  
National Grid Reference: 506350, 187450  
Slice: A  
Site Area (Ha): 14.32  
Search Buffer (m): 100

### Site Details

Site at 506720, 187630



506200

506400

506600

506800

# Envirocheck<sup>®</sup>

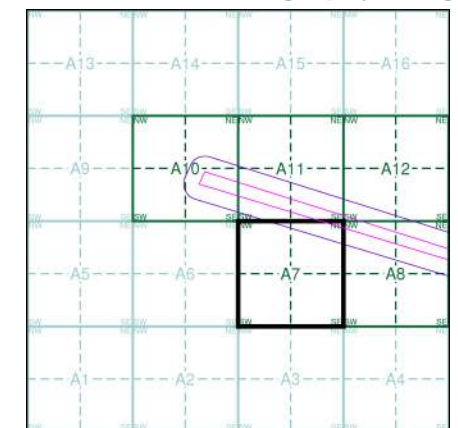
LANDMARK INFORMATION GROUP<sup>®</sup>

## Historical Aerial Photography

**Published 1999**

This aerial photography was produced by Getmapping, these vertical aerial photographs provide a seamless, full colour survey of the whole of Great Britain

## Historical Aerial Photography - Segment A7



## Order Details

Order Number: 140402875\_1\_1  
Customer Ref: 256905  
National Grid Reference: 506350, 187450  
Slice: A  
Site Area (Ha): 14.32  
Search Buffer (m): 100

## Site Details

Site at 506720, 187630

**Landmark<sup>®</sup>**  
INFORMATION GROUP

Tel: 0844 844 9952  
Fax: 0844 844 9951  
Web: [www.envirocheck.co.uk](http://www.envirocheck.co.uk)



# Historical Mapping Legends

## Ordnance Survey County Series and Ordnance Survey Plan 1:2,500



## Ordnance Survey Plan, Additional SIMs and Supply of Unpublished Survey Information 1:2,500 and 1:1,250



## Large-Scale National Grid Data 1:2,500 and 1:1,250



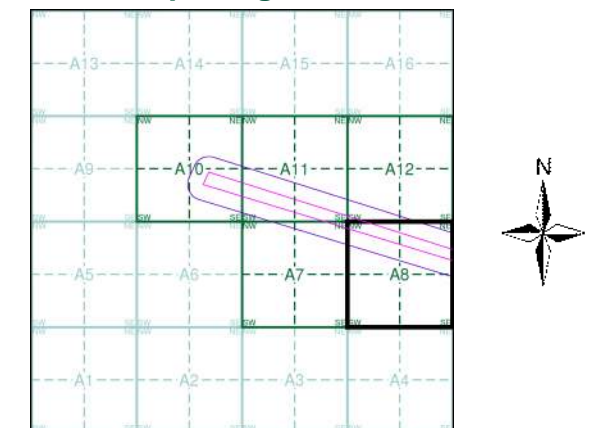
# Envirocheck®

LANDMARK INFORMATION GROUP®

## Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Middlesex	1:2,500	1891	2
Middlesex	1:2,500	1896	3
Middlesex	1:2,500	1914	4
Middlesex	1:2,500	1934	5
Ordnance Survey Plan	1:1,250	1962	6
Ordnance Survey Plan	1:2,500	1963 - 1972	7
Ordnance Survey Plan	1:1,250	1968	8
Supply of Unpublished Survey Information	1:1,250	1973	9
Large-Scale National Grid Data	1:2,500	1992	10
Large-Scale National Grid Data	1:1,250	1992	11
Large-Scale National Grid Data	1:2,500	1992	12
Large-Scale National Grid Data	1:1,250	1993	13
Historical Aerial Photography	1:2,500	1999	14

## Historical Map - Segment A8



## Order Details

Order Number: 140402875\_1\_1  
Customer Ref: 256905  
National Grid Reference: 506350, 187450  
Slice: A  
Site Area (Ha): 14.32  
Search Buffer (m): 100

## Site Details

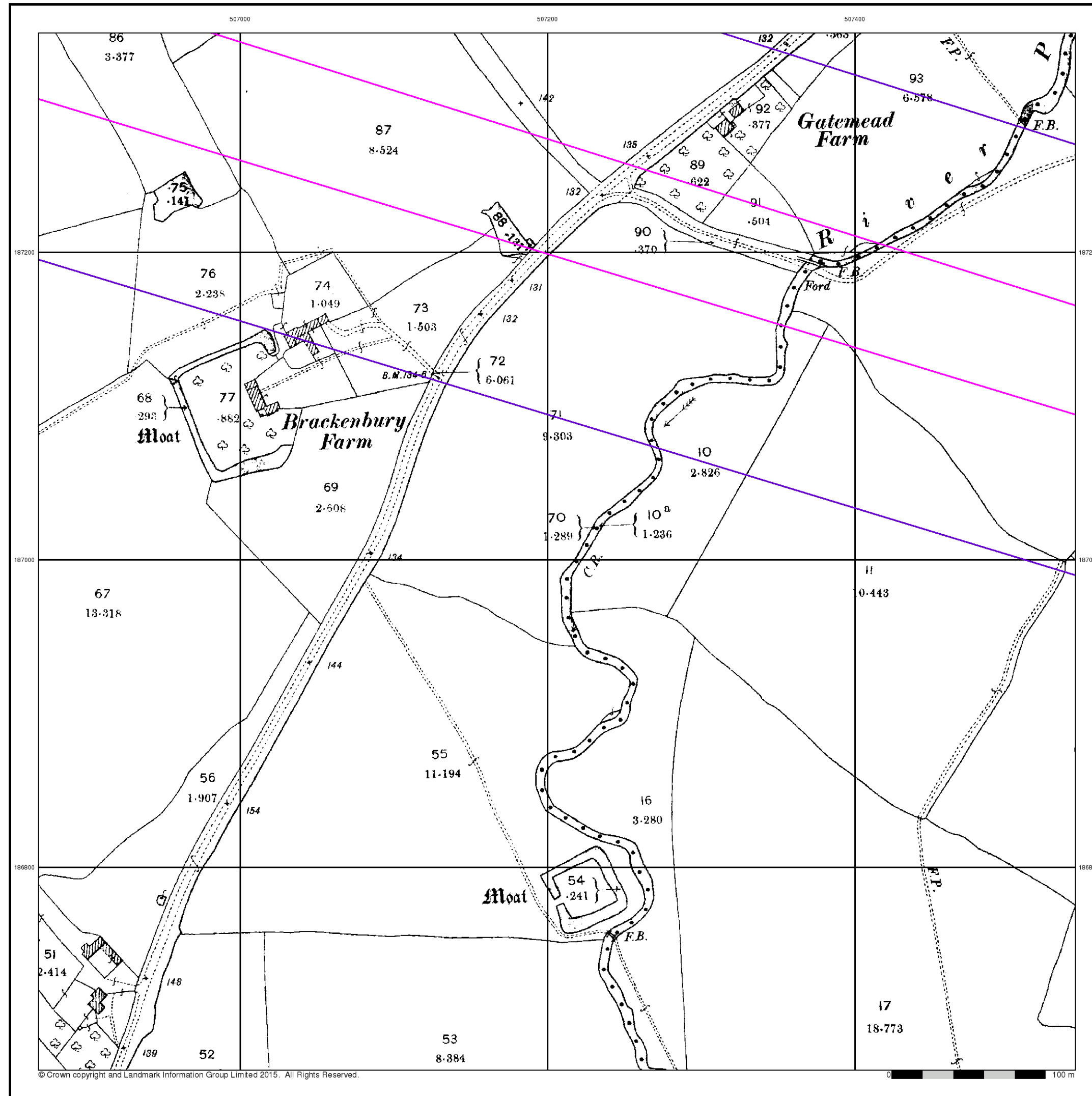
Site at 506720, 187630

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







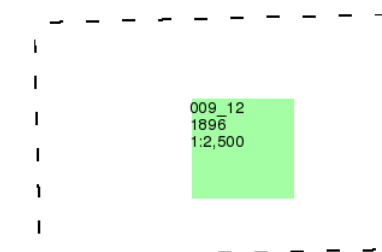
Middlesex

Published 1896

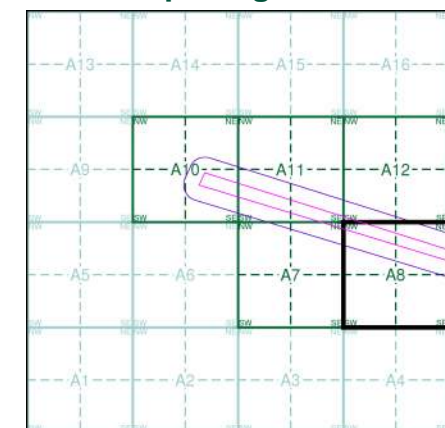
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

## Map Name(s) and Date(s)



## Historical Map - Segment A8



## Order Details

Order Number: 140402875\_1\_1  
Customer Ref: 256905  
National Grid Reference: 506350, 187450  
Slice: A  
Site Area (Ha): 14.32  
Search Buffer (m): 100

## Site Details

Site at 506720, 187630



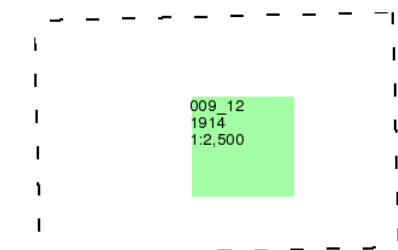
## Middlesex

Published 1914

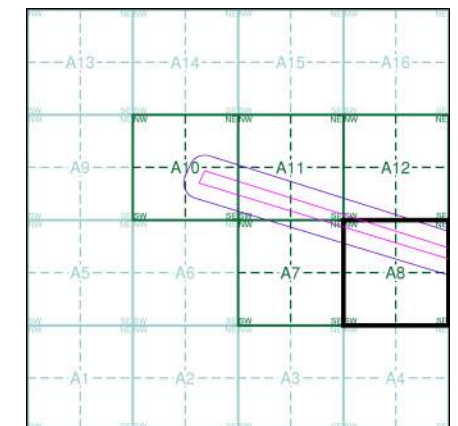
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

## Map Name(s) and Date(s)



## Historical Map - Segment A8

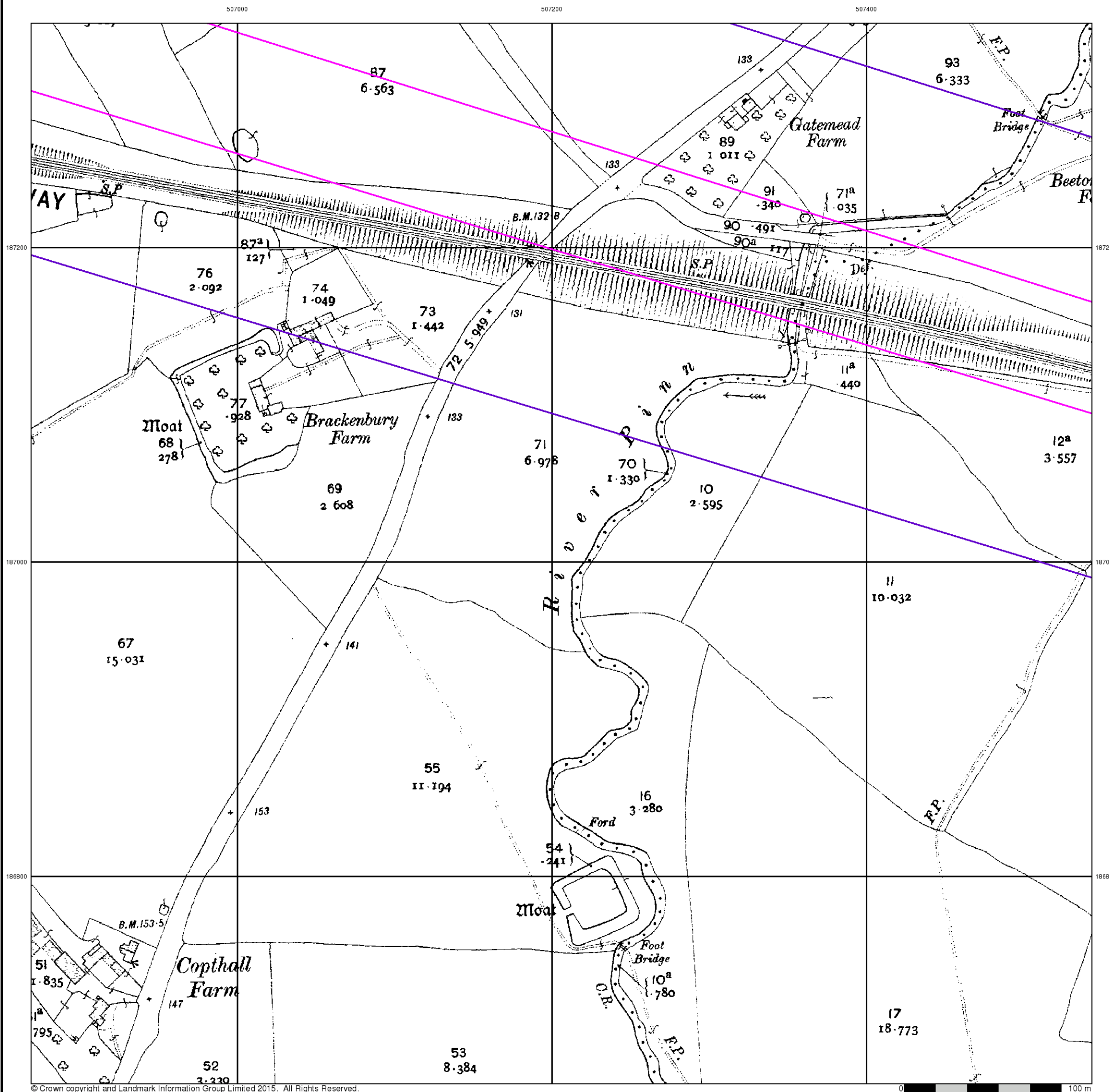


## Order Details

Order Number: 140402875\_1\_1  
Customer Ref: 256905  
National Grid Reference: 506350, 187450  
Slice: A  
Site Area (Ha): 14.32  
Search Buffer (m): 100

## Site Details

Site at 506720, 187630



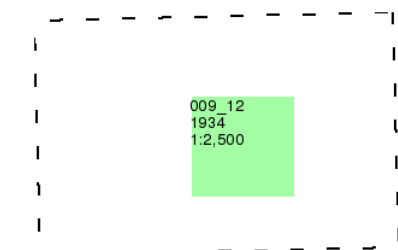
Middlesex

Published 1934

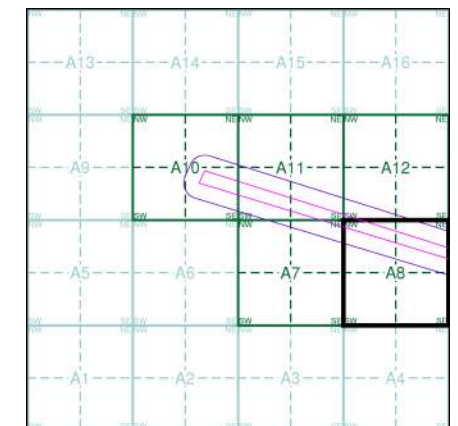
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

## Map Name(s) and Date(s)



## Historical Map - Segment A8

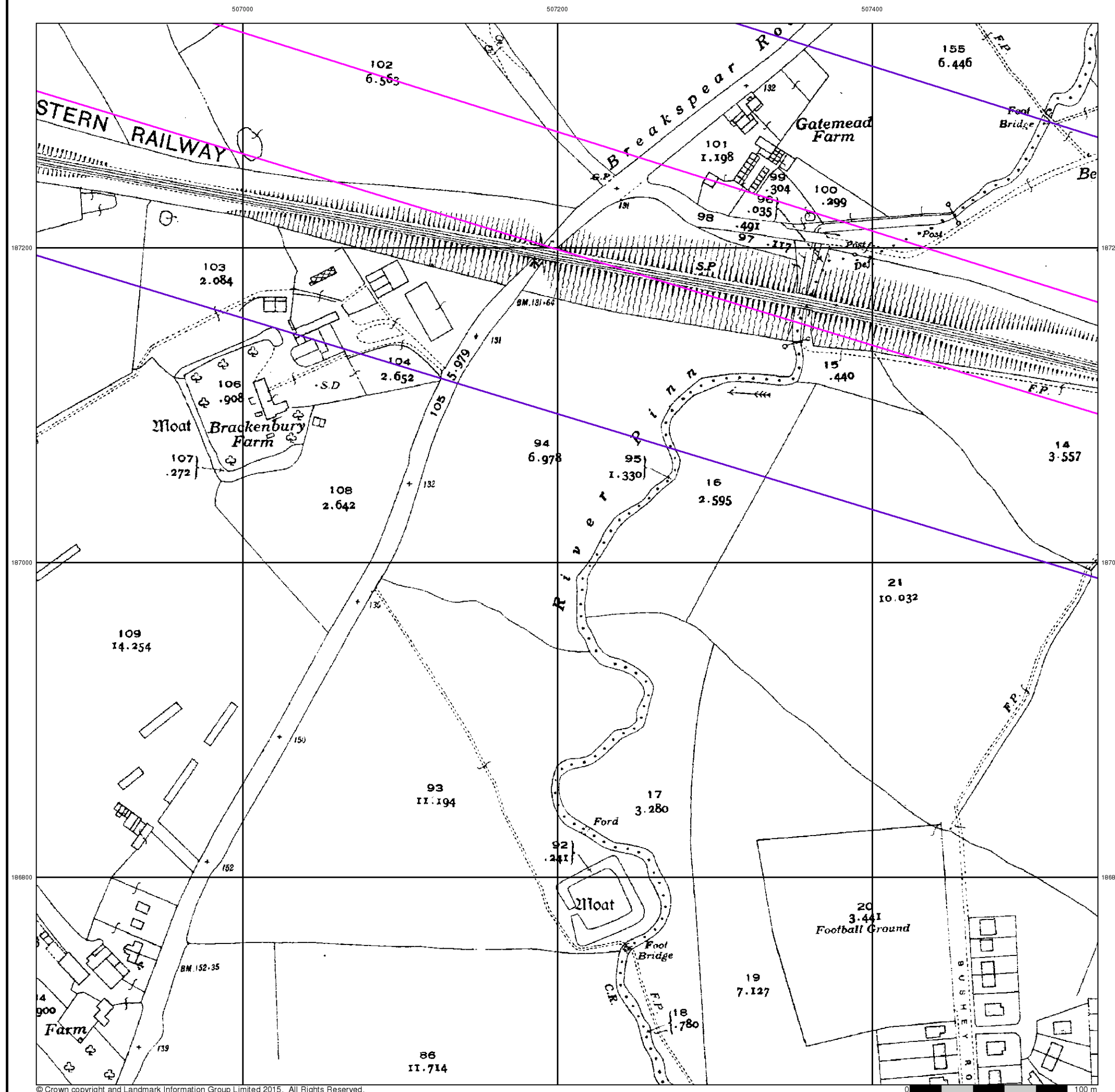


## Order Details

Order Number: 140402875\_1\_1  
 Customer Ref: 256905  
 National Grid Reference: 506350, 187450  
 Slice: A  
 Site Area (Ha): 14.32  
 Search Buffer (m): 100

## Site Details

Site at 506720, 187630





## Ordnance Survey Plan

Published 1962

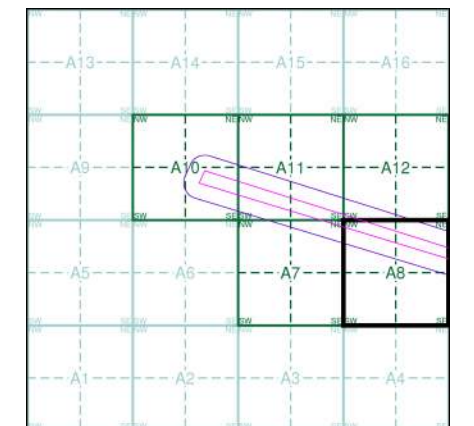
Source map scale - 1:1,250

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

## Map Name(s) and Date(s)

TQ0787SW	TQ0787SE
1962	1962
1:1,250	1:1,250
TQ0686NE	TQ0786NW
1962	1962
1:1,250	1:1,250

## Historical Map - Segment A8

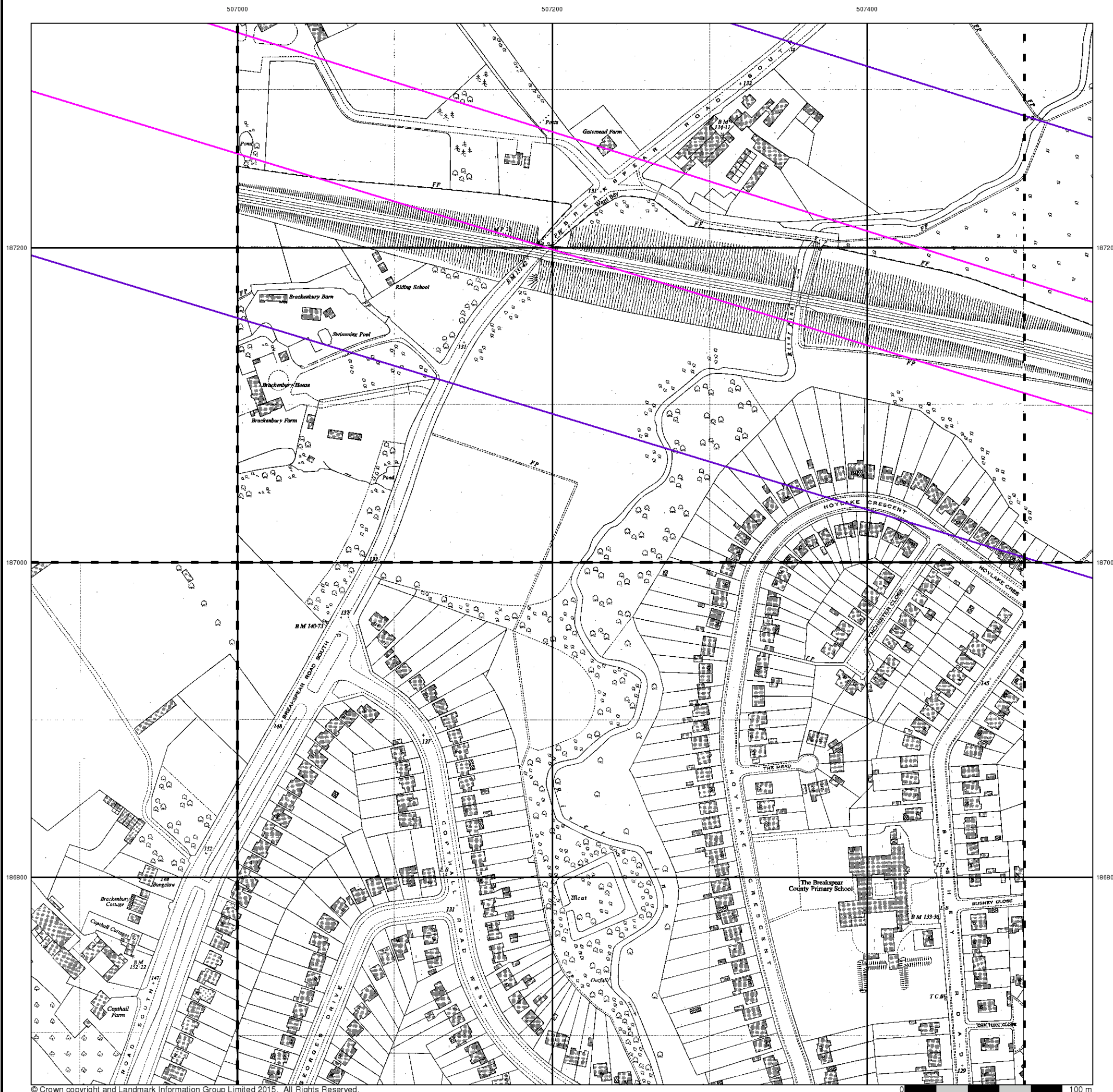


## Order Details

Order Number: 140402875\_1\_1  
 Customer Ref: 256905  
 National Grid Reference: 506350, 187450  
 Slice: A  
 Site Area (Ha): 14.32  
 Search Buffer (m): 100

## Site Details

Site at 506720, 187630





## Ordnance Survey Plan

Published 1963 - 1972

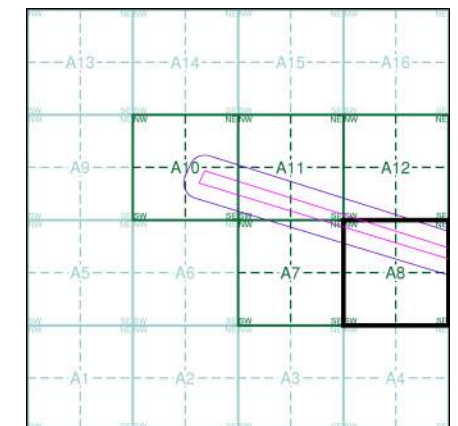
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

### Map Name(s) and Date(s)

TQ0687 1972 12,500	TQ0787 1972 12,500
TQ0686 1963 12,500	TQ0786 1963 12,500

### Historical Map - Segment A8

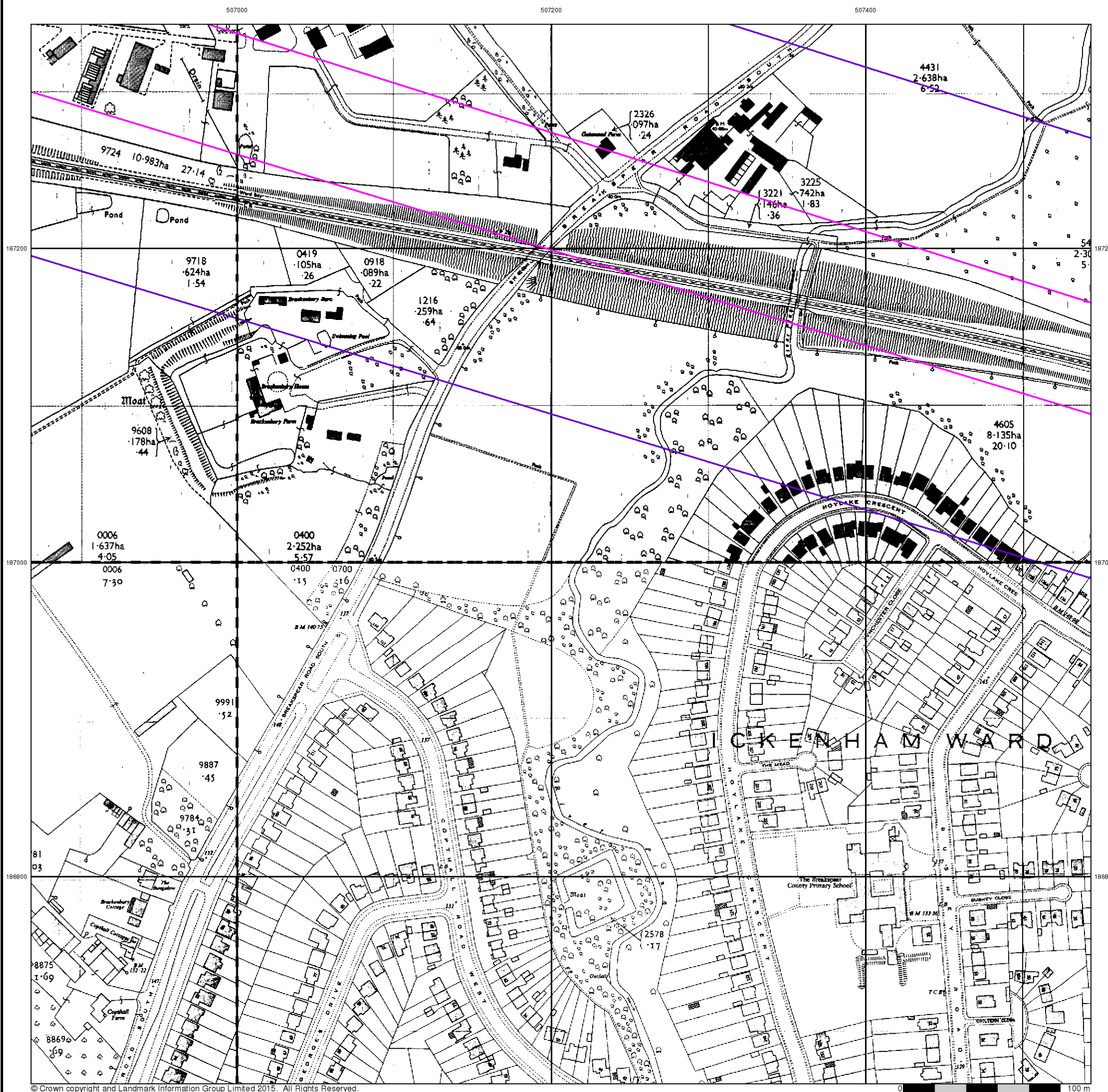


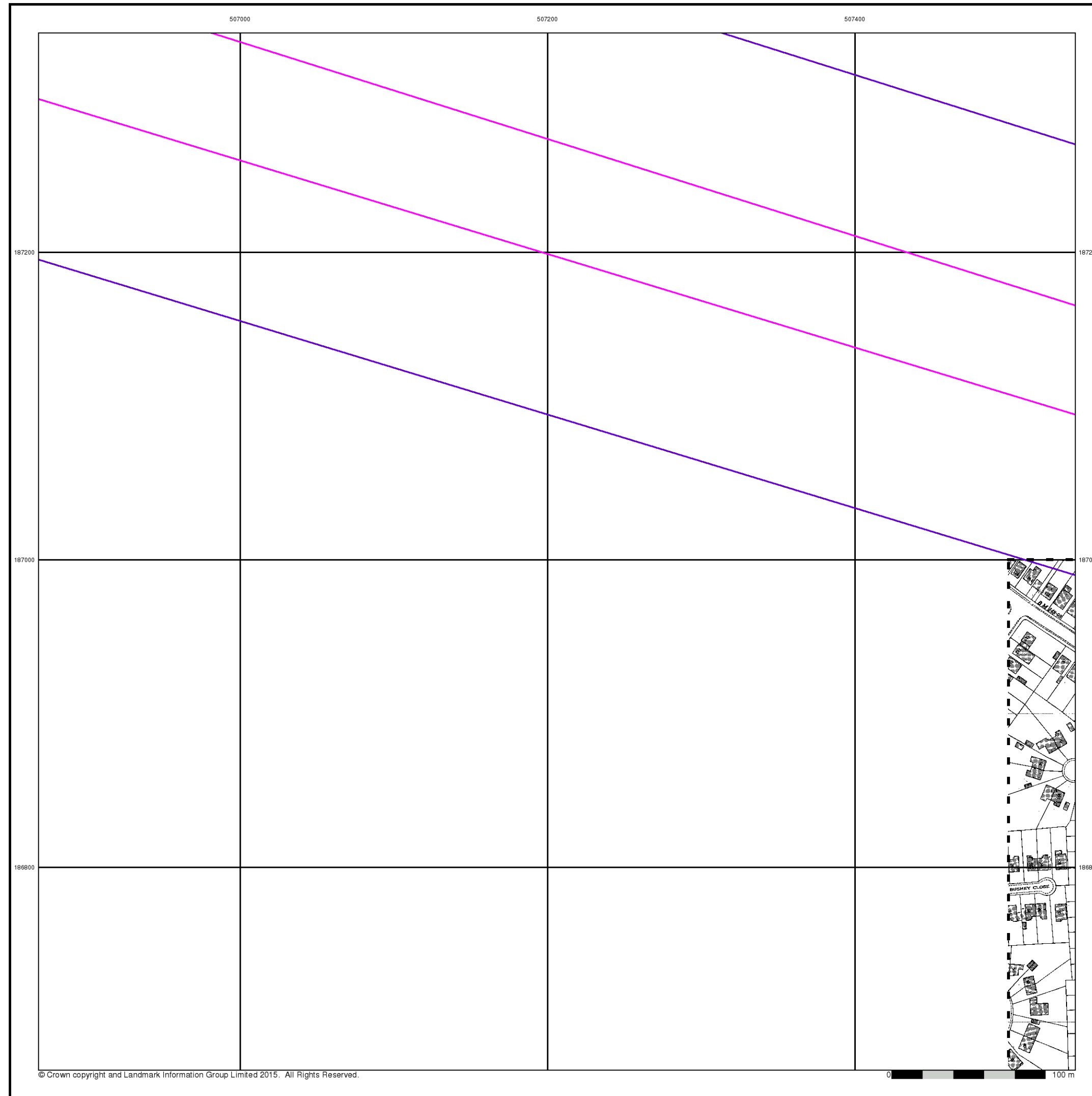
### Order Details

Order Number: 140402875\_1\_1  
Customer Ref: 256905  
National Grid Reference: 506350, 187450  
Slice: A  
Site Area (Ha): 14.32  
Search Buffer (m): 100

### Site Details

Site at 506720, 187630





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Ordnance Survey Plan

Published 1968

Source map scale - 1:1,250

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

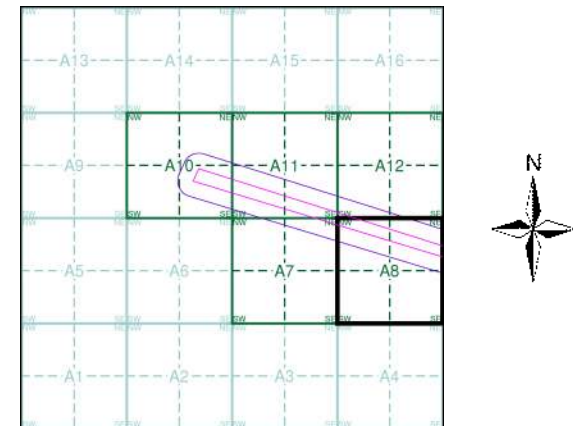
Map Name(s) and Date(s)

TQ0786NE

1968

1:1,250

Historical Map - Segment A8



Order Details

Order Number:

140402875\_1\_1

Customer Ref:

256905

National Grid Reference:

506350, 187450

Slice:

A

Site Area (Ha):

14.32

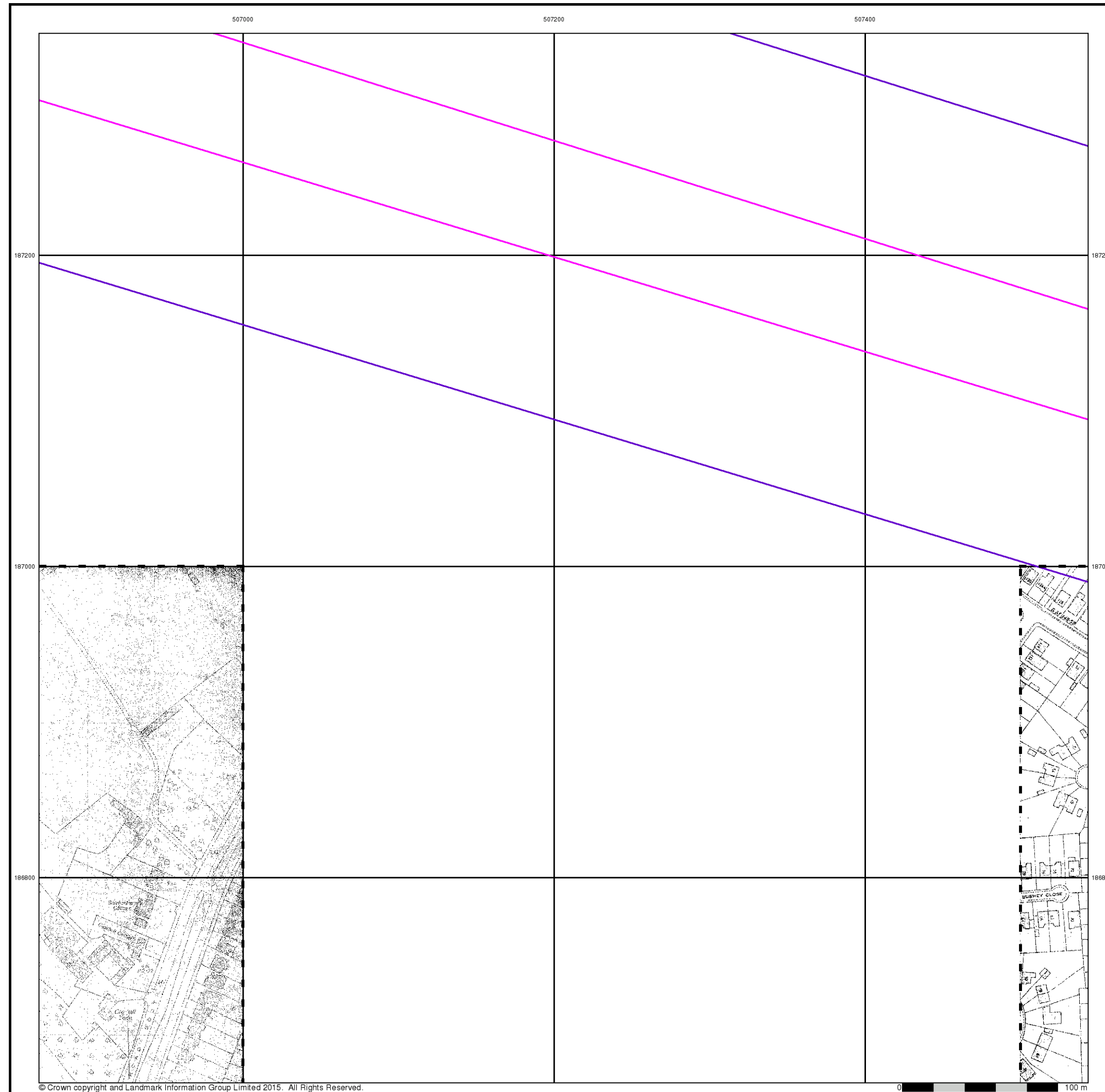
Search Buffer (m):

100

Site Details

Site at 506720, 187630





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0 100 m

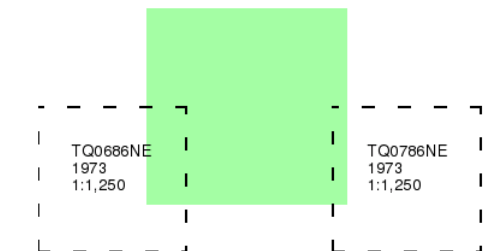
## Supply of Unpublished Survey Information

Published 1973

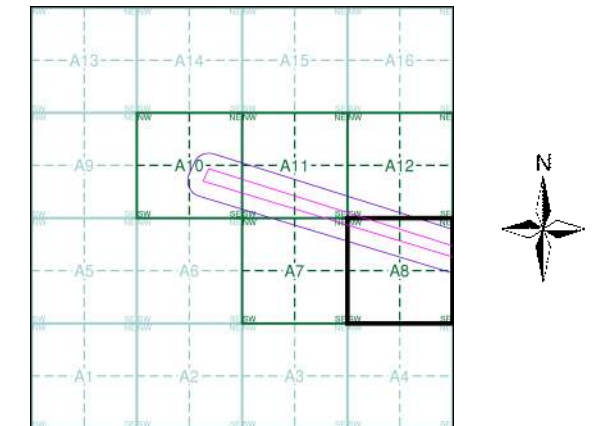
Source map scale - 1:1,250

SUSI maps (Supply of Unpublished Survey Information) were produced between 1972 and 1977, mainly for internal use at Ordnance Survey. These were more of a 'work-in-progress' plan as they showed updates of individual areas on a map. These maps were unpublished, and they do not represent a single moment in time. They were produced at both 1:2,500 and 1:1,250 scales.

### Map Name(s) and Date(s)



### Historical Map - Segment A8



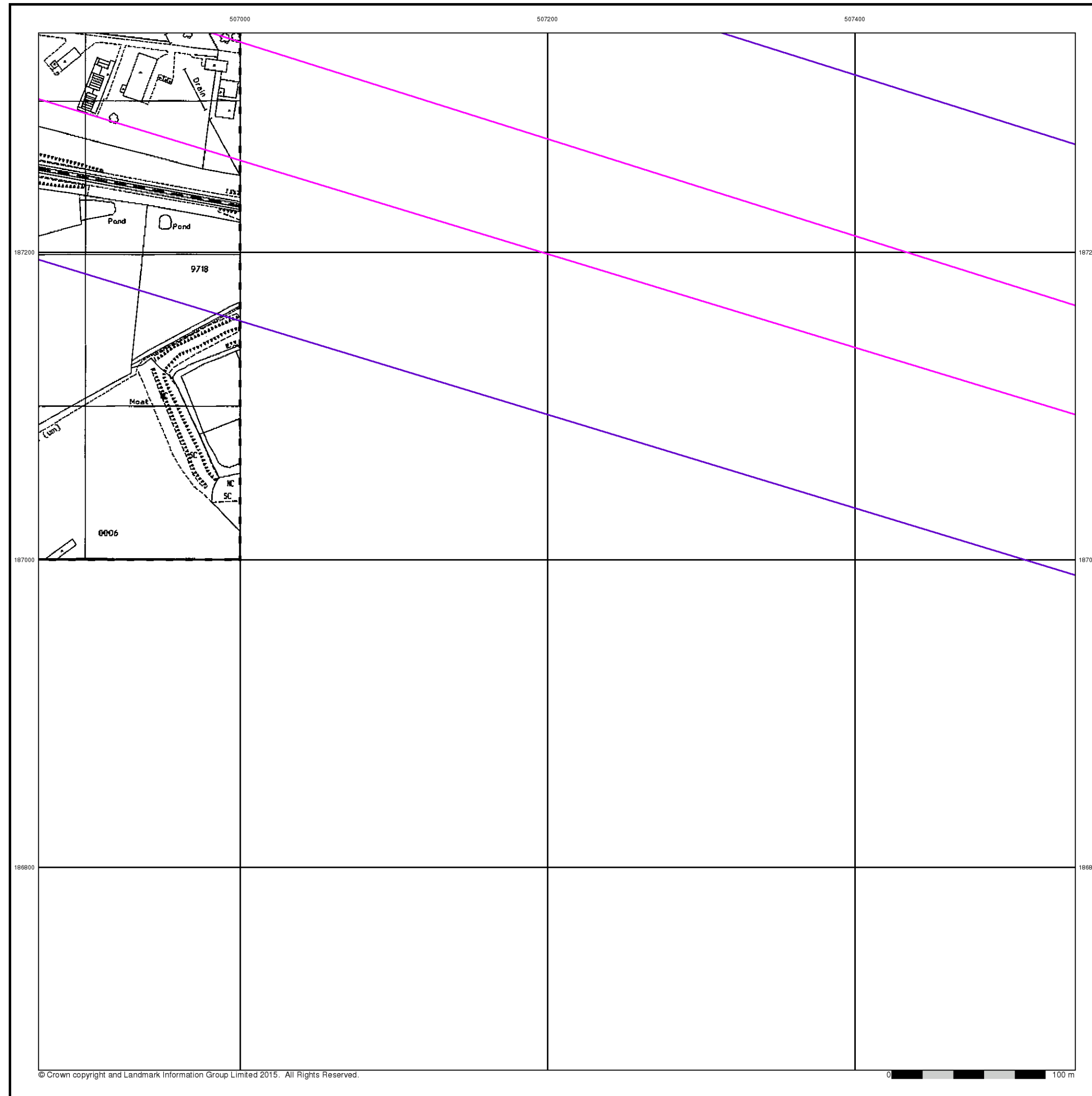
### Order Details

Order Number: 140402875\_1\_1  
Customer Ref: 256905  
National Grid Reference: 506350, 187450  
Slice: A  
Site Area (Ha): 14.32  
Search Buffer (m): 100

### Site Details

Site at 506720, 187630





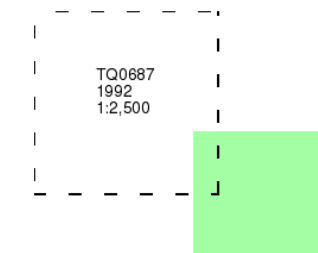
## Large-Scale National Grid Data

Published 1992

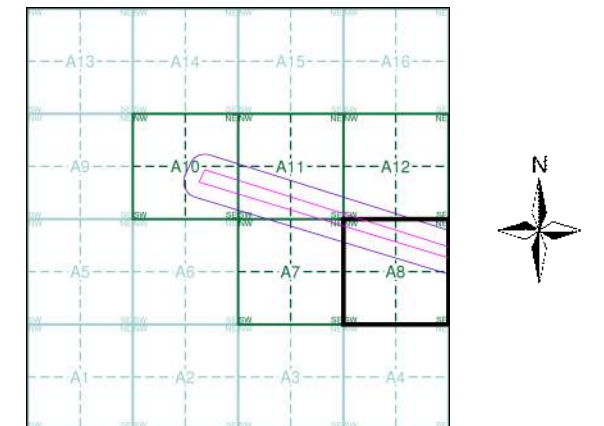
Source map scale - 1:2,500

'Large Scale National Grid Data' superseded SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') in 1992, and continued to be produced until 1999. These maps were the fore-runners of digital mapping and so provide detailed information on houses and roads, but tend to show less topographic features such as vegetation. These maps were produced at both 1:2,500 and 1:1,250 scales.

### Map Name(s) and Date(s)



### Historical Map - Segment A8

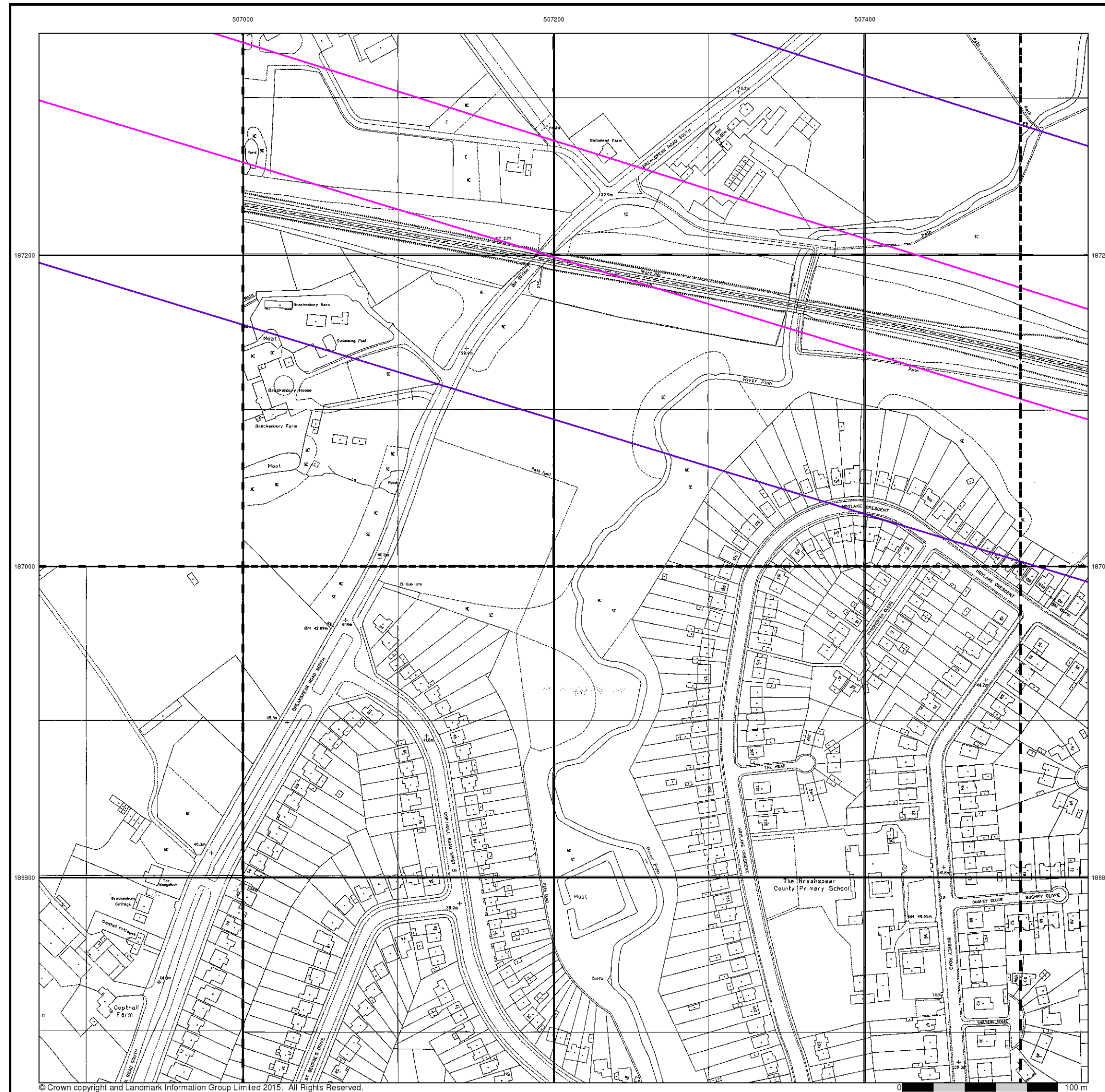


### Order Details

Order Number: 140402875\_1\_1  
Customer Ref: 256905  
National Grid Reference: 506350, 187450  
Slice: A  
Site Area (Ha): 14.32  
Search Buffer (m): 100

### Site Details

Site at 506720, 187630



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## Large-Scale National Grid Data

Published 1992

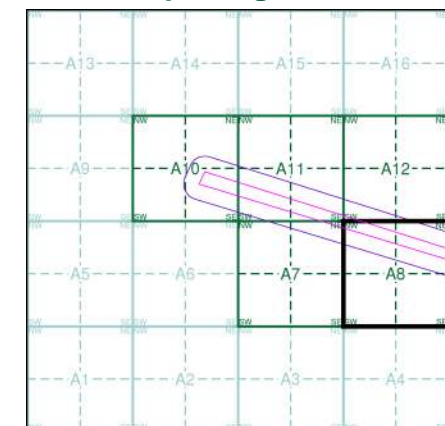
Source map scale - 1:1,250

'Large Scale National Grid Data' superseded SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') in 1992, and continued to be produced until 1999. These maps were the fore-runners of digital mapping and so provide detailed information on houses and roads, but tend to show less topographic features such as vegetation. These maps were produced at both 1:2,500 and 1:1,250 scales.

### Map Name(s) and Date(s)

	TQ0787SW	TQ0787SE
	1992	1992
	1:1,250	1:1,250
TQ0686NE	TQ0786NW	TQ0786NE
1992	1992	1992
1:1,250	1:1,250	1:1,250

### Historical Map - Segment A8

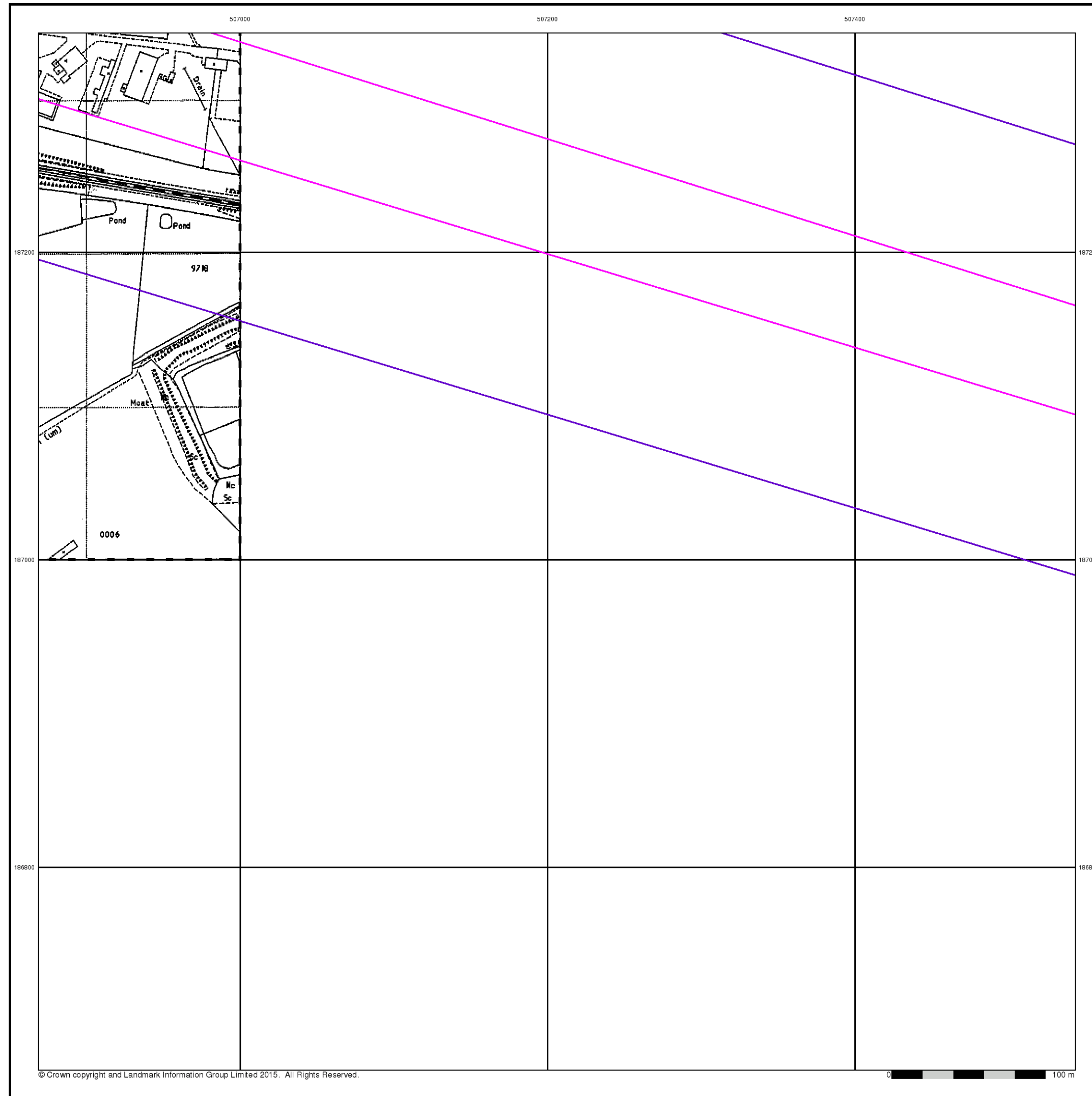


### Order Details

Order Number: 140402875\_1\_1  
Customer Ref: 256905  
National Grid Reference: 506350, 187450  
Slice: A  
Site Area (Ha): 14.32  
Search Buffer (m): 100

### Site Details

Site at 506720, 187630



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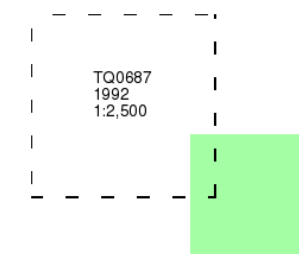
## Large-Scale National Grid Data

Published 1992

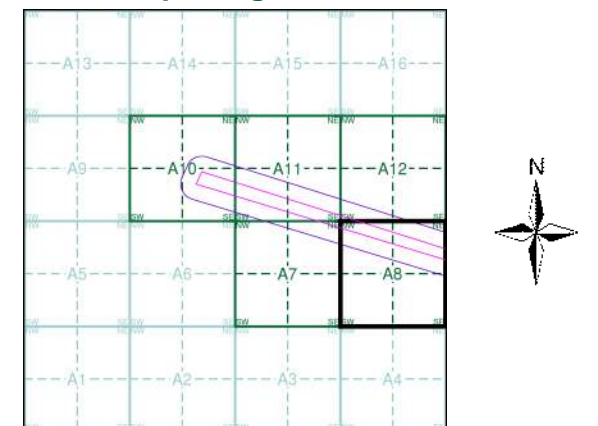
Source map scale - 1:2,500

'Large Scale National Grid Data' superseded SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') in 1992, and continued to be produced until 1999. These maps were the fore-runners of digital mapping and so provide detailed information on houses and roads, but tend to show less topographic features such as vegetation. These maps were produced at both 1:2,500 and 1:1,250 scales.

### Map Name(s) and Date(s)



### Historical Map - Segment A8



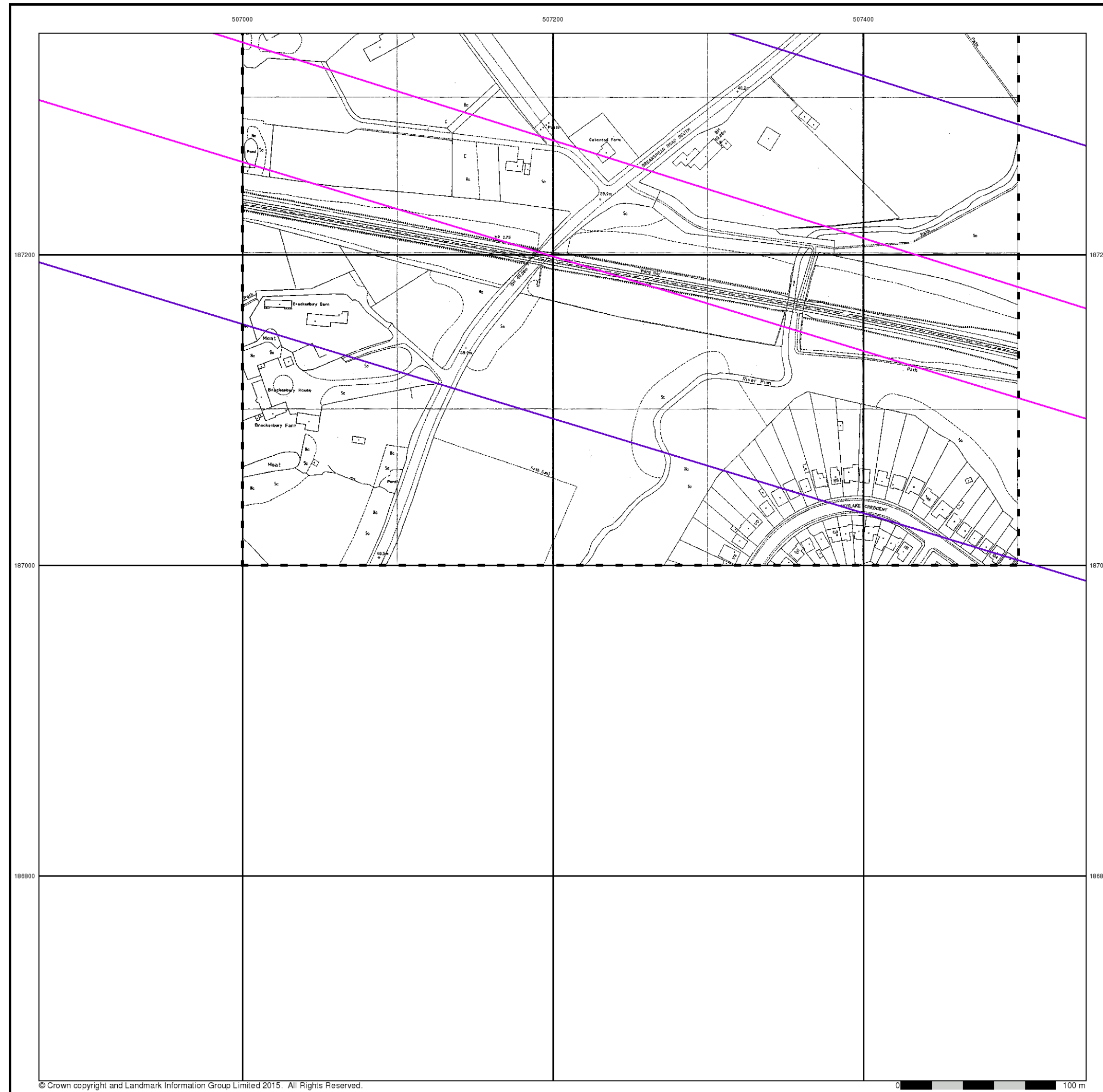
### Order Details

Order Number: 140402875\_1\_1  
Customer Ref: 256905  
National Grid Reference: 506350, 187450  
Slice: A  
Site Area (Ha): 14.32  
Search Buffer (m): 100

### Site Details

Site at 506720, 187630





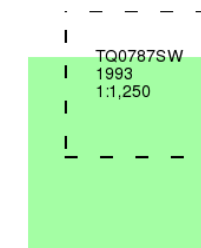
## Large-Scale National Grid Data

Published 1993

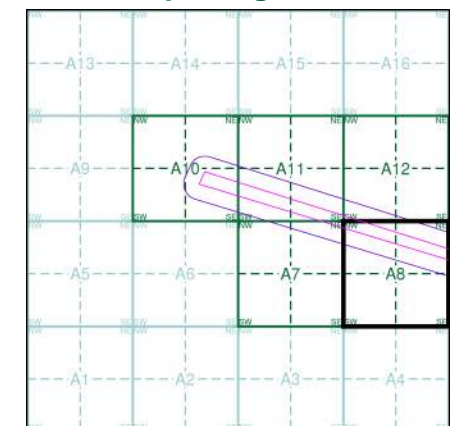
Source map scale - 1:1,250

'Large Scale National Grid Data' superseded SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') in 1992, and continued to be produced until 1999. These maps were the fore-runners of digital mapping and so provide detailed information on houses and roads, but tend to show less topographic features such as vegetation. These maps were produced at both 1:2,500 and 1:1,250 scales.

### Map Name(s) and Date(s)



### Historical Map - Segment A8



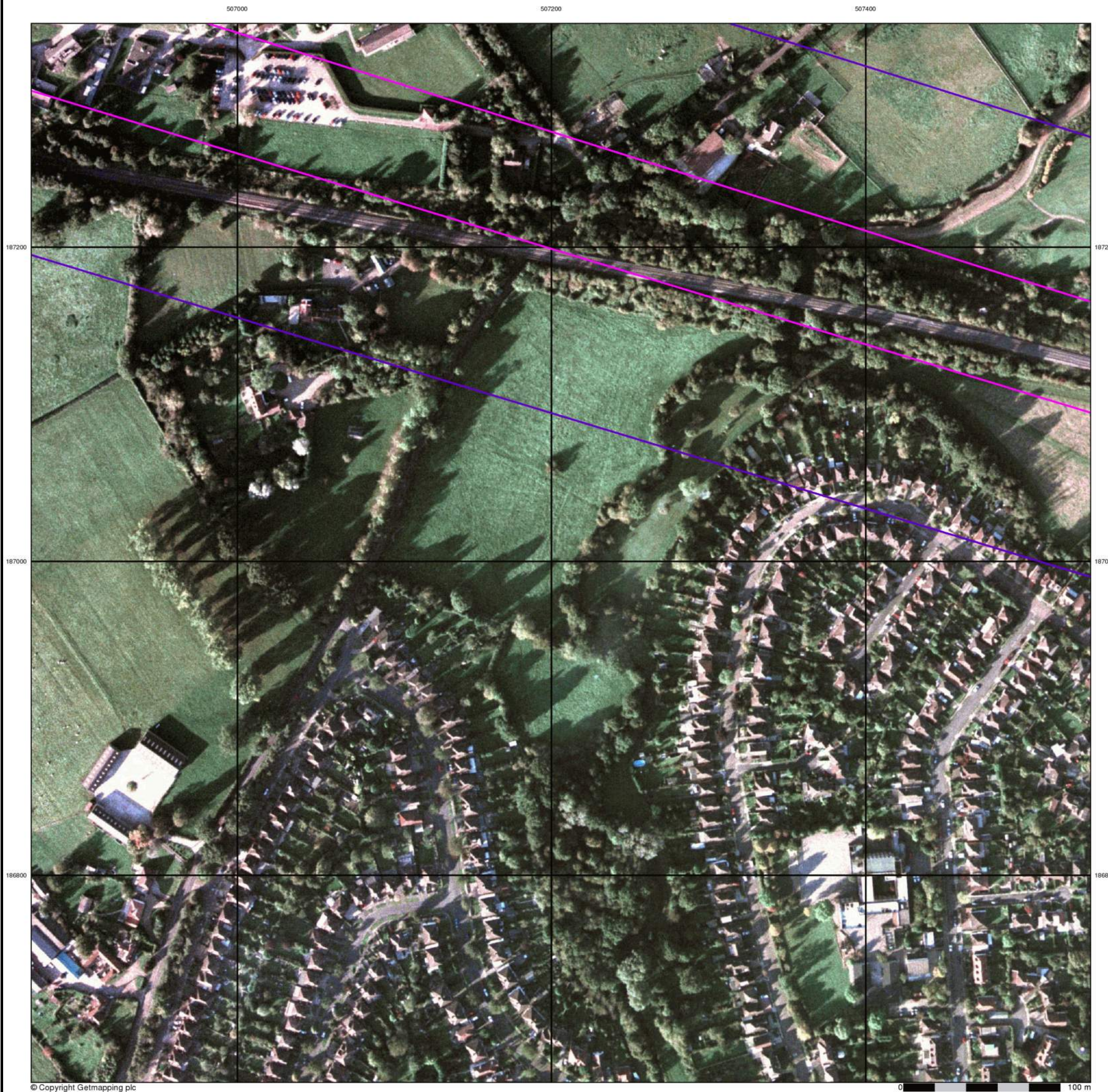
### Order Details

Order Number: 140402875\_1\_1  
Customer Ref: 256905  
National Grid Reference: 506350, 187450  
Slice: A  
Site Area (Ha): 14.32  
Search Buffer (m): 100

### Site Details

Site at 506720, 187630



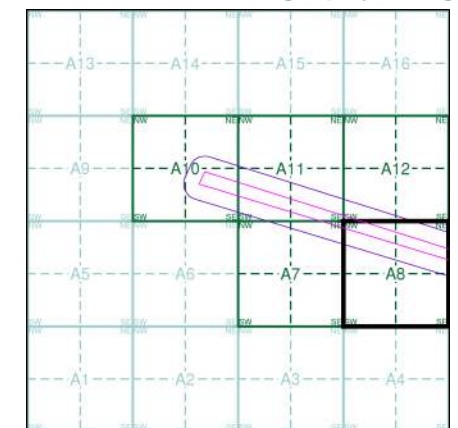


## Historical Aerial Photography

**Published 1999**

This aerial photography was produced by Getmapping, these vertical aerial photographs provide a seamless, full colour survey of the whole of Great Britain

## Historical Aerial Photography - Segment A8



## Order Details

Order Number: 140402875\_1\_1  
Customer Ref: 256905  
National Grid Reference: 506350, 187450  
Slice: A  
Site Area (Ha): 14.32  
Search Buffer (m): 100

## Site Details

Site at 506720, 187630



# Historical Mapping Legends

## Ordnance Survey County Series 1:10,560

	Gravel Pit		Sand Pit		Other Pits
	Quarry		Shingle		Orchard
	Osiers		Reeds		Marsh
	Mixed Wood		Deciduous		Brushwood
	Fir		Furze		Rough Pasture
	Arrow denotes flow of water		Trigonometrical Station		
	Site of Antiquities		Bench Mark		
	Pump, Guide Post, Signal Post		Well, Spring, Boundary Post		
	•285 Surface Level				
	Sketched Contour		Instrumental Contour		
	Main Roads		Minor Roads		
	Sunken Road		Raised Road		
	Road over Railway		Railway over River		
	Railway over Road		Level Crossing		
	Road over River or Canal		Road over Stream		
	Road over Stream				
	County Boundary (Geographical)				
	County & Civil Parish Boundary				
	Administrative County & Civil Parish Boundary				
	County Borough Boundary (England)				
	County Burgh Boundary (Scotland)				
	Rural District Boundary				
	Civil Parish Boundary				

## Ordnance Survey Plan 1:10,000

	Chalk Pit, Clay Pit or Quarry		Gravel Pit
	Sand Pit		Disused Pit or Quarry
	Refuse or Slag Heap		Lake, Loch or Pond
	Dunes		Boulders
	Coniferous Trees		Non-Coniferous Trees
	Orchard		Scrub
	Coppice		
	Bracken		Heath
	Rough Grassland		
	Marsh		Reeds
	Saltings		
	Building		Glasshouse
	Sloping Masonry		
	Pylon		Electricity Transmission Line
	Pole		
	Cutting		Embankment
	Standard Gauge Multiple Track		
	Standard Gauge Single Track		
	Siding, Tramway or Mineral Line		
	Narrow Gauge		
	Geographical County		
	Administrative County, County Borough or County of City		
	Municipal Borough, Urban or Rural District, Burgh or District Council		
	Borough, Burgh or County Constituency Shown only when not coincident with other boundaries		
	Civil Parish Shown alternately when coincidence of boundaries occurs		
	BP, BS Boundary Post or Stone		Pol Sta Police Station
	Ch Church		PO Post Office
	CH Club House		PC Public Convenience
	F E Sta Fire Engine Station		PH Public House
	FB Foot Bridge		SB Signal Box
	Fn Fountain		Spr Spring
	GP Guide Post		TCB Telephone Call Box
	MP Mile Post		TCP Telephone Call Post
	MS Mile Stone		W Well

## 1:10,000 Raster Mapping

	Gravel Pit		Refuse tip or slag heap
	Rock		Rock (scattered)
	Boulders		Boulders (scattered)
	Shingle		Mud
	Sand		Sand Pit
	Slopes		Top of cliff
	General detail		Underground detail
	Overhead detail		Narrow gauge railway
	Multi-track railway		Single track railway
	County boundary (England only)		Civil, parish or community boundary
	District, Unitary, Metropolitan, London Borough boundary		Constituency boundary
	Area of wooded vegetation		Non-coniferous trees
	Non-coniferous trees (scattered)		Coniferous trees
	Coniferous trees (scattered)		Positioned tree
	Orchard		Coppice or Osiers
	Rough Grassland		Heath
	Scrub		Marsh, Salt Marsh or Reeds
	Water feature		Flow arrows
	MHW(S) Mean high water (springs)		MLW(S) Mean low water (springs)
	Telephone line (where shown)		Electricity transmission line (with poles)
	Bench mark (where shown)		Triangulation station
	Point feature (e.g. Guide Post or Mile Stone)		Pylon, flare stack or lighting tower
	Site of (antiquity)		Glasshouse
	General Building		Important Building

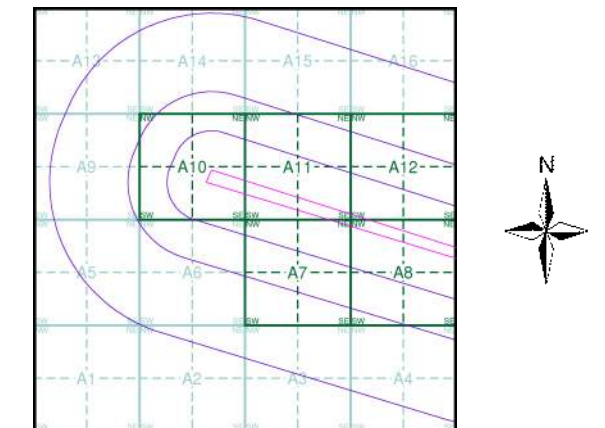
# Envirocheck<sup>®</sup>

LANDMARK INFORMATION GROUP<sup>®</sup>

## Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Middlesex	1:10,560	1868	3
Buckinghamshire	1:10,560	1881 - 1883	4
Middlesex	1:10,560	1897	5
Buckinghamshire	1:10,560	1900	6
Hertfordshire	1:10,560	1916	7
Middlesex	1:10,560	1920	8
Middlesex	1:10,560	1920	9
Buckinghamshire	1:10,560	1932	10
Hertfordshire	1:10,560	1934	11
Middlesex	1:10,560	1935	12
Middlesex	1:10,560	1938	13
Middlesex	1:10,560	1938	14
Historical Aerial Photography	1:10,560	1948	15
Hertfordshire	1:10,560	1950	16
Ordnance Survey Plan	1:10,000	1960	17
Ordnance Survey Plan	1:10,000	1968	18
Ordnance Survey Plan	1:10,000	1975	19
London	1:25,000	1985	20
Ordnance Survey Plan	1:10,000	1989	21
Ordnance Survey Plan	1:10,000	1990	22
10K Raster Mapping	1:10,000	1999	23
10K Raster Mapping	1:10,000	2006	24
VectorMap Local	1:10,000	2017	25

## Historical Map - Slice A



## Order Details

Order Number: 140402875\_1\_1  
Customer Ref: 256905  
National Grid Reference: 506350, 187450  
Slice: A  
Site Area (Ha): 14.32  
Search Buffer (m): 1000

## Site Details

Site at 506720, 187630

**Landmark<sup>®</sup>**  
INFORMATION GROUP

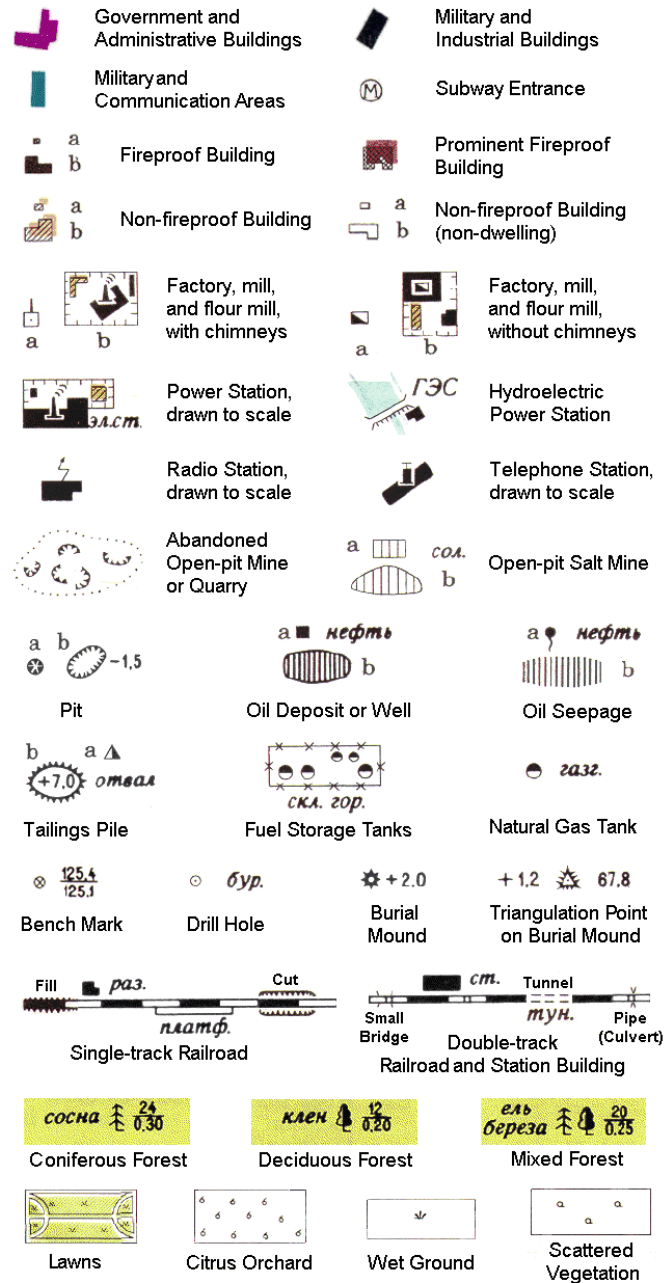
Tel: 0844 844 9952  
Fax: 0844 844 9951  
Web: [www.envirocheck.co.uk](http://www.envirocheck.co.uk)



# Russian Military Mapping Legends

## 1:5,000 and 1:10,000 mapping

a. Not drawn to scale b. Drawn to scale



**243.8** Values for prominent elevations

**186.0** Numbers for spot elevations, depth soundings, contour lines, etc.

**0.2** Velocity of the current, width of river bed, depth of river

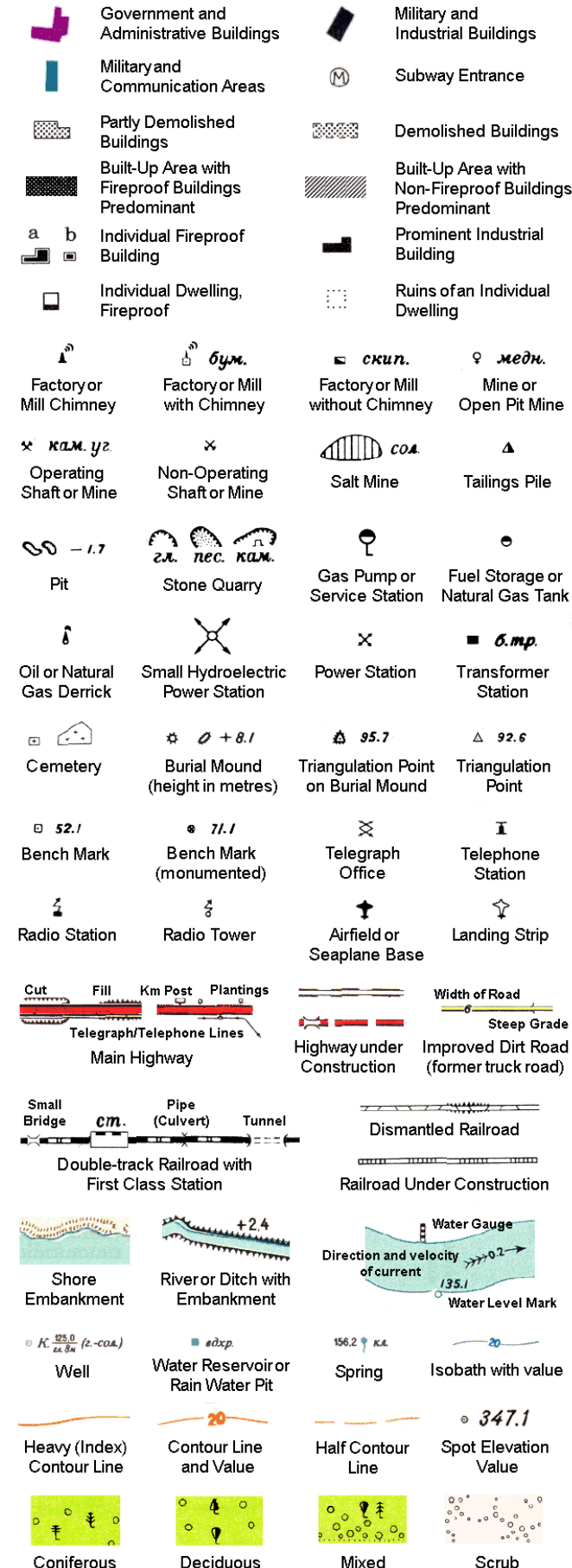
**180/12** Fractional terms: length and capacity of bridges; depth of fords and condition of the river bottom; height of forest and the diameter of trees

**Russian Alphabet** (For reference and phonetic interpretation of map text)

<b>А а (A)</b>	<b>З з (Z)</b>	<b>П п (P)</b>	<b>Ч ч (CH)</b>
<b>Б б (B)</b>	<b>И и (I)</b>	<b>Р р (R)</b>	<b>Ш ш (SH)</b>
<b>В в (V)</b>	<b>Й й (Y)</b>	<b>С с (S)</b>	<b>Щ щ (SHCH)</b>
<b>Г г (G)</b>	<b>К к (K)</b>	<b>Т т (T)</b>	<b>Ъ (-)</b>
<b>Д д (D)</b>	<b>Л л (L)</b>	<b>У у (U)</b>	<b>Ы (Y)</b>
<b>Е е (E)</b>	<b>М м (M)</b>	<b>Ф ф (F)</b>	<b>Ь (')</b>
<b>Ё ё (YO)</b>	<b>Н н (N)</b>	<b>Х х (KH)</b>	<b>Э э (E)</b>
<b>Ж ж (ZH)</b>	<b>О о (O)</b>	<b>Ц ц (TS)</b>	<b>Ю ю (YU or IU)</b>
			<b>Я я (YA or IA)</b>

## 1:25,000 mapping

a. Not drawn to scale b. Drawn to scale



## Key to Numbers on Mapping

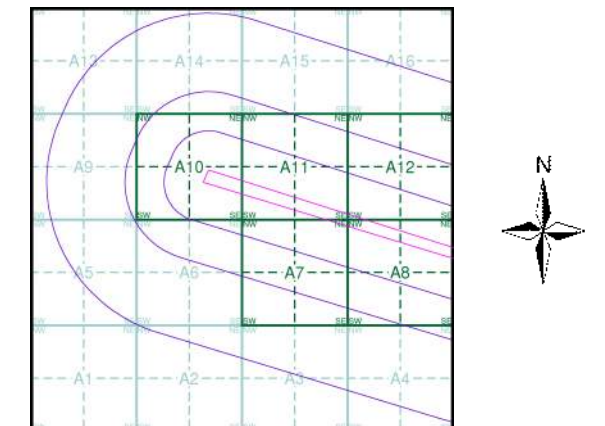
# Envirocheck®

LANDMARK INFORMATION GROUP®

## Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Middlesex	1:10,560	1868	3
Buckinghamshire	1:10,560	1881 - 1883	4
Middlesex	1:10,560	1897	5
Buckinghamshire	1:10,560	1900	6
Hertfordshire	1:10,560	1916	7
Middlesex	1:10,560	1920	8
Middlesex	1:10,560	1920	9
Buckinghamshire	1:10,560	1932	10
Hertfordshire	1:10,560	1934	11
Middlesex	1:10,560	1935	12
Middlesex	1:10,560	1938	13
Middlesex	1:10,560	1938	14
Historical Aerial Photography	1:10,560	1948	15
Hertfordshire	1:10,560	1950	16
Ordnance Survey Plan	1:10,000	1960	17
Ordnance Survey Plan	1:10,000	1968	18
Ordnance Survey Plan	1:10,000	1975	19
London	1:25,000	1985	20
Ordnance Survey Plan	1:10,000	1989	21
Ordnance Survey Plan	1:10,000	1990	22
10K Raster Mapping	1:10,000	1999	23
10K Raster Mapping	1:10,000	2006	24
VectorMap Local	1:10,000	2017	25

## Russian Map - Slice A



## Order Details

Order Number: 140402875\_1\_1  
 Customer Ref: 256905  
 National Grid Reference: 506350, 187450  
 Slice: A  
 Site Area (Ha): 14.32  
 Search Buffer (m): 1000

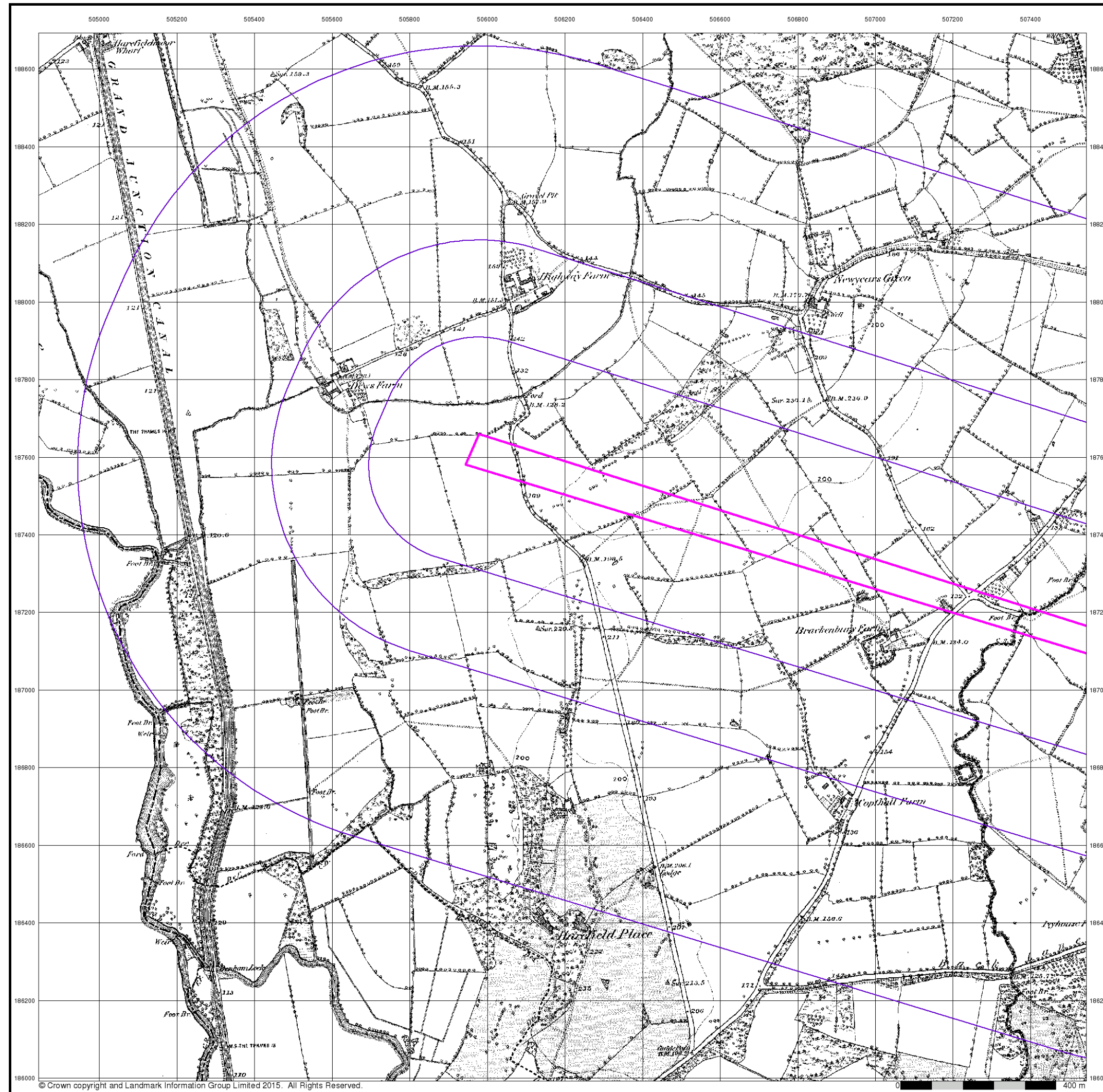
## Site Details

Site at 506720, 187630

**Landmark®**  
 INFORMATION GROUP

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





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## Middlesex

### Published 1868

### Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

### Map Name(s) and Date(s)

00900  
1868  
1:10,560

### Historical Map - Slice A

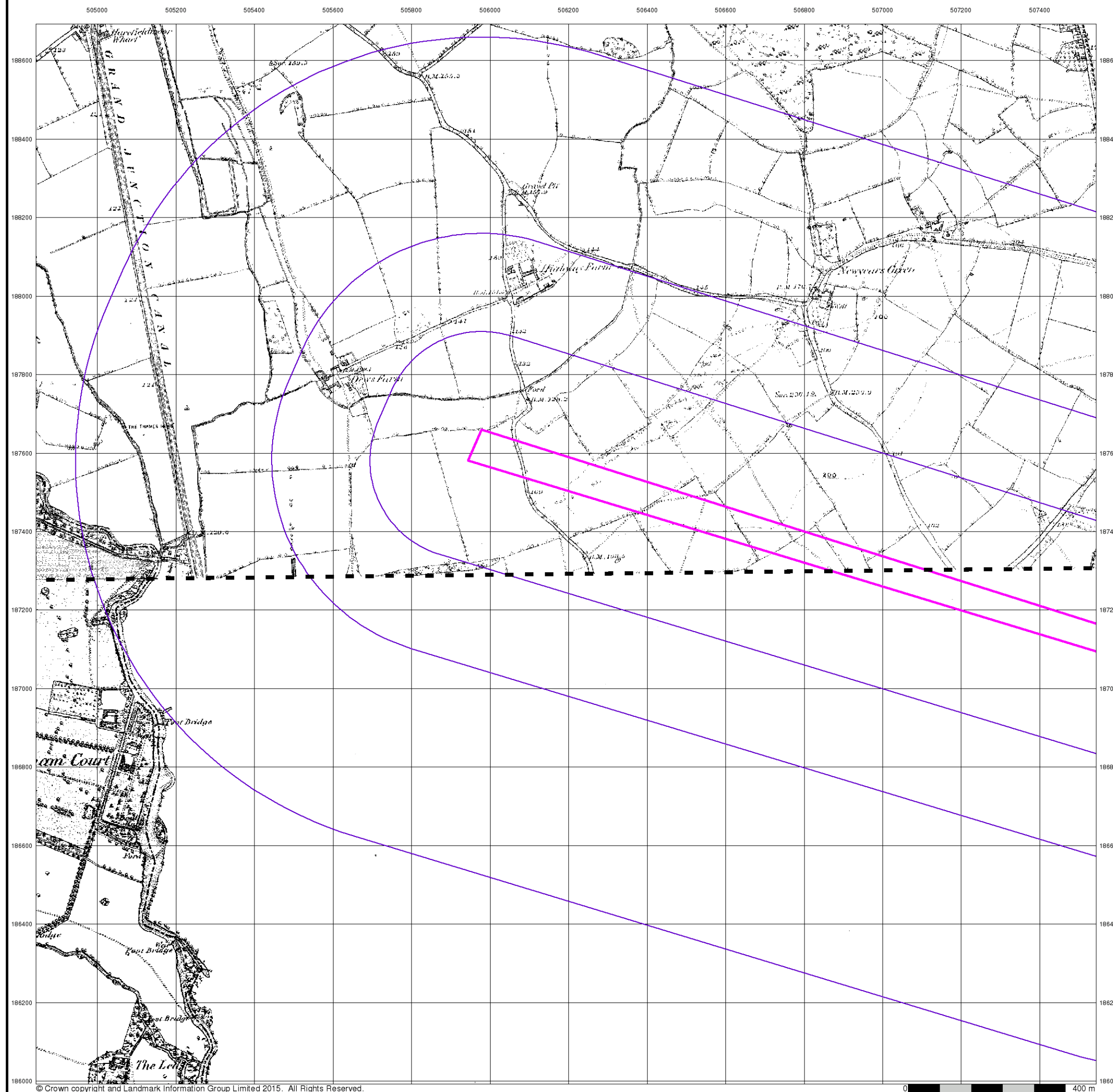
### Order Details

Order Number:	140402875_1_1
Customer Ref:	256905
National Grid Reference:	506350, 187450
Slice:	A
Site Area (Ha):	14.32
Search Buffer (m):	1000

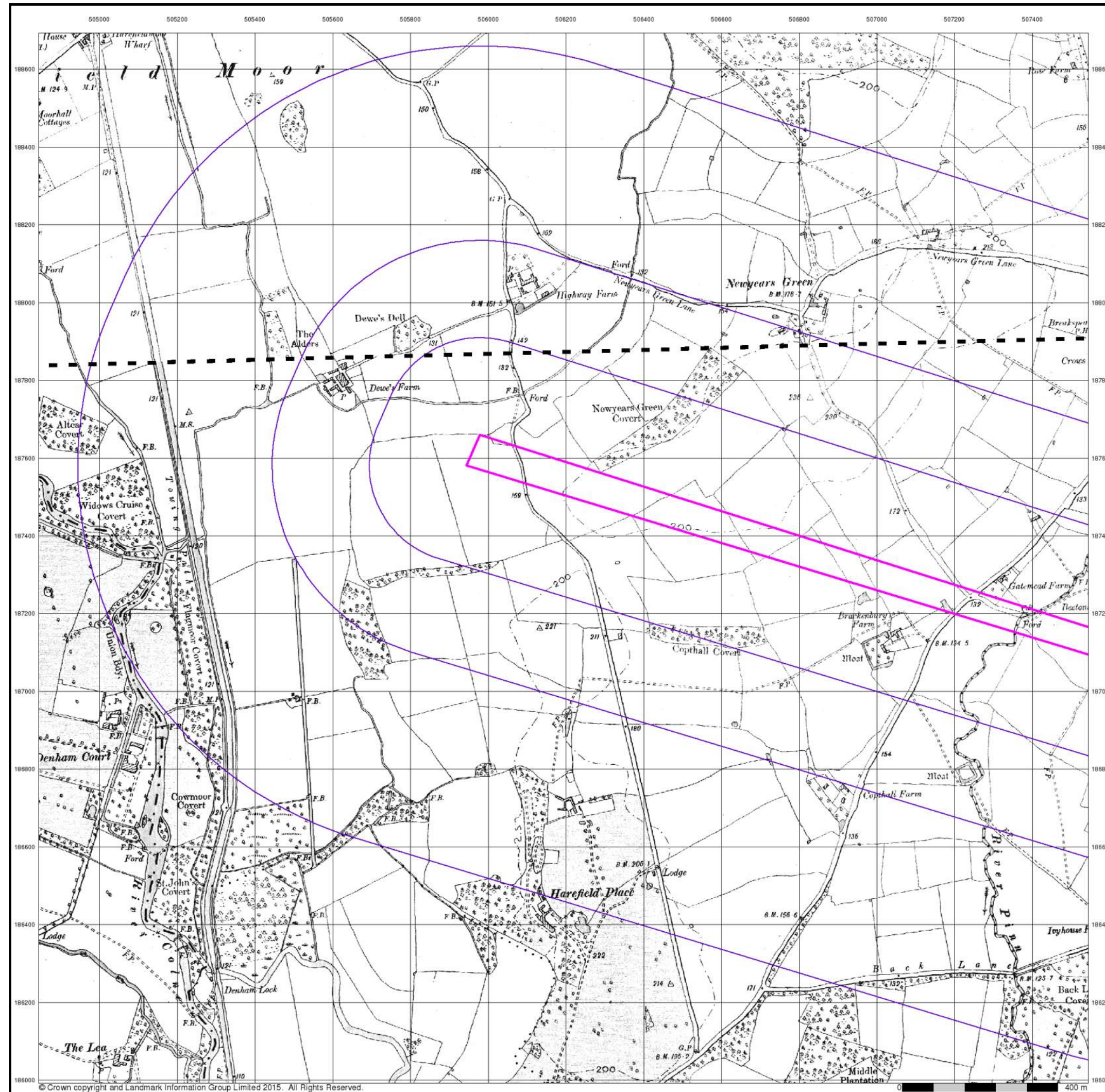
### Site Details

Site at 506720, 187630









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## Middlesex

Published 1897

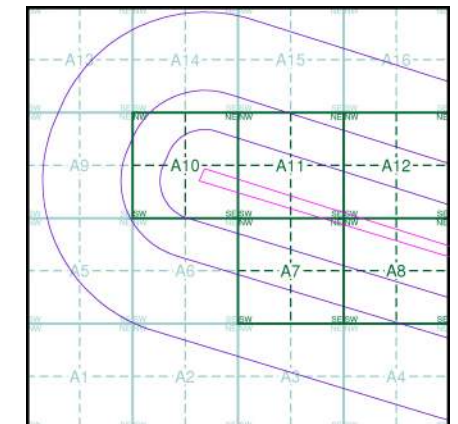
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

## Map Name(s) and Date(s)

009NE
1897
1:10,560
009SE
1897
1:10,560

## Historical Map - Slice A



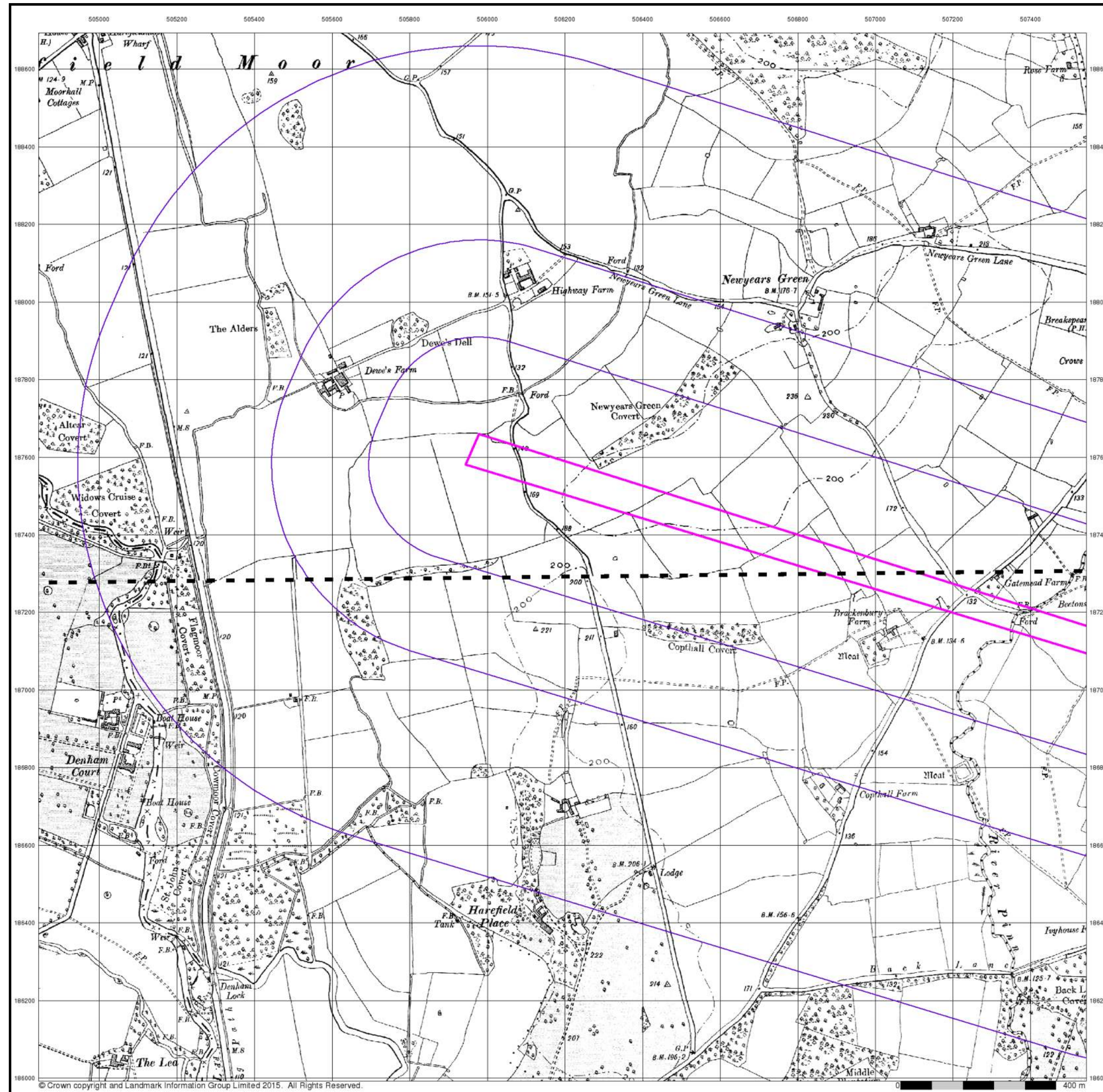
## Order Details

Order Number: 140402875\_1\_1  
Customer Ref: 256905  
National Grid Reference: 506350, 187450  
Slice: A  
Site Area (Ha): 14.32  
Search Buffer (m): 1000

## Site Details

Site at 506720, 187630





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## Buckinghamshire

### Published 1900

### Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

### Map Name(s) and Date(s)

049SW
1900
1:10,560
054NW
1900
1:10,560

### Historical Map - Slice A

North Arrow

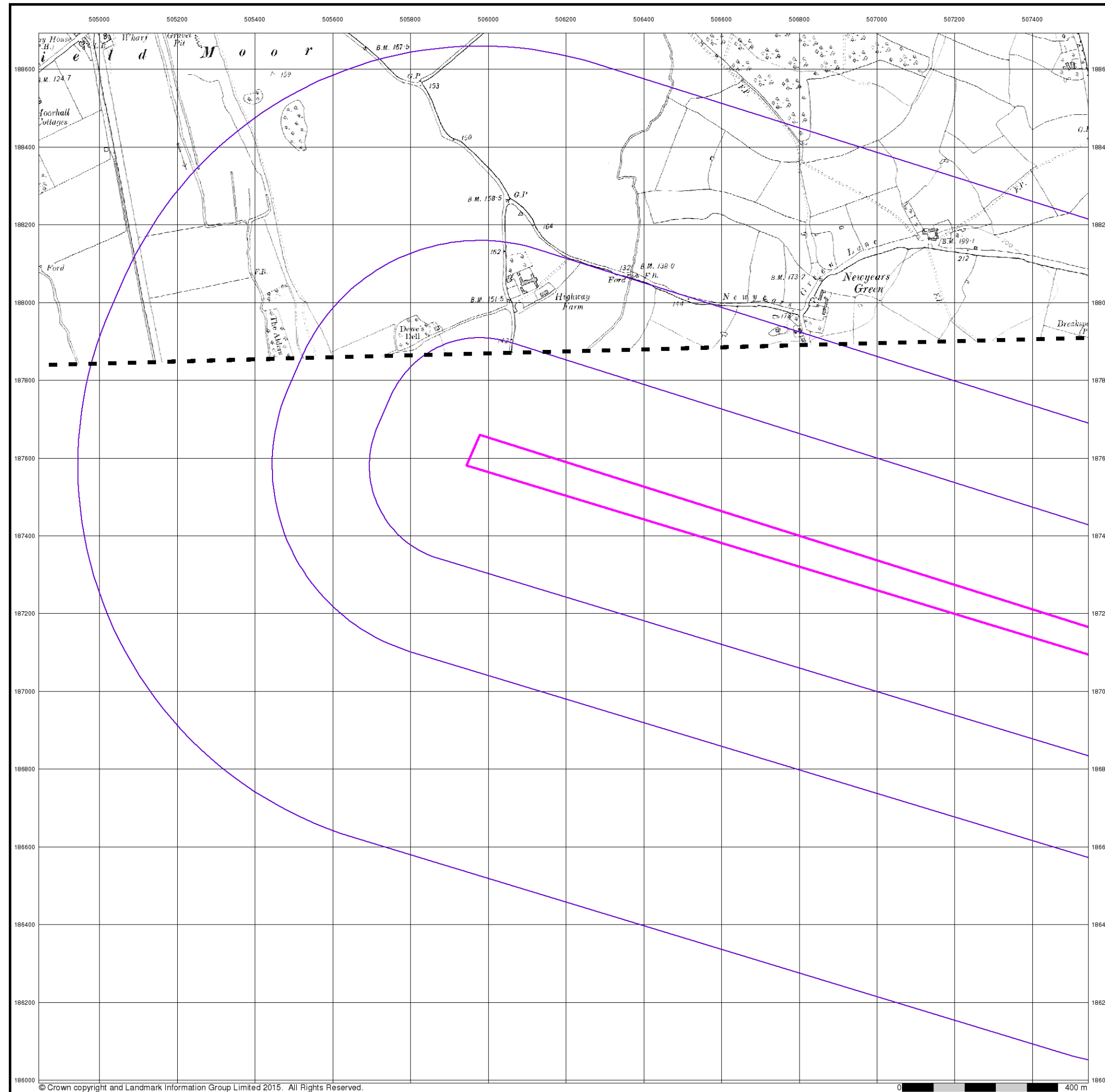
### Order Details

Order Number:	140402875_1_1
Customer Ref:	256905
National Grid Reference:	506350, 187450
Slice:	A
Site Area (Ha):	14.32
Search Buffer (m):	1000

### Site Details

Site at 506720, 187630





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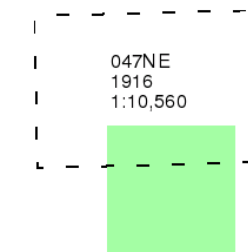
## Hertfordshire

Published 1916

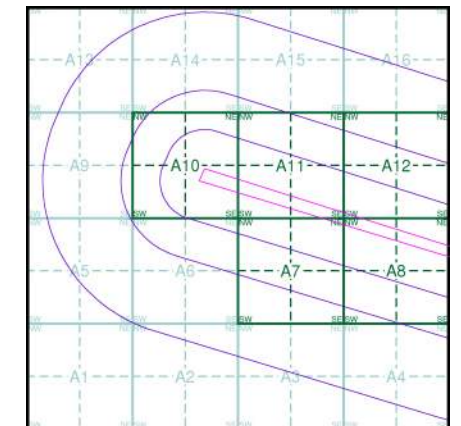
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

### Map Name(s) and Date(s)



### Historical Map - Slice A



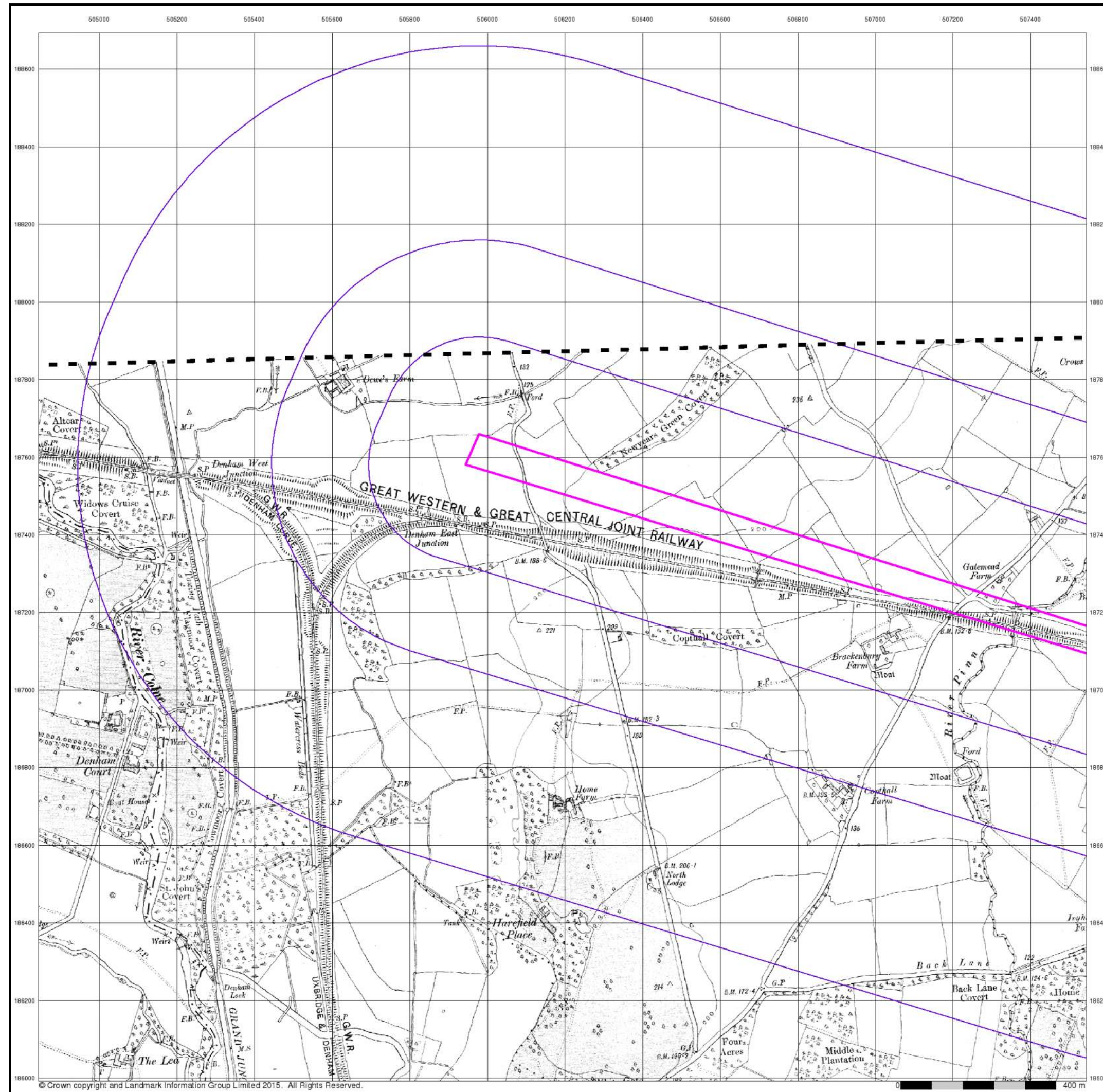
### Order Details

Order Number: 140402875\_1\_1  
Customer Ref: 256905  
National Grid Reference: 506350, 187450  
Slice: A  
Site Area (Ha): 14.32  
Search Buffer (m): 1000

### Site Details

Site at 506720, 187630





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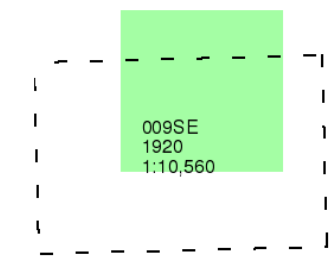
## Middlesex

Published 1920

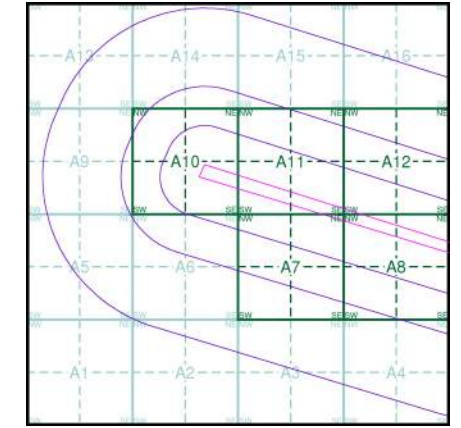
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

## Map Name(s) and Date(s)



## Historical Map - Slice A



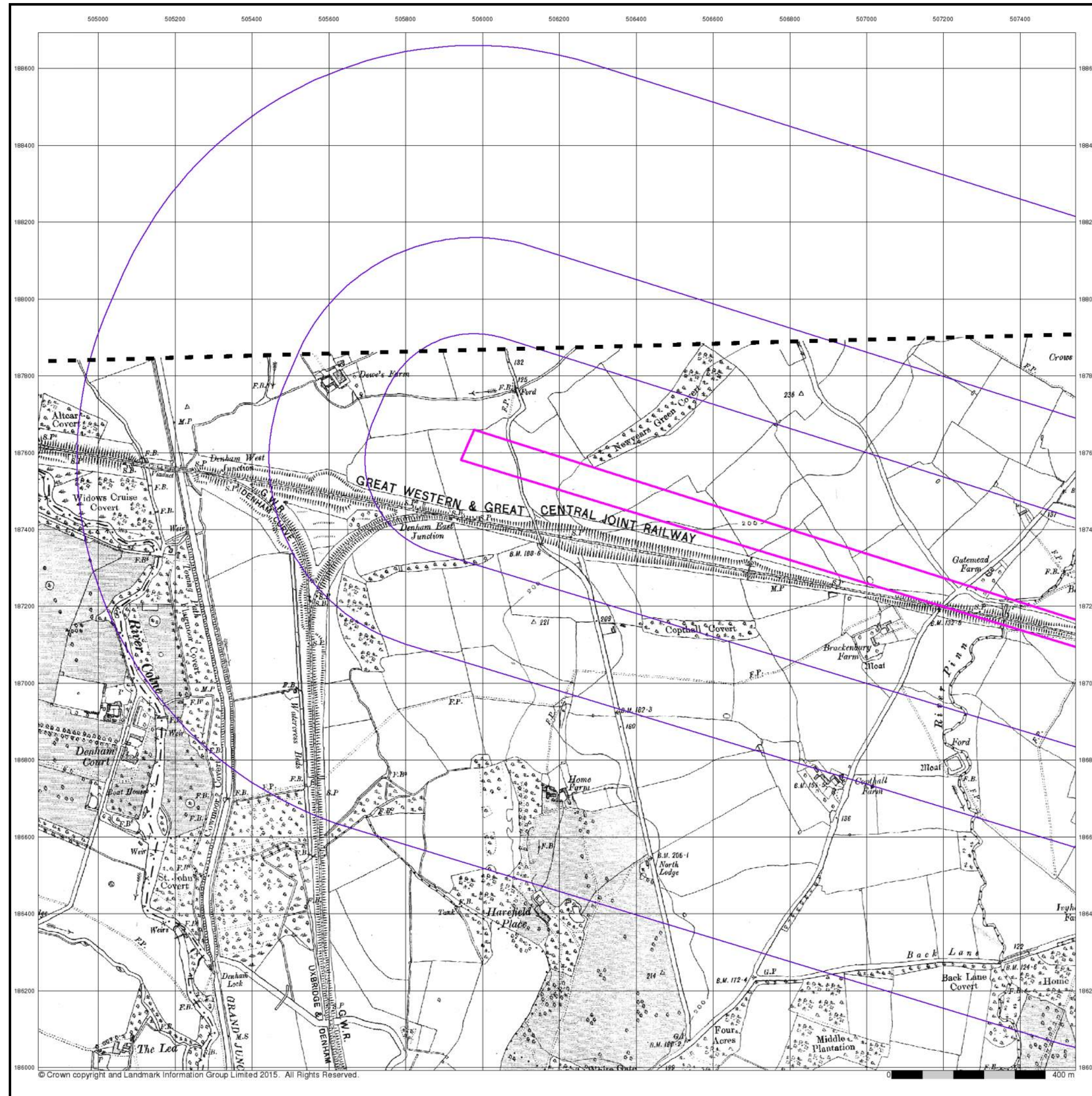
## Order Details

Order Number: 140402875\_1\_1  
Customer Ref: 256905  
National Grid Reference: 506350, 187450  
Slice: A  
Site Area (Ha): 14.32  
Search Buffer (m): 1000

## Site Details

Site at 506720, 187630





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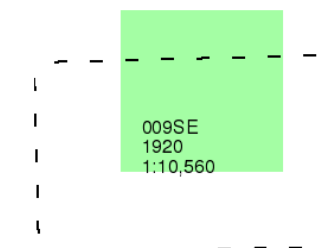
## Middlesex

Published 1920

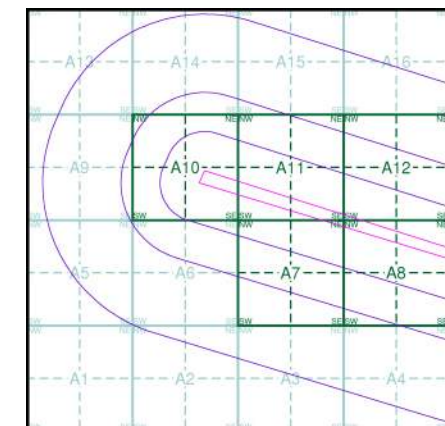
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

## Map Name(s) and Date(s)



## Historical Map - Slice A



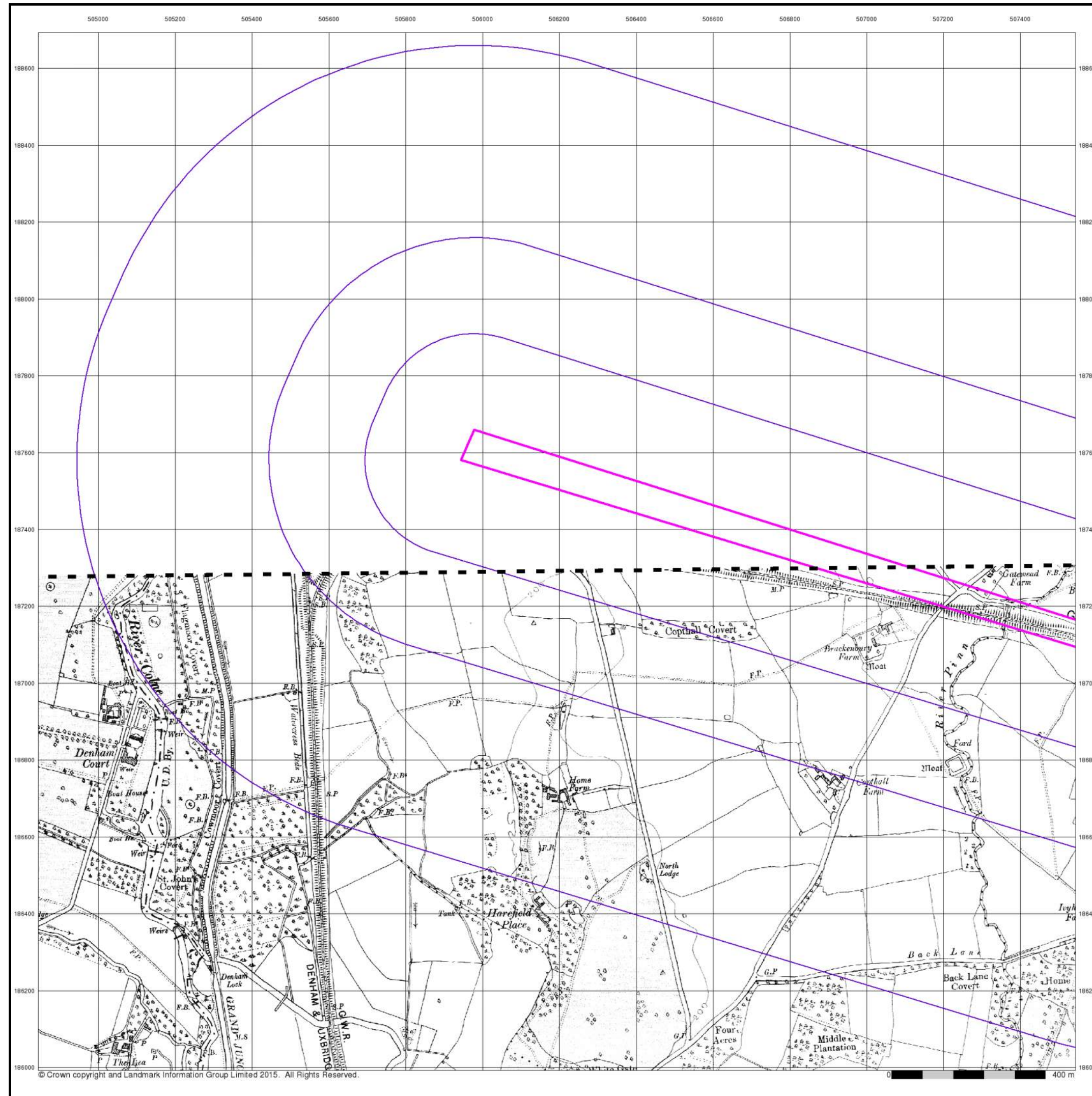
## Order Details

Order Number: 140402875\_1\_1  
Customer Ref: 256905  
National Grid Reference: 506350, 187450  
Slice: A  
Site Area (Ha): 14.32  
Search Buffer (m): 1000

## Site Details

Site at 506720, 187630





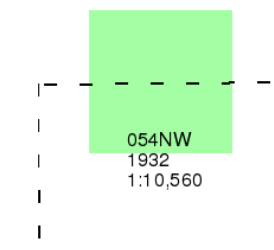
## Buckinghamshire

Published 1932

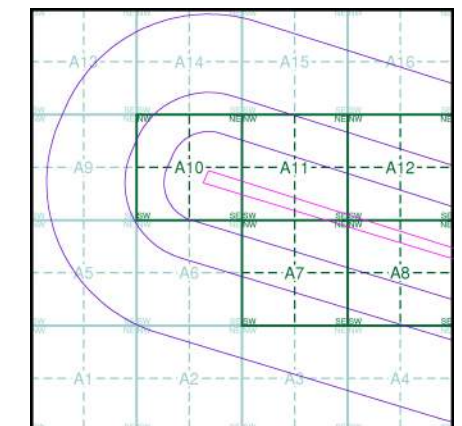
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

### Map Name(s) and Date(s)



### Historical Map - Slice A



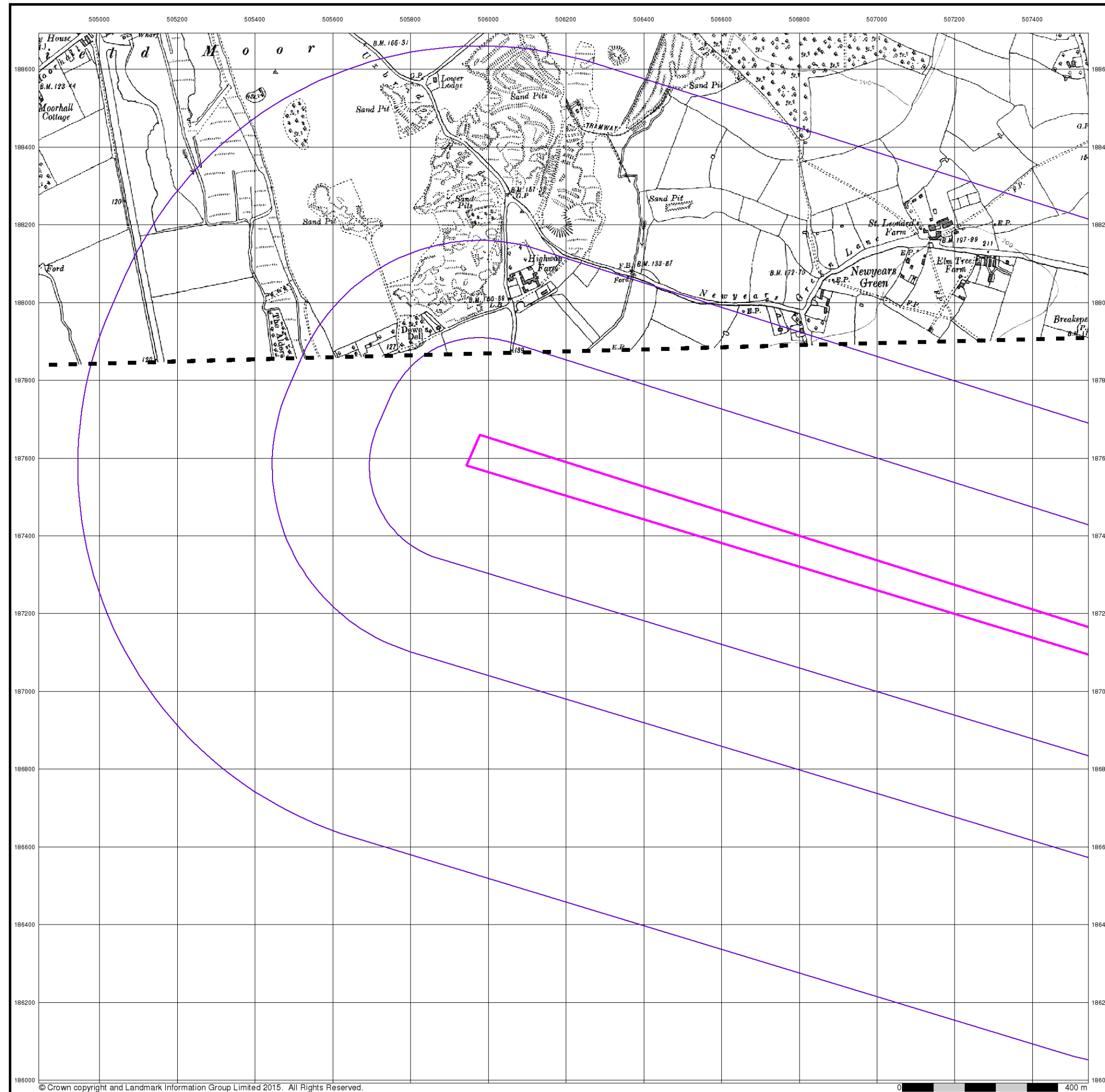
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Customer Ref: 256905  
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Slice: A  
Site Area (Ha): 14.32  
Search Buffer (m): 1000

### Site Details

Site at 506720, 187630





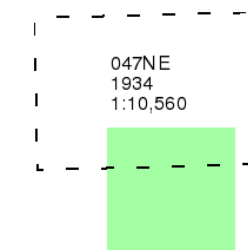
## Hertfordshire

Published 1934

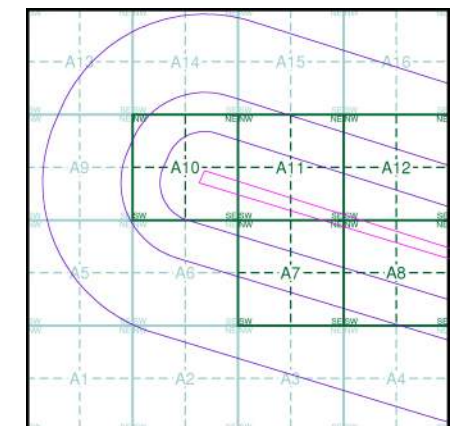
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### Map Name(s) and Date(s)



### Historical Map - Slice A



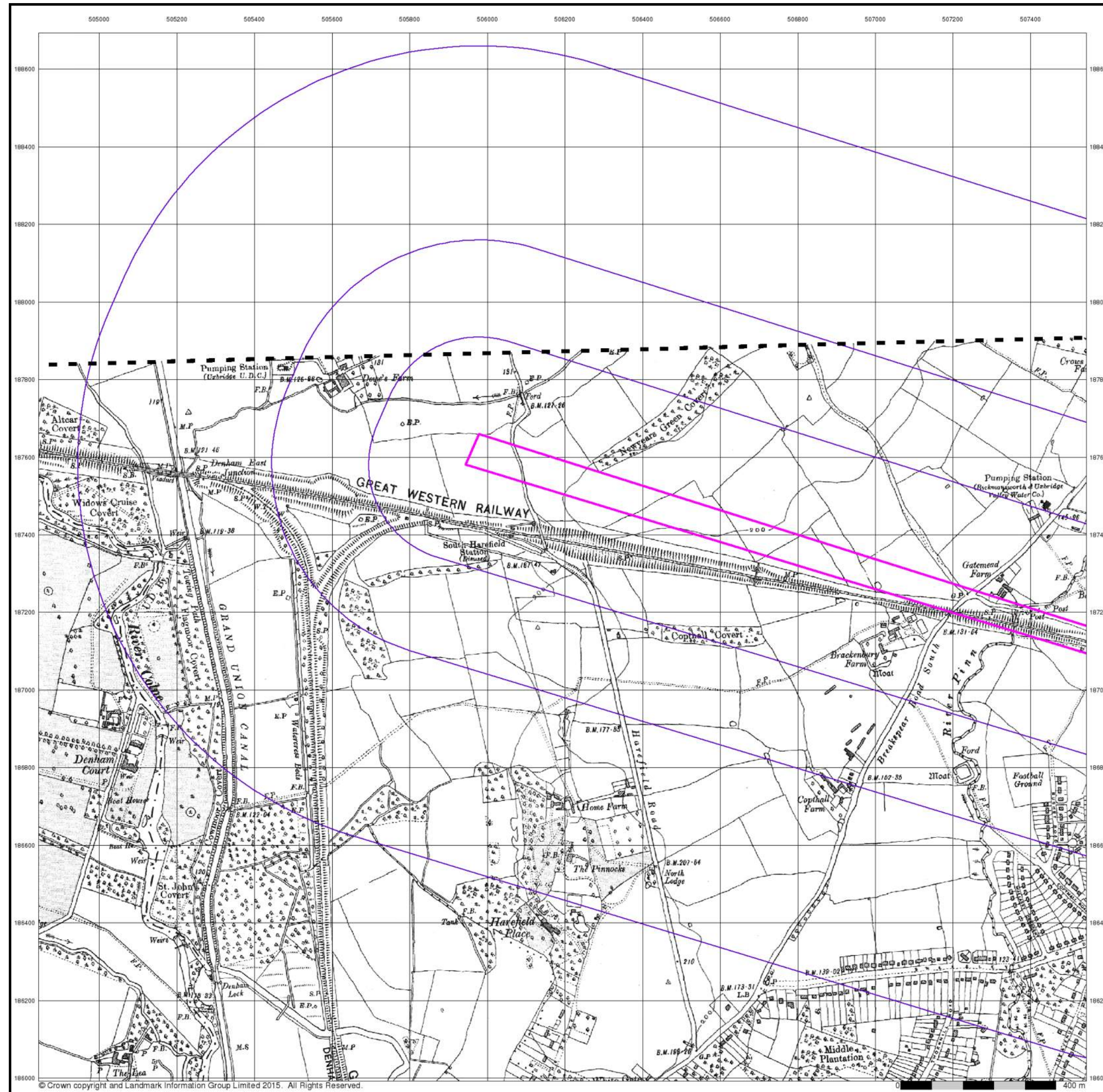
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### Site Details

Site at 506720, 187630





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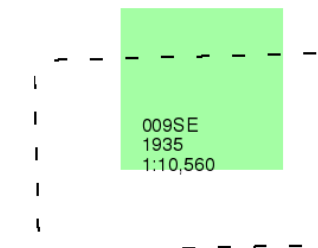
## Middlesex

Published 1935

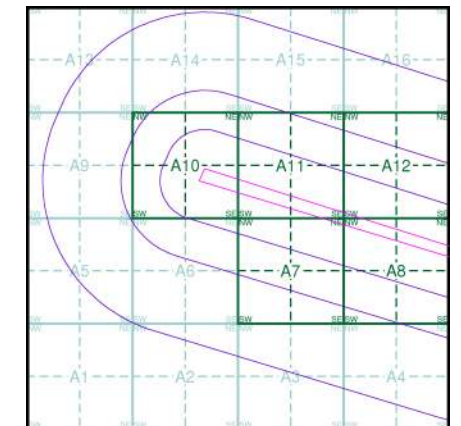
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The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

## Map Name(s) and Date(s)



## Historical Map - Slice A



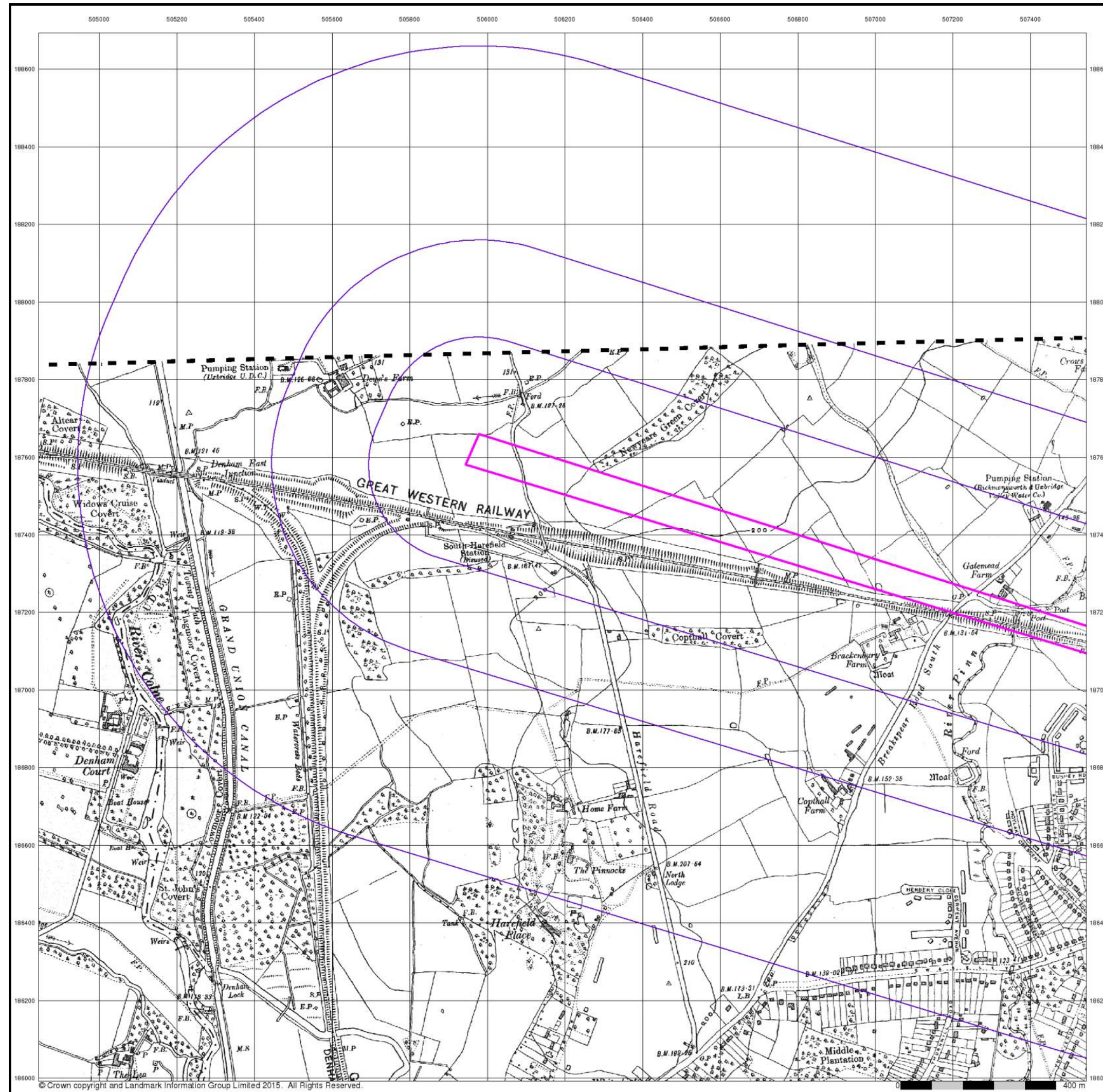
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## Site Details

Site at 506720, 187630





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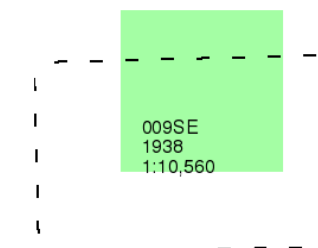
## Middlesex

Published 1938

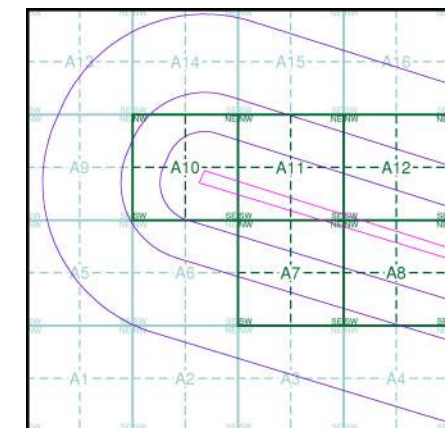
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## Map Name(s) and Date(s)



## Historical Map - Slice A



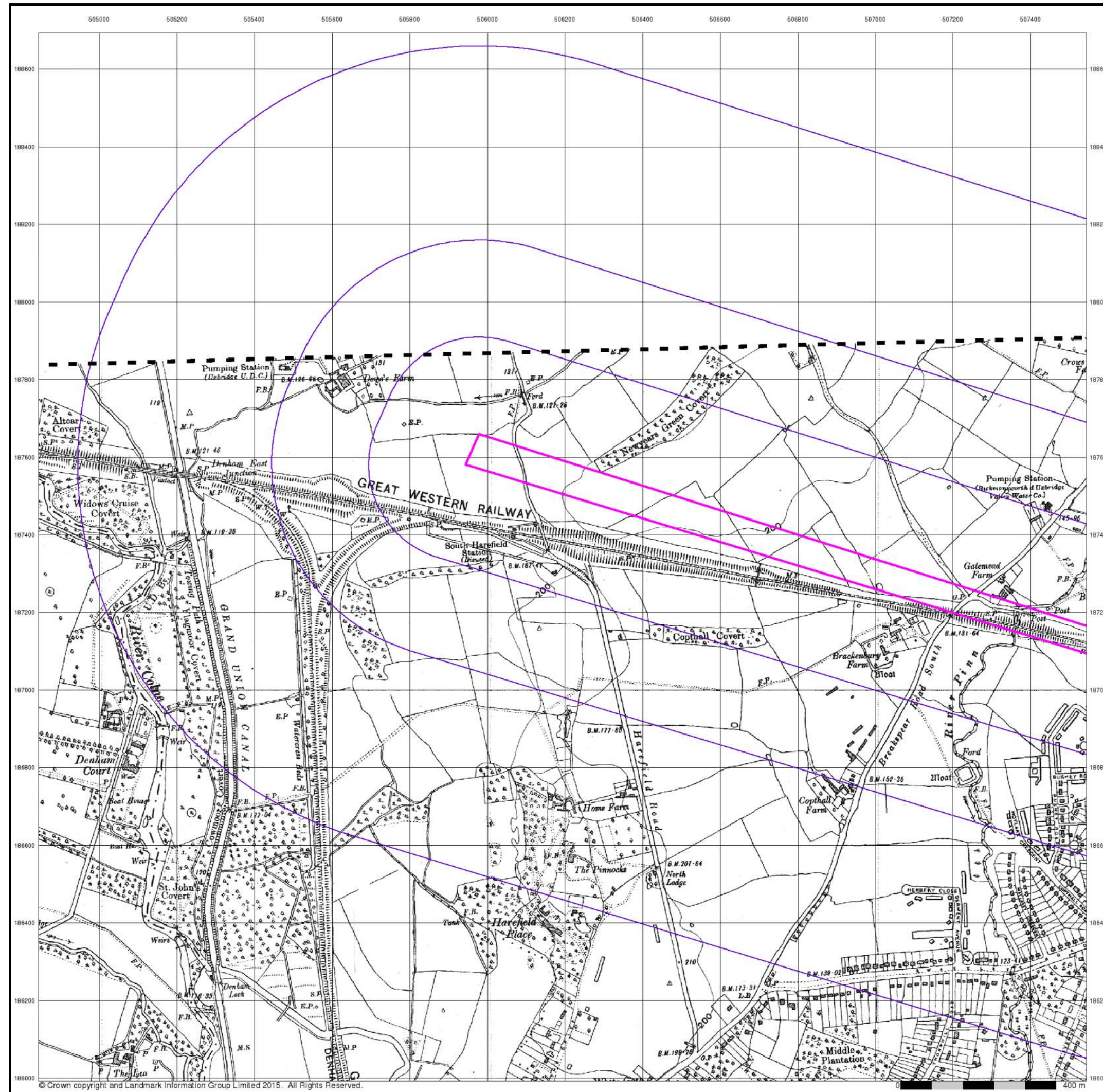
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## Site Details

Site at 506720, 187630





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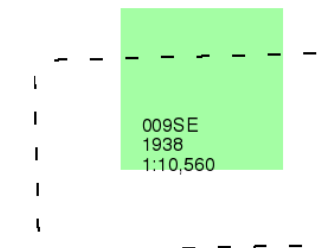
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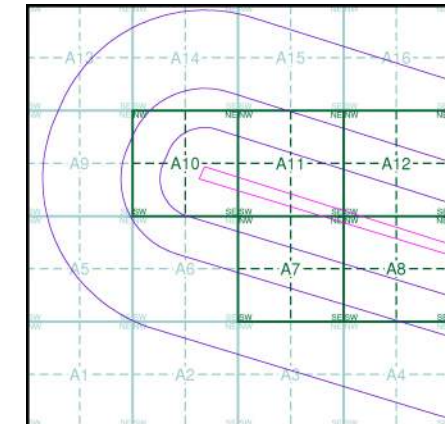
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## Map Name(s) and Date(s)



## Historical Map - Slice A



## Order Details

Order Number: 140402875\_1\_1  
Customer Ref: 256905  
National Grid Reference: 506350, 187450  
Slice: A  
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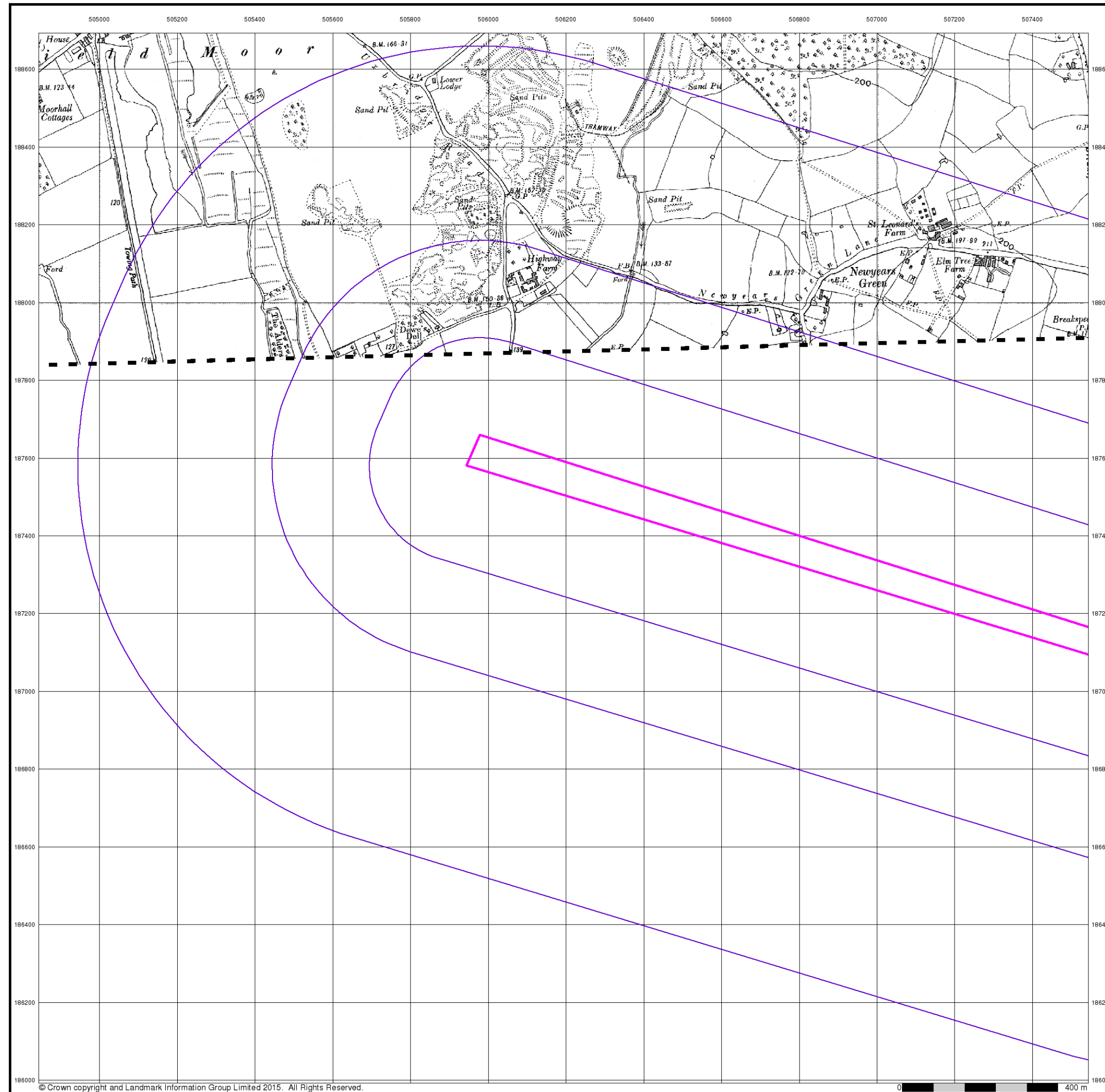
## Site Details

Site at 506720, 187630









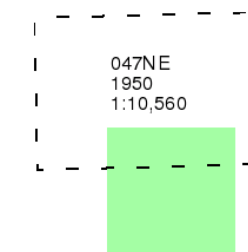
## Hertfordshire

Published 1950

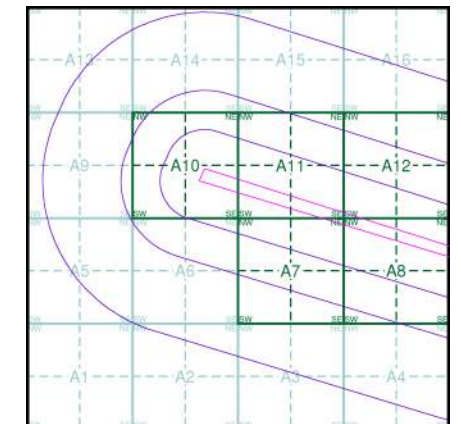
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### Map Name(s) and Date(s)



### Historical Map - Slice A



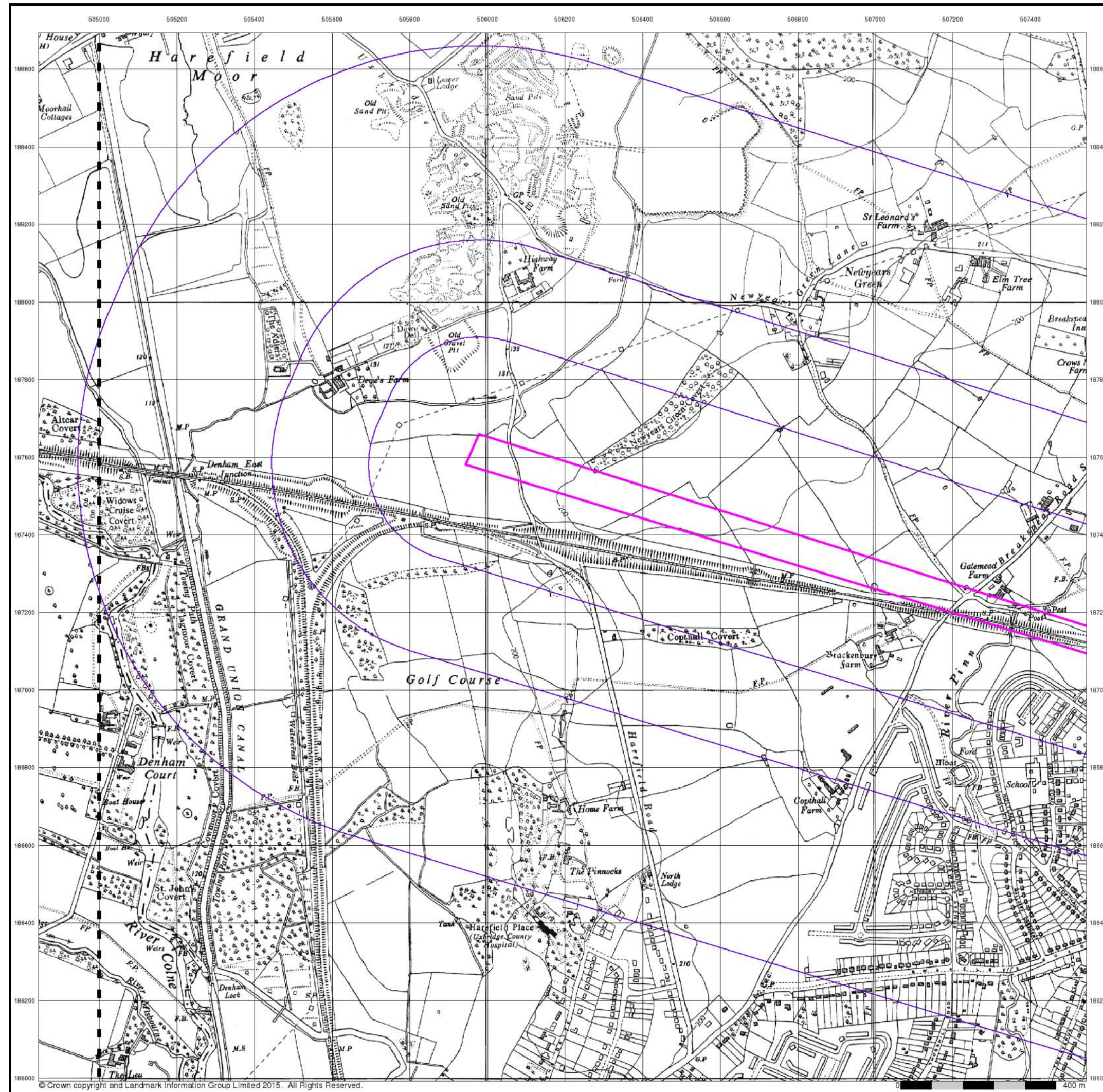
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### Site Details

Site at 506720, 187630





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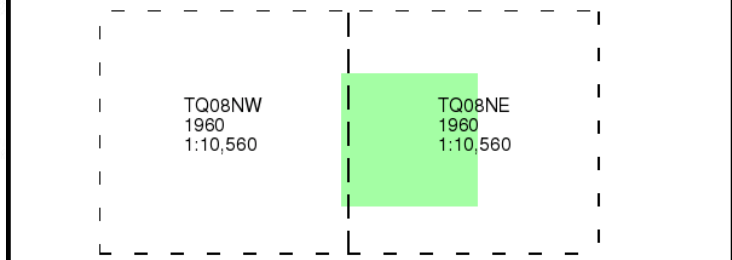
## Ordnance Survey Plan

### Published 1960

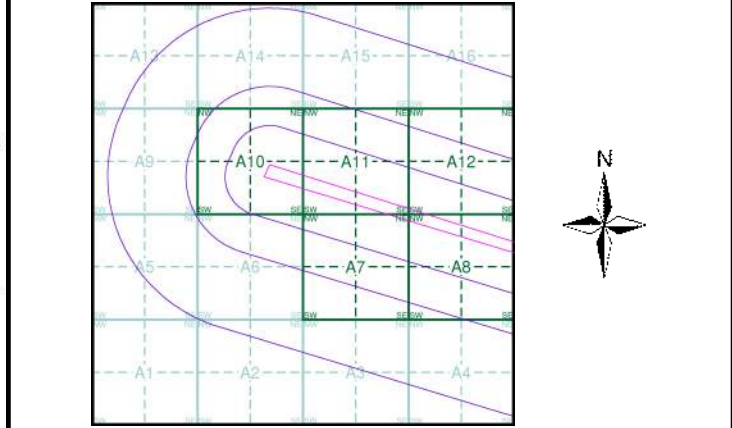
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The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

### Map Name(s) and Date(s)



### Historical Map - Slice A

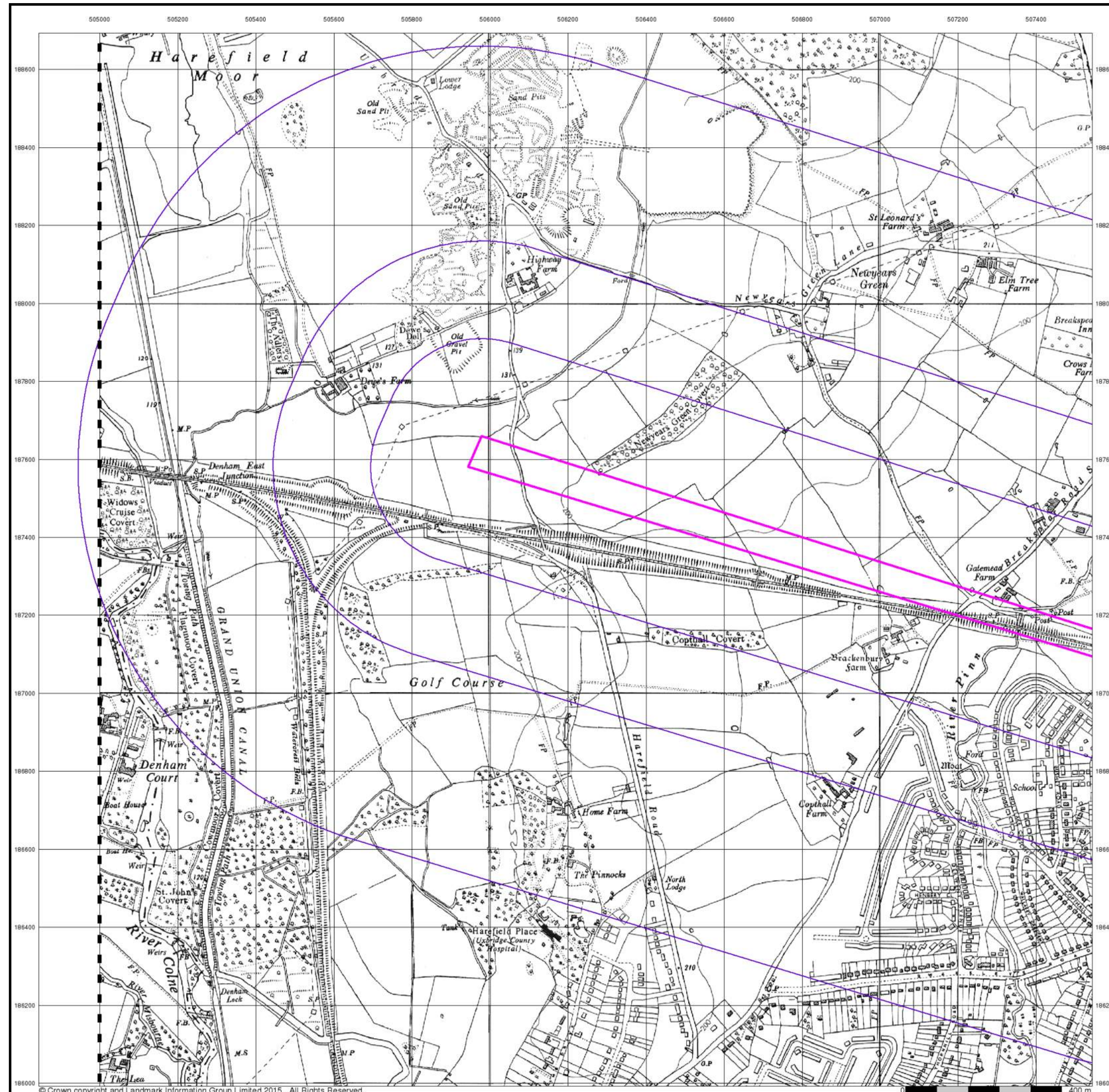


Order Details	
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Customer Ref:	256905
National Grid Reference:	506350, 187450
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Search Buffer (m):	1000

### Site Details

Site at 506720, 187630





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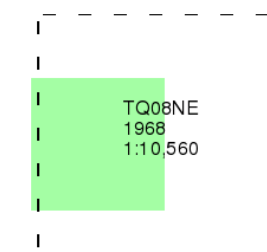
## Ordnance Survey Plan

Published 1968

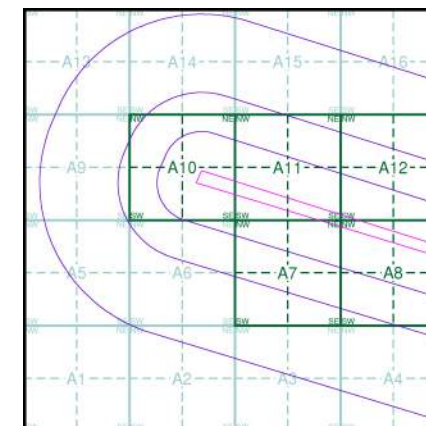
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## Map Name(s) and Date(s)



## Historical Map - Slice A



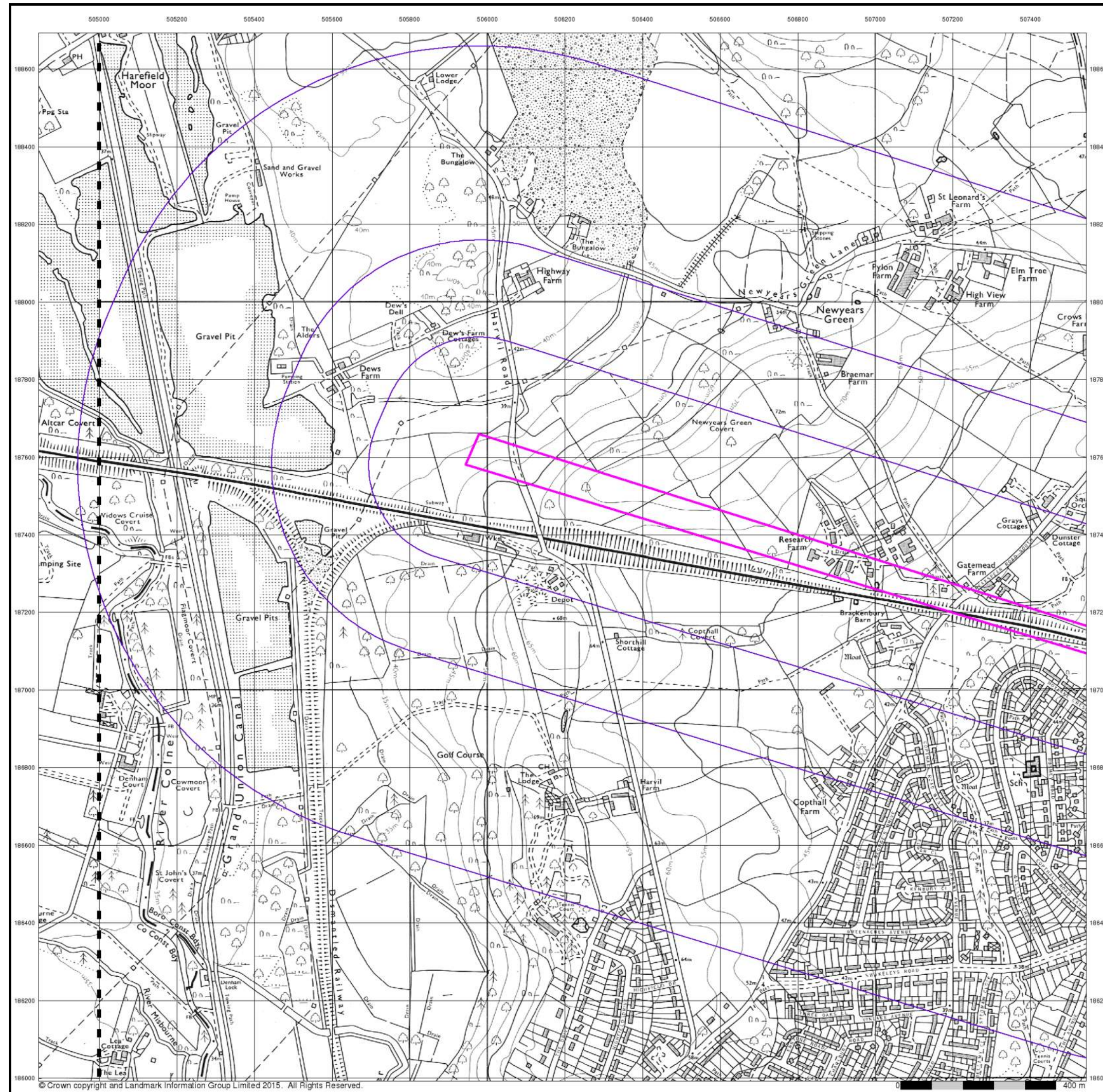
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## Site Details

Site at 506720, 187630





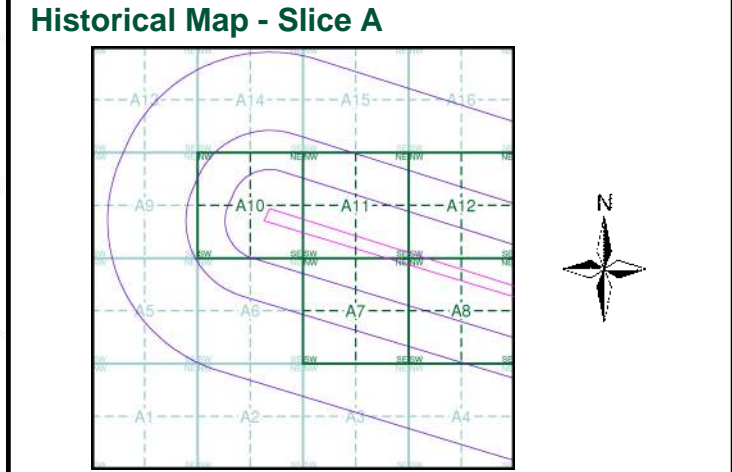
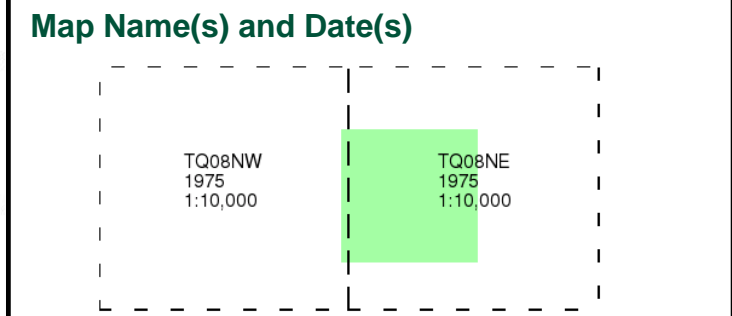
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## Ordnance Survey Plan

### Published 1975

### Source map scale - 1:10,000

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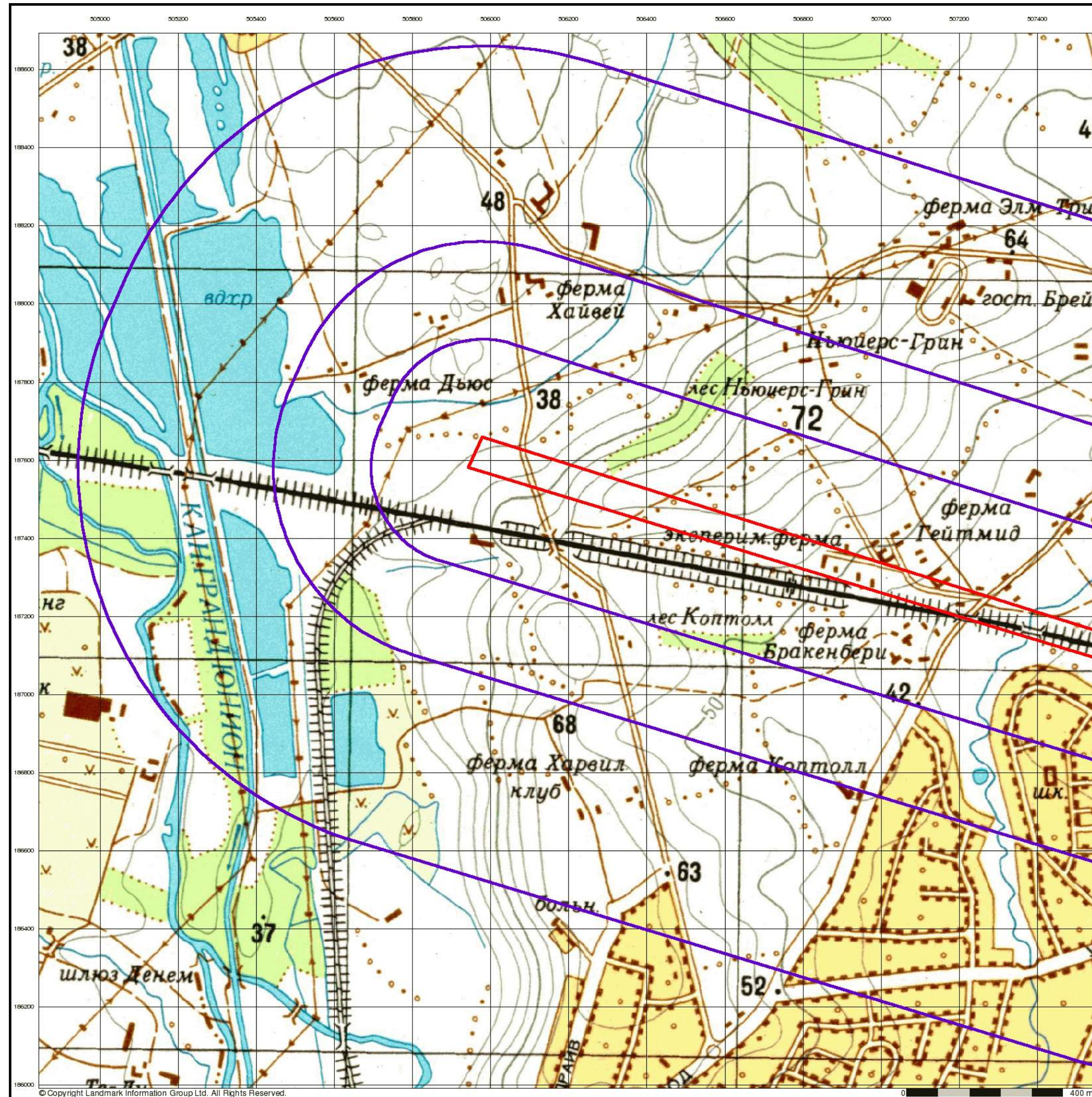
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Slice: A  
Site Area (Ha): 14.32  
Search Buffer (m): 1000

### Site Details

Site at 506720, 187630





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# Envirocheck<sup>®</sup>

LANDMARK INFORMATION GROUP<sup>®</sup>

London

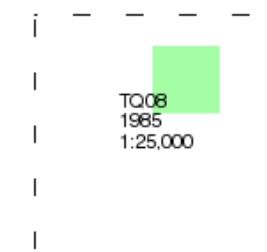
Published 1985

Source map scale - 1:25,000

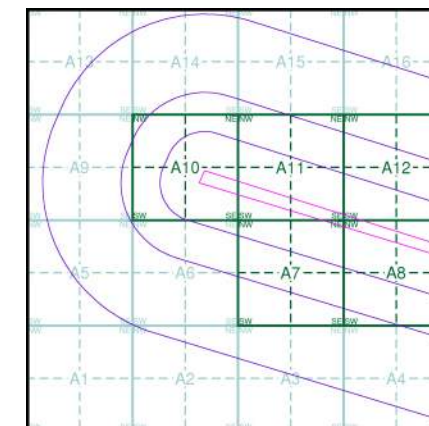
These maps were produced by the Russian military during the Cold War between 1950 and 1997, and cover 103 towns and cities throughout the U.K. The maps are produced at 1:25,000, 1:10,000 and 1:5,000 scale, and show detailed land use, with colour-coded areas for development, green areas, and non-developed areas. Buildings are coloured black and important building uses (such as hospitals, post offices, factories etc.) are numbered, with a numbered key describing their use.

They were produced by the Russians for the benefit of navigation, as well as strategic military sites and transport hubs, for use if they were to have invaded the U.K. The detailed information provided indicates that the areas were surveyed using land-based personnel, on the ground, in the cities that are mapped.

Map Name(s) and Date(s)



Russian Map - Slice A



Order Details

Order Number: 140402875\_1\_1  
Customer Ref: 256905  
National Grid Reference: 506350, 187450  
Slice: A  
Site Area (Ha): 14.32  
Search Buffer (m): 1000

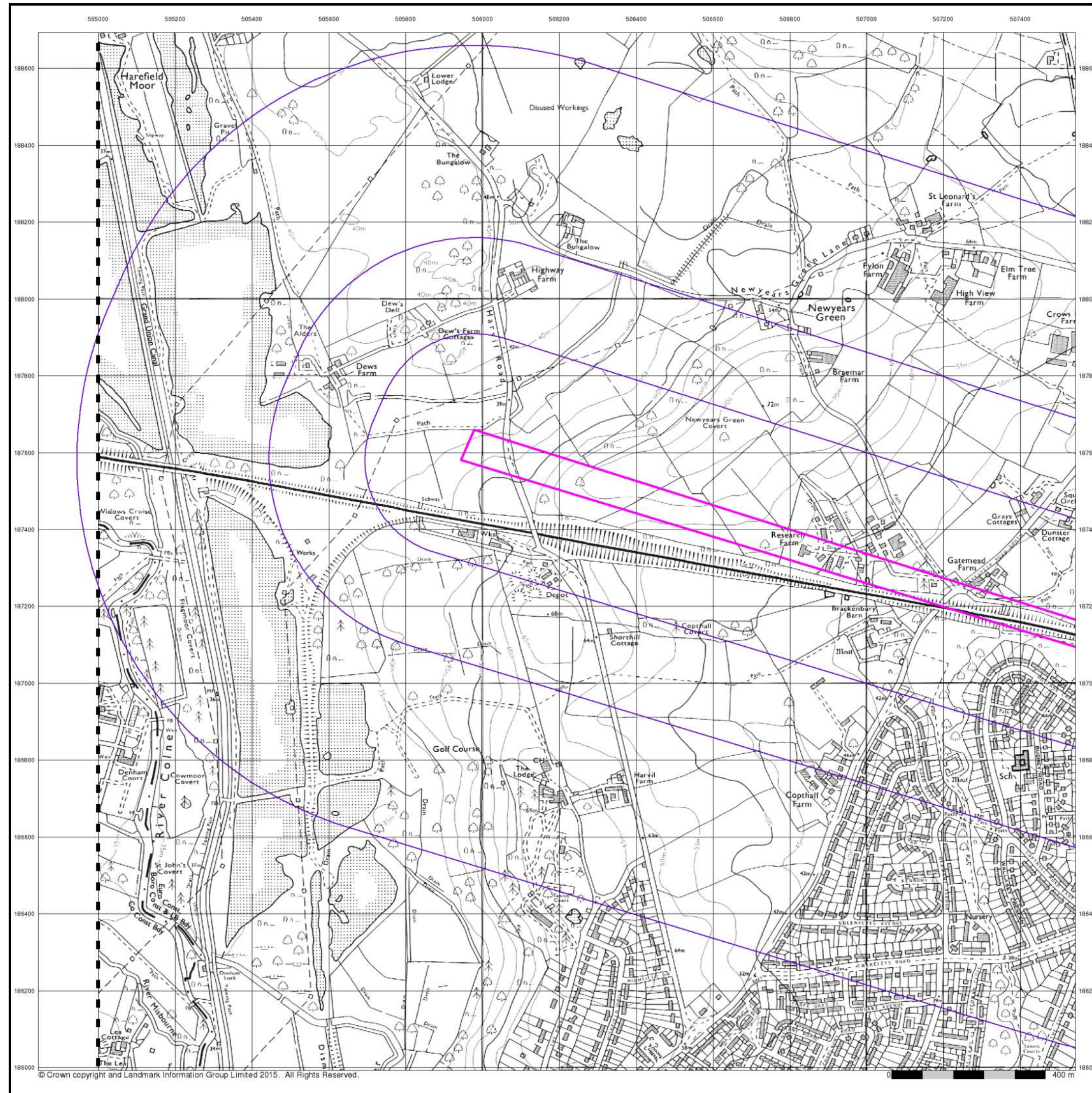
Site Details

Site at 506720, 187630

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Tel: 0844 844 9952  
Fax: 0844 844 9951  
Web: [www.envirocheck.co.uk](http://www.envirocheck.co.uk)





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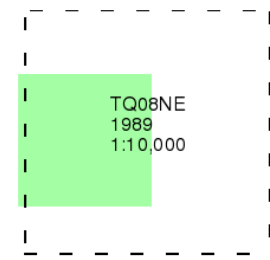
## Ordnance Survey Plan

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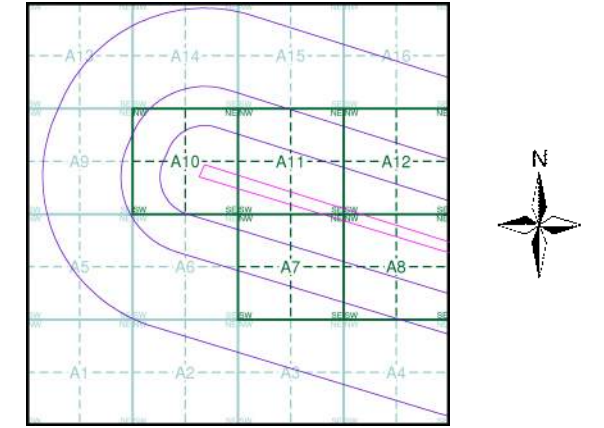
### Source map scale - 1:10,000

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

### Map Name(s) and Date(s)



### Historical Map - Slice A



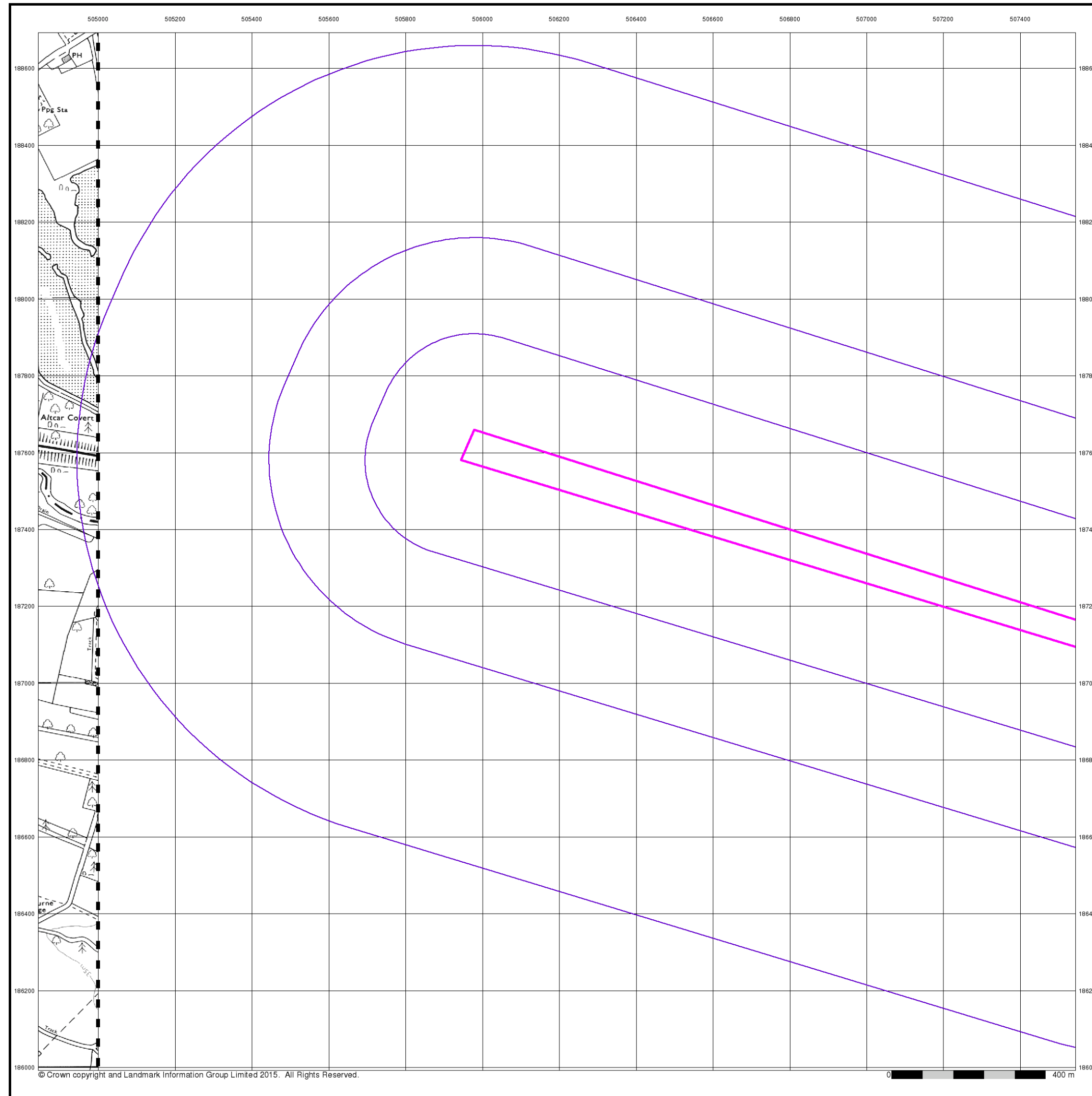
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Slice:	A
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### Site Details

Site at 506720, 187630





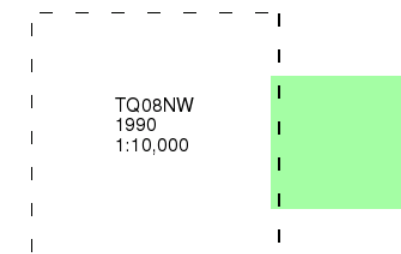
Ordnance Survey Plan

Published 1990

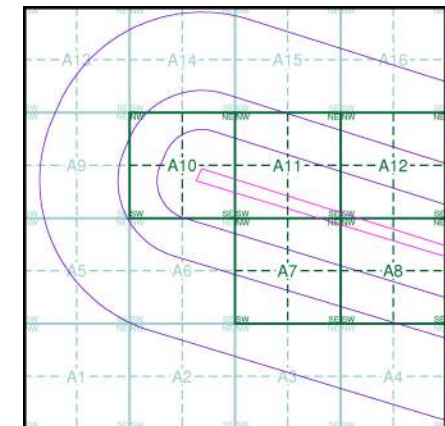
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The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

Order Number: 140402875\_1\_1

Customer Ref: 256905

National Grid Reference: 506350, 187450

Slice: A

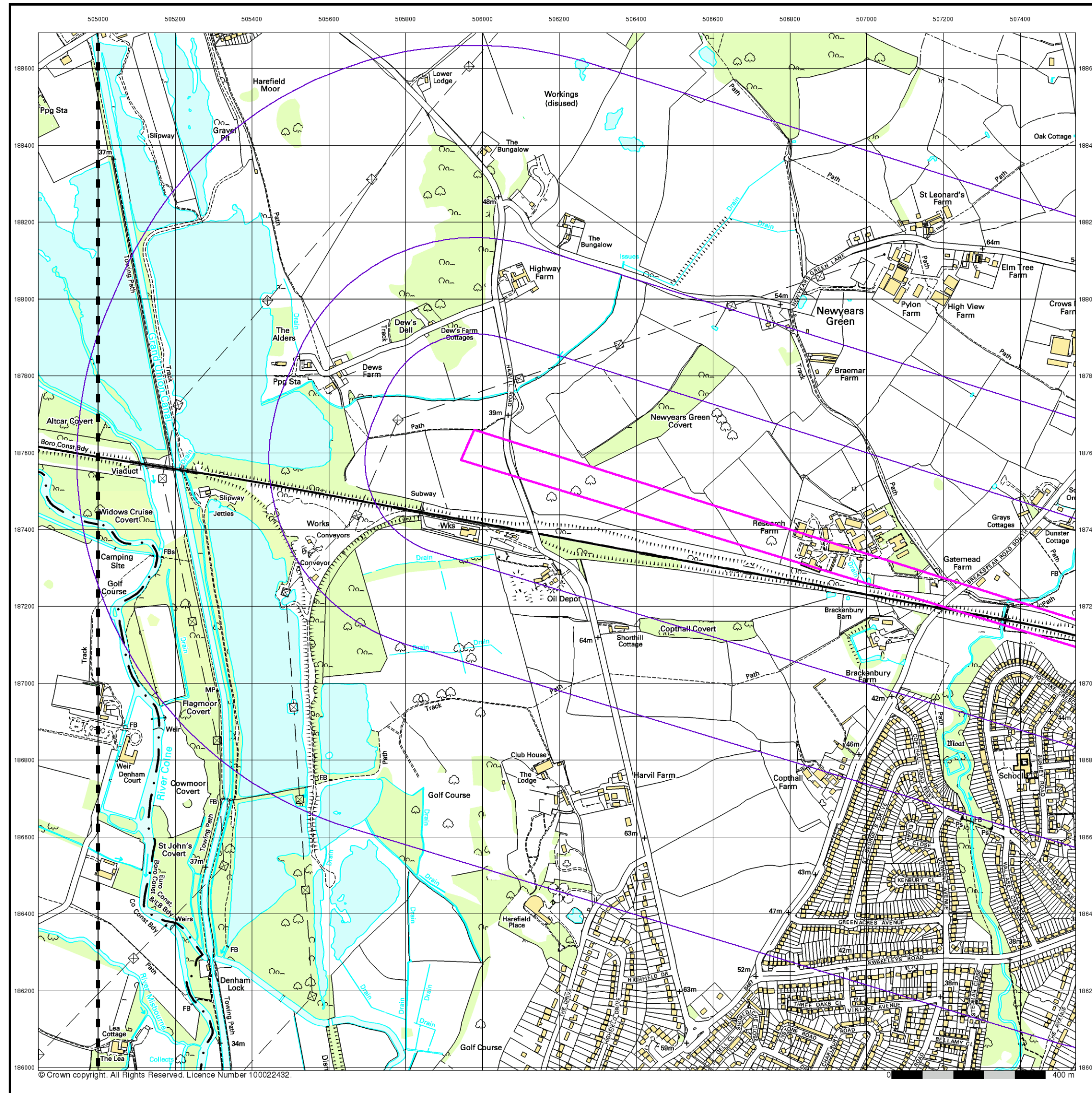
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Site Details

Site at 506720, 187630





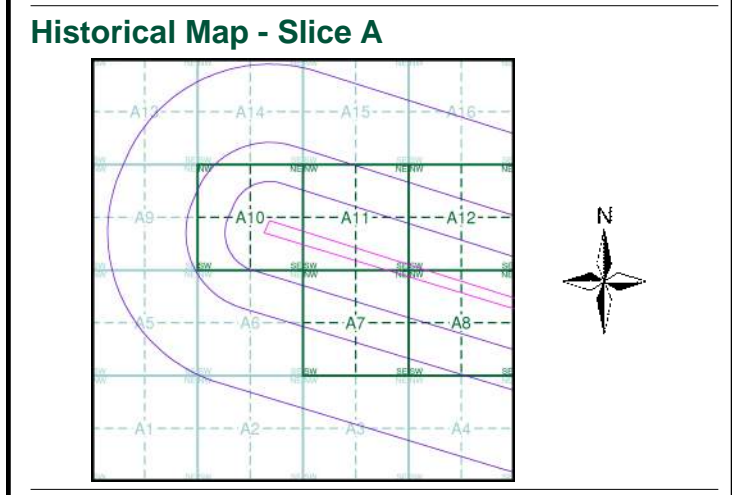
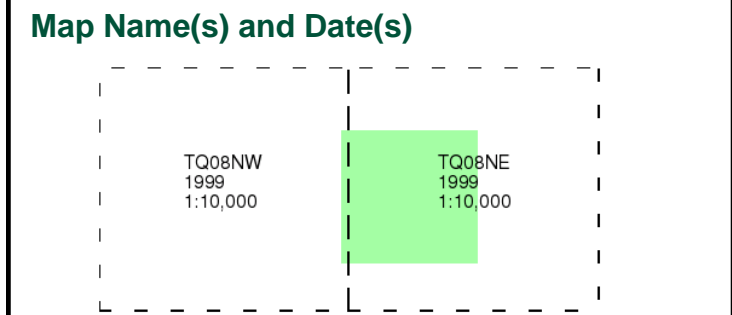
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## 10k Raster Mapping

### Published 1999

### Source map scale - 1:10,000

The historical maps shown were produced from the Ordnance Survey's 1:10,000 colour raster mapping. These maps are derived from Landplan which replaced the old 1:10,000 maps originally published in 1970. The data is highly detailed showing buildings, fences and field boundaries as well as all roads, tracks and paths. Road names are also included together with the relevant road number and classification. Boundary information depiction includes county, unitary authority, district, civil parish and constituency.



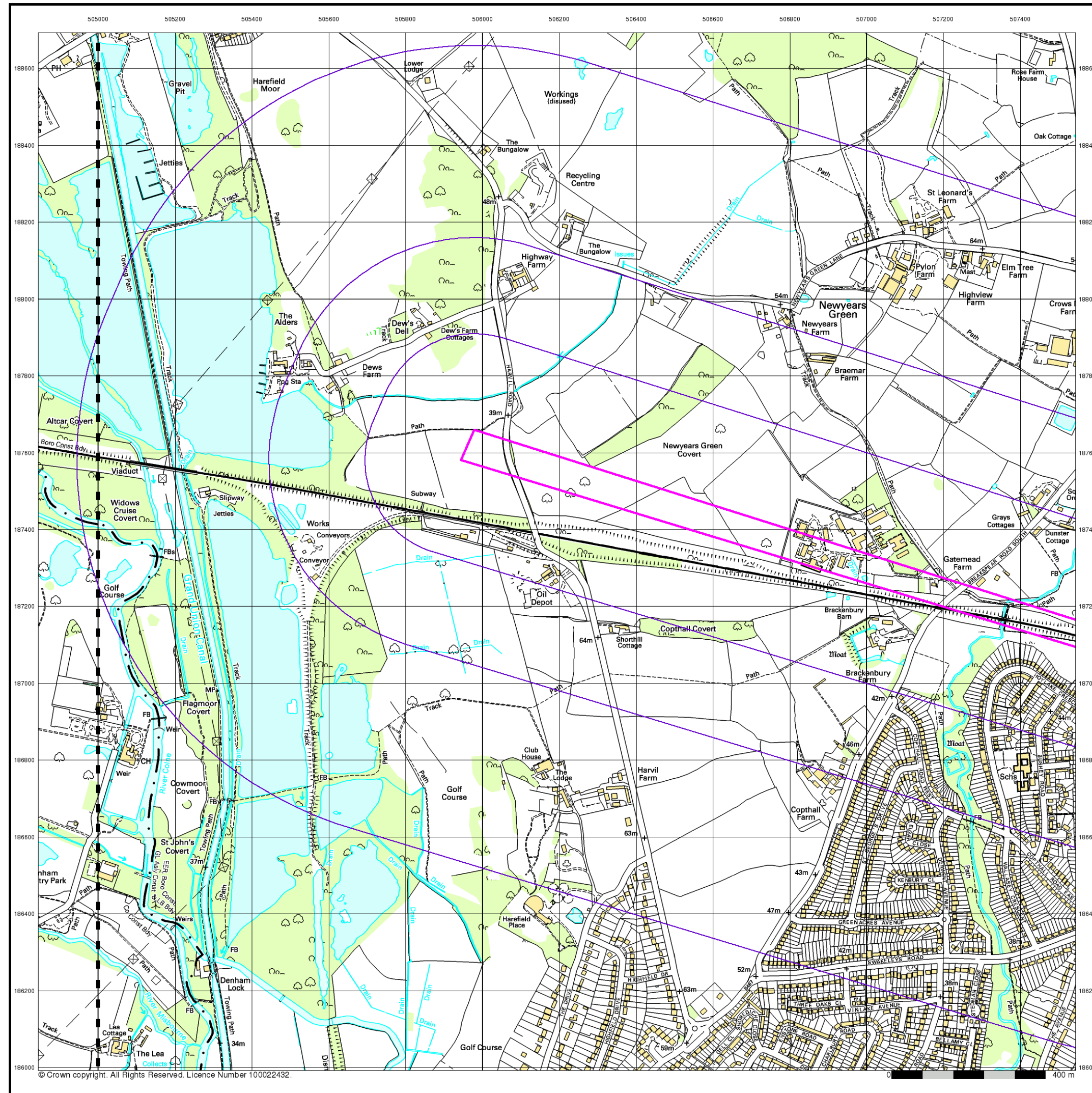
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Order Number: 140402875\_1\_1  
Customer Ref: 256905  
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Slice: A  
Site Area (Ha): 14.32  
Search Buffer (m): 1000

### Site Details

Site at 506720, 187630

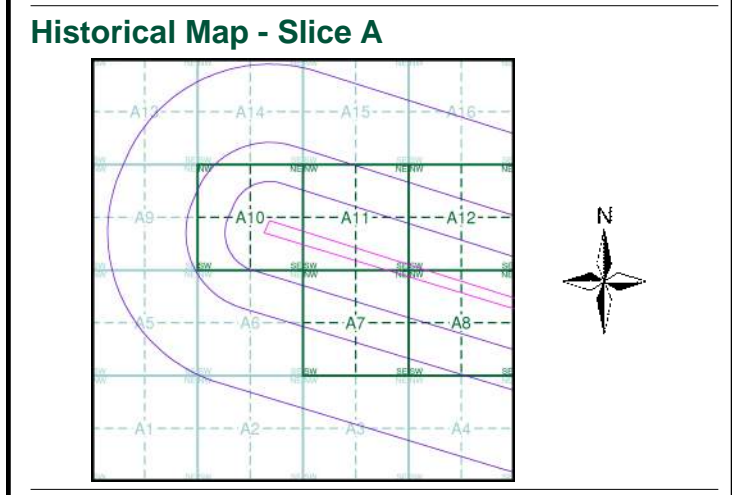
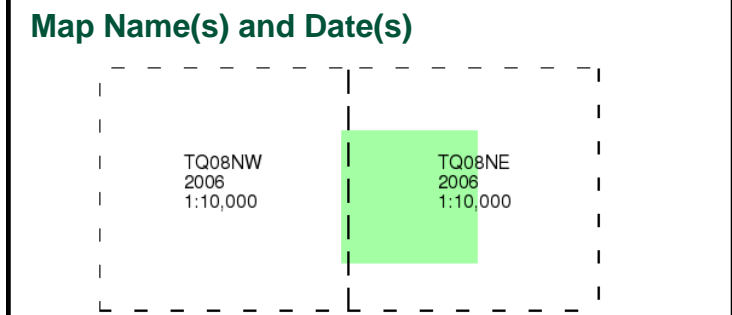




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**10k Raster Mapping**  
**Published 2006**  
**Source map scale - 1:10,000**

The historical maps shown were produced from the Ordnance Survey's 1:10,000 colour raster mapping. These maps are derived from Landplan which replaced the old 1:10,000 maps originally published in 1970. The data is highly detailed showing buildings, fences and field boundaries as well as all roads, tracks and paths. Road names are also included together with the relevant road number and classification. Boundary information depiction includes county, unitary authority, district, civil parish and constituency.



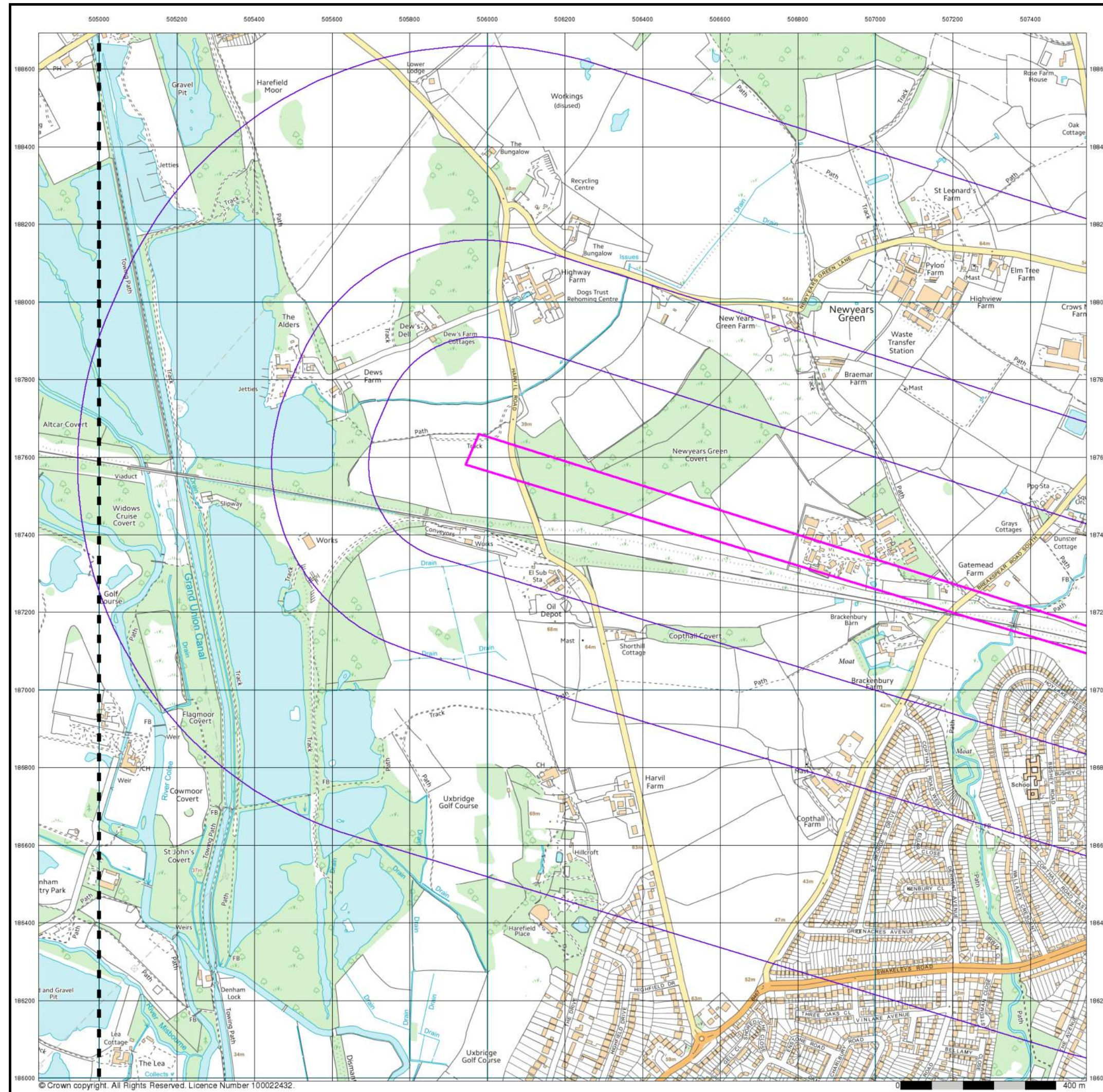
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Slice:	A
Site Area (Ha):	14.32
Search Buffer (m):	1000

**Site Details**

Site at 506720, 187630





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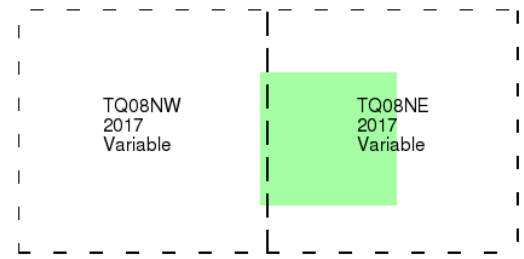
## VectorMap Local

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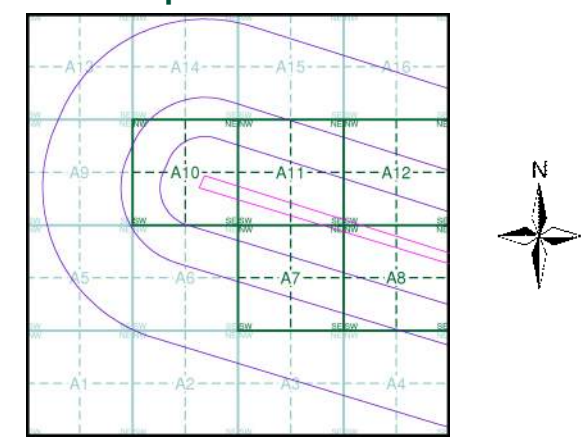
### Source map scale - 1:10,000

VectorMap Local (Raster) is Ordnance Survey's highest detailed 'backdrop' mapping product. These maps are produced from OS's VectorMap Local, a simple vector dataset at a nominal scale of 1:10,000, covering the whole of Great Britain, that has been designed for creating graphical mapping. OS VectorMap Local is derived from large-scale information surveyed at 1:1250 scale (covering major towns and cities), 1:2500 scale (smaller towns, villages and developed rural areas), and 1:10 000 scale (mountain, moorland and river estuary areas).

### Map Name(s) and Date(s)



### Historical Map - Slice A



### Order Details

Order Number:	140402875_1_1
Customer Ref:	256905
National Grid Reference:	506350, 187450
Slice:	A
Site Area (Ha):	14.32
Search Buffer (m):	1000

### Site Details

Site at 506720, 187630




# Appendix B – Exploratory Hole Logs



<b>Drilling Method</b> Cable Percussion <b>Equipment</b> Dando 3000 <b>Crew/Vessel</b> BH/JT <b>Dates Drilled</b> Start 03/11/2016 End 07/11/2016						<b>Borehole Diameter</b> 250mm to 16.00m 200mm to 25.90m <b>Casing Diameter</b> 250mm to 1.70m 200mm to 25.90m		<b>BOREHOLE No. ML025-CP114</b> <b>Coordinates</b> 506561.64 E (National Grid) 187250.80 N <b>Ground Level</b> 53.09 m OD					
						<b>Logged by</b> MW 04/11/2016	<b>Compiled by</b> jm 16/11/2016	<b>Checked by</b> NJB 11/12/2017					
Date & Time	Casing Depth (m)	Depth to Water (m)	Sample Details			SPT Blows/N Drive mm	U100 Blows/ Recovery mm	Description of Strata	Depth (Thickness) (m)	Level m OD	Legend		
			Depth (m) From To	Type	No.								
03/11			0.05	D	1	PID	<0.1	Grass over TOPSOIL. Firm dark brown slightly sandy slightly gravelly clay with occasional rootlets (<3mm). Gravel is angular to subrounded fine to coarse flint. [TOPSOIL - UNDIFFERENTIATED]	(0.05)	53.04			
			0.05										
			0.05	B	2								
			0.05	ES	3								
				0.80	D	4	PID	<0.1	Firm brown slightly sandy slightly gravelly CLAY with occasional to frequent roots (<3mm) and rootlets (<1mm). Sand is fine to coarse. Gravel is angular to subrounded fine to medium flint. [SUPERFICIAL DEPOSITS - COHESIVE - CLAY]	(0.75)	52.29		
				0.80	B	5							
				1.00	ES	6							
				1.00									
	1.60	DRY	1.70-2.15	UT	7		20/450						
	1.60	DRY	2.15-2.20 2.20-2.65	D D	8 9	S9		Below 2.15m; with occasional pockets (<20 x 10mm) of orange brown silty sand. Sand is fine.	(3.20)				
1.70	DRY	2.70-3.15	UT	10		30/450							
1.70	DRY	3.15-3.20 3.20-3.65	D D	11 12	S15		Below 3.15m; sandy. Sand is fine to coarse.						
1.70	DRY	3.70-4.15	UT	13		30/450	At 3.70m; stiff.	4.00	49.09				
1.70	DRY	4.15-4.20 4.20-4.65	D D	14 15	S16		Stiff light brown and bluish grey (gleyed) mottled orangish brown sandy locally slightly sandy CLAY with rare gravel. Occasional pockets (<20 x 10mm) of orange brown silty fine sand. Sand is fine to coarse. [LONDON CLAY FORMATION - CLAY]						
1.70	DRY	4.70-5.15	UT	16		35/450		(1.50)					
<b>Remarks</b> 1 Initially a PAS128 survey was undertaken. Prior to boring, a Cable Avoidance Tool (CAT) survey was performed to check for services. A service pit was hand-dug to 1.20m and rescanned using a CAT. Services were not located. (See notes & keysheets) 2 Aquifer protection was carried out by sealing the base of the hole at a depth of 15m to 16m and continuing in reduced diameter casing. 3 Sample UT 33; no recovery, liner sheared. 4 Water level at 15.60m on 08/11/2016 5 Groundwater was encountered at 15.50m during boring and rose to 15.21m after 5 mins, 15.11m after 10 mins, 15.03m after 15 mins, 14.95m after 20 mins.													
<b>Scale 1:25</b> 13/12/2017						<b>Project</b> WEST RUISLIP HIGH SPEED TWO (HS2) LIMITED			<b>Contract No.</b> G160015U <b>Figure No.</b> ML025-CP114 (1 of 7)				

Drilling Method Cable Percussion				Borehole Diameter		Casing Diameter		BOREHOLE No. ML025-CP114			
Equipment Dando 3000				250mm to 16.00m 200mm to 25.90m		250mm to 1.70m 200mm to 25.90m		Coordinates (National Grid) 506561.64 E 187250.80 N Ground Level 53.09 m OD			
Crew/Vessel BH/JT Dates Drilled Start 03/11/2016 End 07/11/2016				Logged by MW 04/11/2016		Compiled by jm 16/11/2016		Checked by NJB 11/12/2017			
Date & Time	Casing Depth (m)	Depth to Water (m)	Sample Details			SPT Blows/N Drive mm Test	U100 Blows/Recovery mm Result	Description of Strata	Depth (Thickness) (m)	Level m OD	Legend
			Depth (m) From	To	Type						
03/11	1.70	DRY	5.15-5.20	D	17	S20		Stiff mottled CLAY as previous sheet.	5.50	47.59	
			5.20-5.65	D	18						
	1.70	DRY	5.50	D	18			Stiff brown slightly sandy slightly gravelly CLAY locally sandy. Sand is fine to coarse. Gravel is subangular to rounded fine and medium flint. Occasional to frequent shells (<20 x 5mm) and shell fragments (<5 x 1mm). Occasional pockets (<30 x 10mm) of orange brown silty sand. [HARWICH FORMATION - CLAY]			
			5.50	B	19						
04/11	1.70	DRY					40/ 450				
	1.70	DRY	6.00-6.45	UT	20						
	1.70	DRY	6.45-6.50	D	21	S30			(2.30)		
			6.50-6.95	D	22						
			7.00	D	23			Below 7.00m; clayey silt. With pockets (<30 x 20mm) of orangish brown silty fine and medium sand and rare to occasional shells (<20 x 10mm).			
	1.70	DRY	7.50-7.95	UT	24						
			7.80	B	27				7.80	45.29	
	1.70	DRY	7.95-8.00	D	25						
			8.00-8.45	D	26	S33		Stiff to very stiff light bluish grey and orangish brown mottled greyish purple slightly sandy CLAY with rare gravel, locally with rare pockets (<30 x 10mm) of grey sandy silt. Sand is fine to coarse. [LOWER MOTTLED CLAY - CLAY] At top (7.80m); Subrounded calcrete (<60mm).			
			8.50	D	28						
	1.70	DRY	9.00-9.45	UT	29		100/ 450		(2.90)		
	1.70	DRY	9.35-9.40	D	30						
			9.40-9.85	D	31	S45		Below 9.35m; frequent white crystals (<3mm) cementing clay, possibly calcite.			
			10.00	D	32						

Remarks 6 Groundwater was encountered at 22.50m during boring and rose to 21.05m after 5 mins,20.35m after 10 mins,20.10m after 15 mins,19.75m after 20 mins.  
(See notes & keysheets) 7 Chiselled from 25.60m to 25.90m (85 mins).  
8 See separate sheet for installation.


13/12/2017


Project  
WEST RUISLIP  
HIGH SPEED TWO (HS2) LIMITED


Contract No. G160015U  
Figure No. ML025-CP114 (2 of 7)

Scale 1:25


301/04




<b>Drilling Method</b> Cable Percussion <b>Equipment</b> Dando 3000 <b>Crew/Vessel</b> BH/JT <b>Dates Drilled</b> Start 03/11/2016 End 07/11/2016						<b>Borehole Diameter</b> 250mm to 16.00m 200mm to 25.90m <b>Casing Diameter</b> 250mm to 1.70m 200mm to 25.90m <b>Logged by</b> MW 04/11/2016 <b>Compiled by</b> jm 16/11/2016 <b>Checked by</b> NJB 11/12/2017			<b>BOREHOLE No. ML025-CP114</b> <b>Coordinates (National Grid)</b> 506561.64 E 187250.80 N <b>Ground Level</b> 53.09 m OD		
Date & Time	Casing Depth (m)	Depth to Water (m)	Sample Details			SPT Blows/N Drive mm Test	U100 Blows/Recovery mm Result	Description of Strata	Depth (Thickness) (m)	Level m OD	Legend
			Depth (m) From To	Type	No.						
	1.70	DRY	10.50-10.95	UT-N	33		100	Stiff to very stiff mottled CLAY as previous sheet. 10.00m to 10.70m; multicoloured, greenish grey, light bluish grey mottled greyish purple locally reddish brown.			
	1.70	DRY	10.50-10.70	D	34						
			10.50-10.70	B	35						
	1.70	DRY	10.70-11.15	D	36	S50/185		Very stiff friable light bluish grey and orangish brown mottled greenish brown CLAY. With subangular to subrounded calcrete (<20mm). With frequent white crystals (<3mm) cementing clay, possibly calcrete. [LOWER MOTTLED CLAY - CLAY]	10.70	42.39	
			10.70-11.00	B	37				(0.80)		
			11.50	D	38						
			11.50	B	39			Stiff bluish grey and greenish brown sandy CLAY with rare gravel. Sand is mainly fine. [LOWER MOTTLED CLAY - CLAY]	11.50	41.59	
	1.70	DRY	12.00-12.45	UT	40		75/450				
	1.70	DRY	12.45-12.50	D	41	S50/255					
			12.50-12.95	D	42						
			13.00	D	43						
	1.70	DRY	13.50-13.95	UT	44		70/450		(4.10)		
	1.70	DRY	13.95-14.00	D	45	S50/200					
			14.00-14.35	D	46						
			14.50	D	47						
	1.70	DRY	15.00-15.45	UT	48		80/	At 15.00m; very stiff.			
<b>Remarks</b> (See notes & keysheets)											
<b>Scale 1:25</b>  13/12/2017						<b>Project</b> WEST RUISLIP HIGH SPEED TWO (HS2) LIMITED			<b>Contract No.</b> G160015U <b>Figure No.</b> ML025-CP114 (3 of 7)		


<b>Drilling Method</b> Cable Percussion <b>Equipment</b> Dando 3000 <b>Crew/Vessel</b> BH/JT <b>Dates Drilled</b> Start 03/11/2016 End 07/11/2016						<b>Borehole Diameter</b> 250mm to 16.00m 200mm to 25.90m <b>Casing Diameter</b> 250mm to 1.70m 200mm to 25.90m <b>Logged by</b> MW 04/11/2016 <b>Compiled by</b> jm 16/11/2016 <b>Checked by</b> NJB 11/12/2017			<b>BOREHOLE No. ML025-CP114</b> <b>Coordinates (National Grid)</b> 506561.64 E 187250.80 N <b>Ground Level</b> 53.09 m OD		
Date & Time	Casing Depth (m)	Depth to Water (m)	Sample Details			SPT Blows/N Drive mm Test	U100 Blows/Recovery mm Result	Description of Strata	Depth (Thickness) (m)	Level m OD	Legend
			Depth (m) From To	Type	No.						
	1.70	DRY	15.45-15.50 15.50-15.95 15.50-15.95	D D B	49 50 51	S50/ 295	450	Very stiff CLAY as previous sheet.  At base (15.60m); very sandy.	15.60 (0.60)	37.49	
	16.40	15.50	16.20 16.20 16.50-16.84	D B D	52 53 54	S50/ 190		Very dense brown clayey SAND. Sand is fine. With pockets (<40 x 30mm) of firm light grey and brown sandy clay. [ANY SAND UNIT (E.G. CHANNEL SANDS) - SAND]  Very dense greyish brown very clayey SAND. Sand is fine and medium. [ANY SAND UNIT (E.G. CHANNEL SANDS) - SAND]	16.20 (1.90)	36.89	
	17.90	16.00	18.00-18.45 18.10 19.00	D B D	57 58 59	S40		Stiff to very stiff brown and grey occasionally reddish brown and light grey slightly gravelly sandy locally slightly sandy CLAY. Sand is mainly fine and medium. Gravel is subangular to subrounded fine and medium flint. With calcrete. With pockets (<20 x 10mm) and lenses (<50 x 10mm) of brown and greyish brown silty sand. Sand is fine and medium. [LOWER MOTTLED CLAY - CLAY]	18.10	34.99	
	19.00	DRY	19.50-19.95 19.95-20.00	UT D	60 61		100/ 450	At 19.50m; very stiff.  Below 19.95m; occasional thin laminae (<3mm) of light grey silt.	(3.80)		
<b>Remarks</b> (See notes & keysheets)											
<b>Scale 1:25</b>  13/12/2017						<b>Project</b> WEST RUISLIP HIGH SPEED TWO (HS2) LIMITED			<b>Contract No.</b> G160015U <b>Figure No.</b> ML025-CP114 (4 of 7)		



Drilling Method Cable Percussion						Borehole Diameter 250mm to 16.00m 200mm to 25.90m		Casing Diameter 250mm to 1.70m 200mm to 25.90m		BOREHOLE No. ML025-CP114		
Equipment Dando 3000										Coordinates (National Grid) 506561.64 E 187250.80 N Ground Level 53.09 m OD		
Crew/Vessel BH/JT Dates Drilled Start 03/11/2016 End 07/11/2016						Logged by MW 04/11/2016		Compiled by jm 16/11/2016		Checked by NJB 11/12/2017		
Date & Time	Casing Depth (m)	Depth to Water (m)	Sample Details			SPT Blows/N Drive mm Test	U100 Blows/Recovery mm Result	Description of Strata	Depth (Thickness) (m)	Level m OD	Legend	
			Depth (m) From To	Type	No.							
04/11	19.00	DRY	20.00-20.40	D	62	S50/ 250	100/ 350	Stiff to very stiff sandy CLAY as previous sheet.				
			20.50	D	63							
	19.00	DRY	21.00-21.35	UT	64							
	19.00	DRY	21.35-21.40 21.40-21.82	D D	65 66	S50/ 265						
	19.00	DRY										
	19.00	DRY										
	19.00	DRY										
	19.00	DRY										
	19.00	DRY										
	19.00	DRY										
07/11	19.00	15.10	21.90 21.90	D B	67 68		100/ 450	Stiff greenish grey and greyish brown locally light grey sandy CLAY possibly glauconitic with rare gravel. With pockets (<40 x 20mm) of greenish grey and grey sandy silt. Sand is fine. [UPNOR FORMATION - CLAY]	21.90	31.19		
	22.40	WET	22.50-22.95	UT	69							
	22.40	WET	22.95-23.00 23.00-23.45	D D	70 71	S42			(2.60)			
			23.50	D	72			Below 23.50m; firm to stiff grey.				
	23.90	20.00	24.00-24.45	UT	73							
	23.90	20.00	24.45-24.50 24.50-24.95 24.50 24.50	D D D B	74 75 76 77	S34		Stiff grey slightly sandy CLAY. Sand is fine. [UPNOR FORMATION - CLAY]	24.50	28.59		
									(0.90)			
Remarks (See notes & keysheets)												
Scale 1:25						Project WEST RUISLIP HIGH SPEED TWO (HS2) LIMITED			Contract No. G160015U Figure No. ML025-CP114 (5 of 7)			
 13/12/2017									301/04			

Drilling Method Cable Percussion						Borehole Diameter 250mm to 16.00m 200mm to 25.90m		Casing Diameter 250mm to 1.70m 200mm to 25.90m		BOREHOLE No. ML025-CP114		
Equipment Dando 3000										Coordinates (National Grid) 506561.64 E 187250.80 N Ground Level 53.09 m OD		
Crew/Vessel BH/JT						Logged by MW		Compiled by jm		Checked by NJB		
Dates Drilled Start 03/11/2016 End 07/11/2016						04/11/2016		16/11/2016		11/12/2017		
Date & Time	Casing Depth (m)	Depth to Water (m)	Sample Details			SPT Blows/N Drive mm	U100 Blows/ Recovery mm	Description of Strata	Depth (Thickness) (m)	Level m OD	Legend	
			Depth (m) From To	Type	No.	Test	Result					
07/11	25.90	21.50	25.50-25.61	D	78	S50/ 15		Stiff grey CLAY as previous sheet.				
			25.50	B	79			DRILLER NOTED: Dense COBBLES of flint with grey sandy clay. Recovered as firm grey slightly gravelly sandy CLAY. Sand is fine to coarse. Gravel is very angular and angular flint. [UPNOR FORMATION - COBBLES]	25.40 (0.20)	27.69		
			25.60-25.90	D	80				25.60 (0.30)	27.49		
			25.60-25.90	B	81				25.90	27.19		
								DRILLER NOTED: Strong white CHALK. Recovered as angular medium to coarse gravel of chalk. [SEAFORD CHALK - CHALK]				
								End of Borehole				
Remarks (See notes & keysheets)												
Scale 1:25						Project WEST RUISLIP HIGH SPEED TWO (HS2) LIMITED				Contract No. G160015U		
										Figure No. ML025-CP114 (6 of 7)		
13/12/2017										301/04		



<b>Drilling Method</b> Cable Percussion		<b>Borehole Diameter</b> 250mm to 16.00m 200mm to 25.90m		<b>Casing Diameter</b>		<b>BOREHOLE No</b> ML025-CP114		
<b>Equipment</b> Dando 3000						<b>Coordinates</b> (National Grid) 506561.64 E 187250.80 N Ground Level 53.09 m OD		
<b>Crew/Vessel</b> BH/JT		<b>Logged by</b> MW		<b>Compiled by</b> jm		<b>Checked by</b> NJB		
<b>Dates Drilled</b> Start 03/11/2016 End 07/11/2016		04/11/2016		16/11/2016		11/12/2017		
<b>Installation Details</b>		<b>Installation Depth (m)</b>	<b>Level m OD</b>	<b>Water Strikes</b>	<b>Strata Depth (m)</b>	<b>Strata Details</b>		
<b>Instrumentation:</b> 35mm standpipe piezometer tip at 16.20m	Concrete	0.50	52.59	<div>▼</div> <div>▽</div> <div>▼</div> <div>▽</div>	0.05	TOPSOIL		
	Bentonite					CLAY		
					4.00	Sandy CLAY		
					5.50	CLAY		
					11.50	Sandy CLAY		
					15.60	Clayey SAND		
					18.10	Sandy CLAY		
					24.50	CLAY		
					25.40	COBBLES		
					25.60			
			25.90		27.19			
							Base of Hole	
<b>Remarks</b> (See notes & keysheets)  ▽ Water Strike ▼ Water Rise  Flush cover. Pipe diameter 35mm to 16.20m, installed on 08/11/2016.								
		<b>Project</b> WEST RUISLIP HIGH SPEED TWO (HS2) LIMITED				<b>Contract No.</b> G160015U		
13/12/2017						<b>Figure No.</b> ML025-CP114 (7 of 7)		


<b>Drilling Method</b> Cable Percussion <b>Equipment</b> Dando 3000 <b>Crew/Vessel</b> BH/JT <b>Dates Drilled</b> Start 08/11/2016 End 08/11/2016				<b>Borehole Diameter</b> 150mm to 10.00m <b>Casing Diameter</b> 150mm to 2.50m <b>Logged by</b> MW 08/11/2016 <b>Compiled by</b> jm 25/11/2016 <b>Checked by</b> NJB 11/12/2017		<b>BOREHOLE No. ML025-CP115</b> <b>Coordinates (National Grid)</b> 506786.40 E 187239.83 N <b>Ground Level</b> 49.74 m OD					
Date & Time	Casing Depth (m)	Depth to Water (m)	Sample Details			SPT Blows/N Drive mm	U100 Blows/Recovery mm	Description of Strata	Depth (Thickness) (m)	Level m OD	Legend
			Depth (m) From To	Type	No.						
08/11	NIL		0.05	D	1	PID	<0.1	TOPSOIL: Brown slightly sandy slightly gravelly clay with frequent roots (<3mm) and rootlets (<1mm). Gravel is angular to subrounded fine to coarse flint. [TOPSOIL - CLAY]	(0.50)	49.24	
			0.05	B	2						
			0.05	ES	3						
			0.50	D	4	PID	<0.1	Stiff fissured orangish brown and locally light grey slightly sandy slightly gravelly CLAY with rare to occasional pockets (<20 x 10mm) of clayey fine sand. Sand is mainly fine. Gravel is subrounded and rounded fine and medium flint. Fissures are randomly orientated, very closely spaced, undulating and rough. [SUPERFICIAL DEPOSITS - COHESIVE - CLAY]	(0.70)	48.54	
			0.50	B	5						
			1.00	ES	6						
			1.50	D	7	S10	30/ 450	Stiff fissured orangish brown and locally light grey (gleyed) slightly sandy CLAY with rare to occasional pockets (<20 x 10mm) of clayey fine sand. Sand is mainly fine. Fissures are randomly orientated, very closely spaced, undulating and rough. [LONDON CLAY FORMATION - CLAY] at 1.20m; light brown claystone.	1.20	48.54	
			1.50	B	8						
			1.70-2.15	UT	9						
			2.15-2.20	D	10	S10	40/ 450	Below 2.15m; fissures are randomly orientated, closely spaced, undulating and smooth.	(3.00)	45.54	
			2.20-2.65	D	11						
			2.70-3.15	UT	12						
			3.15-3.20	D	13	S17	65/ 450	Below 3.15m; brown and orangish brown.	(0.90)	45.54	
			3.20-3.65	D	14						
			3.70-4.15	UT	15						
			4.15-4.20	D	16	S75/ 65*	40/ 450	Firm brown and orangish brown slightly gravelly sandy CLAY with occasional pockets (<30 x 10mm) and lenses (<50 x 20mm) of clayey silt and silty clay. Sand is fine to coarse. Gravel is rounded and well rounded fine and medium flint. [HARWICH FORMATION - SILT] 4.20m to 4.25m; recovered as angular fragments of claystone (<20mm). Below 4.70m; occasional shells (<20mm x 5mm).	(0.90)	45.54	
			4.20-4.27	D	17						
			4.20	B	18						
			4.70-5.15	UT	19						
<b>Remarks</b> (See notes & keysheets) 1 Initially a PAS128 survey was undertaken. Prior to boring, a Cable Avoidance Tool (CAT) survey was performed to check for services. A service pit was hand-dug to 1.20m and rescanned using a CAT. Services were not located. 2 Chiselled from 4.20m to 4.30m (15 mins). 3 On completion, exploratory hole backfilled as follows: bentonite up to ground level. 4 Groundwater not encountered during boring.											
<b>Scale 1:25</b> 13/12/2017						<b>Project</b> WEST RUISLIP HIGH SPEED TWO (HS2) LIMITED			<b>Contract No.</b> G160015U <b>Figure No.</b> ML025-CP115 (1 of 2)		



<b>Drilling Method</b> Cable Percussion <b>Equipment</b> Dando 3000 <b>Crew/Vessel</b> BH/JT <b>Dates Drilled</b> Start 08/11/2016 End 08/11/2016						<b>Borehole Diameter</b> 150mm to 10.00m <b>Casing Diameter</b> 150mm to 2.50m <b>Logged by</b> MW 08/11/2016 <b>Compiled by</b> jm 25/11/2016 <b>Checked by</b> NJB 11/12/2017		<b>BOREHOLE No. ML025-CP115</b> <b>Coordinates (National Grid)</b> 506786.40 E 187239.83 N <b>Ground Level</b> 49.74 m OD			
Date & Time	Casing Depth (m)	Depth to Water (m)	Sample Details			SPT Blows/N Drive mm Test	U100 Blows/Recovery mm Result	Description of Strata	Depth (Thickness) (m)	Level m OD	Legend
			Depth (m) From	To	Type						
08/11	2.50	DRY	5.10		B	22	S19	Stiff fissured light grey mottled orangish brown and reddish brown slightly sandy CLAY with occasional pockets (<10 x 10mm) of orangish brown silty sand, possible calcite crystals (<2mm) and subrounded to well rounded nodules (<6mm) of calcrete. Sand is fine to coarse. Fissures are randomly orientated, very closely to closely spaced, undulating and rough. [LOWER MOTTLED CLAY - CLAY]	5.10	44.64	
			5.15-5.20		D	20					
			5.20-5.65		D	21					
	2.50	DRY	5.50		D	23	S27	Below 6.45m; mottled orange and pinkish purple.	(2.85)		
			6.00-6.45		UT	24					
			6.45-6.50		D	25					
	2.50	DRY	6.50-6.95		D	26	S30	Very stiff light bluish grey mottled greenish brown, brownish purple and orangish brown slightly sandy CLAY with subangular and subrounded calcrete (<6mm). [LOWER MOTTLED CLAY - CLAY]	7.95	41.79	
			7.00		D	27					
			7.50-7.95		UT	28					
	2.50	DRY	7.95-8.00		D	29	S38		(2.05)		
			8.00-8.45		D	30					
			8.50		D	31					
	2.50	DRY	9.00-9.45		UT	32	End of Borehole		10.00	39.74	
			9.45-9.50		D	33					
9.50-9.95				D	34						
2.50	DRY	10.00		D	35						

Remarks  
(See notes & keysheets)


Scale 1:25

 13/12/2017	<b>Project</b> WEST RUISLIP HIGH SPEED TWO (HS2) LIMITED	<b>Contract No.</b> G160015U <b>Figure No.</b> ML025-CP115 (2 of 2)
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301/04






Drilling Method Rotary Cored				Borehole Diameter 146mm to 35.00m		Casing Diameter 200mm to 1.20m 146mm to 14.00m		BOREHOLE No.ML025-RC020				
Equipment Knebel HY77								Coordinates 506272.63 E (National Grid) 187299.57 N Ground Level 59.80 m OD				
Drill Fluid Polymer DS60/Pure-Bore Crew/Vessel JM/TB												
Dates Drilled Start 02/11/2016 End 11/11/2016				Logged by MS 17/11/2016		Compiled by prs 30/11/2016		Checked by NJB 11/12/2017				
Date & Time	Casing Depth (m)	Water Depth (m) (Flush Return) %	Sample/Core Recovery				SPT Blows /N Core Size (mm)	Fracture Spacing mm (Min,Avg,Max) or Result	Description of Strata	Depth (Thickness) (m)	Level m OD	Legend
			Depth (m) From To		Type TCR %	No. SCR %						
03/11	1.20	(100)	5.00-6.50		100				Stiff mottled CLAY as previous sheet.	5.25	54.55	
			6.85-7.10		C	14			Very stiff fissured dark brownish grey slightly sandy CLAY with occasional mica, occasional thin laminae of orange sand, occasional lignite fragments, rare pockets (<10mm) of orange silt and rare crystals (<5mm) of gypsum. Sand is fine to coarse. Fissures (SET 1) are 0-40 degs, extremely closely to very closely spaced, planar, smooth, (open) and with slight orange mottling. Fissures (SET 3) are randomly orientated, extremely closely spaced, undulating, rough to smooth, (open) and clean. [LONDON CLAY FORMATION A2 - CLAY]	(2.25)		
			6.50-8.00		100							
			7.50-7.75		C	15						
			8.00-9.50		100							
04/11	1.20	(100)	9.90-10.25		C	16			Stiff fissured dark brownish grey slightly sandy CLAY with rare sand partings (1mm), rare shell fragments and rare to occasional crystals (<15 x 10 x 2mm) of gypsum. Fissures are 0-20 degs, extremely closely to very closely spaced, undulating to planar, smooth, (tight) and clean. [LONDON CLAY FORMATION A2 - CLAY]	7.50	52.30	
									(4.00)			
Remarks (See notes & keysheets)												
Scale 1:25												
				Project WEST RUISLIP HIGH SPEED TWO (HS2) LIMITED					Contract No. G160015U			
13/12/2017									Figure No. ML025-RC020 (2 of 8)			
304/03												

Drilling Method Rotary Cored				Borehole Diameter 146mm to 35.00m		Casing Diameter 200mm to 1.20m 146mm to 14.00m		BOREHOLE No.ML025-RC020					
Equipment Knebel HY77								Coordinates 506272.63 E 187299.57 N Ground Level 59.80 m OD					
Drill Fluid Polymer DS60/Pure-Bore JM/TB													
Dates Drilled Start 02/11/2016 End 11/11/2016				Logged by MS 17/11/2016		Compiled by prs 30/11/2016		Checked by NJB 11/12/2017					
Date & Time	Casing Depth (m)	Water Depth (m) (Flush Return) %	Sample/Core Recovery				SPT Blows /N Core Size (mm)	Fracture Spacing mm (Min,Avg,Max) or Result	Description of Strata	Depth (Thickness) (m)	Level m OD	Legend	
			Depth (m) From To	Type TCR %	No. SCR %	RQD %							
04/11	6.00	GL	(100)	9.50-11.00	100			NA	Stiff dark brownish grey CLAY as previous sheet.	11.50	48.30		
				10.75-11.00	C	17							
				11.00-12.50	87								
				11.79-11.98	C	18							
				12.05-12.20	C	19							
				12.30m to 12.50m; assumed zone of core loss.	(1.65)								
				Below 12.55m, very sandy.									
				At 12.90m; claystone.									
				12.50-14.00	87								
				13.15	46.65								
10/11	14.00	GL	(100)	14.55-14.90	C	20			14.90	44.90			
				14.00-15.50	100								
				14.90-15.10	C	21							

Remarks  
(See notes & keysheets)


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Project  
WEST RUISLIP  
HIGH SPEED TWO (HS2) LIMITED

Contract No. G160015U  
Figure No. ML025-RC020 (3 of 8)

Scale 1:25

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Drilling Method Rotary Cored				Borehole Diameter 146mm to 35.00m		Casing Diameter 200mm to 1.20m 146mm to 14.00m		BOREHOLE No.ML025-RC020				
Equipment Knebel HY77								Coordinates 506272.63 E (National Grid) 187299.57 N Ground Level 59.80 m OD				
Drill Fluid Polymer DS60/Pure-Bore Crew/Vessel JM/TB												
Dates Drilled Start 02/11/2016 End 11/11/2016				Logged by MS 17/11/2016		Compiled by prs 30/11/2016		Checked by NJB 11/12/2017				
Date & Time	Casing Depth (m)	Water Depth (m) (Flush Return) %	Sample/Core Recovery				SPT Blows /N Core Size (mm)	Fracture Spacing mm (Min,Avg,Max) or Result	Description of Strata	Depth (Thickness) (m)	Level m OD	Legend
			Depth (m) From To		Type TCR %	No. SCR %						
									Stiff to very stiff fissured light bluish grey mottled dark red, yellowish brown and purple slightly sandy CLAY with frequent nodules (<7mm) of yellowish white calcrete. Fissures are 10-45 degs, very closely to closely spaced, undulating to planar, smooth, polished and striated. [LOWER MOTTLED CLAY - CLAY]			
		(100)	15.50-17.00		93							
		(0)	17.60-18.00	C	22							
		(100)	17.00-18.50	100								
			18.00-18.20	C	23							
										(6.70)		
		(100)	18.50-20.00	100								
Remarks (See notes & keysheets)												
Scale 1:25												
 13/12/2017				Project WEST RUISLIP HIGH SPEED TWO (HS2) LIMITED				Contract No. G160015U  Figure No. ML025-RC020 (4 of 8)				
304/03												






Drilling Method		Rotary Cored		Borehole Diameter		Casing Diameter		BOREHOLE No.		ML025-RC020	
Equipment		Knebel HY77		146mm to 35.00m		200mm to 1.20m 146mm to 14.00m		Coordinates		506272.63 E 187299.57 N 59.80 m OD	
Drill Fluid		Polymer DS60/Pure-Bore		Logged by		Compiled by		Checked by			
Crew/Vessel		JM/TB		MS		prs		NJB			
Dates Drilled		Start 02/11/2016 End 11/11/2016		17/11/2016		30/11/2016		11/12/2017			
Date & Time	Casing Depth (m)	Water Depth (m) (Flush Return %)	Sample/Core Recovery			SPT Blows /N	Fracture Spacing mm (Min, Avg, Max) or Result	Description of Strata	Depth (Thickness) (m)	Level m OD	Legend
			From	To	Type	No.	TCR %	SCR %	RQD %		
			25.05-25.25		C	29					
		(100)	24.50-26.00		73					25.25	34.55
										(1.05)	
										26.30	33.50
		(100)	26.00-27.50		20					(1.50)	
										27.80	32.00
		(100)	27.50-29.00		80	23	23			(0.40)	
			28.36-28.55		C	30				28.20	31.60
										(0.35)	
										28.55	31.25
										(0.45)	
10/11	14.00	GL								29.00	30.80
11/11	14.00	2.35								(0.60)	
										29.60	30.20
		(80)	29.60-29.96		C	31					
			29.00-30.50		100	100	100				
			30.00		EW	1					

Remarks  
(See notes & keysheets)


Scale 1:25


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Project  
WEST RUISLIP  
HIGH SPEED TWO (HS2) LIMITED


Contract No. G160015U  
Figure No. ML025-RC020 (6 of 8)

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Drilling Method		Rotary Cored		Borehole Diameter		Casing Diameter		BOREHOLE No.		ML025-RC020	
Equipment		Knebel HY77		146mm to 35.00m		200mm to 1.20m 146mm to 14.00m		Coordinates		506272.63 E 187299.57 N 59.80 m OD	
Drill Fluid		Polymer DS60/Pure-Bore		Logged by		Compiled by		Checked by			
Crew/Vessel		JM/TB		MS		prs		NJB			
Dates Drilled		Start 02/11/2016 End 11/11/2016		17/11/2016		30/11/2016		11/12/2017			
Date & Time	Casing Depth (m)	Water Depth (m) (Flush Return %)	Sample/Core Recovery			SPT Blows /N	Fracture Spacing mm (Min, Avg, Max) or Result	Description of Strata	Depth (Thickness) (m)	Level m OD	Legend
			Depth (m) From To	Type TCR %	No. SCR %	RQD %	Core Size (mm)				
								>900	Weak medium and high density CHALK as previous sheet.	(0.90)	
									At 30.50m; thin bed or nodule of black flint.	30.50	29.30
									No recovery. Driller notes run interval as soft. [ - NO CORE RECOVERY]		
		(80)	30.50-32.00	0	0	0		NR		(1.65)	
			31.50	EW	32						
		(80)	32.00-32.75	80	80	69		>600	Very weak low to medium density off white stained orange brown CHALK with flint. Fractures are 35-70 degs closely to medium spaced undulating to planar, rough, (open) and clean. [CIRIA Grade: B1/B2] [SEAFORD CHALK - CHALK] At 32.15m; very thin bed or nodule of black flint.	32.15	27.65
								NR	32.75m to 32.85m; assumed zone of core loss.		
		(80)	32.75-33.50	87	87	87			At 32.85m; thin bed or nodule of black flint.	(1.85)	
								>1150	At 33.25m; thin bed or nodule of black flint.		
									At 33.50m; thin bed or nodule of black flint.		
									At 33.75; thin to medium bed or nodule of black flint.		
		(80)	33.50-35.00	33	33	33		NR	Assumed zone of core loss. Driller notes run interval as soft putty chalk with flints. [ - NO CORE RECOVERY]	34.00	25.80
										(1.00)	
11/11	14.00	GL								35.00	24.80
End of Borehole											
Remarks (See notes & keysheets)											
Scale 1:25			Project WEST RUISLIP HIGH SPEED TWO (HS2) LIMITED						Contract No. G160015U		
 13/12/2017									Figure No. ML025-RC020 (7 of 8)		




[illegible]


Drilling MethodRotary Cored						Borehole Diameter 146mm to 35.00m		Casing Diameter 200mm to 1.20m 146mm to 14.00m		BOREHOLE NoML025-RC020		
EquipmentKnebel HY77										Coordinates (National Grid) Ground Level		506272.63 E 187299.57 N 59.80 m OD
Crew/VesselJM/TB						Logged byMS		Compiled byprs		Checked byNJB		
Dates DrilledStart02/11/2016 End11/11/2016						17/11/2016		30/11/2016		11/12/2017		
Discon. Ref	Depth (m)	Type	Dip ° (Deg)	Aper ture (mm)	Infill	Roughness		Description	Legend  m OD			
						Inter- mediate	Small					
Remarks (See notes & keysheets)												
Scale 1:25												
						Project WEST RUISLIP HIGH SPEED TWO (HS2) LIMITED				Contract No. G160015U		
13/12/2017										Figure No. ML025-RC020 (1 of 7)		
										314/02		




Drilling MethodRotary Cored						Borehole Diameter 146mm to 35.00m		Casing Diameter 200mm to 1.20m 146mm to 14.00m		BOREHOLE NoML025-RC020		
Equipment Knebel HY77										Coordinates (National Grid) Ground Level		506272.63 E 187299.57 N 59.80 m OD
Crew/Vessel Dates Drilled JM/TB Start 02/11/2016 End 11/11/2016						Logged by MS 17/11/2016		Compiled by prs 30/11/2016		Checked by NJB 11/12/2017		
Discon. Ref	Depth (m)	Type	Dip ° (Deg)	Aper ture (mm)	Infill	Roughness		Description	Legend  m OD			
						Inter- mediate	Small					
Remarks (See notes & keysheets)												
Scale 1:25												
 13/12/2017						Project WEST RUISLIP HIGH SPEED TWO (HS2) LIMITED				Contract No. G160015U		
										Figure No. ML025-RC020 (2 of 7)		
314/02												


<b>Drilling Method</b> Rotary Cored						<b>Borehole Diameter</b> 146mm to 35.00m		<b>Casing Diameter</b> 200mm to 1.20m 146mm to 14.00m		<b>BOREHOLE No</b> ML025-RC020			
<b>Equipment</b> Knebel HY77										<b>Coordinates</b> (National Grid) Ground Level		506272.63 E 187299.57 N 59.80 m OD	
<b>Crew/Vessel</b> JM/TB <b>Dates Drilled</b> Start 02/11/2016 End 11/11/2016						<b>Logged by</b> MS 17/11/2016		<b>Compiled by</b> prs 30/11/2016		<b>Checked by</b> NJB 11/12/2017			
<b>Discon. Ref</b>	<b>Depth (m)</b>	<b>Type</b>	<b>Dip ° (Deg)</b>	<b>Aper ture (mm)</b>	<b>Infill</b>	<b>Roughness</b>		<b>Description</b>				<b>Legend</b> m OD	
						<b>Inter- mediate</b>	<b>Small</b>						
<b>Remarks</b> (See notes & keysheets)													
Scale 1:25													
 13/12/2017						<b>Project</b> WEST RUISLIP HIGH SPEED TWO (HS2) LIMITED				<b>Contract No.</b> G160015U			
										<b>Figure No.</b> ML025-RC020 (3 of 7)			




Drilling MethodRotary Cored						Borehole Diameter 146mm to 35.00m		Casing Diameter 200mm to 1.20m 146mm to 14.00m		BOREHOLE NoML025-RC020		
Equipment Knebel HY77										Coordinates (National Grid) Ground Level		506272.63 E 187299.57 N 59.80 m OD
Crew/Vessel Dates Drilled JM/TB Start 02/11/2016 End 11/11/2016						Logged by MS 17/11/2016		Compiled by prs 30/11/2016		Checked by NJB 11/12/2017		
Discon. Ref	Depth (m)	Type	Dip ° (Deg)	Aper ture (mm)	Infill	Roughness		Description	Legend  m OD			
						Inter- mediate	Small					
Remarks (See notes & keysheets)												
Scale 1:25												
 13/12/2017						Project WEST RUISLIP HIGH SPEED TWO (HS2) LIMITED				Contract No. G160015U		
										Figure No. ML025-RC020 (4 of 7)		
										314/02		

Drilling MethodRotary Cored						Borehole Diameter 146mm to 35.00m		Casing Diameter 200mm to 1.20m 146mm to 14.00m		BOREHOLE NoML025-RC020		
EquipmentKnebel HY77										Coordinates (National Grid) Ground Level		506272.63 E 187299.57 N 59.80 m OD
Crew/VesselJM/TB						Logged byMS		Compiled byprs		Checked byNJB		
Dates DrilledStart02/11/2016 End11/11/2016						17/11/2016		30/11/2016		11/12/2017		
Discon. Ref	Depth (m)	Type	Dip ° (Deg)	Aper ture (mm)	Infill	Roughness		Description	Legend  m OD			
						Inter- mediate	Small					
Remarks (See notes & keysheets)												
Scale 1:25												
						Project WEST RUISLIP HIGH SPEED TWO (HS2) LIMITED				Contract No. G160015U		
13/12/2017										Figure No. ML025-RC020 (5 of 7)		
										314/02		



<b>Drilling Method</b> Rotary Cored						<b>Borehole Diameter</b> 146mm to 35.00m		<b>Casing Diameter</b> 200mm to 1.20m 146mm to 14.00m		<b>BOREHOLE No</b> ML025-RC020			
<b>Equipment</b> Knebel HY77												<b>Coordinates</b> (National Grid) 506272.63 E 187299.57 N <b>Ground Level</b> 59.80 m OD	
<b>Crew/Vessel</b> JM/TB						<b>Logged by</b>		<b>Compiled by</b>		<b>Checked by</b>			
<b>Dates Drilled</b> Start 02/11/2016 End 11/11/2016						MS 17/11/2016		prs 30/11/2016		NJB 11/12/2017			
<b>Discon. Ref</b>	<b>Depth (m)</b>	<b>Type</b>	<b>Dip ° (Deg)</b>	<b>Aper ture (mm)</b>	<b>Infill</b>	<b>Roughness</b>		<b>Description</b>	<b>Legend</b> m OD				
						<b>Inter-mediate</b>	<b>Small</b>						
3	28.20 28.30-28.35	J	50	O		Un	Ro	28.20 m - Top of rock With grey staining.					
1	28.65-28.68	B	20	O		Un	Ro	With light grey staining.					
1	28.85-28.89	B	15	O		Un	Ro	With light grey staining.					
<b>Remarks</b> (See notes & keysheets)													
Scale 1:25													
						<b>Project</b> WEST RUISLIP HIGH SPEED TWO (HS2) LIMITED				<b>Contract No.</b> G160015U			
13/12/2017										<b>Figure No.</b> ML025-RC020 (6 of 7) 3140			

Drilling MethodRotary Cored						Borehole Diameter 146mm to 35.00m		Casing Diameter 200mm to 1.20m 146mm to 14.00m		BOREHOLE NoML025-RC020			
EquipmentKnebel HY77										Coordinates (National Grid) Ground Level		506272.63 E 187299.57 N 59.80 m OD	
Crew/VesselJM/TB						Logged byMS		Compiled byprs		Checked byNJB			
Dates DrilledStart02/11/2016 End11/11/2016						17/11/2016		30/11/2016		11/12/2017			
Discon. Ref	Depth (m)	Type	Dip ° (Deg)	Aper ture (mm)	Infill	Roughness		Description	Legend  m OD				
						Inter- mediate	Small						
	30.50-32.15							No recovery.					
2	32.15-32.30	J	70	O		Pl	Ro	With light grey staining.	2				
3	32.40-32.52	J	65	O		Pl	Ro	Clean.	3				
3	32.60-32.65	J	35	O		Un	Ro	Clean.	3				
	32.75-32.85							Assumed zone of core loss.					
	34.00-35.00							Assumed zone of core loss.					
End of Borehole													
Remarks (See notes & keysheets)													
Scale 1:25						Project WEST RUISLIP HIGH SPEED TWO (HS2) LIMITED				Contract No. G160015U			
										Figure No. ML025-RC020 (7 of 7)			
13/12/2017										314/02			



Drilling Method Rotary Cored				Borehole Diameter 146mm to 33.80m 99mm to 41.70m		Casing Diameter 200mm to 2.00m 146mm to 33.80m		BOREHOLE No.ML025-RC054			
Equipment Knebel Coring Rig				Logged by CJ/AW 31/01/2017		Compiled by jm 28/02/2017		Checked by ASC 06/06/2017		Coordinates (National Grid) 506295.53 E 187265.81 N Ground Level 59.72 m OD	
Drill Fluid Polymer DS60/Pure-Bore RC/CS				Start 26/01/2017		End 13/02/2017					
Date & Time	Casing Depth (m)	Water Depth (m) (Flush Return %)	Sample/Core Recovery			SPT Blows /N	Fracture Spacing mm (Min,Avg,Max) or Result	Description of Strata	Depth (Thickness) (m)	Level m OD	Legend
26/01			0.20	B	1			TOPSOIL: (Soft) brown slightly sandy slightly gravelly clay. Gravel is subangular to rounded fine and medium flint. [TOPSOIL - CLAY]	(0.30)	59.42	
			0.20	D	2			Firm light brown slightly sandy slightly gravelly CLAY with subangular to rounded possibly calcareous nodule (<60mm). Gravel is subangular to rounded fine to coarse flint. [SUPERFICIAL DEPOSITS - COHESIVE - CLAY]	0.30		
			0.00-1.20	PIT							
			0.70	B	3						
			0.70	D	4						
			1.10	B	5						
			1.10	D	6						
			1.40-1.70	C	7						
			1.20-1.90	100							
			26/01	2.00	1.25			1.40-1.70	C		
1.20-1.90	100										
2.57-2.90	C	8									
1.90-3.40	100										
3.40-4.00	100										
4.00-5.00	80										
4.60-4.80	C	9									
4.80m to 5.00m; assumed zone of core loss.											
5.00	54.72										
30/01	2.00	1.00				4.00-5.00	80				
			4.60-4.80	C	9						

**Remarks**  
(See notes & keysheets)
 

- Initially a PAS128 survey was undertaken. Prior to boring, a Cable Avoidance Tool (CAT) survey was performed to check for services. A service pit was hand-dug to 1.20m and rescanned using a CAT. Services were not located.
- Self-boring pressuremeter (SBP) tests were performed at the following depths (bgl) within the borehole: 5.50m, 9.90m, 20.40m, 24.80m and 26.50m.
- High Pressure Dilatometer tests were performed at the following depths (bgl) within the borehole: 35.00m and 40.20m.
- See separate sheet for installation.
- Groundwater not encountered during drilling due to use of fluid flush.


**Scale 1:25**

13/12/2017

**Project**  
WEST RUISLIP  
HIGH SPEED TWO (HS2) LIMITED

**Contract No.** G160015U  
  
**Figure No.** ML025-RC054 (1 of 10)


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<b>Drilling Method</b> Rotary Cored <b>Equipment</b> Knebel Coring Rig <b>Drill Fluid</b> Polymer DS60/Pure-Bore RC/CS <b>Crew/Vessel</b> <b>Dates Drilled</b> Start 26/01/2017 End 13/02/2017				<b>Borehole Diameter</b> 146mm to 33.80m 99mm to 41.70m <b>Casing Diameter</b> 200mm to 2.00m 146mm to 33.80m <b>Logged by</b> CJ/AW 31/01/2017 <b>Compiled by</b> jm 28/02/2017 <b>Checked by</b> ASC 06/06/2017				<b>BOREHOLE No.</b> ML025-RC054 <b>Coordinates (National Grid)</b> 506295.53 E 187265.81 N <b>Ground Level</b> 59.72 m OD			
Date & Time	Casing Depth (m)	Water Depth (m) (Flush Return %)	Sample/Core Recovery			SPT Blows /N Core Size (mm)	Fracture Spacing mm (Min, Avg, Max) or Result	Description of Strata	Depth (Thickness) (m)	Level m OD	Legend
			Depth (m) From To	Type TCR %	No. SCR %						
30/01	2.00	(0)	5.00-6.00	RO				No recovery; rotary open hole boring for SBP test. [ - OPEN HOLE]	5.00	54.72	
		(100)	6.00-6.50	50				Stiff fissured laminated dark greyish brown mottled orangish brown slightly sandy CLAY with occasional crystals (<25 x 5 x 5mm) of gypsum. Thin laminae, 0 degs, extremely closely spaced, planar. Fissures (SET 1) are 0-30 degs, very closely spaced, planar and undulating, smooth, (very tight to tight), occasionally polished with slickensides, with orange and yellow silt veneer. Fissures (SET 2) are 80-90 degs, spacing not determined possibly very closely spaced, planar, smooth, (very tight to tight), with orange staining occasionally reddish brown staining, frequent gypsum crystals within fissures. [LONDON CLAY FORMATION A2 - CLAY] 6.25m to 6.50m; assumed zone of core loss.	6.00	53.72	
31/01	2.00	1.05	(100)	6.50-8.00	93				(2.00)	51.72	
				7.40-7.75	C	10					
		(100)	8.00-8.30	C	11			Very stiff locally fissured laminated dark grey slightly sandy to sandy CLAY with rare crystals (<50 x 20 x 10mm) of gypsum and closely spaced lenses of grey sand. Sand is fine. Thin laminae are 0 degs, extremely closely spaced, planar. Fissures (SET 1) are 0-20 degs, very closely spaced, planar, smooth, (very tight to tight), with grey clay and silt infill and rare bivalve fossils along planes. Fissures (SET 3) are 30-60 degs, very closely spaced, planar and undulating, smooth, (very tight to tight) with grey clay veneer. [LONDON CLAY FORMATION A2 - CLAY]	8.00	51.72	
		(100)	8.00-9.50	100					(1.50)		
		(0)	9.50-10.50	RO				No recovery; rotary open hole boring for SBP test. [ - OPEN HOLE]	9.50	50.22	
		(100)							(1.00)		
<b>Remarks</b> (See notes & keysheets)											
<b>Scale</b> 1:25											
 13/12/2017						<b>Project</b> WEST RUISLIP HIGH SPEED TWO (HS2) LIMITED			<b>Contract No.</b> G160015U <b>Figure No.</b> ML025-RC054 (2 of 10)		



Drilling Method Rotary Cored				Borehole Diameter		Casing Diameter		BOREHOLE No.ML025-RC054			
Equipment Knebel Coring Rig				146mm to 33.80m 99mm to 41.70m		200mm to 2.00m 146mm to 33.80m		Coordinates 506295.53 E (National Grid) 187265.81 N Ground Level 59.72 m OD			
Drill Fluid Polymer DS60/Pure-Bore Crew/Vessel RC/CS Dates Drilled Start 26/01/2017 End 13/02/2017				Logged by CJ/AW 31/01/2017		Compiled by jm 28/02/2017		Checked by ASC 06/06/2017			
Date & Time	Casing Depth (m)	Water Depth (m) (Flush Return) %	Sample/Core Recovery			SPT Blows /N Core Size (mm)	Fracture Spacing mm (Min,Avg,Max) or Result	Description of Strata	Depth (Thickness) (m)	Level m OD	Legend
			Depth (m) From To	Type TCR %	No. SCR %						
								SBP Test as previous sheet.			
		(100)	10.50-11.00	100				Very stiff locally fissured laminated dark grey slightly sandy to sandy CLAY with rare crystals (<50 x 20 x 10mm) of gypsum and closely spaced lenses of grey sand. Thin laminae are 0 degs, parallel, extremely closely spaced, planar. Fissures (SET 1) are 0-20 degs, very closely spaced, planar, smooth, (very tight to tight), with grey clay and silt infill and rare bivalve fossils along planes. Fissures (SET 3) are 30-60 degs, very closely spaced, planar and undulating, smooth, (very tight to tight) with grey clay veneer. [LONDON CLAY FORMATION A2 - CLAY]	10.50 (0.50)	49.22	
		(100)	11.00-12.50	67				Assumed zone of core loss. [ - NO CORE RECOVERY]	11.00 (0.50)	48.72	
			12.60-12.90	C	12			Very stiff locally fissured laminated dark grey slightly sandy to sandy CLAY with rare crystals (<50 x 20 x 10mm) of gypsum and closely spaced lenses of grey sand. Sand is fine. Thin laminae, 0 degs, parallel, extremely closely spaced, planar. Fissures (SET 1) are 0-20 degs, very closely spaced, planar, smooth, (very tight to tight), with grey clay and silt infill and rare bivalve fossils along planes. Fissures (SET 3) are 30-60 degs, very closely spaced, planar and undulating, smooth, (very tight to tight) with grey clay veneer. [HARWICH FORMATION - CLAY] 12.30m to 13.05m; frequent bivalve shells (<100mm).	11.50 (1.60)	48.22	
		(100)	12.50-14.00 13.28-13.46	87 C	13			Below 13.05m; abundant bivalve shells (<30mm).  Stiff to very stiff fissured friable bluish grey and brownish yellow mottled purple CLAY with rare calccrete nodules. Fissures (SET 2) are 70-90 degs, spacing not determined possibly extremely closely spaced to very closely spaced, planar, smooth, (very tight). Fissures (SET 3) are 30-60 degs, very closely spaced, planar, smooth, (very tight), polished with slickensides, with red and purple staining and clay veneer. [LOWER MOTTLED CLAY - CLAY] At top (13.10m); burrowed contact. 13.80m to 14.00m; assumed zone of core loss.	13.10	46.62	
31/01	2.00	1.00									
01/02	2.00	1.15									
		(100)	14.00-15.50	100			NA				

Remarks  
(See notes & keysheets)



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Figure No. ML025-RC054 (3 of 10)

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[illegible]






Drilling Method Rotary Cored				Borehole Diameter		Casing Diameter		BOREHOLE No.ML025-RC054				
Equipment Knebel Coring Rig				146mm to 33.80m 99mm to 41.70m		200mm to 2.00m 146mm to 33.80m		Coordinates (National Grid)		506295.53 E 187265.81 N 59.72 m OD		
Drill Fluid Polymer DS60/Pure-Bore RC/CS				Logged by CJ/AW		Compiled by jm		Checked by ASC		Ground Level		
Dates Drilled Start 26/01/2017 End 13/02/2017				31/01/2017		28/02/2017		06/06/2017				
Date & Time	Casing Depth (m)	Water Depth (m) (Flush Return) %	Sample/Core Recovery				SPT Blows /N Core Size (mm)	Fracture Spacing mm (Min,Avg,Max) or Result	Description of Strata	Depth (Thickness) (m)	Level m OD	Legend
			Depth (m) From To		Type TCR %	No. SCR %						
06/02	2.00	6.15							SBP test as previous sheet.			
07/02	2.00	3.20							Very stiff fissured greenish grey mottled bluish grey sandy CLAY with lenses of greyish green sand. Sand is fine to coarse. Fissures (SET 1) are 0-30 degs, very closely spaced, planar, rough, (very tight). Fissures (SET 2) are 80-90 degs, spacing not determined possibly very closely spaced, planar, rough, (very tight). [UPNOR FORMATION - CLAY]	25.50 (0.50)	34.22	
		(80)	25.50-26.00		100					26.00	33.72	
		(0)	26.00-27.00		RO				No recovery; rotary open hole boring for SBP test. [ - OPEN HOLE]	(1.00)		
		(80)	27.00-27.50		0				Assumed zone of core loss. Driller noted sand strata. [ - NO CORE RECOVERY]	27.00 (1.05)	32.72	
		(80)	27.50-28.25		27				Approximate boundary Very stiff fissured greenish brown mottled grey CLAY. Fissures (SET 2) are 70-90 degs, spacing not determined possibly very closely spaced, planar, smooth, (very tight), polished with slickensides, with grey clay veneer. Fissures (SET 3) are 30-60 degs, very closely spaced, planar, smooth, (very tight), polished with slickensides, with grey clay veneer. [UPNOR FORMATION - CLAY]	28.05 (0.30)	31.67	
		(80)	28.05-28.25		C 20					28.35 (0.15)	31.37	
		(80)	28.25-28.75		100				Dark grey slightly clayey gravelly SAND. Sand is fine to coarse. Gravel is angular to rounded fine to coarse flint and red flint. [UPNOR FORMATION - SAND]	28.50 (0.25)	31.22	
07/02	2.00	6.45	28.75-28.85		100					28.75 (0.15)	30.97	
08/02	2.00	(80) 8.65 (70)	28.85-29.25		100	0	0	NA	Dark greenish grey slightly clayey slightly gravelly SAND possibly glauconitic with rare rootlets. Sand is fine to coarse. Gravel is angular to subrounded fine and medium flint. [UPNOR FORMATION - SAND]	28.90 (0.70)	30.82	
		(70)	29.25-29.60		100	0	0		Brown slightly sandy clayey GRAVEL. Gravel is angular fine to coarse flint with angular cobbles of flint. [UPNOR FORMATION - GRAVEL]			
		(70)	29.60-30.05		100	100	80	>750	Structureless CHALK as white to grey slightly sandy to sandy GRAVEL. Gravel is weak high to very high density. Locally dolomitised with dissolution vugs (<10 x 3mm). Matrix is brown to light grey fine to coarse sand. [CIRIA Grade: Dc]. [SEAFORD CHALK - CHALK]	29.60	30.12	

Remarks  
(See notes & keysheets)

Scale 1:25


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Drilling Method Rotary Cored				Borehole Diameter 146mm to 33.80m 99mm to 41.70m		Casing Diameter 200mm to 2.00m 146mm to 33.80m		BOREHOLE No.ML025-RC054					
Equipment Knebel Coring Rig								Coordinates (National Grid) 506295.53 E 187265.81 N Ground Level 59.72 m OD					
Drill Fluid Polymer DS60/Pure-Bore RC/CS													
Crew/Vessel				Logged by CJ/AW		Compiled by jm		Checked by ASC					
Dates Drilled Start 26/01/2017 End 13/02/2017				31/01/2017		28/02/2017		06/06/2017					
Date & Time	Casing Depth (m)	Water Depth (m) (Flush Return) %	Sample/Core Recovery					SPT Blows /N Core Size (mm)	Fracture Spacing mm (Min,Avg,Max) or Result	Description of Strata	Depth (Thickness) (m)	Level m OD	Legend
			Depth (m) From To		Type TCR %	No. SCR %	RQD %						
08/02	33.80	(70)	30.05-30.22	C	21		10, -, 140	NI	29.00m to 29.20m; grey sandy. 29.20m to 29.60m; slightly sandy with dissolution vugs. Local brown staining.	(1.05)	29.07		
			30.05-30.50	100	67	56			Weak very high density locally possibly dolomitised white CHALK locally with grey staining and occasional nodular flint with cortex. Fractures (SET 1) are 5-20 degs, mainly localised and extremely closely spaced, planar and undulating, smooth to rough, (partly open to open), with grey and reddish brown staining or with grey silt infill (<1mm). Fractures (SET 2) are 80-90 degs, spacing not determined, planar, smooth to rough, (very tight to partly open), clean or with reddish brown and grey staining, greenish grey silt veneer. [CIRIA Grade: B3].				
			30.50-32.00	11	10	8			[SEAFORD CHALK - CHALK] 29.60m to 30.50m; very high density, possibly dolomitised. 29.77m to 30.05m; Non Intact chalk (probably DI due to flint). At 29.90m; flint nodular (<95 x 75 x 50mm), shattered (drilling induced) with greyish white cortex (<6mm). 30.35m to 30.50m; Non Intact chalk.				
			32.00-32.75	100	100	100			Assumed zone of core loss. Driller notes flint scrubbed core. [ - NO CORE RECOVERY] Approximate boundary				
			32.85-33.02	C	22				CHALK. Mainly recovered non intact (probably drilling induced). Recovered as angular to subangular clasts (5mm to >100mm) of white weak medium to high density fractured chalk with light brown staining on surfaces. Occasional flint. Fractures (SET 1) are 10 degs, spacing not determined locally extremely closely spaced, planar, smooth, (very tight), with orangish brown staining. Fractures (SET 2) are 90 degs, spacing not determined possibly locally extremely closely to very closely spaced, planar, smooth, (very tight to partly open), with orangish brown staining and locally clay infilled (<0.5mm). [CIRIA Grade: B2, locally B4/B5].				
			32.75-33.50	80	67	55			[SEAFORD CHALK - CHALK] 32.08m to 32.60m; Non Intact chalk (probably DI due to flint). At 32.30m; flint nodular (<75 x 65 x 50mm) with greyish white cortex (<2mm). 32.75m to 33.25m; intact chalk.				
			33.50-33.80	83	83	83			33.25m to 33.35m; Non Intact chalk. 33.35m to 33.50m; assumed zone of core loss.				
			33.80-35.00	0	0	0			33.50m to 33.75m; Non Intact chalk (probably DI due to flint). At 33.50m; flint nodular (<100 x 65 x 60mm). Assumed zone of core loss. Driller notes chalk with flint. [ - NO CORE RECOVERY]				
			35.00	24.72									
			09/02	33.80	6.10								
Remarks (See notes & keysheets)													
Scale 1:25				Project WEST RUISLIP HIGH SPEED TWO (HS2) LIMITED				Contract No. G160015U					
								Figure No. ML025-RC054 (7 of 10)					
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Drilling Method Rotary Cored				Borehole Diameter		Casing Diameter		BOREHOLE No.ML025-RC054						
Equipment Knebel Coring Rig				146mm to 33.80m 99mm to 41.70m		200mm to 2.00m 146mm to 33.80m		Coordinates 506295.53 E (National Grid) 187265.81 N Ground Level 59.72 m OD						
Drill Fluid Polymer DS60/Pure-Bore Crew/Vessel RC/CS Dates Drilled Start 26/01/2017 End 13/02/2017				Logged by CJ/AW 31/01/2017		Compiled by jm 28/02/2017		Checked by ASC 06/06/2017						
Date & Time	Casing Depth (m)	Water Depth (m) (Flush Return %)	Sample/Core Recovery						SPT Blows /N Core Size (mm)	Fracture Spacing mm (Min,Avg,Max) or Result	Description of Strata	Depth (Thickness) (m)	Level m OD	Legend
			Depth (m) From To		Type TCR %	No. SCR %	RQD %							
09/02	33.80	(70)	35.00-35.90	9	9	0			Zone of core loss. Single flint, nodular, (<80 x 75 x 75mm) with white cortex (<1mm) recovered. [ - NO CORE RECOVERY]	35.00	24.72			
									Approximate boundary					
		(70)	35.90-36.70	6	6	0		NR	Zone of core loss. HPD test performed. Flint nodular (<75 x 60 x 50mm), with greyish white cortex (<2mm) and frequent dissolution vugs (<35 x 15mm). [ - NO CORE RECOVERY]	35.90	23.82			
10/02	33.80	(70)	36.70-37.20	50	50	50		>250	Very weak medium density white CHALK with occasional nodular flint with cortex. Fractures (SET 2) are 80-85 degs, spacing not determined, planar, smooth, (very tight), with brown staining and orangish yellow staining or clean. [CIRIA Grade: possibly B2]. [SEAFORD CHALK - CHALK]	36.70	23.02			
								NR	36.70m to 36.95m; Non Intact chalk (probably DI due to flint). At 36.70m; flint nodular (<60 x 50 x 35mm). 36.95m to 37.20m; assumed zone of core loss.					
		(70)	37.20-37.70	80	60	60		>400	37.20m to 37.40m; Non Intact chalk (probably DI due to flint). At 37.28m; flint nodular (<120 x 75 x 60mm) with greyish white stained orangish yellow cortex (<1mm).	37.60	22.12			
10/02	33.80	(70)	37.70-38.20	0	0	0		NR	Zone of core loss. [ - NO CORE RECOVERY]	38.20	21.52			
								>200	CHALK recovered non intact (probably DI) as subangular to subrounded clasts (<100mm) of marly chalk and flint. [SEAFORD CHALK - CHALK]	(0.20)				
		(70)	38.20-38.70	40	40	40			At 38.22m; flint nodular (<75 x 60 x 50mm), shattered (DI) with greyish white cortex (<4mm). At 38.37m; flint nodular (<55 x 50 x 35mm) with greyish white cortex (<3mm).	38.40	21.32			
13/02	33.80	(70)	38.70-39.20	0	0	0		NR	Assumed zone of core loss. [ - NO CORE RECOVERY]	(1.30)				
									Approximate boundary					
		(70)	39.20-39.70	0	0	0			Weak medium density locally high density white CHALK with frequent grey marl and infilled burrows. With nodular flint with cortex. Fractures not observed. [SEAFORD CHALK - CHALK]	39.70	20.02			
		(70)	39.70-40.20	90	90	90		>450						

Remarks  
(See notes & keysheets)

Scale 1:25



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Drilling Method Rotary Cored				Borehole Diameter 146mm to 33.80m 99mm to 41.70m		Casing Diameter 200mm to 2.00m 146mm to 33.80m		BOREHOLE No.ML025-RC054							
Equipment Knebel Coring Rig								Coordinates (National Grid) 506295.53 E 187265.81 N Ground Level 59.72 m OD							
Drill Fluid Polymer DS60/Pure-Bore RC/CS															
Crew/Vessel															
Dates Drilled Start 26/01/2017				Logged by CJ/AW		Compiled by jm		Checked by ASC							
End 13/02/2017				31/01/2017		28/02/2017		06/06/2017							
Date & Time	Casing Depth (m)	Water Depth (m) (Flush Return) %	Sample/Core Recovery						SPT Blows /N Core Size (mm)	Fracture Spacing mm (Min,Avg,Max) or Result	Description of Strata	Depth (Thickness) (m)	Level m OD	Legend	
			Depth (m)		Type	No.	TCR %	SCR %							RQD %
			From	To											
13/02	33.80	24.00									39.70m to 39.85m; Non Intact chalk (DI). 40.15m to 40.20m; assumed zone of core loss. At 40.23m; flint nodular (<30 x 20mm) with white cortex (<2mm).	(2.00)			
			40.30-40.51	C	23	100	100	100	NR	40.50m to 40.65m; Non Intact chalk (DI). At 40.65m; locally high density. 40.74m to 41.08m; Non Intact chalk (probably DI due to flint). At 40.78m; flint nodular (<75 x 65 x 55mm) with greyish brown cortex (<1mm).					
			40.70-41.20			100	100	100	>1200	At 41.00m; flint nodular with greyish white cortex (<6mm).					
			41.20-41.40	C	24				NR	41.40m to 41.70m; assumed zone of core loss.					
			41.20-41.70	40	40	40				At base, HPD test undertaken.	41.70	18.02			
End of Borehole															
Remarks (See notes & keysheets)															
Scale 1:25															
				Project WEST RUISLIP HIGH SPEED TWO (HS2) LIMITED				Contract No. G160015U							
13/12/2017								Figure No. ML025-RC054 (9 of 10)							
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Drilling Method		Rotary Cored		Borehole Diameter		Casing Diameter		BOREHOLE No		ML025-RC054	
Equipment		Knebel Coring Rig		146mm to 33.80m 99mm to 41.70m		200mm to 2.00m 146mm to 33.80m		Coordinates (National Grid)		506295.53 E 187265.81 N 59.72 m OD	
Crew/Vessel		RC/CS		Logged by		Compiled by		Checked by			
Dates Drilled		Start End		26/01/2017 13/02/2017		CJ/AW 31/01/2017		jm 28/02/2017		ASC 06/06/2017	
Discon. Ref	Depth (m)	Type	Dip ° (Deg)	Aper ture (mm)	Infill	Roughness		Description	Legend	m OD	
						Inter- mediate	Small				
Remarks (See notes & keysheets)											
Scale 1:25											
FUGRO 13/12/2017						Project WEST RUISLIP HIGH SPEED TWO (HS2) LIMITED			Contract No. G160015U Figure No. ML025-RC054 (1 of 9)		





Drilling Method Rotary Cored						Borehole Diameter 146mm to 33.80m 99mm to 41.70m		Casing Diameter 200mm to 2.00m 146mm to 33.80m		BOREHOLE No ML025-RC054					
Equipment Knebel Coring Rig										Coordinates (National Grid) Ground Level		506295.53 E 187265.81 N 59.72 m OD			
Crew/Vessel RC/CS Dates Drilled Start 26/01/2017 End 13/02/2017						Logged by CJ/AW 31/01/2017		Compiled by jm 28/02/2017		Checked by ASC 06/06/2017					
Discon. Ref	Depth (m)	Type	Dip ° (Deg)	Aper ture (mm)	Infill	Roughness		Description	Legend  m OD						
						Inter- mediate	Small								
Remarks (See notes & keysheets)															
Scale 1:25															
						Project WEST RUISLIP HIGH SPEED TWO (HS2) LIMITED				Contract No. G160015U					
										Figure No. ML025-RC054 (2 of 9)					
										3140					

Drilling MethodRotary Cored						Borehole Diameter		Casing Diameter		BOREHOLE NoML025-RC054			
EquipmentKnebel Coring Rig						146mm to 33.80m 99mm to 41.70m		200mm to 2.00m 146mm to 33.80m		Coordinates (National Grid)506295.53 E 187265.81 N Ground Level59.72 m OD			
Crew/VesselRC/CS						Logged byCJ/AW		Compiled byjm		Checked byASC			
Dates DrilledStart26/01/2017 End13/02/2017						31/01/2017		28/02/2017		06/06/2017			
Discon. Ref	Depth (m)	Type	Dip ° (Deg)	Aper ture (mm)	Infill	Roughness		Description	Legend				
						Inter- mediate	Small		m OD				
Remarks (See notes & keysheets)													
Scale 1:25													
						Project WEST RUISLIP HIGH SPEED TWO (HS2) LIMITED				Contract No. G160015U			
13/12/2017										Figure No. ML025-RC054 (3 of 9)			
										314/02			

<b>Drilling Method</b> Rotary Cored						<b>Borehole Diameter</b> 146mm to 33.80m 99mm to 41.70m		<b>Casing Diameter</b> 200mm to 2.00m 146mm to 33.80m		<b>BOREHOLE No</b> ML025-RC054			
<b>Equipment</b> Knebel Coring Rig										<b>Coordinates</b> (National Grid) Ground Level		506295.53 E 187265.81 N 59.72 m OD	
<b>Crew/Vessel</b> RC/CS <b>Dates Drilled</b> Start 26/01/2017 End 13/02/2017						<b>Logged by</b> CJ/AW 31/01/2017		<b>Compiled by</b> jm 28/02/2017		<b>Checked by</b> ASC 06/06/2017			
<b>Discon. Ref</b>	<b>Depth (m)</b>	<b>Type</b>	<b>Dip ° (Deg)</b>	<b>Aper ture (mm)</b>	<b>Infill</b>	<b>Roughness</b>		<b>Description</b>				<b>Legend</b> m OD	
						<b>Inter-mediate</b>	<b>Small</b>						
<b>Remarks</b> (See notes & keysheets)													
<b>Scale</b> 1:25													
						<b>Project</b> WEST RUISLIP HIGH SPEED TWO (HS2) LIMITED				<b>Contract No.</b> G160015U			
										<b>Figure No.</b> ML025-RC054 ( 4 of 9 )			
										314/0			



<b>Drilling Method</b> Rotary Cored						<b>Borehole Diameter</b> 146mm to 33.80m 99mm to 41.70m		<b>Casing Diameter</b> 200mm to 2.00m 146mm to 33.80m		<b>BOREHOLE No</b> ML025-RC054					
<b>Equipment</b> Knebel Coring Rig												<b>Coordinates</b> (National Grid) Ground Level		506295.53 E 187265.81 N 59.72 m OD	
<b>Crew/Vessel</b> RC/CS <b>Dates Drilled</b> Start 26/01/2017 End 13/02/2017						<b>Logged by</b> CJ/AW 31/01/2017		<b>Compiled by</b> jm 28/02/2017		<b>Checked by</b> ASC 06/06/2017					
<b>Discon. Ref</b>	<b>Depth (m)</b>	<b>Type</b>	<b>Dip ° (Deg)</b>	<b>Aper ture (mm)</b>	<b>Infill</b>	<b>Roughness</b>		<b>Description</b>				<b>Legend</b> m OD			
						<b>Inter-mediate</b>	<b>Small</b>								
<b>Remarks</b> (See notes & keysheets)															
<b>Scale</b> 1:25						<b>Project</b> WEST RUISLIP HIGH SPEED TWO (HS2) LIMITED						<b>Contract No.</b> G160015U			
												<b>Figure No.</b> ML025-RC054 ( 5 of 9 )			


<b>Drilling Method</b> Rotary Cored						<b>Borehole Diameter</b> 146mm to 33.80m 99mm to 41.70m			<b>Casing Diameter</b> 200mm to 2.00m 146mm to 33.80m			<b>BOREHOLE No</b> ML025-RC054		
<b>Equipment</b> Knebel Coring Rig									<b>Coordinates</b> (National Grid) Ground Level			506295.53 E 187265.81 N 59.72 m OD		
<b>Crew/Vessel</b> RC/CS <b>Dates Drilled</b> Start 26/01/2017 End 13/02/2017						<b>Logged by</b> CJ/AW 31/01/2017		<b>Compiled by</b> jm 28/02/2017		<b>Checked by</b> ASC 06/06/2017				
<b>Discon. Ref</b>	<b>Depth (m)</b>	<b>Type</b>	<b>Dip ° (Deg)</b>	<b>Aper ture (mm)</b>	<b>Infill</b>	<b>Roughness</b>		<b>Description</b>	<b>Legend</b> m OD					
						<b>Inter-mediate</b>	<b>Small</b>							
	28.90													
2	29.60-29.77	J	90	PO	<0.5mm	Pl	Ro	Very tight to partly open .With greenish grey silt veneer.						
	29.60-29.77	J	80	VT		Pl	Sm	Incipient.						
2	29.60-29.77	J	85	VT		Pl	Sm	Clean.						
<b>Remarks</b> (See notes & keysheets)														
Scale 1:25														
						<b>Project</b> WEST RUISLIP HIGH SPEED TWO (HS2) LIMITED				<b>Contract No.</b> G160015U				
13/12/2017										<b>Figure No.</b> ML025-RC054 ( 6 of 9 ) 3140				

<b>Drilling Method</b> Rotary Cored <b>Equipment</b> Knebel Coring Rig <b>Crew/Vessel</b> RC/CS <b>Dates Drilled</b> Start 26/01/2017 End 13/02/2017						<b>Borehole Diameter</b> 146mm to 33.80m 99mm to 41.70m <b>Casing Diameter</b> 200mm to 2.00m 146mm to 33.80m		<b>BOREHOLE No</b> ML025-RC054 <b>Coordinates</b> 506295.53 E (National Grid) 187265.81 N <b>Ground Level</b> 59.72 m OD		
						<b>Logged by</b> CJ/AW 31/01/2017	<b>Compiled by</b> jm 28/02/2017	<b>Checked by</b> ASC 06/06/2017		


Discon. Ref	Depth (m)	Type	Dip ° (Deg)	Aper ture (mm)	Infill	Roughness		Description	Legend
						Inter-mediate	Small		
2	30.25-30.35	J	85	VT		P1	Ro	Clean.	
2	30.50-30.66	J	90	PO		P1	Sm	Very tight to partly open. With reddish brown staining. Planar to curvilinear. With partial reddish brown staining. With reddish brown staining. With grey staining. Partly open to open. With grey silt infill. Assumed zone of core loss.	
2	30.50-30.66	J	90	VT		P1	Sm		
1	30.60-30.63	B	20	PO		Un	Ro		
1	30.64	B	5	PO		P1	Sm		
1	30.65	B	5	O	<1mm	P1	Sm		
	30.65-32.00								
2	32.00-32.75	J	90	PO		P1	Sm	2 No. parallel fractures. Very tight to partly open. With orangish brown staining.	
2	32.60-32.75	J	90	PO		P1	Sm	Very tight to partly open. With orangish brown staining.	
2	32.75-33.35	J	90	PO	<0.5mm	P1	Sm	Very tight to partly open. With orangish brown staining and with partial soft brown clay infill.	
2	33.04-33.35	J	90	PO	<0.5mm	P1	Sm	Very tight to partly open. With orangish brown staining and with partial soft brown clay infill.	
1	33.16-33.17	B	10	VT		P1	Sm	With orangish brown staining.	
1	33.17-33.18	B	10	VT		P1	Sm	With orangish brown staining.	
	33.35-33.50							Assumed zone of core loss.	
	33.75-35.00							Assumed zone of core loss.	
	35.00-35.90							Assumed zone of core loss.	


Remarks  
(See notes & keysheets)

Scale 1:25

	<b>Project</b> WEST RUISLIP HIGH SPEED TWO (HS2) LIMITED	<b>Contract No.</b> G160015U <b>Figure No.</b> ML025-RC054 (7 of 9)
	13/12/2017	314/02



Drilling Method Rotary Cored						Borehole Diameter 146mm to 33.80m 99mm to 41.70m		Casing Diameter 200mm to 2.00m 146mm to 33.80m		BOREHOLE No ML025-RC054			
Equipment Knebel Coring Rig										Coordinates (National Grid) Ground Level		506295.53 E 187265.81 N 59.72 m OD	
Crew/Vessel RC/CS Dates Drilled Start 26/01/2017 End 13/02/2017						Logged by CJ/AW 31/01/2017		Compiled by jm 28/02/2017		Checked by ASC 06/06/2017			
Discon. Ref	Depth (m)	Type	Dip ° (Deg)	Aper ture (mm)	Infill	Roughness Inter- mediate Small		Description				Legend m OD	
	35.90-36.70							Assumed zone of core loss.					
2	36.75-36.95	J	85	VT		P1	Sm	With brown staining.					
	36.95-37.20							Assumed zone of core loss.					
2	37.20-37.40	J	80	VT		P1	Sm	With brown and orangish yellow staining.					
2	37.20-37.60	J	85	VT		P1	Sm	Clean.					
	37.60-38.20							Assumed zone of core loss.					
	38.40-39.70							Assumed zone of core loss.					
Remarks (See notes & keysheets)													
Scale 1:25													
						Project WEST RUISLIP HIGH SPEED TWO (HS2) LIMITED				Contract No. G160015U			
13/12/2017										Figure No. ML025-RC054 ( 8 of 9 )			

Drilling MethodRotary Cored						Borehole Diameter		Casing Diameter		BOREHOLE NoML025-RC054	
EquipmentKnebel Coring Rig						146mm to 33.80m 99mm to 41.70m		200mm to 2.00m 146mm to 33.80m		Coordinates (National Grid) Ground Level	
Crew/VesselRC/CS						Logged by		Compiled by		Checked by	
Dates Drilled						CJ/AW		jm		ASC	
Start26/01/2017						31/01/2017		28/02/2017		06/06/2017	
End13/02/2017						31/01/2017		28/02/2017		06/06/2017	
Discon. Ref	Depth (m)	Type	Dip ° (Deg)	Aper ture (mm)	Infill	Roughness		Description	Legend		
						Inter- mediate	Small				
	40.15-40.20							Assumed zone of core loss.			
	40.30-40.50	J	80	VT		P1	Sm	Incipient. Clean.			
	41.40-41.70							Assumed zone of core loss.			
								End of Borehole			
Remarks (See notes & keysheets)											
Scale 1:25						Project				Contract No.	
						WEST RUISLIP HIGH SPEED TWO (HS2) LIMITED				G160015U	
										Figure No.	
13/12/2017										ML025-RC054 (9 of 9)	
										314/02	

Method of Excavation Surface Dimensions Date Excavated    Start End						CAT 420F2 0.80m x 4.00m 10/11/2016 10/11/2016		Plan		TRIAL PIT No: ML025-TP050		
Logged by: CM 10/11/2016						Compiled by: prs 14/11/2016		Checked by: NJB 11/12/2017		Coordinates (National Grid) 506274.40 E 187305.90 N Ground Level 59.59 m OD		
In-situ Testing			Samples			Description of Strata		Depth (Thickness) (m)	Level	Legend		
Depth (m)	Type	Result	Depth (m)	Type	No.							
0.05	PID	<0.1	0.05 0.05 0.05	ES D B	1 1 2	MADE GROUND: (Firm) brown slightly sandy slightly gravelly clay with frequent rootlets (<10 x 30mm). Sand is fine to coarse. Gravel is angular to subrounded fine to coarse flint, occasional brick and rare ash. [MADE GROUND - CLAY]		(0.20) 0.20	59.39			
0.50	PID	<0.1	0.50 0.50 0.50	ES D B	2 3 4	Soft to firm dark brown slightly sandy slightly gravelly CLAY with occasional rootlets (<3 x 10mm). Sand is fine to coarse. Gravel is angular to subrounded fine to coarse flint. [SUPERFICIAL DEPOSITS - COHESIVE - CLAY]		0.60	58.99			
1.20	PID	<0.1	1.20 1.20 1.20	ES D B	3 5 6	Firm to stiff locally fissured brownish grey mottled orange, white and green sandy slightly CLAY. With subangular and subrounded claystone (<20mm). Rare flint and rare shell fragments (<10 x 10mm). Sand is fine to coarse. Fissures are randomly orientated, extremely closely spaced, smooth with black staining. [LONDON CLAY FORMATION A3 - CLAY] At 0.70m; frequent pockets (<100 x 100mm) of white and orange sand and silt.		(1.20)				
1.70	HV HVR	70/76/76 20/27/20				Stiff to very stiff friable fissured brown mottled greenish grey (gleyed) slightly sandy CLAY with pockets (<100 x 100mm) of orangish brown silty sand. Sand is fine to coarse. Fissures are randomly orientated, extremely closely spaced, smooth with frequent green staining. [LONDON CLAY FORMATION A3 - CLAY]		1.80	57.79			
			2.50 2.50	D B	7 8							
			2.75	D	9	2.70m to 2.80m; strong brown mottled black claystone (100 x 100 x 500mm).						
3.00	PID	<0.1	3.00	ES	4			(2.70)				
4.00	PID	<0.1	4.00 4.00 4.00	ES D B	5 10 11							
End of Trial Pit								4.50	55.09			

Remarks

(See notes & keysheets)

1

The walls of the pit were stable.

2

Initially a PAS128 survey was undertaken. Prior to excavation, a Cable Avoidance Tool (CAT) survey was performed to check for services. The trial pit was rescanned during excavation using a CAT. Services were not located.

3

Direct readings of hand vane (HV) and hand vane residual (HVR) tests given in kPa. HV and pocket penetrometer tests not suitable for made ground, silt, clays which are typically friable and/or have sand/gravel content.

4

On completion, exploratory hole backfilled as follows: arisings up to ground level.

5

Groundwater not encountered during excavation.

Scale 1:25

13/12/2017

Project

WEST RUISLIP  
HIGH SPEED TWO (HS2) LIMITED

Contract No.



G160015U





Figure No.





ML025-TP050

302/03



<b>Method of Excavation</b> CAT 420F2 <b>Surface Dimensions</b> 0.80m x 3.70m <b>Date Excavated</b> 08/11/2016 <b>Start End</b> 08/11/2016			<b>Plan</b> 		<b>TRIAL PIT No.</b> ML025-TP062 <b>Coordinates (National Grid)</b> 506576.51 E 187246.98 N <b>Ground Level</b> 53.03 m OD			
<b>Logged by</b> CM 08/11/2016			<b>Compiled by</b> prs 10/11/2016		<b>Checked by</b> NJB 11/12/2017			
<b>In-situ Testing</b>		<b>Samples</b>		<b>Description of Strata</b>		<b>Depth (Thickness) (m)</b>	<b>Level</b>	<b>Legend</b>
<b>Depth (m)</b>	<b>Type</b>	<b>Result</b>	<b>Depth (m)</b>	<b>Type</b>	<b>No.</b>			
0.05	PID	<0.1	0.05 0.10 0.10	ES D B	1 1 2	MADE GROUND: (Stiff) dark brown slightly sandy slightly gravelly clay with frequent rootlets (<3 x 5mm). Gravel is of flint, brick and concrete. Rare plastic (<60 x 40mm). [MADE GROUND - CLAY]		
			0.40 0.40	D B	4 5	MADE GROUND: (Firm) light orangish brown slightly sandy slightly gravelly clay with rare to occasional rootlets (<3 x 10mm). Gravel is flint, concrete, brick and wood. Rare rebar (<6 x 60mm) and carpet fragments (<20 x 30mm). [MADE GROUND - CLAY]		
1.00	PID	0.6	1.00 1.00 1.00	ES D B	2 6 7	Firm light grey locally brown mottled orange slightly sandy CLAY with frequent to occasional pockets (<10 x 50mm) of sand. Sand is mainly fine. Rare black specks. [LONDON CLAY FORMATION A2 - CLAY]		
1.40	HV HVR	56/56/46 36/34/26						
2.20	PID	<0.1	2.10 2.10 2.20	D B ES	8 9 3	Firm to stiff friable fissured light grey mottled brown and orangish brown slightly sandy CLAY with occasional pockets (<10 x 50mm) of orangish brown sand. Locally with rare to occasional crystals (<10 x 5mm) of gypsum. Sand is mainly fine. Fissures are randomly orientated, smooth with brown staining. [LONDON CLAY FORMATION A2 - CLAY]		
3.10	PID	<0.1	3.10 3.10	ES D	4 10	Below 3.10m; with occasional crystals (<10 x 5mm) of gypsum.		
4.10	PID	<0.1	4.10 4.10	ES D	5 11			
End of Trial Pit						4.50	48.53	
<b>Remarks</b> (See notes & keysheets)								
1 The walls of the pit were stable during excavation. 2 Initially a PAS128 survey was undertaken. Prior to excavation, a Cable Avoidance Tool (CAT) survey was performed to check for services. The trial pit was rescanned during excavation using a CAT. Services were not located. 3 Direct readings of hand vane (HV) and hand vane residual (HVR) tests given in kPa. HV and pocket penetrometer tests not suitable for made ground, silt, clays which are typically friable and/or have sand/gravel content. 4 On completion, exploratory hole backfilled as follows: arisings up to ground level. 5 Groundwater not encountered during excavation.								
<b>Scale</b> 1:25 			<b>Project</b> WEST RUISLIP HIGH SPEED TWO (HS2) LIMITED			<b>Contract No.</b> G160015U <b>Figure No.</b> ML025-TP062		
13/12/2017						302/03		

<b>Method of Excavation</b> CAT 420F2 <b>Surface Dimensions</b> 0.80m x 3.80m <b>Date Excavated</b> 08/11/2016 <b>Start End</b> 08/11/2016				<b>Plan</b> 		<b>TRIAL PIT No: ML025-TP080</b> <b>Coordinates (National Grid)</b> 506474.72 E 187257.28 N <b>Ground Level</b> 54.21 m OD				
<b>Logged by</b> CM 08/11/2016		<b>Compiled by</b> prs 10/11/2016		<b>Checked by</b> NJB 11/12/2017						
<b>In-situ Testing</b>			<b>Samples</b>			<b>Description of Strata</b>		<b>Depth (Thickness) (m)</b>	<b>Level</b>	<b>Legend</b>
<b>Depth (m)</b>	<b>Type</b>	<b>Result</b>	<b>Depth (m)</b>	<b>Type</b>	<b>No.</b>					
0.05	PID	<0.1	0.05 0.05 0.05	ES B D	1 1 2	MADE GROUND: Soft to firm brown slightly sandy slightly gravelly clay with frequent rootlets (<1 x 5mm). Gravel is angular to rounded fine to coarse of flint, brick, concrete and ash. [MADE GROUND - CLAY]		(0.30) 0.30	53.91	
			0.50 0.50	B D	3 4	MADE GROUND: Firm light orangish brown slightly sandy slightly gravelly clay with occasional rootlets (<1 x 1mm). Gravel is angular to rounded fine to coarse of flint, concrete and brick. [MADE GROUND - CLAY] At 0.55m; gravelly. gravel is brick and concrete.		(0.30) 0.60	53.61	
1.00	PID	<0.1	0.90 0.90 1.00	B D ES	5 6 2	Firm fissured light greyish brown mottled orange slightly sandy CLAY with frequent pockets and lenses (<100 x 100 x 200mm) of orange fine sand. Sand is mainly fine. Fissures are randomly orientated, very closely spaced, smooth with black staining. [LONDON CLAY FORMATION A2 - CLAY]		(1.50)		
1.20	HV HVR	68/68/68 34/28/34				Stiff locally firm friable locally fissured greenish grey (gleyed) and brown mottled orangish brown slightly sandy CLAY with frequent pockets (<10 x 50mm) of light brown and orange silty sand. Occasional crystals (<3 x 1mm) of gypsum. Fissures are 0-10 degs, very closely spaced, planar, smooth with brown and orange staining. [LONDON CLAY FORMATION A2 - CLAY]		2.10	52.11	
			2.50 2.50	B D	6 7					
			3.40	D	8	Below 3.50m; rare crystals (<30 x 10mm) of gypsum.		(2.40)		
			4.40	D	9					
						End of Trial Pit		4.50	49.71	
<b>Remarks</b> (See notes & keysheets)										
1 The walls of the pit were stable during excavation. 2 Initially a PAS128 survey was undertaken. Prior to excavation, a Cable Avoidance Tool (CAT) survey was performed to check for services. The trial pit was rescanned during excavation using a CAT. Services were not located. 3 Direct readings of hand vane (HV) and hand vane residual (HVR) tests given in kPa. HV and pocket penetrometer tests not suitable for made ground, silt, clays which are typically friable and/or have sand/gravel content. 4 On completion, exploratory hole backfilled as follows: arisings up to ground level. 5 Groundwater not encountered during excavation.										
<b>Scale 1:25</b>  13/12/2017						<b>Project</b> WEST RUISLIP HIGH SPEED TWO (HS2) LIMITED			<b>Contract No.</b> G160015U <b>Figure No.</b> ML025-TP080	

<b>Method of Excavation</b> CAT 420F2 <b>Surface Dimensions</b> 0.80m x 3.90m <b>Date Excavated</b> 07/11/2016 <b>Start End</b> 07/11/2016			<b>Plan</b> 		<b>TRIAL PIT No.</b> ML025-TP081 <b>Coordinates (National Grid)</b> 506368.06 E 187270.01 N <b>Ground Level</b> 57.31 m OD				
<b>Logged by</b> CM 07/11/2016 <b>Compiled by</b> prs 10/11/2016 <b>Checked by</b> NJB 11/12/2017									
<b>In-situ Testing</b>			<b>Samples</b>			<b>Description of Strata</b>	<b>Depth (Thickness) (m)</b>	<b>Level</b>	<b>Legend</b>
<b>Depth (m)</b>	<b>Type</b>	<b>Result</b>	<b>Depth (m)</b>	<b>Type</b>	<b>No.</b>				
0.05	PID	<0.1	0.05 0.05 0.05	ES B D	1 2 3	MADE GROUND: Firm light brown slightly sandy slightly gravelly clay with occasional roots and rootlets (<4 x 30mm). Gravel is angular to subrounded fine to coarse of flint, brick and concrete. [MADE GROUND - CLAY]	(0.45)	56.86	
0.60	PID	<0.1	0.60 0.60 0.60	ES B D	4 5 6	Firm to stiff light orangish brown slightly sandy slightly gravelly CLAY. Gravel is angular to subrounded fine to coarse flint. [SUPERFICIAL DEPOSITS - COHESIVE - CLAY]	(0.30)		
1.00	PID	<0.1	1.00 1.00 1.00	ES B D	7 8 9	Stiff brown locally grey fissured slightly gravelly sandy CLAY with rare rootlets. Sand is fine to coarse. Gravel is angular to subrounded fine to coarse flint. Fissures are 0-10 degs, very closely spaced, undulating and smooth. [SUPERFICIAL DEPOSITS - COHESIVE - CLAY]	0.75	56.56	
			1.40-1.50	B	10	1.40m to 1.50m; claystone layer (<1 x 0.5 x 0.1m).	(1.35)		
			1.70 1.70	B D	11 12	Below 1.60m; friable with occasional pockets and lenses (<100 x 50 x 20mm) of orange sand.	2.10	55.21	
			2.30 2.30	B D	13 14	Firm to stiff fissured light grey (gleyed) mottled orangish brown slightly sandy CLAY. Sand is fine to coarse. With occasional lenses of orangish brown and yellow sand and rare crystals (<5 x 5mm) of gypsum. Fissures are 0-10 degs, very closely spaced, undulating and smooth / polished with locally stained yellow. [LONDON CLAY FORMATION A2 - CLAY]	(2.40)		
3.90	HV HVR	49/90/90 20/25/35							
End of Trial Pit							4.50	52.81	
<b>Remarks</b> (See notes & keysheets) 1 The walls of the pit were stable during excavation. 2 Initially a PAS128 survey was undertaken. Prior to excavation, a Cable Avoidance Tool (CAT) survey was performed to check for services. The trial pit was rescanned during excavation using a CAT. Services were not located. 3 Direct readings of hand vane (HV) and hand vane residual (HVR) tests given in kPa. HV and pocket penetrometer tests not suitable for made ground, silt, clays which are typically friable and/or have sand/gravel content. 4 On completion, exploratory hole backfilled as follows: arisings up to ground level. 5 Groundwater not encountered during excavation.									
<b>Scale</b> 1:25  13/12/2017			<b>Project</b> WEST RUISLIP HIGH SPEED TWO (HS2) LIMITED				<b>Contract No.</b> G160015U <b>Figure No.</b> ML025-TP081		



## Appendix C – Chemical Testing Results

Soil Dry Weight Analysis		Hole ID	ML025-RC020	ML025-RC020	ML025-TP050	ML025-TP050
		Sample Depth	0.1	0.51	0.5	3
Determinand	Units	Strata	Topsoil - undifferentiated	London Clay Formation	London Clay Formation	London Clay Formation
Asbestos (Presence of)			-	-	NAD	-
Asbestos Quantification (Total %)			-	-	-	-
<b>Metals</b>						
Mercury	mg/kg		0.14	< 0.05	0.13	< 0.05
Trivalent Chromium	mg/kg		29	39	31	34
Lead	mg/kg		61	20	56	15
Nickel	mg/kg		17	48	18	35
Arsenic	mg/kg		14	13	15	12
Barium	mg/kg		66	66	67	25
Beryllium	mg/kg		0.9	1.3	0.9	1
Cadmium	mg/kg		0.1	< 0.1	0.2	< 0.1
Chromium	mg/kg		29	39	31	34
Copper	mg/kg		26	36	27	32
Vanadium	mg/kg		57	69	61	59
Zinc	mg/kg		68	73	64	66
Selenium	mg/kg		< 0.5	< 0.5	< 0.5	< 0.5
<b>BTEX</b>						
Ethylbenzene	mg/kg		< 0.01	< 0.01	< 0.01	< 0.01
Toluene	mg/kg		< 0.01	< 0.01	< 0.01	< 0.01
Xylene	mg/kg		< 0.01	< 0.01	< 0.01	< 0.01
Benzene	mg/kg		< 0.01	< 0.01	< 0.01	< 0.01
Organic matter	%		4.7	1.4	3.9	0.3
<b>TPHs</b>						
Aromatics >C5-7	mg/kg		-	-	< 0.01	< 0.01
Aromatics >C7-8	mg/kg		-	-	< 0.01	< 0.01
Aromatics >C8-10	mg/kg		-	-	< 0.01	< 0.01
Aromatics >C10-12	mg/kg		-	-	< 0.9	< 0.9
Aromatics >C12-16	mg/kg		-	-	< 0.5	< 0.5
Aromatics >C16-21	mg/kg		-	-	< 0.6	< 0.6
Aromatics >C21-35	mg/kg		-	-	< 1.4	< 1.4
Aromatics >C35-44	mg/kg		-	-	< 1.4	< 1.4
Aliphatics >C5-6	mg/kg				< 0.01	< 0.01
Aliphatics >C6-8	mg/kg				< 0.01	< 0.01
Aliphatics >C8-10	mg/kg				0.01	< 0.01
Aliphatics >C10-12	mg/kg				< 1.5	< 1.5
Aliphatics >C12-16	mg/kg				< 1.2	< 1.2
Aliphatics >C16-21	mg/kg				< 1.5	< 1.5
Aliphatics >C21-35	mg/kg				< 3.4	< 3.4
Aliphatics >C35-44	mg/kg				< 3.4	< 3.4
Aliphatics >C5-35	mg/kg				< 10	< 10
Total Aliphatics and Aromatics C5-C35	mg/kg				< 10	< 10
Total Aromatics C5-C35	mg/kg				< 10	< 10
<b>EPHs</b>						
EPH >C10-12	mg/kg		< 10	< 10	< 10	< 10
EPH >C12-16	mg/kg		< 10	< 10	< 10	< 10
EPH >C16-21	mg/kg		< 10	< 10	< 10	< 10
EPH >C10-40	mg/kg		< 10	< 10	< 10	< 10
EPH/TPH >C21-36	mg/kg		< 10	< 10	< 10	< 10
EPH/TPH >C36-40	mg/kg		< 10	< 10	< 10	< 10
<b>PAHs</b>						
Anthracene	mg/kg		< 0.03	< 0.03	< 0.03	< 0.03
Benzo(k)fluoranthene	mg/kg		< 0.03	< 0.03	< 0.03	< 0.03
Chrysene	mg/kg		< 0.03	< 0.03	< 0.03	< 0.03
Pyrene	mg/kg		0.04	< 0.03	0.04	< 0.03
Benzo (g,h,i) perylene	mg/kg		< 0.03	< 0.03	< 0.03	< 0.03
Indeno(1,2,3-cd)pyrene	mg/kg		< 0.03	< 0.03	< 0.03	< 0.03
Benzo(b)fluoranthene	mg/kg		< 0.03	< 0.03	< 0.03	< 0.03
Fluoranthene	mg/kg		0.05	< 0.03	0.05	< 0.03
Acenaphthylene	mg/kg		< 0.03	< 0.03	< 0.03	< 0.03
Benzo(a)pyrene	mg/kg		< 0.03	< 0.03	< 0.03	< 0.03
Dibenz-a-h-anthracene	mg/kg		< 0.03	< 0.03	< 0.03	< 0.03
Benzo(a)anthracene	mg/kg		< 0.03	< 0.03	< 0.03	< 0.03
Acenaphthene	mg/kg		< 0.03	< 0.03	< 0.03	< 0.03
Phenanthrene	mg/kg		< 0.03	< 0.03	< 0.03	< 0.03
Fluorene	mg/kg		< 0.03	< 0.03	< 0.03	< 0.03
Napthalene	mg/kg		< 0.03	< 0.03	< 0.03	< 0.03
Pah <sub>h</sub> Total	mg/kg		< 0.10	< 0.10	< 0.10	< 0.10
<b>General</b>						
Cyanide	mg/kg		0.4	< 0.1	0.2	< 0.1
Phenol (Monohydric)	mg/kg		1.5	0.9	< 0.3	< 0.3
Chromium - Hexavalent	mg/kg		< 1.0	< 1.0	< 1.0	< 1.0
Boron	mg/kg		2.5	1.1	1	1.8
pH	pH Units		6.5	7.8	7.7	7.8

Soil Leachate		Hole ID	ML025-RC020	ML025-RC020	ML025-TP050	ML025-TP050
		Sample Depth	0.1	0.51	0.5	3
Determinand	Units	Strata	Topsoil - undifferentiated	London Clay Formation	London Clay Formation	London Clay Formation
Cyanide	µg/l		0.00	0.00	0.000	0.000
Trivalent Chromium	µg/l		0.28	0.11	0.468	0.022
Lead	µg/l		0.18	<0.09	0.471	0.047
Mercury	µg/l		< 0.01	< 0.01	0.007	0.003
Nickel	µg/l		0.35	0.04	0.564	0.554
Arsenic	µg/l		0.32	0.15	0.641	0.239
Barium	µg/l		6.52	12.19	2.722	18.662
Beryllium	µg/l		0.02	< 0.1	< 0.1	< 0.1
Boron	µg/l		4.59	3.46	25.174	49.576
Cadmium	µg/l		0.00	0.00	0.002	0.013
Chromium	µg/l		0.28	0.11	0.468	0.022
Copper	µg/l		0.79	0.21	2.0	1.6
Vanadium	µg/l		0.75	0.18	1.466	0.170
Zinc	µg/l		1.94	1.01	2.499	2.666
Selenium	µg/l		0.09	0.35	1.259	1.072
pH	pH units		6.62	7.34	6.040	5.890



Groundwater		Hole ID	ML025-RC020	ML025-RC020	ML025-RC020	ML025-RC020	ML025-RC020	ML025-RC020	ML025-RC020	ML025-RC054
		Sample Depth	29	30	30	30	30	30	31	22.25
Determinand	Units									
Total hardness	mg/l		2780	2490	1810	1300	1170	911	350	568
Total Alkalinity as CaCO3	mg/l		450	520	480	340	350	310	280	240
Total dissolved solids	mg/l		3400	4400	3200	2200	1400	1500	700	830
Nitrogen	mg/l		2.6	2.1	1.9	1.4	2.2	1.1	21	13
Oxygen (Dissolved)	mg/l		8.8	10.8	9.1	3.1	7.2	10	4.5	9.3
Sulphate as SO4	mg/l		33	2000	150	1000	450	640	140	330
Chloride	mg/l		<10.00	200	130	140	95	84	30	55
Nitrate as NO3	mg/l		0.32	1.3	1.6	2.3	0.95	0.73	<0.10	<0.10
Cyanide	ug/l		0.7	<0.1	<0.1	0.4	0.2	0.2	<0.1	0.9
Trivalent Chromium	ug/l		<1.0	<1.0	<1.0	2.2	<1.0	<1.0	<1.0	<1.0
Lead	ug/l		0.19	<0.09	<0.09	0.12	0.15	0.17	0.1	0.11
Magnesium	mg/l		410	370	260	180	140	120	18	52
Mercury	ug/l		0.01	0.03	<0.01	<0.01	<0.01	<0.01	<0.01	0.04
Nickel	ug/l		9.2	6.7	6.7	9.7	11	9.3	7.4	12
Potassium	mg/l		27	32	21	19	18	12	5	15
Sodium	mg/l		160	190	130	93	62	63	24	47
Arsenic	ug/l		0.76	<0.16	0.26	0.53	0.22	0.21	0.42	1.1
Barium	ug/l		25	31	28	25	90	30	39	36
Beryllium	ug/l		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Boron	ug/l		1000	1500	860	670	570	540	120	310
Cadmium	ug/l		<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Chromium	ug/l		<0.25	0.44	<0.25	2.2	0.7	0.3	0.26	<0.25
Copper	ug/l		1.7	<0.4	1.4	1.8	0.8	2.1	0.8	1.5
Vanadium	ug/l		1	<0.6	<0.6	2.4	<0.6	<0.6	0.8	3.9
Zinc	ug/l		8.8	5.5	8.1	4.3	31	8.2	1.7	5.2
Calcium	mg/l		440	400	290	220	240	170	110	140
Selenium	ug/l		0.48	1.5	0.31	1.7	0.83	0.65	1.7	2.2
Cyanide Free	ug/l		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total Organic Carbon	mg/l			5	3.1			16		
Ethylbenzene	ug/l		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	ug/l		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylene	ug/l		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Benzene	ug/l		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Aromatics >C7-8	ug/l		<0.1	<0.1				<0.1	<0.1	
Aromatics >C8-10	ug/l		<0.1	<0.1				<0.1	<0.1	
Aromatics >C10-12	ug/l		<1.0	<1.0				<1.0	<1.0	
Aromatics >C12-16	ug/l		<1.0	<1.0				<1.0	<1.0	
Aromatics >C16-21	ug/l		<1.0	<1.0				<1.0	<1.0	
Aromatics >C21-35	ug/l		<1.0	<1.0				<1.0	19	
Aromatics >C35-44	ug/l		<1.0	<1.0				<1.0	<1.0	
EPH >C10-40	ug/l		<10	<10	<10	<10	92	<10	<10	240
Aliphatics >C5-6	ug/l		<0.1	<0.1				<0.1	<0.1	
Aliphatics >C6-8	ug/l		<0.1	<0.1				<0.1	<0.1	
Aliphatics >C8-10	ug/l		<0.1	<0.1				<0.1	<0.1	
Aliphatics >C10-12	ug/l		<1.0	<1.0				<1.0	<1.0	
Aliphatics >C12-16	ug/l		<1.0	<1.0				<1.0	7	
Aliphatics >C16-21	ug/l		<1.0	<1.0				<1.0	1.3	
Aliphatics >C21-35	ug/l		<1.0	<1.0				<1.0	41	
Aliphatics >C35-44	ug/l		<1.0	<1.0				<1.0	5	
Aliphatics >C5-35	ug/l		<10	<10				<10	50	
Aromatics >C5-7	ug/l		<0.1	<0.1				<0.1	<0.1	
Total Aliphatics and Aromatics C5-C35	ug/l		<10	<10				<10	69	
Total Aromatics C5-C35	ug/l		<10	<10				<10	20	
Phenol (Monohydric)	ug/l		<0.5	1.3	2.7	2.6	<1.5	<1.5	2.3	2
Carbendazim	ug/l		<0.1	<1.0				<0.1		
Glyphosate	ug/l		<0.2	1/5				<2.0		
2-(2,4-Dichlorophenoxy)propionic Acid	ug/l		<0.1	<0.5				<0.1		
Simazine	ug/l		<0.1	<0.5				<0.1		
Propazine	ug/l		<0.1	<0.5				<0.1		
Chlortoluron	ug/l		<0.1	<0.5				<0.1		
Trifluralin	ug/l		<0.1	<0.5				<0.1		
Carbetamide	ug/l		<0.1	<0.5				<0.1		
Clopyralid	ug/l		<0.1	<0.5				<0.1		
Atrazine	ug/l		<0.1	<0.5				<0.1		
Trietazine	ug/l		<0.1	<0.5				<0.1		
Cyanazine	ug/l		<0.1	<0.2				<0.1		
Bentazone	ug/l		<0.1	<0.5				<0.1		
Propetamphos	ug/l		<0.1	<0.5				<0.1		
Diuron	ug/l		<0.1	<0.5				<0.1		
Diazinon	ug/l		<0.1	<0.5				<0.1		
Isoproturon	ug/l		<0.1	<0.5				<0.1		
Chlorfenvinphos	ug/l		<0.1	<0.5				<0.1		
Cypermethrin	ug/l		<0.1	<0.5				<0.1		
Permethrin	ug/l		<0.1	<0.5				<0.1		
Metazachlor	ug/l		<0.1	<0.5				<0.1		
Mecoprop	ug/l		<0.1	<0.5				<0.1		
2,2-DichloroPropionic Acid	ug/l		<0.1	<2.0				<0.1		
Terbutryn	ug/l		<0.1	<0.5				<0.1		
MCPA	ug/l		<0.1	<0.5				<0.1		
4-Nitroaniline	ug/l		<1.0	<1.0				<1.7	<1	
4-Nitrophenol	ug/l		<1.0	<1.0				<1.7	<1	
Anthracene	ug/l		<1.0	<1.0				<1.7	<1	
Dimethylphthalate	ug/l		<1.0	<1.0				<1.7	<1	
Benzo(k)fluoranthene	ug/l		<1.0	<1.0				<1.7	<1	
Chrysene	ug/l		<1.0	<1.0				<1.7	<1	
P-Dinitrobenzene	ug/l		<1.0	<1.0				<1.7	<1	
Benzyl Alcohol	ug/l		<1.0	<1.0				<1.7	1.3	
4-Bromophenyl Phenyl Ether	ug/l		<1.0	<1.0				<1.7	<1	
Bis(2-ethylhexyl) adipate	ug/l		<1.0	<1.0				<1.7	<1	
Azobenzene	ug/l		<1.0	<1.0				<1.7	<1	
2,4-Dimethylphenol	ug/l		<1.0	<1.0				<1.7	<1	
Phenol	ug/l		<1.0	<1.0				<1.7	<1	
Bis(2-chloroethoxy)methane	ug/l		<1.0	<1.0				<1.7	<1	
Bis(2-ethylhexyl)phthalate	ug/l		<1.0	<1.0				<1.7	<1	
Di-N-Octyl Phthalate	ug/l		<1.0	<1.0				<1.7	<1	
Hexachlorobenzene (HCB)	ug/l		<1.0	<1.0				<1.7	<1	
1,2,4-Trichlorobenzene	ug/l		<1.0	<1.0				<1.7	<1	

2,4-Dichlorophenol	ug/l	<1.0	<1.0					<1.7	<1
2,4-Dinitrotoluene	ug/l	<1.0	<1.0					<1.7	<1
Diphenylamine	ug/l	<1.0	<1.0					<1.7	<1
Pyrene	ug/l	<1.0	<1.0					<1.7	<1
Dibenzofuran	ug/l	<1.0	<1.0					<1.7	<1
Benzo (g,h,i) perylene	ug/l	<1.0	<1.0					<1.7	<1
Indeno(1,2,3-cd)pyrene	ug/l	<1.0	<1.0					<1.7	<1
Benzo(b)fluoranthene	ug/l	<1.0	<1.0					<1.7	<1
Fluoranthene	ug/l	<1.0	<1.0					<1.7	<1
Acenaphthylene	ug/l	<1.0	<1.0					<1.7	<1
Bis(2-chloroisopropyl)ether	ug/l	<1.0	<1.0					<1.7	<1
Benzo(a)pyrene	ug/l	<1.0	<1.0					<1.7	<1
Dibenz-a-h-anthracene	ug/l	<1.0	<1.0					<1.7	<1
Benzo(a)anthracene	ug/l	<1.0	<1.0					<1.7	<1
2,3,4,6-Tetrachlorophenol	ug/l	<1.0	<1.0					<1.7	<1
4-Chloro-3-Methylphenol	ug/l	<1.0	<1.0					<1.7	<1
2,6-Dinitrotoluene	ug/l	<1.0	<1.0					<1.7	<1
Aniline	ug/l	<1.0	<1.0					<1.7	<1
4-Chlorophenyl Phenyl Ether	ug/l	<1.0	<1.0					<1.7	<1
Hexachlorocyclopentadiene	ug/l	<1.0	<1.0					<1.7	<1
Acenaphthene	ug/l	<1.0	<1.0					<1.7	<1
Diethylphthalate	ug/l	<1.0	<1.0					<1.7	<1
Di-N Butyl Phthalate	ug/l	<1.0	<1.0					<1.7	<1
Phenanthrene	ug/l	<1.0	<1.0					<1.7	<1
Butylbenzylphthalate	ug/l	<1.0	<1.0					<1.7	<1
Fluorene	ug/l	<1.0	<1.0					<1.7	<1
Carbazole	ug/l	<1.0	<1.0					<1.7	<1
Pentachlorophenol (PCP)	ug/l	<1.0	<1.0					<1.7	<1
2,4,6-Trichlorophenol	ug/l	<1.0	<1.0					<1.7	<1
2-Nitroaniline	ug/l	<1.0	<1.0					<1.7	<1
Naphthalene1-methyl-	ug/l	<1.0	<1.0					<1.7	<1
Napthalene	ug/l	<1.0	<1.0					<1.7	<1
2-Methylnapthalene	ug/l	<1.0	<1.0					<1.7	<1
2-Chloronapthalene	ug/l	<1.0	<1.0					<1.7	<1
2,3,5,6-Tetrachlorophenol	ug/l	<1.0	<1.0					<1.7	<1
2-Methylphenol	ug/l	<1.0	<1.0					<1.7	<1
2-Chlorophenol	ug/l	<1.0	<1.0					<1.7	<1
2,4,5-Trichlorophenol	ug/l	<1.0	<1.0					<1.7	<1
3-Nitroaniline	ug/l	<1.0	<1.0					<1.7	<1
M-Dinitrobenzene	ug/l	<1.0	<1.0					<1.7	<1
3/4 Methylphenol	ug/l	<1.0	<1.0					<1.7	<1
1,2-Dichloroethane	ug/l	<1	<1					<1	<1
Ethylbenzene	ug/l	<1	<1					<1	<1
Styrene	ug/l	<1	<1					<1	<1
trans-1,3-Dichloropropene	ug/l	<1	<1					<1	<1
n-propylbenzene	ug/l	<1	<1					<1	<1
n-Butylbenzene	ug/l	<1	<1					<1	<1
4-Chlorotoluene	ug/l	<1	<1					<1	<1
1,4-Dichlorobenzene	ug/l	<1	<1					<1	<1
1,2-Dibromoethane	ug/l	<1	<1					<1	<1
1,3,5-Trimethylbenzene	ug/l	<1	<1					<1	<1
Bromobenzene	ug/l	<1	<1					<1	<1
Toluene	ug/l	<1	<1					<1	<1
Chlorobenzene	ug/l	<1	<1					<1	<1
1,2,4-Trichlorobenzene	ug/l	<1	<1					<1	<1
Dibromochloromethane	ug/l	<1	<1					<1	<1
Tetrachloroethene	ug/l	<1	<1					<1	<1
Sec-Butylbenzene	ug/l	<1	<1					<1	<1
1,3-Dichloropropane	ug/l	<1	<1					<1	<1
cis-1,2-Dichloroethene	ug/l	<1	<1					<1	<1
trans-1,2-Dichloroethene	ug/l	<1	<1					<1	<1
1,3-Dichlorobenzene	ug/l	<2	<2					<2	<1
cis1,3-Dichloropropene	ug/l	<1	<1					<1	<1
Tetrachloromethane (Carbon Tetra Chloride)	ug/l	<1	<1					<1	<1
1,1-Dichloropropene	ug/l	<1	<1					<1	<1
2,2-Dichloropropane	ug/l	<2	<2					<2	<1
1,1,1,2-Tetrachloroethane	ug/l	<1	<1					<1	<1
Chloroform	ug/l	2	<1					<1	<1
Benzene	ug/l	<1	<1					<1	<1
1,1,1-Trichloroethane	ug/l	<1	<1					<1	<1
Bromomethane	ug/l	<1	<1					<1	<1
Chloromethane	ug/l	<1	<1					<1	<1
Dibromomethane	ug/l	<1	<1					<1	<1
Bromochloromethane	ug/l	<4	<4					<4	<4
Chloroethane	ug/l	<1	<1					<1	<1
Chloroethene	ug/l	<1	<1					<1	<1
Tribromomethane	ug/l	<1	<1					<1	<1
Bromodichloromethane	ug/l	<4	<4					<4	<4
1,1-Dichloroethane	ug/l	<1	<1					<1	<1
1,1-Dichloroethene	ug/l	<1	<1					<1	<1
Trichlorofluoromethane	ug/l	<1	<1					<1	<1
Dichlorodifluoromethane	ug/l	<1	<1					<1	<1
1,2-Dichloropropane	ug/l	<1	<1					<1	<1
1,1,2-Trichloroethane	ug/l	<1	<1					<1	<1
Trichloroethene	ug/l	<1	<1					<1	<1
1,1,2,2-Tetrachloroethane	ug/l	<1	<1					<1	<1
1,2,3 Trichlorobenzene	ug/l	<1	<1					<1	<1
Hexachlorobutadiene (HCBD)	ug/l	<1	<1					<1	<1
Napthalene	ug/l	<1	<1					<1	<1
O-Xylene	ug/l	<1	<1					<1	<1
2-Chlorotoluene	ug/l	<1	<1					<1	<1
1,2-Dichlorobenzene	ug/l	<1	<1					<1	<1
1,2,4-Trimethylbenzene	ug/l	<1	<1					<1	<1
1,2-Dibromo-3-Chloropropane	ug/l	<1	<1					<1	<1
1,2,3-Trichloropropane	ug/l	<1	<1					<1	<1
Tert-Butylbenzene	ug/l	<1	<1					<1	<1
Isopropylbenzene	ug/l	<1	<1					<1	<1
4-Isopropyltoluene	ug/l	<1	<1					<1	<1
m,p xylenes	ug/l	<2	<2					<2	<2
Chromium - Hexavalent	ug/l	<7.0	<7.0	<7.0	<7.0	<7.0	<7.0	<7.0	<7.0
Solids, Suspended	mg/l	360	69	37	990	3000	140	5700	6700

[illegible]