



Geotechnical &  
Environmental  
Consultants

The Campus  
Spring Way  
Hemel Hempstead

**Phase I Desk Study Report  
For  
Gyron Internet Limited**






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## **1.0 INTRODUCTION**

### **1.1 Introduction**

GeoDyne Ltd has been appointed by Gyron Internet Limited to undertake a Phase I Desk Study on the site known as The Campus, Spring Way, Hemel Hempstead.

### **1.2 Scope of Works**

The scope of the Phase I Desk Study included the following:

- Site walkover survey.
- Review of available historical and contemporary Ordnance Survey publications relating to the site.
- Review of the sites geology, hydrology, hydrogeology and groundwater vulnerability.
- Review of the sites coal mining status.
- Review of the sites radon status.
- Production of a site specific Conceptual Site Model (CSM).
- Commission of a full detailed Landmark Envirocheck Report relating to the site.

### **1.3 Project Understanding**

It is understood that development proposals include the demolition of the current structures (offices and car parking) and redevelopment of the site as a data centre (i.e. a commercial end use). The assessments made in this report reflect this understanding. If our understanding is incorrect it would be necessary to review our report to ensure it continues to apply.

### **1.4 Limitations**

The conclusions and recommendations made in this report are limited to those that can be made based on the findings of the investigation. Where comments are made based on information obtained from third parties, GeoDyne Ltd assumes that all third party information is true and correct. No independent action has been undertaken to validate the findings of third parties.

This report has been prepared in accordance with our understanding of current best practice. However changes to best practice, guidance or legislation may necessitate revision of this report after the date of issue.

GeoDyne Ltd has prepared this report for the sole use and reliance of the Client, Gyron Internet Limited, in accordance with our Standard Conditions and Limitations (included in Appendix VIII). This report may not be used or relied upon by any unauthorised third party without the explicit written agreement of GeoDyne Ltd.

## **2.0 SITE DESCRIPTION & HISTORY**

### **2.1 Site Description**

A site walkover was undertaken on 28<sup>th</sup> May 2013. The site comprises an irregularly shaped parcel of land located around Spring Way, Hemel Hempstead, and may be located centred around Ordnance Survey national grid reference 507980E 208180N. The site covers an area of approximately 3.91 hectares.

The site comprises a business park known as The Campus although at the time of the site walkover a majority of the existing structures were in the process of being demolished. Prior to the commencement of demolition works the site was occupied by five large office buildings (three storey brick built). However, at the time of the walkover three of the five buildings had been demolished (two in the east and one in the west) leaving large stockpiles of crushed brick and concrete. One office, located in the northeast of the site, was vacant and a single office in the centre of the site was still in use. Spring Way (a block paved road) provided access to each of the premises.

A multi-storey car park was located in the north of the site and a subterranean car park was present in the northeast corner of the site. A staged oil/water interceptor is understood to be located in this area. Further areas of ground level car parking were located across the site surrounding the office buildings. Electricity sub-stations were observed in the northern, central and southern areas of the site.

The demolition contractor confirmed that they are not aware of any fuel storage at the site or the presence of basements associated with the current buildings.

Areas of soft landscaping, including trees and shrubs, were present across the site. The southern area of Spring Way was observed to slope downwards gently to the west with levels retained to the north via localised banking.

The site was observed to be situated within an area of commercial development predominantly comprising offices with the exception of land located to the southeast of the site beyond Maxted Close which included a waste transfer station (or similar).

A site location plan (Figure No. 33068/01) is included in Appendix I. An annotated site plan (Figure No. 33068/02) is included as Appendix II of this report, with a plan showing general views of the site (Figure No. 33068/03) included as Appendix III. Selected photographs of the key features at the site are presented in Appendix VI.

### **2.2 Site History**

The historical and contemporary Ordnance Survey publications included within the Landmark Envirocheck Report have been reviewed by GeoDyne to establish the history of the site and its environmental setting. The historical Ordnance Survey maps are included as Appendix IV of this report.

We would note that the boundary marked on the historical sheets within the Envirocheck Report appears to 'shift' on several of the maps due to scaling inaccuracies between maps of differing dates. This is a function of Envirocheck transposition algorithms. The key findings of the historical search are summarised in Table 1.

TABLE 1 – HISTORICAL PUBLICATION DATA

Date	Features on Site	Features off Site
1978	<ul style="list-style-type: none"> <li>The site is shown as open fields with a track crossing the southern boundary.</li> </ul>	<ul style="list-style-type: none"> <li>The site is indicated to be generally surrounded by open fields.</li> <li>A track is identified 60m east of the site.</li> <li>A roadway is identified 80m south of the site.</li> <li>A Brick Field (later identified as a Brick Works) is shown 220m southwest of the site (indicated as disused on the 1925 mapping).</li> </ul>
1938	<ul style="list-style-type: none"> <li>The site appears essentially unchanged.</li> </ul>	<ul style="list-style-type: none"> <li>Residential housing is shown 60m south of the site.</li> </ul>
1947	<ul style="list-style-type: none"> <li>The site appears essentially unchanged.</li> </ul>	<ul style="list-style-type: none"> <li>Further residential housing is shown 60m south of the site.</li> </ul>
1960	<ul style="list-style-type: none"> <li>Several buildings (including two large) are indicated in the north of the site. The site is labelled as Factories.</li> </ul>	<ul style="list-style-type: none"> <li>A factory is indicated adjacent to the north of the site.</li> <li>Further factories are indicated from 20m to the west of the site.</li> <li>The brick works to the southwest of the site is no longer shown.</li> </ul>
1969	<ul style="list-style-type: none"> <li>Additional small buildings are identified across the site.</li> <li>Additional large buildings are indicated in the southwest and northeast of the site. The building in the southwest and northeast of the site are identified as Photographic Works.</li> <li>The building adjacent to the eastern boundary is identified as an Engineering Works.</li> <li>Tanks are identified in the north and the south of the site respectively.</li> <li>An electricity sub-station is identified in the central area of the site.</li> <li>Soft landscaping is identified in the northeast of the site.</li> </ul>	<ul style="list-style-type: none"> <li>The site is indicated to be surrounded to the northeast, north and west of the site by factories and Engineering Works.</li> <li>A Depot with numerous tanks is shown 70m to the northeast of the site.</li> <li>A Sports Field is identified 70m east of the site.</li> </ul>
1986	<ul style="list-style-type: none"> <li>The site appears to have been generally cleared of development.</li> <li>A new large building is shown in the west of the site.</li> </ul>	<ul style="list-style-type: none"> <li>The large building to the north of the site is no longer shown.</li> </ul>
1991	<ul style="list-style-type: none"> <li>The site is indicated to have been redeveloped with a number of offices situated across the site served by an access road named Spring Way.</li> <li>5No. electricity sub-stations are identified across the site.</li> </ul>	<ul style="list-style-type: none"> <li>Large buildings are indicated adjacent to the north, south and east of the site.</li> </ul>
1996	<ul style="list-style-type: none"> <li>The site appears essentially unchanged.</li> </ul>	<ul style="list-style-type: none"> <li>The buildings indicated 20m northeast of the site have been redeveloped.</li> </ul>
2006	<ul style="list-style-type: none"> <li>The site appears essentially unchanged.</li> </ul>	<ul style="list-style-type: none"> <li>The Sports Field is indicated to have been redeveloped as two large buildings.</li> </ul>
2013	<ul style="list-style-type: none"> <li>The site appears essentially unchanged.</li> </ul>	<ul style="list-style-type: none"> <li>No significant changes to the immediate surrounding area are identified.</li> </ul>

### 3.0 GEOLOGICAL & ENVIRONMENTAL SETTING

#### 3.1 Geological References

The following geological publications were referred to:

- BGS 1:50,000 Solid & Drift Sheet 238 (1923).
- BGS 1:10,560 County Series Sheet XXXIV NW (1899).
- Memoirs of the Geological Survey, Explanation of Sheet 238 *'The Geology of the Country Around Aylesbury and Hemel Hempstead'* (1922).
- The Coal Authority and the Law Society Publication *'Coal Mining and Brine Subsidence Claim Searches - Directory and Guidance'*, Sixth Edition (2006).
- BRE Report BR211 *'Radon: guidance on protective measures for new dwellings'* (2007).

#### 3.2 Geology

The entire site is indicated to be immediately underlain by the Lambeth Group (formerly Reading Beds) dating from the Paleocene epoch. The Memoir for a area indicates *'The reading beds are variable in character usually they are composed of red clay, mottled with greenish or grey patches, over white or buff, cross bedded sands with seams of grey clay and a layer of unrolled flints at the base resting on chalk. At Cowcroft the total thickness is about 31ft; at Bennetts End there are about 40ft of Reading Beds'*.

The memoir identifies a number of specific historical exposures of clay in brick pits across the area and indicates the presence of pebbles with some flints and locally chalky deposits in the sections exposed.

Furthermore, an annotation on the BGS 1:10,560 mapping indicates that stratum comprising *'clay with few stones'* underlies the site.

No drift deposits are indicated to underlie the site on the geological maps.

##### 3.2.1 Historical Borehole Logs

In order to provide further information with regard to the underlying geology seven BGS borehole records ranging between 68m (north) and 181m (northeast) (the nearest available) were obtained for the site.

The Made Ground logged for the surrounding area was encountered at depths ranging between 0.20m and 2.20m (where encountered).

The underlying natural strata was recorded as a soft to stiff orange brown grey mottled variably gravelly silty sandy CLAY to maximum proven depths ranging between 4.50m-18.35m (identified as Woolwich and Reading Beds). The SPTs 'N' values in this material ranged between 7 (firm) and 76 (hard) although were typically approximately 15 (stiff).

The above stratum was indicated to be underlain by stratum identified as Upper Chalk comprising soft, buff white putty CHALK with flint gravel to a maximum proven depth of 20.00m (full depth not penetrated). SPT 'N' values were indicated to vary between 9-51.

No groundwater was recorded during the advancement of any of the seven boreholes.

### 3.3 Faults

No faults are indicated on, or within the vicinity of, the site on the reviewed geological maps.

### 3.4 Made Ground

No made ground is indicated on, or within potential influencing distance of, the site on the reviewed geological maps.

### 3.5 Hydrogeology

#### Groundwater Vulnerability

The Bedrock Aquifer designation for the site is indicated to be 'Secondary A'. This is described by the Environment Agency as *'permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers'*. No drift deposits are indicated to underlie the site.

#### Source Protection Zones

The Landmark Envirocheck Report identifies that the site is located within Zone III Source Protection Zone (SPZ). This is defined as *'the area around a source within which all groundwater recharge is presumed to be discharged at the source'*.

The Agency and Hydrological, Groundwater Vulnerability and Source Protection Zone maps within the Envirocheck Report are included in Appendix V to this report.

### 3.6 Hydrology

A review of the hydrological maps included within the Envirocheck Report (presented in Appendix V) has revealed the following information with regards to the hydrological assessment of the site:

#### Surface Water

There are no recorded surface water features within 250m of the site.

#### Flood Risk

The Envirocheck Report indicates that the site does not lie within an area identified to be at risk from flooding.

### 3.7 Coal Mining Report

The site does not lie within an area requiring the commission of a Coal Mining Report in accordance with The Coal Authority and The Law Society publication *'Coal Mining and Brine Subsidence Claim Searches - Directory and Guidance'*, Sixth Edition (2006).

A Coal Mining Report is therefore not required and no specific investigation or mitigation measures are required in relation to historical coal mining issues.

### 3.8 Radon

The commissioned Envirocheck Report for the site states that the site is in a '*lower probability radon area, as less than 1% of homes are above the action level*' and that '*No radon protective measures are necessary in the construction of new dwellings or extensions*'.

### 3.9 Landmark Envirocheck Report

A Landmark Envirocheck Report was commissioned to assist in ascertaining the environmental setting of the site. The full Envirocheck Report is presented in Appendix V and has revealed the following relevant information (details are only listed where an entry is recorded within 250m of the site).

#### Discharge Consents

A single Discharge Consent is identified within a 250m radius of the site. This is associated with a Trade Effluent Discharge-Site Drainage entry located 230m north of the site.

#### Integrated Pollution Controls

Four Integrated Pollution Controls are recorded within a 250m radius of the site. These are associated with Henkel Loctite Adhesives Ltd from 125m southeast of the site. The entries are associated with inorganic chemical processes and non-ferrous metal processes.

#### Integrated Pollution Prevention and Controls

Seven Integrated Pollution Controls are recorded within a 250m radius of the site. These are associated with the production of non ferrous metals at Henkel Loctite Adhesives Ltd 124m southeast of the site.

#### Local Authority Pollution Prevention and Controls

Two Local Authority Pollution Prevention Controls are recorded within a 250m radius of the site. These are associated with a dry cleaners 141m southwest of the site.

#### Substantiated Pollution Incident Register

A single substantiated Pollution Incident Register entry is recorded within a 250m radius of the site. This is associated with the release of smoke and fire fighting run-off 47m southeast of the site in 2007.

#### Water Abstractions

Two groundwater abstractions are recorded within a 500m radius of the site. These are associated with permits for the abstraction of groundwater for the purpose of non-evaporative cooling 375m southwest of the site.

#### Water Industry Act Referrals

A single Water Industry Act Referral entry is recorded within a 250m radius of the site (96m southwest) associated with the release of Special Category effluents.



### Waste

A single Waste Management Facility is recorded within a 250m radius of the site. This is associated with a Household, Commercial and Industrial Transfer Station located 118m east of the site.

A single Registered Waste Transfer Site is located within a 250m radius of the site. This entry is associated with a Transfer Site authorised to receive asbestos cement and 'Herts Class P-Non-Haz. Excav/Dem.Etc' located 208m west of the site.

There are no waste sites identified (i.e. former or current landfills, treatment or disposal sites etc.) at the site, or in the immediate vicinity of the site in the Landmark Envirocheck report.

### Hazardous Substances

No Waste issues are identified on or within 250m of the site.

### Geological

There is a moderate hazard potential from shrinking and swelling clay ground stability hazards at the site. All other stability hazards identified within the Landmark report within the immediate vicinity of the site are deemed as having a 'Low Hazard' to 'No Hazard' potential.

### Industrial Land Use

A single Contemporary Trade Directory Entry is recorded on the site. This is identified as Epson who are classed as a 'manufacturer'. Seventy Contemporary Trade Directory Entries are recorded within a 250m radius of the site identified as telecommunications equipment and systems, radio communication equipment, printers, garage services, clothing manufacturers, electrical goods sales and manufacturers, office furniture and equipment, disability equipment manufactures and suppliers.

### Sensitive Land Use

The site is indicated as being located within a Nitrate Vulnerable Zone, according to the Department for Environment, Food and Rural Affairs (DEFRA). In our experience a majority of this area of the country is defined as a Nitrate Vulnerable Zone and this classification is considered not to present a potential risk to the redevelopment of the site.

The Sensitive Land Uses Map, included within the Landmark Envirocheck Report, is presented in Appendix V of this report.

## **3.10 Land Use Assessment**

As part of the land use assessment, reference has been made to the 'Desk Reference Guide to potentially Contaminative Land Uses' produced by Mr P Syms and published jointly by the ISVA (The Professional Society for Valuers and Auctioneers) in association with The Royal Institution of Chartered Surveyors (RICS) and the Chartered Institute of Environmental Health (CIEH).

We have also made reference to the Department for Environment, Food and Rural Affairs and the Environment Agency Contaminated Land Report CLR8 *'Potential Contaminants for the Assessment of Land'* (March 2002). Although now formerly withdrawn, this document identifies key contaminants which may potentially be present at a site as a result of a given historical land use and is considered useful as a ready reference.

### 3.10.1 On Site Assessment

The Phase I Desk Study enquiries have revealed that the site comprised open fields up until its development as a photographic and engineering works in the 1960s. The site included two unidentified above ground storage tanks and an electricity sub-station.

With regard to photographic works the *'Desk Reference Guide to potentially Contaminative Land Uses'* confirms *'The sensitivity to light of certain metallic salts was first used for photographic purposes in the 19<sup>th</sup> Century and they are still used to day. Modern photographic films are coated with gelatine layers containing grains of silver halide salts (e.g. silver chloride, silver bromide) to form emulsions, with chemical and spectral sensitizers to increase the sensitivity to light. When exposed to light, the silver halide molecules are reduced and converted to metallic silver and bromine or chlorine gas. The gas is lost and the silver atoms associate with photographic emulsion to form a latent image....'*

*In addition to the metals and chemicals used in the production of film, other chemicals are employed in the processing stages. These include alkalis, (e.g. sodium hydroxide), accelerators (e.g. acetic acid, cinnamic acid disulphide), preservatives (e.g. potassium sulphite, ascorbic acid), restrainers and anti-foggants (e.g. benzotriazole, potassium bromide), wetting agents and hardening agents.*

*Liquid wastes include spent chemical solutions which overflow from the processing machines through the replenishment process, together with substantial quantities of wash water. With the exception of very large commercial processing plants, discharge of liquid wastes is to the foul sewer without prior treatment. Recovery of silver is undertaken by feeding spent fixing agent and bleach solutions into storage containers where metal settles out. Solid wastes, such as scrap film, may have been disposed of on site'.*

In the 1980s the site was cleared and redeveloped as offices with a multi-storey car park. An interceptor is located in the southwest of the site and five electricity sub-stations are indicated to have been present on the site.

Therefore, based on our current knowledge of the site and observations made during the site visit, the following potential contaminants may be present within the area of the proposed development:

- Metals and metalloids.
- Natural Metal Enrichment (NME) in the Natural Strata.
- Polycyclic Aromatic Hydrocarbons (PAHs).
- Oil/fuel hydrocarbons from historical operation / storage activities at the site.
- Solvents associated with historical operation of photographic / engineering works.
- Polychlorinated Biphenyls (PCB) associated with electricity sub-stations.
- Asbestos associated with demolition of former structures.
- Acid/Sulphate contaminated soils.
- Potentially hazardous ground gases (i.e. Methane and Carbon Dioxide) originating from deep Made Ground associated with the demolition of former photographic / engineering works and the former brick works.

### **3.10.2 Off Site Assessment**

The area surrounding the site has historically been utilised for a variety of land uses including engineering works, factories, depot including numerous tanks (80m northeast), garages and a brick works (220m southwest of the site).

The off site potential contaminants associated with the above surrounding land uses is considered to be similar to the above on site potential contaminants listed in Section 3.11.1 above.

## 4.0 CONCEPTUAL SITE MODEL

### 4.1 General

The DEFRA publication ‘*Environmental Protection Act 1990: Part 2A Contaminated Land Statutory Guidance*’ (dated April 2012) states the following with regards to the production of a Conceptual Site Model (CSM) for a site:

*‘The process of risk assessment involves understanding the risks presented by land, and the associated uncertainties. In practice, this understanding is usually developed and communicated in the form of a “conceptual model”.* The development of a CSM is typically undertaken in an iterative process, reflecting the changes in understanding as more detailed site information becomes available.

In developing a CSM, and specifically in the context of land contamination, consideration needs to be given to three essential elements; which form the basis of any risk present. The statutory guidance sections 3.8 and 3.9 (April 2012) states the following with respect to Part 2A.

*‘Under Part 2A, for a relevant risk to exist there needs to be one or more contaminant-pathway-receptor [CPR] linkages – “contaminant linkage” – by which a relevant receptor might be affected by the contaminants in question. In other words, for a risk to exist there must be contaminants present in, on or under the land in a form and quantity that poses a hazard, and one or more pathways by which they might significantly harm people, the environment, or property; or significantly pollute controlled waters. For the purposes of this guidance:*

- (a) A “contaminant” is a substance which is in, on or under the land and which has the potential to cause significant harm to a relevant receptor, or to cause significant pollution of controlled waters.*
- (b) A “receptor” is something that could be adversely affected by a contaminant, for example a person, an organism, and ecosystem, property, or controlled waters. The various types of receptors that are relevant under the Part 2A regime are explained in later sections.*
- (c) A “pathway” is a route by which a receptor is or might be affected by a contaminant.*

*The term “contaminant linkage” means the relationship between a contaminant, a pathway and a receptor. All three elements of a contaminant linkage must exist in relation to a particular land before the land can be considered potentially to be contaminated land under Part 2A, including evidence of the actual presence of contaminants. The term “significant contaminant linkage”, as used in this Guidance, means a contaminant linkage which gives rise to a level of risk sufficient to justify a piece of land being determined as contaminated land. The term “significant contaminant” means the contaminant which forms part of a significant contaminant linkage.’*

With respect to the presence of background levels of contaminants, section 3.21 to 3.23 states ‘*The Part 2A regime was introduced to help identify and deal with land which poses unacceptable levels of risk. It was not intended to apply to land with levels of contaminants in soil that are commonplace and widespread throughout England or parts of it, and for which in the very large majority of cases there is no reason to consider that there is an unacceptable risk.*

*Normal levels of contaminants in soil should not be considered to cause land to qualify as contaminated land, unless there is a particular reason to consider otherwise. Therefore, if it is established that land is at or close to normal levels of particular contaminants, it should usually not be considered further in relation to the Part 2A regime...*

*For the purpose of this Guidance, “normal” levels of contaminants in soil may result from:*

- (a) The natural presence of contaminants (e.g. caused by soil formation processes and underlying geology) at levels that might reasonably be considered typical in a given area and have not been shown to pose an unacceptable risk to health or the environment.*
- (b) The presence of contaminants caused by low level diffuse pollution, and common human activity other than specific industrial processes. For example, this would include diffuse pollution caused by historic use of leaded petrol and the presence of benzo(a)pyrene from vehicle exhausts, and the spreading of domestic ash in gardens at levels that might reasonably be considered typical.’*

*In selecting appropriate generic assessment criteria Section 3.27 of the Guidance states:*

*‘It is common practice in contaminated land risk assessment to use “generic assessment criteria” (GACs) as screening tools in generic quantitative human health risk assessment to help assessors decide when land can be excluded from the need for further inspection and assessment, or when further work would be warranted’.*

*With respect to assessing contaminated land, section 4.17 of the Guidance states:*

*‘In deciding whether or not land is contaminated land on grounds of significant possibility of significant harm to human health, the local authority should use the categorisations described in paragraphs 4.19 – 4.30 below. Categories 1 and 2 would encompass land which is capable of being determined as contaminated land on the grounds of significant possibility of harm to human health. Categories 3 and 4 would encompass land which is not capable of being determined on such grounds.’*

*In relation to the use of GAC values in the assessment of contaminated land, section 3.29 of the Guidance states:*

*‘GACs relating to human health risk assessment represent cautious estimates of levels of contaminants in soil at which there is considered to be no risk to health or, at most, a minimal risk to health. With regards to such GACs:*

- (a) They may be used to indicate when land is very unlikely to pose a significant possibility of significant harm to human health. This is on the basis that they are designed to estimate levels of contamination at which risks are likely to be negligible or minimal and far from posing a significant possibility of significant harm to human health.*
- (b) They should not be used as direct indicators of whether a significant possibility of significant harm to human health may exist. Also, the local authority should not view the degree by which the GACs are exceeded (in itself) as being particularly relevant to this consideration, given that the degree of risk posed by land would normally depend on many factors other than simply the amount of contaminants in soil.*
- (c) They should not be seen as screening levels which describe the boundary between Categories 3 and 4 in terms of Section 4 (i.e. the two Categories in which land would not be contaminated land on grounds of risk to human health). In the very large majority of cases, these SGVs/GACs describe levels of contamination from which risks should be considered to be comfortably within Category 4.*

- (d) *They should not be viewed as indicators of levels of contamination above which detailed risk assessment would automatically be required under Part 2A.*
- (e) *They should not be used as generic remediation targets under the Part 2A regime. Nor should they be used in this way under the planning system, for example in relation to ensuring that land affected by contamination does not meet the Part 2A definition of contaminated land after it has been developed.'*

In undertaking a risk assessment and deriving a CSM for the purposes of the redevelopment of a site (i.e. planning and development control) reference has been made to both the Model Procedures for the Management of Land Contamination, as well as the National Planning Policy Framework (NPPF, dated March 2012). Reference has also been made to the Contaminated Land Statutory Guidance (referenced above), although this is primarily concerned with Local Government determinations of Statutory 'Contaminated Land', which is separate to planning framework requirements.

#### **4.2 Contaminant [C] - Pathway [P] - Receptor [R] Considerations**

The following CPR assessment has been undertaken based on the assumption of a residential end use.

#### **4.3 Consideration of Potential Sources of Contamination [C]**

The potential sources of contamination at the site are primarily:

- Metals and metalloids associated with any Made Ground.
- Natural Metal Enrichment (NME) in the Natural Strata.
- Polycyclic Aromatic Hydrocarbons (PAHs) with any Made Ground.
- Oil/fuel hydrocarbons.
- Asbestos associated.
- Acid/Sulphate contaminated soils.
- Polychlorinated biphenyls (PCBs).
- Potentially hazardous ground gases (i.e. Methane and Carbon Dioxide) from possible deep Made Ground associated with the former photographic / engineering works at the site and the former brick works (off site).

#### **4.4 Consideration of Potential Pathways [P]**

The potential pathways at the site are primarily:

- Direct ingestion of soil.
- Inhalation of dust and vapours.
- Direct skin contact with the ground.
- Direct contact with building materials.
- Vertical and lateral migration of contamination.
- Vertical and lateral migration of potentially hazardous ground gases/vapours.

#### 4.5 Consideration of Potential Receptors [R]

The potential receptors at the site are:

- The construction personnel (i.e. site workers) involved with the development of the site (typically short term (acute) exposure).
- The final end users (site users - typically long term (chronic) exposure).
- Controlled waters (i.e. principally underlying groundwater).
- Buildings/construction materials.

#### 4.6 Summary

Our preliminary conceptual site model of possible CPR pollutant linkages, applicable to the proposed site usage, is summarised in Table 2.

In providing an opinion on the possible risk attributable to the appropriate CPR linkage, we have used the following hierarchy:

**Unlikely      <      Plausible      <      Likely**

TABLE 2 - SUMMARY OF PRELIMINARY CPR ASSESSMENT				
Contaminant [C]	Pathway [P]	Receptor [R]	Comments	CPR Linkage Risk
<i>Potentially contaminated soils associated with the sites historic usage.</i>	<i>Ingestion and dermal contact</i>	<i>Site Workers/End Users</i>	<p>The site is indicated to have been operated as a photographic / engineering works between the 1960s and the 1980s. Ground / groundwater contamination associated with these industries may be present.</p> <p>Site workers and end users could therefore potentially be exposed to contamination at the site associated with the sites current and historic land use.</p> <p>Appropriate soil testing is recommended to attempt to clarify the risk.</p>	Plausible
	<i>Inhalation of dust and vapours</i>	<i>Site Workers/End Users</i>	<p>The site is indicated to have been operated as a photographic / engineering works between the 1960s and the 1980s. Ground / groundwater contamination associated with these industries may be present.</p> <p>Site workers and end users could therefore potentially be exposed to contamination at the site associated with the sites current and historic land use.</p> <p>Appropriate soil testing is recommended to attempt to clarify the risk.</p>	Plausible
	<i>Ingestion and dermal contact</i>	<i>Construction Personnel</i>	<p>The site is indicated to have been operated as a photographic / engineering works between the 1960s and the 1980s. Ground / groundwater contamination associated with these industries may be present.</p>	Plausible



TABLE 2 - SUMMARY OF PRELIMINARY CPR ASSESSMENT

Contaminant [C]	Pathway [P]	Receptor [R]	Comments	CPR Linkage Risk
			Appropriate soil testing is recommended to inform the PPE requirements of construction personnel.	
	<i>Inhalation of dust and vapours</i>	<i>Construction Personnel</i>	<p>The site is indicated to have been operated as a photographic / engineering works between the 1960s and the 1980s. Ground / groundwater contamination associated with these industries may be present.</p> <p>Appropriate control measures can be implemented during construction activities (i.e. dust suppression measures) which would significantly reduce the risk of exposure to dust inhalation.</p>	Plausible
	<i>Vertical and lateral migration/ leaching of contamination</i>	<i>Underlying Groundwater (Controlled Waters)</i>	<p>The chemical composition of the underlying soils and groundwater is currently unknown. Due to the sites use as a photographic / engineering works may be present at the site.</p> <p>The site is underlain by a Secondary A Aquifer with soils of a High Leaching Potential (HU).</p> <p>Undertake soil testing to attempt to investigate/clarify the risk. It may be necessary to undertake water testing in due course.</p>	Plausible
	<i>Services/ foundations in contact with shallow soils</i>	<i>Buildings and construction materials (including potable water supply pipes/other utilities)</i>	<p>The site is indicated to have been operated as a photographic / engineering works between the 1960s and the 1980s. Ground / groundwater contamination associated with these industries may be present.</p> <p>Appropriate soils testing is recommended to confirm the risk of sulphate/acid attack on buried concrete.</p>	Plausible
Radon (naturally occurring gas from bedrock materials)	<i>Vertical and lateral migration</i>	<i>Buildings, Construction Personnel and End Users (residents)</i>	Based on the Landmark report no radon precautions are necessary in the construction of new buildings.	Unlikely



TABLE 2 - SUMMARY OF PRELIMINARY CPR ASSESSMENT

Contaminant [C]	Pathway [P]	Receptor [R]	Comments	CPR Linkage Risk
<i>Ground gases</i>	<i>Vertical and lateral migration</i>	<i>Buildings, Construction Personnel and End Users (residents)</i>	<p>Significant thicknesses of Made Ground may be present on site associated with the former phase of development (and to a lesser extent off site from former brick works).</p> <p>Buildings, construction personnel and end users have the potential to be exposed to ground gases.</p> <p>Undertake a programme of ground gas monitoring at the site to attempt to investigate and resolve the potential risk.</p>	Plausible
<p><b>KEY</b></p> <p>Where text is in <i><b>Bold Italic</b></i> item is potentially present. Where normal text is used item is not present/plausible.</p> <p>CPR Linkage Risk Definitions:</p> <p><b>Unlikely</b> – A significant pollutant linkage/risk has not been identified.</p> <p><b>Plausible</b> – A significant pollutant linkage/risk has been identified that may be present at the site. Mitigation measures may be required.</p> <p><b>Likely</b> – A significant pollutant linkage should be anticipated based on our findings to date. Mitigation measures are likely to be required.</p>				

The foregoing conceptual model highlights the potential plausible pollutant linkages that may relate to the site and would therefore require addressing by appropriate Phase II Exploratory Works.

## 5.0 CONCLUSIONS

**The following conclusions and recommendations are based on the findings of the desk study works only. Appropriate site specific Phase II Exploratory Investigation works should be undertaken to confirm the findings of this desk study.**

### 5.1 Site Summary

The Phase I Desk Study revealed that the site comprised open fields up until its development as a photographic and engineering works in the 1960s. The site included two unidentified above ground storage tanks and an electricity sub-station. In the 1980s the site was cleared and redeveloped as offices with a multi-storey and subterranean car parks. An interceptor is indicated to be located in the northeast corner of the site and five electricity sub-stations were identified to be present on the historical mapping.

The site is indicated to be immediately underlain by the Lambeth Group which is designated as a Secondary A Aquifer. Two water abstractions are recorded 375m southeast of the site. There are no recorded surface water features within 250m of the site.

### 5.2 Geotechnical Assessment

Based on a review of available BGS data the site is indicated to be underlain by the Lambeth Group which comprises a variable '*red clay, mottled with greenish or grey patches, over white or buff, cross bedded sands with seams of grey clay and a layer of unrolled flints at the base resting on chalk*'.

Historical BGS boreholes within the near vicinity of the site indicate that the underlying natural strata was recorded as a soft to stiff orange brown grey mottled variably gravelly silty sandy CLAY to maximum proven depths ranging between 4.50m-18.35m (identified as Woolwich and Reading Beds). The SPTs 'N' values in this material ranged between 7 (firm) and 76 (hard) although were typically approximately 15 (stiff).

The above stratum was indicated to be underlain by stratum identified as Upper Chalk comprising soft, buff white putty CHALK with flint gravel to a maximum proven depth of 20.00m (full depth not penetrated). SPT 'N' values were indicated to vary between 9-51.

Where Natural Strata is encountered near surface, traditional strip, trench fill or pad foundations may be appropriate for low rise commercial units. However, given the variability of the Lambeth Group the potential requirement for alternative foundations (e.g. piles / rafts), where less competent strata are encountered and / or structural loadings are higher, cannot be discounted at this stage. The potential presence of deep Made Ground associated with previous phases of development may also require that alternative foundation options are considered. The most appropriate foundation solution will also depend on the loading characteristics and settlement tolerances of the proposed building.

With regards to floor slab design, where natural ground is present at formation level a ground bearing floor slab should be feasible. Where Made Ground is present then it may be necessary to excavate and replace the Made Ground to an engineered specification before adopting a ground bearing slab, or the use of suspended ground floors may be adopted.

It is recommended that Phase II Exploratory Works are undertaken and soils assessed to confirm geotechnical conditions on site.

### 5.3 Contamination Risk

Due to the sites historical usage as a photographic works / engineering works and car parks (including an interceptor) the following contaminants may be present at the site associated with these land uses:

- Metals and metalloids.
- Natural Metal Enrichment (NME) in the Natural Strata.
- Polycyclic Aromatic Hydrocarbons (PAHs).
- Oil/fuel hydrocarbons.
- Solvents.
- Polychlorinated Biphenyls (PCB).
- Asbestos.
- Acid/Sulphate contaminated soils.
- Ground gas.

Therefore a suitable scope of environmental soils testing of the shallow soils is recommended at the site during any Phase II intrusive investigation works.

### 5.4 Environmental Risk Assessment

As part of the Phase I Desk Study a qualitative assessment of potential environmental risk/development constraints has been undertaken with due consideration given to guidance issued by the Environment Agency, Department of the Environment, Food and Rural Affairs and other appropriate bodies.

The potential environmental risk has been assessed qualitatively using the source-pathway-receptor plausible pollutant linkage model introduced in the Environmental Protection Act 1990, and discussed in more detail in Section 4.

The following in-house qualitative assessment of risk has been undertaken based around the following definitions:

**Low Risk** – it is unlikely that an issue will arise at the site as a significant cost or liability for the owner or tenant of the site. Appropriate intrusive investigation works should be undertaken.

**Medium Risk** – it is possible that an issue will arise at the site as a significant cost or liability for the owner or tenant of the site. Appropriate intrusive investigation works should be undertaken.

**High Risk** – it is likely that an issue will arise at the site as a significant cost or liability for the owner or tenant of the site. Appropriate intrusive investigation works should be undertaken.

On the basis of the Phase I Desk Study information, it is considered that the site represents a potential **Medium Risk** of significant cost or liability to the owner of the site. This risk classification is based on the current and historical land uses identified at the site and within the sites immediate vicinity. Furthermore, it is not known to what extent any historical contamination was identified / remediated that may have been present in the 1980s when the site was redeveloped.

Appropriate Phase II Exploratory Investigation Works may be undertaken to further investigate, characterise and resolve the potential environmental liability/cost.

### **5.5 Radon**

With reference to the Envirocheck report, the site does not lie within an area requiring radon precautions.

Therefore, no specific mitigation measures in relation to radon issues are considered to be necessary at the site.

### **5.6 Coal Mining**

The site does not lie within an area requiring the commission of a Coal Mining Report in accordance with The Coal Authority and The Law Society publication '*Coal Mining and Brine Subsidence Claim Searches - Directory and Guidance*', Sixth Edition (2006).

### **5.7 Ground Gas Precautions**

Due to the potential presence of deep Made Ground associated with the demolition of former photographic / engineering works and the former brick works (220m southwest of the site) a programme of ground gas monitoring is considered necessary to assist in establishing the ground gas regime for the proposed redevelopment.

### **5.8 Statutory Consultation**

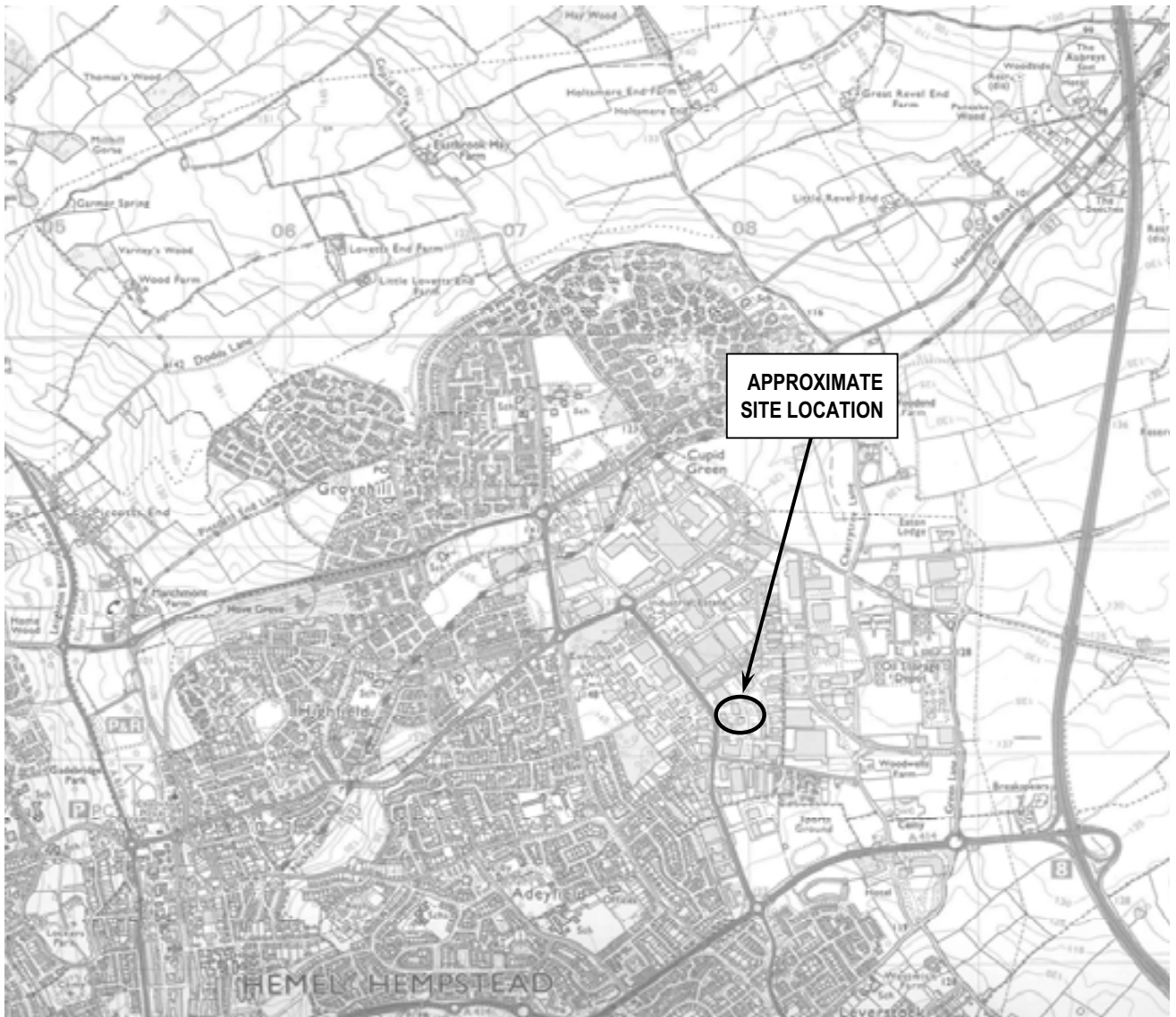
We would recommend that a copy of this Phase I Desk Study report is issued to the Local Authority for review and comment prior to commencement Phase II exploratory works at the site.

### **5.9 Recommended Phase II Exploratory Investigation Works**

Prior to any future redevelopment of the site, Phase II Exploratory Works would be required to investigate the possible issues raised in the Phase I Desk Study. Based on our current understanding (conceptual site model) it is recommended that Phase II works comprise the following, as a minimum:

- A programme of exploratory holes across the site, including appropriate soil strength testing.
- Gas monitoring/ risk assessment.
- Geotechnical and environmental soil analysis.
- Contaminated Land Risk Assessment.

**APPENDIX I**  
**Site Location Plan**



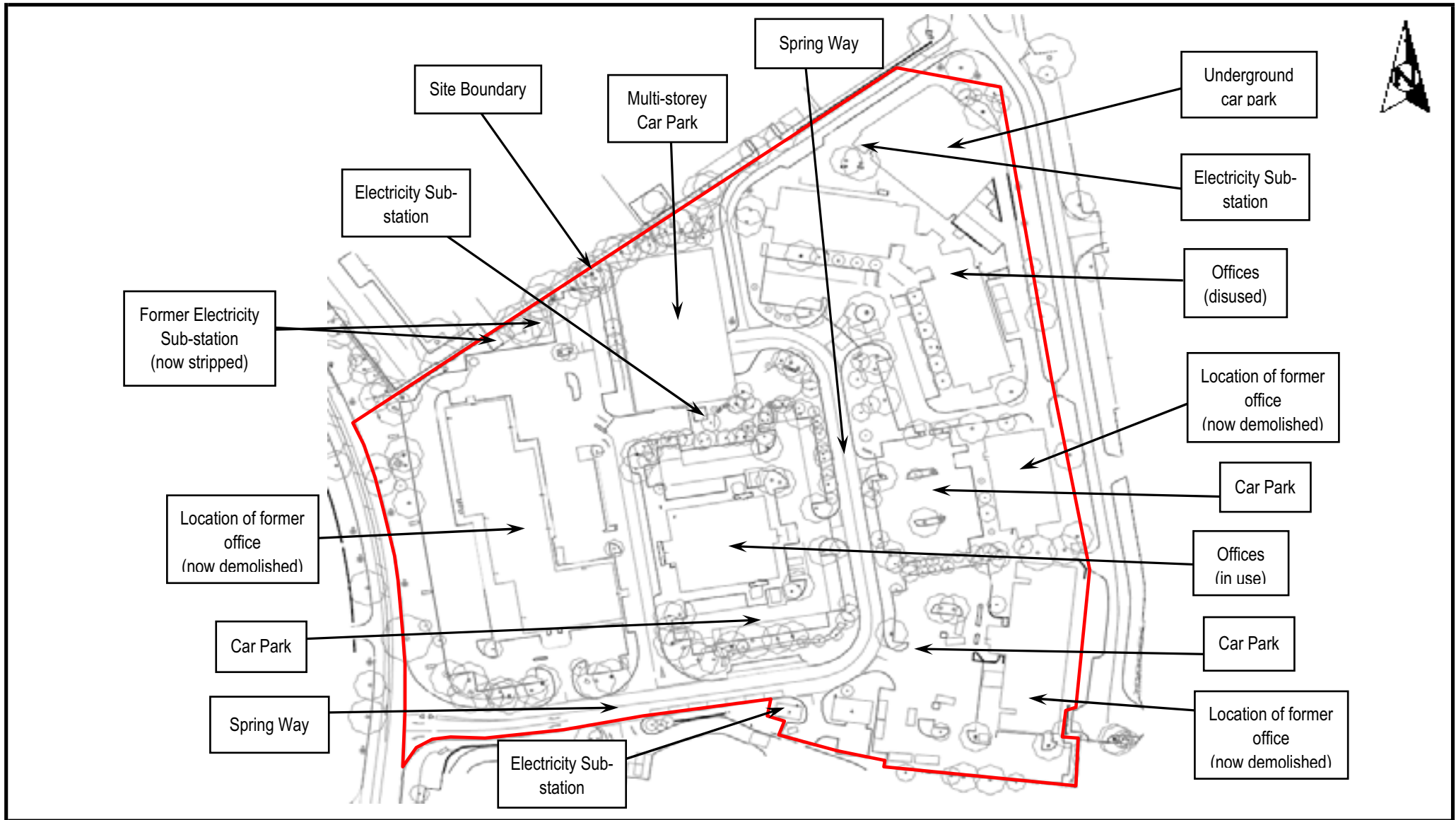
APPROXIMATE  
SITE LOCATION

REPRODUCED FROM THE ORDNANCE SURVEY MAP WITH THE PERMISSION OF THE CONTROLLER OF HER MAJESTY'S STATIONARY OFFICE. CROWN COPYRIGHT RESERVED. LICENCE NO. AL 100036261

Project No.	33068	Drawn	GJS
Client	Gyron Internet Limited	Checked	<b>RS</b>
Project	The Campus Spring Way Hemel Hempstead	Approved	<b>RS</b>
		Scale	NTS
		Date Drawn	07/06/2013
Title	Site Location Plan	Rev.	
		<b>Figure No.</b>	<b>33068/01</b>



**APPENDIX II**  
**Annotated Site Plan**



Reproduced from Topographical Survey dated 24/05/13 (ref. 18173\_OGL\_REV1)

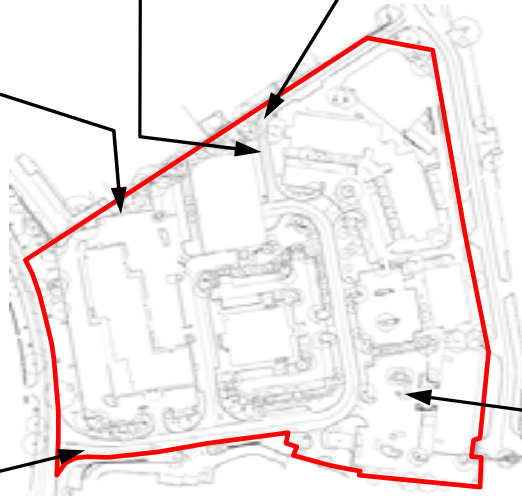
**DO NOT SCALE**

Project No.	33068	Title	Annotated Site Plan	Drawn	GJS
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Project	The Campus	Date Drawn	07/06/2013	Approved	<i>RS</i>
	Spring Way	Scale	NTS	<b>Figure No. 33068/02</b>	
	Hemel Hempstead	Revision			





**APPENDIX III**  
**General Site Views**



Reproduced from Topographical Survey dated 24/05/13 (ref. 18173\_OGL\_REV1)

**DO NOT SCALE**

Project No.	33068	Title	Plan Showing General Site Views	Drawn	GJS
Client	Gyron Internet Limited			Checked	<i>RS</i>
Project	The Campus	Date Drawn	07/06/2013	Approved	<i>RS</i>
	Spring Way	Scale	NTS	<b>Figure No. 33068/03</b>	
	Hemel Hempstead	Revision			



**APPENDIX IV**  
**Historical Plans**

# Historical Mapping Legends

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

Quarry, Gravel Pit, Sand Pit, Clay Pit, Shingle, Refuse Heap, Sloping Masonry, Flat Rock, Marsh, Reeds, Osiers, Rough Pasture, Furze, Wood, Mixed Wood, Brushwood, Orchard, Fir, Ford, Stepping Stones, Ferry, Waterfall, Lock, Trig Station, Altitude at Trig. Station, Bench Mark, Surface Level, Arrow denotes flow of water, Antiquities (site of), Cutting, Embankment, Railway crossing Road, Level Crossing, Road crossing Railway, Railway crossing River or Canal, Road over single stream, Road over River or Canal, County Boundary (Geographical), County & Civil Parish Boundary, Administrative County & Civil Parish Boundary, County Borough Boundary (England), County Borough Boundary (Scotland), Boundary Post or Stone, Police Call Box, Bridle Road, Pump, Electricity Pylon, Signal Post, Foot Bridge, Stake, Foot Path, Spring, Guide Post or Board, Telephone Call Box, Mile Stone, Trough, Mooring Post or Ring, Well

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

Inactive Quarry, Chalk Pit or Clay Pit, Active Quarry, Chalk Pit or Clay Pit, Rock, Boulders, Cliff, Slopes, Roofed Building, Glazed Roof Building, Non-Coniferous Tree (surveyed), Coniferous Tree (surveyed), Non-Coniferous Trees (not surveyed), Coniferous Trees (not surveyed), Orchard Tree, Scrub, Bracken, Coppice, Osier, Reeds, Marsh, Saltings, Rough Grassland, Heath, Culvert, Direction of water flow, Bench Mark, Antiquity (site of), Cave Entrance, Triangulation Station, Electricity Pylon, Electricity Transmission Line, Civil parish/community boundary, District boundary, County boundary, Boundary post/stone, Boundary mering symbol, Beer House, Pillar, Pole or Post, Boundary Post or Stone, Post Office, Captain, Crane, Public Convenience, Chimney, Public House, Drinking Fountain, Pump, Electricity Pylon or Post, Signal Box or Bridge, Fire Alarm Pillar, Signal Post or Light, Foot Bridge, Spring, Guide Post, Tank or Track, Hydrant or Hydraulic, Telephone Call Box, Level Crossing, Telephone Call Post, Manhole, Trough, Mile Post or Mooring Post, Water Point, Water Tap, Mile Stone, Well, Normal Tidal Limit, Wind Pump

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

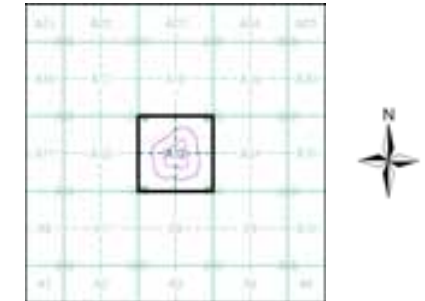
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## Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Hertfordshire	1:2,500	1878 - 1879	2
Hertfordshire	1:2,500	1898	3
Hertfordshire	1:2,500	1924 - 1925	4
Hertfordshire	1:2,500	1947	5
Ordnance Survey Plan	1:2,500	1969 - 1970	6
Ordnance Survey Plan	1:2,500	1970	7
Ordnance Survey Plan	1:1,250	1975	8
Additional SIMs	1:1,250	1982 - 1991	9
Additional SIMs	1:1,250	1987 - 1992	10
Additional SIMs	1:1,250	1991	11
Large-Scale National Grid Data	1:1,250	1993	12
Large-Scale National Grid Data	1:1,250	1993 - 1996	13
Large-Scale National Grid Data	1:1,250	1993 - 1996	14
Large-Scale National Grid Data	1:1,250	1994 - 1996	15
Large-Scale National Grid Data	1:1,250	1996	16

## Historical Map - Segment A13



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 Search Buffer (m): 100

## Site Details

Data Centre, HEMEL HEMPSTEAD

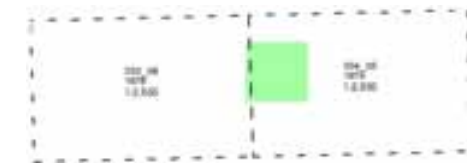


Tel: 0844 844 9952  
 Fax: 0844 844 9951  
 Web: www.envirocheck.co.uk

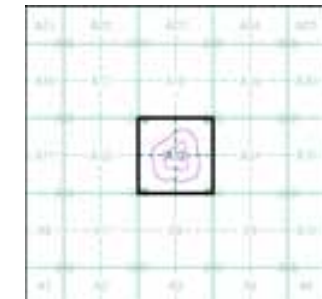


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Map Name(s) and Date(s)



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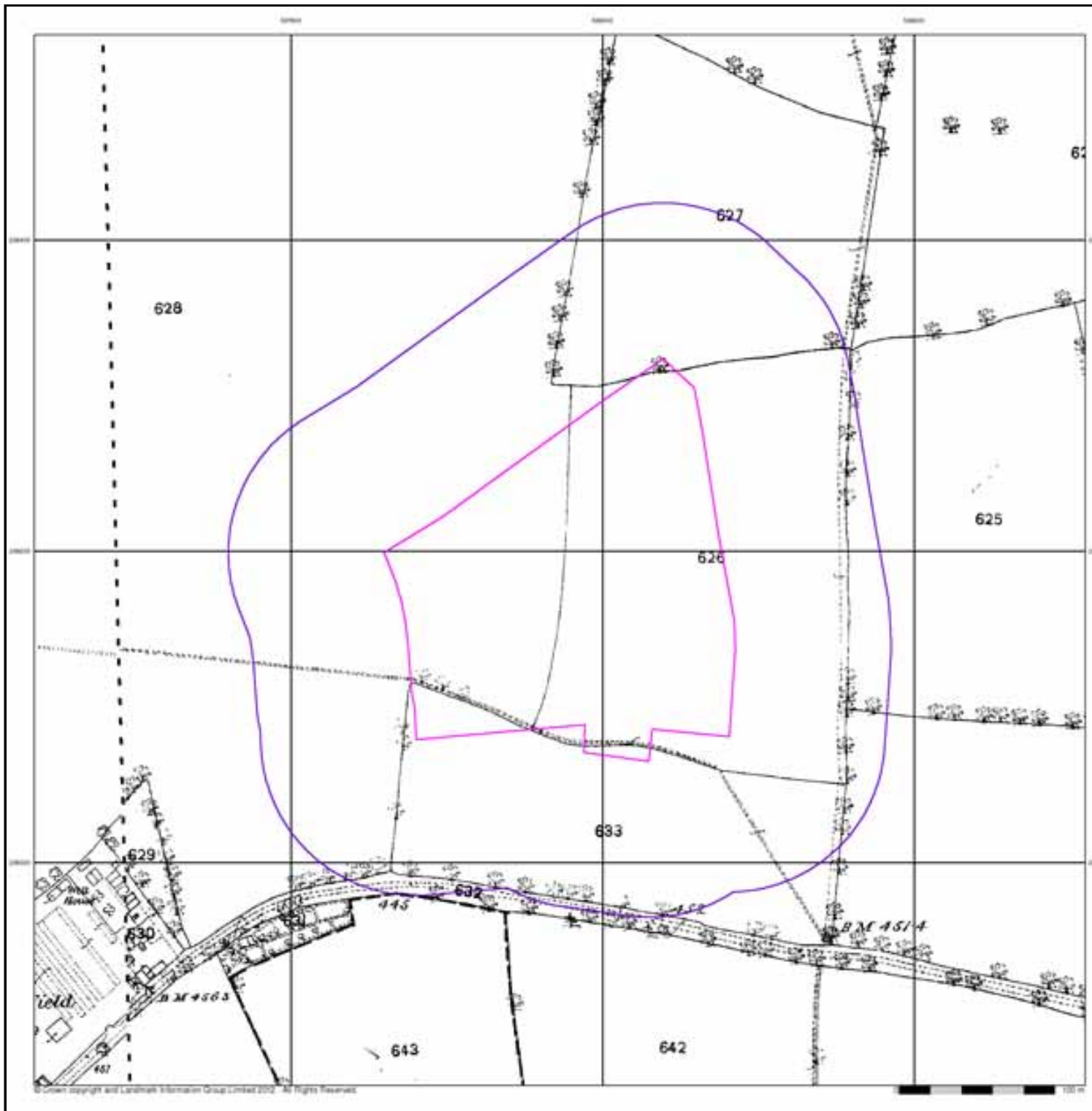


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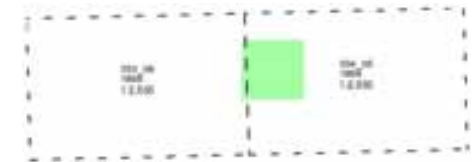
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Data Centre, HEMEL HEMPSTEAD

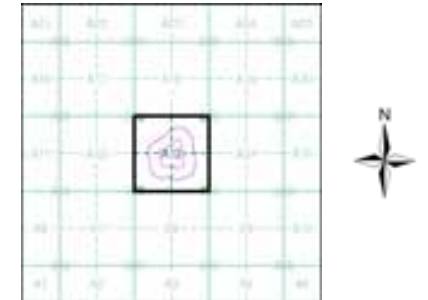


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Map Name(s) and Date(s)



Historical Map - Segment A13

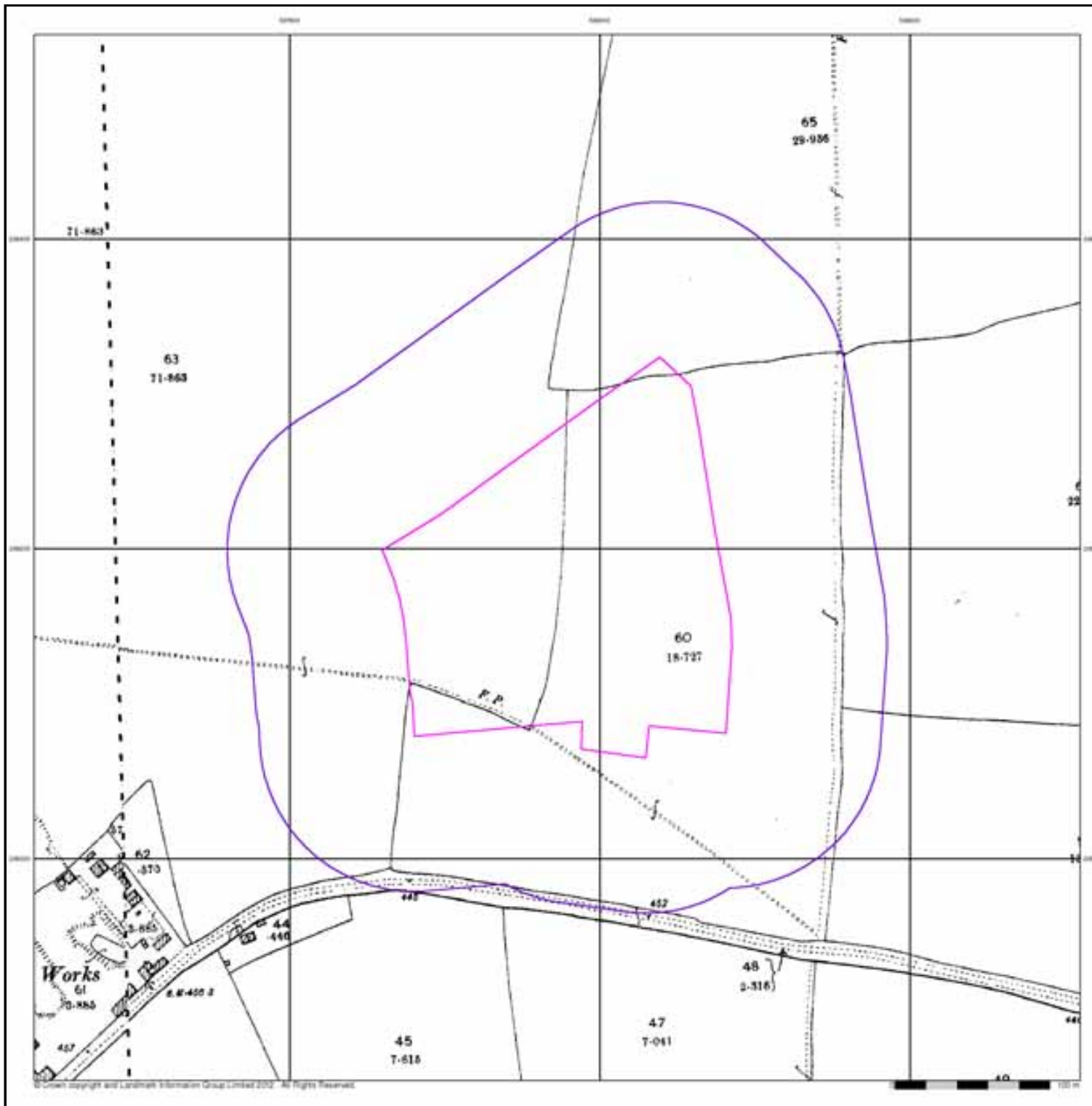


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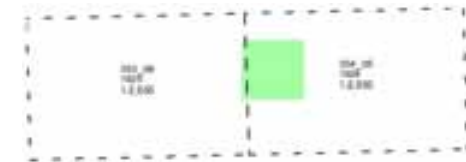
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Data Centre, HEMEL HEMPSTEAD

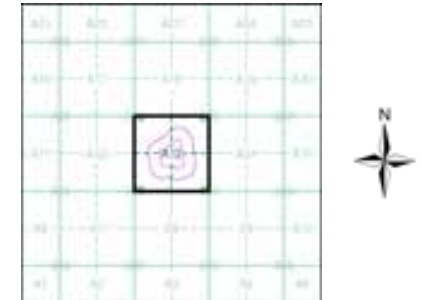


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Map Name(s) and Date(s)



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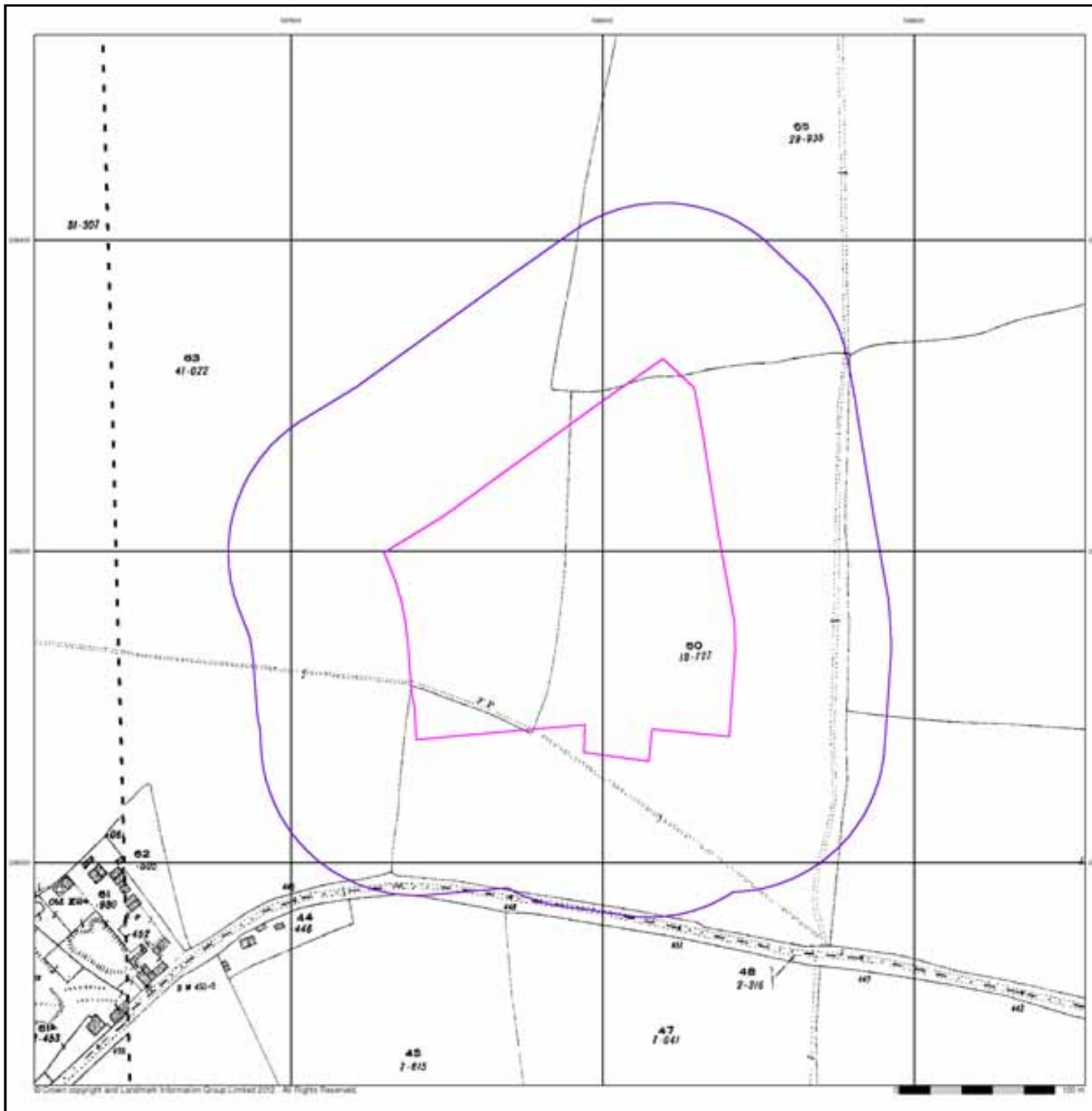


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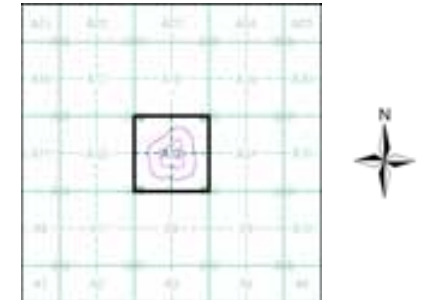


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**Map Name(s) and Date(s)**



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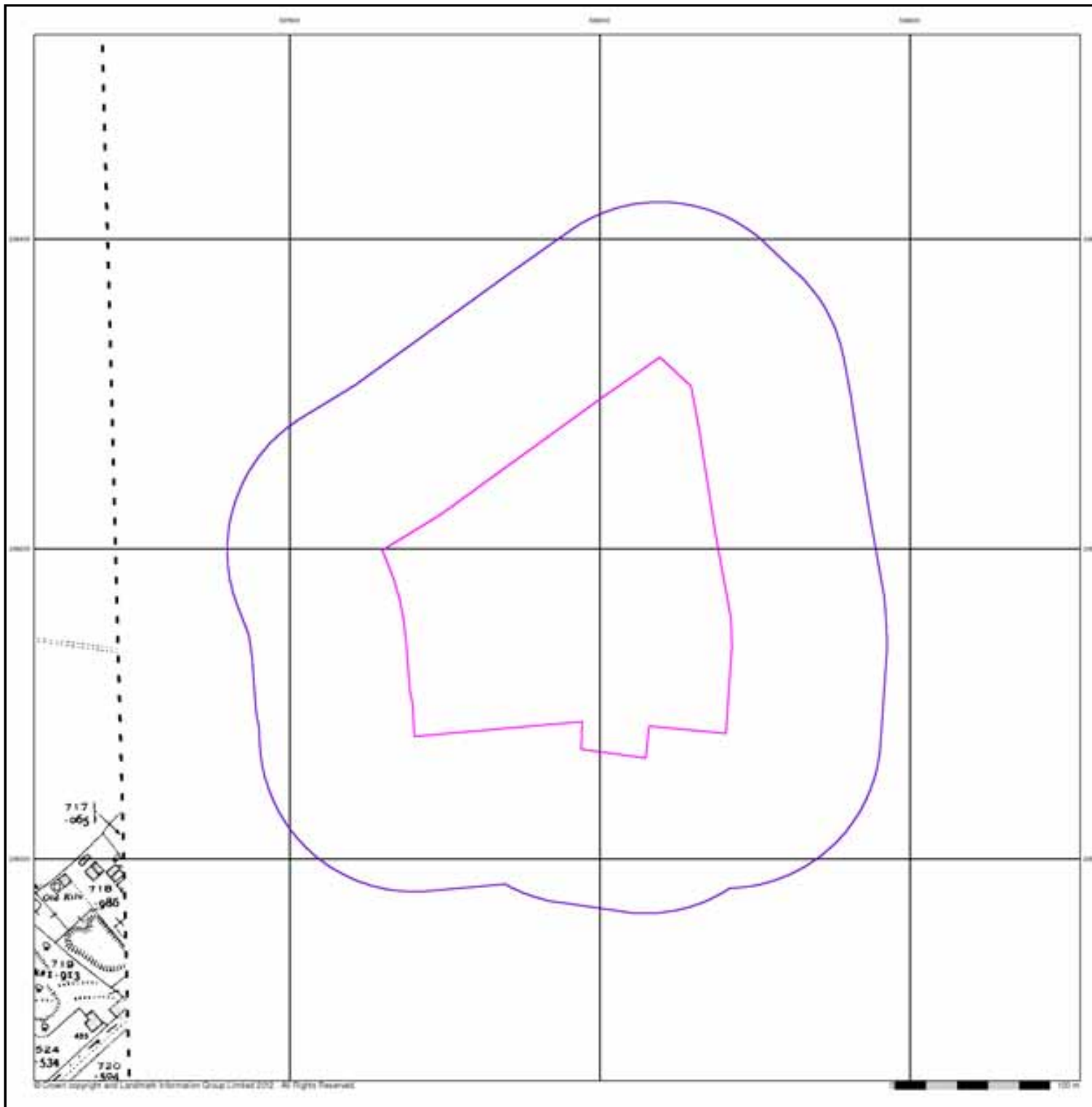


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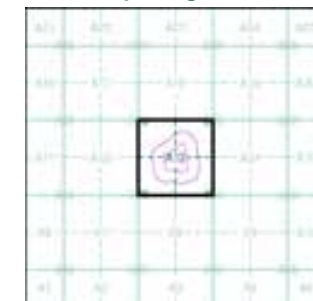


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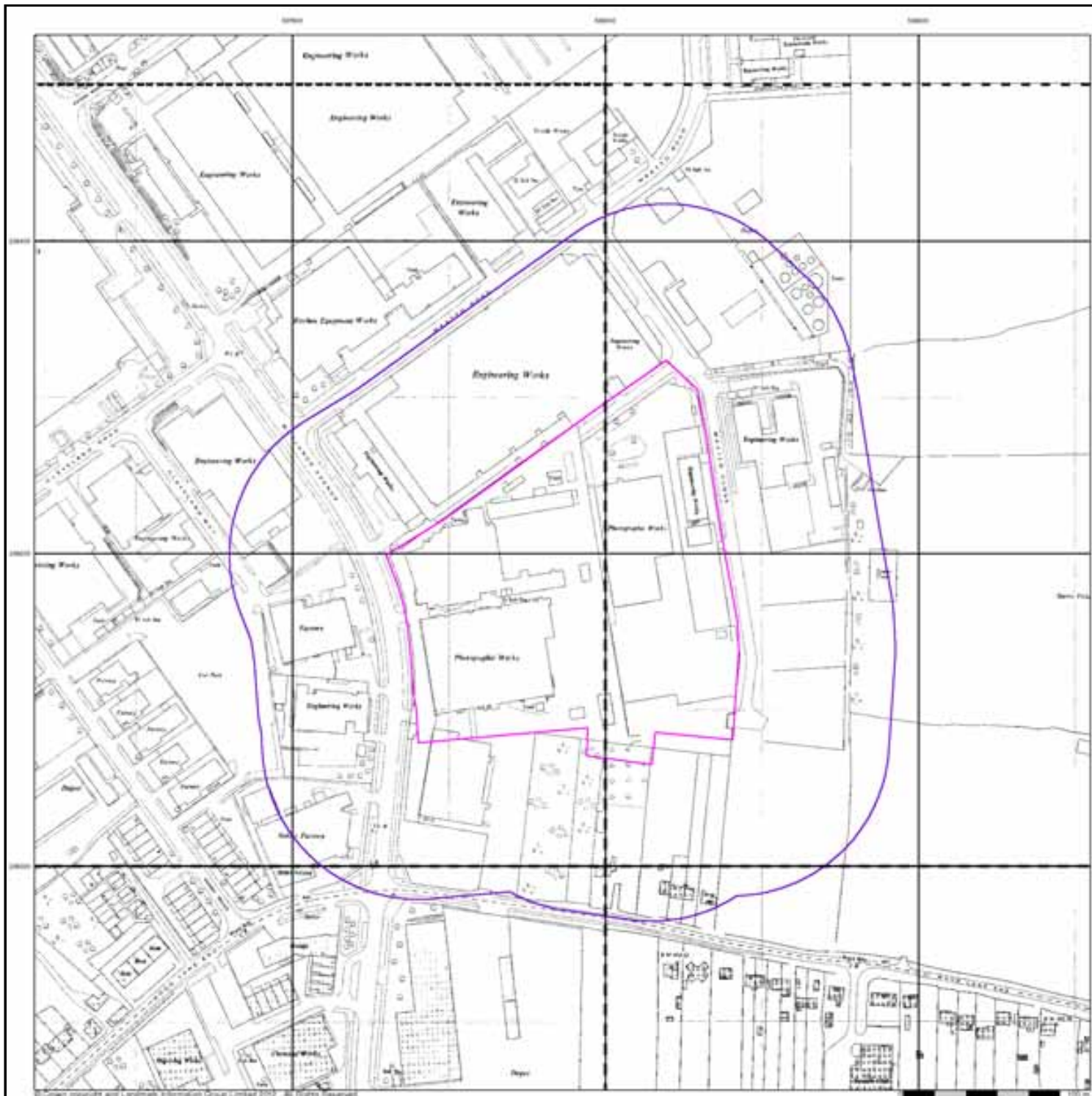


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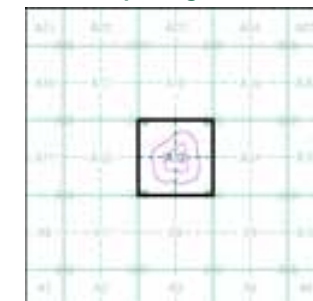


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**Map Name(s) and Date(s)**



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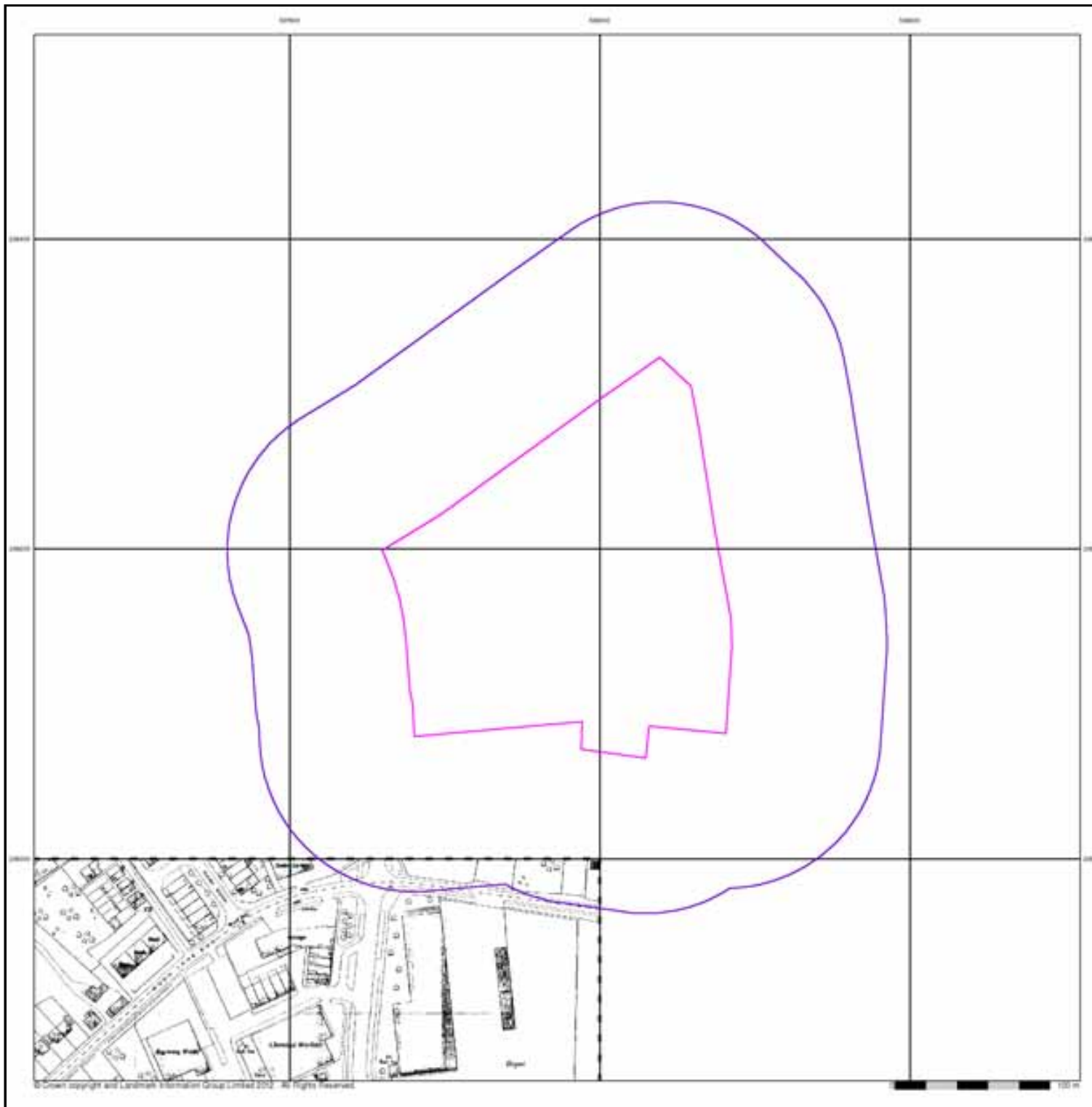


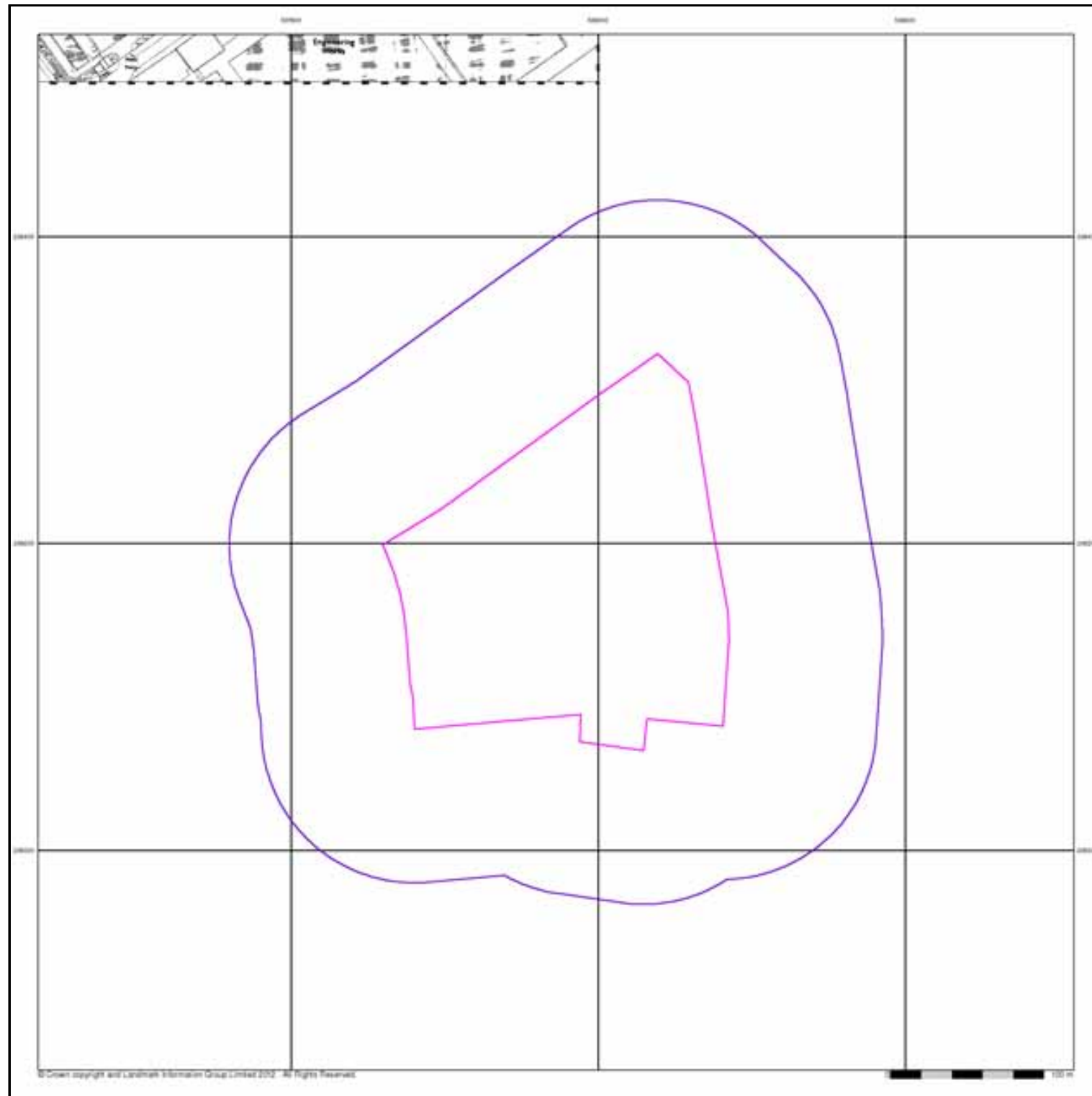
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Search Buffer (m): 100

**Site Details**

Data Centre, HEMEL HEMPSTEAD





**Ordnance Survey Plan**  
**Published 1975**

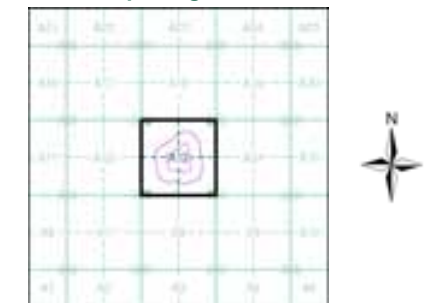
**Source map scale - 1:1,250**

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



**Historical Map - Segment A13**



**Order Details**

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 National Grid Reference: 507980, 208180  
 Slice: A  
 Site Area (Ha): 3.91  
 Search Buffer (m): 100

**Site Details**

Data Centre, HEMEL HEMPSTEAD



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



### Additional SIMs

Published 1982 - 1991

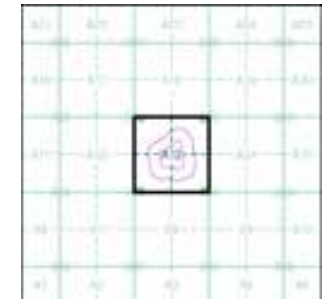
Source map scale - 1:1,250

The SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') are further, minor editions of mapping which were produced and published in between the main editions as an area was updated. They date from 1947 to 1994, and contain detailed information on buildings, roads and land-use. These maps were produced at both 1:2,500 and 1:1,250 scales.

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

1982	1991
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1982	1991
1:1,250	1:1,250
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1:1,250	1:1,250

### Historical Map - Segment A13

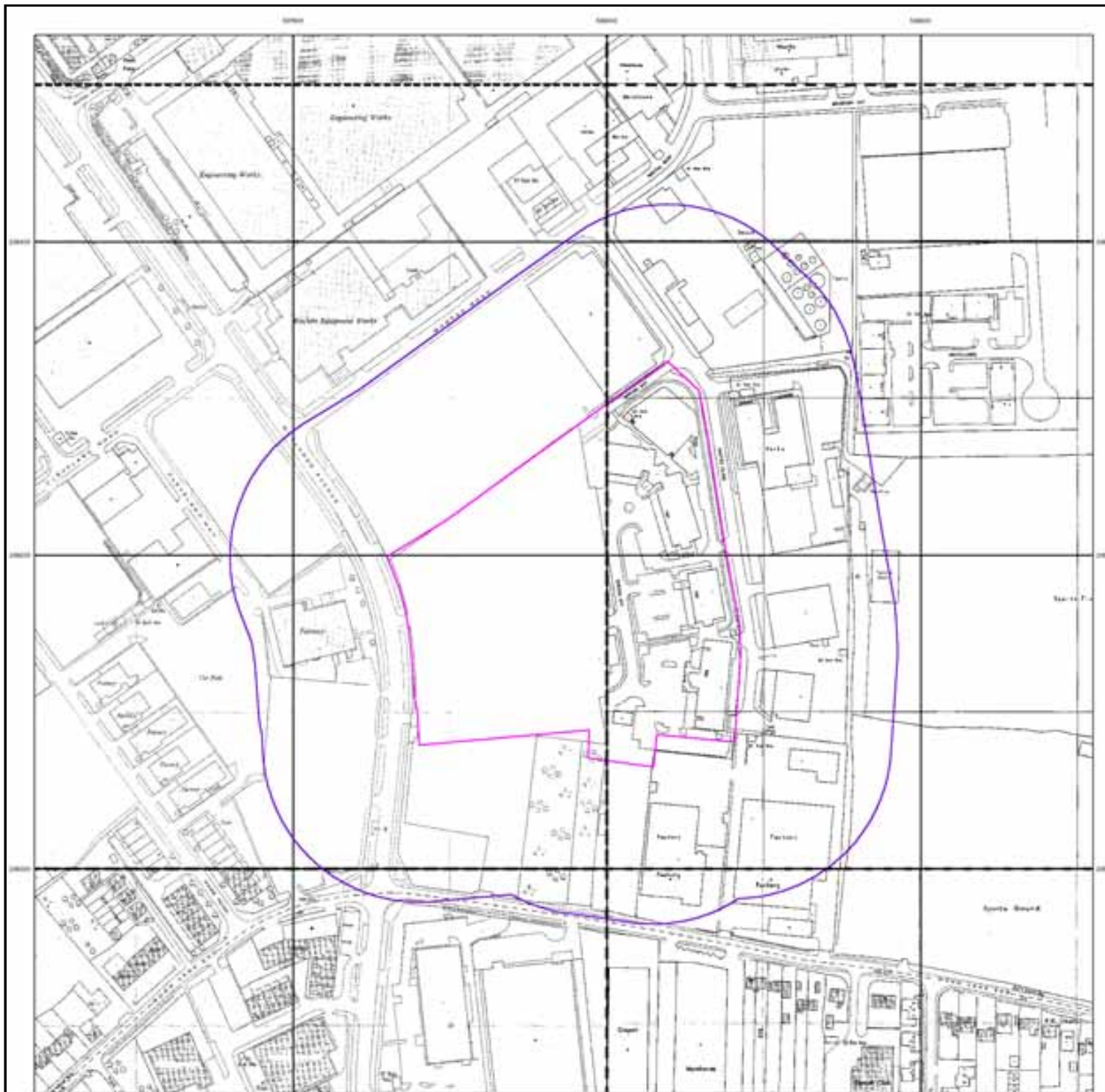


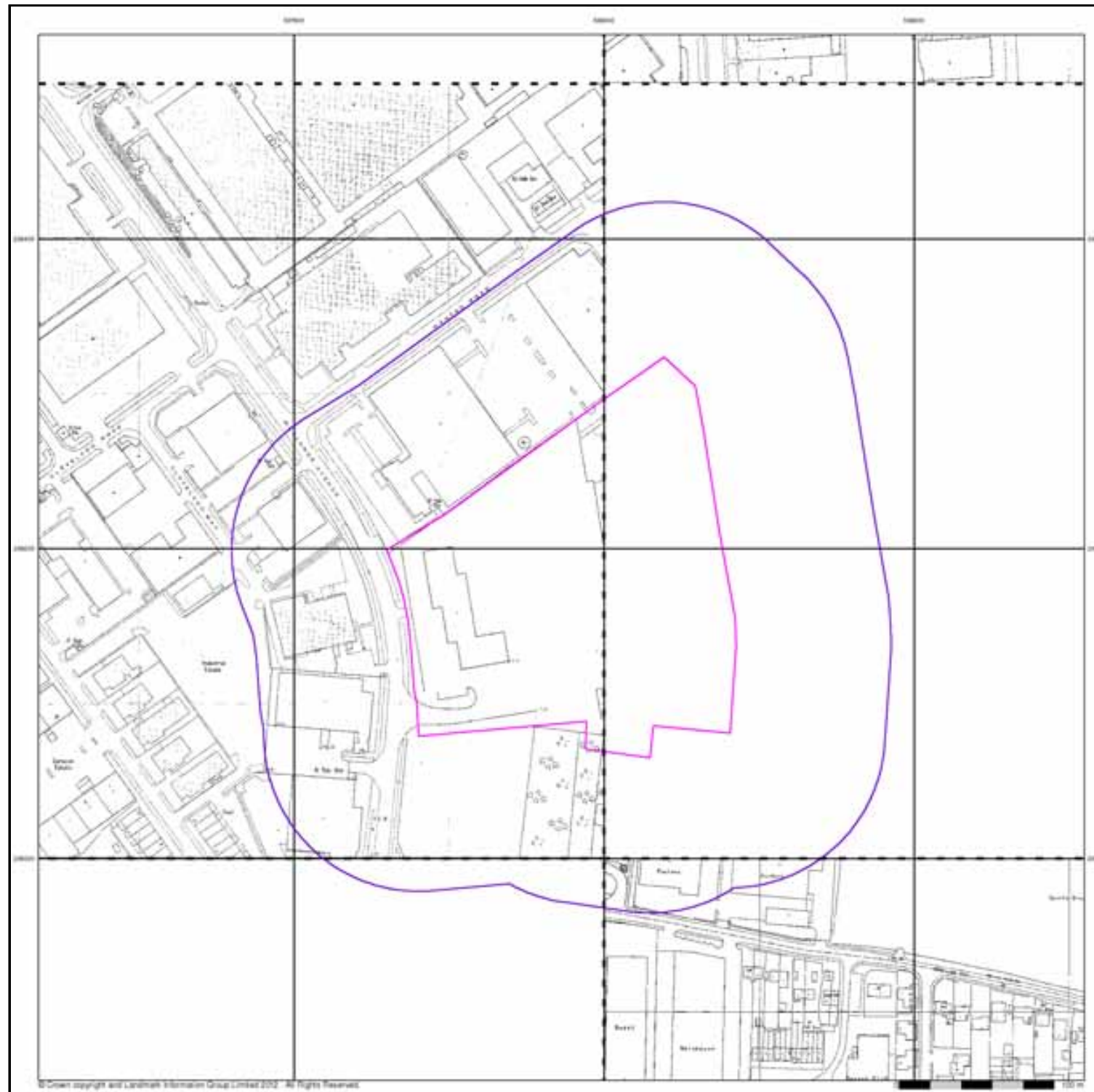
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Order Number: 46081904\_1\_1  
 Customer Ref: 33068  
 National Grid Reference: 507980, 208180  
 Slice: A  
 Site Area (Ha): 3.91  
 Search Buffer (m): 100

### Site Details

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**Additional SIMs**

**Published 1987 - 1992**

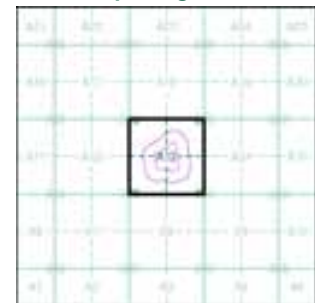
**Source map scale - 1:1,250**

The SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') are further, minor editions of mapping which were produced and published in between the main editions as an area was updated. They date from 1947 to 1994, and contain detailed information on buildings, roads and land-use. These maps were produced at both 1:2,500 and 1:1,250 scales.

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



**Historical Map - Segment A13**



**Order Details**

Order Number: 46081904\_1\_1  
 Customer Ref: 33068  
 National Grid Reference: 507980, 208180  
 Slice: A  
 Site Area (Ha): 3.91  
 Search Buffer (m): 100

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### Additional SIMs

Published 1991

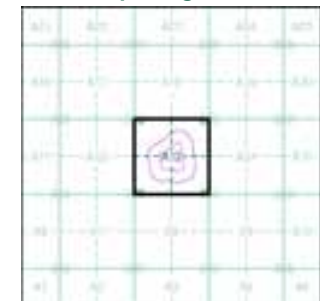
Source map scale - 1:1,250

The SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') are further, minor editions of mapping which were produced and published in between the main editions as an area was updated. They date from 1947 to 1994, and contain detailed information on buildings, roads and land-use. These maps were produced at both 1:2,500 and 1:1,250 scales.

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



### Historical Map - Segment A13

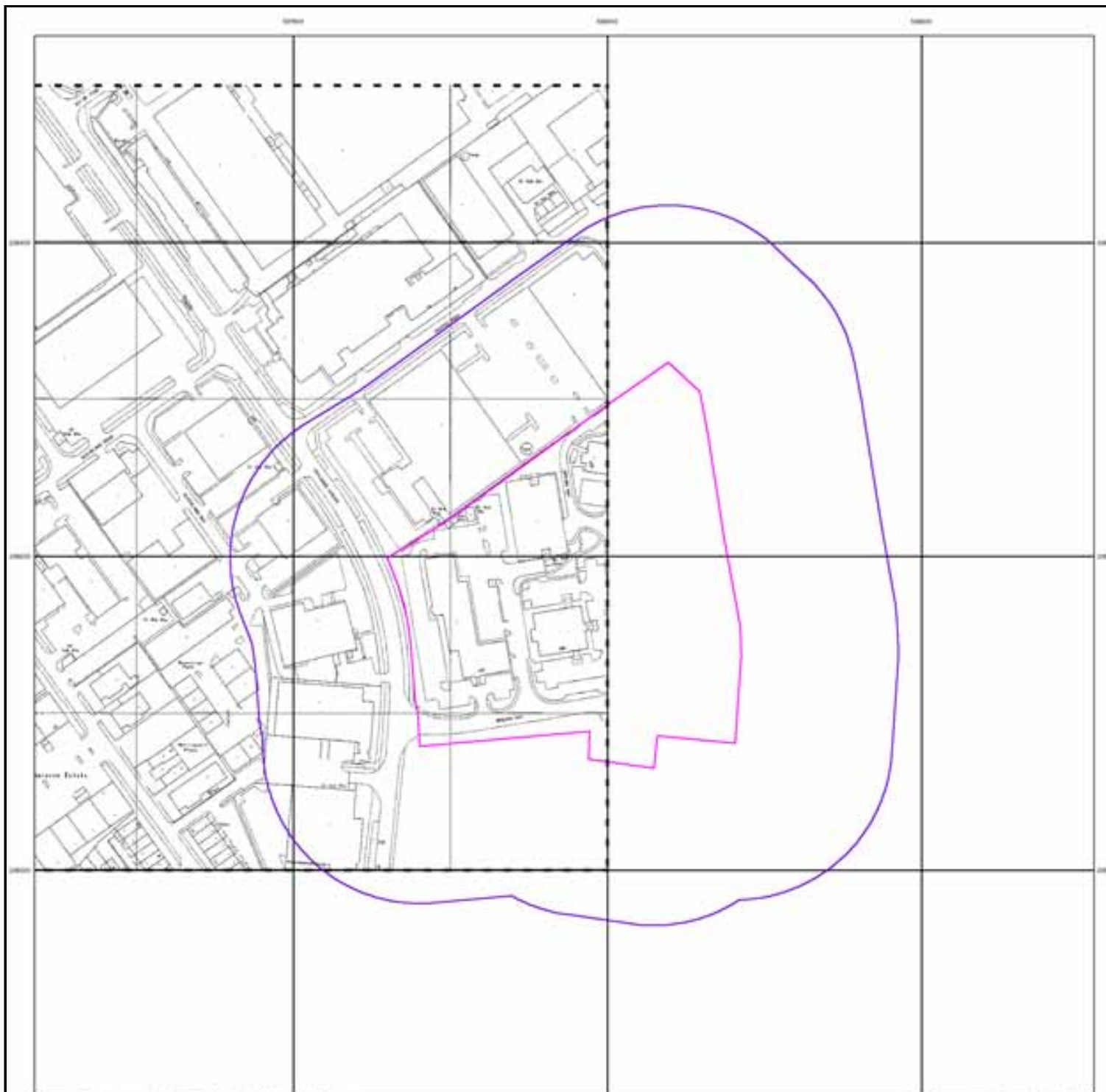


### Order Details

Order Number: 46081904\_1\_1  
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National Grid Reference: 507980, 208180  
Slice: A  
Site Area (Ha): 3.91  
Search Buffer (m): 100

### Site Details

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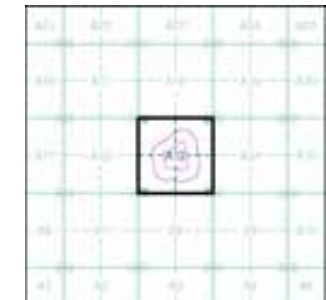


'Large Scale National Grid Data' superseded SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') in 1992, and continued to be produced until 1999. These maps were the fore-runners of digital mapping and so provide detailed information on houses and roads, but tend to show less topographic 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 A13**

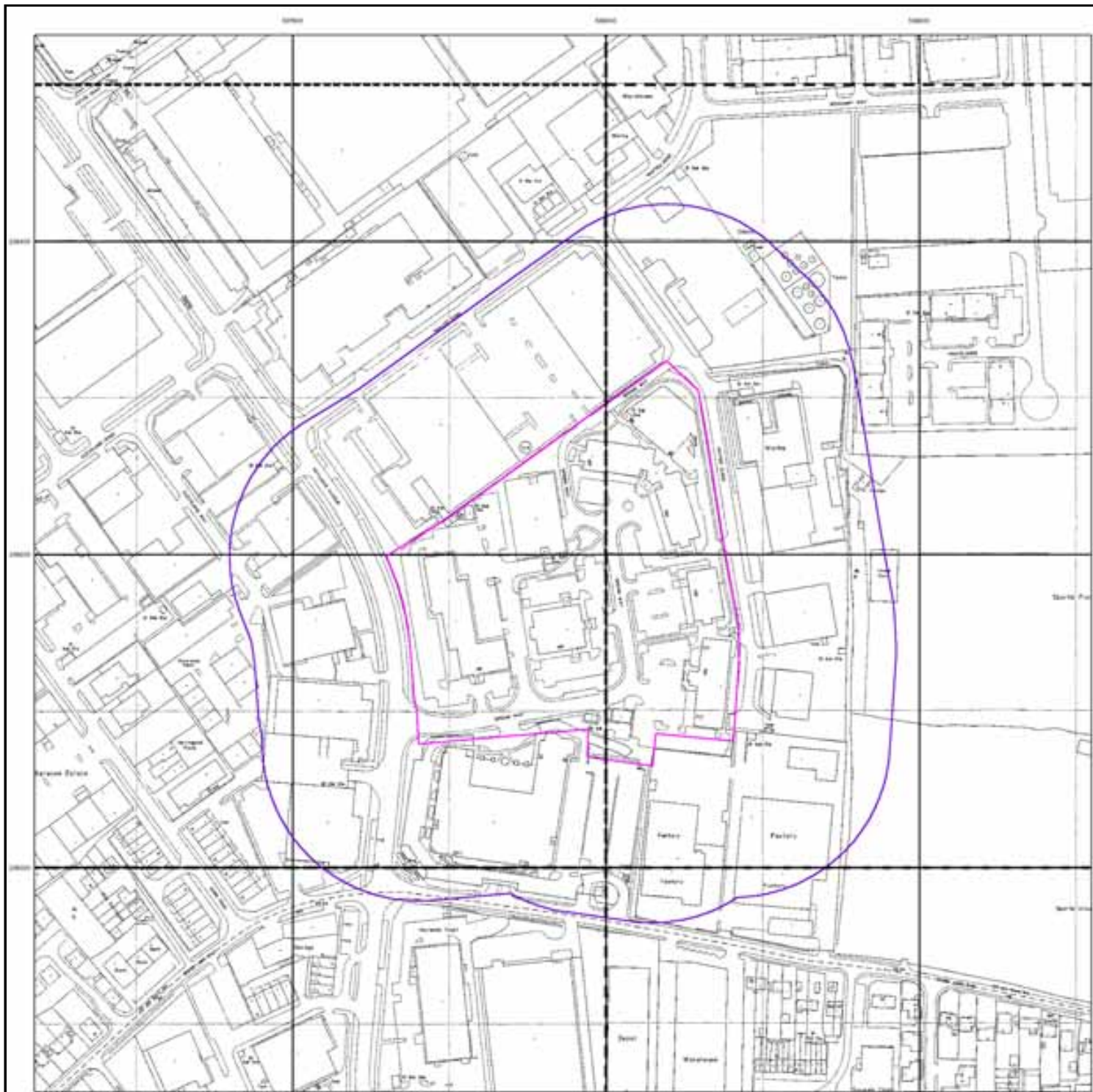


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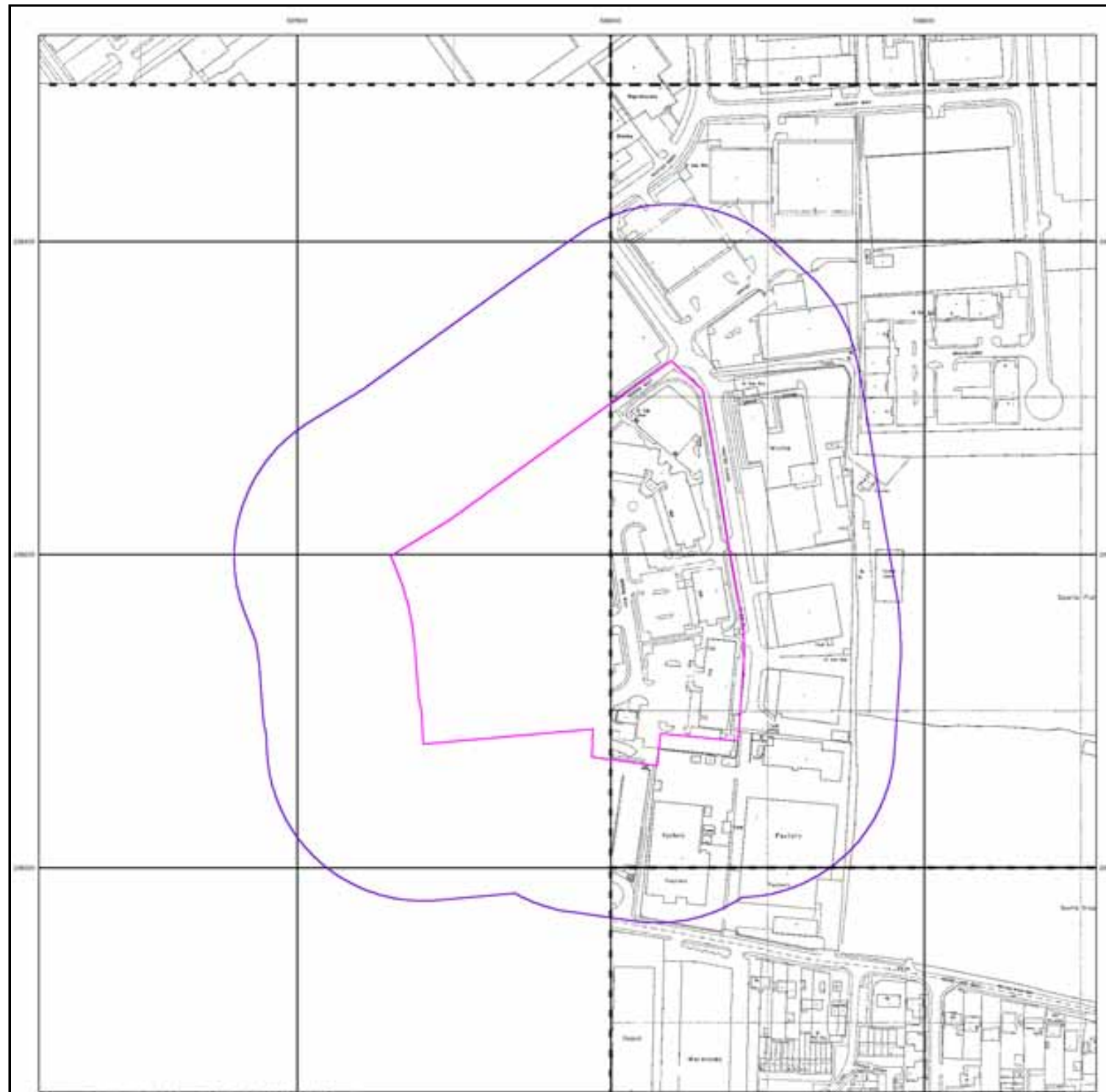
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 National Grid Reference: 507980, 208180  
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 Search Buffer (m): 100

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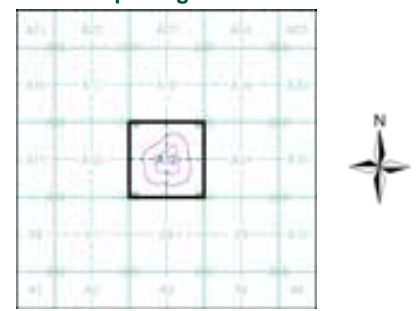
**Large-Scale National Grid Data**  
**Published 1993 - 1996**  
**Source map scale - 1:1,250**

'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 A13**



**Order Details**

Order Number: 46081904\_1\_1  
 Customer Ref: 33068  
 National Grid Reference: 507980, 208180  
 Slice: A  
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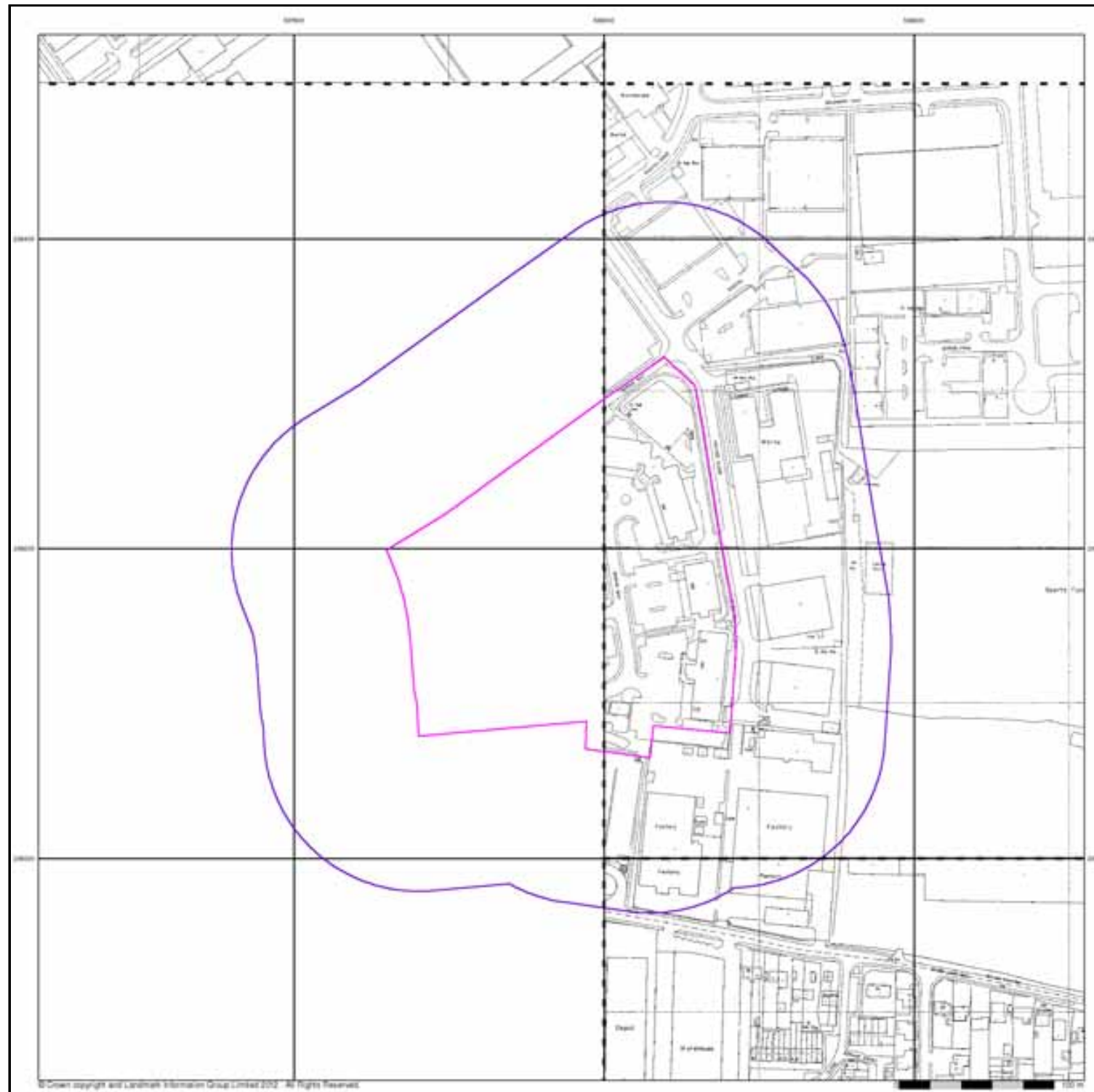
**Site Details**

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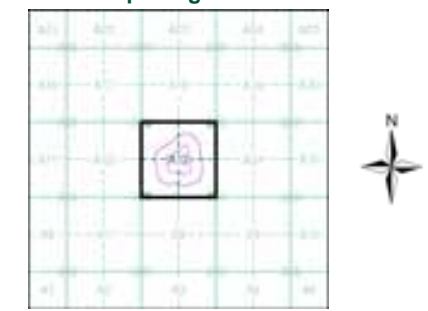
**Large-Scale National Grid Data**  
**Published 1993 - 1996**  
**Source map scale - 1:1,250**

'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 A13**



**Order Details**

Order Number: 46081904\_1\_1  
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**Site Details**

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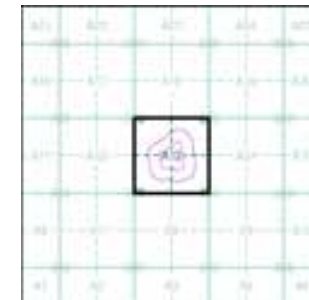
Tel: 0844 844 9952  
 Fax: 0844 844 9951  
 Web: www.envirocheck.co.uk

'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 A13**

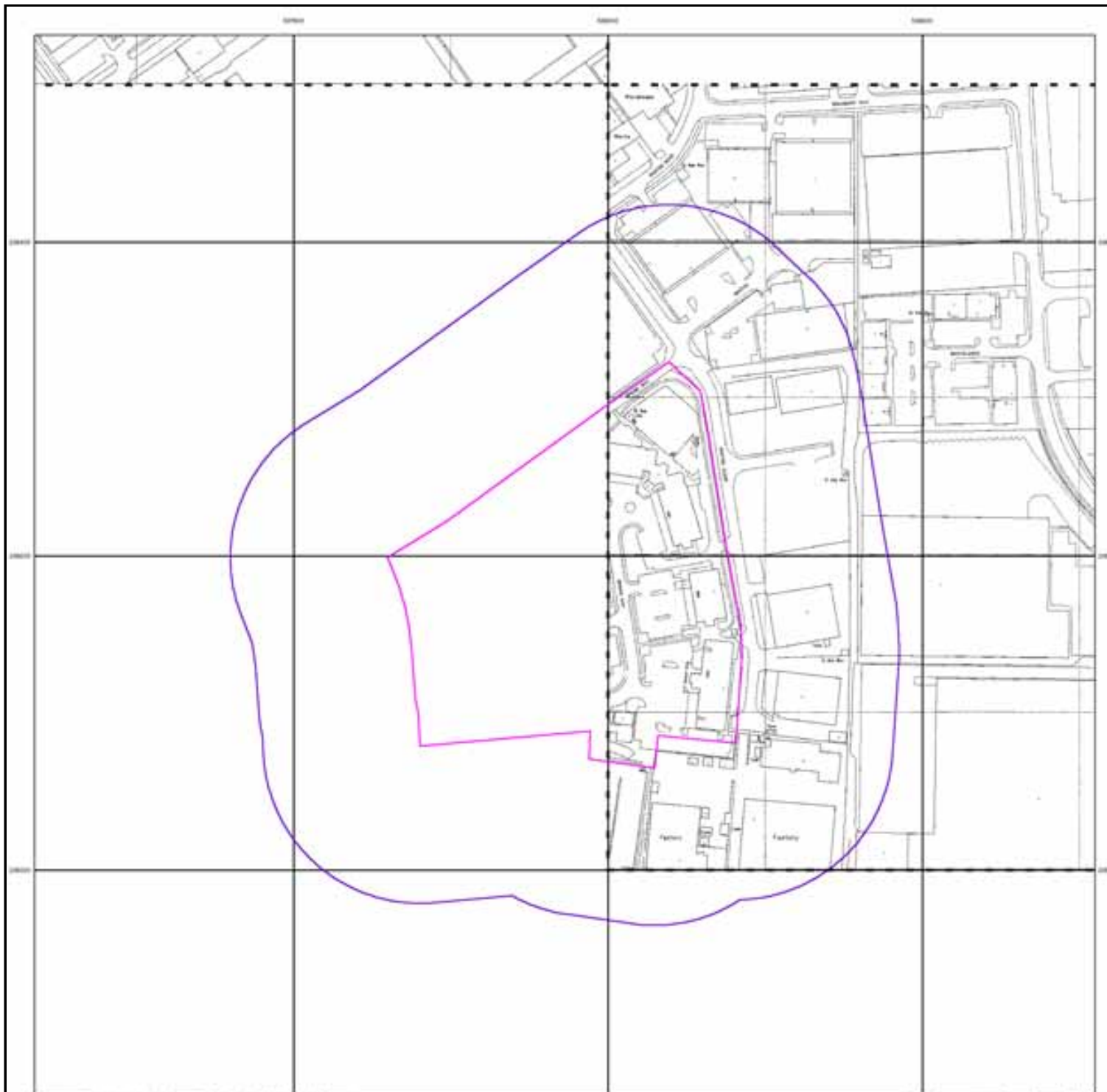


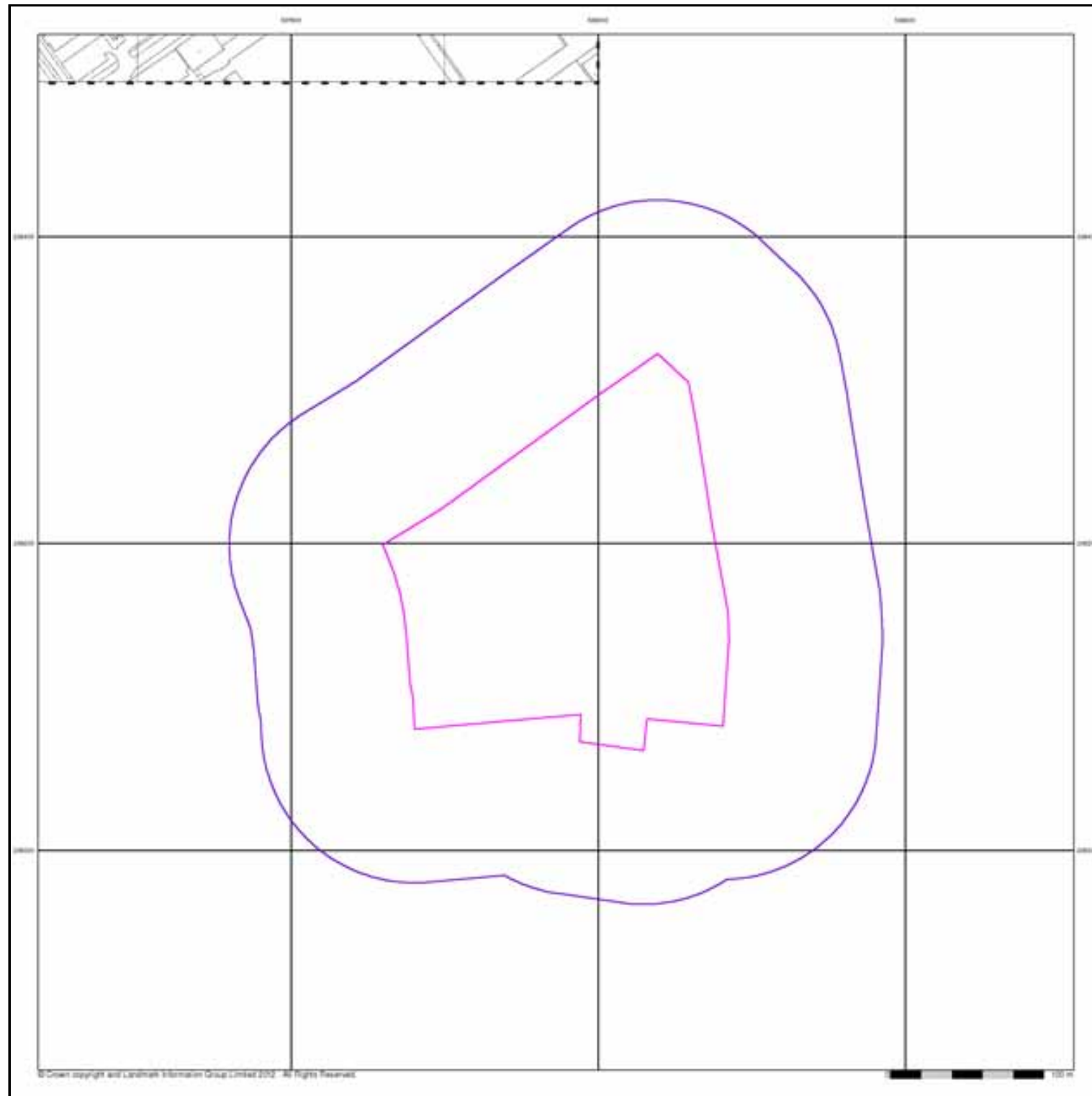

**Order Details**

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**Site Details**

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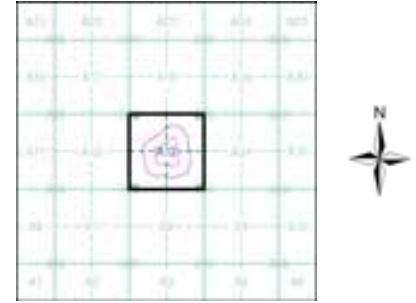
**GeoDyne**  
**Large-Scale National Grid Data**  
**Published 1996**  
**Source map scale - 1:1,250**

'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 A13**



**Order Details**  
Order Number: 46081904\_1\_1  
Customer Ref: 33068  
National Grid Reference: 507980, 208180  
Slice: A  
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**Landmark**  Tel: 0844 844 9952  
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Web: www.envirocheck.co.uk

# 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** (Fenced/Unfenced), **Minor Roads** (Fenced/Unfenced), **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 Borough 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, Borough or District Council**, **Borough, Burgh or County Constituency** (Shown only where not coincident with other boundaries), **Civil Parish** (Shown alternately where 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

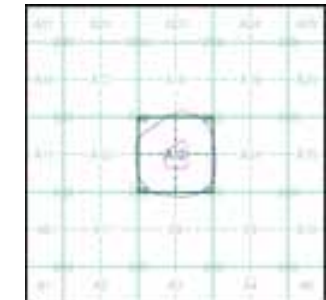
**Gravel Pit**, **Refuse tip or slag heap**, **Rock**, **Rock (scattered)**, **Boulders**, **Boulders (scattered)**, **Shingle**, **Mud**, **Sand**, **Sand Pit**, **Slopes**, **Top of cliff**, **General detail**, **Underground detail**, **Overhead detail**, **Narrow gauge railway**, **Multi-track railway**, **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**, **Positioned tree**, **Coniferous trees (scattered)**, **Coppice or Osiers**, **Orchard**, **Heath**, **Rough Grassland**, **Marsh, Salt Marsh or Reeds**, **Scrub**, **Flow arrows**, **Water feature**, **Flow arrows**, **Mean high water (springs)**, **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**



## Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Hertfordshire	1:10,560	1883	2
Hertfordshire	1:10,560	1899	3
Hertfordshire	1:10,560	1925 - 1926	4
Hertfordshire	1:10,560	1938	5
Hertfordshire	1:10,560	1938 - 1947	6
Hertfordshire	1:10,560	1947	7
Historical Aerial Photography	1:10,560	1947	8
Ordnance Survey Plan	1:10,000	1960	9
Ordnance Survey Plan	1:10,000	1964	10
Ordnance Survey Plan	1:10,000	1982	11
Ordnance Survey Plan	1:10,000	1992	12
Ordnance Survey Plan	1:10,000	1996	13
10K Raster Mapping	1:10,000	2006	14
10K Raster Mapping	1:10,000	2013	15

## Historical Map - Slice A



## Order Details

Order Number: 46081904\_1\_1  
 Customer Ref: 33068  
 National Grid Reference: 507980, 208180  
 Slice: A  
 Site Area (Ha): 3.91  
 Search Buffer (m): 250

## Site Details

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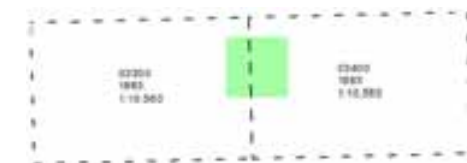


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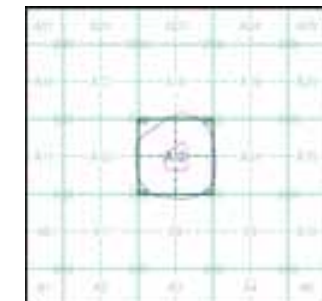


The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some 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

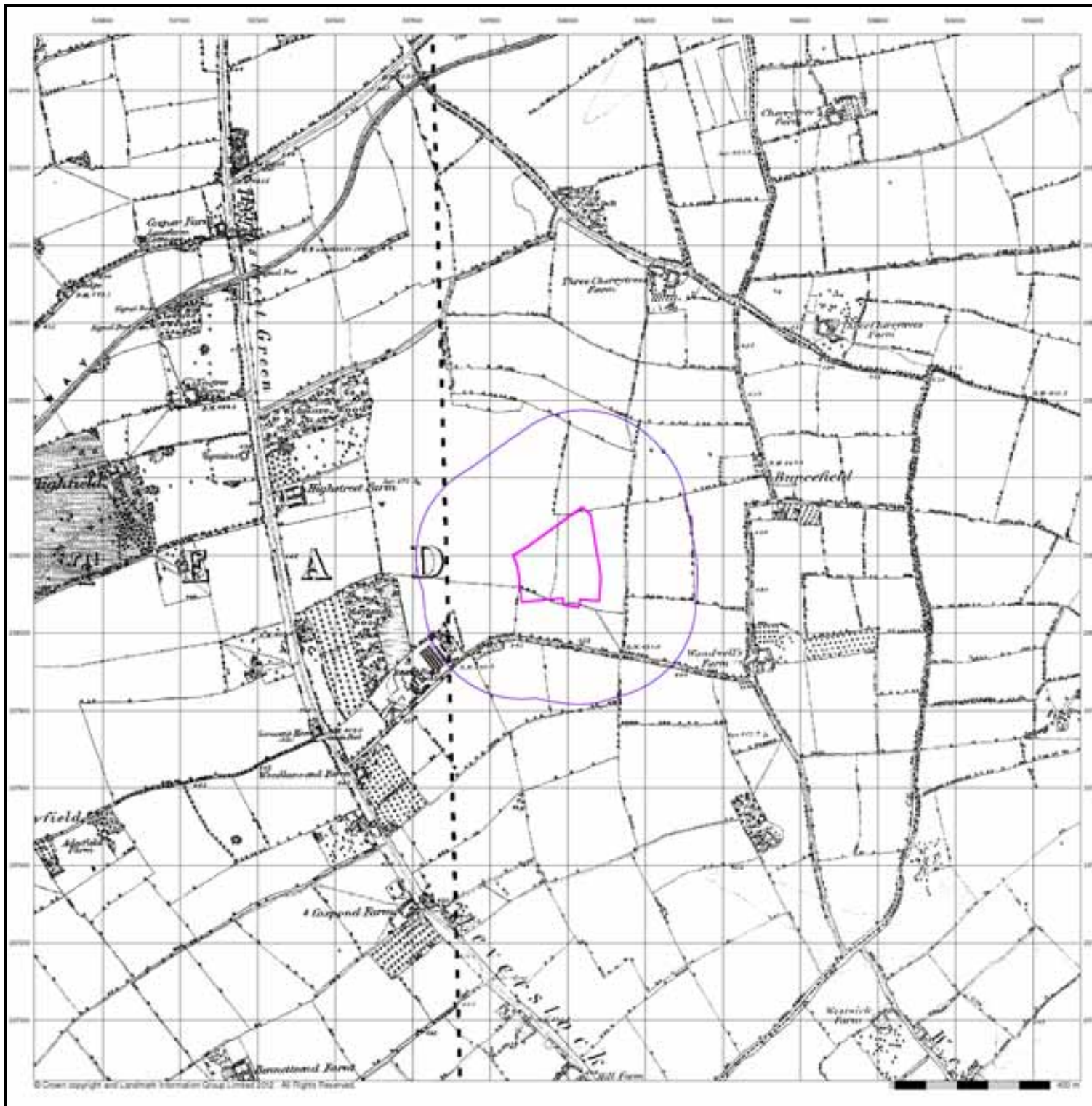


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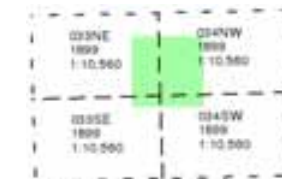
Site Details

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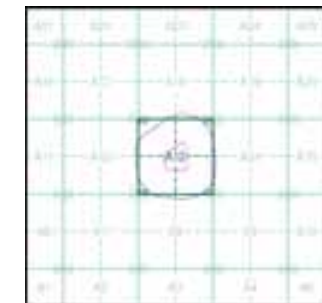


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Historical Map - Slice A

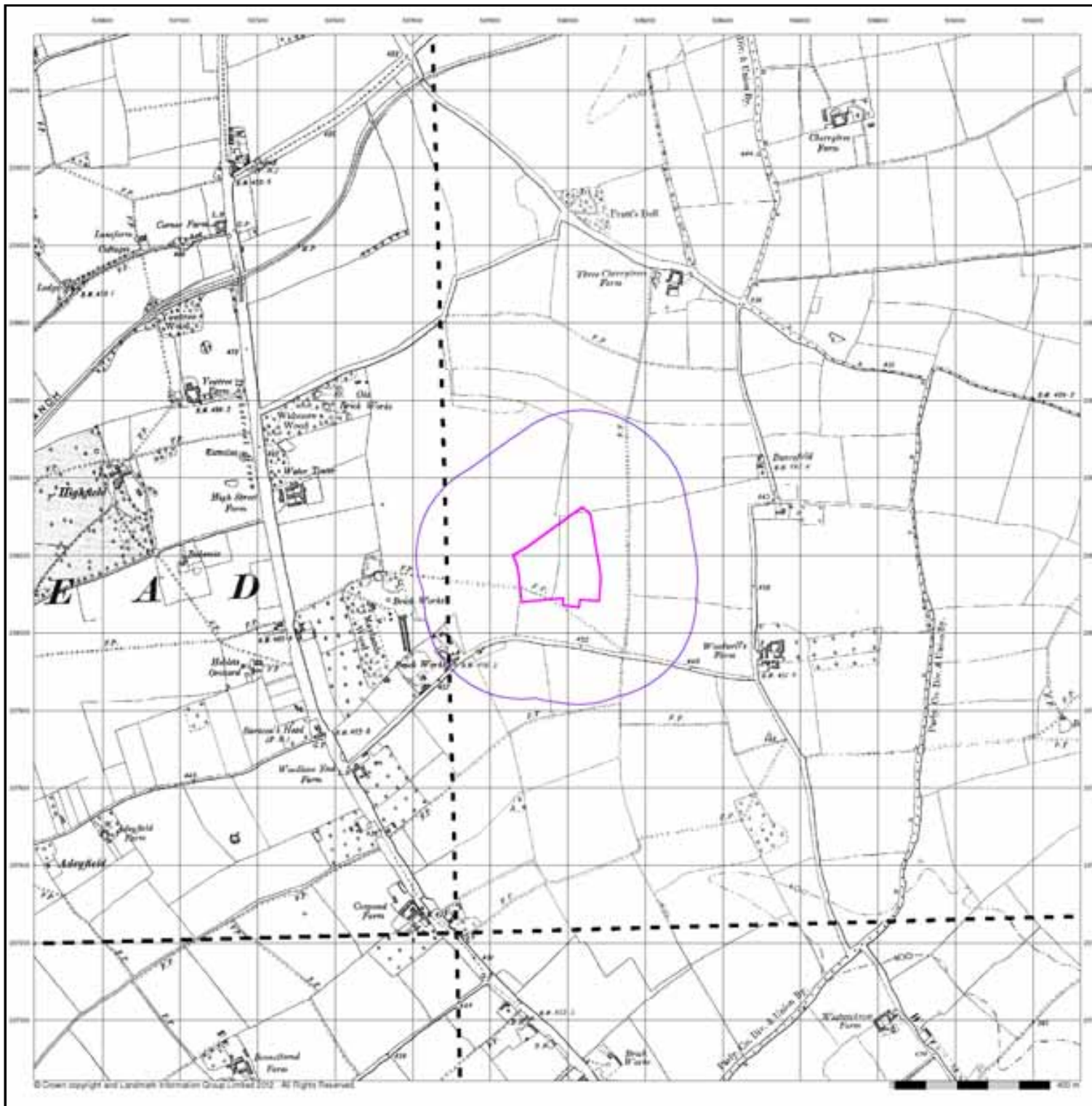


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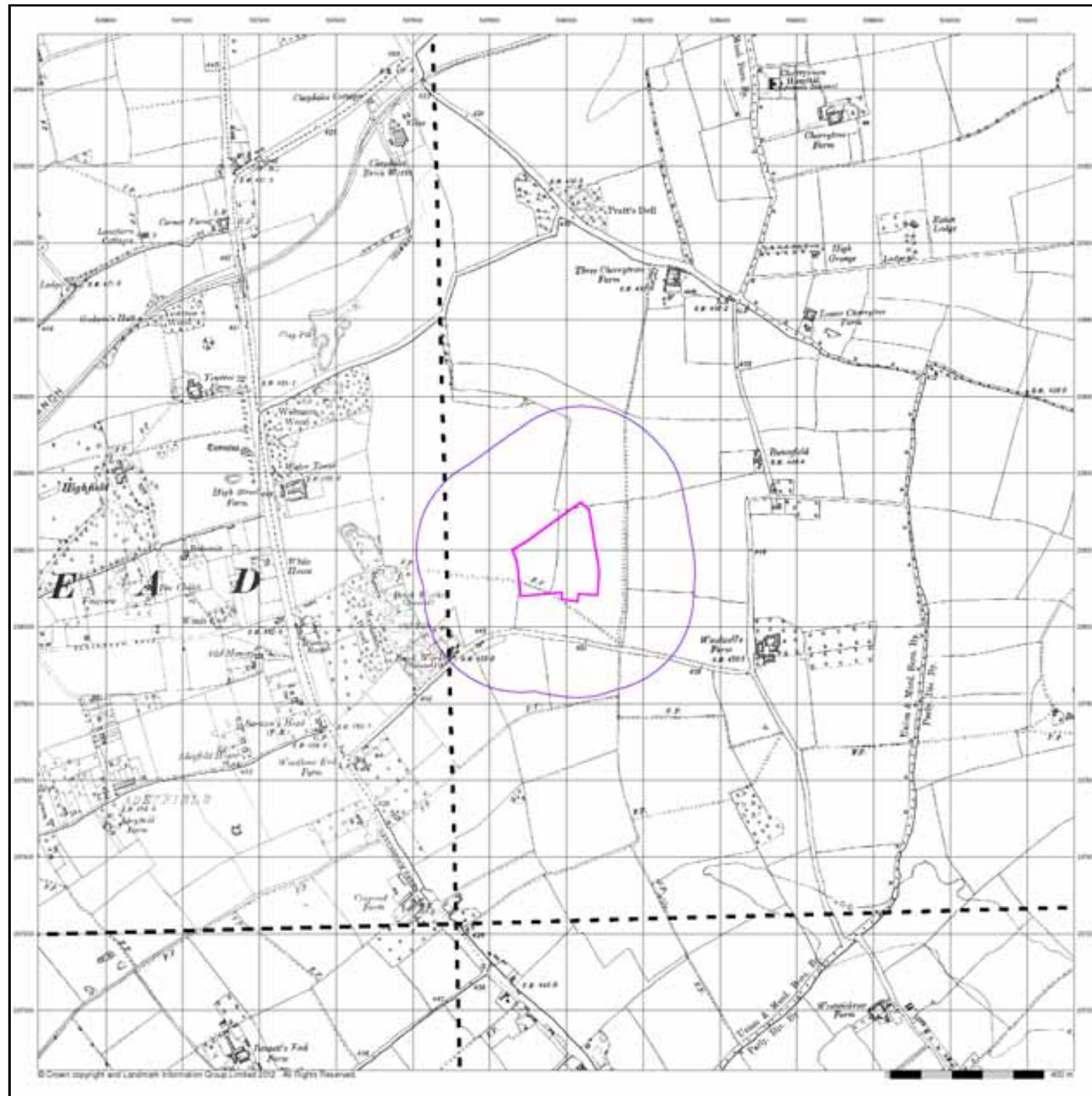

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Site Details

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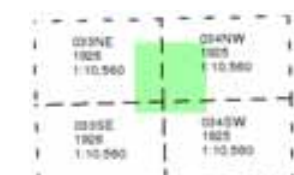


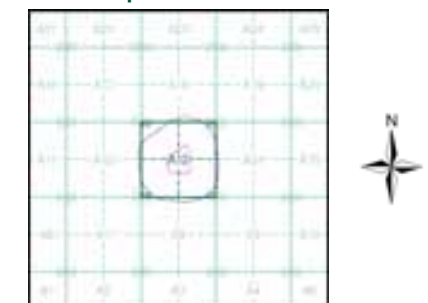
**Hertfordshire**  
**Published 1925 - 1926**  
**Source map scale - 1:10,560**

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**  
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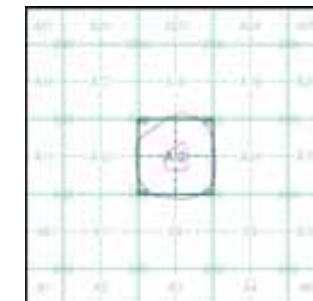


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Historical Map - Slice A

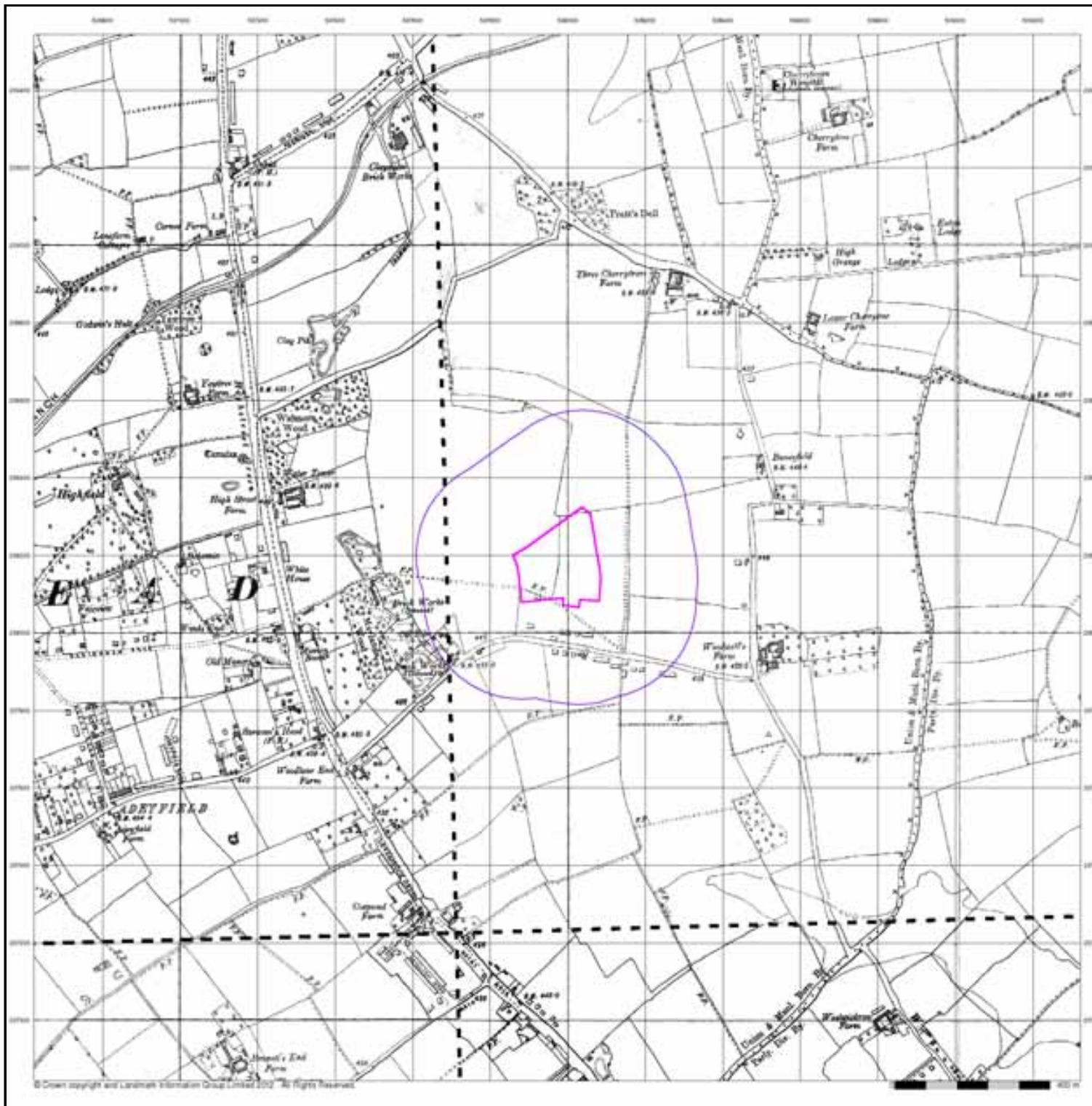


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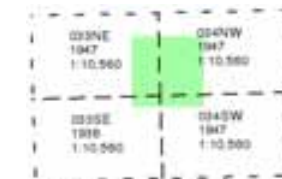
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Data Centre, HEMEL HEMPSTEAD

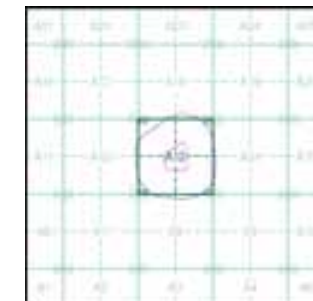


The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some 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.

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Historical Map - Slice A

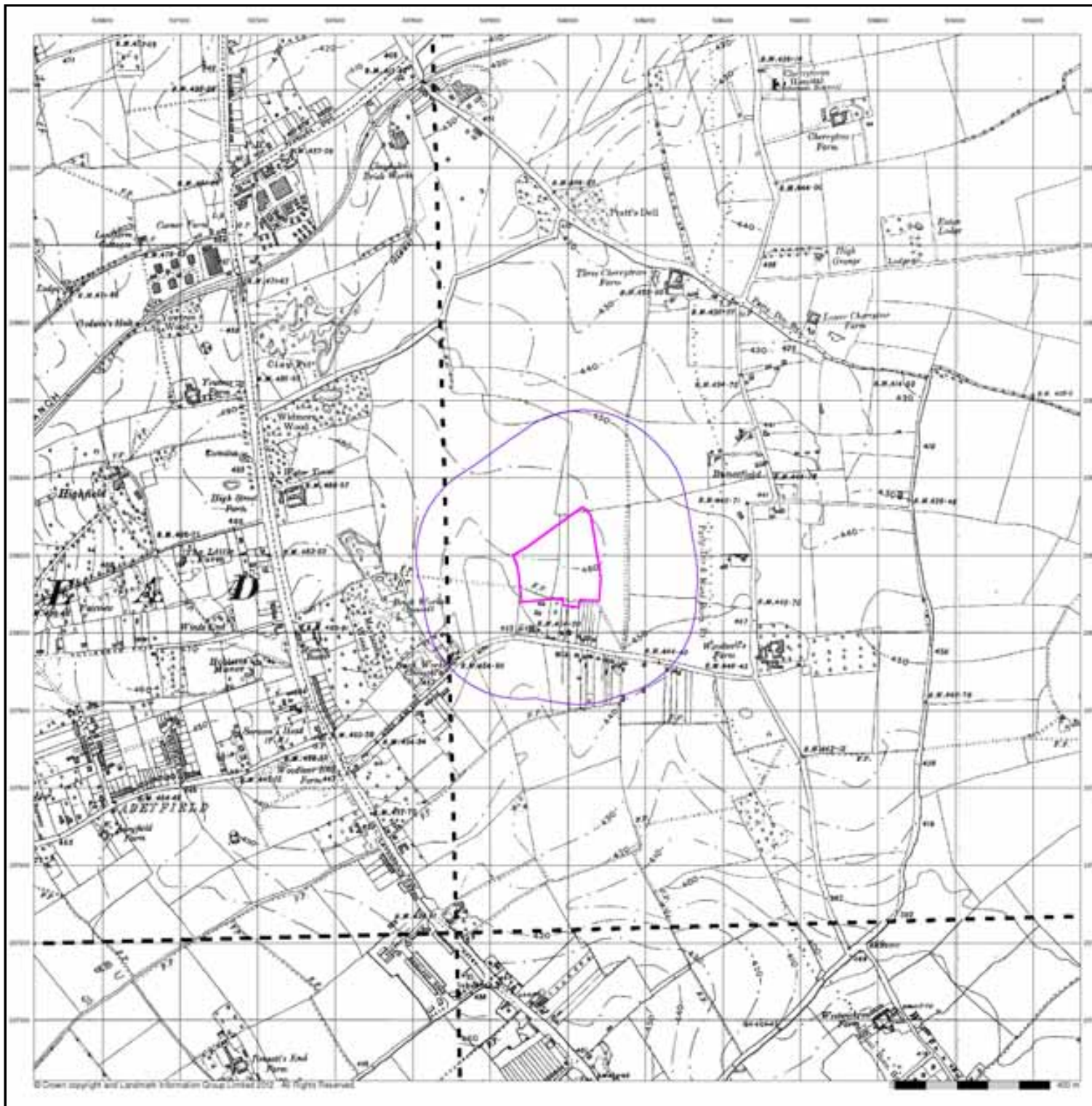


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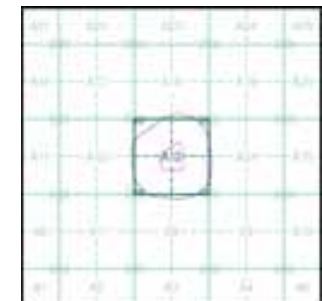


The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some 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.

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**Historical Map - Slice A**

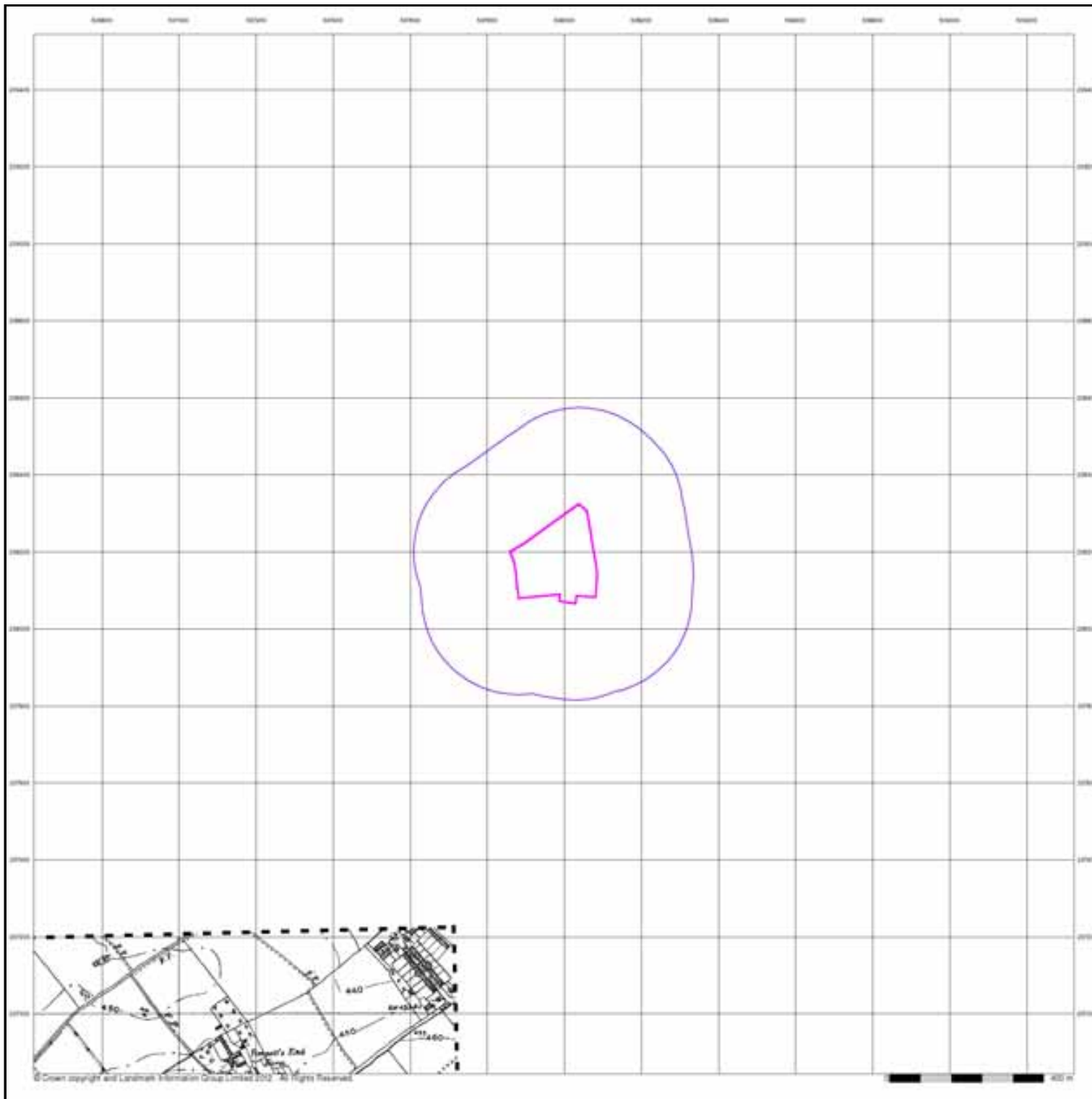


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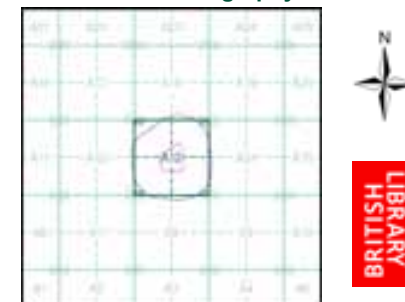
The Historical Aerial Photos were produced by the Ordnance Survey at a scale of 1:1,250 and 1:10,560 from Air Force photography. They were produced between 1944 and 1951 as an interim measure, pending preparation of conventional mapping, due to post war resource shortages. New security measures in the 1950's meant that every photograph was re-checked for potentially unsafe information with security sites replaced by fake fields or clouds. The original editions were withdrawn and only later made available after a period of fifty years although due to the accuracy of the editing, without viewing both revisions it is not easy to spot the edits. Where available Landmark have included both revisions.

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



### Historical Aerial Photography - Slice A



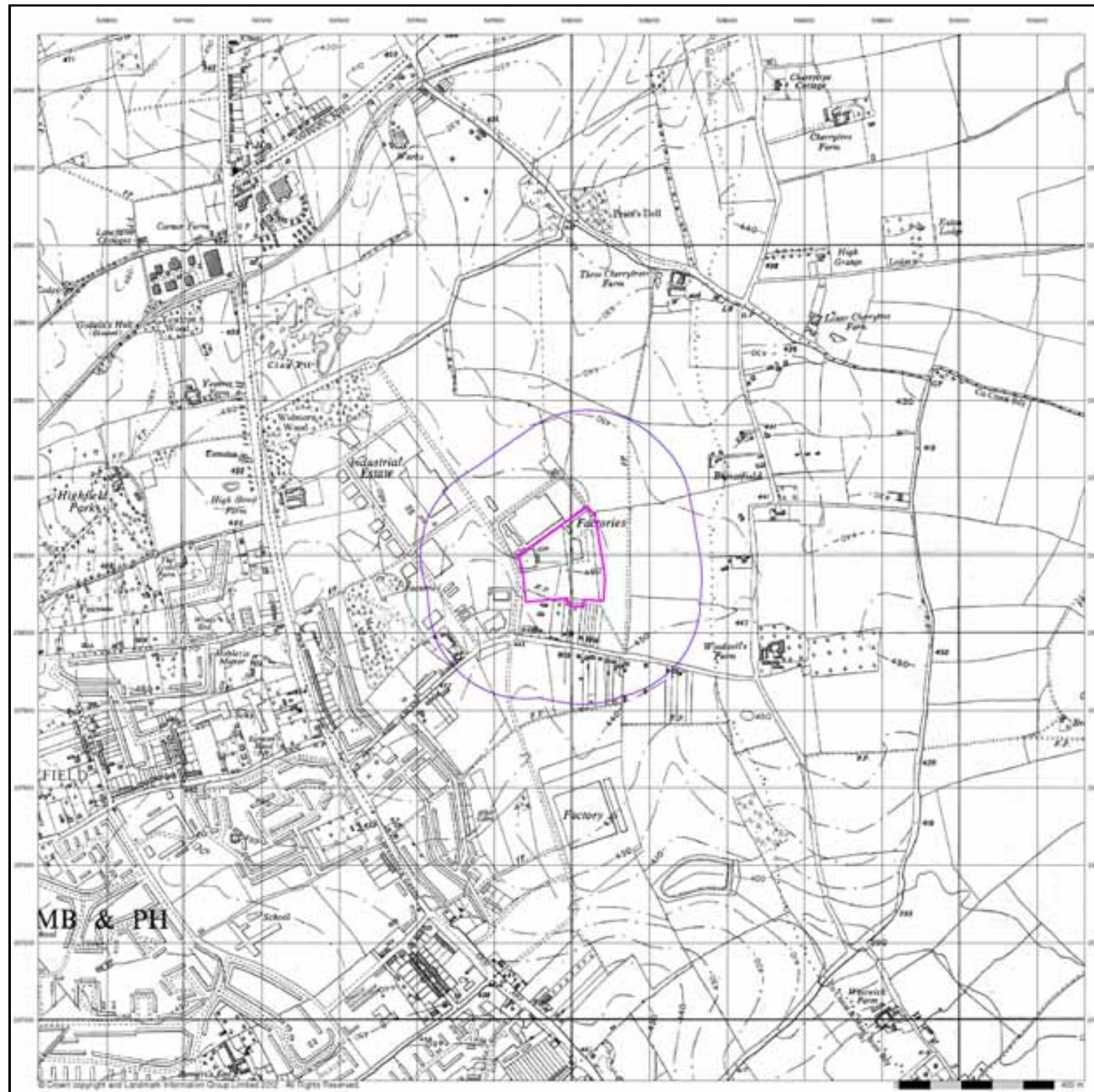
### Order Details

Order Number: 46081904\_1\_1  
 Customer Ref: 33068  
 National Grid Reference: 507980, 208180  
 Slice: A  
 Site Area (Ha): 3.91  
 Search Buffer (m): 250

### Site Details

Data Centre, HEMEL HEMPSTEAD





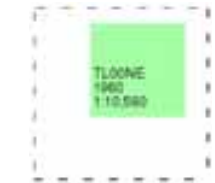
MB & PH



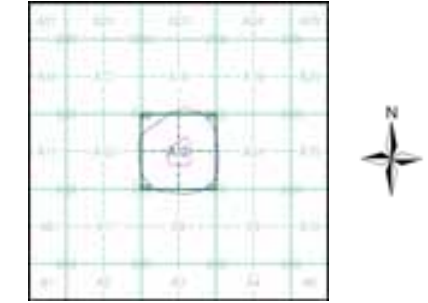
**Ordnance Survey Plan**  
**Published 1960**  
**Source map scale - 1:10,000**

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**



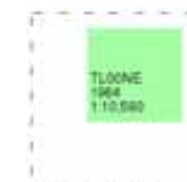
**Order Details**  
 Order Number: 46081904\_1\_1  
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 National Grid Reference: 507980, 208180  
 Slice: A  
 Site Area (Ha): 3.91  
 Search Buffer (m): 250

**Site Details**  
 Data Centre, HEMEL HEMPSTEAD

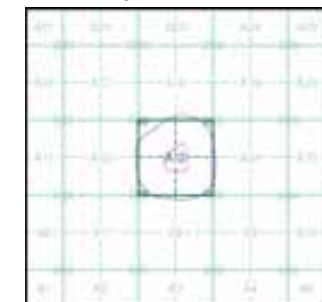


The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some 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**

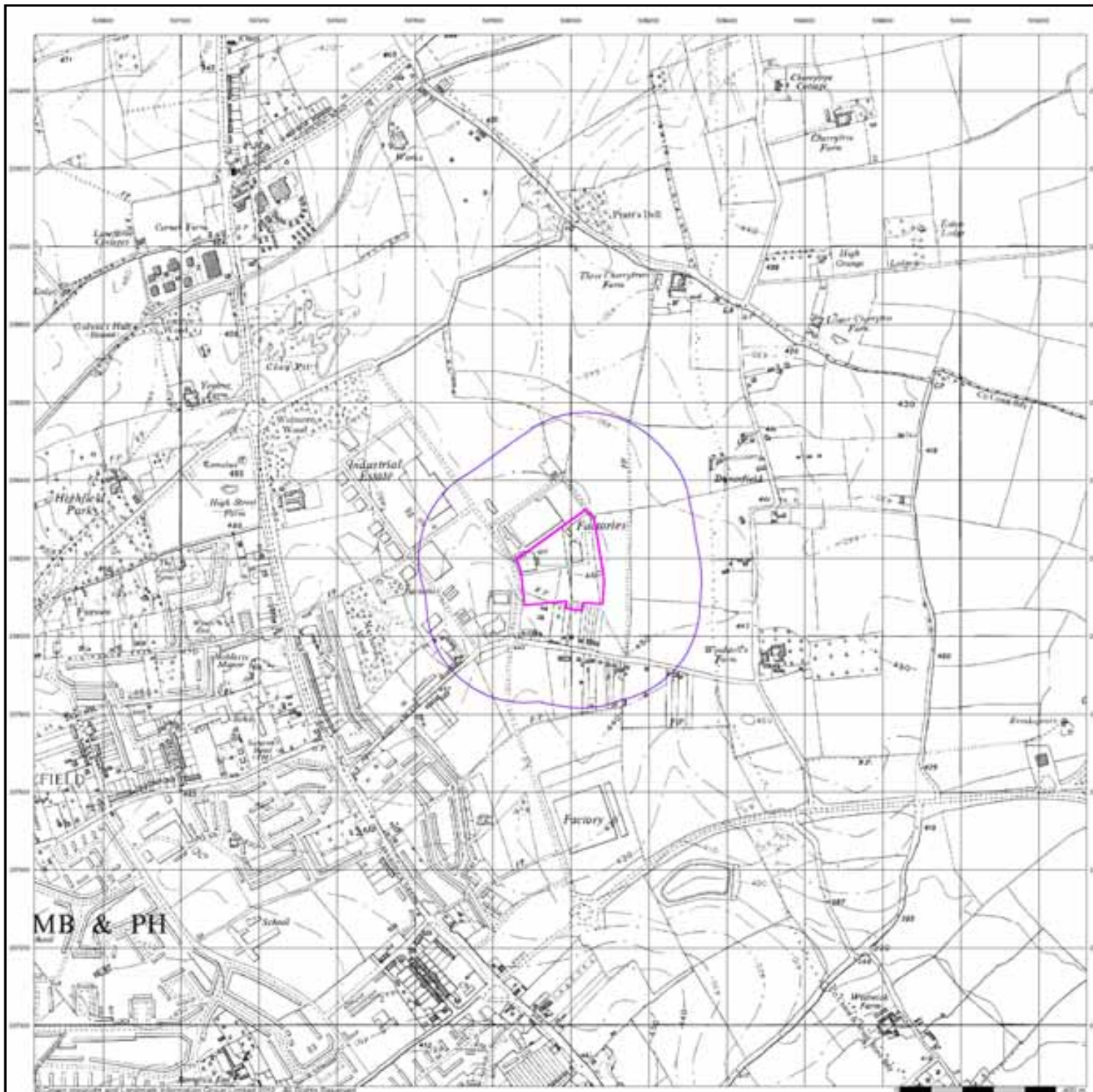


**Order Details**

Order Number: 46081904\_1\_1  
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**Site Details**

Data Centre, HEMEL HEMPSTEAD

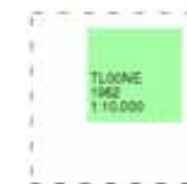


MB & PH

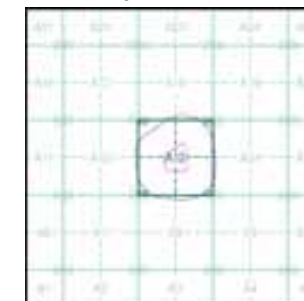


The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some 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: 46081904\_1\_1  
Customer Ref: 33068  
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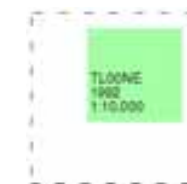
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Data Centre, HEMEL HEMPSTEAD

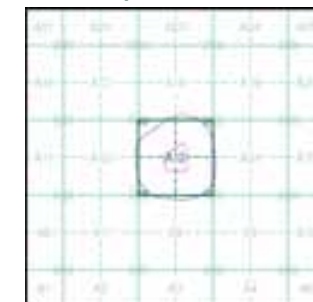


The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some 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**

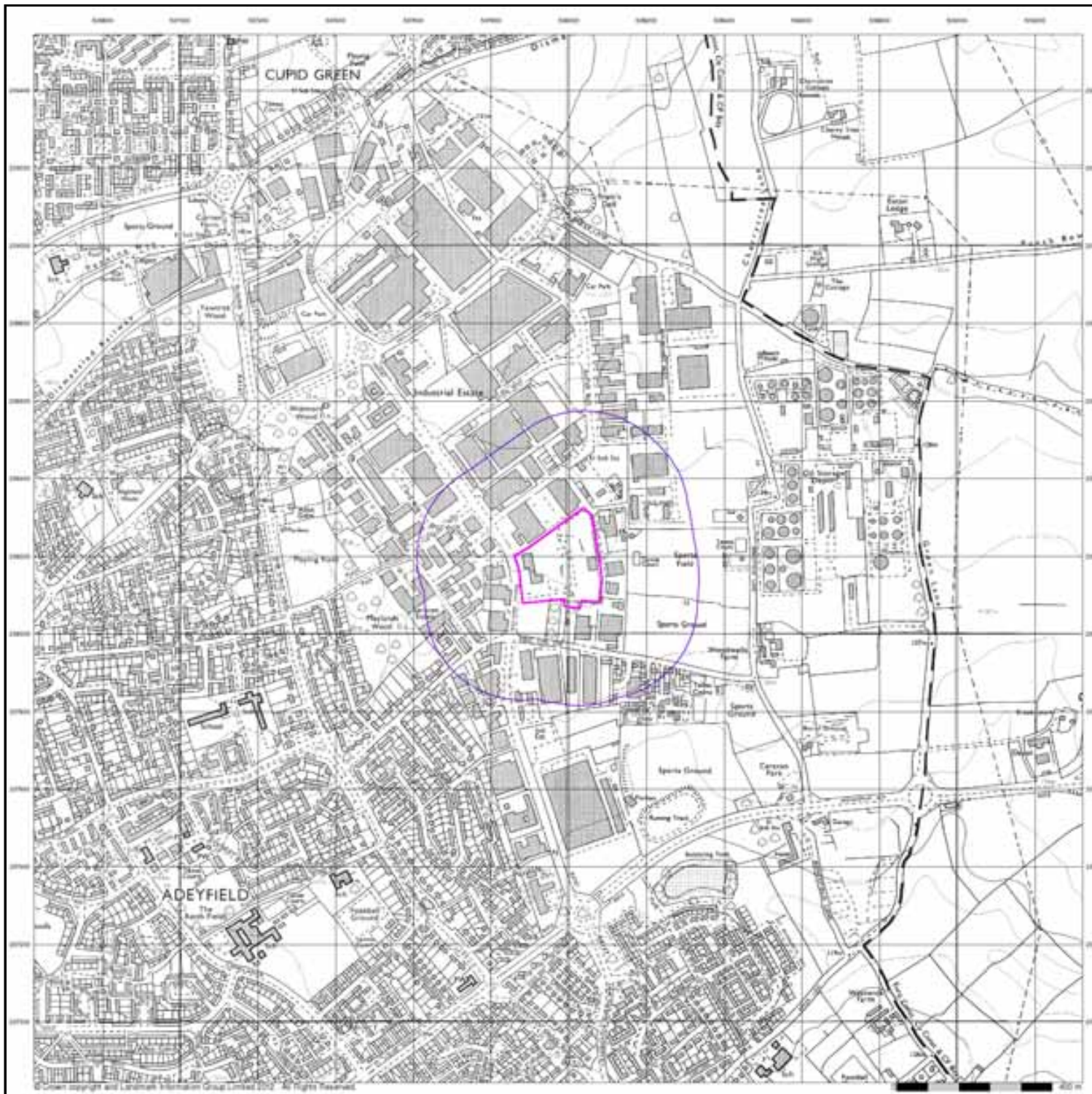


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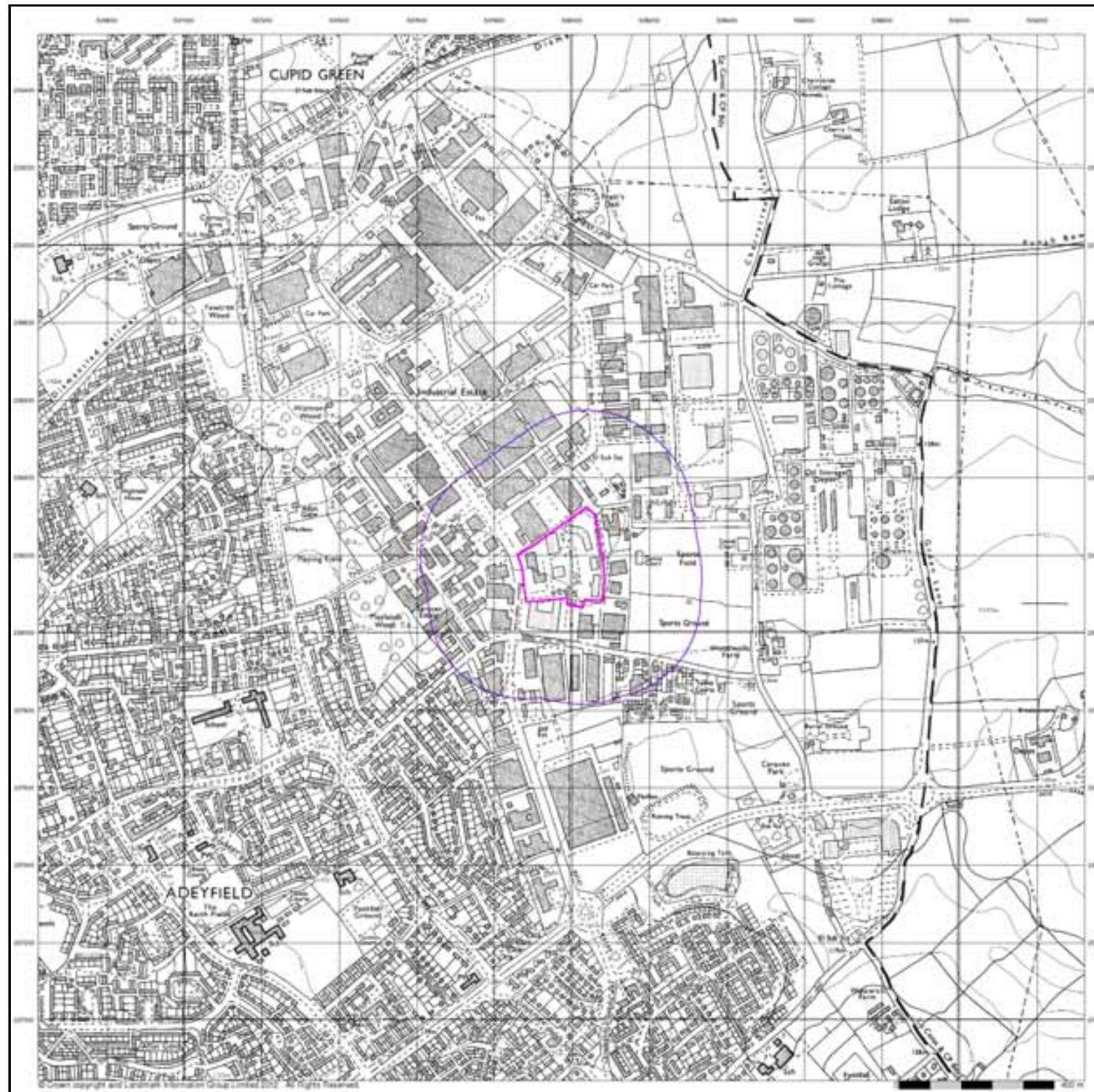
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 Customer Ref: 33068  
 National Grid Reference: 507980, 208180  
 Slice: A  
 Site Area (Ha): 3.91  
 Search Buffer (m): 250

**Site Details**

Data Centre, HEMEL HEMPSTEAD

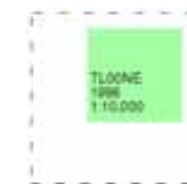




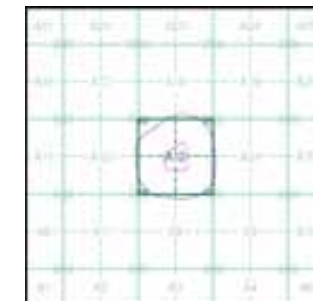


The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some 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**



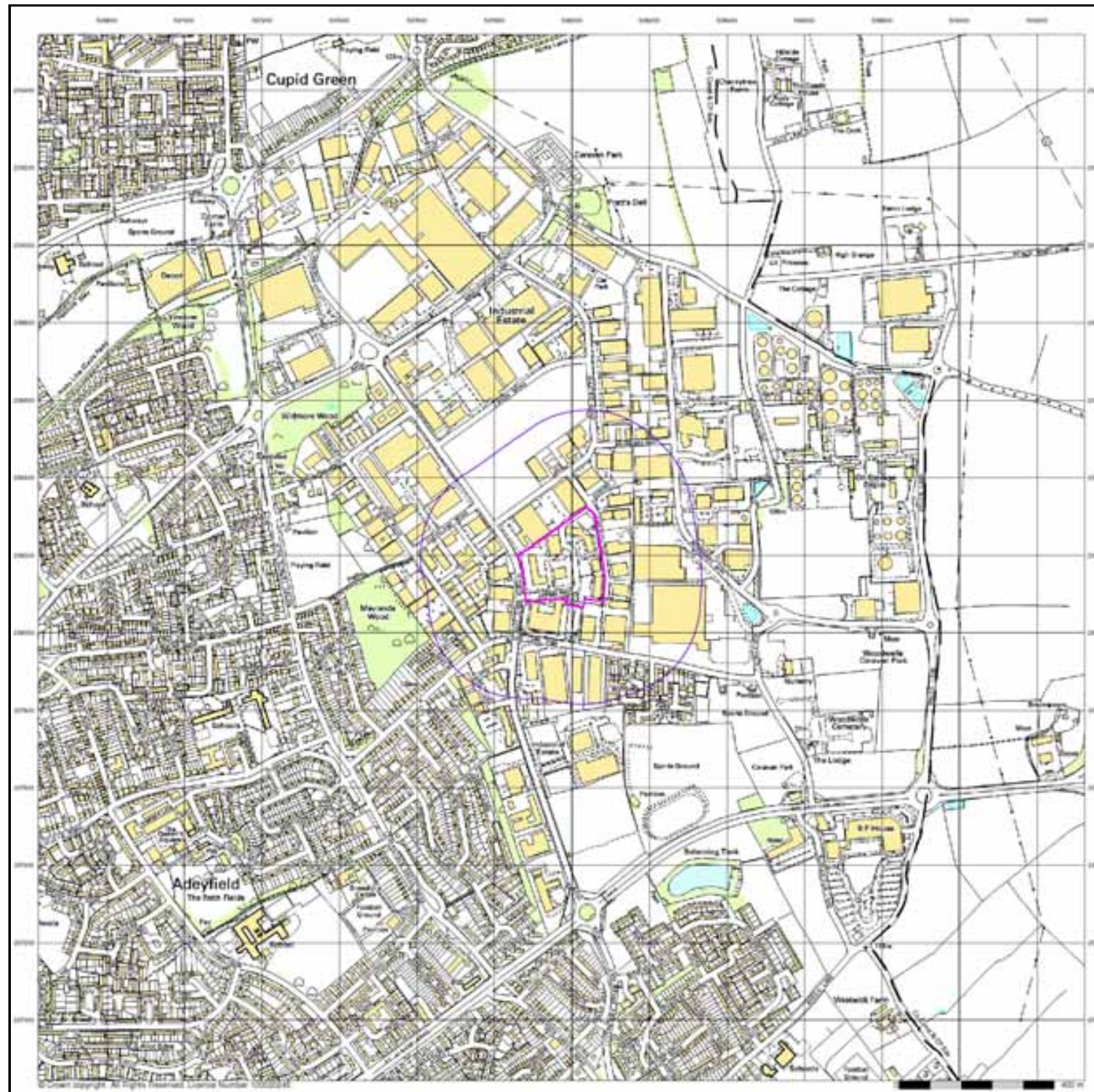
**Order Details**

Order Number: 46081904\_1\_1  
 Customer Ref: 33068  
 National Grid Reference: 507980, 208180  
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**Site Details**

Data Centre, HEMEL HEMPSTEAD

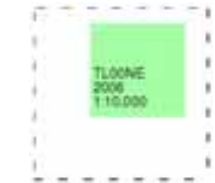




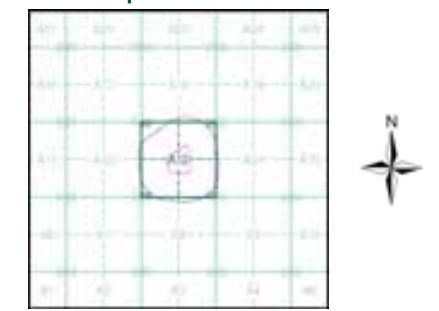
**10k Raster Mapping**  
**Published 2006**  
**Source map scale - 1:10,000**

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.

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



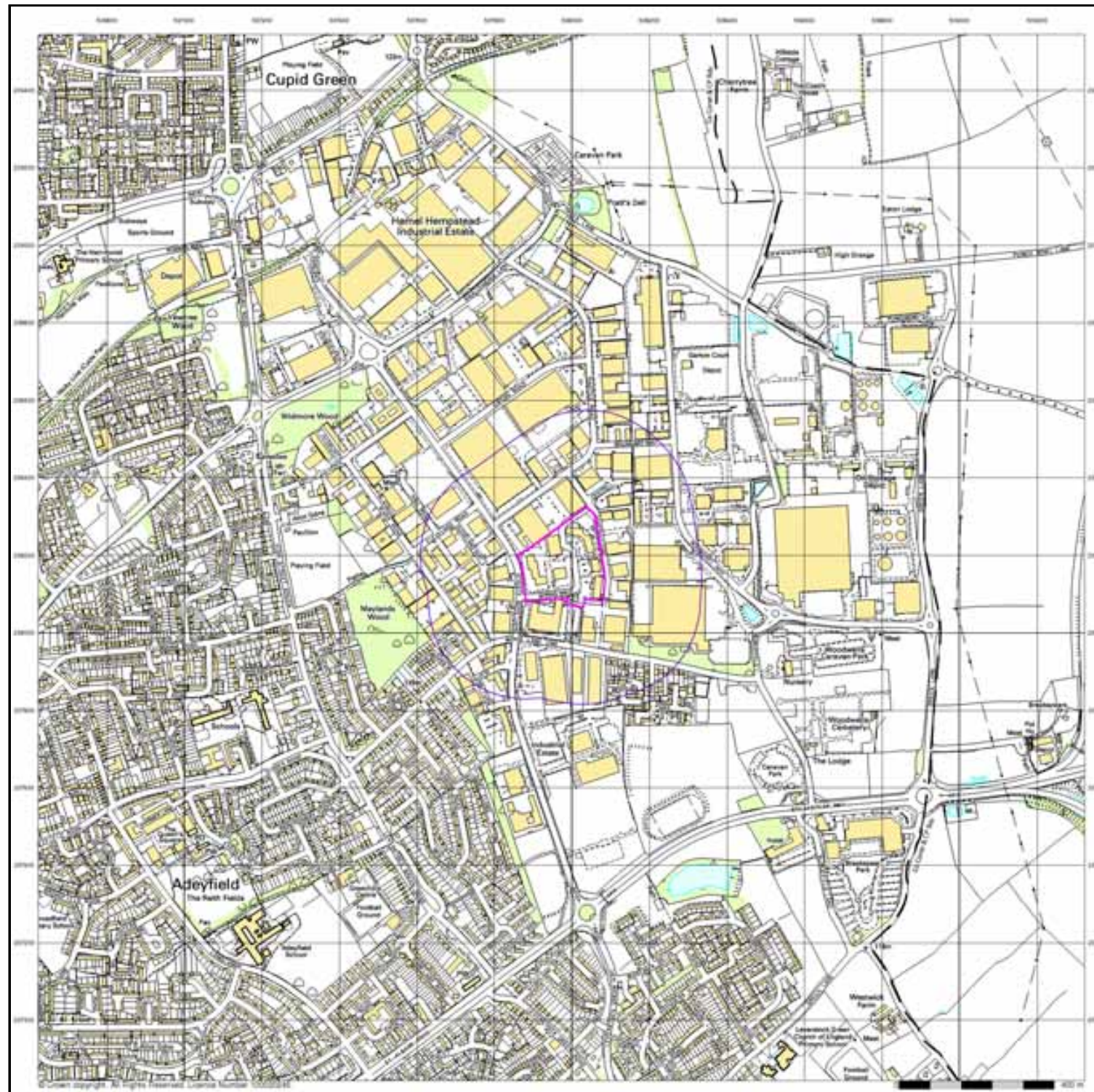
**Historical Map - Slice A**



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 Order Number: 46081904\_1\_1  
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**Site Details**  
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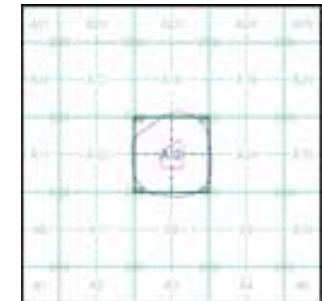


The historical maps shown were produced from the Ordnance Survey's 1:10,000 colour raster mapping. These maps are derived from Landplan which replaced the old 1:10,000 maps originally published in 1970. The data is highly detailed showing buildings, fences and field boundaries as well as all roads, tracks 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.

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



**Historical Map - Slice A**



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Order Number: 46081904\_1\_1  
 Customer Ref: 33068  
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**Site Details**

Data Centre, HEMEL HEMPSTEAD

**APPENDIX V**

**Landmark Envirocheck Report**

## Envirocheck<sup>®</sup> Report:

### Datasheet

#### Order Details:

**Order Number:**

46081904\_1\_1

**Customer Reference:**

33068

**National Grid Reference:**

507980, 208180

**Slice:**

A

**Site Area (Ha):**

3.91

**Search Buffer (m):**

250

#### Site Details:

Data Centre

HEMEL HEMPSTEAD

#### Client Details:

Mr R Spencer

GeoDyne Ltd

The Granary

Church Lane

Thrumpton

NG11 0AX

#### Prepared For:

Elliottwood Partnership LLP

Sampsons Yard

Halifax Place

Nottingham

NG1 1QN

Report Section	Page Number
Summary	-
Agency & Hydrological	1
Waste	6
Hazardous Substances	7
Geological	8
Industrial Land Use	10
Sensitive Land Use	18
Data Currency	19
Data Suppliers	23
Useful Contacts	24

## 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 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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## Radon Potential dataset Copyright Notice

Information supplied from a joint dataset compiled by The British Geological Survey and the Health Protection Agency.

## Report Version v47.0



Data Type	Page Number	On Site	0 to 250m (*up to 500m)
<b>Agency &amp; Hydrological</b>			
Contaminated Land Register Entries and Notices			
Discharge Consents	pg 1		1
Enforcement and Prohibition Notices			
Integrated Pollution Controls	pg 1		4
Integrated Pollution Prevention And Control	pg 2		7
Local Authority Integrated Pollution Prevention And Control			
Local Authority Pollution Prevention and Controls	pg 3		2
Local Authority Pollution Prevention and Control Enforcements			
Nearest Surface Water Feature			
Pollution Incidents to Controlled Waters			
Prosecutions Relating to Authorised Processes			
Prosecutions Relating to Controlled Waters			
Registered Radioactive Substances			
River Quality			
River Quality Biology Sampling Points			
River Quality Chemistry Sampling Points			
Substantiated Pollution Incident Register	pg 3		1
Water Abstractions	pg 4		(*2)
Water Industry Act Referrals	pg 4		1
Groundwater Vulnerability	pg 4	Yes	n/a
Bedrock Aquifer Designations	pg 4	Yes	n/a
Superficial Aquifer Designations			n/a
Source Protection Zones	pg 4	1	
Extreme Flooding from Rivers or Sea without Defences			
Flooding from Rivers or Sea without Defences			
Areas Benefiting from Flood Defences			
Flood Water Storage Areas			
Flood Defences			
<b>Waste</b>			
BGS Recorded Landfill Sites			
Historical Landfill Sites			
Integrated Pollution Control Registered Waste Sites			
Licensed Waste Management Facilities (Landfill Boundaries)			
Licensed Waste Management Facilities (Locations)	pg 6		1
Local Authority Recorded Landfill Sites			
Registered Landfill Sites			
Registered Waste Transfer Sites	pg 6		1
Registered Waste Treatment or Disposal Sites			

Data Type	Page Number	On Site	0 to 250m (*up to 500m)
<b>Hazardous Substances</b>			
Control of Major Accident Hazards Sites (COMAH)	pg 7		1
Explosive Sites			
Notification of Installations Handling Hazardous Substances (NIHHS)			
Planning Hazardous Substance Consents			
Planning Hazardous Substance Enforcements			
<b>Geological</b>			
BGS 1:625,000 Solid Geology	pg 8	Yes	n/a
BGS Estimated Soil Chemistry	pg 8	Yes	Yes
BGS Recorded Mineral Sites			
BGS Urban Soil Chemistry			
BGS Urban Soil Chemistry Averages			
Brine Compensation Area			n/a
Coal Mining Affected Areas			n/a
Mining Instability			n/a
Man-Made Mining Cavities			
Natural Cavities			
Non Coal Mining Areas of Great Britain	pg 8	Yes	
Potential for Collapsible Ground Stability Hazards	pg 8	Yes	
Potential for Compressible Ground Stability Hazards			
Potential for Ground Dissolution Stability Hazards	pg 8		Yes
Potential for Landslide Ground Stability Hazards	pg 9	Yes	
Potential for Running Sand Ground Stability Hazards	pg 9	Yes	
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 9	Yes	
Radon Potential - Radon Affected Areas			n/a
Radon Potential - Radon Protection Measures			n/a
<b>Industrial Land Use</b>			
Contemporary Trade Directory Entries	pg 10	1	70
Fuel Station Entries	pg 17		1

Data Type	Page Number	On Site	0 to 250m (*up to 500m)
<b>Sensitive Land Use</b>			
Areas of Adopted Green Belt			
Areas of Unadopted Green Belt			
Areas of Outstanding Natural Beauty			
Environmentally Sensitive Areas			
Forest Parks			
Local Nature Reserves			
Marine Nature Reserves			
National Nature Reserves			
National Parks			
Nitrate Sensitive Areas			
Nitrate Vulnerable Zones	pg 18	1	
Ramsar Sites			
Sites of Special Scientific Interest			
Special Areas of Conservation			
Special Protection Areas			

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
1	<p><b>Discharge Consents</b></p> <p>Operator: Jackson Civil Engineering Ltd  Property Type: Industrial Parks &amp; Estates  Location: Hatfield Business Park Hatfield Park Way Hatfield Hertfordshire Hertfordshire AI10 9ta  Authority: Environment Agency, Thames Region  Catchment Area: Lee-Source / Mimram  Reference: Canm.0372  Permit Version: 1  Effective Date: 6th December 2001  Issued Date: 6th December 2001  Revocation Date: 10th April 2002  Discharge Type: Trade Effluent Discharge-Site Drainage  Discharge: Freshwater Stream/River  Environment:  Receiving Water: Ellen Brook  <b>Status: New Consent (Water Resources Act 1991, Section 88 &amp; Schedule 10 as amended by Environment Act 1995)</b>  Positional Accuracy: Located by supplier to within 10m</p>	A13NW (N)	230	1	507890 208500
2	<p><b>Integrated Pollution Controls</b></p> <p>Name: Henkel Loctite Adhesives Ltd  Location: Kelsey House, Wood Lane End, HEMEL HEMPSTEAD, Hertfordshire, HP2 4RA  Authority: Environment Agency, Thames Region  Permit Reference: AO0580  Dated: 25th November 1994  Process Type: IPC new application  Description: 4.5 A (M) Inorganic Chemical processes within the Chemical Industry  <b>Status: Authorisation superseded by a substantial or non substantial variationSuperseded</b>  Positional Accuracy: Automatically positioned to the address</p>	A13SE (SE)	125	1	508119 207963
2	<p><b>Integrated Pollution Controls</b></p> <p>Name: Henkel Loctite Adhesives Ltd  Location: Kelsey House, Wood Lane End, HEMEL HEMPSTEAD, Hertfordshire, HP2 4RQ  Authority: Environment Agency, Thames Region  Permit Reference: BC9453  Dated: 24th November 1998  Process Type: IPC minor (non-substantial) variation to previous variation  Description: 4.5 A (M) Inorganic Chemical processes within the Chemical Industry  <b>Status: Authorisation revokedRevoked</b>  Positional Accuracy: Automatically positioned to the address</p>	A13SE (SE)	126	1	508124 207963
2	<p><b>Integrated Pollution Controls</b></p> <p>Name: Henkel Loctite Adhesives Ltd  Location: Wood Lane End, HEMEL HEMPSTEAD, Hertfordshire, HP2 4RQ  Authority: Environment Agency, Thames Region  Permit Reference: AS7574  Dated: 1st December 1995  Process Type: IPC new application  Description: 2.2 A (E) Non-ferrous Metal processes within the Metal Industry  <b>Status: Authorisation superseded by a substantial or non substantial variationSuperseded</b>  Positional Accuracy: Automatically positioned to the address</p>	A13SE (SE)	129	1	508119 207958
2	<p><b>Integrated Pollution Controls</b></p> <p>Name: Henkel Loctite Adhesives Ltd  Location: Wood Lane End, HEMEL HEMPSTEAD, Hertfordshire, HP2 4RQ  Authority: Environment Agency, Thames Region  Permit Reference: BD2527  Dated: 24th November 1998  Process Type: IPC minor (non-substantial) variation to previous variation  Description: 2.2 A (E) Non-ferrous Metal processes within the Metal Industry  <b>Status: Revoked - Now IPPC</b>  Positional Accuracy: Automatically positioned to the address</p>	A13SE (SE)	131	1	508124 207958



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
3	<p><b>Integrated Pollution Prevention And Control</b></p> <p>Name: Henkel Ltd            Location: Henkel Loctite Adhesives Ltd, Wood Lane End, HEMEL HEMPSTEAD, Hertfordshire, HP2 4RQ            Authority: Environment Agency - South East Region, North East Thames Area            Permit Reference: CP3935XZ            Original Permit Ref: Cp3935xz            Effective Date: 24th April 2008  <b>Status: Effective</b>            Application Type: Transfer            App. Sub Type: Whole limited change in management            Positional Accuracy: Automatically positioned to the address            Activity Code: 0.0 Associated Process            Activity Description: Associated Process            Primary Activity: N            Activity Code: 2.2 A(1) (D) (I)            Activity Description: Non-Ferrous Metals; Producing Etc Lead And Alloys With Release To Air            Primary Activity: Y</p>	A13SE (SE)	124	1	508119 207963
3	<p><b>Integrated Pollution Prevention And Control</b></p> <p>Name: Henkel Ltd            Location: Henkel Loctite Adhesives Ltd, Wood Lane End, HEMEL HEMPSTEAD, Hertfordshire, HP2 4RQ            Authority: Environment Agency, Thames Region            Permit Reference: CP3935XZ            Original Permit Ref: Cp3935xz            Effective Date: 24th April 2008  <b>Status: Effective</b>            Application Type: Transfer            App. Sub Type: Whole limited change in management            Positional Accuracy: Automatically positioned to the address            Activity Code: 0.0 Associated Process            Activity Description: Associated Process            Primary Activity: N            Activity Code: 2.2 A(1) (D) (I)            Activity Description: Non-Ferrous Metals; Producing Etc Lead And Alloys With Release To Air            Primary Activity: Y</p>	A13SE (SE)	124	1	508119 207963
3	<p><b>Integrated Pollution Prevention And Control</b></p> <p>Name: Henkel Loctite Adhesives Limited            Location: Multicore Solders Limited, Wood Lane End, HEMEL HEMPSTEAD, Hertfordshire, HP2 4RQ            Authority: Environment Agency - South East Region, North East Thames Area            Permit Reference: BU6042IF            Original Permit Ref: BI7167ik            Effective Date: 30th April 2003  <b>Status: Superseded By Variation</b>            Application Type: Variation            App. Sub Type: Minor            Positional Accuracy: Automatically positioned to the address            Activity Code: 2.2 A(1) (D) (I)            Activity Description: Non-Ferrous Metals; Producing Etc Lead And Alloys With Release To Air            Primary Activity: Y</p>	A13SE (SE)	124	1	508119 207963
3	<p><b>Integrated Pollution Prevention And Control</b></p> <p>Name: Henkel Loctite Adhesives Limited            Location: Multicore Solders Limited, Wood Lane End, Hemel Hempstead, Hertfordshire, HP2 4RQ            Authority: Environment Agency, Thames Region            Permit Reference: Bu6042if            Original Permit Ref: BI7167ik            Effective Date: 30th April 2003  <b>Status: Superseded By Variation</b>            Application Type: Variation            App. Sub Type: Minor            Positional Accuracy: Automatically positioned to the address            Activity Code: 2.2 A(1) (D) (I)            Activity Description: Non-Ferrous Metals; Producing Etc Lead And Alloys With Release To Air            Primary Activity: Y</p>	A13SE (SE)	124	1	508119 207963

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
3	<p><b>Integrated Pollution Prevention And Control</b></p> <p>Name: Henkel Loctite Adhesives Limited            Location: Multicore Solders Limited, Wood Lane End, HEMEL HEMPSTEAD, Hertfordshire, HP2 4RQ            Authority: Environment Agency - South East Region, North East Thames Area            Permit Reference: BL7167IK            Original Permit Ref: BL7167ik            Effective Date: 31st October 2002  <b>Status: Superseded By Variation</b>            Application Type: Application            App. Sub Type: New            Positional Accuracy: Automatically positioned to the address            Activity Code: 2.2 A(1) (D) (I)            Activity Description: Non-Ferrous Metals; Producing Etc Lead And Alloys With Release To Air            Primary Activity: Y</p>	A13SE (SE)	124	1	508119 207963
3	<p><b>Integrated Pollution Prevention And Control</b></p> <p>Name: Henkel Loctite Adhesives Limited            Location: Multicore Solders Limited, Wood Lane End, Hemel Hempstead, Hertfordshire, HP2 4RQ            Authority: Environment Agency, Thames Region            Permit Reference: BL7167ik            Original Permit Ref: BL7167ik            Effective Date: 31st October 2002  <b>Status: Superseded By Variation</b>            Application Type: Application            App. Sub Type: New            Positional Accuracy: Automatically positioned to the address            Activity Code: 2.2 A(1) (D) (I)            Activity Description: Non-Ferrous Metals; Producing Etc Lead And Alloys With Release To Air            Primary Activity: Y</p>	A13SE (SE)	124	1	508119 207963
3	<p><b>Integrated Pollution Prevention And Control</b></p> <p>Name: Henkel Loctite Adhesives Ltd            Location: Kelsey House, Wood Lane End, HEMEL HEMPSTEAD, Hertfordshire, HP2 4RQ            Authority: Environment Agency, Thames Region            Permit Reference: BI7167            Original Permit Ref: BI7167            Effective Date: 29th October 2002  <b>Status: Superseded By Variation</b>            Application Type: PPC APPLICATION            App. Sub Type: Not Supplied            Positional Accuracy: Automatically positioned to the address            Activity Code: 2.2 A(1) (D) (I)            Activity Description: Non-Ferrous Metals; Producing Etc Lead And Alloys With Release To Air            Primary Activity: Not Supplied</p>	A13SE (SE)	124	1	508119 207963
4	<p><b>Local Authority Pollution Prevention and Controls</b></p> <p>Name: Pristine Dry Cleaners            Location: 6a Maylands Avenue, Hemel Hempstead, Hp2 4se            Authority: Dacorum Borough Council, Environmental Health Department            Permit Reference: Not Supplied            Dated: 19th October 2007            Process Type: Local Authority Pollution Prevention and Control            Description: PG6/46 Dry cleaning  <b>Status: Permitted</b>            Positional Accuracy: Manually positioned to the address or location</p>	A13SW (SW)	141	2	507823 207951
5	<p><b>Local Authority Pollution Prevention and Controls</b></p> <p>Name: Pristine Dry Cleaners            Location: 22 Mark Road, Hemel Hempstead, HP2 7BN            Authority: Dacorum Borough Council, Environmental Health Department            Permit Reference: SR 207970            Dated: Not Supplied            Process Type: Local Authority Pollution Prevention and Control            Description: PG6/46 Dry cleaning  <b>Status: Permitted</b>            Positional Accuracy: Manually positioned to the address or location</p>	A13SW (SW)	142	2	507775 207985
	<p><b>Nearest Surface Water Feature</b></p> <p>None</p>				
6	<p><b>Substantiated Pollution Incident Register</b></p> <p>Authority: Environment Agency - Thames Region, North East Area            Incident Date: 18th December 2007            Incident Reference: 551652            Water Impact: Category 3 - Minor Incident            Air Impact: Category 2 - Significant Incident            Land Impact: Category 2 - Significant Incident            Positional Accuracy: Located by supplier to within 10m            Pollutant: Atmospheric Pollutants And Effects: Smoke            Pollutant: Contaminated Water: Firefighting Run-Off</p>	A13SE (SE)	47	1	508130 208108

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<b>Water Abstractions</b> Operator: Hutchison Network Services Uk Limited Licence Number: 28/39/28/0573 Permit Version: 2 Location: Hemel Telehouse-Borehole A Authority: Environment Agency, Thames Region Abstraction: Other Industrial/Commercial/Public Services: Non-Evaporative Cooling Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Hemel Telehouse, Boundary Way, Hemel Hempstead, Herts. Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st January 2003 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A14SW (E)	375	1	508460 208130
	<b>Water Abstractions</b> Operator: Lattice Energy Services Ltd Licence Number: 28/39/28/0573 Permit Version: 1 Location: Hemel Telehouse-Borehole A Authority: Environment Agency, Thames Region Abstraction: Other Industrial/Commercial/Public Services: Non-Evaporative Cooling Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Hemel Telehouse, Boundary Way, Hemel Hempstead, Herts. Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 17th December 2002 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A14SW (E)	375	1	508460 208130
7	<b>Water Industry Act Referrals</b> Name: Trw Ltd Location: Maylands Avenue, Hemel Hempstead, HEMEL HEMPSTEAD, Hertfordshire, HP2 7DP Authority: Environment Agency, Thames Region Permit Reference: BA7093 Dated: 9th February 1998 Process Type: Permissions or amendments to discharge under the Water Industry Act 1991 Description: Processes which result in the discharge of Special Category effluents under The Trade Effluents (Prescribed Processes and Substances) Regulations <b>Status: Application received by the EA but is not yet authorised Not Yet Authorised</b> Positional Accuracy: Manually positioned to the road within the address or location	A13SW (SW)	96	1	507857 207986
	<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	A13SE (W)	0	1	507985 208178
	<b>Drift Deposits</b> None				
	<b>Bedrock Aquifer Designations</b> Aquifer Desination: Secondary Aquifer - A	A13SE (W)	0	3	507985 208178
	<b>Superficial Aquifer Designations</b> No Data Available				
8	<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.	A13SE (W)	0	1	507985 208178
	<b>Extreme Flooding from Rivers or Sea without Defences</b> None				
	<b>Flooding from Rivers or Sea without Defences</b> None				
	<b>Areas Benefiting from Flood Defences</b> None				

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<b>Flood Water Storage Areas</b> None				
	<b>Flood Defences</b> None				



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
9	<p><b>Licensed Waste Management Facilities (Locations)</b></p> <p>Licence Number: 80606            Location: 82 Maxted Close, Hemel Hempstead Ind Est, Hemel Hempstead, Hertfordshire, HP2 7DX            Operator Name: Holywell Haulage Ltd            Operator Location: Not Supplied            Authority: Environment Agency - South East Region, North East Thames Area            Site Category: Household, Commercial And Industrial Transfer Stations  <b>Licence Status: Issued</b>            Issued: 8th March 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 100m</p>	A13SE (E)	118	1	508200 208100
	<p><b>Local Authority Landfill Coverage</b></p> <p>Name: Hertfordshire County Council            - Has supplied landfill data</p>		0	10	507985 208178
	<p><b>Local Authority Landfill Coverage</b></p> <p>Name: Dacorum Borough Council            - Has supplied landfill data</p>		0	2	507985 208178
10	<p><b>Registered Waste Transfer Sites</b></p> <p>Licence Holder: J F Bishop &amp; Son            Licence Reference: 87/213            Site Location: Bishop House, Mark Road, HEMEL HEMPSTEAD, Hertfordshire, HP2 7BW            Operator Location: As Site Address            Authority: Environment Agency - Thames Region, North East Area            Site Category: Transfer            Max Input Rate: Small (Equal to or greater than 10,000 and less than 25,000 tonnes per year)            Waste Source: Waste produced/controlled by licence holder            Restrictions:            Licence Status: Operational as far as is knownOperational            Dated: 8th April 1987            Preceded By: Not Given            Licence:            Superseded By: Not Given            Licence:            Positional Accuracy: Manually positioned to the road within the address or location            Boundary Quality: Not Supplied            Authorised Waste: Asbestos Cement            Herts Class P -Non-Haz. Excav/Dem.Etc            Max.Input Permitted By Licence-Stated            Max.Storage Permitted By Licence</p>	A13SW (W)	208	1	507670 208100

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
11	<p><b>Control of Major Accident Hazards Sites (COMAH)</b></p> <p>Name: Exel Uk Limited            Location: Hemel Distribution Centre, Boundary Way, Hemel Hempstead Industrial Estate, HEMEL HEMPSTEAD, Hertfordshire, HP2 7ST            Reference: Not Supplied            Type: Lower Tier  <b>Status: Active</b>            Positional Accuracy: Automatically positioned to the address</p>	A13NE (NE)	148	4	508132 208439

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<b>BGS 1:625,000 Solid Geology</b> Description: Oldhaven, Blackheath, Woolwich, and Reading and Thanet beds	A13SE (W)	0	3	507985 208178
	<b>BGS Estimated Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A13SE (E)	0	5	508000 208178
	<b>BGS Estimated Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A13SE (W)	0	5	507985 208178
	<b>BGS Estimated Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A13SE (S)	66	5	508000 208000
	<b>BGS Estimated Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A13SE (S)	69	5	507985 208000
	<b>BGS Measured Urban Soil Chemistry</b> No data available				
	<b>BGS Urban Soil Chemistry Averages</b> No data available				
	<b>Coal Mining Affected Areas</b> In an area that might not be affected by coal mining				
	<b>Non Coal Mining Areas of Great Britain</b> Risk: Highly Unlikely Source: British Geological Survey, National Geoscience Information Service	A13SE (W)	0	3	507985 208178
	<b>Potential for Collapsible Ground Stability Hazards</b> Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (W)	0	3	507985 208178
	<b>Potential for Compressible Ground Stability Hazards</b> Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (W)	0	3	507985 208178
	<b>Potential for Ground Dissolution Stability Hazards</b> Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	49	3	508084 208032

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<p><b>Potential for Landslide Ground Stability Hazards</b></p> <p>Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service</p>	A13SE (W)	0	3	507985 208178
	<p><b>Potential for Running Sand Ground Stability Hazards</b></p> <p>Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service</p>	A13SE (W)	0	3	507985 208178
	<p><b>Potential for Shrinking or Swelling Clay Ground Stability Hazards</b></p> <p>Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service</p>	A13SE (W)	0	3	507985 208178
	<p><b>Radon Potential - Radon Protection Measures</b></p> <p>Protection Measure: No radon protective measures are necessary in the construction of new dwellings or extensions Source: British Geological Survey, National Geoscience Information Service</p>	A13SE (W)	0	3	507985 208178
	<p><b>Radon Potential - Radon Affected Areas</b></p> <p>Affected Area: The property is in a lower probability radon area, as less than 1% of homes are above the action level Source: British Geological Survey, National Geoscience Information Service</p>	A13SE (W)	0	3	507985 208178



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
12	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Epson Location: 100, The Campus, Maylands Avenue, Hemel Hempstead, Hertfordshire, HP2 7TJ Classification: Manufacturers <b>Status: Inactive</b> Positional Accuracy: Automatically positioned to the address</p>	A13SW (W)	0	-	507905 208158
13	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Symon Dacon Ltd Location: Unit 1, Enterprise Way, Hemel Hempstead Industrial Estate, Hemel Hempstead, Hertfordshire, HP2 7YJ Classification: Telecommunications Equipment &amp; Systems <b>Status: Active</b> Positional Accuracy: Automatically positioned to the address</p>	A13NE (NE)	31	-	508090 208301
14	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Maxon Cic (Europe) Ltd Location: Maxon House, Maxted Close, Hemel Hempstead Industrial Estate, Hemel Hempstead, Hertfordshire, HP2 7EG Classification: Radio Communication Equipment <b>Status: Active</b> Positional Accuracy: Automatically positioned to the address</p>	A13SE (E)	44	-	508127 208163
15	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Annodata Ltd Location: Maylands Av, Hemel Hempstead Ind Est, Hemel Hempstead, Hertfordshire, HP2 7DE Classification: Printers <b>Status: Inactive</b> Positional Accuracy: Manually positioned to the road within the address or location</p>	A13NW (W)	50	-	507826 208236
15	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Kipling Motorist Centre Location: Unit 5, Trade City, Maylands Avenue, Hemel Hempstead, Hertfordshire, HP2 7DP Classification: Garage Services <b>Status: Active</b> Positional Accuracy: Manually positioned to the road within the address or location</p>	A13NW (W)	55	-	507825 208241
15	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Gabicci International Location: Quantum House, Maylands Avenue, Hemel Hempstead Industrial Estate, Hemel Hempstead, Hertfordshire, HP2 7DE Classification: Clothing &amp; Fabrics - Manufacturers <b>Status: Active</b> Positional Accuracy: Automatically positioned to the address</p>	A13NW (W)	68	-	507797 208223
15	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Mobile Expertise Ltd Location: Quantum House, Maylands Avenue, Hemel Hempstead Industrial Estate, Hemel Hempstead, Hertfordshire, HP2 7DE Classification: Telecommunications Equipment &amp; Systems <b>Status: Inactive</b> Positional Accuracy: Automatically positioned to the address</p>	A13NW (W)	68	-	507797 208223
16	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Jarvis Field Press Location: Maylands Avenue, Hemel Hempstead Industrial Estate, Hemel Hempstead, Hertfordshire, HP2 7TG Classification: Printers <b>Status: Inactive</b> Positional Accuracy: Automatically positioned to the address</p>	A13SW (S)	54	-	507929 208029
16	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Currys Location: Maylands Av, Hemel Hempstead Ind Est, Hemel Hempstead, Hertfordshire, HP2 7TG Classification: Electrical Goods Sales, Manufacturers &amp; Wholesalers <b>Status: Inactive</b> Positional Accuracy: Manually positioned within the geographical locality</p>	A13SW (S)	55	-	507929 208029
16	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Dsgi Plc Location: Maylands Avenue, Hemel Hempstead Industrial Estate, Hemel Hempstead, Hertfordshire, HP2 7TG Classification: Electrical Goods Sales, Manufacturers &amp; Wholesalers <b>Status: Inactive</b> Positional Accuracy: Automatically positioned to the address</p>	A13SW (S)	55	-	507929 208029

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
17	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Deyon            Location: 1a,Maxted Court,Maxted Rd, Hemel Hempstead Ind Est, Hemel Hempstead, Hertfordshire, HP2 7BL            Classification: Office Furniture &amp; Equipment  <b>Status: Inactive</b>            Positional Accuracy: Manually positioned within the geographical locality</p>	A13NW (N)	66	-	507954 208344
17	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Millbrook Health Care            Location: Unit 2,Maxted Court,Maxted Road, Hemel Hempstead, Hertfordshire, HP2 7BL            Classification: Disability Equipment - Manufacturers &amp; Suppliers  <b>Status: Inactive</b>            Positional Accuracy: Manually positioned to the address or location</p>	A13NE (N)	70	-	507978 208366
18	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Bodet Ltd            Location: Unit 4, Sovereign Park, Cleveland Way, Hemel Hempstead Industrial Estate, Hemel Hempstead, Hertfordshire, HP2 7DA            Classification: Clocks &amp; Watches - Manufacturers &amp; Wholesalers  <b>Status: Active</b>            Positional Accuracy: Automatically positioned to the address</p>	A13SW (SW)	108	-	507773 208079
18	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Aerotest Ltd            Location: Unit 5, Sovereign Park, Cleveland Way, Hemel Hempstead Industrial Estate, Hemel Hempstead, Hertfordshire, HP2 7DA            Classification: Testing, Inspection &amp; Calibration Equipment Manufacturers  <b>Status: Active</b>            Positional Accuracy: Automatically positioned to the address</p>	A13SW (SW)	117	-	507765 208072
18	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Halfords Autocentre            Location: 28, Mark Road, Hemel Hempstead Industrial Estate, Hemel Hempstead, Hertfordshire, HP2 7BW            Classification: Garage Services  <b>Status: Active</b>            Positional Accuracy: Automatically positioned to the address</p>	A13SW (SW)	137	-	507745 208060
19	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: B P T Automation Ltd            Location: Unit 15/16, Sovereign Park, Cleveland Way, Hemel Hempstead Industrial Estate, Hemel Hempstead, Hertfordshire, HP2 7DA            Classification: Automation Systems &amp; Equipment  <b>Status: Inactive</b>            Positional Accuracy: Automatically positioned to the address</p>	A13SW (W)	114	-	507752 208164
19	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Hydraulic Components &amp; Systems Ltd            Location: Unit 14, Sovereign Park, Cleveland Way, Hemel Hempstead Industrial Estate, Hemel Hempstead, Hertfordshire, HP2 7DA            Classification: Hydraulic Equipment &amp; Accessories - Sales &amp; Service  <b>Status: Active</b>            Positional Accuracy: Automatically positioned to the address</p>	A13SW (W)	124	-	507744 208157
20	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Henkel Ltd            Location: Technologies House, Wood Lane End, Hemel Hempstead, Hertfordshire, HP2 4RQ            Classification: Adhesives, Glues &amp; Sealants  <b>Status: Active</b>            Positional Accuracy: Automatically positioned to the address</p>	A13SE (SE)	124	-	508119 207963
20	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Multicore Solders Ltd            Location: Kelsey House, Wood Lane End, Hemel Hempstead, Hertfordshire, HP2 4RQ            Classification: Chemicals &amp; Allied Products  <b>Status: Inactive</b>            Positional Accuracy: Automatically positioned to the address</p>	A13SE (SE)	124	-	508119 207963
20	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Henkel Loctite Adhesives            Location: Kelsey House, Wood Lane End, Hemel Hempstead, Hertfordshire, HP2 4RQ            Classification: Adhesives, Glues &amp; Sealants  <b>Status: Inactive</b>            Positional Accuracy: Automatically positioned to the address</p>	A13SE (SE)	124	-	508119 207963

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
21	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Pitney Bowes Management            Location: Orchard Fields, Maylands Avenue, Hemel Hempstead Industrial Estate, Hemel Hempstead, Hertfordshire, HP2 7DF            Classification: Printers  <b>Status: Inactive</b>            Positional Accuracy: Automatically positioned to the address</p>	A13NW (NW)	131	-	507755 208277
21	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Xerox            Location: Xerox House, Maylands Avenue, Hemel Hempstead Industrial Estate, Hemel Hempstead, Hertfordshire, HP2 7DE            Classification: Office Furniture &amp; Equipment  <b>Status: Active</b>            Positional Accuracy: Automatically positioned to the address</p>	A13NW (NW)	131	-	507755 208277
22	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Crown Engineering            Location: 22, Mark Road, Hemel Hempstead Industrial Estate, Hemel Hempstead, Hertfordshire, HP2 7BN            Classification: Precision Engineers  <b>Status: Inactive</b>            Positional Accuracy: Automatically positioned to the address</p>	A13SW (SW)	139	-	507776 207987
22	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Alphaprint Graphic Services Ltd            Location: 18-19, Mark Road, Hemel Hempstead Industrial Estate, Hemel Hempstead, Hertfordshire, HP2 7BN            Classification: Printers  <b>Status: Inactive</b>            Positional Accuracy: Automatically positioned to the address</p>	A13SW (SW)	139	-	507766 208001
22	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Welfare Paint Finishers Ltd            Location: 21, Mark Road, Hemel Hempstead Industrial Estate, Hemel Hempstead, Hertfordshire, HP2 7BN            Classification: Enamelling  <b>Status: Inactive</b>            Positional Accuracy: Automatically positioned to the address</p>	A13SW (SW)	139	-	507773 207992
22	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: R H Designs            Location: 20 Mark Rd, Hemel Hempstead Indust Est, Hemel Hempstead, Hertfordshire, HP2 7BN            Classification: Photographic Equipment &amp; Supplies - Manufacturers  <b>Status: Inactive</b>            Positional Accuracy: Manually positioned to the address or location</p>	A13SW (SW)	139	-	507769 207996
22	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Response Print            Location: 20 Mark Rd, Hemel Hempstead Industrial Es, Hemel Hempstead, Hertfordshire, HP2 7BN            Classification: Printers  <b>Status: Inactive</b>            Positional Accuracy: Manually positioned to the address or location</p>	A13SW (SW)	139	-	507769 207996
22	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Pristine            Location: 22, Mark Road, Hemel Hempstead Industrial Estate, Hemel Hempstead, Hertfordshire, HP2 7BN            Classification: Dry Cleaners  <b>Status: Active</b>            Positional Accuracy: Manually positioned to the address or location</p>	A13SW (SW)	139	-	507776 207987
22	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Bromac Regrinds            Location: 1, Mark Road, Hemel Hempstead Industrial Estate, Hemel Hempstead, Hertfordshire, HP2 7BN            Classification: Precision Engineers  <b>Status: Inactive</b>            Positional Accuracy: Manually positioned to the address or location</p>	A13SW (SW)	187	-	507741 207955
23	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Heathside Garage            Location: Wood Lane End, Hemel Hempstead, Hertfordshire, HP2 4RA            Classification: Car Dealers - Used  <b>Status: Inactive</b>            Positional Accuracy: Automatically positioned to the address</p>	A13SW (SW)	141	-	507823 207951

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
23	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: 4c Consultants International            Location: Flat, 4, Maylands Avenue, Hemel Hempstead Industrial Estate, Hemel Hempstead, Hertfordshire, HP2 4SE            Classification: Chemists' &amp; Pharmacists' Suppliers &amp; Wholesalers  <b>Status: Inactive</b>            Positional Accuracy: Automatically positioned to the address</p>	A13SW (SW)	153	-	507817 207941
24	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Print Marque Ltd            Location: 15, Mark Road, Hemel Hempstead Industrial Estate, Hemel Hempstead, Hertfordshire, HP2 7BN            Classification: Printers  <b>Status: Inactive</b>            Positional Accuracy: Automatically positioned to the address</p>	A13SW (SW)	143	-	507751 208020
24	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Print Marque Ltd            Location: 15, Mark Road, Hemel Hempstead Industrial Estate, Hemel Hempstead, Hertfordshire, HP2 7BN            Classification: Printers  <b>Status: Inactive</b>            Positional Accuracy: Automatically positioned to the address</p>	A13SW (SW)	143	-	507751 208020
24	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Diverse Print &amp; Design            Location: 7, Mark Road, Hemel Hempstead Industrial Estate, Hemel Hempstead, Hertfordshire, HP2 7BN            Classification: Printers  <b>Status: Active</b>            Positional Accuracy: Automatically positioned to the address</p>	A13SW (SW)	183	-	507714 208003
24	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Barking Heads            Location: Mark Rd, Hemel Hempstead Ind Est, Hemel Hempstead, Hertfordshire, HP2 7BN            Classification: Pet Foods &amp; Animal Feeds  <b>Status: Active</b>            Positional Accuracy: Manually positioned within the geographical locality</p>	A13SW (SW)	189	-	507707 208004
24	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Pet Food (Uk) Ltd            Location: 17 Mark Rd, Hemel Hempstead Ind Est, Hemel Hempstead, Hertfordshire, HP2 7BN            Classification: Pet Foods &amp; Animal Feeds  <b>Status: Active</b>            Positional Accuracy: Manually positioned within the geographical locality</p>	A13SW (SW)	189	-	507707 208004
24	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Cloisters Design            Location: 7-8, Mark Road, Hemel Hempstead Industrial Estate, HEMEL HEMPSTEAD, Hertfordshire, HP2 7BN            Classification: Cabinet Makers  <b>Status: Inactive</b>            Positional Accuracy: Automatically positioned to the address</p>	A13SW (SW)	190	-	507707 208004
24	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: The Printroom G D S            Location: 8, Mark Road, Hemel Hempstead Industrial Estate, Hemel Hempstead, Hertfordshire, HP2 7BN            Classification: Printers  <b>Status: Active</b>            Positional Accuracy: Automatically positioned to the address</p>	A13SW (SW)	190	-	507707 208004
24	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Chiltern Fireplaces            Location: 11, Mark Road, Hemel Hempstead Industrial Estate, Hemel Hempstead, Hertfordshire, HP2 7BN            Classification: Fireplaces &amp; Mantelpieces  <b>Status: Active</b>            Positional Accuracy: Automatically positioned to the address</p>	A13SW (SW)	193	-	507697 208018
25	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Sts Tyre Pros            Location: Unit 2,Mcdonald Way, Hemel Hempstead Ind Est, Hemel Hempstead, Hertfordshire, HP2 7EB            Classification: Tyre Dealers  <b>Status: Active</b>            Positional Accuracy: Manually positioned within the geographical locality</p>	A13SE (E)	145	-	508226 208181



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
26	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Amir Power Transmission Ltd            Location: Amir House, Maxted Road, Hemel Hempstead Industrial Estate, Hemel Hempstead, Hertfordshire, HP2 7DX            Classification: Electric Motor Sales &amp; Service  <b>Status: Active</b>            Positional Accuracy: Automatically positioned to the address</p>	A13NE (N)	147	-	507979 208458
27	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Gilbert Furniture            Location: Centro 3, Boundary Way, Hemel Hempstead, Hertfordshire, HP2 7SU            Classification: Office Furniture &amp; Equipment  <b>Status: Inactive</b>            Positional Accuracy: Automatically positioned to the address</p>	A13NE (NE)	148	-	508132 208439
28	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Bartlett Catering Equipment Ltd            Location: Maylands Avenue, Hemel Hempstead Industrial Estate, Hemel Hempstead, Hertfordshire, HP2 7EN            Classification: Catering Equipment  <b>Status: Inactive</b>            Positional Accuracy: Automatically positioned to the address</p>	A13NW (NW)	154	-	507795 208339
29	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Hoffman Engineering Co Ltd            Location: Maylands Ct, Maylands Av, Hemel Hempstead Industrial Es, Hemel Hempstead, Hertfordshire, HP2 7DE            Classification: Electrical Engineers  <b>Status: Inactive</b>            Positional Accuracy: Manually positioned to the address or location</p>	A13SW (S)	166	-	507896 207914
30	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Russet Office Interiors Ltd            Location: Enterprise House, Maxted Road, Hemel Hempstead Industrial Estate, Hemel Hempstead, Hertfordshire, HP2 7BT            Classification: Office Furniture &amp; Equipment  <b>Status: Inactive</b>            Positional Accuracy: Automatically positioned to the address</p>	A13NE (N)	174	-	508032 208497
30	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: D Furnell Ltd            Location: Enterprise House, Maxted Road, Hemel Hempstead Industrial Estate, Hemel Hempstead, Hertfordshire, HP2 7BT            Classification: Road Haulage Services  <b>Status: Active</b>            Positional Accuracy: Automatically positioned to the address</p>	A13NE (N)	174	-	508032 208497
30	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Apogee Flow Systems Ltd            Location: Enterprise House, Maxted Road, Hemel Hempstead Industrial Estate, Hemel Hempstead, Hertfordshire, HP2 7BT            Classification: Scientific Apparatus &amp; Instruments - Manufacturers  <b>Status: Inactive</b>            Positional Accuracy: Manually positioned to the address or location</p>	A13NE (N)	188	-	508015 208510
31	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Bishops Skip &amp; Grab Hire Ltd            Location: Mark Road, Hemel Hempstead Industrial Estate, Hemel Hempstead, Hertfordshire, HP2 7DN            Classification: Waste Disposal Services  <b>Status: Active</b>            Positional Accuracy: Automatically positioned to the address</p>	A13SW (W)	176	-	507702 208104
31	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Marine &amp; Enviromental Ltd            Location: 34, Mark Road, Hemel Hempstead Industrial Estate, Hemel Hempstead, Hertfordshire, HP2 7DD            Classification: Marine Equipment &amp; Supplies  <b>Status: Inactive</b>            Positional Accuracy: Automatically positioned to the address</p>	A13SW (W)	189	-	507688 208121
31	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Stabilag            Location: 34, Mark Road, Hemel Hempstead Industrial Estate, Hemel Hempstead, Hertfordshire, HP2 7DD            Classification: Electrical Heating Equipment &amp; Systems  <b>Status: Inactive</b>            Positional Accuracy: Automatically positioned to the address</p>	A13SW (W)	189	-	507688 208121

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
32	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: United Freight Distribution            Location: Wood Lane House, 66, Wood Lane End, Hemel Hempstead, Hertfordshire, HP2 4RF            Classification: Road Haulage Services  <b>Status:</b> Inactive            Positional Accuracy: Automatically positioned to the address</p>	A13SW (S)	183	-	507955 207891
32	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: C C R Recovery            Location: Wood Lane House, 66, Wood Lane End, Hemel Hempstead, Hertfordshire, HP2 4RF            Classification: Breakdown and Recovery  <b>Status:</b> Inactive            Positional Accuracy: Automatically positioned to the address</p>	A13SW (S)	183	-	507955 207891
33	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Solvay Chemicals Ltd            Location: Grovelands Business Centre, Boundary Way, Hemel Hempstead Ind Est, Hemel Hempstead, Hertfordshire, HP2 7TE            Classification: Chemicals &amp; Allied Products  <b>Status:</b> Inactive            Positional Accuracy: Manually positioned to the address or location</p>	A13NE (NE)	186	-	508236 208360
33	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Solvay Chemicals Ltd            Location: Unit 1, Grovelands Business Centre, Boundary Way, Hemel Hempstead Industrial Estate, Hemel Hempstead, Hertfordshire, HP2 7TE            Classification: Chemicals &amp; Allied Products  <b>Status:</b> Inactive            Positional Accuracy: Automatically positioned to the address</p>	A13NE (NE)	187	-	508237 208361
34	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Apsley Controls Ltd            Location: Unit 4, Marchmont Gate, Maxted Road, Hemel Hempstead Industrial Estate, Hemel Hempstead, Hertfordshire, HP2 7BE            Classification: Manufacturers  <b>Status:</b> Active            Positional Accuracy: Automatically positioned to the address</p>	A13NE (N)	190	-	508088 208507
34	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Bar Electrical Services Ltd            Location: Unit 5, Marchmont Gate, Boundary Way, Hemel Hempstead, Hertfordshire, HP2 7BF            Classification: Electrical Engineers  <b>Status:</b> Inactive            Positional Accuracy: Automatically positioned to the address</p>	A13NE (NE)	199	-	508121 208505
34	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: 4 Ways Healthcare            Location: Unit 7, Marchmont Gate, Boundary Way, Hemel Hempstead, Hertfordshire, HP2 7BF            Classification: X-Ray Services  <b>Status:</b> Active            Positional Accuracy: Automatically positioned to the address</p>	A13NE (NE)	199	-	508121 208505
34	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Trademark Interiors Ltd            Location: Unit 8, Marchmont Gate, Boundary Way, Hemel Hempstead, Hertfordshire, HP2 7BF            Classification: Office Furniture &amp; Equipment  <b>Status:</b> Active            Positional Accuracy: Automatically positioned to the address</p>	A13NE (NE)	211	-	508145 208506
35	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Byron Portable Couches            Location: 96, Wood Lane End, Hemel Hempstead, Hertfordshire, HP2 4RF            Classification: Medical Equipment Manufacturers  <b>Status:</b> Inactive            Positional Accuracy: Automatically positioned to the address</p>	A13SE (SE)	195	-	508178 207912
36	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Holywell Haulage            Location: Maxted Rd, Hemel Hempstead Ind Est, Hemel Hempstead, Hertfordshire, HP2 7DX            Classification: Road Haulage Services  <b>Status:</b> Inactive            Positional Accuracy: Manually positioned to the road within the address or location</p>	A18SE (N)	225	-	508055 208548

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
37	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Comprehensive Commercial Services            Location: Mark Rd, Hemel Hempstead Ind Est, Hemel Hempstead, Hertfordshire, HP2 7DN            Classification: Commercial Vehicle Servicing, Repairs, Parts &amp; Accessories  <b>Status: Inactive</b>            Positional Accuracy: Manually positioned to the road within the address or location</p>	A12SE (W)	236	-	507630 208148
37	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Yazaki (Uk) Ltd            Location: 1, The Willows, Mark Road, Hemel Hempstead, Hertfordshire, HP2 7AU            Classification: Wire Products - Manufacturers  <b>Status: Inactive</b>            Positional Accuracy: Automatically positioned to the address</p>	A12SE (W)	246	-	507626 208124
37	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Opro International Ltd            Location: 1, The Willows, Mark Road, Hemel Hempstead Industrial Estate, Hemel Hempstead, Hertfordshire, HP2 7BN            Classification: Sports Equipment Manufacturers &amp; Distributors  <b>Status: Active</b>            Positional Accuracy: Automatically positioned to the address</p>	A12SE (W)	246	-	507626 208124
38	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Muraspec            Location: 74-78, Wood Lane End, Hemel Hempstead, Hertfordshire, HP2 4RF            Classification: Wallpapers &amp; Wall Coverings  <b>Status: Active</b>            Positional Accuracy: Automatically positioned to the address</p>	A8NE (S)	237	-	508058 207831
38	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Muraspec            Location: 74-78, Wood Lane End, Hemel Hempstead, Hertfordshire, HP2 4RF            Classification: Wallpapers &amp; Wall Coverings  <b>Status: Inactive</b>            Positional Accuracy: Automatically positioned to the address</p>	A8NE (S)	237	-	508058 207831
39	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: 21st Century Packaging Ltd            Location: Unit 12, Saracen Industrial Area, Mark Road, Hemel Hempstead Industrial Estate, Hemel Hempstead, Hertfordshire, HP2 7BJ            Classification: Packaging Materials Manufacturers &amp; Suppliers  <b>Status: Inactive</b>            Positional Accuracy: Automatically positioned to the address</p>	A13SW (W)	238	-	507640 208100
39	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Kooltech Ltd            Location: Unit 12, Saracen Industrial Area, Mark Road, Hemel Hempstead Industrial Estate, Hemel Hempstead, Hertfordshire, HP2 7BJ            Classification: Air Conditioning Equipment &amp; Systems  <b>Status: Inactive</b>            Positional Accuracy: Automatically positioned to the address</p>	A13SW (W)	238	-	507640 208100
39	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Kooltech Air Conditioning Division            Location: Unit 12, Saracen Industrial Area, Mark Road, Hemel Hempstead Industrial Estate, Hemel Hempstead, Hertfordshire, HP2 7BJ            Classification: Air Conditioning &amp; Refrigeration Contractors  <b>Status: Inactive</b>            Positional Accuracy: Automatically positioned to the address</p>	A13SW (W)	238	-	507640 208100
39	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Acttron            Location: Unit 12, Saracen Industrial Area, Mark Road, Hemel Hempstead Industrial Estate, Hemel Hempstead, Hertfordshire, HP2 7BJ            Classification: Computer Manufacturers  <b>Status: Active</b>            Positional Accuracy: Automatically positioned to the address</p>	A13SW (W)	238	-	507640 208100
40	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Pcd Products Llp            Location: Cleveland Road, Hemel Hempstead Industrial Estate, Hemel Hempstead, Hertfordshire, HP2 7EY            Classification: Sheet Metal Work  <b>Status: Active</b>            Positional Accuracy: Automatically positioned to the address</p>	A13NW (NW)	242	-	507654 208326

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
41	<p><b>Contemporary Trade Directory Entries</b></p> <p>Name: Car Spek Ltd            Location: 1, Hall Road, Hemel Hempstead Industrial Estate, Hemel Hempstead, Hertfordshire, HP2 7BH            Classification: Garage Services  <b>Status: Active</b>            Positional Accuracy: Automatically positioned to the address</p>	A12NE (W)	249	-	507622 208271
42	<p><b>Fuel Station Entries</b></p> <p>Name: Apples Car Clinic            Location: Wood Lane End, Maylands, HEMEL HEMPSTEAD, Hertfordshire, HP3            Brand: Obsolete            Premises Type: Not Applicable  <b>Status: Obsolete</b>            Positional Accuracy: Manually positioned to the address or location</p>	A13SW (SW)	161	-	507792 207945



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
43	<p><b>Nitrate Vulnerable Zones</b></p> <p>Name: Not Supplied</p> <p>Description: NVZ Area</p> <p>Source: Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)</p>	A13SE (W)	0	9	507985 208178

Agency & Hydrological	Version	Update Cycle
<b>Contaminated Land Register Entries and Notices</b> St Albans City & District Council - Environmental Health Department Dacorum Borough Council - Environmental Health Department	April 2013 August 2012	Annual Rolling Update Annual Rolling Update
<b>Discharge Consents</b> Environment Agency - Thames Region	April 2013	Quarterly
<b>Enforcement and Prohibition Notices</b> Environment Agency - Thames Region	March 2013	Quarterly
<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 - Thames Region	April 2013 April 2013	Quarterly Quarterly
<b>Local Authority Integrated Pollution Prevention And Control</b> Dacorum Borough Council - Environmental Health Department St Albans City & District Council - Environmental Health Department	February 2013 November 2012	Annual Rolling Update Annual Rolling Update
<b>Local Authority Pollution Prevention and Controls</b> Dacorum Borough Council - Environmental Health Department St Albans City & District Council - Environmental Health Department	February 2013 November 2012	Annual Rolling Update Annual Rolling Update
<b>Local Authority Pollution Prevention and Control Enforcements</b> Dacorum Borough Council - Environmental Health Department St Albans City & District Council - Environmental Health Department	February 2013 November 2012	Annual Rolling Update Annual Rolling Update
<b>Nearest Surface Water Feature</b> Ordnance Survey	July 2012	Quarterly
<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	Monthly
<b>Prosecutions Relating to Controlled Waters</b> Environment Agency - Thames Region	March 2013	Monthly
<b>Registered Radioactive Substances</b> Environment Agency - Thames Region	April 2013	Quarterly
<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 - Thames Region - North East Area	April 2013	Quarterly
<b>Water Abstractions</b> Environment Agency - Thames Region	April 2013	Quarterly
<b>Water Industry Act Referrals</b> Environment Agency - Thames Region	April 2013	Quarterly
<b>Groundwater Vulnerability</b> Environment Agency - Head Office	January 2011	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	October 2012	Annually
<b>Superficial Aquifer Designations</b> British Geological Survey - National Geoscience Information Service	October 2012	Annually













Agency & Hydrological	Version	Update Cycle
<b>Source Protection Zones</b> Environment Agency - Head Office	March 2013	Quarterly
<b>Extreme Flooding from Rivers or Sea without Defences</b> Environment Agency - Head Office	April 2013	Quarterly
<b>Flooding from Rivers or Sea without Defences</b> Environment Agency - Head Office	April 2013	Quarterly
<b>Areas Benefiting from Flood Defences</b> Environment Agency - Head Office	April 2013	Quarterly
<b>Flood Water Storage Areas</b> Environment Agency - Head Office	April 2013	Quarterly
<b>Flood Defences</b> Environment Agency - Head Office	April 2013	Quarterly
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 - Thames Region - North East Area	April 2013	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 - Thames Region - North East Area	April 2013	Quarterly
<b>Licensed Waste Management Facilities (Locations)</b> Environment Agency - South East Region - North East Thames Area Environment Agency - Thames Region - North East Area	January 2013 January 2013	Quarterly Quarterly
<b>Local Authority Landfill Coverage</b> Dacorum Borough Council - Environmental Health Department Hertfordshire County Council - County Development Unit St Albans City & District Council - Environmental Health Department	May 2000 May 2000 May 2000	Not Applicable Not Applicable Not Applicable
<b>Local Authority Recorded Landfill Sites</b> Dacorum Borough Council - Environmental Health Department Hertfordshire County Council - County Development Unit St Albans City & District Council - Environmental Health Department	May 2000 May 2000 May 2000	Not Applicable Not Applicable 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	March 2003	Not Applicable

Hazardous Substances	Version	Update Cycle
<b>Control of Major Accident Hazards Sites (COMAH)</b> Health and Safety Executive	March 2013	Bi-Annually
<b>Explosive Sites</b> Health and Safety Executive	March 2013	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> St Albans City & District Council Hertfordshire County Council - County Development Unit Dacorum Borough Council	December 2012 January 2013 October 2012	Annual Rolling Update Annual Rolling Update Annual Rolling Update
<b>Planning Hazardous Substance Consents</b> St Albans City & District Council Hertfordshire County Council - County Development Unit Dacorum Borough Council	December 2012 January 2013 October 2012	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	August 1996	Not Applicable
<b>BGS Estimated Soil Chemistry</b> British Geological Survey - National Geoscience Information Service	January 2010	Variable
<b>BGS Recorded Mineral Sites</b> British Geological Survey - National Geoscience Information Service	April 2013	Bi-Annually
<b>Brine Compensation Area</b> Cheshire Brine Subsidence Compensation Board	August 2011	Not Applicable
<b>Coal Mining Affected Areas</b> The Coal Authority - Mining Report Service	January 2012	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	February 2011	Not Applicable
<b>Potential for Collapsible Ground Stability Hazards</b> British Geological Survey - National Geoscience Information Service	February 2011	Annually
<b>Potential for Compressible Ground Stability Hazards</b> British Geological Survey - National Geoscience Information Service	February 2011	Annually
<b>Potential for Ground Dissolution Stability Hazards</b> British Geological Survey - National Geoscience Information Service	February 2011	Annually
<b>Potential for Landslide Ground Stability Hazards</b> British Geological Survey - National Geoscience Information Service	February 2011	Annually
<b>Potential for Running Sand Ground Stability Hazards</b> British Geological Survey - National Geoscience Information Service	February 2011	Annually
<b>Potential for Shrinking or Swelling Clay Ground Stability Hazards</b> British Geological Survey - National Geoscience Information Service	February 2011	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



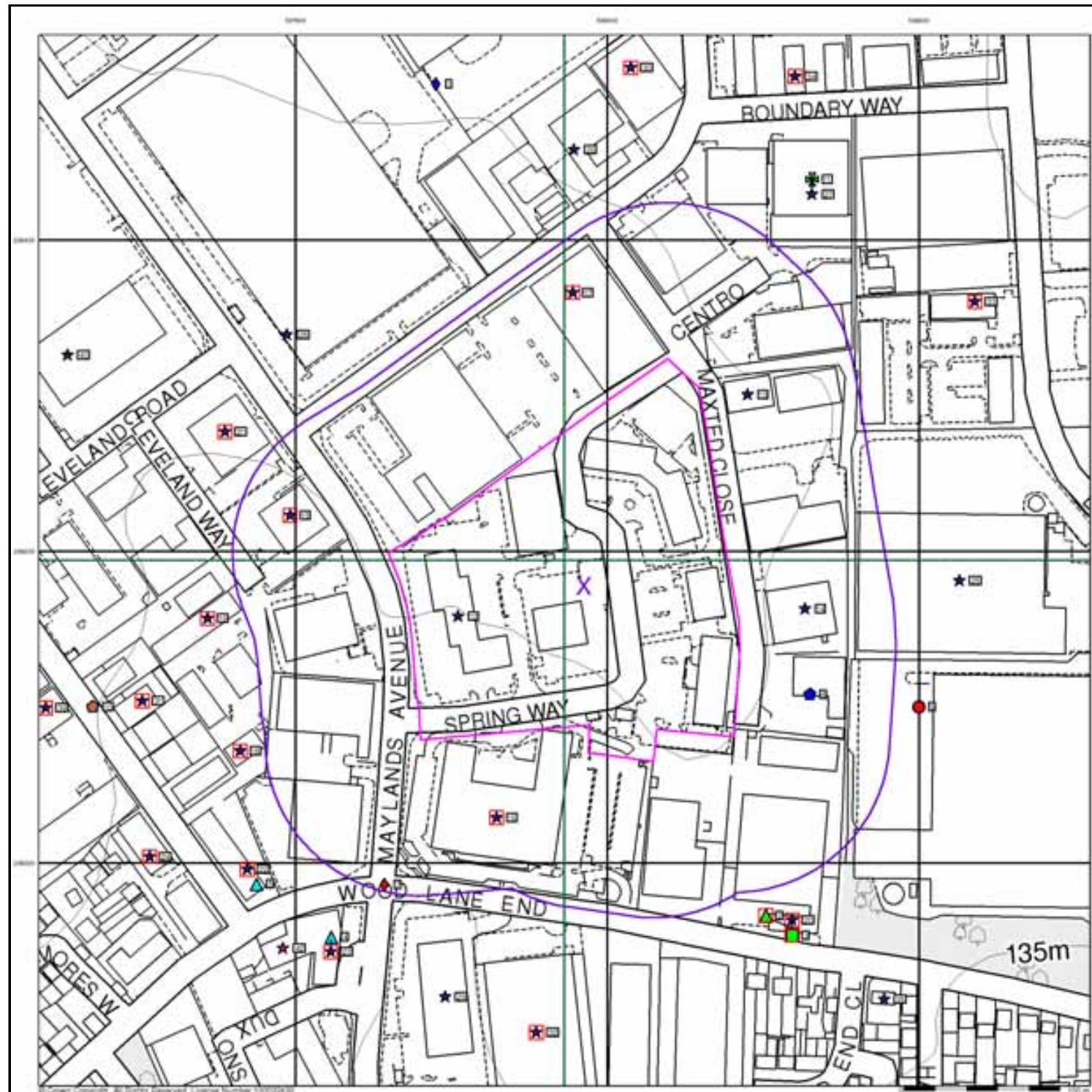
Industrial Land Use	Version	Update Cycle
<b>Contemporary Trade Directory Entries</b> Thomson Directories	February 2013	Quarterly
<b>Fuel Station Entries</b> Catalist Ltd - Experian	February 2013	Quarterly
Sensitive Land Use	Version	Update Cycle
<b>Areas of Adopted Green Belt</b> Dacorum Borough Council St Albans City & District Council	May 2013 May 2013	As notified As notified
<b>Areas of Unadopted Green Belt</b> Dacorum Borough Council St Albans City & District Council	May 2013 May 2013	As notified As notified
<b>Areas of Outstanding Natural Beauty</b> Natural England	March 2013	Bi-Annually
<b>Environmentally Sensitive Areas</b> Natural England	February 2013	Annually
<b>Forest Parks</b> Forestry Commission	April 1997	Not Applicable
<b>Local Nature Reserves</b> Natural England	November 2012	Bi-Annually
<b>Marine Nature Reserves</b> Natural England	August 2012	Bi-Annually
<b>National Nature Reserves</b> Natural England	February 2013	Bi-Annually
<b>National Parks</b> Natural England	February 2013	Bi-Annually
<b>Nitrate Sensitive Areas</b> Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	February 2012	Not Applicable
<b>Nitrate Vulnerable Zones</b> Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	February 2013	Annually
<b>Ramsar Sites</b> Natural England	February 2013	Bi-Annually
<b>Sites of Special Scientific Interest</b> Natural England	February 2013	Bi-Annually
<b>Special Areas of Conservation</b> Natural England	February 2013	Bi-Annually
<b>Special Protection Areas</b> Natural England	February 2013	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	 <p><b>British Geological Survey</b> NATURAL ENVIRONMENT RESEARCH COUNCIL</p>
Centre for Ecology and Hydrology	 <p><b>Centre for Ecology &amp; Hydrology</b> NATURAL ENVIRONMENT RESEARCH COUNCIL</p>
Countryside Council for Wales	 <p>CYNGOR CEFN GWLAD CYMRU COUNTRYSIDE COUNCIL FOR WALES</p>
Scottish Natural Heritage	
Natural England	
Health Protection Agency	
Ove Arup	
Peter Brett Associates	

Contact	Name and Address	Contact Details
1	<b>Environment Agency - National Customer Contact Centre (NCCC)</b> PO Box 544, Templeborough, Rotherham, S60 1BY	Telephone: 08708 506 506 Email: enquiries@environment-agency.gov.uk
2	<b>Dacorum Borough Council - Environmental Health Department</b> Civic Centre, Marlowes, Hemel Hempstead, Hertfordshire, HP1 1HH	Telephone: 01442 228000 Fax: 01442 228340 Website: www.dacorum.gov.uk
3	<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
4	<b>Health and Safety Executive</b> Explosives Inspectorate, 5S.2 Redgrave Court, Merton Road, Bootle, L20 7HS	Website: www.hse.gov.uk
5	<b>Landmark Information Group Limited</b> Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0844 844 9952 Fax: 0844 844 9951 Email: customerservices@landmark.co.uk Website: www.landmarkinfo.co.uk
6	<b>St Albans City &amp; District Council</b> Civic Centre, St Peters Street, St Albans, Hertfordshire, AL1 3JE	Telephone: 01727 866100 Fax: 01727 845658 Website: www.stalbans.gov.uk
7	<b>Dacorum Borough Council</b> Civic Centre, Marlowes, Hemel Hempstead, Hertfordshire, HP1 1HH	Telephone: 01442 228000 Fax: 01442 228340 Website: www.dacorum.gov.uk
8	<b>Natural England</b> Northminster House, Northminster Road, Peterborough, Cambridgeshire, PE1 1UA	Telephone: 0845 600 3078 Fax: 01733 455103 Email: enquiries@naturalengland.org.uk Website: www.naturalengland.org.uk
9	<b>Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)</b> Government Buildings, Otley Road, Lawnswood, Leeds, West Yorkshire, LS16 5QT	Telephone: 0113 2613333 Fax: 0113 230 0879
10	<b>Hertfordshire County Council - County Development Unit</b> County Hall, Hertford, Hertfordshire, SG13 8DN	Telephone: 01992 556266 Fax: 01992 556202 Website: www.hertsdirect.org
-	<b>Health Protection Agency - Radon Survey, Centre for Radiation, Chemical and Environmental Hazards</b> Chilton, Didcot, Oxfordshire, OX11 0RQ	Telephone: 01235 822622 Fax: 01235 833891 Email: radon@hpa.org.uk Website: www.hpa.org.uk
-	<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 / SEPA have a charging policy in place for enquiries.



**GeoDyne**

**General**

- Specified Site
- Specified Buffer(s)
- Steering Reference Point
- Map ID
- General or Type of Location

**Agency and Hydrological**

- Controlled Land Register Entry or Police Control
- Controlled Land Register Entry or Police
- 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
- Prohibition Notice to Controlled Waters
- Provision Relating to Authorised Processes
- Provision Relating to Controlled Waters
- Registered Proactive Substances
- River Network or Water Feature
- River Quality Sampling Point
- Subsidiary Pollution Incident Register
- Water Abstraction
- Water Industry Act Permit

**Waste**

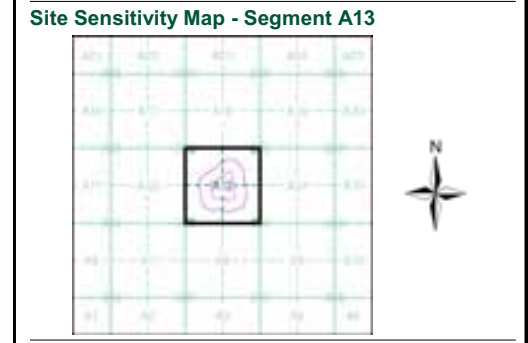
- WQC Recorded Landfill Site (Location)
- WQC Recorded Landfill Site
- EA Historic Landfill (Closed Area)
- EA Historic Landfill (Open)
- Integrated Pollution Control Registered Waste Site
- Licensed Waste Management Facility (Landfill Bunker)
- Licensed Waste Management Facility (Location)
- Local Authority Recorded Landfill Site (Location)
- Local Authority Recorded Landfill Site
- Registered Landfill Site
- Registered Landfill Site (Location)
- Registered Landfill Site (Pre-Byelaw to Sites)
- Registered Landfill Site (Post-Byelaw to Sites)
- Registered Waste Transfer Site (Location)
- Registered Waste Transfer Site
- Registered Waste Treatment or Disposal Site (Location)
- Registered Waste Treatment or Disposal Site

**Geological**

- WQC Recorded Mine Site
- COMAH Site
- Explosion Site
- HMHS Site

**Industrial Land Use**

- Contemporary Trade Directory Entry
- Former Trade Directory Entry
- Planning Hazardous Substances Consent
- Planning Hazardous Substances Enforcement



**Order Details**

Order Number: 46081904\_1\_1  
 Customer Ref: 33068  
 National Grid Reference: 507980, 208180  
 Slice: A  
 Site Area (Ha): 3.91

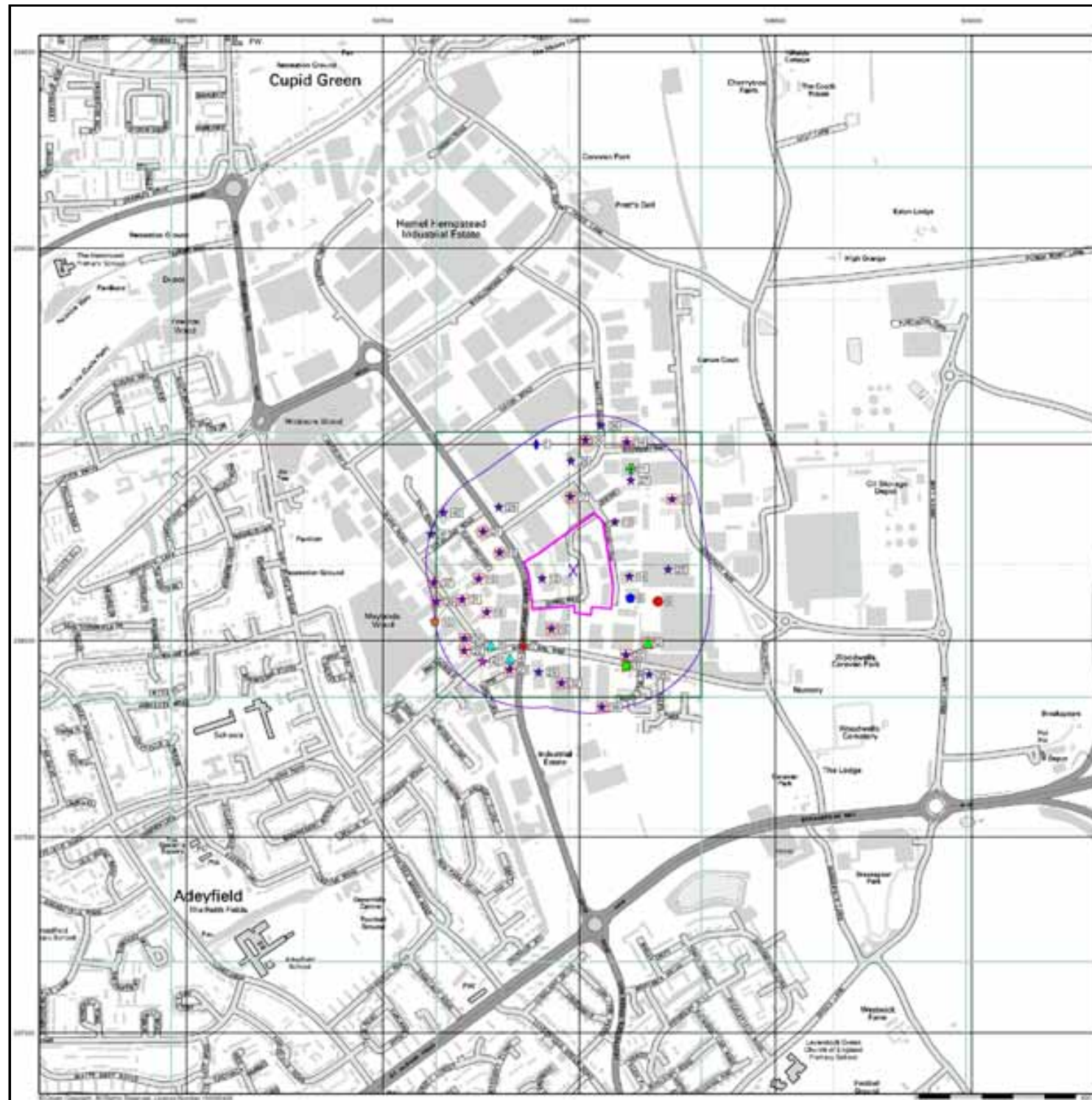
**Site Details**

Data Centre, HEMEL HEMPSTEAD

**Landmark**

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





# GeoDyne

**General**

- Specified Site
- Specified Buffer(s)
- X Steeply Provenance Point
- Map ID
- General of Type & Location

**Agency and Hydrological**

- Contaminated Land Register Entry or Index Location
- Contaminated Land Register Entry or Index
- ▲ 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 in Controlled Waters
- ▲ Prohibition Relating to Authorised Processes
- ▲ Prohibition Relating to Controlled Waters
- ▲ Registered Radioactive Substances
- ▲ River Network or Water Feature
- ▲ River Quality Sampling Point
- ▲ Substantiated Pollution Incident Register
- ▲ Water Abstraction
- ▲ Water Industry Aid Referral

**Waste**

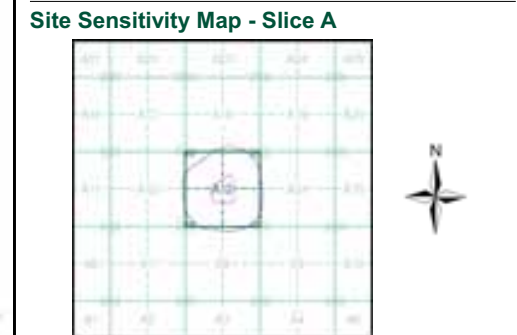
- ▲ BIC Recorded Landfill Site Location
- ▲ BIC Recorded Landfill Site
- ▲ EA Historic Landfill (Buried Part)
- ▲ EA Historic Landfill (Open)
- ▲ Integrated Pollution Control Registered Waste Site
- ▲ Licensed Waste Management Facility Location
- ▲ Local Authority Recorded Landfill Site Location
- ▲ Local Authority Recorded Landfill Site
- ▲ Registered Landfill Site
- ▲ Registered Landfill Site Location
- ▲ Registered Landfill Site (Pre-Byelaw to 2004)
- ▲ Registered Landfill Site (Pre-Byelaw to 2004)
- ▲ Registered Waste Transfer Site Location
- ▲ Registered Waste Treatment or Disposal Site Location
- ▲ Registered Waste Treatment or Disposal Site

**Geological**

- ▲ BIC Recorded Mine Site
- ▲ COMAH Site
- ▲ Explosive Site

**Industrial Land Use**

- ★ Contemporary Trade Directory Entry
- ★ Fuel Station Site
- ★ Planning Hazardous Substitution Consent
- ★ Planning Hazardous Substitution Enforcement



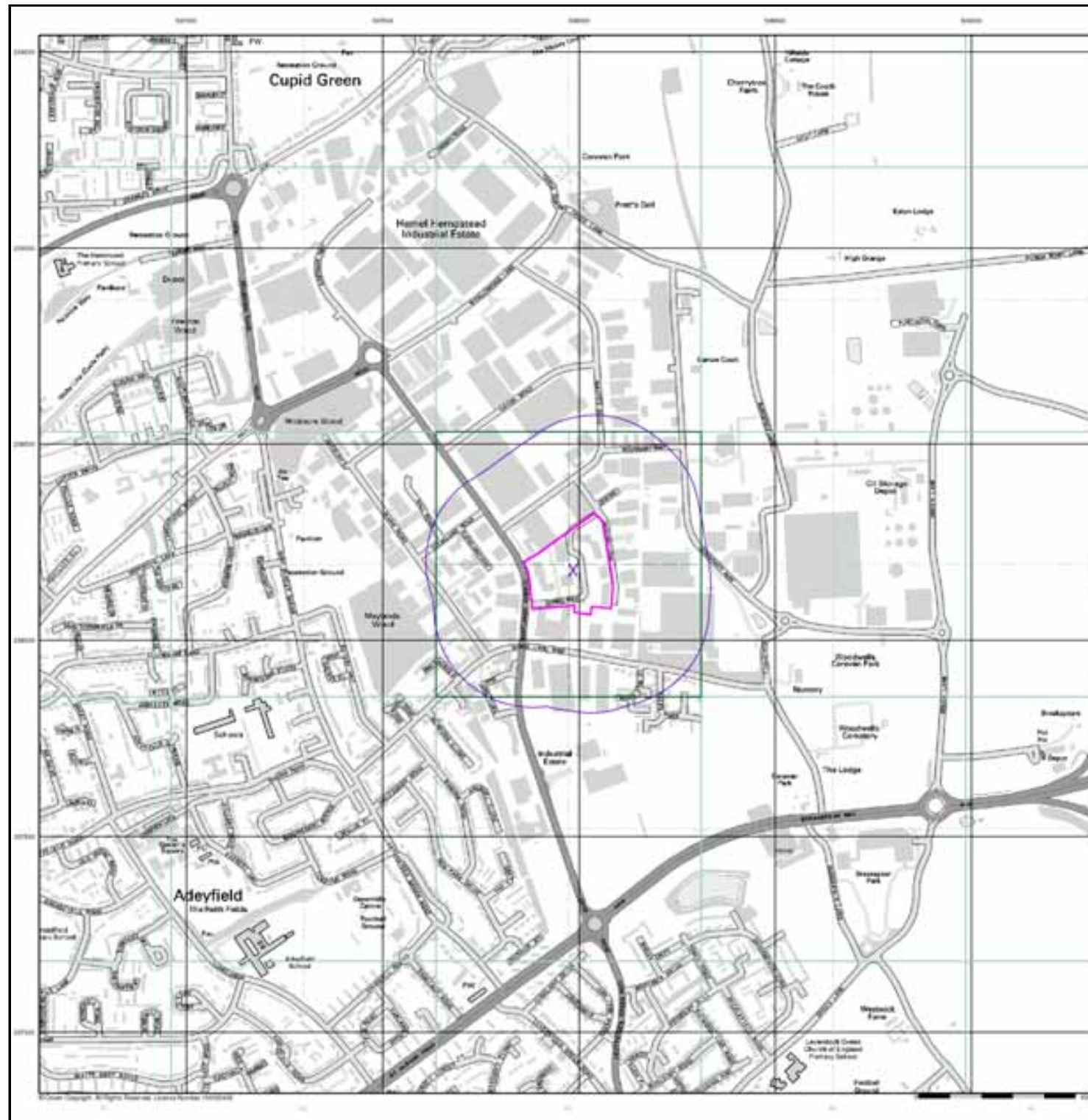
**Order Details**

Order Number: 46081904\_1\_1  
 Customer Ref: 33068  
 National Grid Reference: 507980, 208180  
 Slice: A  
 Site Area (Ha): 3.91  
 Search Buffer (m): 250

**Site Details**

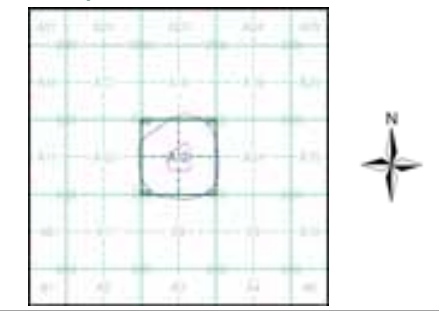
Data Centre, HEMEL HEMPSTEAD

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



- 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 Detaching from Flood Defence
  - Flood Water Storage Areas
  - Flood Defence

**Flood Map - Slice A**

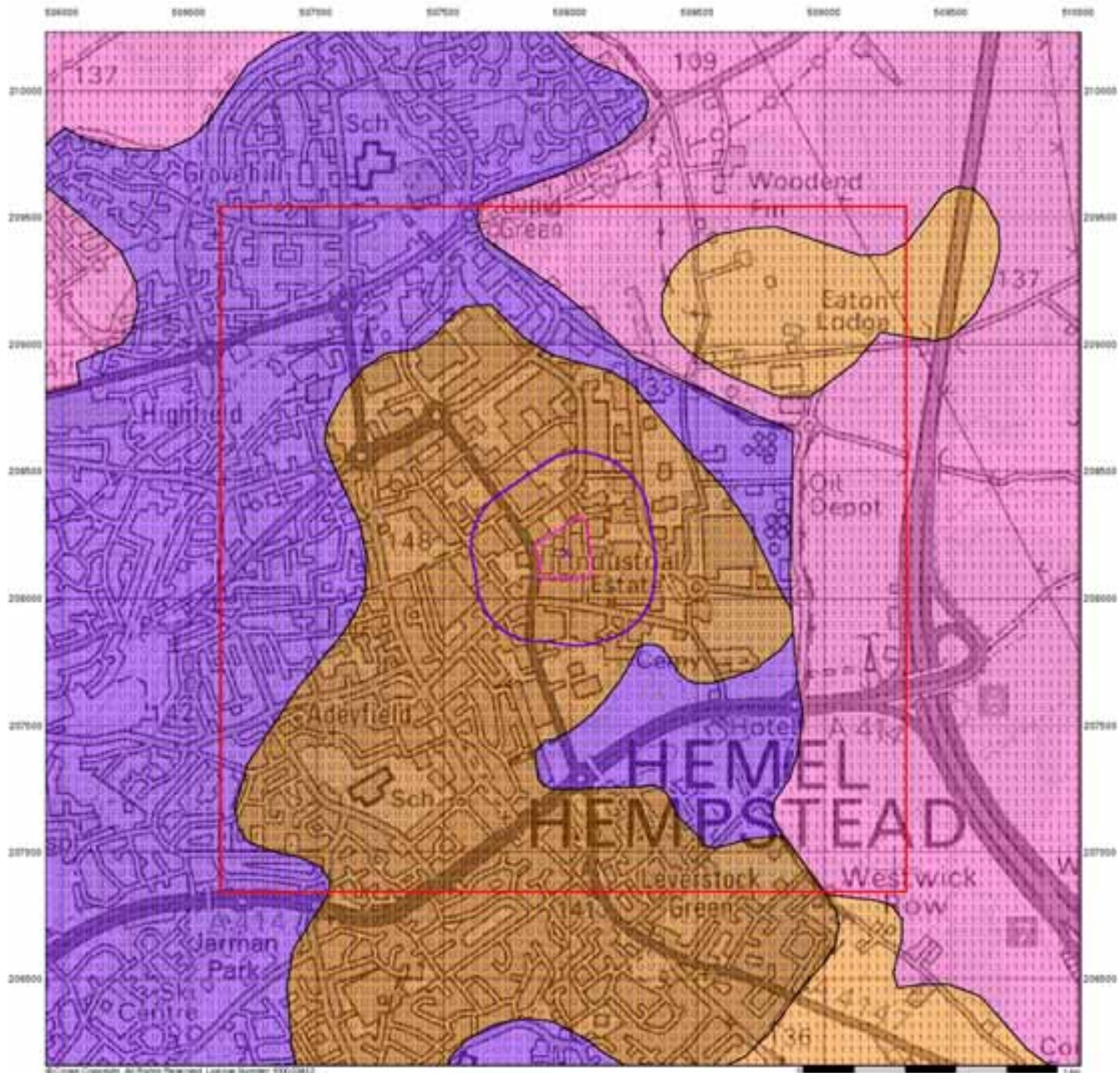


**Order Details**

Order Number: 46081904\_1\_1  
 Customer Ref: 33068  
 National Grid Reference: 507980, 208180  
 Slice: A  
 Site Area (Ha): 3.91  
 Search Buffer (m): 250

**Site Details**  
 Data Centre, HEMEL HEMPSTEAD





# GeoDyne

## Groundwater Vulnerability

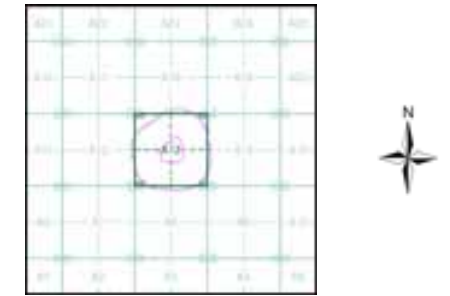
**General**

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

**Agency and Hydrological**

<b>Geological Classes</b>	<b>Soil Classes</b>
Major Aquifer (Highly Permeable)	High (S) 1, 2, 3, U
	Intermediate (S) 1, 2
	Low
Minor Aquifer (Variably Permeable)	High (S) 1, 2, 3, U
	Intermediate (S) 1, 2
	Low
Non Aquifer (Negligibly Permeable)	
Water or Sea	
Drift Deposit	

### Site Sensitivity Context Map - Slice A



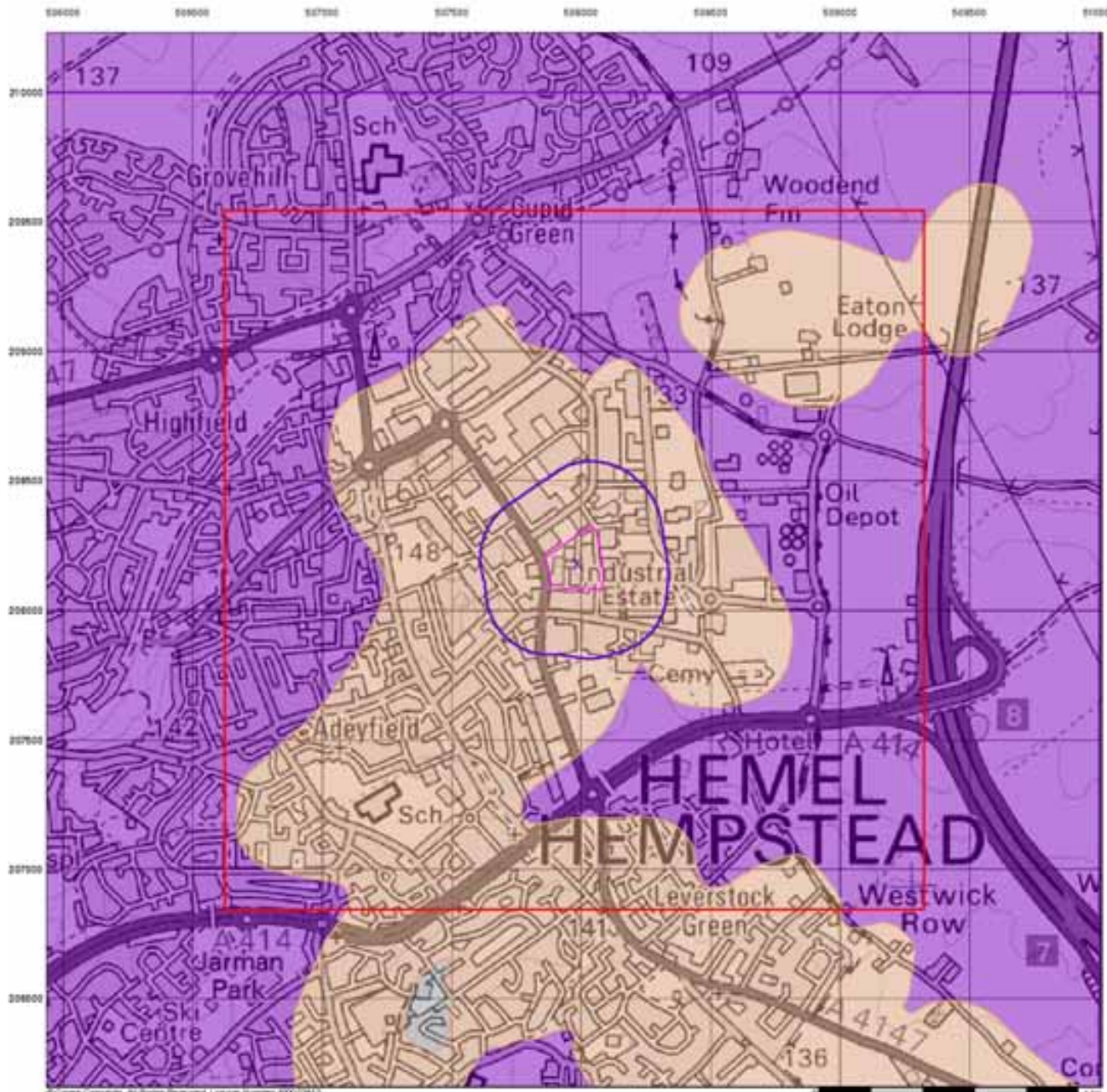
**Order Details**

Order Number: 46081904\_1\_1  
 Customer Ref: 33068  
 National Grid Reference: 507980, 208180  
 Slice: A  
 Site Area (Ha): 3.91  
 Search Buffer (m): 250

**Site Details**  
 Data Centre, HEMEL HEMPSTEAD

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





## Bedrock Aquifer Designation

### General

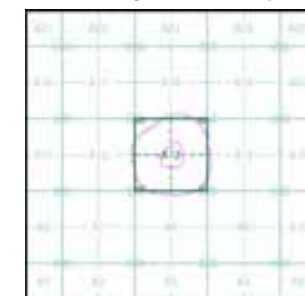
- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Site
- Map ID

### Agency and Hydrological

#### Geological Classes

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

### Site Sensitivity Context Map - Slice A



### Order Details

Order Number: 46081904\_1\_1  
 Customer Ref: 33068  
 National Grid Reference: 507980, 208180  
 Slice: A  
 Site Area (Ha): 3.91  
 Search Buffer (m): 250

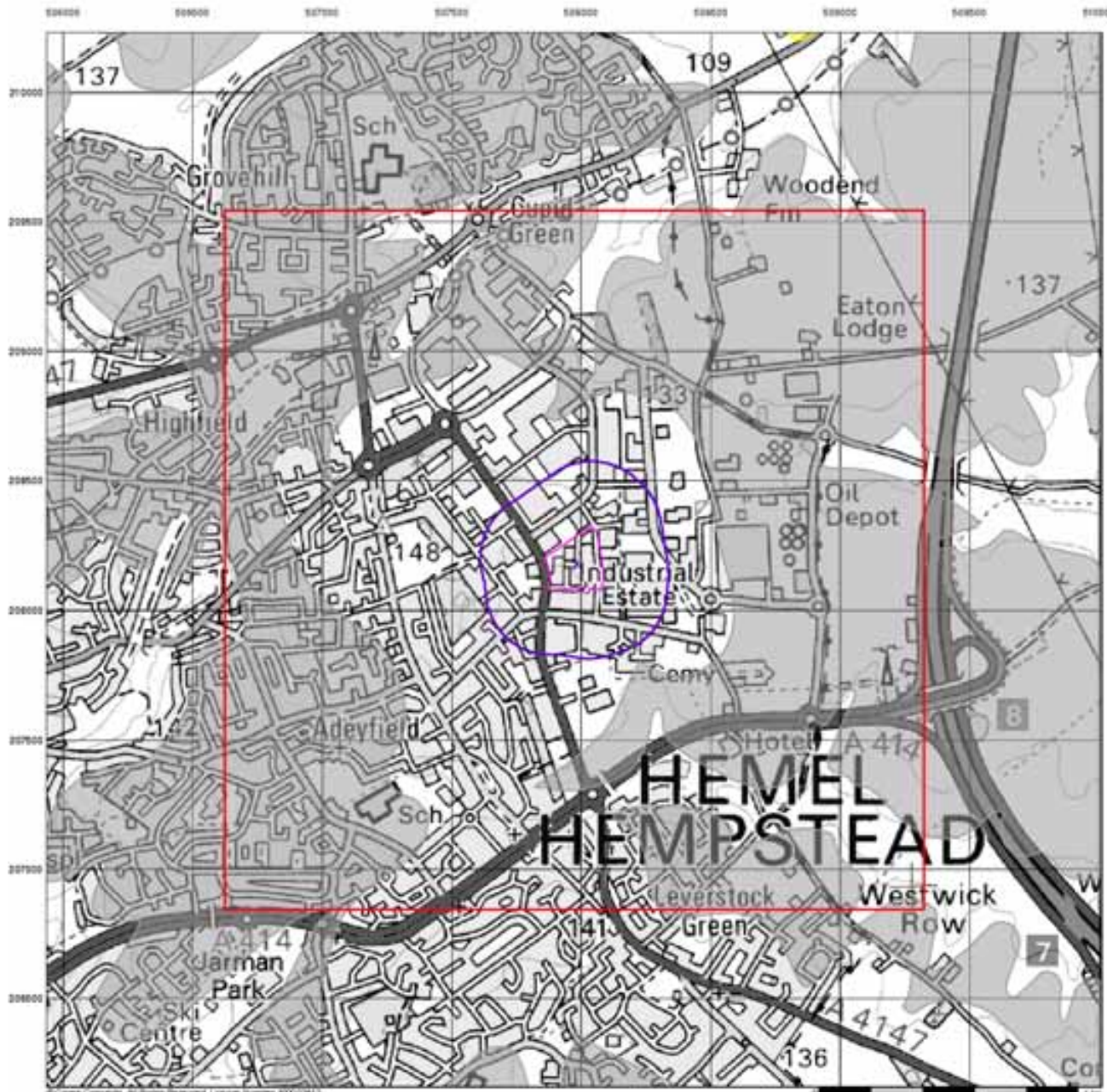
### Site Details

Data Centre, HEMEL HEMPSTEAD



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





## Superficial Aquifer Designation

### General

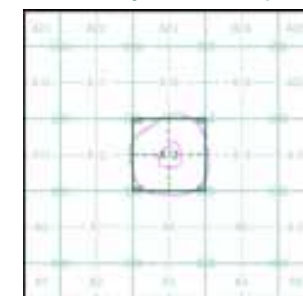
- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Site
- Map ID

### Agency and Hydrological

#### Geological Classes

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

### Site Sensitivity Context Map - Slice A



### Order Details

Order Number: 46081904\_1\_1  
 Customer Ref: 33068  
 National Grid Reference: 507980, 208180  
 Slice: A  
 Site Area (Ha): 3.91  
 Search Buffer (m): 250

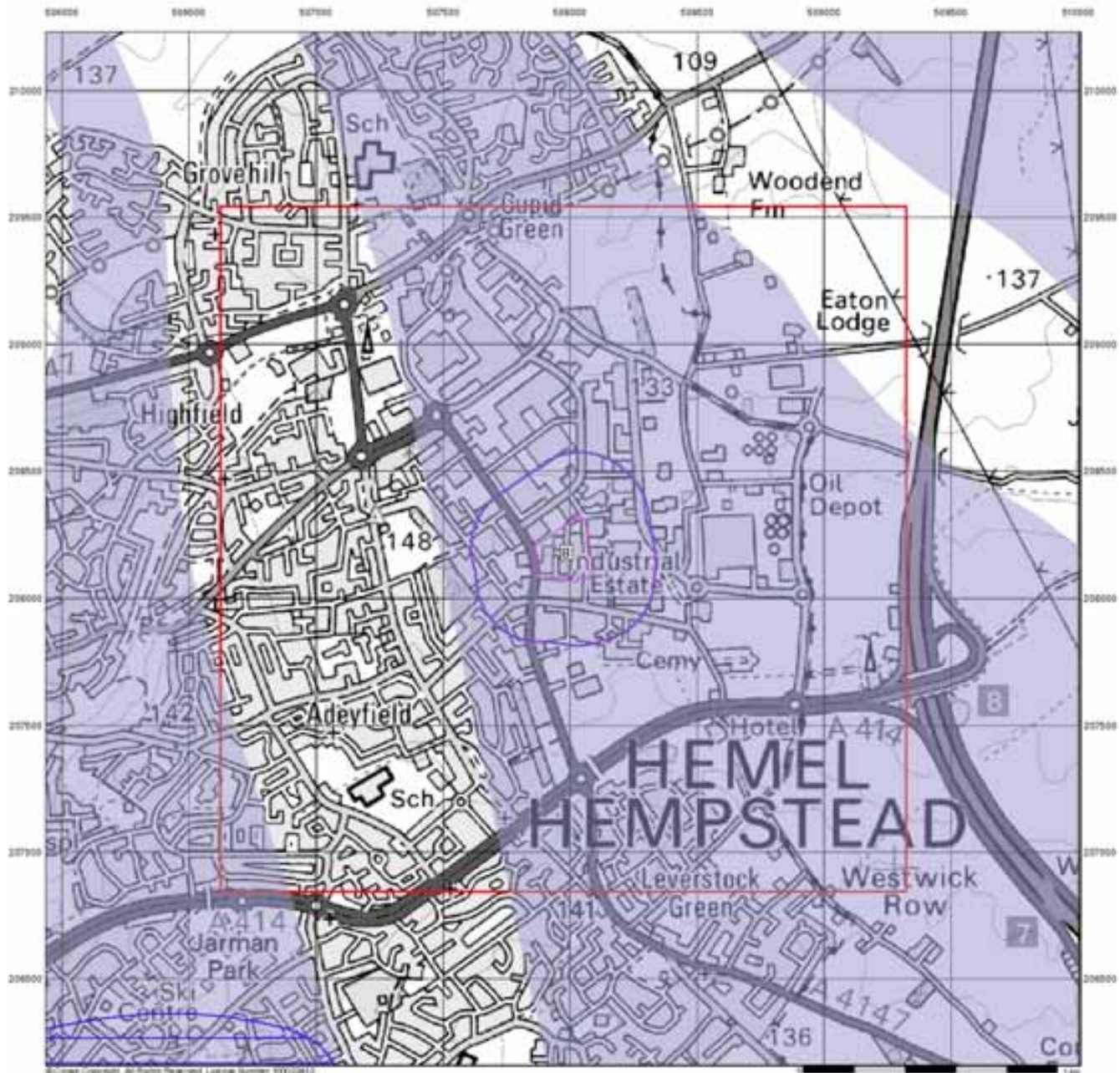
### Site Details

Data Centre, HEMEL HEMPSTEAD



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

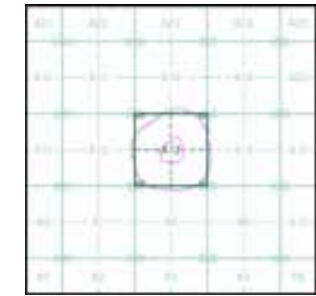




## Source Protection Zones

- General**
- Specified Site
  - Site
  - Specified Buffer(s)
  - Map ID
  - Bearing Reference Point
- Agency and Hydrological**
- Source Protection Zone I
  - Source Protection Zone II
  - Source Protection Zone III
  - Zone of Special Interest
  - Source Protection Zone Downhole

### Site Sensitivity Context Map - Slice A



### Order Details

Order Number: 46081904\_1\_1  
 Customer Ref: 33068  
 National Grid Reference: 507980, 208180  
 Slice: A  
 Site Area (Ha): 3.91  
 Search Buffer (m): 250

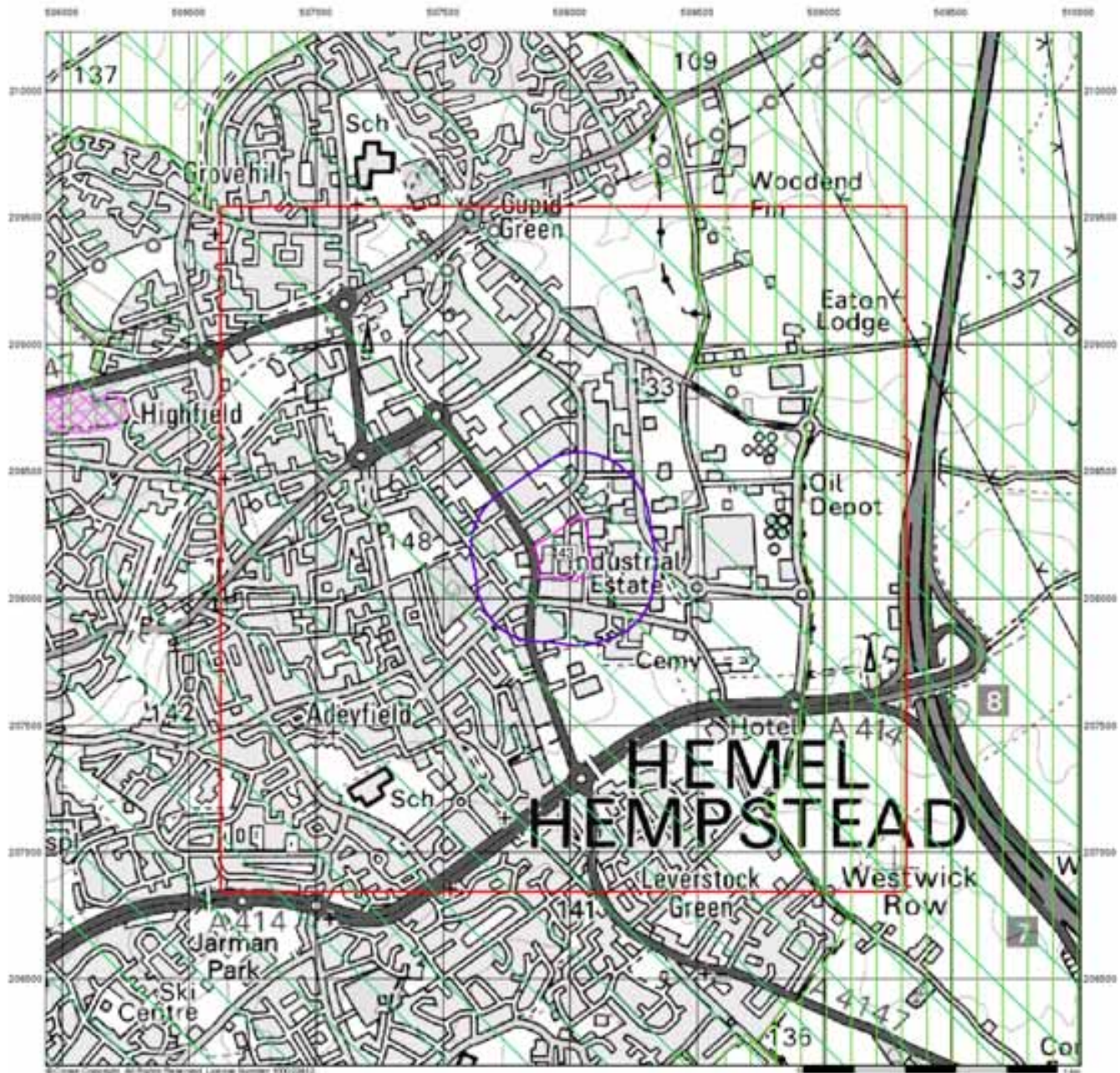
### Site Details

Data Centre, HEMEL HEMPSTEAD



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



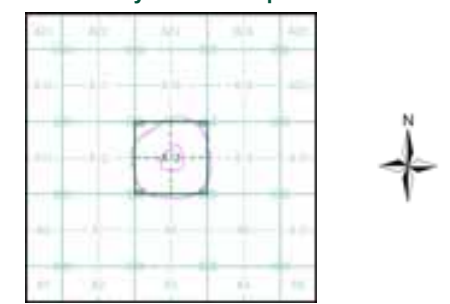


# GeoDyne

## Sensitive Land Uses

- General**
- Specified Site
  - Specified Buffer(s)
  - Bearing Reference Point
  - Site
  - Map ID
- Sensitive Land Uses**
- Area of Adopted Green Belt
  - Area of Unadopted Green Belt
  - Area of Outstanding Natural Beauty
  - Environmentally Sensitive Area
  - Forest Park
  - Local Nature Reserve
  - Marine Nature Reserve
  - National Nature Reserve
  - National Park
  - Nitrate Sensitive Area
  - Nitrate Vulnerable Zone
  - Removal Site
  - Site of Special Scientific Interest
  - Special Area of Conservation
  - Special Protection Area

### Site Sensitivity Context Map - Slice A



**Order Details**

Order Number: 46081904\_1\_1  
 Customer Ref: 33068  
 National Grid Reference: 507980, 208180  
 Slice: A  
 Site Area (Ha): 3.91  
 Search Buffer (m): 250

**Site Details**  
 Data Centre, HEMEL HEMPSTEAD

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

## Envirocheck<sup>®</sup> Report:

### BGS Boreholes Datasheet

#### Order Details:

**Order Number:**

46081904\_1\_1

**Customer Reference:**

33068

**National Grid Reference:**

507980, 208180

**Slice:**

A

**Site Area (Ha):**

3.91

**Borehole Search Buffer (m):**

250

#### Site Details:

Data Centre

HEMEL HEMPSTEAD

#### Client Details:

Mr R Spencer

GeoDyne Ltd

The Granary

Church Lane

Thrumpton

NG11 0AX

#### Prepared For:

Elliottwood Partnership LLP

Sampsons Yard

Halifax Place

Nottingham

NG1 1QN



Data Type	Page Number	On Site	0 to 250m
BGS Boreholes	pg 1	None	17

## 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 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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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).

## Report Version v47.0

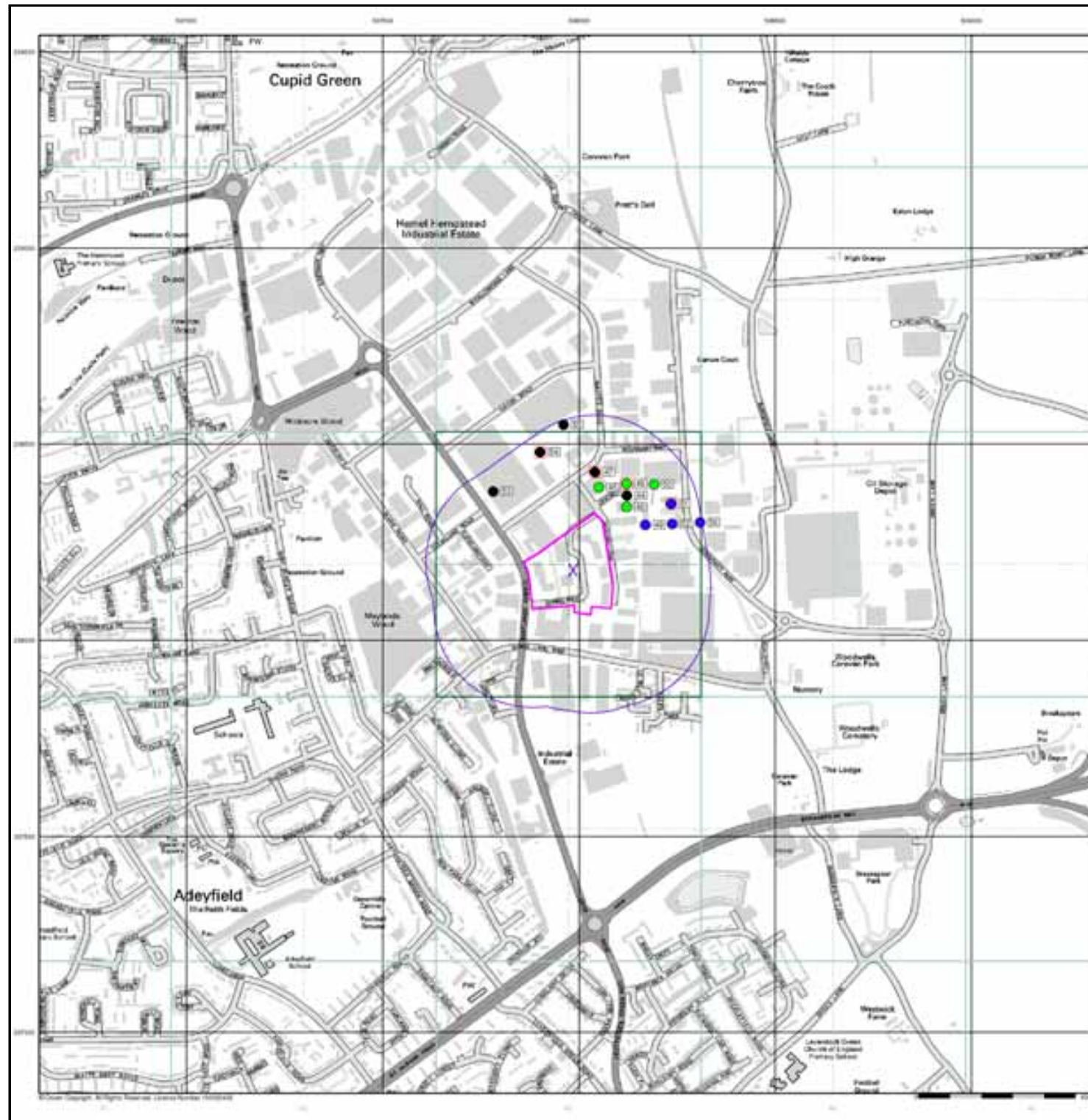
Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
44	<b>BGS Boreholes</b> BGS Reference: T100ne43 Drilled Length (m): Not Supplied Borehole Name: Maxted Rd Hemel Hempstead 3 Link to Borehole: Not Available Scan:	A13NE (NE)	62	3	508080 208370
45	<b>BGS Boreholes</b> BGS Reference: T100ne95 Drilled Length (m): 16.6 Borehole Name: Maxted Road Hemel Hempstead 101 Link to Borehole: <a href="http://scans.bgs.ac.uk/sobi_scans/boreholes/15954433/">http://scans.bgs.ac.uk/sobi_scans/boreholes/15954433/</a> Scan:	A13NE (N)	68	3	508050 208390
46	<b>BGS Boreholes</b> BGS Reference: T100ne98 Drilled Length (m): 19.45 Borehole Name: Maxted Road Hemel Hempstead 104 Link to Borehole: <a href="http://scans.bgs.ac.uk/sobi_scans/boreholes/15954437/">http://scans.bgs.ac.uk/sobi_scans/boreholes/15954437/</a> Scan:	A13NE (NE)	71	3	508120 208340
47	<b>BGS Boreholes</b> BGS Reference: T100ne41 Drilled Length (m): Not Supplied Borehole Name: Maxted Rd Hemel Hempstead 1 Link to Borehole: Not Available Scan:	A13NE (N)	107	3	508040 208430
47	<b>BGS Boreholes</b> BGS Reference: T100ne42 Drilled Length (m): Not Supplied Borehole Name: Maxted Rd Hemel Hempstead 2 Link to Borehole: Not Available Scan:	A13NE (N)	114	3	508080 208430
48	<b>BGS Boreholes</b> BGS Reference: T100ne97 Drilled Length (m): 20.5 Borehole Name: Maxted Road Hemel Hempstead 103 Link to Borehole: <a href="http://scans.bgs.ac.uk/sobi_scans/boreholes/15954435/">http://scans.bgs.ac.uk/sobi_scans/boreholes/15954435/</a> Scan:	A13NE (NE)	112	3	508120 208400
48	<b>BGS Boreholes</b> BGS Reference: T100ne96 Drilled Length (m): 21.5 Borehole Name: Maxted Road Hemel Hempstead 102 Link to Borehole: <a href="http://scans.bgs.ac.uk/sobi_scans/boreholes/15954434/">http://scans.bgs.ac.uk/sobi_scans/boreholes/15954434/</a> Scan:	A13NE (NE)	151	3	508120 208450
49	<b>BGS Boreholes</b> BGS Reference: T100ne118 Drilled Length (m): 10 Borehole Name: Boundary Way Hemel Hempstead 2 Link to Borehole: <a href="http://scans.bgs.ac.uk/sobi_scans/boreholes/17863680/">http://scans.bgs.ac.uk/sobi_scans/boreholes/17863680/</a> Scan:	A13NE (NE)	124	3	508186 208295
50	<b>BGS Boreholes</b> BGS Reference: T100ne117 Drilled Length (m): 20 Borehole Name: Boundary Way Hemel Hempstead 1 Link to Borehole: <a href="http://scans.bgs.ac.uk/sobi_scans/boreholes/17863679/">http://scans.bgs.ac.uk/sobi_scans/boreholes/17863679/</a> Scan:	A13NE (NE)	133	3	508185 208345
51	<b>BGS Boreholes</b> BGS Reference: T100ne119 Drilled Length (m): 6 Borehole Name: Boundary Way Hemel Hempstead 3 Link to Borehole: <a href="http://scans.bgs.ac.uk/sobi_scans/boreholes/17863681/">http://scans.bgs.ac.uk/sobi_scans/boreholes/17863681/</a> Scan:	A13NE (NE)	152	3	508210 208321
51	<b>BGS Boreholes</b> BGS Reference: T100ne120 Drilled Length (m): 6 Borehole Name: Boundary Way Hemel Hempstead 4 Link to Borehole: <a href="http://scans.bgs.ac.uk/sobi_scans/boreholes/17863682/">http://scans.bgs.ac.uk/sobi_scans/boreholes/17863682/</a> Scan:	A13NE (NE)	181	3	508234 208348
52	<b>BGS Boreholes</b> BGS Reference: T100ne121 Drilled Length (m): 6 Borehole Name: Boundary Way Hemel Hempstead 5 Link to Borehole: <a href="http://scans.bgs.ac.uk/sobi_scans/boreholes/17863683/">http://scans.bgs.ac.uk/sobi_scans/boreholes/17863683/</a> Scan:	A13NE (NE)	175	3	508237 208297

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
53	<b>BGS Boreholes</b> BGS Reference: T100ne327 Drilled Length (m): Not Supplied Borehole Name: Dexion Faxtory Eaton Road Hemel Hempstead 6 Link to Borehole: Not Available Scan:	A13NW (NW)	196	3	507780 208380
54	<b>BGS Boreholes</b> BGS Reference: T100ne328 Drilled Length (m): Not Supplied Borehole Name: Dexion Faxtory Eaton Road Hemel Hempstead 8 Link to Borehole: Not Available Scan:	A13NW (N)	202	3	507910 208480
54	<b>BGS Boreholes</b> BGS Reference: T100ne332 Drilled Length (m): Not Supplied Borehole Name: Dexion Faxtory Eaton Road Hemel Hempstead Tp4 Link to Borehole: Not Available Scan:	A13NW (N)	208	3	507900 208480
55	<b>BGS Boreholes</b> BGS Reference: T100ne326 Drilled Length (m): Not Supplied Borehole Name: Dexion Faxtory Eaton Road Hemel Hempstead 5 Link to Borehole: Not Available Scan:	A18SW (N)	240	3	507960 208550
56	<b>BGS Boreholes</b> BGS Reference: T100ne123 Drilled Length (m): 6 Borehole Name: Boundary Way Hemel Hempstead 7 Link to Borehole: <a href="http://scans.bgs.ac.uk/sobi_scans/boreholes/17863685/">http://scans.bgs.ac.uk/sobi_scans/boreholes/17863685/</a> Scan:	A13NE (E)	244	3	508307 208301

BGS Boreholes	Version	Update Cycle
<b>BGS Boreholes</b> British Geological Survey - National Geoscience Information Service	April 2013	Quarterly

Contact Details	Contact Logo
<b>3 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>	 <b>British Geological Survey</b> <small>NATURAL ENVIRONMENT RESEARCH COUNCIL</small>
<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>	





**General**

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

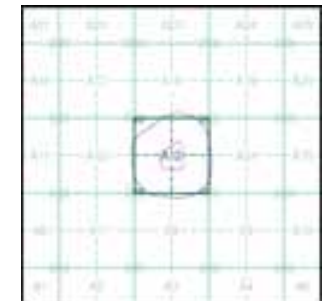
**Agency and Hydrological (Boreholes)**

- BGS Borehole Depth 0 - 10m
- BGS Borehole Depth 10 - 20m
- BGS Borehole Depth 20m +
- Concrete
- Other

For Borehole information please refer to the Borehole datasheet 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: 46081904\_1\_1  
 Customer Ref: 33068  
 National Grid Reference: 507980, 208180  
 Slice: A  
 Site Area (Ha): 3.91  
 Search Buffer (m): 250

**Site Details**

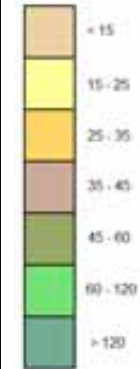
Data Centre, HEMEL HEMPSTEAD

**General**

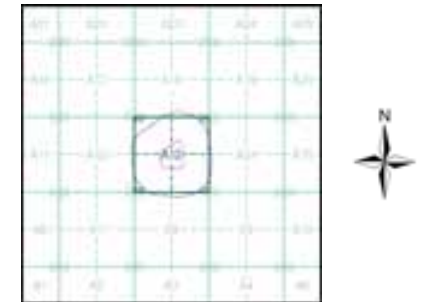
Search Site    
  Specified Buffer(s)    
  Existing Reference Point

**Estimated Soil Chemistry Arsenic**

Arsenic Concentration (mg/kg)



**Estimated Soil Chemistry Arsenic - Slice A**

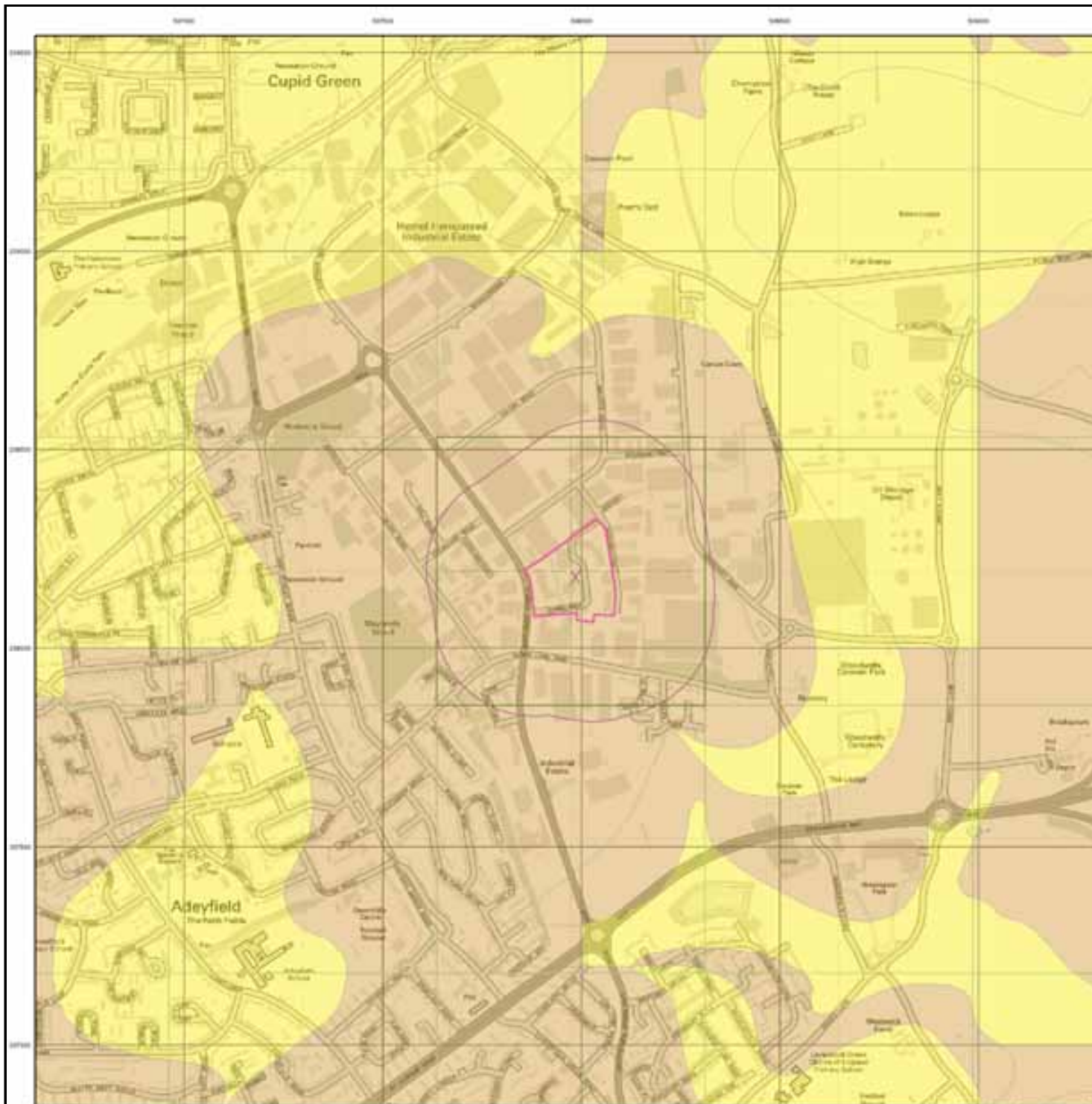


**Order Details**

Order Details: 46081904\_1\_1  
 Customer Ref: 33068  
 National Grid Reference: 507980, 208180  
 Slice: A  
 Site Area (Ha): 3.91  
 Search Buffer (m): 250

**Site Details**

Data Centre, HEMEL HEMPSTEAD



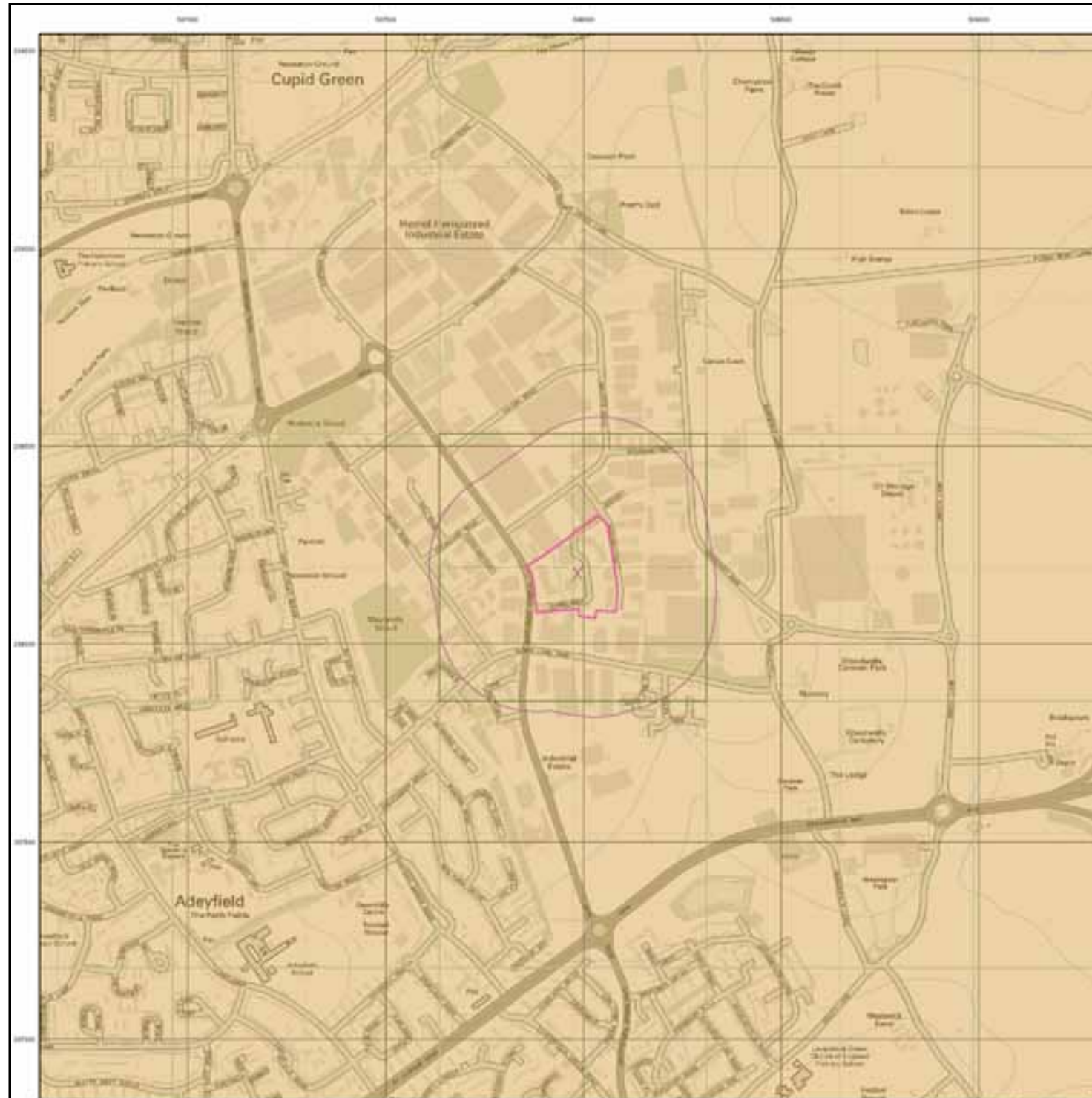
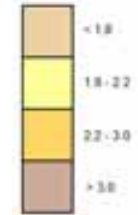


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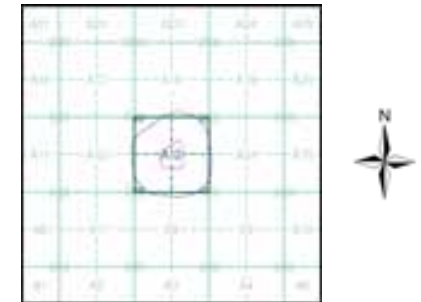
○ Search Site    
 ○ Search Buffer(s)    
 X Existing Reference Point

**Estimated Soil Chemistry Cadmium**

Cadmium Concentrations mg/kg



**Estimated Soil Chemistry Cadmium - Slice A**

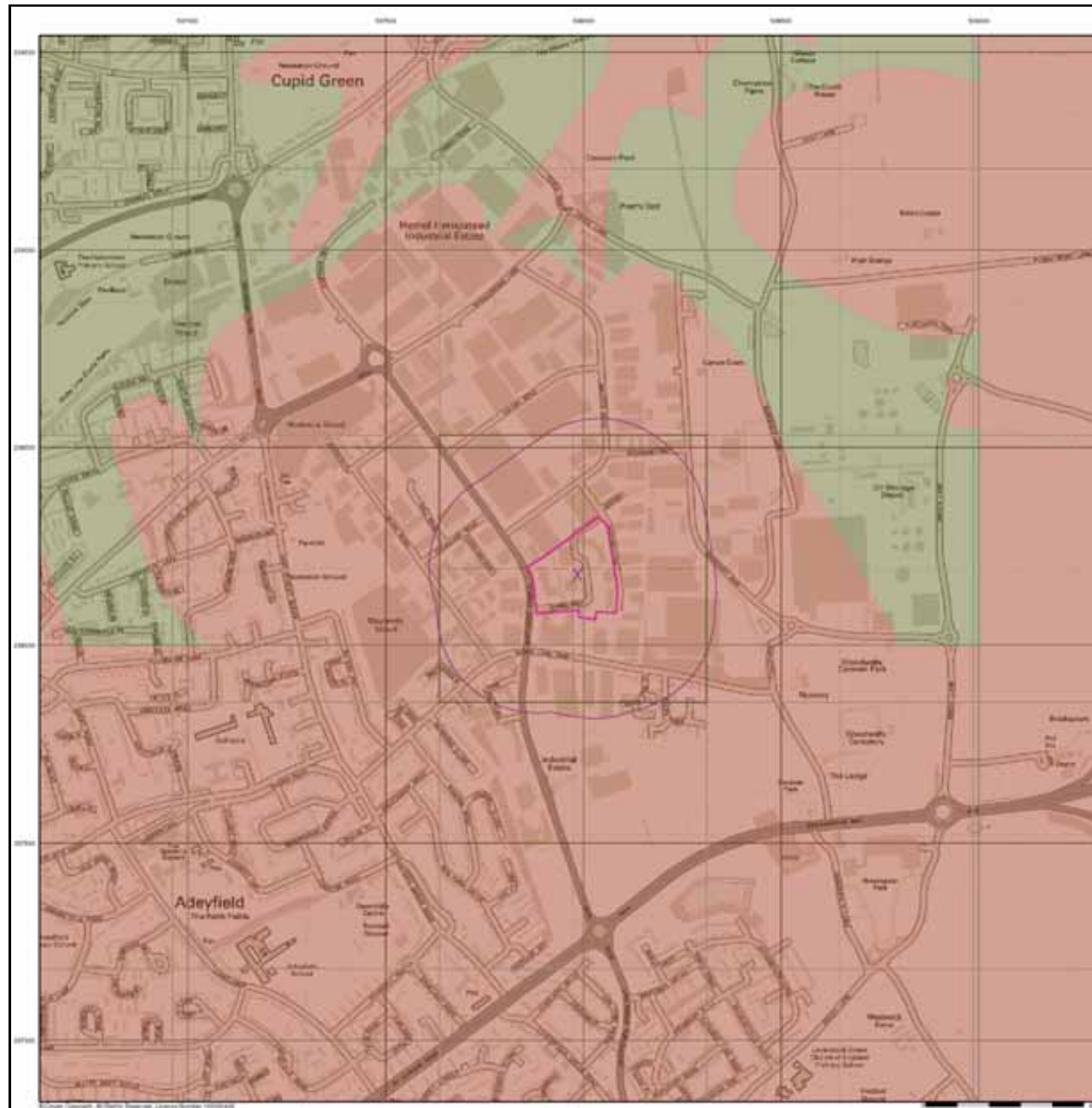


**Order Details**

Order Details: 46081904\_1\_1  
 Customer Ref: 33068  
 National Grid Reference: 507980, 208180  
 Slice: A  
 Site Area (Ha): 3.91  
 Search Buffer (m): 250

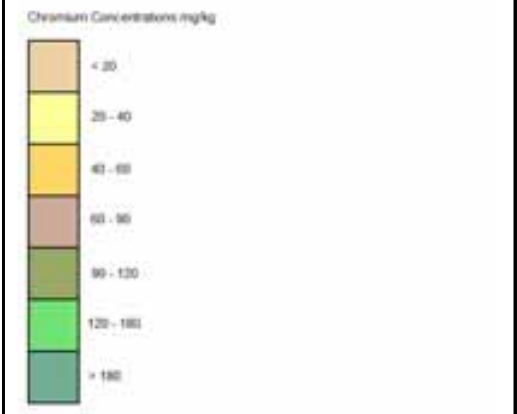
**Site Details**

Data Centre, HEMEL HEMPSTEAD

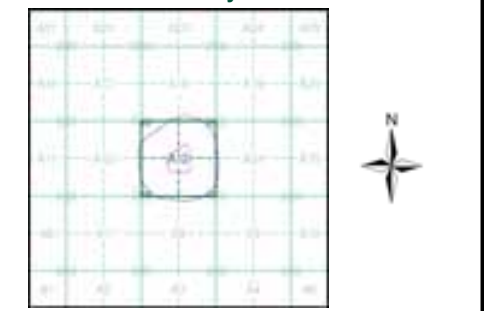


**General**  
 ○ Specified Site      ○ Specified Buffer(s)      X Specified Reference Point

**Estimated Soil Chemistry Chromium**



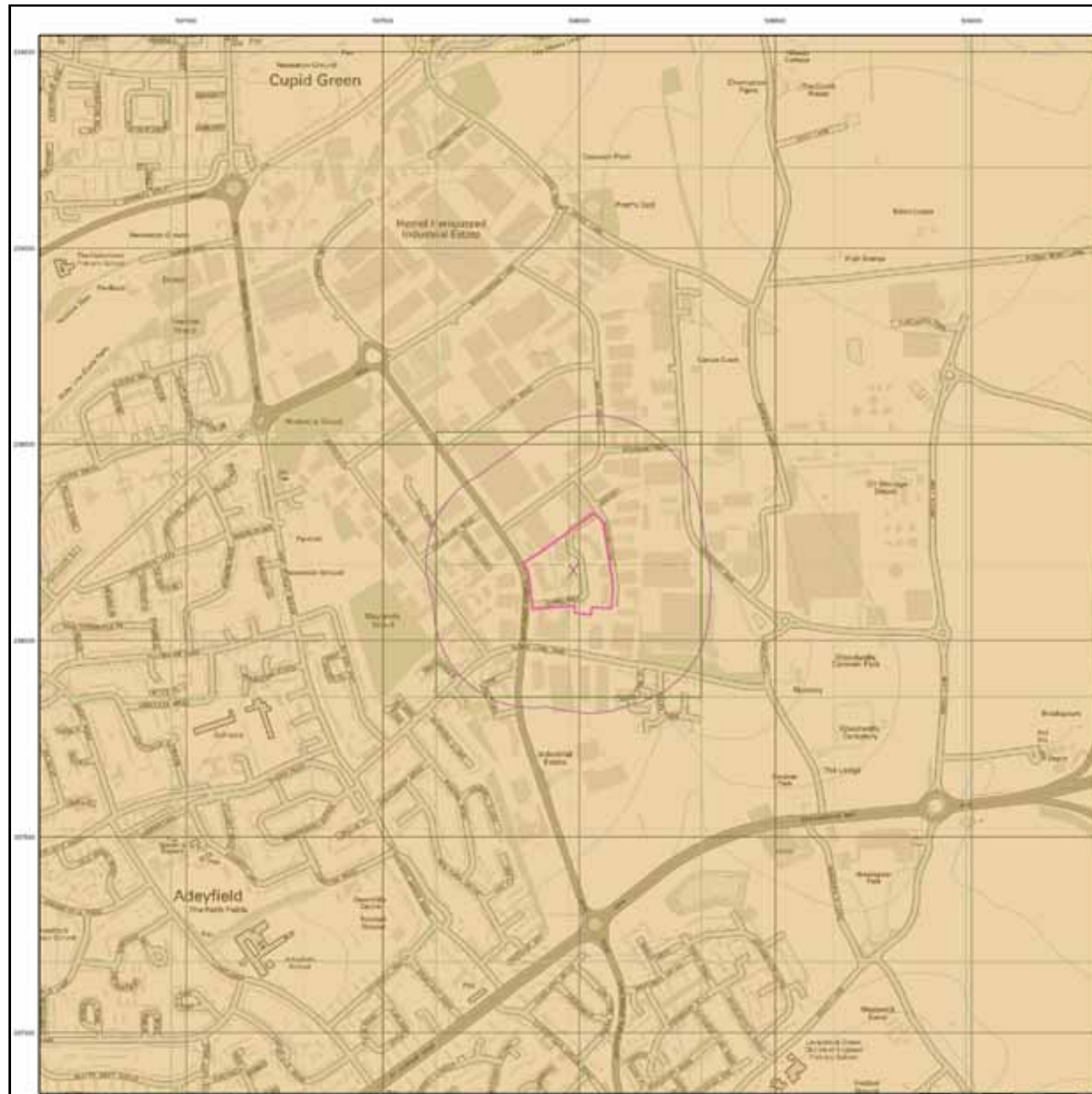
**Estimated Soil Chemistry Chromium - Slice A**



**Order Details**  
 Order Details: 46081904\_1\_1  
 Customer Ref: 33068  
 National Grid Reference: 507980, 208180  
 Slice: A  
 Site Area (Ha): 3.91  
 Search Buffer (m): 250

**Site Details**  
 Data Centre, HEMEL HEMPSTEAD



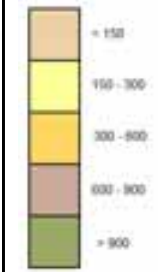


**General**

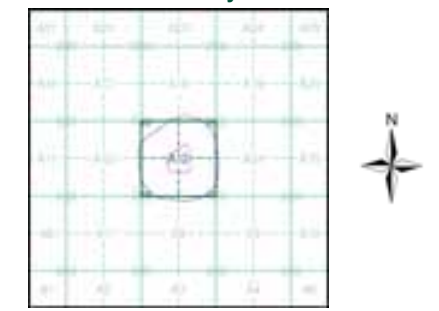
- Searched Site
- Searched Buffers
- X Shorley Telephone Point

**Estimated Soil Chemistry Lead**

Lead Concentrations mg/kg



**Estimated Soil Chemistry Lead - Slice A**



**Order Details**

Order Details: 46081904\_1\_1  
 Customer Ref: 33068  
 National Grid Reference: 507980, 208180  
 Slice: A  
 Site Area (Ha): 3.91  
 Search Buffer (m): 250

**Site Details**

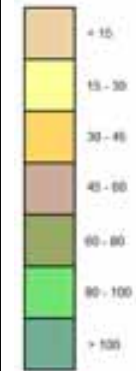
Data Centre, HEMEL HEMPSTEAD

**General**

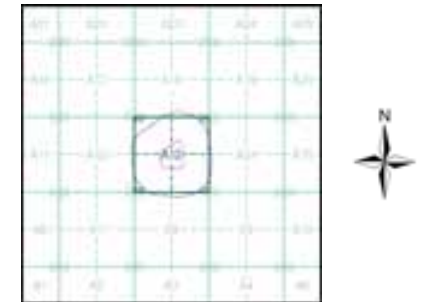
□ Specified Site    
 □ Specified Buffers    
 X Meeting Reference Point

**Estimated Soil Chemistry Nickel**

Nickel Concentrations mg/kg



**Estimated Soil Chemistry Nickel - Slice A**

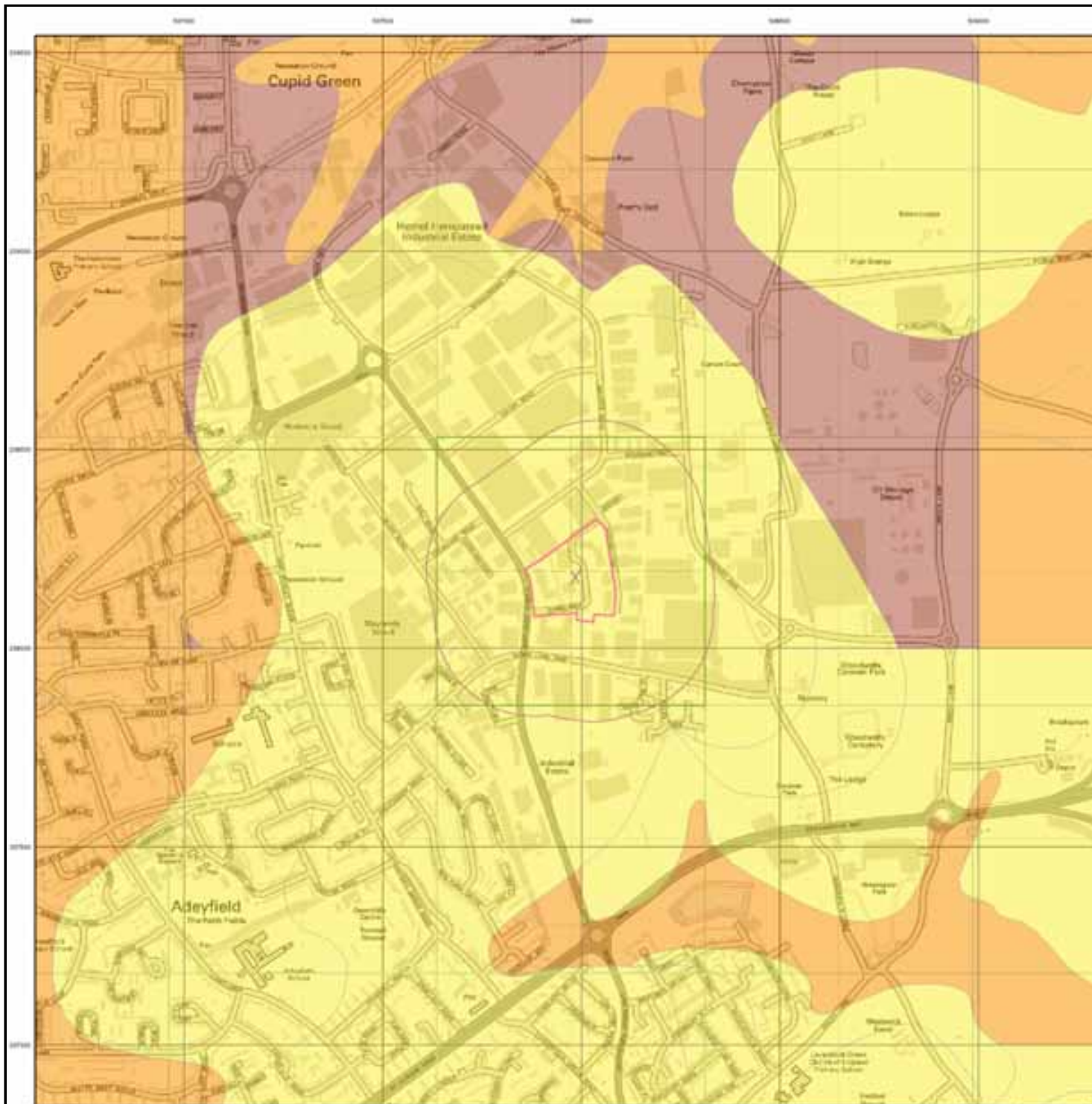


**Order Details**

Order Details: 46081904\_1\_1  
 Customer Ref: 33068  
 National Grid Reference: 507980, 208180  
 Slice: A  
 Site Area (Ha): 3.91  
 Search Buffer (m): 250

**Site Details**

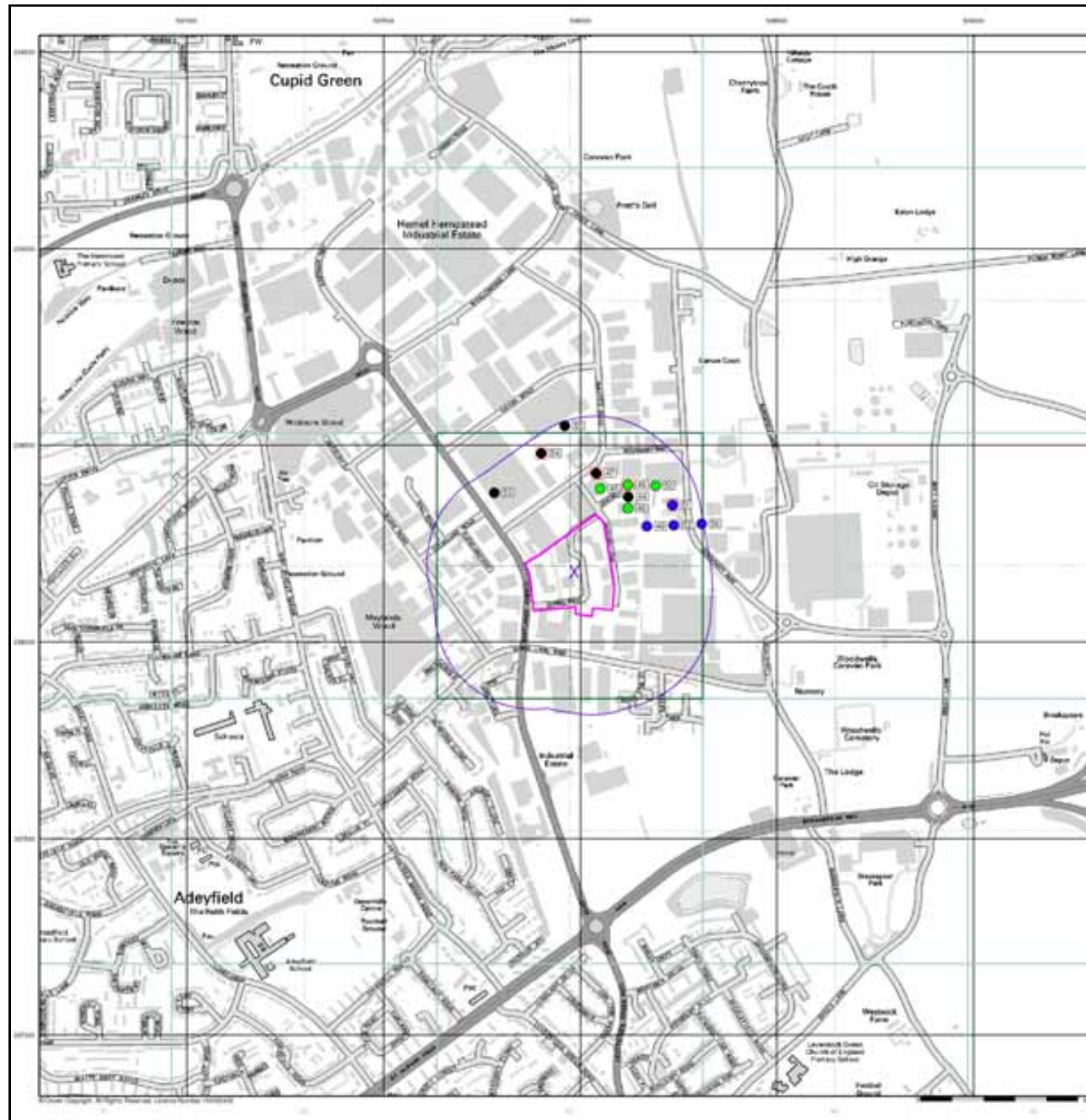
Data Centre, HEMEL HEMPSTEAD



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**Appendix VI**  
**BGS Borehole Records**



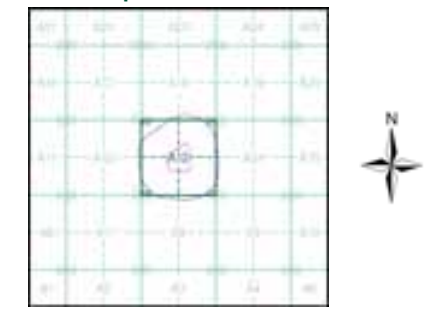


- General**
- Specified Site
  - Specified Buffer(s)
  - X Specified Reference Point
  - Map ID
  - General of Plot 40 Location
- Agency and Hydrological (Boreholes)**
- BGS Borehole Depth 0 - 10m
  - BGS Borehole Depth 10 - 20m
  - BGS Borehole Depth 20m +
  - Concrete
  - Other

For Borehole information please refer to the Borehole datasheet 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**

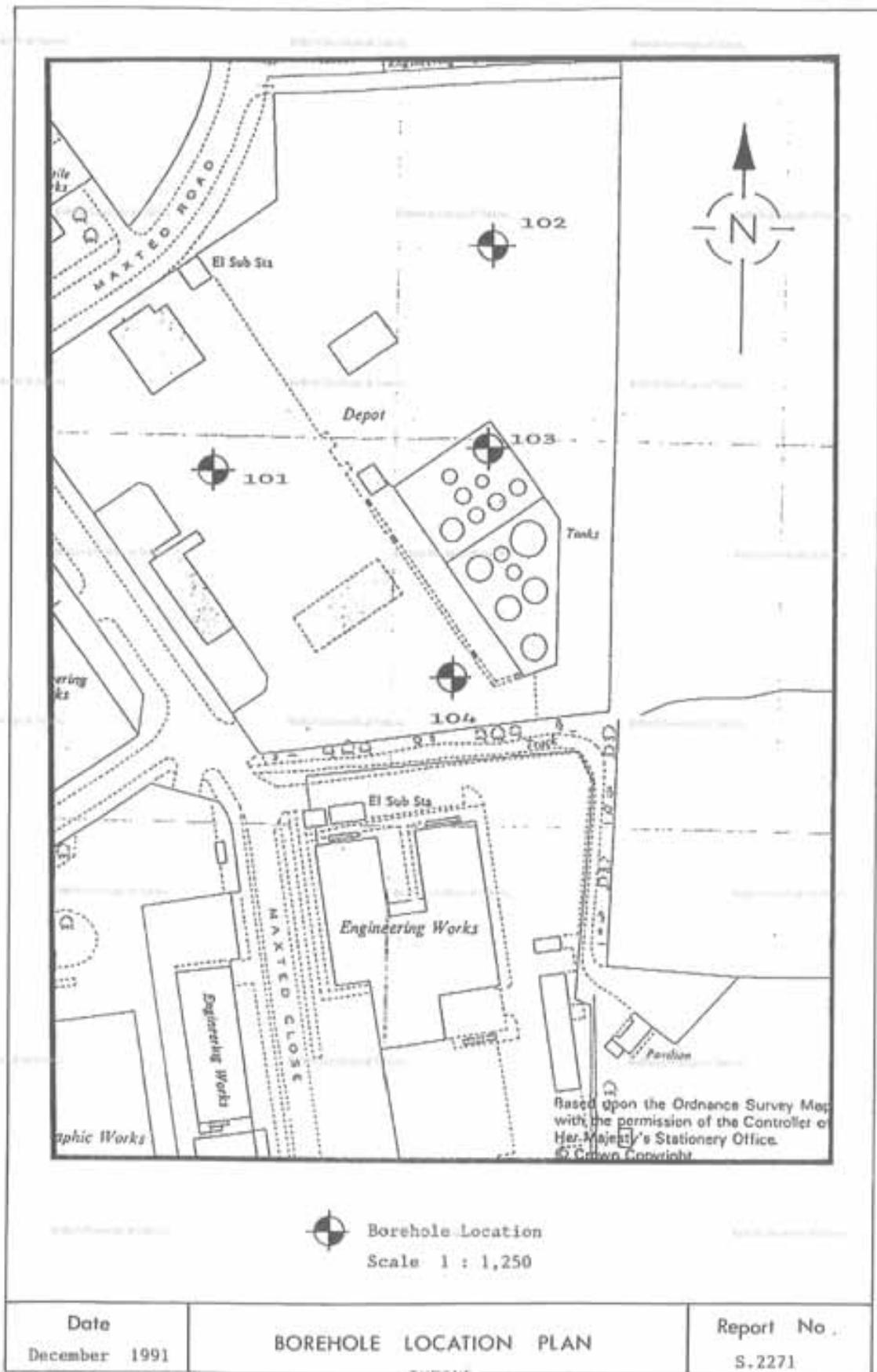


**Order Details**

Order Number: 46081904\_1\_1  
 Customer Ref: 33068  
 National Grid Reference: 507980, 208180  
 Slice: A  
 Site Area (Ha): 3.91  
 Search Buffer (m): 250

**Site Details**  
 Data Centre, HEMEL HEMPSTEAD





LOCATION: Maxted Road, Hemel Hempstead		BOREHOLE No: 101					
		DATE OF BORING: 13-19.12.1991					
Description of Strata	Strata Change			Samples		SPT CPT N-Value	Water Level -m
	Legend	Depth -m	O.D. Level -m	Depth -m	Type		
<b>MADE GROUND</b> Fine, grey brown mottled red silty CLAY with coarse gravel, Flints and red brick.		1.00		1.00	B		
<b>WOOLWICH AND READING BEDS</b> Fine, grey orange brown mottled very silty fine sandy CLAY with fine medium flints.  - mottled black with sand pockets.		2.00		1.50	J	15	
		2.00		2.00	J		
		2.50		2.50	J	15	
		3.00		3.50	U100	(40)	
		4.00					
<b>UPPER CHALK</b> Soft, buff white putty CHALK with flint gravel.  - with brown clay lenses.  - very weathered, with occasional very weak chalk gravel.		5.00		4.50	B	16	
		5.50		5.50	B	20	
		6.00		6.00	B		
		6.50		6.50	B	13	
		7.00		7.00	B		
		7.50		7.50	B	12	
		8.00		8.00	B		
		9.00		9.00	B	14	
10.00		10.00	B				
BOREHOLE DIAMETER: 100mm LINING TUBES : 200mm to 1.50m CHISELLING : REMARKS : Borehole drilled from existing ground level.		GROUND LEVEL: 139.90m PIEZOMETER :		√ - Water Strike Y - Water (Standing Level) W - Water Sample B/J - Bulk/Jar Sample SPT - Standard Penetration Test CPT - Cone Penetration Test # - extrapolated value (U) - Undisturbed sample no. of blows shown in brackets			
DATE December 1991	BOREHOLE LOG		REPORT No. S.2271				

LOCATION: Maxted Road, Hemel Hempstead		BOREHOLE No: 104					
		DATE OF BORING: 17-18.12.1991					
Description of Strata	Strata Change			Samples		SPT CPT N-Value	Water Level -m
	Legend	Depth -m	O.D. Level -m	Depth -m	Type		
MADE GROUND CONCRETE over black ash FILL.							
WOOLWICH AND READING BEDS Soft to firm, orange brown mottled light medium grey slightly fine sandy silty CLAY with occasional flints - slight odour.		1.00		1.00	J	7	
		2.00		2.00	J	14	
- becoming stiff, no sand at 3.00m.		3.00		3.00	U100/J	(75)	
- no flints at 4.00m, black staining.		4.00		4.00	J	15	
- becoming fissured.		5.00		5.00	U100/J	(54)	
		6.00		6.00	J		
- very silty.		7.00		7.00	J		
UPPER CHALK Soft to firm, buff white putty CHALK with silt lenses, weak chalk gravel, flints and occasional orange brown clay lenses to 10.00m.		8.00		8.00	U100/B	(56)	
		9.00		9.00	B		
		9.50		9.50	U100	(29)	
		10.00		10.00	B		
BOREHOLE DIAMETER: 100mm		GROUND LEVEL: 139.40m		▽ - Water Strike			
LINING TUBES : 200mm to 1.50m		PIEZOMETER :		▼ - Water (Standing Level)			
CHISELLING				W - Water Sample			
REMARKS : Borehole drilled from existing ground level.				B/J - Bulk/Jar Sample			
				SPT - Standard Penetration Test			
				CPT - Cone Penetration Test			
				* - extrapolated value			
				(U) - Undisturbed sample			
				no. of blows shown in brackets			
DATE December 1991	BOREHOLE LOG		REPORT No. S.2271				

LOCATION: Maxted Road, Hemel Hempstead		BOREHOLE No: 103					
		DATE OF BORING: 13-16.12.1991					
Description of Strata	Strata Change			Samples		SPT CPT N-Value	Water Level -m
	Legend	Depth -m	O.D. Level -m	Depth -m	Type		
UPPER CHALK (Continued).....							
END OF BOREHOLE. Depth-20.50m. No groundwater encountered during drilling.							
		21.00					
		22.00					
		23.00					
		24.00					
		25.00					
		26.00					
		27.00					
		28.00					
		29.00					
		30.00					
BOREHOLE DIAMETER: 200mm LINING TUBES : 200mm to 1.50m CHISELLING : REMARKS : Borehole drilled from existing ground level.		GROUND LEVEL: 138.60m FIELDMETER :		▮ - Water Strike ▮ - Water (Standing Level) W - Water Sample S/J - Bulk/Jar Sample SPT - Standard Penetration Test CPT - Cone Penetration Test * - extrapolated value (U) - Undisturbed sample no. of blows shown in brackets			
DATE December 1991	BOREHOLE LOG		REPORT No. S.2271				



# Record of Borehole No. 5

Sheet 1 of 1

Location: BOUNDARY WAY, HEHEL NEHPSTEAD

Client: COMMISSION FOR THE NEW TOWNS



Type of boring: LIGHT CABLE PERCUSSION

Job No. 11311573

Ground level 137.95m O.D.

Diameter / 150mm

Casing / 150mm

Daily Progress	Ground water levels	Depth of casing	Samples			Strata	Description of strata	Groundwater	Water table
			Depth	No.	Type				
11.4.08						G.L.	137.95		
			0.40	1	D	0.40	137.55	TOPSOIL.	
			0.50 - 0.90	2	U				
			0.90	3	D				
			1.25	4	D				
			1.50 - 1.95	5	U				
			2.00	6	D				
			2.25	7	D				
			2.50 - 2.95	8	U				
			3.00	9	D				
			3.25	10	D				
			3.50 - 3.95	11	U				
			4.00	12	D				
			4.25	13	D				
			4.50 - 4.95	14	U				
			5.00	15	D				
			5.25	16	D				
5.50 - 5.95	17	U							
(6.00)	Dry	3.00				6.00	131.95		
							BOREHOLE COMPLETED.		
<b>Key</b> U... undisturbed 102mm diameter sample D... disturbed jar sample B... disturbed bulk sample W... water sample S( ) standard penetration test C( ) cone penetration test (33)... number of blows ('N' value)  ... groundwater encountered					<b>Remarks</b>				

**GROUND  
ENGINEERING**

# Record of Borehole No.4

Location: BOUNDARY WAY, HENEL HEMPSTEAD

Sheet 1 of 1

Client: COMMISSION FOR THE NEW TOWNS

Type of boring: LIGHT CABLE PERCUSSION

Job No. 11311573

Ground level 136.95m O.D.

Diameter / 150mm

Casing / 150mm

Daily Progress	Ground water levels	Depth of casing	Samples			S c a l e	Strata		Description of strata	Casing	Borehole	
			Depth	No.	Type		Depth	Reduced level				
12.4.88.			0.40	1	D	1	G.L.	136.95	TOPSOIL.	X	150-150	
			0.50 - 0.95	2	U		0.40	136.55	Firm mottled brown/dark brown very silty ("loamy") CLAY with a few fine to medium flint gravels.			
			1.00	3	D		0.90	136.05				
			1.25	4	D							
			1.50 - 1.95	5	S(13)		Firm - firm to stiff occasionally slightly friable brown mottled light grey and a trace of red silty CLAY with very occasional fine to medium subangular flint gravel...content increasing at base, with some carbonaceous speckling.					
			2.25	6	D							
			2.50 - 2.95	7	U							
			3.00	8	D		3.40	133.55	Firm to stiff brown to dark brown silty CLAY with fine to coarse subrounded to subangular occasionally partly weathered flint gravel and some carbonaceous speckling.			
			3.25	9	D							
			3.50 - 3.95	10	S(20)							
			4.25	11	D		5					
			4.50 - 4.95	12	U							
			5.00	13	D							
			5.25	14	D		6	6.00	130.95			BOREHOLE COMPLETED.
			5.50 - 5.95	15	S(27)							
(6.00)	DRY	NIL										

**Key**  
 U... undisturbed 102mm diameter sample  
 D... disturbed jar sample  
 B... disturbed bulk sample  
 W... water sample  
 SI... standard penetration test  
 CI... cone penetration test  
 (33)... number of blows ('N' value)  
 X... groundwater encountered

Remarks

**GROUND ENGINEERING**

# Record of Borehole No. 3

Sheet 1 of 1

Location: BOUNDARY WAY, HOVEL HEMPSTEAD

Client: COMMISSION FOR THE NEW TOWNS

Type of boring: LIGHT CABLE PERCUSSION

Job No. 11311573

Ground level

138.00m O.D.

Diameter / 150mm

Casing / 150mm

Daily Progress	Ground water levels	Depth of casing	Samples			S c a l e	Strata		Description of strata	Water	Geology	
			Depth	No.	Type		Depth	Reduced level				
13.4.88.			0.40	1	D		G.L.	138.00	TOPSOIL.			
			0.50 - 0.95	2	U		0.40	137.60	Soft to firm, becoming firm by 1.0 metre depth, occasionally slightly friable yellowish to rusty brown mottled light grey very silty ("loamy") CLAY with very occasional fine to medium flint gravels.			
			1.00	3	D							
			1.25	4	D							
			1.50 - 1.95	5	S(16)							
			2.25	6	D							
			2.50 - 2.95	7	U		2.75	135.25				
			3.00	8	D		Stiff poorly extremely closely fissured slightly friable mottled browns with some light grey and a trace of red silty CLAY with occasional fine to medium subrounded to subangular flint gravel.					
			3.25	9	D							
			3.50 - 3.95	10	S(21)							
			4.25	11	D							
			4.50 - 4.75	12	U							
			5.00	13	D				5.10			132.90
			5.25	14	D		Firm to stiff brown silty CLAY with fine to coarse rounded to subangular flint gravels (some partly weathered) and some carbonaceous staining.					
			5.50 - 5.95	15	S (24)							
(6.00)	DRY	NIL			6	6.00	132.00	BORHOLE COMPLETED.				
<b>Key</b> U... undisturbed 102mm diameter sample D... disturbed jar sample B... disturbed bulk sample W... water sample S( )... standard penetration test C( )... cone penetration test (X)... number of blows ('N' value) ... groundwater encountered			<b>Remarks</b>									

**GROUND  
ENGINEERING**

# Record of Borehole No.2

Sheet 1 of 1

Location: BOUNDARY WAY, HEMEL HEMPSTEAD

Client: COMMISSION FOR THE NEW TOWNS

Type of boring: LIGHT CABLE PERCUSSION

Job No. 11311573

Ground level 138.65m O.D.

Diameter / 150mm

Casing / 150mm

Daily Progress	Ground water levels	Depth of casing	Samples			Scale	Strata		Description of strata	Casing	Borehole
			Depth	No.	Type		Depth	Reduced level			
12.4.00.							G.L.	138.65	TOPSOIL.		
			0.40	1	D		0.40	138.25	Firm to stiff occasionally friable brown/rusty brown slightly mottled light grey with a trace of red around 2 metres, occasionally slightly sandy silty CLAY with a few fine to medium subangular flint gravels and some slight carbonaceous speckling around 4.25 metres depth.		
			0.50 - 0.95	2	U						
			1.00	3	D	1					
			1.25	4	D						
			1.50 - 1.95	5	U						
			2.00	6	D	2					
			2.25	7	D						
			2.50 - 2.95	8	U						
			3.00	9	D	3					
			3.25	10	D						
			3.50 - 3.95	11	U						
			4.00	12	D	4					
			4.25	13	D						
			4.50 - 4.95	14	U						
			5.00	15	D	5					
			5.25	16	D						
			5.50 - 5.95	17	S(23)		5.50	133.15		Firm to stiff mottled brown and dark brown silty CLAY with much carbonaceous staining and some partly weathered fine to medium subangular flint gravels; small chalk pockets from about 7.5 metres depth.	
			6.25	18	D						
			6.50 - 6.95	19	U						
			7.00	20	D	7					
			7.25	21	D						
			7.50 - 7.95	22	S(16)		7.80	130.85	Soft to firm light brown very silty (loamy) CLAY with occasional small flints and traces of chalk.		
			8.25	23	D						
			8.50 - 8.95	24	U		8.50	130.15		CHALK; white with some brown staining and a little black (manganese?) speckling, rubbly partly weathered, joints 10-50mm apart, open and infilled by soft remoulded chalk and fragments; with occasional small silty clay pockets. (Grade IV/V). With occasional lenses of Grade VI weathered chalk and soft mottled brown silty clay	
			9.00	25	D	9					
			9.25	26	D						
			9.50 - 9.95	27	S(9)						
(10.00)	DRY	10.00					10.00	128.65			

**Key**  
 U... undisturbed 102mm diameter sample  
 D... disturbed jar sample  
 B... disturbed bulk sample  
 W... water sample  
 S1... standard penetration test  
 C1... cone penetration test  
 (23)... number of blows ('N' value)  
 ☒... groundwater encountered

**Remarks**  
 BOREHOLE COMPLETED.

**GROUND ENGINEERING**



# Record of Borehole No.1

Sheet 2 of 2

Location: BOUNDARY WAY, HEDEL HEMPSTEAD

Client: COMMISSION FOR THE NEW TOWNS

Type of boring: LIGHT CABLE PERCUSSION

Job No. 11311573 Ground level 138.15m O.D.

Diameter / 150mm

Casing / 150mm to 6.20m

Daily Progress	Ground water levels	Depth of casing	Samples			S c a l e	Strata		Description of strata	Casing	Water
			Depth	No.	Type		Depth	Reduced level			
			10.25	26	D		10.00	128.15	Continued from sheet 1 of 2. i.e., firm to stiff mottled brown silty to very silty CLAY with variable flint content; becoming stiff to very stiff from 10.50 to 14.50m.		
			10.50 - 10.95	27	U						
			11.00	28	D	11					
			11.25	29	D						
			11.50 - 11.95	30	OS(44)						
			12.25	31	D						
			12.50 - 12.95	32	U						
			13.00	33	D	13					
			13.25	34	D						
			13.50 - 13.95	35	OS(76)						
			13.50 - 14.00	36	B						
			14.25	37	D						
			14.50 - 14.95	38	U						
15.00	DRY	6.20	15.00	39	D	15					
15.4.88	DRY	6.20	15.25	40	D						
			15.50 - 15.95	41	OS(31)						
			16.25	42	D						
			16.50 - 16.95	43	U						
			17.00	44	D	17					
			17.25	45	D						
			17.50 - 17.95	46	OS(18)						
			18.35	47	D		18.35	119.60	CHALK: white with some light brown staining, rubbly partly weathered with joints 10-60mm apart, open and in-filled with soft remoulded chalk and fragments; with some flint cobbles and occasional small brown silty clay pockets. (GRADE IV). ---becoming Grade III.		
			18.50 - 18.95	48	U						
			19.00	49	D	19					
			19.25	50	D						
			19.50 - 19.95	51	OS(32)		19.50				
20.00	DRY	6.20				20	20.00	118.15			

**Key**  
 U... undisturbed 102mm diameter sample  
 D... disturbed jar sample  
 S... disturbed bulk sample  
 W... water sample  
 S( ) standard penetration test  
 C( ) cone penetration test  
 (33)... number of blows ('N' value)  
 ☒... groundwater encountered

**Remarks** BOREHOLE COMPLETED.

**GROUND ENGINEERING**

# Record of Borehole No.1

Location: BOUNDARY WAY, HEHEL HEMPSTEAD

Sheet 1 of 2

Client: COMMISSION FOR THE NEW TOMES

Type of boring: LIGHT CABLE PERCUSSION

Job No. 11311573

Ground level 138.15m O.D.

Diameter / 150mm

Casing / 150mm to 6.20m

Daily Progress	Ground water levels	Depth of casing	Samples			S C A L E	Strata		Description of strata	Casing	150-000
			Depth	No.	Type		Depth	Reduced level			
14.4.08.						G.L.	138.15	TOPSOIL.	Firm to stiff mottled brown silty to very silty, occasionally sandy (fine) CLAY with fine to coarse flint gravel; fines have a generally "loamy" texture becoming around 3.0 and 7.25 metres a very clayey sandy (fine) silt; flints mainly subangular and content generally quite limited to about 13 metres depth; material often slightly friable to about 12 metres depth; carbonaceous staining/speckling and fine fragments present in varying amounts from about 1.5 metres depth, though appears absent between 3 and 6 metres depth.		
			0.40	1	D	0.40	137.75				
			0.50 - 0.95	2	U						
			1.00	3	D						
			1.25	4	D						
			1.50 - 1.95	5	DS(12)						
			2.25	6	D						
			2.50 - 2.95	7	U						
			3.00	8	D						
			3.25	9	D						
			3.50 - 3.95	10	DS(18)						
			4.25	11	D						
			4.50 - 4.95	12	U						
			5.00	13	D						
			5.25	14	D						
			5.50 - 5.95	15	DS(15)						
			6.25	16	D						
			6.50 - 6.95	17	U						
			7.00	18	D						
			7.25	19	D						
			7.50 - 7.95	20	DS(23)						
			8.25	21	D						
			8.50 - 8.95	22	U						
			9.00	23	D						
			9.25	24	D						
9.50 - 9.95	25	DS(32)									
			10.00		128.15						
<b>Key</b> U... undisturbed 102mm diameter sample D... disturbed jar sample B... disturbed bulk sample W... water sample S1... standard penetration test C1... cone penetration test (23)... number of blows (76' value) X... groundwater encountered			<b>Remarks</b> No groundwater encountered.			/continued...					

**GROUND ENGINEERING**

LOCATION: Maxted Road, Hemel Hempstead		BOREHOLE No: 104				
		DATE OF BORING: 17-18.12.1991				
Description of Strata	Strata Change		Samples		SPT CPT N-Value	Water Level -m
	Legend	Depth -m	O.D. Level -m	Depth -m		
UPPER CHALK (continued).....						
- orange brown, with silty clay lenses to 12.00m.		11.00		11.00	U100/B	(11)
- with some weak sand and gravel sized chalk gravel to 16.00m.		12.00		12.00	B	
				12.50	U100	(19)
		13.00		13.00	B	
- with flints.		14.00		14.00	U100/B	(30)
		15.00		15.00	B	
- becoming very weak blocky CHALK with some putty chalk.		15.50		15.50	U100	(60)
		16.00		16.00	B	
		17.00		17.00	B	29
		18.00		18.00	B	
		19.00		19.00	B	32
END OF BOREHOLE. Depth-19.45m. No groundwater encountered during drilling.		20.00				
BOREHOLE DIAMETER: 200mm		GROUND LEVEL: 139.40m		- Water Strike - Water (Standing Level) - Water Sample - Bulk/Jar Sample - Standard Penetration Test - Cone Penetration Test - extrapolated value - Undisturbed sample no. of blows shown in brackets		
LINING TUBES : 200mm to 1.50m		PIEZOMETER :				
CHISELLING :						
REMARKS : Borehole drilled from existing ground level.						
DATE December 1991	BOREHOLE LOG		REPORT No. S.2271			

LOCATION: Maxted Road, Hemel Hempstead		BOREHOLE No: 103				
		DATE OF BORING: 13-16.12.1991				
Description of Strata	Strata Change		Samples		SPT CPT N-Value	Water Level -m
	Legend	Depth -m	O.D. Level -m	Depth -m		
WOOLWICH AND READING BEDS (Continued)..... - with black staining and silt lenses.		11.00		11.00	U100/J	(46)
UPPER CHALK Very soft, white putty CHALK with occasional weak chalk gravel and flints.		12.00		12.00	B	
		13.00		13.00	U100/B	(18)
		14.00		14.00	B	
		15.00		15.00	U100/B	(11)
		16.00		16.00	U100/B	(54)
		17.00		17.00	U100/B	(56)
		18.00		18.00	B	
- becoming weak blocky CHALK with some putty chalk and occasional orange brown staining.		19.00		19.00	B	
		20.00		20.00	U100/B	(76)
BOREHOLE DIAMETER: 200mm LINING TUBES : 200mm to 1.50m CHISELLING : REMARKS : Borehole drilled from existing ground level.		GROUND LEVEL: 138.80m PIEZOMETER :		▽ - Water Strike ▾ - Water (Standing Level) ∇ - Water Sample B/J - Bulk/Jar Sample SPT - Standard Penetration Test CPT - Cone Penetration Test * - extrapolated value (U) - Undisturbed sample no. of blows shown in brackets		
DATE December 1991	BOREHOLE LOG		REPORT No. S.2271			



LOCATION: Maxted Road, Hemel Hempstead		BOREHOLE No: 103					
		DATE OF BORING: 13-16.12.1991					
Description of Strata	Strata Change			Samples		SPT CPT N-Value	Water Level -m
	Legend	Depth -m	O.D. Level -m	Depth -m	Type		
<b>MADE GROUND</b> Soft, orange brown dark grey silty very sandy CLAY with occasional gravel, concrete, red brick and black ash - odorous.		1.00		1.00	B		
<b>WOOLWICH AND READING BEDS</b> Firm, orange brown mottled grey black, sandy silty CLAY with occasional gravel - slight odour.		2.00		2.00	B		
- fissured.		3.00		3.00	J	17	
- no sand between 5.00 and 9.00m, coarse flints.		4.00		4.00	J		
		4.50		4.50	J	16	
- becoming firm to stiff.		5.00		5.00	J		
		6.00		6.00	U100/J	(65)	
		6.50		6.50	J	43	
		7.00		7.00	J		
		8.00		8.00	J		
- very sandy below 9.00m.		9.00		9.00	J		
		10.00		10.00	J		
BOREHOLE DIAMETER: 200mm LINING TUBES : 100mm to 1.50m. CHISELLING : REMARKS : Borehole drilled from existing ground level.		GROUND LEVEL: 138.80m PIEZOMETER :		∇ - Water Strike ∇ - Water (Standing Level) V - Water Sample B/J - Bulk/Jar Sample SPT - Standard Penetration Test CPT - Cone Penetration Test * - extrapolated value (U) - Undisturbed sample no. of blows shown in brackets			
DATE December 1991	BOREHOLE LOG		REPORT No. S.2271				

LOCATION: Maxted Road, Hemel Hempstead		BOREHOLE No: 101					
		DATE OF BORING: 13-19.12.1991					
Description of Strata	Strata Change			Samples		SPT CPT N-Value	Water Level -m
	Legend	Depth -m	O.D. Level -m	Depth -m	Type		
UPPER CHALK (cont.)		10.50		10.50	B	9	
		11.00					
		12.00		12.00	B	21	
		13.00		13.00	B		
		13.50		13.50	B	23	
		14.00		14.00	B		
- becoming weak blocky chalk.		15.00		15.00	B	51	
- occasional orange staining.		16.00		16.00	B		
		16.15		16.15	B	40	
END OF BOREHOLE. Depth-16.60m. No groundwater encountered during drilling.		17.00					
		18.00					
		19.00					
		20.00					
BOREHOLE DIAMETER: 200mm LINING TUBES : 200mm to 1.50m CHISELLING : REMARKS : Borehole drilled from existing ground level.		GROUND LEVEL: 139.00m PIEZOMETER :		∇ - Water Strike ▽ - Water (Standing Level) W - Water Sample S/J - Bulk/Jar Sample SPT - Standard Penetration Test CPT - Cone Penetration Test ^ - extrapolated value (U) - Undisturbed sample no. of blows shown in brackets			
DATE December 1991	BOREHOLE LOG		REPORT No. S.2271				

**APPENDIX VII**

**Plates**



View of the office building located in northeast corner of the site



Entrance to the subterranean car park located in the northeast corner of the site

Project No.	33068	Drawn	GJS
Client	Gyron Internet Limited	Checked	<i>RS</i>
		Approved	<i>RS</i>
Project	The Campus Spring Way Hemel Hempstead	Scale	NTS
		Date Drawn	07/06/2013
Title	Site Views	Rev.	
		<b>Plate 01</b>	







Demolition works in progress in the western area of the site



Sprina Way at the northern boundary of the site

Project No.	33068	Drawn	GJS
Client	Gyron Internet Limited	Checked	<i>RS</i>
		Approved	<i>RS</i>
Project	The Campus Spring Way Hemel Hempstead	Scale	NTS
		Date Drawn	07/06/2013
Title	Site Views	Rev.	
		<b>Plate 02</b>	





View looking northwards from the southeast corner of the site



View of the multi-storey car park looking westwards

Project No.	33068	Drawn	GJS
Client	Gyron Internet Limited	Checked	<i>RS</i>
		Approved	<i>RS</i>
		Scale	NTS
Project	The Campus Spring Way Hemel Hempstead	Date Drawn	07/06/2013
		Rev.	
Title	Site Views	<b>Plate 03</b>	






View of the area in the southeast of the site formerly occupied by offices



View of the landscaping present in the central area of the site

Project No.	33068	Drawn	GJS	
Client	Gyron Internet Limited	Checked	<i>RS</i>	
		Approved	<i>RS</i>	
		Scale	NTS	
Project	The Campus Spring Way Hemel Hempstead	Date Drawn	07/06/2013	
		Rev.		
Title	Site Views	<b>Plate 04</b>		

**APPENDIX VIII**  
**Conditions & Limitations**



## Conditions & Limitations

### Phase I Desk Studies

1. Works undertaken to provide the basis of the Phase I Desk Study report comprise a review of information available from a number of sources/parties (potentially also including the Client) together with a walk over of the site (where applicable and included within the quotation). The opinions given in the Phase I Desk Study are based on the information available from third parties/sources that has been obtained within the available timeframe. GeoDyne Limited assumes all third party information to be true and correct and therefore cannot accept liability for the accuracy of such information supplied.
2. Should additional information become available that may affect the comments and opinions made within the Phase I Desk Study, GeoDyne Limited reserves the right to review such information and make modifications to comments/opinions as appropriate.
3. It should be borne in mind that a Phase I Desk Study collates available information to generate a conceptual model of the site. The actual geotechnical and environmental considerations can only be fully quantified by intrusive investigation works to confirm the accuracy of the conceptual site model.

### Phase II Intrusive Investigations

1. Our quotation assumes that access to the site will be arranged by others at no cost to ourselves.
2. We have assumed that free access is available throughout to the entire site and that works can be undertaken during a single mobilisation. Where restricted access is encountered, or where additional unscheduled mobilisations are required, additional costs may be incurred to the client.
3. We have assumed that all available information relating to buried services will be supplied by the Client at no cost to ourselves. No responsibility will be accepted for damage to underground services that have not been brought to our prior attention by the Client.
4. All excavations/boreholes will be backfilled with compacted arisings upon completion, with any excess arisings left proud of ground levels. Excess arisings will not be removed from the site unless specifically requested by the Client. Where we are requested to remove excess arisings, all associated costs will be passed to the Client.
5. We will attempt to leave the site in a clean and tidy state, however, it must be understood that some disturbance of the site is unavoidable during intrusive works.
6. Exploratory holes are positioned approximately on site by GeoDyne Limited. Should the client require precise locations of all exploratory points, additional fees will be incurred. It must be borne in mind that backfilled trial pits can create 'soft spots', therefore, should the Client wish to designate 'no dig' zones, for example under the footprint of proposed structures, these must be brought to our attention prior to commencement of works.
7. Groundwater observations relate to conditions encountered at the time of investigation. It must be understood that groundwater levels may vary as a result of recent climatic conditions or seasonal variation.
8. Trial pits and boreholes examine only a small proportion of the total site area. No liability can be accepted for conditions not revealed in exploratory holes, particularly between positions. All extrapolations of available data are given in good faith.

### Payment

1. Payment terms are strictly 28 days from the invoice date.
2. Prior to commencement of works, we require receipt of formal written instruction from the party accepting full financial responsibility for the work. In the absence of such an instruction, we would expect the instructing Consulting Engineers/Architects to accept full financial responsibility for the works.
3. Receipt of instruction to commence work shall be taken as acceptance and compliance of the foregoing conditions.

### Liability

1. GeoDyne Limited offer £5,000,000.00 Professional Indemnity Insurance (in aggregate over the year). This shall be the limit of our liability for works undertaken. No individual liability shall be implied to, or accepted by, any employee for works undertaken for and on the behalf of GeoDyne Limited.