



Goldfinch
ENVIRONMENTAL LTD

PROPOSED RESIDENTIAL
DEVELOPMENT
LAND OFF HORSESHOE ROAD
SPALDING
LINCOLNSHIRE

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**GEOENVIRONMENTAL
DESK STUDY**

Report Ref.: 0331/1

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Date:

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**PROPOSED RESIDENTIAL DEVELOPMENT
LAND OFF HORSESHOE ROAD
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LINCOLNSHIRE**

1. INTRODUCTION.

1.1 General.

This report describes the findings of a geoenvironmental desk study undertaken by Goldfinch Environmental Limited, on the instruction of Mr B Maddison, South Lincs Plant Hire & Sales Ltd (the Client), via the offices of G R Merchant, at a site located off Horseshoe Road, Spalding, Lincolnshire. A site location plan has been included as Figure 1 towards the back of this report to assist the reader.

The Desk Study was required to support a planning condition for the redevelopment of the site to a residential land use by removal of the existing buildings, and replacement with two residential units.

Existing and Proposed Layout plans have been included as Figure 2a-b towards the back of this report to assist the reader.

Approximate Grid Reference ⁵22651, ³21504 refers.

2. LIMITATIONS

This report is for the sole reliance and use of the Client. Any Third Party coming into possession of this report relies on it at their risk, unless written permission is expressly sought from, and provided by, Goldfinch Environmental Limited. The author owes them no duty of care and skill. Goldfinch Environmental Ltd accepts no responsibility or liability for the consequences of this document being used for purposes other than that for which it was commissioned and the assessments provided herein should not be relied on as a legal opinion.

The findings and opinions expressed are relevant to the time of the site visit and information review and should not be relied upon to represent conditions at substantially later dates. The assessments and opinions given in this report are based upon information available at the time of the report. Where additional information comes available which may affect or identify a need to review our conclusions or assessments we request the opportunity (and reserve the right), to review the information and where warranted, modify our assessment / opinion in part or wholly, accordingly.

The purpose of this desk study report was to determine the historical use of the site and adjacent areas from searches of Public Registers and a review of available historical maps and included a site reconnaissance ('walkover') survey together with brief internet searches. The outcome of these activities is described below and this information was used to construct a conceptual model for the site from which a risk assessment was completed in the context of the proposed residential development of the site.

The risk assessment was based on the source-pathway-receptor framework, with respect to the geoenvironmental condition of the site in the context of various sensitive receptors. Goldfinch Environmental Ltd have based this desk study upon the sources given in this report, and believes them to be reliable but cannot and does not guarantee the authenticity or reliability of the data it has relied upon.

This desk study does not include any geotechnical considerations pertaining to the site as these were outside the agreed brief.

The recommendations given in this report are based on guidance and best practice in place at the time of issue of the report, the information available at the time of the investigation, the nature of the indicated proposed development and associated end user behaviour patterns. Should any of the foregoing change at any time, then this report should be reviewed in the context of proposed changes.

The absence of indicators in search data, or from on site observations does not rule out their presence in other parts of the site. This desk study report has been based on information supplied in the 'GroundSure' report and its component parts included at Appendix 1 towards the back of this report, discussions with the Client and in-house searches.

3. LEGISLATIVE & REGULATORY SETTING

The Environmental Protection Act of 1990 created the framework for the identification and remediation of contaminated land. The Act defines 'contaminated land' as any land, which appears by the Local Authority to be "in such a condition, by reason of substances, in, on, or under the land that significant harm is being caused or there is significant possibility of such harm being caused, or, pollution of Controlled Waters is being, or is likely to be, caused".

Land potentially affected by 'contamination' is a material consideration for planning purposes together with its relationship with 'regulatory intervention' (Part IIa), and 'voluntary' investigation (which includes redevelopment of sites which may be affected by contamination). The Model Procedures (CLR-11, Environment Agency 2004), provide a generic framework indicating key technical activities applicable in each of these contexts.

The management of land contamination broadly comprises three components that are identified as 'Risk assessment', 'Options appraisal' and 'Implementation'. These, in turn, determine if any unacceptable risks exist, ascertain the most appropriate remediation strategy for the site and, finally, demonstrate that the strategy will be effective.

In accordance with this and other current guidance, where a 'land quality' risk assessment is required each 'Relevant Pollutant Linkage' (RPL, formerly referred to as "source-pathway-receptor" framework), is separately identified and a level of risk attached. This is documented in the form of a 'Conceptual Model'.

The outcome of the assessment of established, plausible relevant pollutant linkages is used to determine qualitatively the need for further investigation, or remediation with ensuing mitigation of the determined unacceptable risk. (In accordance with the Model Procedures and Regulatory preference, detailed remedial measures should be provided in a separate phase).

The risk assessment takes account of the local environment, end user behaviour patterns, and the nature of the development in relation to proven 'unacceptable' risk. This is the approach advocated by current guidance (CLR-11 and BS10175 etc), and therefore has been adopted in the assessment of this site.

4. SITE LOCATION AND DESCRIPTION.

4.1 Overview.

A site visit was carried out during 11 November 2015 the purpose being to:-

- I. Collect additional/relevant information about the site its environs and any site-specific potential contaminants, pathways and receptors.
- II. Record any aspects of the site not revealed by documentary searches, (e.g. the presence of above- or belowground hydrocarbon storage tanks.).
- III. Collect any information that will assist in the planning of any subsequent phases of field investigation where the Desk Study deems this is necessary.

The site was bounded by sparsely developed land on the eastern and western sides and by mainly agricultural land to the north and south with the exception of the public highway and historically had accommodated a Plant Hire & Sales Company.

The site comprised a 'developed' plot of land fronting the southern side of the public highway (Horseshoe Road) in a rural setting. Topographic levels by visual appraisal varied little across the site.

The site was down to a cover of compacted gravel and soil surfacing with areas of concrete mainly in the west. The site accommodated two relatively large buildings (constructed over concrete slabs), at the time of the site walkover survey. Access to the site was gained via a partially metalled access area, which lead into a yard with buildings on the right hand (western) side.

An aerial view of the site has been included as Photograph 1 below to assist the reader in visualising the existing site layout.



Photograph 1: Aerial View of The Site

As can be seen in Photograph 1, the buildings are located towards the eastern part of the site with much of the rest of the site under predominantly ('unmetalled') 'hard' cover with a little soft cover of exposed soils etc in the far western part of the site. Sections of HERAS-type temporary fencing were in place in the westernmost part of the site

The buildings were generally of corrugated metal panel construction over a steel frame of double height but generally single storey (with the exception of a small mezzanine area in the western most structure) as can be seen in Photograph 2 and 3 below.



The blue building shown here is located in the west of the site while the green building is in the eastern part of the site and externally they appear to almost adjoin.

Photograph 2 shows the longer narrower westernmost building (viewed from the west), while Photograph 3 shows the shorter slightly squarer building (viewed from the north east) in the east of the site which also had a small mezzanine floor, accessed from a short flight of shallow metal steps, towards its western end.

The building was accessed from the eastern elevation via large double-height roller shutter doors.

At this point the reader is reminded that the eastern boundary of the site was coincident with the eastern elevation of the building shown in Photograph 3 and as annotated by this Author on Figure 2a towards the back of this report.

As can be seen this building was also of metal corrugated panel construction with a cementised (potential asbestos-containing) roof structure.



At the south eastern corner of the building shown in Photograph 3 a series of external tanks were noted which are shown in Photograph 4 below. As can be seen, they were supported on block piers and then within a bund constructed from brick over a concrete slab.



Discussion with the Client revealed these were each of approximately 500-gallon capacity and had not been used 'for some years'. It was also noted that these were empty but had apparently accumulated some water over the years since their disuse.

While they had some surface rust, there were no signs of leakage on the external surfaces of the tanks. The lower surfaces of the block piers were dark stained and hydrocarbon odours were noted in the vicinity of this feature. Photographs 4, 5 and 6 below have been included to show the condition of the bund associated with this feature.



The reader will note that in Photograph 5, the staining in the bund wall does not extend beyond into the surrounding soil surfaces, suggesting that any impact is 'contained' or restricted to the bund itself. It is assumed by this Author that this feature will be removed off site as part of the development. This aspect of the site has been discussed in more detail in Section 7 of this report.

As stated above the site had accommodated a plant hire and utility contracting company and mainly in the north eastern part of the site there was evidence of storage of road signage and portable barriers etc as shown in Photograph 8 below.



4.2 Building 1 – Eastern Part of Site.



This is the large green building shown in the photographs above located in the eastern part of the site, which internally had a small room one on side and a lockable steel container towards the rear.

Internally this building accommodated larger items such as a van, a pickup truck, a small mini-excavator, several large wooden drums with 'heavy' electrical cabling wound round and nearby 'trailers' for transporting these larger items.

In another area near the steps to the mezzanine items such as vehicle tyres, a cement mixer, smaller quantities of cabling, metal filing cabinets and empty blue drums were noted as can be seen in Photograph 10 (right).

The reader should note that there were no chemicals being stored in this building (or the other one discussed in Section 4.3 of this report).

The reader should also note that other than occasional weathered (i.e. dull in appearance) small oil patches there were no visual/olfactory indicators of potential contamination in this structure.



Photograph 10: Internal View of Building 1 (East of Site).

4.3 Building 2 – Western Part of Site.

This building was of metal corrugated section over a concrete floor slab, and internally was subdivided into several areas noted to accommodate a welfare area (near the entrance), a small storage area with the remaining parts having had office use in support of the plant hire company activities. Many of the internal office areas were empty apart from occasional soft furnishing such as carpets.

One area within this building was noted to contain a small compressor, insulating materials and some old paperwork. (It was understood that the former business at these premises had been relocated some time ago at a new facility.)

In other parts of the building items such as occasional wooden doors, wooden tables, shelving, advertising information, carpet tiles and a large metal storage cabinet were noted.

Photograph 9 and 10 (below), have been provided for the benefit of the reader and to illustrate the above narrative.



Following visual inspection of the site there were no notable features at the site with regard to land contamination except –

- i) Possible localised veneer of Made Ground in the vicinity of the existing buildings and driveway. However, given the type of the materials used in construction these are likely to be of an inert nature and therefore a 'low' risk is associated with this source.
- ii) The referred tanks as discussed above and in Section 6 and 7 of this report.
- iii) Possible low asbestos content in the roof structure of the buildings. Further discussion of this aspect of the site is outside the scope of this report except to advise these materials should be removed off-site by employing a suitably licensed and registered Contractor.

Additionally, there was no apparent evidence of:-

1. The presence or storage of potentially leachable materials/chemicals within the existing workshop (other than the referred oil tanks above).
2. Demolition or dispersal of contaminated rubble or other materials.
3. Importation of potentially contaminated fill onto the site.

5. SITE HISTORY.

5.1 Historical Maps.

Where the attached maps are compiled from a composite of editions, the year of map upon which the majority of the site may be found is quoted below. These are reproduced at Appendix 1. Annotation, as it appears on the maps, is indicated by italics.

Land use in excess of 250m from the site is considered of potentially negligible to low risk to the application site and on that basis is generally excluded from the summary provided below (unless record review by this author suggests otherwise). However, should the reader require this additional detail, full disclosure records are included in Appendix 1 towards the back of this report.

1886 Edition (County Series - Scale 1:10 560)

The site was shown as a vacant (i.e. undeveloped) plot of land on the southern side of a public highway named as Horseshoe Road in a rural environment.

Pode Hole Farm was established on land to the north west of the site.

The Bourn & Lynn Joint Railway passed close to the southern boundary of the site.

The surrounding area was sparsely developed.

1887 Edition (County Series - Scale 1:2 500)

There were no apparent changes to the site or its immediate environs at this scale of mapping.

1903 Edition (County Series - Scale 1:10 560)

There were no apparent changes to the site or its immediate environs at this scale of mapping.

1904 Edition (County Series - Scale 1:2 500)

There were no apparent changes to the site or the immediate environs at this scale of mapping.

1929-32 Edition (County Series - Scale 1:10 560)

There were no apparent changes to the site except that a possible small square structure had been established in the western corner of the site.

Minor development had taken place within the curtilage of Pode Hole Farm to the north west of the site.

An 'Engineering Works' had been established on land to the south west of the site.

The railway had now been renamed as 'The Midland & Great Northern Joint Railway'.

There were no other apparent changes in the context of land contamination.

1931 Edition (County Series - Scale 1:2 500)

The site showed evidence of minor, or preliminary development, a possible track (shown as dotted annotation on the map) now crossed the site in a north to south direction.

There were no other apparent changes to the site or its immediate environs on this map edition.

1938 Edition (County Series - Scale 1:10 560)

There were no apparent changes to the site or surrounding land use in the context of land contamination on this map edition.

1959 Edition (Provisional - Scale 1:10 560)

Two unequally sized buildings had now been established on the site. A long rectangular structure (the larger of the two), was located approximately centrally with the subordinate building on its eastern side whose footprint possibly extended slightly outside the site boundary.

There were no apparent changes to the immediate environs at this scale of mapping.

1967 Edition (National Grid - Scale 1:2 500)

The layout of the buildings on the site could now be more clearly seen. Four buildings could be seen, three of which were labelled 'Store', while a smaller rectangular building in the north eastern corner of the site was unlabelled.

Land on the eastern side of the site had possibly undergone redevelopment as there appeared to be a change in the number and layout of structures in that area.

Pode Hole Farm, located to the north west of the site, had now been renamed as 'Cuckoo Junction Farm'.

Land further to the east of the site was annotated 'Nursery'.

There were no further apparent changes to the remaining environs at this scale of mapping in the context of land contamination.

1971 Edition (Provisional - Scale 1:10 560)

There were no apparent changes to the site or its immediate environs on this map edition.

1980 Edition (National Grid - Scale 1:10 000)

There were no apparent changes to the site at this scale of mapping.

The Engineering Works to the south west of the site appeared to have undergone minor development, as shown by a change in the number and layout of structures within its curtilage.

The Nursery to the east of the site now included 'Movable Greenhouses'.

1988 Edition (National Grid - Scale 1:2 500)

There were no apparent changes to the site.

The Engineering Works to the south west of the site appeared to have undergone further redevelopment as shown by a change in the number and layout of structures at the site.

There were no other apparent changes to the immediate environs of the site at this scale of mapping.

1990 Edition (National Grid - Scale 1:10 000)

There were no apparent changes to the site at this scale of mapping.

There were no apparent changes to the immediate environs of the site at this scale of mapping.

1991 Edition (National Grid - Scale 1:2 500)

The site had undergone minor redevelopment as shown by a change in the number and layout of structures shown within the site curtilage. A small rectangular structure had been established in the south east corner of the site, while a former structure in the north eastern corner of the site was no longer shown – unless the latter was a moveable structure that had now been relocated to the new position.

Cuckoo Junction Farm to the north west of the site had also undergone redevelopment.

There were no other apparent changes to land use in the vicinity of the site.

1995 Edition (National Grid - Scale 1:2 500)

There were no apparent changes to the site or its immediate environs on this map edition.

2002 Edition (Raster - Scale 1:10 000)

There were no further apparent changes to the site except that a small rectangular structure formerly located in the south eastern corner of the site was no longer shown. (However, this may also be an effect of map scale.)

There were no further changes to the surrounding environs of the site with respect to land contamination at this scale of mapping.

2010 Edition (National Grid - Scale 1:10 000)

There were no further changes to the site or the surrounding environs with respect to land contamination at this scale of mapping.

2014 Edition (National Grid - Scale 1:10 000)

There were no further changes to the site or the surrounding environs with respect to land contamination at this scale of mapping.

5.2 Public Registers.

A search of public register information has been made using an Internet-based system. A disclosure report is reproduced at Appendix 1. The following commentary is restricted to entries within a 250m search radius of the site. Appendix 1 should be referred to for details on entries beyond of this range.

5.2.1 Historical Industrial Sites

There were fourteen entries for the category 'Potentially Contaminative Uses identified from 1:10 000 scale mapping' within this category for the referred search radius. Supplied information indicated 'Railway Building' (x1) for the site. Three entries within 50m of the site were given as 'Railway Building' (x3) located to the south west of the site. The remaining ten entries were located between approximately 51-250m distant from the site and were given as: 'Nursery'; 'Railway Buildings' (x4); 'Unspecified Works' (x4) and 'Engineering Works' (x2).

5.2.2 Environmental Permits, Incidents and Registers.

There were two records for the category 'Records of Licensed Discharge Consents' within this dataset for the referred search radius. Supplied information indicated these were located approximately 18 and 94m distant from the site and were for 'Unspecified' and 'Final/Treated Effluent'.

5.2.3 Landfill and Other Wastes.

There were no entries within this category for the referred search radius.

5.2.4 Current Land Uses.

There was one entry within this dataset for the category 'Current Industrial Sites Data' for the referred search radius. Supplied records indicated this comprised: 'Engineering Services'. Searches indicated this was at the site and the company name was 'Crystal Connections Ltd and that the activity was given as 'Civil Engineers'.

5.2.4.1 Petrol & Fuel Sites.

There were no entries within this category for the referred search radius.

5.2.5 Geology.

There were no records for the site within the category 'Artificial Ground and Made Ground'.

There were records for the site for the category 'Superficial Ground and Drift Geology' beneath the site. Supplied searches indicated the site was underlain by the mudstones of the Oxford Clay Formation.

5.2.6 Hydrogeology and Hydrology.

For the category 'Are there any records of Strata Classification' in the Superficial Geology within 500m of the site' a 'Yes' response was provided. Supplied information indicated the site was underlain by an 'Unproductive' aquifer.

For the category 'Are there any records of Productive Strata in the Bedrock geology within 500m of the site' a 'Yes' response was provided. Supplied records showed that the site was underlain by an 'Unproductive' Aquifer.

There were no records for the category 'Groundwater Abstraction Licences' within the referred search radius for the site.

There were no records for the category 'Surface Water Abstraction Licences' within the referred search radius for the site.

There were no records for the category 'Potable Water Abstraction Licences' within the referred search radius for the site.

There were no records for the category 'Source Protection Zones' within the search radius for the site.

There were no records for the category 'Groundwater Vulnerability and Soil Leaching Potential' within the search radius for the site.

There were no records of Environment Agency information on River Quality available within 500m of the site.

There were no entries for the category 'Detailed River Networks' within the search radius for the site.

There were 'Surface Water Features' reportedly within 250m of the study site. Supplied information indicated approximately three features between the site and a distance of approximately 203m from the site.

¹ Aquifer Designation Under Water Framework Directive

5.2.7 Flooding.

There were Environment Agency Flood Risk Zones 2, and Zone 3 identified within 250m of the site.

For the category 'Risk of Flooding from Rivers and the Sea' a 'Medium' rating was given.

There were no Flood Defence areas within the search radius of 250m for the site.

There were no areas benefitting from Flood Defences within 250m of the site.

There were no areas used for Flood Storage within 250m of the site.

For the category 'What is the maximum BGS Groundwater Flooding Susceptibility within 50m of the study site the response 'Not Prone' was given in the supplied information.

For the category 'What is the BGS confidence rating for the Groundwater Flooding susceptibility areas' the provided response was 'Not Applicable'.

5.2.8 Designated Environmentally Sensitive Sites.

There were no entries within this dataset for the referred search radius.

5.2.9 Natural Hazards.

Search records indicated there was a 'Moderate' maximum risk of natural ground subsidence.

5.2.10 Mining.

Searches indicated there were no coal mining areas within 75m of the site.

Searches indicated there were no 'Non-Coal Mining areas within 50m of the study site boundary'.

There are no brine affected areas within 75m of the site.

5.2.11 Radon.

Searches indicated that the site is in an area where less than 1% of properties are above the 'Action Level' therefore radon protection measures are not necessary in new dwellings or extensions to existing ones.

6. PRELIMINARY QUALITATIVE RISK ASSESSMENT.

6.1 Introduction.

There are three factors that are taken into account whilst undertaking a qualitative risk assessment. These have been described in Section 3 of this document. At the time of this report, the site had been proposed for redevelopment to a residential end use upon which the risk assessment has been based.

6.2 Conceptual Model.

Source (s) (Potential)	Pathway	Target	Risk
Soil The site had a documented developmental history, which seemed to commence between 1938-58 according to the respective map editions. Minor changes occurred in the 1971 mapsheet but otherwise since then there have been no apparent changes to the site. Visual and olfactory indicators of potential contamination were not noted other than the bund around the oil storage tanks as discussed elsewhere in this report. Based on the developmental history of the site the presence of limited areas and thicknesses of Made Ground within the immediate vicinity of the buildings and accesses would be reasonably anticipated. However, these materials are typically inert and therefore a 'low' risk is associated with them in the context of land contamination.	• Dermal contact, ingestion and inhalation	• Present users • End users • Construction workers • General public	• Low • Low-Med • Low • Low
	• Wind erosion and atmospheric dispersion	• Adjacent properties • General public • Ecological Systems • Archaeological Sites & Monuments	• Low • Low • Low • N/A
	• Leaching	• Adjacent properties • Shallow groundwater • Services/construction materials • Plant life • Surface water • Ecological Systems • Arch. & Monuments	• Low • Low • Low • Low • Low • Low • Low
Shallow groundwater: The site overlies 'Unproductive' Aquifers, which are not considered to be pollution sources.	• Groundwater migration	• Adjacent properties • Deep groundwater • Services/construction materials • Plant life • Ecological Systems • Archaeological Sites & Monuments	• Low • Low • Low • N/A • Low • Low
	• Dermal contact, ingestion and inhalation	• Present users • End users • Construction workers • General public	• Low • Low • Low • Neg-Low
Gas: Measurable (background) concentrations of ground gas would not (reasonably) be anticipated to be present as a result of historical site use or the underlying natural geology.	• Direct inhalation • Soil migration • Services migration	• End users • Construction workers • Buildings • Ecological Systems • Arch. Sites & Monuments	• Low • Low • Low • Low • Neg
Key/Sign Risk Defined as the site should be considered suitable for present or future use and environmental setting. Contaminants unlikely to be present, which might have unacceptable impact on key targets. Low Risk Defined as the site should be considered suitable for present or future use and environmental setting. Contaminants may be present but unlikely to have unacceptable impact on key targets. Medium Risk Defined as the site may not be suitable for present or future use and environmental setting. Contaminants are probably present and might have unacceptable impact on key targets. High Risk Defined as the site is probably or certainly not suitable for present or future use and environmental setting. Contaminants probable or certainly present and likely to have an unacceptable impact on key targets.			
Notes: N/A = Not applicable			

The risk assessment follows below:-

6.3 Targets.

Potential targets, in the context of the risk assessment (based on the relevant pollutant linkage), where a plausible pathway can be proven, are discussed as follows.

At the time of this report, the proposed scheme comprised establishment of new residential dwellings with private gardens.

6.3.1 Site Users & (Human Health).

The site has had a limited documented developmental history. Limited areas and thicknesses of (inert) Made Ground are reasonably anticipated to be present based upon its history and it is suggested that the likely location(s) for this is the immediate footprint of the existing buildings. Three tanks are retained within a bunded area in the south east of the site. At the time of the site walkover survey the internal surfaces of the bund were stained with hydrocarbons and there was an oily odour in the vicinity of this feature.

Consideration of the tank location in the completed scheme indicates they could be coincident with a garden area and therefore the tanks could pose an 'unacceptable' risk to human health where the underlying soils have been impacted by hydrocarbons. It is understood that this feature will be removed off site as part of the works. Once the tanks have been removed off site this risk rating can be downgraded to 'Low'.

Based upon the foregoing, and the final paragraph of this report, regarding 'unanticipated contamination':-

A Low-Medium risk has been identified until proven otherwise.

6.3.2 Construction Workers (Human Health).

Based upon the documented site history and the foregoing, (and the final paragraph of this report, regarding 'unanticipated contamination):-

A Low risk has been identified until proven otherwise.

6.3.3 Services and Construction Materials

6.3.3.1 Concrete & Potable water supplies.

Adverse effects on services and construction materials may be anticipated where soils are impacted by localised raised/lowered pH values, PAH's, TPHs and metals contamination and where these are present in Made Ground materials. In this instance based on the above:-

A Low risk has been identified.

6.4 Landscaping & Planting

Minor soils contamination is often present where man-made fills or Made Ground are present. Where these are present at phytotoxic concentrations, adverse effects on landscaping and planting may be anticipated. Vegetation present on site showed no signs of distress or unusual staining or colouration.

On that basis a Low risk to this receptor has been identified.

6.5 Groundwater (Controlled Waters)

The site overlies 'Unproductive' Aquifers. However, there remains the potential for small quantities of perched groundwater in any superficial fills (or Made Ground), where these are present. However, searches indicated in this instance that the presence of significant thicknesses of Made Ground would not be reasonably anticipated given the documented history of development at the site.

A Low risk to deeper groundwater has been identified.

6.6 Ground Gas

Measurable concentrations of soil gases (predominantly carbon dioxide) would not be reasonably anticipated to be present as a function of any made ground present. However, where present, any granular overburden would mitigate the risk of ground gas buildup via natural ventilation of ground gas to atmosphere.

On the basis of the localised presence of made ground and the foregoing:

A Low risk has been identified.

7. RECOMMENDATIONS FOLLOWING COMPLETION OF RISK ASSESSMENT.

7.1 Overview.

The desk study showed the site had a history of development, which chiefly comprised its establishment and occasional small changes until approximately 1971 after which there were no apparent documented changes.

The site walkover survey and the searches carried out as part of this Desk Study indicate that there were no readily identifiable potential sources of contamination other than the possibility of localised areas of inert Made Ground and the referred tank location. A reference has been made elsewhere in this report to off-site disposal of the tanks and it is recommended that this is carried out.

To satisfy Planning it is anticipated that the following will be required:-

- Decommissioning and off-site removal of the tanks
- Copies of documentation to be forwarded to Goldfinch Environmental Ltd
- Bund materials, following crushing, may be considered for reuse under areas of permanent hard cover in the new development
- Once the bund has been removed chemical laboratory testing of a small number of shallow depth soil samples is advised to determine the presence or absence of hydrocarbons in the soils associated with this feature
- Interpretative report commenting on the chemical laboratory test results with a sample location plan and updated risk assessment including any outline recommendations for remediation which should also include in a separate appendix documentation verifying the tank removal process
- Submission of same to the LPA for approval

On that basis the need for a Phase 2 intrusive investigation is considered *unwarranted*.

At this point the readers attention is drawn to the final paragraph in this Desk Study report, in blue text, regarding 'unanticipated' contamination.

The above comments are subject to the approval of the Planning Authority.

8. CONCLUSIONS.

This geoenvironmental desk study prepared by Goldfinch Environmental Limited was undertaken on the instruction of Mr B Maddison, South Lincs Plant Hire & Sales Ltd (the Client) for a site located off Horseshoe Road, Spalding, Lincolnshire.

The site had been proposed for redevelopment to 'residential' land use by establishment of new dwellings with private gardens.

The Desk Study did not identify the presence of potential site-specific sources of contamination other than the possibility of limited areas/thicknesses of potential inert Made Ground in the vicinity of building footprints and underneath in the existing driveway and the referred tanks.

An overall Low risk is associated with the site subject to the final paragraph in this report and the content of Section 7 of this Desk Study.

Recommendations for the need for further work (or otherwise) have been discussed in Section 7 of this report.

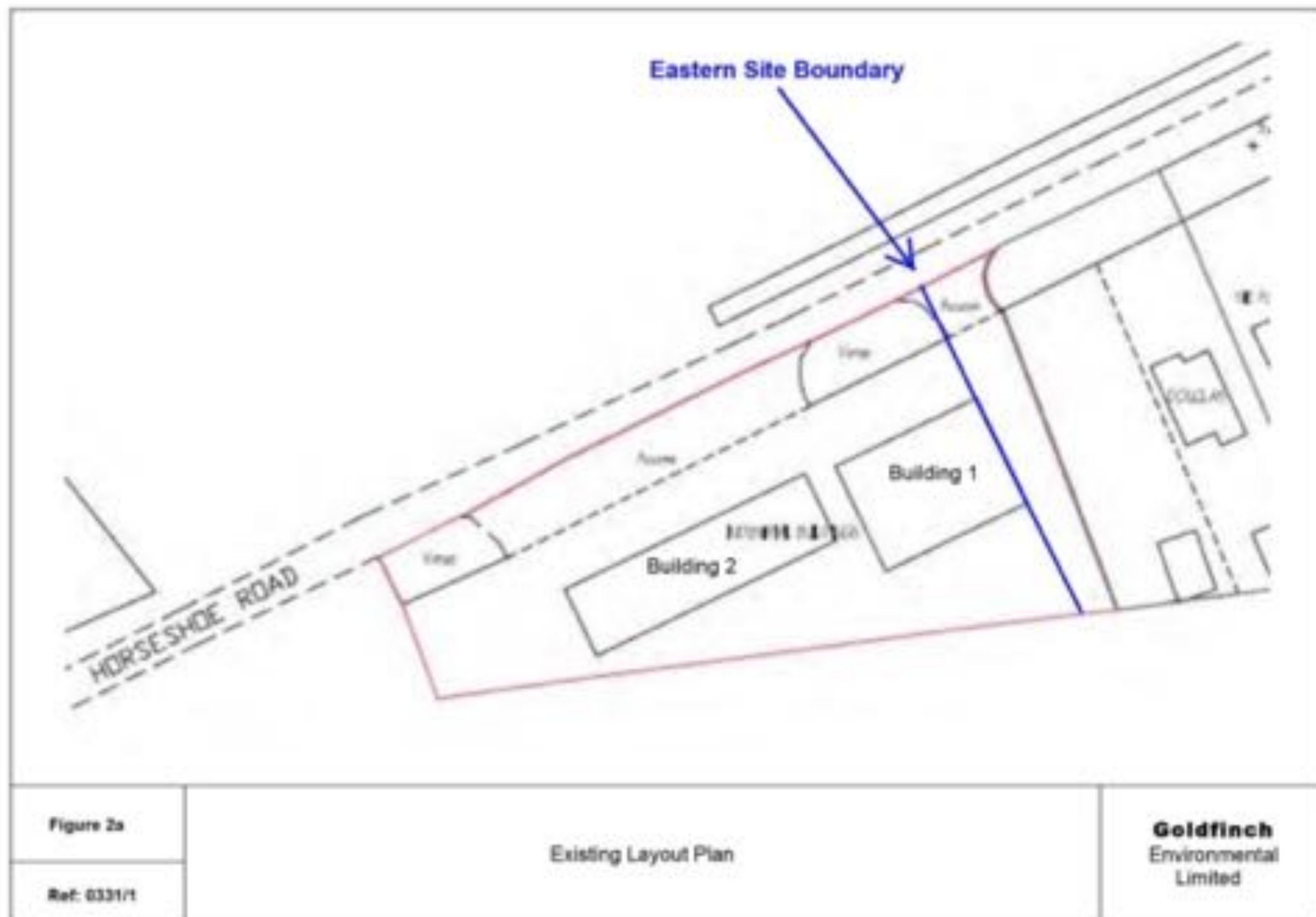
Also, at all times especially once groundworks have commenced, the final paragraph below applies regarding 'unanticipated' contamination. The reader should note that the opinions and recommendations in this report are subject to the agreement of the Local Authority who are the final arbiters in these matters.

Based on the foregoing, and assuming the works are carried out in relation to the tanks, a Low risk to construction workers and services installations has been associated with the site until proven otherwise. Site personnel, particularly groundworkers, should follow sound health and safety welfare practices that will further mitigate this level of risk.

The conclusions in this Desk Study report are subject to the approval of the Regulator who are the final arbiters in these matters.

Should unanticipated contamination be suspected, or revealed during any groundworks, then the area should be temporarily isolated and further advice sought by a suitably independent qualified person and a management strategy for these occurrences should be submitted to the Local Authority for their approval prior to proceeding, as required by Regulatory Offices.

FIGURES



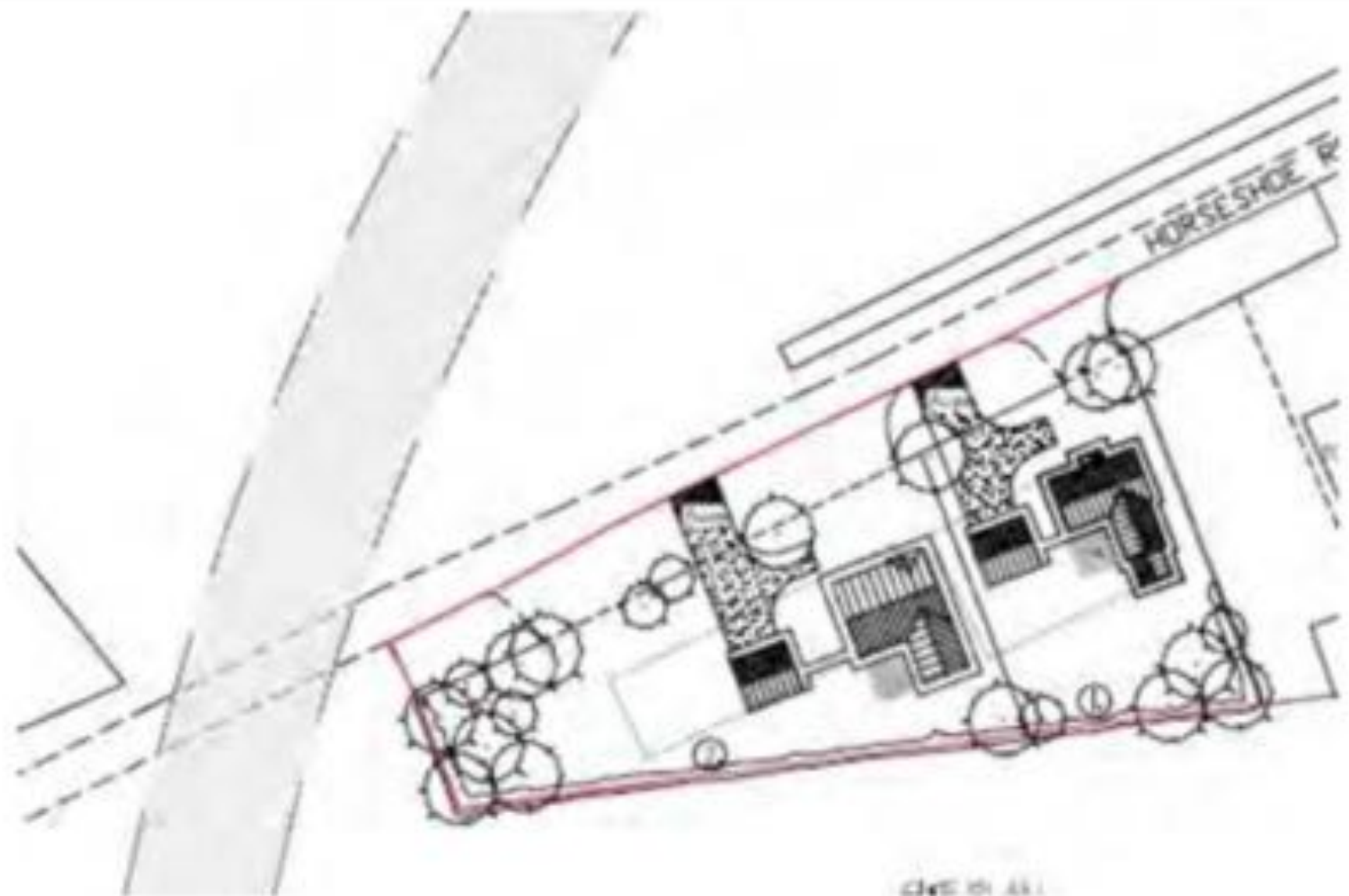


Figure 2b

Proposed Layout Plan

Ref: 0331/1

Goldfinch
Environmental
Limited

APPENDICES

Appendix 1

'Groundsure' Report

Site Details

LAND OFF HORSESHOE ROAD,
SPALDING, PE11 3JA

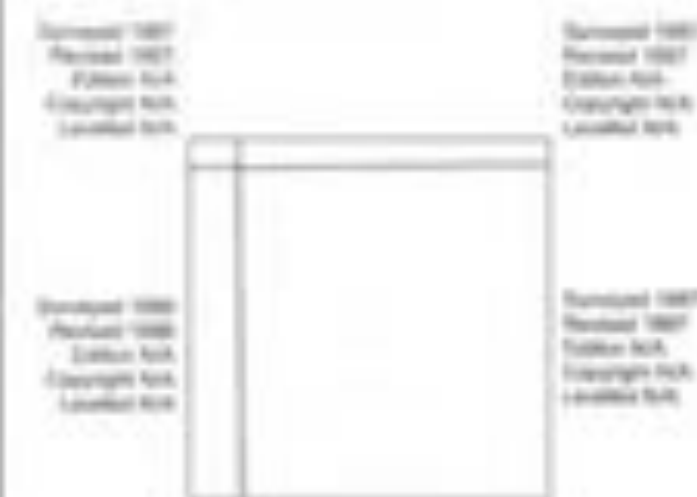
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Report Ref: GS-2281-26/2009
Grid Ref: 522851, 521904

Map Name: County Series

Map date: 1886-1887

Scale: 1:10,500

Printed at: 1:10,500



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Site Details

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SPALDING, PE11 3JA

Client Ref: 0001-05
Report Ref: GS-2281-26/2008
Grid Ref: 522851, 521904

Map Name: County Series

Map date: 1903

Scale: 1:10,500

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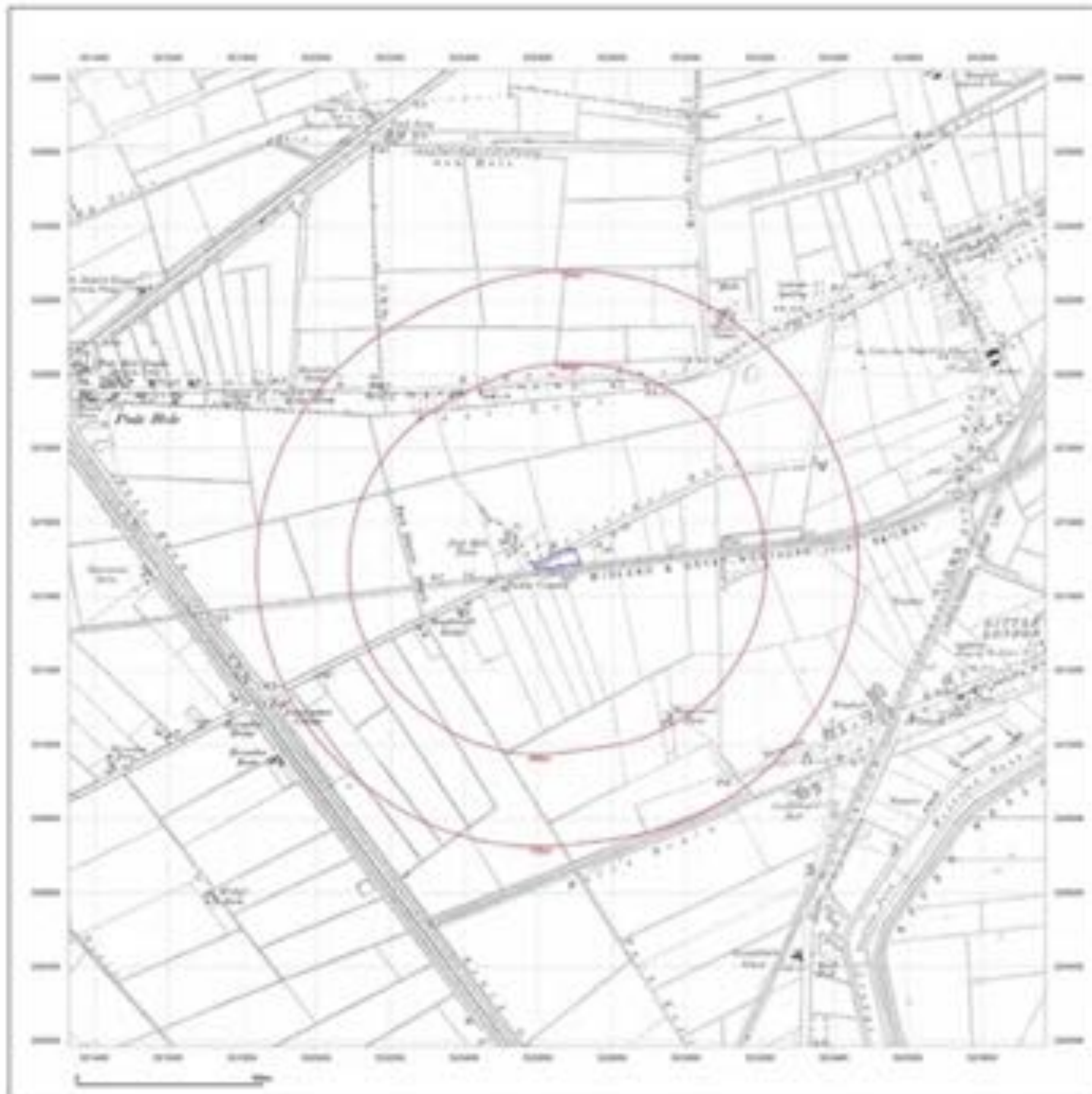


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Client Ref: 0001-05
Report Ref: GS-2281-26/2008
Grid Ref: 522851, 521904

Map Name: County Series

Map date: 1904

Scale: 1:2,500

Printed at: 1:2,500



Transfer 1900
Revised 1904
Added 1904
Transfer 1904
Transfer 1904

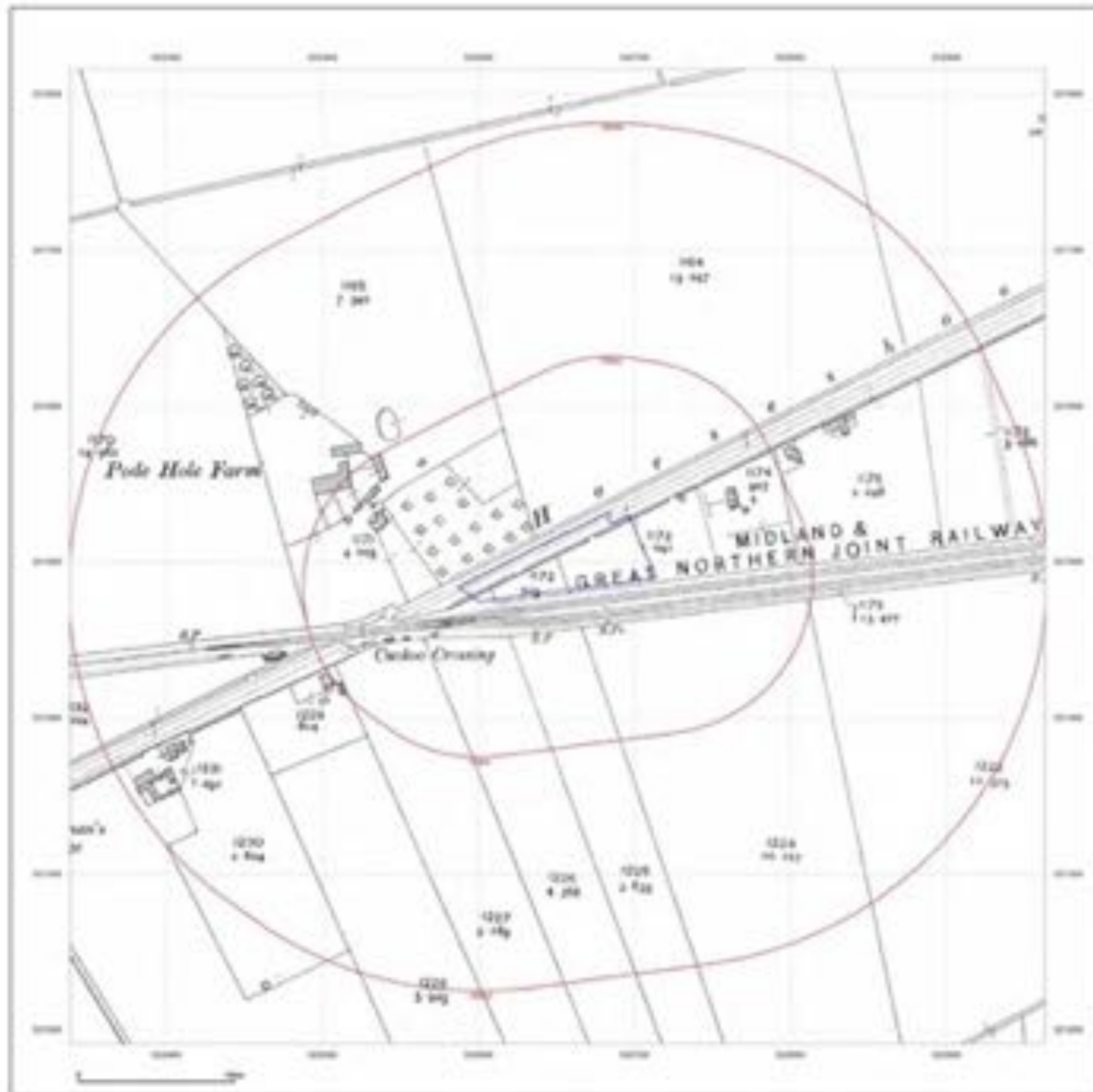


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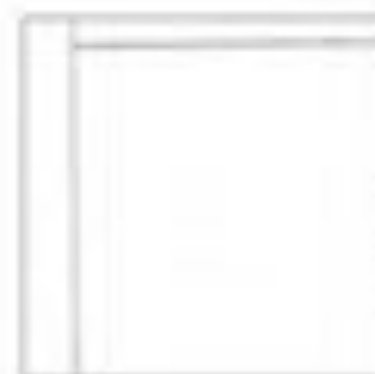
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Report Ref: GS-2281-26/2009
Grid Ref: 522851, 521904

Map Name: County Series

Map date: 1909-1932

Scale: 1:10,500

Printed at: 1:10,500



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Client Ref: 0001-05
Report Ref: GS-2281-26/2008
Grid Ref: 522851, 521904

Map Name: County Series

Map date: 1938

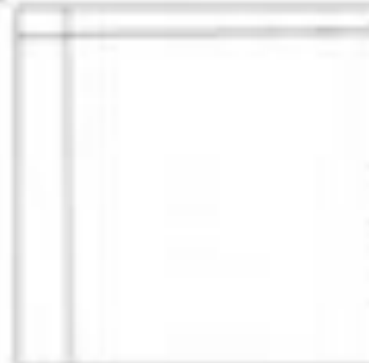
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Map date: 1959

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Grid Ref: 522851, 521904

Map Name: Provisional

Map date: 1971

Scale: 1:10,500

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Titled 1971
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Control 1970



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Grid Ref: 522851, 521904

Map Name: National Grid

Map date: 1980

Scale: 1:10,000

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 Client Ref: 0001-05
 Report Ref: GS-2281-26/2008
 Grid Ref: 522851, 521904

Map Name: National Grid

Map date: 1990

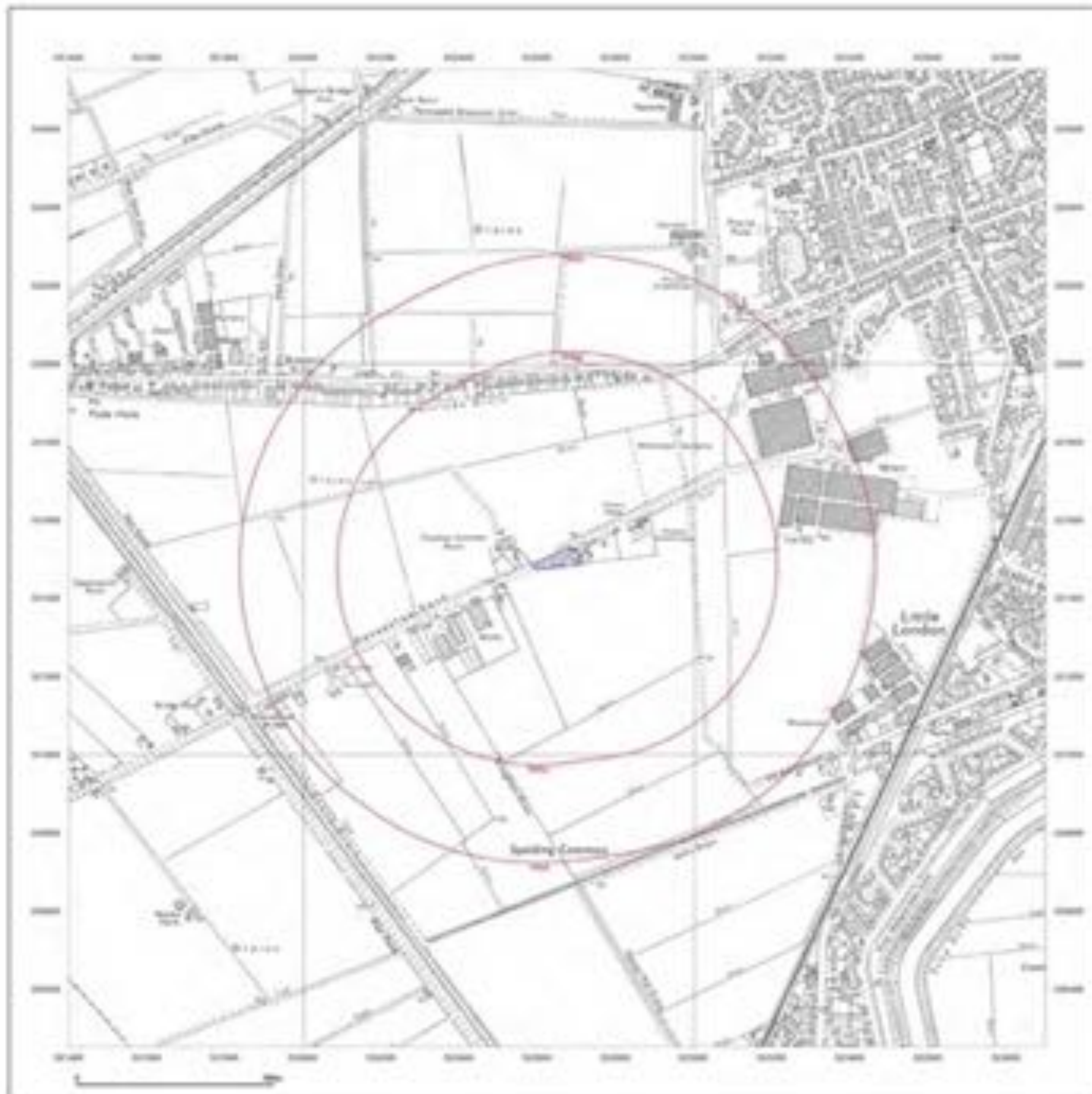
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Client Ref: 0001-05
Report Ref: GS-2281-26/2008
Grid Ref: S22851, S21904

Map Name: National Grid

Map date: 1991

Scale: 1:2,500

Printed at: 1:2,500



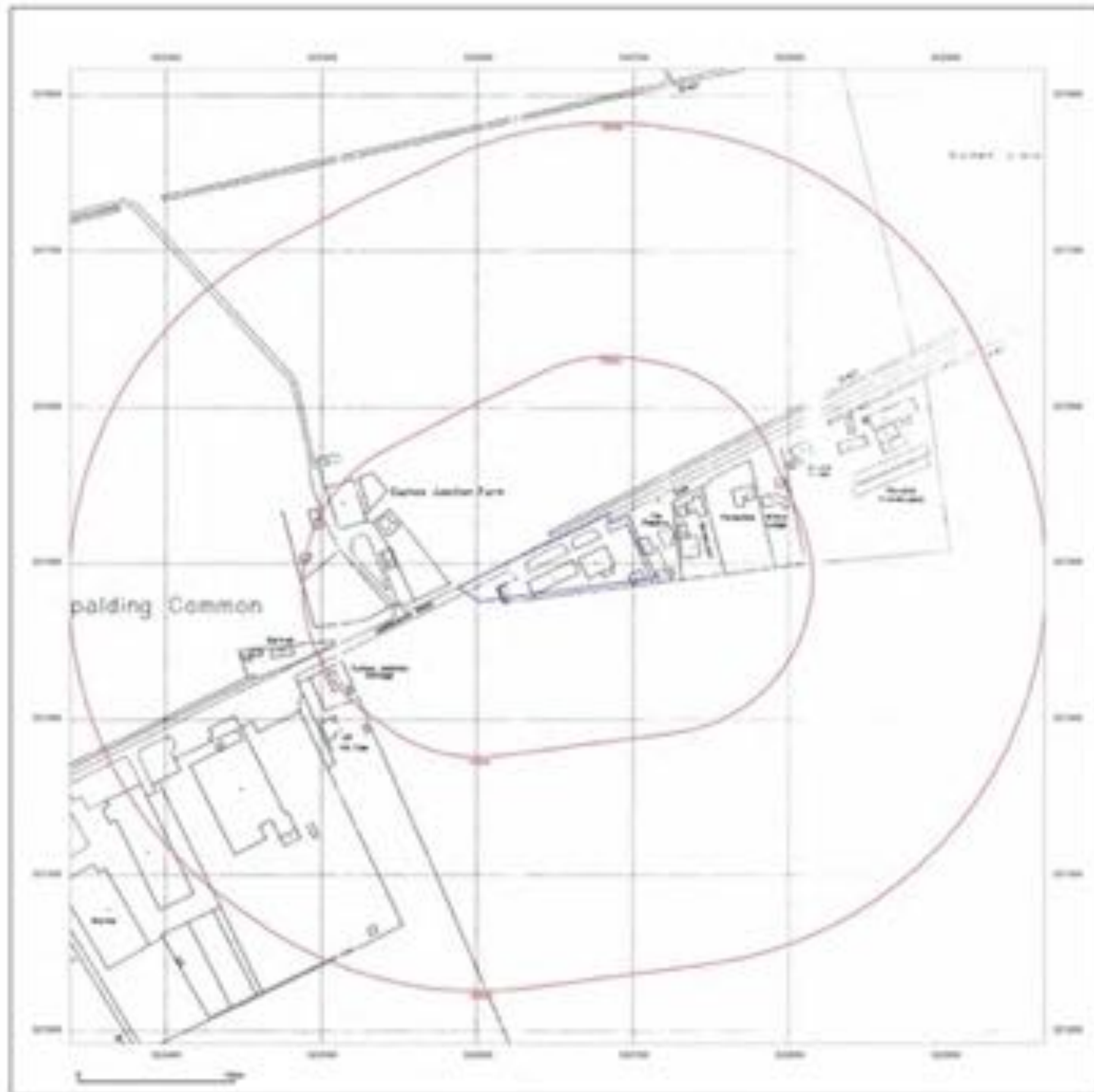
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Client Ref: 0001-05
Report Ref: GS-2201-26/2008
Grid Ref: S22851, S21904

Map Name: National Grid

Map date: 1995

Scale: 1:2,500

Printed at: 1:2,500



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Client Ref: 0001-05
Report Ref: GS-2281-26/2008
Grid Ref: 522851, 521904

Map Name: 1:10,000 Vector

Map date: 2002

Scale: 1:10,000

Printed at: 1:10,000



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Client Ref: 0001-05
Report Ref: GS-2281-26/2008
Grid Ref: 522851, 521904

Map Name: National Grid

Map date: 2010

Scale: 1:10,000

Printed at: 1:10,000



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Client Ref: 0001-05
Report Ref: GS-2281-26/2008
Grid Ref: 522851, 521904

Map Name: National Grid

Map date: 2014

Scale: 1:10,000

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SPALDING

Pole Hole

Little London

Spalding Common

Wells Lane

Crane



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LOCATION INTELLIGENCE

Goldfinch Environmental Limited
2, Wrenshall Cottages,
Bury St Edmunds,
Suffolk, IP31 3AS

Groundsure
Reference: GS-2391-2572007

Your Reference: 0331-ds

Report Date: 5 Nov 2015

Report Delivery
Method: Email - pdf

Groundsure Enviroinsight

Address: LAND OFF HORSESHOE ROAD, SPALDING, PE11 3JA

Dear Sir/ Madam,

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

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

Yours faithfully,

Managing Director
Groundsure Limited

Enc.
Groundsure Enviroinsight

Groundsure Enviroinsight

Address: LAND OFF HORSESHOE ROAD, SPALDING, PE11 3JA
Date: 6 Nov 2015
Reference: GS-2391-2572007
Client: Goldfinch Environmental Limited



Aerial Photograph Capture date: 10-Aug-2007
Grid Reference: 522653,321497
Site Size: 0.35ha

Report Reference: GS-2391-2572007
Client Reference: 0321-ds

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Overview of Findings

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Section 1: Historical Industrial Sites	On-site	0-50	51-250	251-500
1.1 Potentially Contaminative Uses Identified from 1:10,000 scale mapping	1	3	10	10
1.2 Additional Information - Historical Tank Database	0	0	0	0
1.3 Additional Information - Historical Energy Features Database	0	0	0	0
1.4 Additional Information - Historical Petrol and Fuel Site Database	0	0	0	0
1.5 Additional Information - Historical Garage and Motor Vehicle Repair Database	0	0	0	0
1.6 Potentially Infilled Land	0	4	0	12

Section 2: Environmental Permits, Incidents and Registers	On-site	0-50m	51-250	251-500
2.1 Industrial Sites Holding Environmental Permits and/or Authorisations				
2.1.1 Records of historic IPC Authorisations	0	0	0	0
2.1.2 Records of Part A(1) and IPPC Authorised Activities	0	0	0	0
2.1.3 Records of Red List Discharge Consents	0	0	0	0
2.1.4 Records of List 1 Dangerous Substances Inventory sites	0	0	0	0
2.1.5 Records of List 2 Dangerous Substances Inventory sites	0	0	0	0
2.1.6 Records of Part A(2) and Part B Activities and Enforcements	0	0	0	0
2.1.7 Records of Category 3 or 4 Radioactive Substances Authorisations	0	0	0	0
2.1.8 Records of Licensed Discharge Consents	0	1	1	0
2.1.9 Records of Water Industry References	0	0	0	0
2.1.10 Records of Planning Hazardous Substance Consents and Enforcements within 500m of the study site	0	0	0	0
2.2 Records of COMAH and HSEHS sites	0	0	0	0
2.3 Environment Agency Recorded Pollution Incidents				
2.3.1 National Incidents Recording System, List 2	0	0	0	0
2.3.2 National Incidents Recording System, List 1	0	0	0	0
2.4 Sites Determined as Contaminated Land under Part 2A EPA 1990	0	0	0	0

Section 3: Landfill and Other Waste Sites

	On-site	0-50m	51-250	251-500	501-1000	1000-1500
3.1 Landfill Sites						
3.1.1 Environment Agency Registered Landfill Sites	0	0	0	0	0	Not searched
3.1.2 Environment Agency Historic Landfill Sites	0	0	0	0	0	0
3.1.3 BGS/Defra Landfill Site Survey	0	0	0	0	0	0
3.1.4 Records of Landfills in Local Authority and Historical Mapping Records	0	0	0	0	0	0
3.2 Landfill and Other Waste Sites Findings						
3.2.1 Operational and Non-Operational Waste Treatment, Transfer and Disposal Sites	0	0	0	0	Not searched	Not searched
3.2.2 Environment Agency Licensed Waste Sites	0	0	0	0	0	1

Section 4: Current Land Use

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

Section 5: Geology

- 5.1 Are there any records of Artificial Ground and Made Ground present beneath the study site?
- 5.2 Are there any records of Superficial Ground and Drift Geology present beneath the study site?
- 5.3 For records of Bedrock and Solid Geology beneath the study site see the detailed findings section.

Yes

Yes

Section 6: Hydrogeology and Hydrology

0-500m

- 6.1 Are there any records of Strata Classification in the Superficial Geology within 500m of the study site?
- 6.2 Are there any records of Strata Classification in the Bedrock Geology within 500m of the study site?

Yes

Yes

	On-site	0-50m	51-250	251-500	501-1000	1000-1500
6.3 Groundwater Abstraction Licences (within 2000m of the study site)	0	0	0	0	0	0
6.4 Surface Water Abstraction Licences (within 2000m of the study site)	0	0	0	0	0	10
6.5 Potable Water Abstraction Licences (within 2000m of the study site)	0	0	0	0	0	0
6.6 Source Protection Zones (within 500m of the study site)	0	0	0	0	Not searched	Not searched
6.7 Source Protection Zones within Confined Aquifer	0	0	0	0	Not searched	Not searched
6.8 Groundwater Vulnerability and Soil Leaching Potential (within 500m of the study site)	0	0	0	0	Not searched	Not searched
	On-site	0-50m	51-250	251-500	501-1000	1000-1500

Section 6: Hydrogeology and Hydrology

0-500m

6.9 Is there any Environment Agency information on river quality within 1500m of the study site?	Yes	No	No	No	Yes	Yes
6.10 Detailed River Network entries within 500m of the site	0	0	0	0	Not searched	Not searched
6.11 Surface water features within 250m of the study site	No	Yes	Yes	Not searched	Not searched	Not searched

Section 7: Flooding

7.1 Are there any Environment Agency Zone 2 floodplains within 250m of the study site?	Yes
7.2 Are there any Environment Agency Zone 3 floodplains within 250m of the study site?	Yes
7.3 What is the Risk of Flooding from Rivers and the Sea (RoFRa) rating for the study site?	Medium
7.4 Are there any Flood Defences within 250m of the study site?	No
7.5 Are there any areas benefiting from Flood Defences within 250m of the study site?	No
7.6 Are there any areas used for Flood Storage within 250m of the study site?	No
7.7 What is the maximum BGS Groundwater Flooding susceptibility within 50m of the study site?	Not From
7.8 What is the BGS confidence rating for the Groundwater Flooding susceptibility areas?	Not Applicable

Section 8: Designated Environmentally Sensitive Sites

On-site 0-50m 51-250 251-500 501-1000 1000-2000

8.1 Records of Sites of Special Scientific Interest (SSSI)	0	0	0	0	0	0
8.2 Records of National Nature Reserves (NNR)	0	0	0	0	0	0
8.3 Records of Special Areas of Conservation (SAC)	0	0	0	0	0	0
8.4 Records of Special Protection Areas (SPA)	0	0	0	0	0	0
8.5 Records of Ramsar sites	0	0	0	0	0	0
8.6 Records of Ancient Woodlands	0	0	0	0	0	0
8.7 Records of Local Nature Reserves (LNR)	0	0	0	0	0	0
8.8 Records of World Heritage Sites	0	0	0	0	0	0
8.9 Records of Environmentally Sensitive Areas	0	0	0	0	0	0
8.10 Records of Areas of Outstanding Natural Beauty (AONB)	0	0	0	0	0	0

Section 8: Designated Environmentally Sensitive Sites

	On-site	0-50m	51-250	251-500	501-1000	1000-2000
8.11 Records of National Parks	0	0	0	0	0	0
8.12 Records of Nitrate Sensitive Areas	0	0	0	0	0	0
8.13 Records of Nitrate Vulnerable Zones	3	0	0	3	0	3
8.14 Records of Green Belt land	0	0	0	0	0	0

Section 9: Natural Hazards

9.1 What is the maximum risk of natural ground subsidence?	Moderate
9.1.1 What is the maximum Shrink-Swell hazard rating identified on the study site?	Low
9.1.2 What is the maximum Landslides hazard rating identified on the study site?	Very Low
9.1.3 What is the maximum Soluble Rocks hazard rating identified on the study site?	Negligible
9.1.4 What is the maximum Compressible Ground hazard rating identified on the study site?	Moderate
9.1.5 What is the maximum Collapsible Rocks hazard rating identified on the study site?	Negligible
9.1.6 What is the maximum Running Sand hazard rating identified on the study site?	Moderate
9.2 Radon	
9.2.1 Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level?	The property is not in a Radon Affected Area, as less than 1% of properties are above the Action Level.
9.2.2 Is the property in an area where Radon Protection are required for new properties or extensions to existing ones as described in publication BR211 by the Building Research Establishment?	No radon protective measures are necessary.

Section 10: Mining

10.1 Are there any coal mining areas within 75m of the study site?	No
10.2 Are there any Non-Coal Mining areas within 50m of the study site boundary?	No
10.3 Are there any brine affected areas within 75m of the study site?	No

Using this report

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

1. Historical Industrial Sites

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

2. Environmental Permits, Incidents and Registers

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

3. Landfills and Other Waste Sites

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

4. Current Land Uses

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

5. Geology

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

6. Hydrogeology and Hydrology

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

7. Flooding

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

8. Designated Environmentally Sensitive Sites

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

9. Natural Hazards

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

10. Mining

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

11. Contacts

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

Note: Maps

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

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

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

1. Historical Land Use



Historical 1:10,000 and 1:10,540 scale mapping



Site Outline

Industrial Land Use



Potentially Infilled Land

Hierarchical 1:2,500, 1:1,250 and 1:500 scale mapping



Search Buffers (ms)



Energy Features

Tachikawa



Petrol Stations



Garage

1. Historical Industrial Sites

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

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

Records of sites with a potentially contaminative past land use within 500m of the search boundary: 24

ID	Distance (m)	Direction	Use	Date
1	0	On Site	Railway Building	1939
2A	47	SW	Railway Building	1938
3A	48	SW	Railway Building	1932
4A	50	SW	Railway Building	1933
5	67	E	Nursery	1990
6B	118	W	Railway Building	1933
7B	118	W	Railway Building	1933
8B	118	W	Railway Building	1937
9	124	W	Railway Buildings	1937
10C	126	SW	Unspecified Works	1990
11	126	SW	Unspecified Works	1990
12C	126	SW	Engineering Works	1932
13C	126	SW	Unspecified Works	1990
14	126	SW	Engineering Works	1938
15D	270	E	Nurseries	1990
16D	270	E	Nurseries	1990
17E	270	E	Nursery	1990
18E	270	E	Nursery	1990
19D	271	E	Nursery	1932
20F	367	NE	Unspecified Commercial/Industrial	1990
21F	367	NE	Unspecified Commercial/Industrial	1990
22F	435	NE	Nursery	1938
23F	437	NE	Nursery	1932
24F	438	NE	Nursery	1990

1.2 Additional Information - Historical Tank Database

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

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

0

Database searched and no data found.

1.3 Additional Information – Historical Energy Features Database

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

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

0

Database searched and no data found.

1.4 Additional Information – Historical Petrol and Fuel Site Database

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

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

0

Database searched and no data found.

1.5 Additional Information – Historical Garage and Motor Vehicle Repair Database

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

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

0

Database searched and no data found.

1.6 Potentially Infilled Land

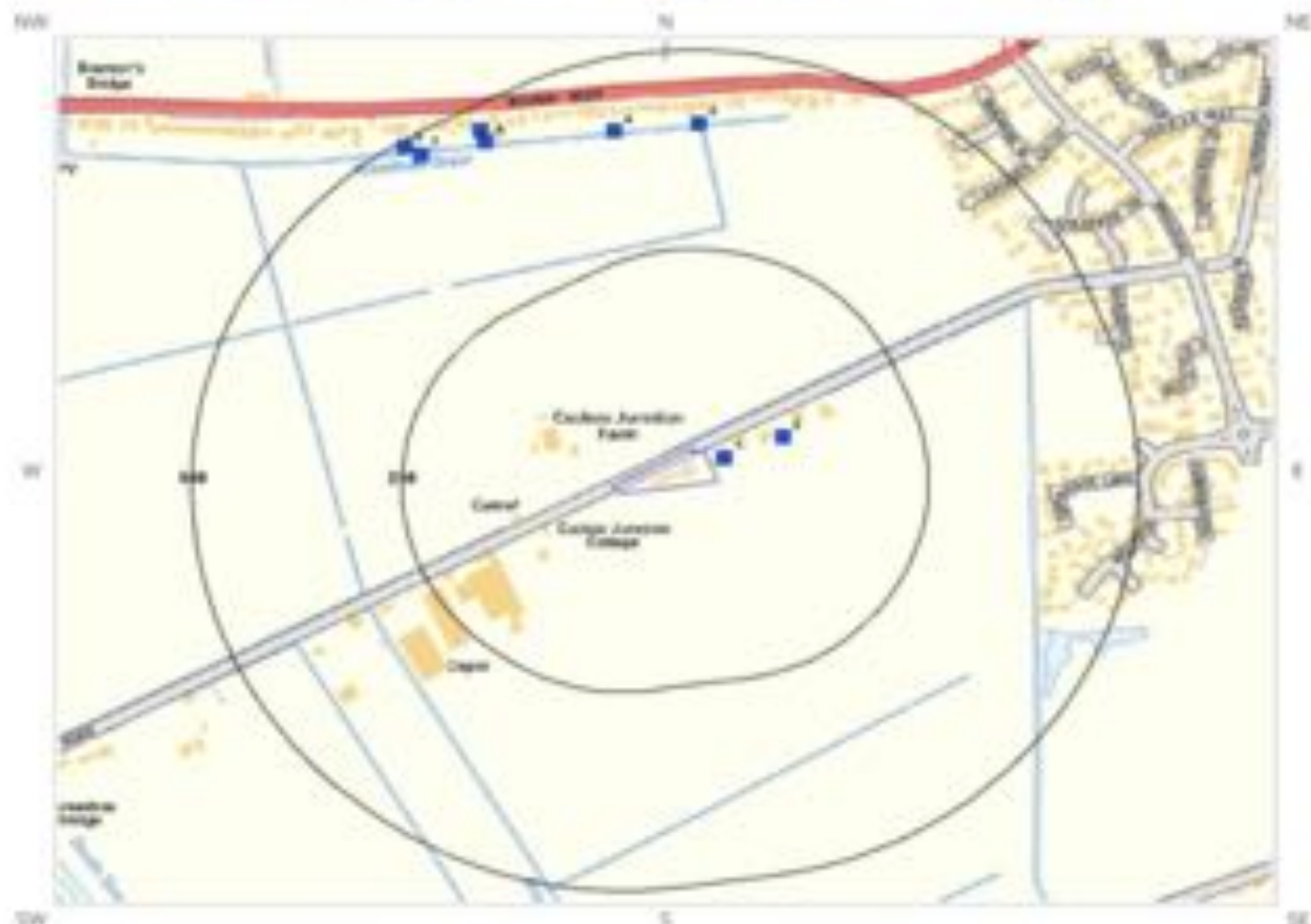
Records of Potentially Infilled Features from 1:10,000 scale mapping within 500m of the study site: 12

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

ID	Distance(m)	Direction	Use	Date
216	378	E	Pond	1903
260	378	E	Pond	1908
276	378	E	Water Body	1932
286	378	E	Pond	1903
294	378	E	Water Body	1903

300	378	E	Pond	1990
311F	379	E	Pond	1990
324	379	E	Pond	1993
334	381	E	Water Body	1992
340	381	E	Pond	1990
350	386	E	Water Body	1987
364	387	E	Pond	1987

2. Environmental Permits, Incidents and Registers Map



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2. Environmental Permits, Incidents and Registers

2.1 Industrial Sites Holding Licences and/or Authorisations

Searches of information provided by the Environment Agency and Local Authorities reveal the following information:

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

0

Database searched and no data found.

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

0

Database searched and no data found.

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

0

Database searched and no data found.

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

0

Database searched and no data found.

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

0

Database searched and no data found.

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

0

Database searched and no data found.

2.1.7 Records of Category 3 or 4 Radioactive Substances Authorisations

0

Database searched and no data found.

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

8

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

ID	Distance (m)	Direction	NRB	Details
1	18	NE	522720 521520	Address: DOUGLAS, HORSESHOE ROAD, SPALDING, Lincs, PE11 3JA Effluent Type: UNSPECIFIED Permit Number: PRMLFO0804 Permit Version: 1 Receiving Water: Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: 20/01/1989 Effective Date: 20-Jul-1989 Revocation Date: 01/10/1996
2	94	NE	522791 521548	Address: WILLOW LODGE, HORSESHOE ROAD, SPALDING, Lincs, PE11 3JA Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: PRMLFO2317 Permit Version: 1 Receiving Water: Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: 20/03/1990 Effective Date: 20-Feb-1990 Revocation Date: -
3	408	N	522880 521840	Address: BOURNE ROAD NO.131, SPALDING, Lincs, PE11 3LJ Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: PRMLF18801 Permit Version: 1 Receiving Water: Status: NEW CONSENT (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 28/08/2007 Effective Date: 25-Jul-2007 Revocation Date: -
4	409	N	522880 521880	Address: 149 BOURNE ROAD, SPALDING, PE11 3LJ Effluent Type: UNSPECIFIED Permit Number: PRSLF0087 Permit Version: 1 Receiving Water: Status: PRE NRA LEGISLATION WHERE ISSUE DATE < 01-SEP-89 (HISTORIC ONLY) Issue date: 21/10/1985 Effective Date: 21-Oct-1985 Revocation Date: 01/10/1996
5A	454	NW	522438 521917	Address: 181 BOURNE ROAD, SPALDING, Lincs, PE11 3LJ Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: NP0WQ0018719 Permit Version: 1 Receiving Water: Status: NEW CONSENT (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 13/03/2010 Effective Date: 13-Mar-2010 Revocation Date: -

ID	Distance (m)	Direction	MOB	Details
6A	409	NW	S22430 S21830	Address: BOURNE ROAD, SPALDING, LINCOLNSHIRE Effluent Type: UNSPECIFIED Permit Number: FRNLF02576 Permit Version: 1 Receiving Water: Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: 03/05/1990 Effective Date: 03-May-1990 Revocation Date: 01/10/1996
7	434	NW	S22360 S21900	Address: BOURNE ROAD NO.183, SPALDING, LINCOLNSHIRE, , PE11 3LJ Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: FRNMF12762 Permit Version: 1 Receiving Water: Status: NEW CONSENT (NRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 05/06/2002 Effective Date: 23-May-2002 Revocation Date: -
8	492	NW	S22340 S21810	Address: BOURNE ROAD NO.187, SPALDING, Lincs, PE11 3LJ Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: FRNMF09991 Permit Version: 1 Receiving Water: Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: 06/12/1996 Effective Date: 06-Dec-1996 Revocation Date: -

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

0

Database searched and no data found.

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

0

Database searched and no data found.

2.2 Dangerous or Hazardous Sites

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

0

Database searched and no data found.

2.3 Environment Agency Recorded Pollution Incidents

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

0

Database searched and no data found.

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

0

Database searched and no data found.

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

How many records of sites determined as contaminated land under Section 78B of the Environmental Protection Act 1990 are there within 500m of the study site?

0

Database searched and no data found.

3. Landfill and Other Waste Sites Map



3. Landfill and Other Waste Sites

3.1 Landfill Sites

3.1.1 Records from Environment Agency landfill data within 1000m of the study site:

0

Database searched and no data found.

3.1.2 Records of Environment Agency historic landfill sites within 1500m of the study site:

0

Database searched and no data found.

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

0

Database searched and no data found.

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

0

Database searched and no data found.

3.2 Other Waste Sites

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

0

Database searched and no data found.

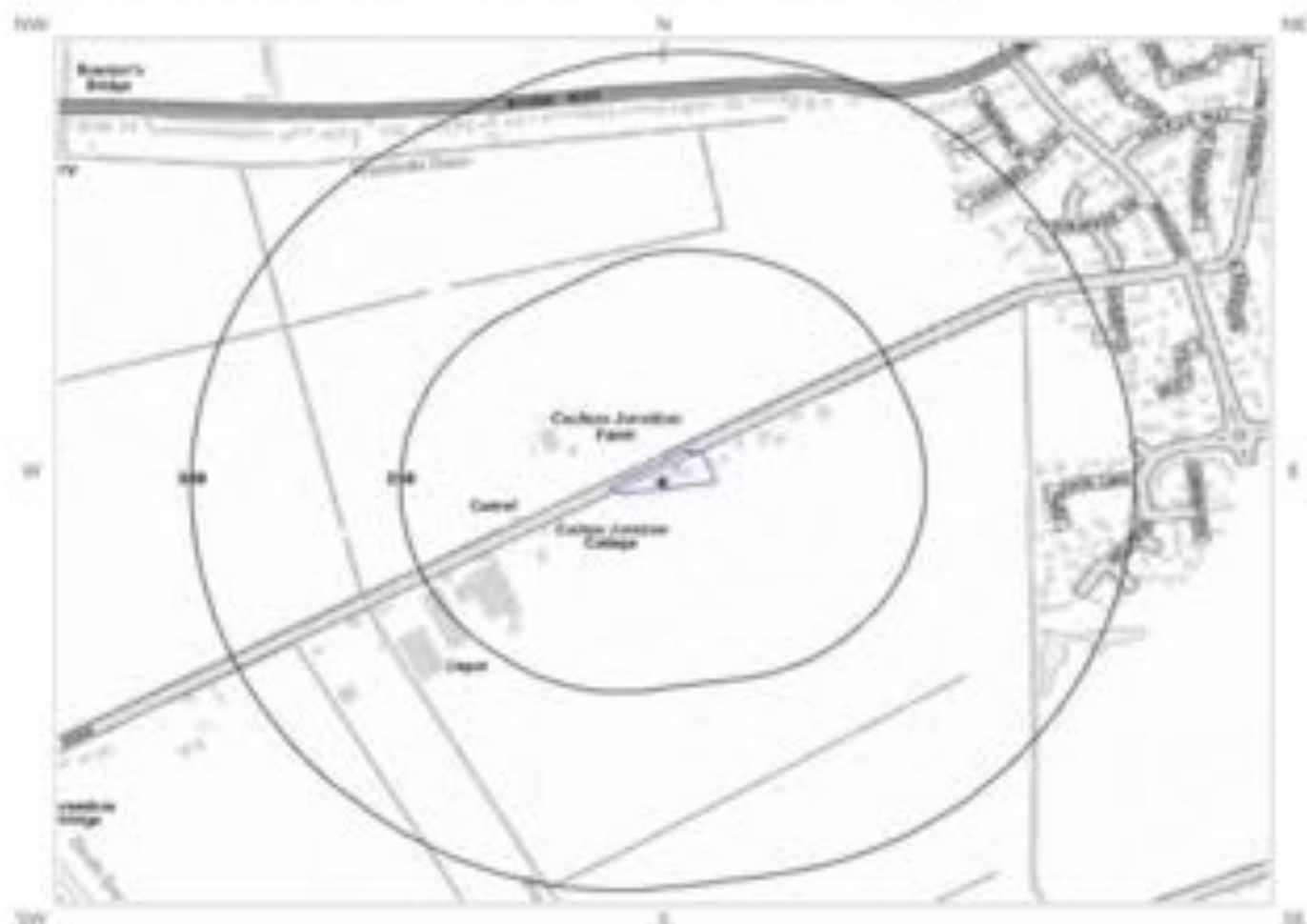
3.2.2 Records of Environment Agency licensed waste sites within 1500m of the study site:

1

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

ID	Distance (m)	Direction	NGB	Details
West of site	1249	NW	S21500 S22100	Site Address: Highways Depot, Pocklington, Spalding, Lincolnshire, PE11 3LN Type: Transfer Station taking non-Biodegradable Wastes Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: LCC001 EPD reference: EA/S2R/S02192N01/0002 Operator: Lincolnshire County Council Waste Management Scheme No: T9081 Annual Tonnage: 5.0 Issue Date: 26/07/2000 Effective Date: - Modified: 06/12/2003 Surrendered Date: 07/05/2010 Expiry Date: - Cancelled Date: - Status: Surrendered Site Name: L.C.C Waste Transfer Station Correspondence Address: -

4. Current Land Use Map



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4. Current Land Uses

4.1 Current Industrial Data

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

1

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

ID	Distance (m)	Direction	Company	NSR	Address	Activity	Category
1	0	On Site	Crystal Connections Ltd	S21849 S21480	Horsham Road, Spelling, PE11 3JA	Civil Engineers	Engineering Services

4.2 Petrol and Fuel Sites

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

0

Database searched and no data found.

4.3 National Grid High Voltage Underground Electricity Transmission Cables

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

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

0

Database searched and no data found.

4.4 National Grid High Pressure Gas Transmission Pipelines

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

Records of National Grid high pressure gas transmission pipelines within 500m of the study site: 0

Database searched and no data found.

5. Geology

5.1 Artificial Ground and Made Ground

Database searched and no data found.

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

5.2 Superficial Ground and Drift Geology

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

Lex Code	Description	Rock Type
TTD	TOTAL FLAT DEPOSITS	CLAY AND SILT (UNLITHIFIED DEPOSITS CODING SCHEME)

5.3 Bedrock and Solid Geology

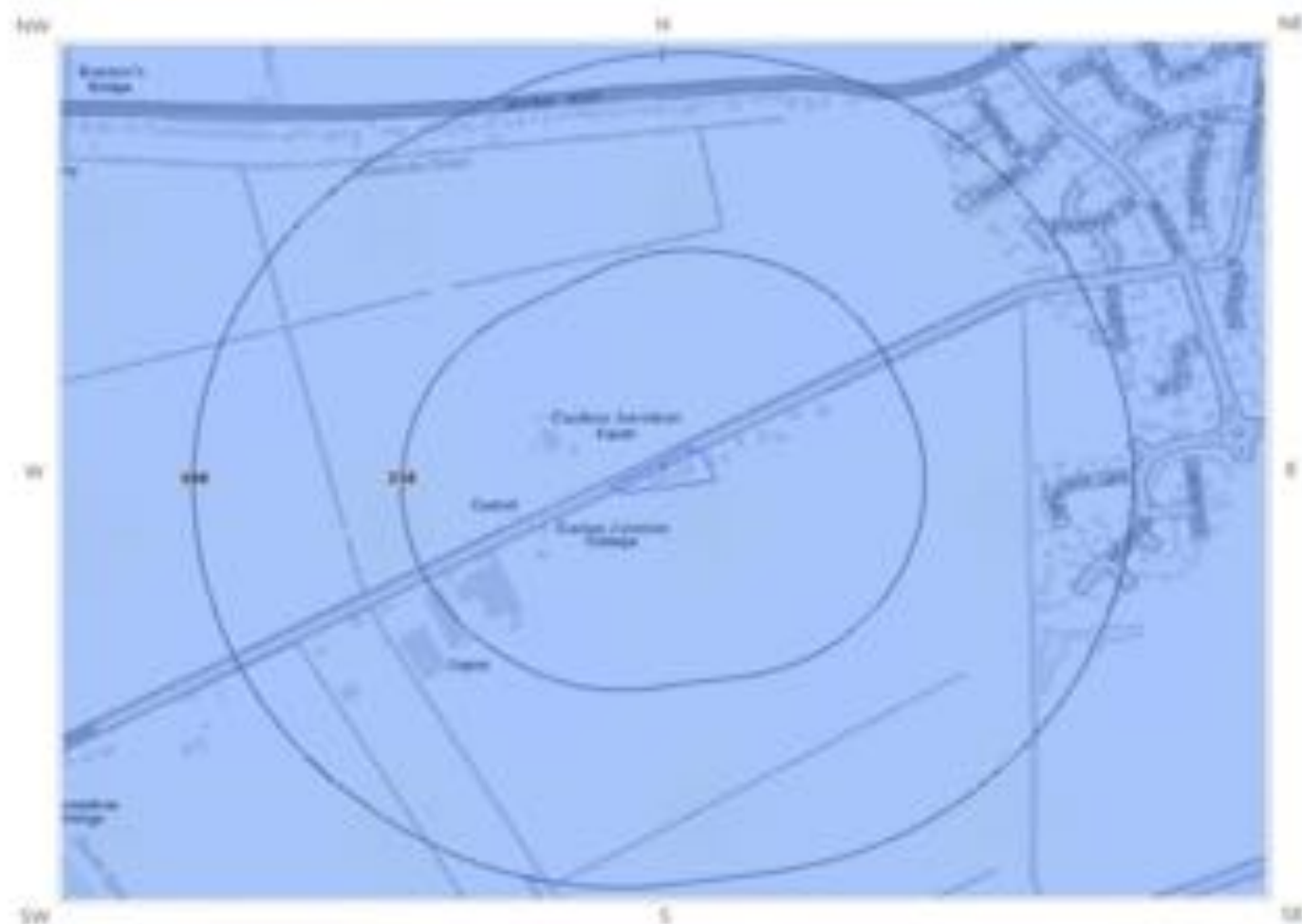
The database has been searched on site, including a 50m buffer.

Lex Code	Description	Rock Type
OXC-HOST	OXFORD CLAY FORMATION	FLUDSTONE

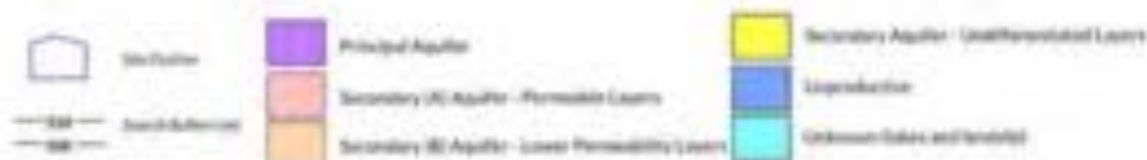
(Derived from the BGS 1:50,000 Digital Geological Map of Great Britain)

6 Hydrogeology and Hydrology

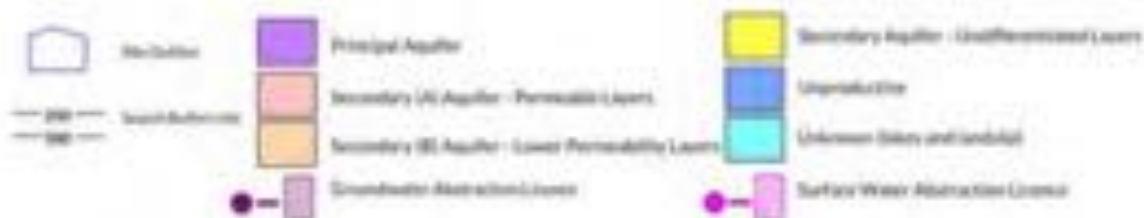
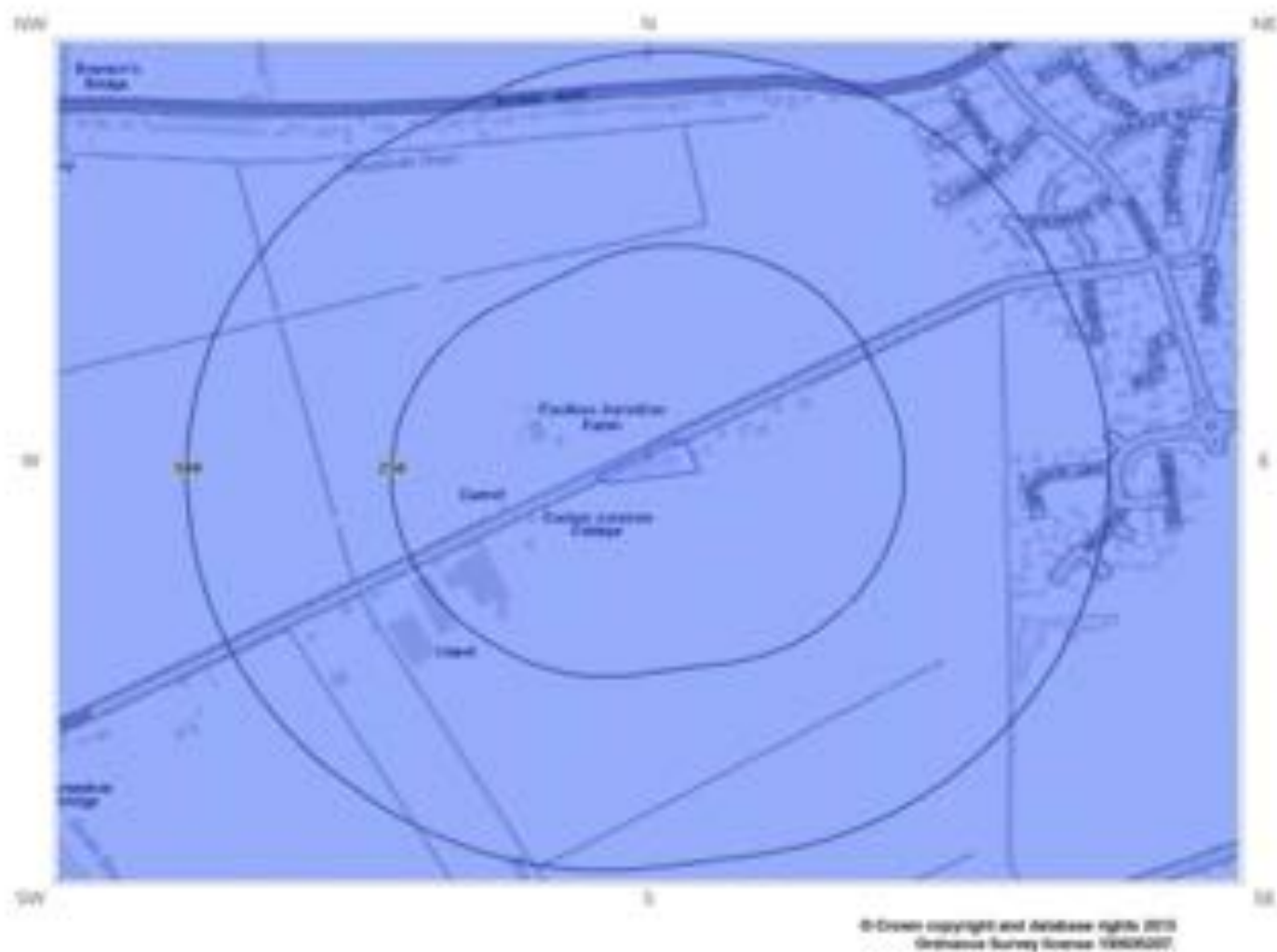
6a. Aquifer Within Superficial Geology



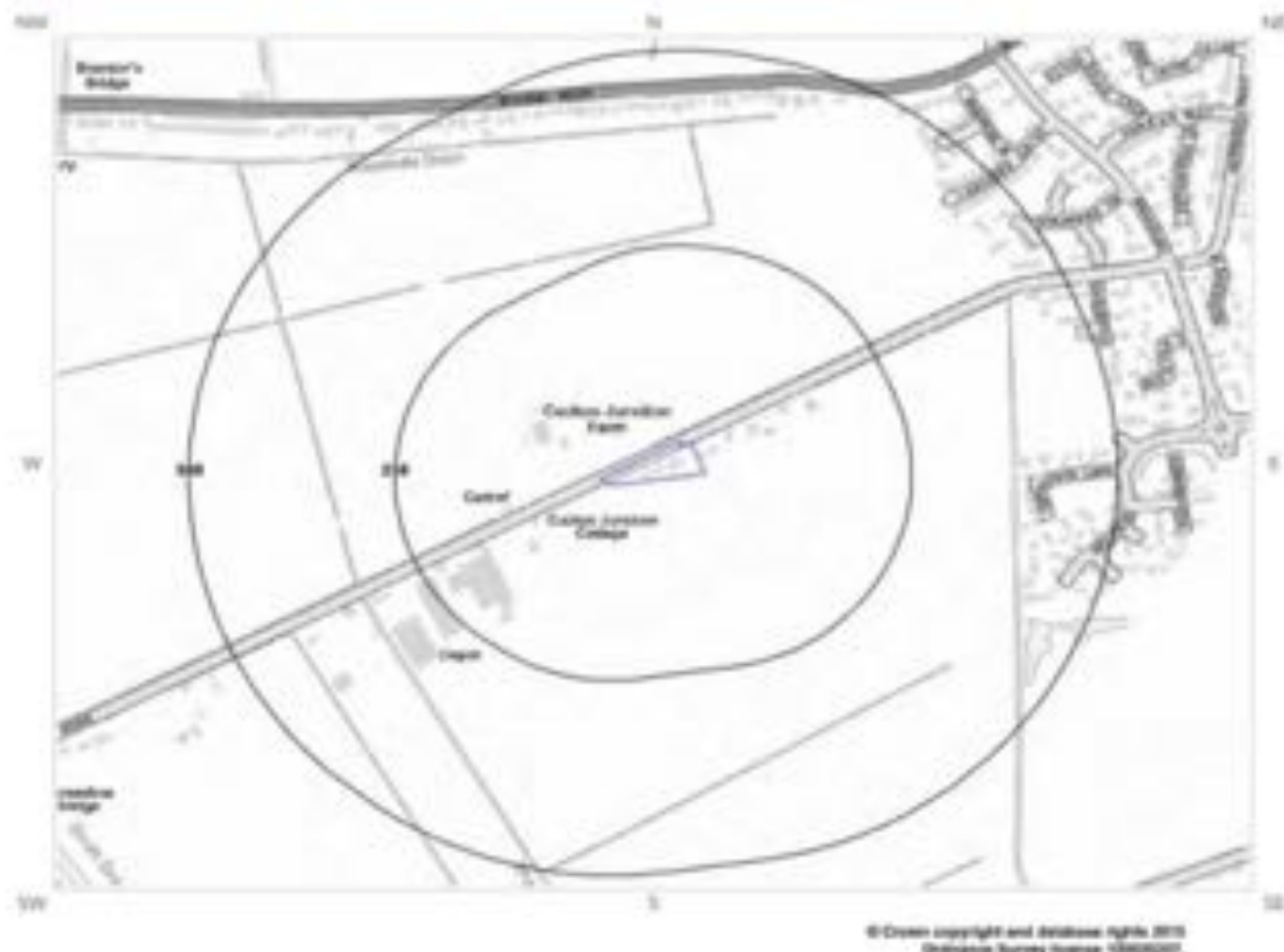
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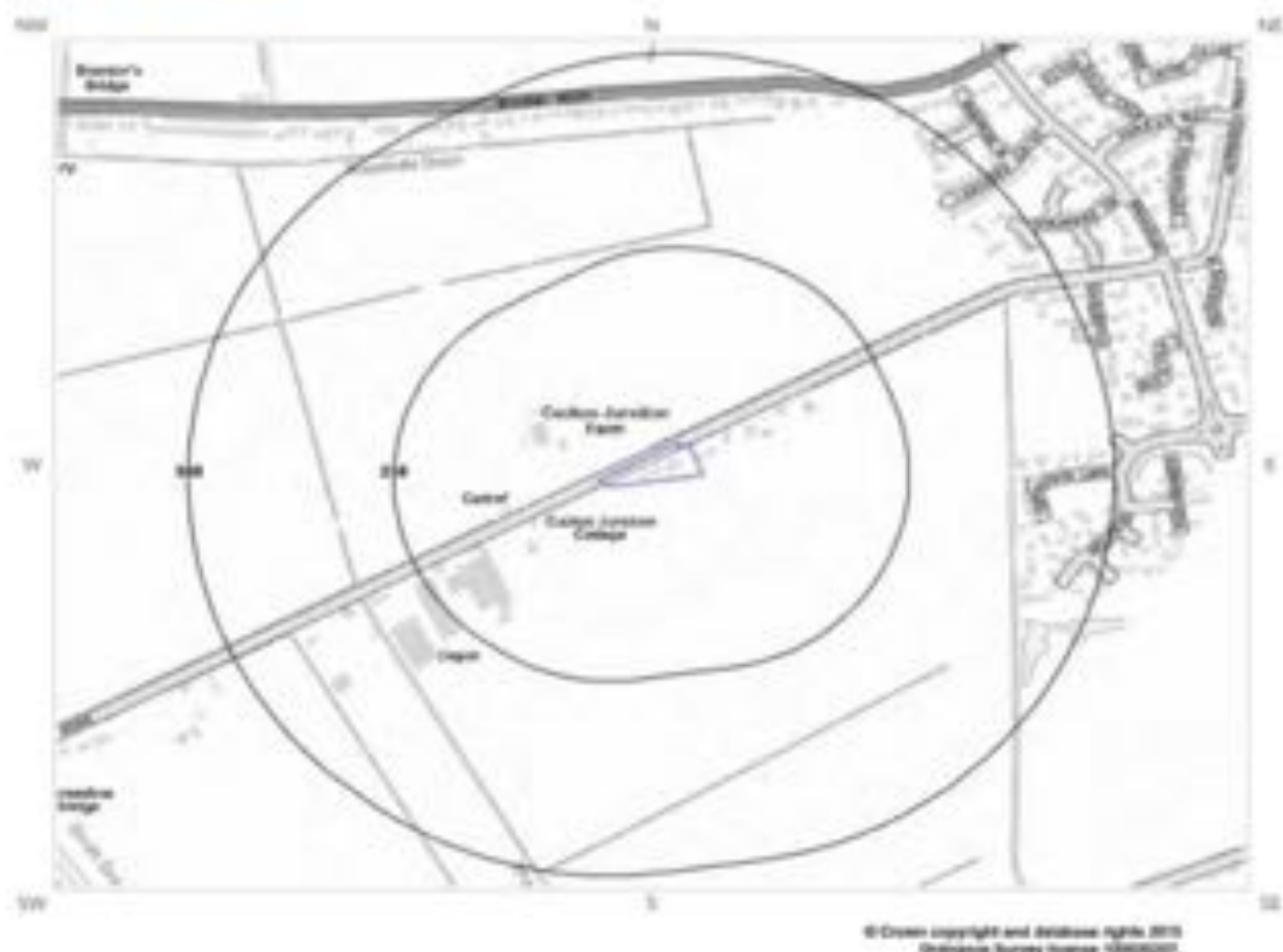
6b. Aquifer Within Bedrock Geology and Abstraction Licenses



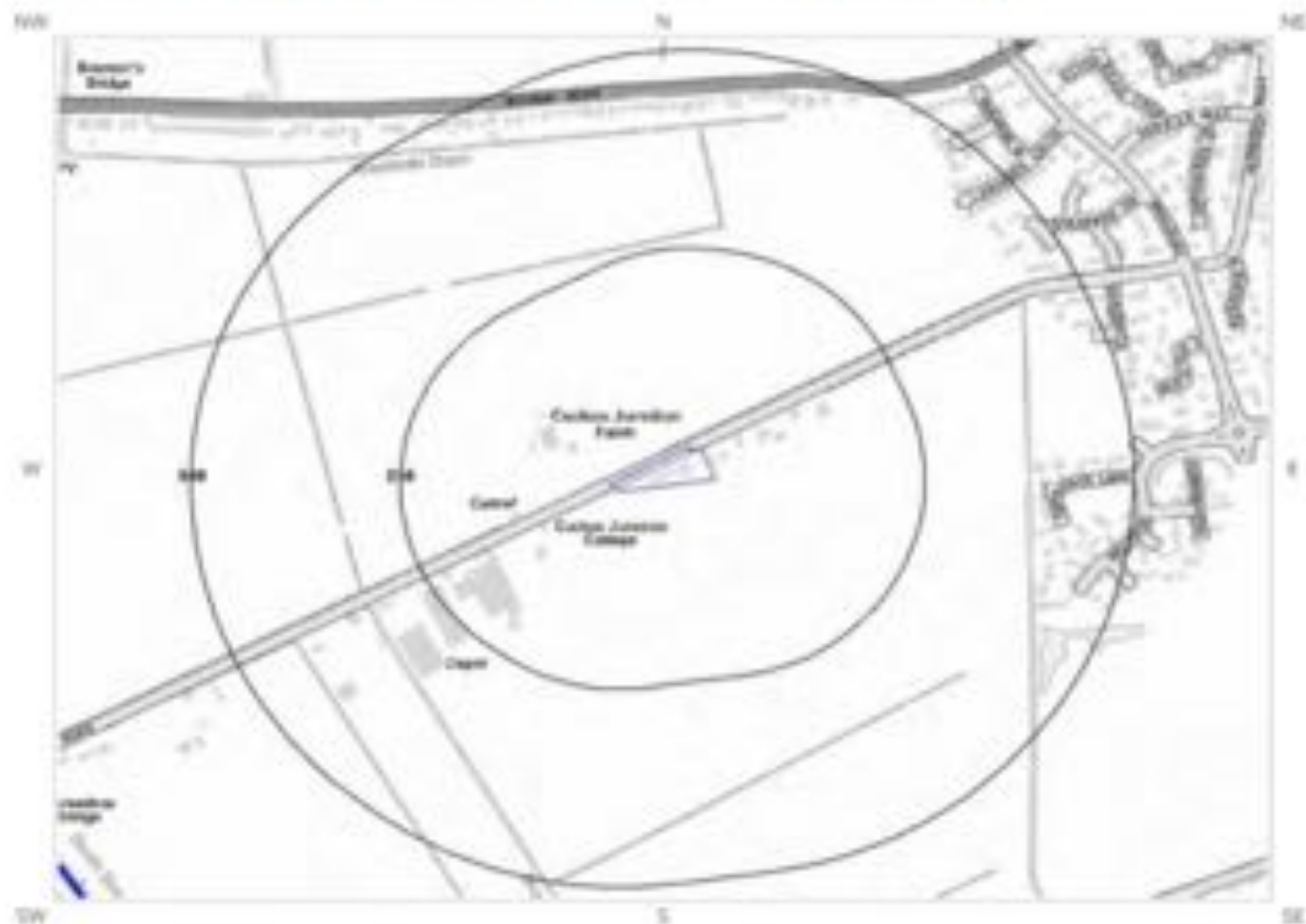
6c. Hydrogeology – Source Protection Zones and Potable Water Abstraction Licenses



6d. Hydrogeology – Source Protection Zones within confined aquifer



6e. Hydrology – Detailed River Network and River Quality



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6. Hydrogeology and Hydrology

6.1 Aquifer within Superficial Deposits

Are there records of strata classification within the superficial geology at or in proximity to the property? Yes

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

The following aquifer records are shown on the Aquifer within Superficial Geology Map (5a):

ID	Distance • (m)	Direction	Designation	Description
1	0	On Site	Unproductive	These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow

6.2 Aquifer within Bedrock Deposits

Are there records of strata classification within the bedrock geology at or in proximity to the property? Yes

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

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

ID	Distance • (m)	Direction	Designation	Description
1	0	On Site	Unproductive	These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow

6.3 Groundwater Abstraction Licences

Are there any Groundwater Abstraction Licences within 2000m of the study site? No

Database searched and no data found.

6.4 Surface Water Abstraction Licences

Are there any Surface Water Abstraction Licences within 2000m of the study site?

Yes

The following Surface Water Abstraction Licences records are represented as points, lines and regions on the Aquifer within Bedrock Geology Map (5b):

ID	Distance (m)	Direction	NGR	Details
Not shown	1239	NW	522150 322600	Status: Active Licence No: 5/31/14/5/0117 Details: Spray Irrigation - Direct Direct Source: Surface Water Source Of Supply Point: Vernatts Drain - South Holland Data Type: Point Name: C W DOBBIS & SON LTD Annual Volume (m³): 5435 Max Daily Volume (m³): 3027 Application No: N1226 Original Start Date: 1/3/1966 Expiry Date: - Issue No: 101 Version Start Date: 29/11/2001 Version End Date: -
Not shown	1308	NW	522100 322700	Status: Historical Licence No: 5/31/14/5/0117 Details: Spray Irrigation - Direct Direct Source: Surface Water Source Of Supply Point: Vernatts Drain-deeping Fen Data Type: Point Name: C W DOBBIS & SON LTD Annual Volume (m³): - Max Daily Volume (m³): - Application No: - Original Start Date: 1/3/1966 Expiry Date: - Issue No: 100 Version Start Date: 1/3/1995 Version End Date: -
Not shown	1479	N	522900 324000	Status: Active Licence No: 5/31/14/5/0117 Details: Spray Irrigation - Direct Direct Source: Surface Water Source Of Supply Point: Vernatts Drains - South Holland Data Type: Line Name: C W DOBBIS & SON LTD Annual Volume (m³): 5435 Max Daily Volume (m³): 3027 Application No: N1226 Original Start Date: 1/3/1966 Expiry Date: - Issue No: 101 Version Start Date: 29/11/2001 Version End Date: -
Not shown	1568	S	522900 319900	Status: Active Licence No: 5/31/14/5/0118 Details: Spray Irrigation - Direct Direct Source: Surface Water Source Of Supply Point: South Drive Drain Data Type: Line Name: BRANTON Annual Volume (m³): 28000 Max Daily Volume (m³): 1200 Application No: - Original Start Date: 1/6/1983 Expiry Date: - Issue No: 100 Version Start Date: 1/6/1983 Version End Date: -
Not shown	1597	SE	522900 320100	Status: Active Licence No: 5/31/14/5/0020 Details: Spray Irrigation - Direct Direct Source: Surface Water Source Of Supply Point: R Wetland & Drains, road to Wash Data Type: Point Name: R CHAPPELL & SONS Annual Volume (m³): 1364 Max Daily Volume (m³): 345.33 Application No: - Original Start Date: 1/3/1966 Expiry Date: - Issue No: 100 Version Start Date: 1/4/2004 Version End Date: -
Not shown	1788	W	520720 320740	Status: Historical Licence No: 5/31/14/5/0250 Details: Spray Irrigation - Direct Direct Source: Surface Water Source Of Supply Point: North Drive Drain At Pinchbeck Data Type: Line Name: IVATT Annual Volume (m³): 25000 Max Daily Volume (m³): 925 Application No: N1218 Original Start Date: 7/3/2002 Expiry Date: 31/10/2006 Issue No: 1 Version Start Date: 7/3/2002 Version End Date: -
Not shown	1898	E	524000 321700	Status: Historical Licence No: 5/31/14/5/0113 Details: Spray Irrigation - Direct Direct Source: Surface Water Source Of Supply Point: R Wetland (conservation Channel) Data Type: Point Name: C SLOOTEN LTD Annual Volume (m³): - Max Daily Volume (m³): - Application No: - Original Start Date: 1/3/1966 Expiry Date: - Issue No: 100 Version Start Date: 1/3/1966 Version End Date: -

ID	Distance (m)	Direction	NGR	Details
Not shown	1913	W	520800 320800	Status: Active Licence No: 5/31/14/5/0012 Details: Spray Irrigation - Direct Direct Source: Surface Water Source Of Supply Point: North Grove Drain, Finchback Data Type: Point Name: WHITFIELD Annual Volume (m³): 12329 Max Daily Volume (m³): 3583.1 Application No: - Original Start Date: 1/3/1966 Expiry Date: - Issue No: 100 Version Start Date: 1/11/1995 Version End Date: -
Not shown	1916	S	522633 319070	Status: Active Licence No: 5/31/14/5/0190 Details: Spray Irrigation - Direct Direct Source: Surface Water Source Of Supply Point: Jordans Drain -deeping St Nicholas Data Type: Line Name: BRANTON Annual Volume (m³): 10000 Max Daily Volume (m³): 463 Application No: N60029 Original Start Date: 5/10/1990 Expiry Date: - Issue No: 102 Version Start Date: 1/4/2006 Version End Date: -
Not shown	1941	S	523600 319100	Status: Historical Licence No: 5/31/14/5/0190 Details: Spray Irrigation - Direct Direct Source: Surface Water Source Of Supply Point: Jordans Drain -deeping St Nicholas Data Type: Line Name: F D & A D COOKE LTD Annual Volume (m³): - Max Daily Volume (m³): - Application No: - Original Start Date: 5/10/1990 Expiry Date: - Issue No: 100 Version Start Date: 1/10/1990 Version End Date: -

6.5 Potable Water Abstraction Licences

Are there any Potable Water Abstraction Licences within 2000m of the study site?

No

Database searched and no data found.

6.6 Source Protection Zones

Are there any Source Protection Zones within 500m of the study site?

No

Database searched and no data found.

6.7 Source Protection Zones within Confined Aquifer

Are there any Source Protection Zones within the Confined Aquifer within 500m of the study site? **No**

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

Database searched and no data found.

6.8 Groundwater Vulnerability and Soil Leaching Potential

Is there any Environment Agency information on groundwater vulnerability and soil leaching potential within 500m of the study site? **No**

Database searched and no data found.

6.9 River Quality

Is there any Environment Agency information on river quality within 1500m of the study site? **Yes**

6.9.1 Biological Quality

Biological Quality data describes water quality in terms of 83 groups of macroinvertebrates, some of which are pollution sensitive. The results are graded from A ('Very Good') to F ('Bad').

The following Biological Quality records are shown on the Hydrology Map (5e):

ID	Distance e (m)	Direction	NGR	River Quality Grade	Biological Quality Grade				
					2005	2006	2007	2008	2009
Foot stretch	1353	W	S21200	River frame: South Drive Drain	A	A	A	A	
			S21900	Reach: Deeping St, Nicholas, gods Hole					A
				End/Start of Stretch: End of Stretch NGR					

6.9.2 Chemical Quality

Chemical quality data is based on the General Quality Assessment Headline Indicators scheme (GQAHI). In England, each chemical sample is measured for ammonia and dissolved oxygen. In Wales, the samples are measured for biological oxygen demand (BOD), ammonia and dissolved oxygen. The results are graded from A (Very Good) to F (Bad).

The following Chemical Quality records are shown on the Hydrology Map (5e):

ID	Distance (m)	Direction	NGR	River Quality Grade	Chemical Quality Grade				
					2005	2006	2007	2008	2009
Not shown	826	SW	521844 321122	River Hamar, South Grove Drain Reach: Deeping St. Nicholas Ponds Hole Pit End/Start of Stretch: Sample Point NGR	C	B	B	B	B
Not shown	1353	W	521200 321800	River Hamar, South Grove Drain Reach: Deeping St. Nicholas Ponds Hole Pit End/Start of Stretch: End of Stretch NGR	C	B	B	B	B

6.10 Detailed River Network

Are there any Detailed River Network entries within 500m of the study site? No

Database searched and no data found.

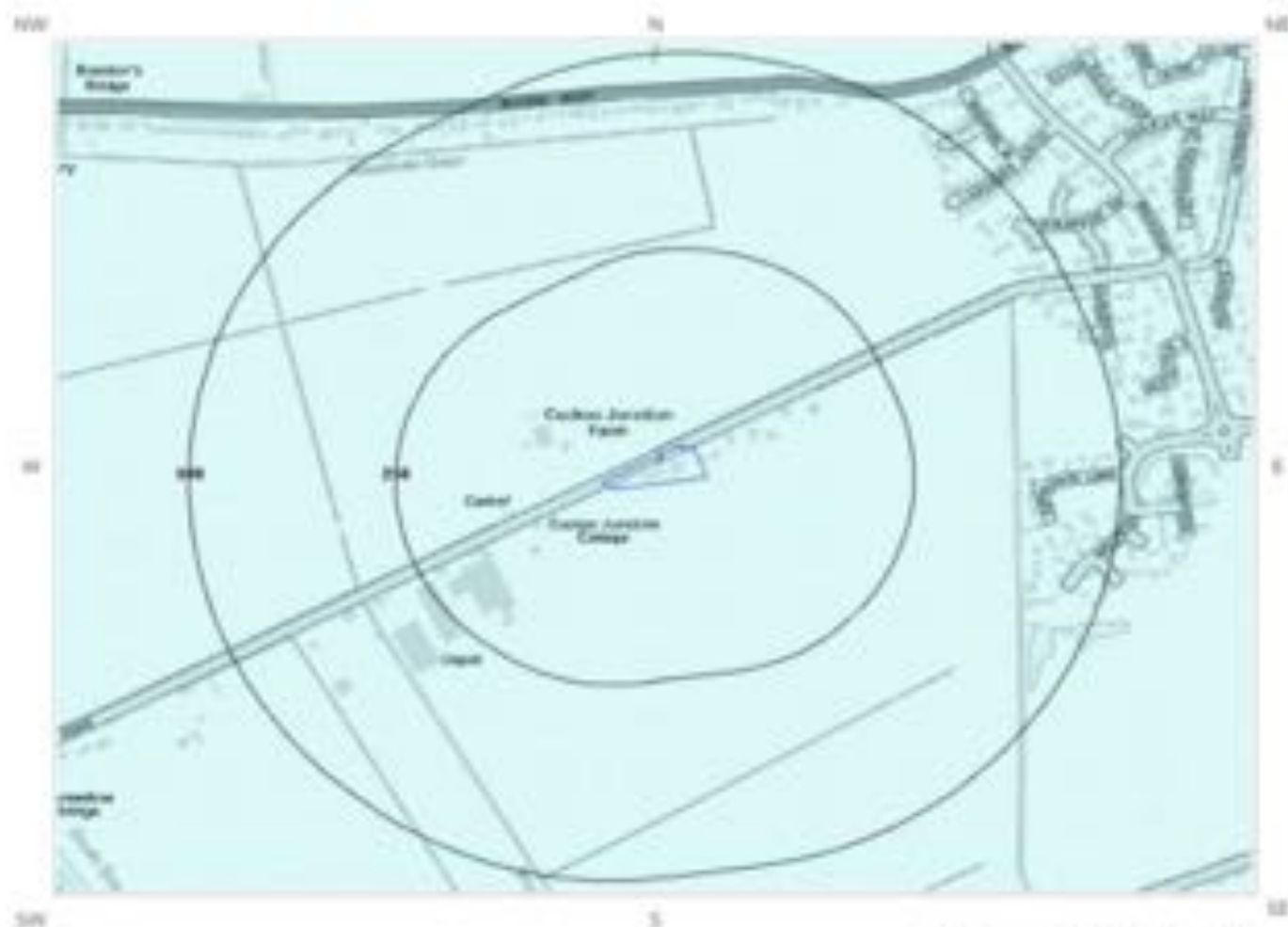
6.11 Surface Water Features

Are there any surface water features within 250m of the study site? Yes

The following surface water records are not represented on mapping:

Distance (m)	Direction
0	NE
143	SW
185	NE

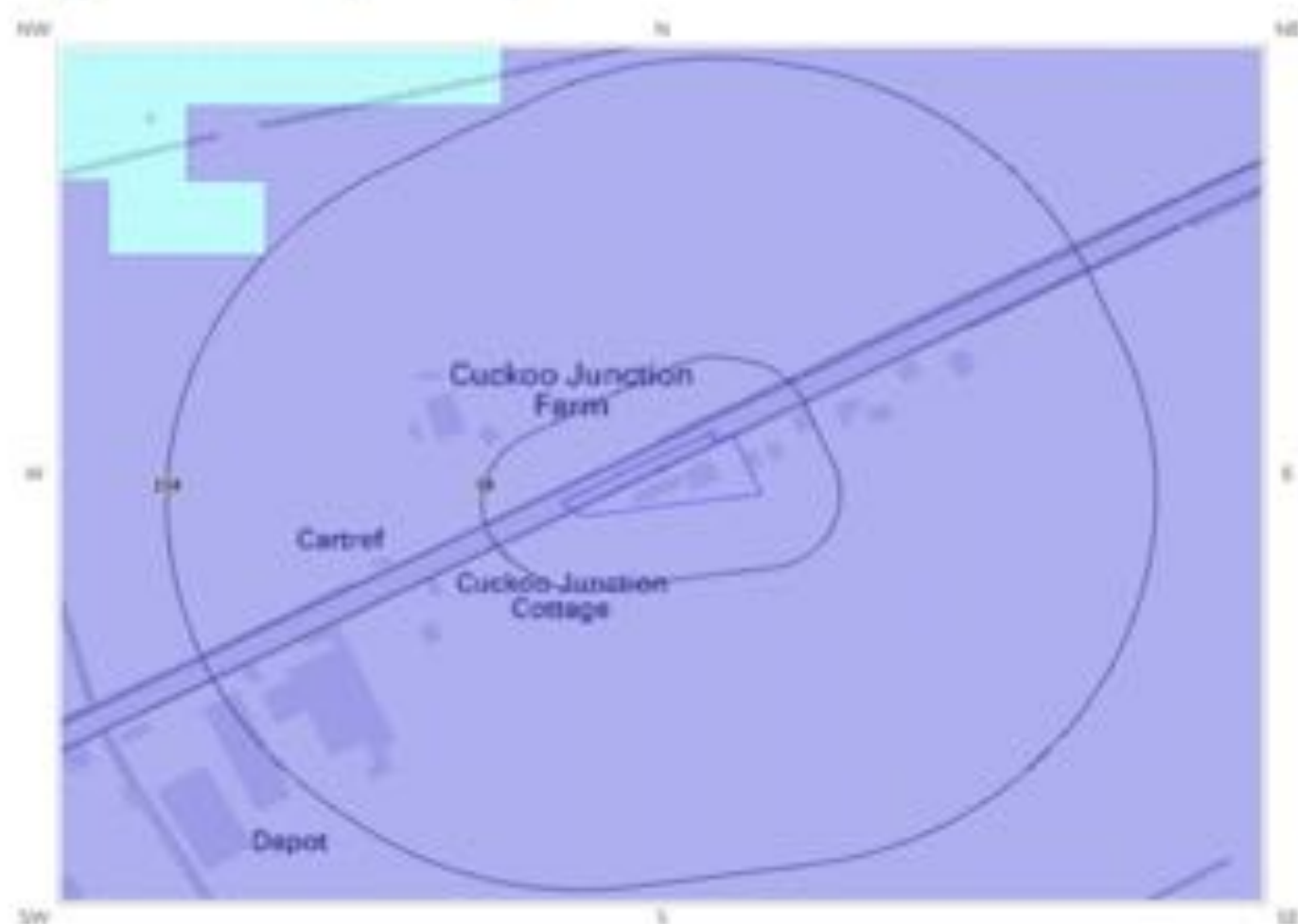
7a. Environment Agency Flood Map for Planning (from rivers and the sea)



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Ordnance Survey license 100005207.



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



© Crown copyright and database rights 2015.
Ordnance Survey licence 100020207.



7 Flooding

7.1 River and Coastal Zone 2 Flooding

Is the site within 250m of an Environment Agency Zone 2 floodplain? Yes

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

ID	Distance (m)	Direction	Update	Type
1	0	On Site	02-Oct-2019	Zone 2 - (Fluvial / Tidal Models)

7.2 River and Coastal Zone 3 Flooding

Is the site within 250m of an Environment Agency Zone 3 floodplain? Yes

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

ID	Distance (m)	Direction	Update	Type
1	0	On Site	02-Oct-2019	Zone 3 - (Fluvial Models)

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

What is the highest risk of flooding onsite? Medium

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

RoFRaS data for the study site indicates the property is in an area with a Medium (greater than 1 in 100 but less than 1 in 30) chance of flooding in any given year.

Any relevant data within 250m is represented on the RoFRaS Flood map. Data to 50m is reported in the table below.

ID	Distance (m)	Direction	RoFRaS Flood Risk
1	0.0	On Site	Medium

7.4 Flood Defences

Are there any Flood Defences within 250m of the study site? No
Database searched and no data found.

7.5 Areas benefiting from Flood Defences

Are there any areas benefiting from Flood Defences within 250m of the study site? No

7.6 Areas benefiting from Flood Storage

Are there any areas used for Flood Storage within 250m of the study site? No

7.7 Groundwater Flooding Susceptibility Areas

7.7.1 Are there any British Geological Survey groundwater flooding susceptibility areas within 50m of the boundary of the study site? No

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

7.7.2 What is the highest susceptibility to groundwater flooding in the search area based on the underlying geological conditions?

Not Prone

The area is not considered to be prone to groundwater flooding based on rock type.

7.8 Groundwater Flooding Confidence Areas

What is the British Geological Survey confidence rating in this result? Not Applicable

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

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

8. Designated Environmentally Sensitive Sites Map



8. Designated Environmentally Sensitive Sites

Presence of Designated Environmentally Sensitive Sites within 2000m of the study site? Yes

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

0

Database searched and no data found.

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

0

Database searched and no data found.

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

0

Database searched and no data found.

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

0

Database searched and no data found.

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

0

Database searched and no data found.

B.6 Records of Ancient Woodland within 2000m of the study site:

Database searched and no data found.

0

B.7 Records of Local Nature Reserves (LNR) within 2000m of the study site:

Database searched and no data found.

0

B.8 Records of World Heritage Sites within 2000m of the study site:

Database searched and no data found.

0

B.9 Records of Environmentally Sensitive Areas within 2000m of the study site:

Database searched and no data found.

0

B.10 Records of Areas of Outstanding Natural Beauty (AONB) within 2000m of the study site:

Database searched and no data found.

0

B.11 Records of National Parks (NP) within 2000m of the study site:

Database searched and no data found.

0

B.12 Records of Nitrate Sensitive Areas within 2000m of the study site:

Database searched and no data found.

0

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

7

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

ID	Distance (m)	Direction	NVZ Name	Data Source
1	0	On Site	New	DEFRA
2	0	On Site	Existing	DEFRA
3	219	N	Existing	DEFRA
4	404	E	Existing	DEFRA
Not shown	1475	S	New	DEFRA
Not shown	1475	S	Existing	DEFRA
Not shown	1587	S	Existing	DEFRA

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

0

Database searched and no data found.

9. Natural Hazards Findings

9.1 Detailed BGS GeoSure Data

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

9.1.1 Shrink-Swell

What is the maximum Shrink-Swell* hazard rating identified on the study site? Low

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

Hazard

Ground conditions predominantly medium plasticity. Do not plant trees with high soil moisture demands near to buildings. For new built, consideration should be given to advice published by the National House Building Council (NHBC) and the Building Research Establishment (BRE). There is a possible increase in construction cost to reduce potential shrink-swell problems. For existing property, there is a possible increase in insurance risk, especially during droughts or where vegetation with high moisture demands is present.

9.1.2 Landslides

What is the maximum Landslide* hazard rating identified on the study site? Very Low

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

Hazard

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

9.1.3 Soluble Rocks

What is the maximum Soluble Rocks* hazard rating identified on the study site? Negligible

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

Hazard

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

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

9.1.4 Compressible Ground

What is the maximum Compressible Ground* hazard rating identified on the study site? **Moderate**

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

Hazard

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

9.1.5 Collapsible Rocks

What is the maximum Collapsible Rocks* hazard rating identified on the study site? **Negligible**

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

Hazard

No indicators for collapsible deposits identified. No actions required to avoid problems due to collapsible deposits. No special ground investigation required, or increased construction costs or increased financial risk due to potential problems with collapsible deposits.

9.1.6 Running Sand

What is the maximum Running Sand* hazard rating identified on the study site? **Moderate**

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

Hazard

Significant potential for running sand problems with relatively small changes in ground conditions. Avoid large amounts of water entering the ground (for example through plot leakage or small-seeps). Do not dig (deep) holes into saturated ground near the property without technical advice. For new build: consider the consequences of soil and groundwater conditions during and after construction. For existing property: possible increase in insurance risk from running sand, for example, due to water leakage, high rainfall events or flooding.

9.2 Radon

9.2.1 Radon Affected Areas

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

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

9.2.2 Radon Protection

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

ones as described in publication BR211 by the Building Research Establishment?

No radon protective measures are necessary.

10. Mining

10.1 Coal Mining

Are there any coal mining areas within 75m of the study site? No

Database searched and no data found.

10.2 Non-Coal Mining

Are there any Non-Coal Mining areas within 50m of the study site boundary? No

Database searched and no data found.

10.3 Brine Affected Areas

Are there any brine affected areas within 75m of the study site? No

Guidance: No Guidance Required.

Contact Details

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

British Geological Survey Enquiries
Kingdley Durham Centre
Keyworth, Nottingham NG12 5GG
Tel: 0115 936 2143
Fax: 0115 936 3276
Email:

Web: www.bgs.ac.uk

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

Environment Agency
National Customer Contact Centre, PO Box 344
Rotherham, S60 1BT
Tel: 08708 506 506
Web: www.environment-agency.gov.uk
Email: enquiries@environment-agency.gov.uk

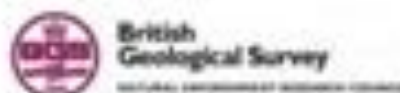
Public Health England
Public Information access office
Public Health England, Wellington House
133-135 Waterloo Road, London, SE1 8UG
www.gov.uk/phe
Email: enquiries@phe.gov.uk
High switchboard: 020 7654 8000

The Coal Authority
200 Lichfield Lane
Hansfield
Notts NG10 4RG
Tel: 0345 7626 848
DX 716176 Hansfield 5
www.coal.gov.uk

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

Local Authority
Authority: South Holland District Council
Phone: 01775 761 161
Web: <http://www.sholland.gov.uk/>
Address: Council Offices, Priory Road, Spalding, Lincolnshire, PE11

Getmapping PLC
Virginia Villas, High Street, Hartley Wintney,
Hampshire RG27 8BW
Tel: 01252 845444



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

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This report has been prepared in accordance with the Groundsure Ltd standard Terms and Conditions of Business for work of this nature.

Standard Terms and Conditions

1 Definitions

In these terms and conditions unless the context otherwise requires:

"Beneficiary" means the person or entity for whose benefit the Client has obtained the Services.

"Client" means the party or parties entering into a Contract with Groundsure.

"Commercial" means any building or property which is not Residential.

"Confidential Information" means the contents of this Contract and all information received from the Client as a result of, or in connection with, this Contract other than:

(i) information which the Client can prove was rightfully in its possession prior to disclosure by Groundsure; and

(ii) any information which is in the public domain (other than by virtue of a breach of this Contract).

"Support Services" means Support Services provided by Groundsure including, without limitation, interpreting Third Party and in-house environmental data, providing environmental support advice, undertaking environmental audits and assessments, Site Investigations, Site monitoring and related items.

"Contract" means the contract between Groundsure and the Client, for the provision of the Services, and which shall incorporate these terms and conditions, the Order, and the relevant User Guide.

"Third Party Data Provider" means any third party providing Third Party Content to Groundsure.

"Data Reports" means reports comprising factual data with no accompanying interpretation.

"Fee" has the meaning set out in clause 5.1.

"Groundsure" means Groundsure Limited, a company registered in England and Wales under number 02621026.

"Groundsure Materials" means all materials prepared by Groundsure and provided as part of the Services, including but not limited to Third Party Content, Data Reports, Mapping, and Risk Screening Reports.

"Intellectual Property" means any patent, copyright, design rights, trade or service mark, moral rights, data protection rights, know-how or trade mark in each case whether registered or not and including applications for the same or any other rights of a similar nature anywhere in the world.

"Mapping" means a map, map data or a combination of historical maps of various ages, time periods and scales.

"Order" means an electronic, written or other order form submitted by the Client requesting Services from Groundsure in respect of a specified Site.

"Ordinance Survey" means the Secretary of State for Business, Innovation and Skills, acting through Ordnance Survey, Adams Drive, Southampton, SO24 0DL, UK.

"Order Website" means the online platform through which Orders may be placed by the Client and accepted by Groundsure.

"Report" means a Risk Screening Report or Data Report for Commercial or Residential property.

"Residential" means any building or property used or so intended to be used as a single dwelling.

"Risk Screening Report" means a risk screening report comprising factual data with an accompanying interpretation by Groundsure.

"Services" means any Report, Mapping and/or Support Services which Groundsure has agreed to provide by accepting an Order pursuant to clause 2.1.

"Site" means the area of land in respect of which the Client has requested Groundsure to provide the Services.

"Third Party Content" means data, database information or other information which is provided to Groundsure by a Third Party Data Provider.

"User Guide" means the user guide, as amended from time to time, available upon request from Groundsure and on the website (www.groundsure.com) and forming part of the Contract.

2 Scope of Services, terms and conditions, requests for insurance and quotations

2.1 Groundsure agrees to provide the Services in accordance with the Contract.

2.2 Groundsure shall exercise reasonable skill and care in the provision of the Services.

2.3 Subject to clause 1.3 the Client acknowledges that it has not relied on any statement or representation made by or on behalf of Groundsure which is not set out and expressly agreed in writing in the Contract and all such statements and representations are hereby excluded to the fullest extent permitted by law.

2.4 The Client acknowledges that terms and conditions appearing on a Client's order form, printed stationery or other communication, or any terms or conditions implied by custom, practice or course of dealing shall be of no effect, and that this Contract shall prevail over all others in relation to the Order.

2.5 If the Client or Beneficiary requests insurance in conjunction with or as a result of the Services, Groundsure shall use reasonable endeavours to recommend such insurers, but makes no warranty that such insurance shall be available from insurers or that it will be offered on reasonable terms. Any insurance purchased by the Client or Beneficiary shall be subject solely to the terms of the policy issued by insurers and Groundsure will have no liability therefor. In addition you acknowledge and agree that Groundsure does not act as an agent or broker for any insurance providers. The Client should take care and ensure that the Beneficiary takes independent advice to ensure that the insurance policy requested or offered is suitable for its requirements.

2.6 Groundsure's quotations or proposals are valid for a period of 30 days only unless an alternative period of time is explicitly stipulated by Groundsure. Groundsure reserves the right to withdraw any quotation or proposal at any time before an Order is accepted by Groundsure. Groundsure's acceptance of an Order shall be binding only when made in writing and signed by Groundsure's authorised representative or when accepted through the Order Website.

3 The Client's obligations

3.1 The Client shall comply with the terms of this Contract and

(i) procure that the Beneficiary or any third party relying on the Services complies with and acts as if it is bound by the Contract and

(ii) be liable to Groundsure for the acts and omissions of the Beneficiary or any third party relying on the Services as if such acts and omissions were those of the Client.

3.2 The Client shall be solely responsible for ensuring that the Services are appropriate and suitable for its and/or the Beneficiary's needs.

3.3 The Client shall supply to Groundsure or, so far as practicable and without charge all requisite information (and the Client warrants that such information is accurate, complete and appropriate), including without limitation any environmental information relating to the Site and shall give such assistance as Groundsure shall reasonably require in the provision of the Services including, without limitation, access to the Site, facilities and equipment.

3.4 Where the Client's approval or decision is required to enable Groundsure to carry out work in order to provide the Services, such approval or decision shall be given or procured in reasonable time and so as not to delay or disrupt the performance of the Services.

3.5 Save as expressly permitted by this Contract the Client shall not, and shall procure that the Beneficiary shall not, in whole, alter, add to, or amend the Groundsure Materials, or use the Groundsure Materials in a manner for which they were not intended. The Client may make the Groundsure Materials available to a third party who is considering acquiring same or all of, or providing funding in relation to, the Site, but such third party cannot rely on the same unless expressly permitted under clause 4.

3.6 The Client is responsible for maintaining the confidentiality of its own name and password if using the Order Website and the Client acknowledges that Groundsure accepts no liability for any loss or damage suffered by the Client as a consequence of using the Order Website.

4 Reliance

4.1 The Client acknowledges that the Services provided by Groundsure consist of the presentation and analysis of Third Party Content and other content and that information obtained from a Third Party Data Provider cannot be guaranteed or warranted by Groundsure to be reliable.

4.2 In respect of Data Reports, Mapping and Risk Screening Reports, the following classes of person and no other are entitled to rely on their contents:

- (i) the Beneficiary;
- (ii) the Beneficiary's professional advisers;
- (iii) the first purchaser or first tenant of the Site; and
- (iv) the professional advisers and lenders of the first purchaser or tenant of the Site.

4.3 In respect of Support Services, only the Client, Beneficiary and parties expressly named in a Report and to other parties are entitled to rely on its contents.

4.4 Save as set out in clauses 4.2 and 4.3 and unless otherwise expressly agreed in writing, no other person or entity of any kind is entitled to rely on any Services or Report issued or provided by Groundsure. Any party considering such Reliance and Services does so at their own risk.

5 Fees and Disbursements

5.1 Groundsure shall charge and the Client shall pay fees at the rate and

frequency specified in the written proposal, Order Website or Order acknowledgment form, plus (in the case of Support Services) all proper disbursements incurred by Groundsure. The Client shall in addition pay all value added tax or other tax payable on such fees and disbursements in relation to the provision of the Services (together "Fees").

5.2 The Client shall pay all outstanding Fees to Groundsure in full, without deduction, counterclaim or set off within 30 days of the date of Groundsure's invoice or such other period as may be agreed in writing between Groundsure and the Client ("Payment Date"). Interest on late payments will accrue on a daily basis from the Payment Date until the date of payment (whether before or after judgment) at the rate of 8% per annum.

5.3 The Client shall be deemed to have agreed the amount of any invoice unless an objection is made in writing within 28 days of the date of the invoice. As soon as reasonably practicable after being notified of an objection, without prejudice to clause 5.2 a member of Groundsure's management team will contact the Client and the parties shall then use all reasonable endeavours to resolve the dispute within 15 days.

6 Intellectual Property and Confidentiality

6.1 Subject to:

(i) full payment of all relevant Fees and

(ii) compliance with this Contract, the Client is granted (and is permitted to sub-license to the Beneficiary) a royalty free, worldwide, non-assignable and (save to the extent set out in this Contract) non-transferable license to make use of the Groundsure Materials.

6.2 All intellectual property in the Groundsure Materials are and shall remain owned by Groundsure or Groundsure's licensors (including without limitation the Third Party Data Provider) the Client acknowledges, and shall procure acknowledgment by the Beneficiary of, such ownership. Nothing in this Contract purports to transfer or assign any rights to the Client or the Beneficiary in respect of such Intellectual Property.

6.3 Third Party Data Provider may enforce any breach of clauses 6.1 and 6.2 against the Client or Beneficiary.

6.4 The Client shall, and shall procure that any recipients of the Groundsure Materials shall:

(i) not remove, suppress or modify any trade mark, copyright or other proprietary marking belonging to Groundsure or any third party from the Services;

(ii) use the information obtained as part of the Services in respect of the subject site only, and shall not store or reuse any information obtained as part of the Services provided in respect of adjacent or nearby sites;

(iii) not create any product or report which is derived directly or indirectly from the Services (save that those acting in a professional capacity to the Beneficiary may provide advice based upon the Services);

(iv) not combine the Services with or incorporate such Services into any other information (data or service);

(v) not retransmit or otherwise change (whether by modification, addition or enhancement), the Services (save that those acting for the Beneficiary in a professional capacity shall not be in breach of this clause 6.4(v) where such retransmission is in the normal course of providing advice based upon the Services);

(vi) where a Report and/or Mapping contains material belonging to Ordnance Survey, acknowledge and agree that such content is protected by Crown Copyright and shall not use such content for any purpose outside of receiving the Services; and

(vii) not copy in whole or in part, by any means any map, profile or map or copies containing content belonging to Ordnance Survey (other than that contained within Ordnance Survey's OS Street Map) without first being in possession of a valid Paper Map/Copying Licence from Ordnance Survey.

6.5 Notwithstanding clause 6.4, the Client may make reasonable use of the Groundsure Materials in order to advise the Beneficiary in a professional capacity. However, Groundsure shall have no liability in respect of any advice, opinion or report given or provided to Beneficiaries by the Client.

6.6 The Client shall procure that any person to whom the Services are made available shall notify Groundsure of any request or requirement to disclose, publish or disseminate any information contained in the Services in accordance with the Freedom of Information Act 2000, the Environmental Information Regulations 2004 or any associated regulations or regulations in force from time to time.

7 Liability: Particular Attention Should Be Paid To This Clause

7.1 This Clause 7 sets out the extent liability of Groundsure, including any liability for the acts or omissions of its employees, agents, consultants, subcontractors and Third Party Content, in respect of:

(i) any breach of contract, including any deliberate breach of the Contract by Groundsure or its employees, agents or

subcontractors;

(ii) any use made of the Reports, Services, Materials or any part of them; and

(iii) any representation, statement or forbearance or omission (including negligent writing under or in connection with the Contract).

7.2 All warranties, conditions and other terms implied by statute or common law are, to the fullest extent permitted by law, excluded from the Contract.

7.3 Nothing in the Contract limits or excludes the liability of the Supplier for death or personal injury resulting from negligence, or for any damage or liability incurred by the Client or Beneficiary as a result of fraud or fraudulent misrepresentation.

7.4 Groundsure shall not be liable for:

(i) loss of profits;

(ii) loss of business;

(iii) depletion of goodwill and/or similar losses;

(iv) loss of anticipated savings;

(v) loss of goods;

(vi) loss of contract;

(vii) loss of use;

(viii) loss or corruption of data or information;

(ix) business interruption;

(x) any kind of special, indirect, consequential or pure economic loss, costs, damages, charges or expenses;

(xi) loss or damage that arise as a result of the use of all or part of the Groundsure Materials in breach of the Contract;

(xii) loss or damage arising as a result of any error, omission or inaccuracy in any part of the Groundsure Materials where such error, omission or inaccuracy is caused by any Third Party Content or any reasonable interpretation of Third Party Content;

(xiii) loss or damage to a computer, software, modem, telephone or other property; and

(xiv) loss or damage caused by a delay or loss of use of Groundsure's internet ordering service.

7.5 Groundsure's total liability in relation to or under the Contract shall be limited to £10 million for any claim or claims.

7.6 Groundsure shall procure that the Beneficiary shall be bound by limitations and exclusions of liability in favour of Groundsure which accord with those detailed in clauses 7.4 and 7.5 (subject to clause 7.3) in respect of all claims which the Beneficiary may bring against Groundsure in relation to the Services or other matters arising pursuant to the Contract.

8 Groundsure's right to suspend or terminate

8.1 If Groundsure reasonably believes that the Client or Beneficiary has not provided the information or assistance required to enable the proper provision of the Services, Groundsure shall be entitled to suspend all further performance of the Services until such time as any such deficiency has been made good.

8.2 Groundsure shall be entitled to terminate the Contract immediately on written notice in the event that:

(i) the Client fails to pay any sum due to Groundsure within 30 days of the Payment Date; or

(ii) the Client (being an individual) has a bankruptcy order made against him or being a company/ shall enter into liquidation whether compulsory or voluntary or has an administration order made against it or if a receiver shall be appointed over the whole or any part of its property assets or undertaking or if the Client is struck off the Register of Companies or dissolved; or

(iii) the Client (being a company) is unable to pay its debts within the meaning of Section 123 of the Insolvency Act 1986 or being an individual appears unable to pay his debts within the meaning of Section 268 of the Insolvency Act 1986 or if the Client shall enter into a composition or arrangement with the Client's creditors or shall suffer distress or execution to be levied on its goods; or

(iv) the Client or the Beneficiary breaches any term of the Contract (including, but not limited to, the obligations in clause 4) which is incapable of remedy or if remediable, is not remedied within five days of notice of the breach.

9 Client's Right to Terminate and Suspend

9.1 Subject to clause 10.1, the Client may at any time upon written notice terminate or suspend the provision of all or any of the Services.

9.2 In any event, where the Client is a consumer (and not a business) he/she/they expressly acknowledges and agrees that:

(i) the supply of Services under this Contract (and therefore the performance of the Contract) commences immediately upon Groundsure's acceptance of the Order; and

(ii) the Reports and/or Mapping provided under this Contract are

- (a) supplied to the Client's specification(s) and in any event
(b) by their nature cannot be returned.

10 Consequences of Withdrawal, Termination or Suspension

10.1 Upon termination of the Contract:

(i) Groundsure shall take steps to bring to an end the Services in an orderly manner, vacate any site with all reasonable speed and shall deliver to the Client and/or Beneficiary any property of the Client and/or Beneficiary in Groundsure's possession or control; and

(ii) the Client shall pay to Groundsure all and any fees payable in respect of the performance of the Services up to the date of termination or suspension. In respect of any Support Services provided, the Client shall also pay Groundsure any additional costs incurred in relation to the termination or suspension of the Contract.

11 Anti-Bribery

11.1 The Client warrants that it shall:

(i) comply with all applicable laws, statutes and regulations relating to bribery and anti-corruption including but not limited to the Bribery Act 2010;

(ii) comply with such of Groundsure's anti-bribery and anti-corruption policies as are notified to the Client from time to time; and

(iii) promptly report to Groundsure any request or demand for any undue financial or other advantage of any kind received by or on behalf of the Client in connection with the performance of this Contract.

11.2 Breach of this Clause 11 shall be deemed a material breach of this Contract.

12 General

12.1 The Mapping contained in the Services is protected by Crown copyright and must not be used for any purpose other than as part of the Services or as specifically provided in the Contract.

12.2 The Client shall be permitted to make one copy only of each Report or Mapping Order. Thereafter the Client shall be entitled to make unlimited copies of the Report or Mapping Order only in accordance with an Ordnance Survey paper map copy licence available through Groundsure.

12.3 Groundsure reserves the right to amend or vary this Contract. No amendment or variation to this Contract shall be valid unless signed by an authorised representative of Groundsure.

12.4 No failure on the part of Groundsure to exercise, and no delay in exercising, any right, power or provision under this Contract shall operate as a waiver thereof.

12.5 Save as expressly provided in this Contract, no person other than the persons set out therein shall have any right under the Contract (Rights of Third Parties) Act 1999 to enforce any term of the Contract.

12.6 The Secretary of State for Business, Innovation and Skills ("BIS") or BIS successor body, as the case may be, acting through Ordnance Survey may enforce a breach of clause 5.4(b) and clause 5.4(c) of these terms and conditions against the Client in accordance with the provisions of the Contract (Rights of Third Parties) Act 1999.

12.7 Groundsure shall not be liable to the Client if the provision of the Services is delayed or prevented by one or more of the following circumstances:

- (i) the Client or Beneficiary's failure to provide facilities, access or information;
- (ii) fire, storm, flood, terrorist or epidemic;
- (iii) Acts of God or the public enemy;
- (iv) riot, civil commotion or war;
- (v) strikes, labour disputes or industrial action;
- (vi) acts or regulations of any governmental or other agency;
- (vii) suspension or delay of services at public registries by Third Party (Data Provider);
- (viii) changes in law; or
- (ix) any other reason beyond Groundsure's reasonable control.

In the event that Groundsure is prevented from performing the Services (or any part thereof) in accordance with the clause 12.6 for a period of not less than 30 days then Groundsure shall be entitled to terminate this Contract immediately on written notice to the Client.

12.8 Any notice provided shall be in writing and shall be deemed to be properly given if delivered by hand or sent by first class post, facsimile or by email to the address, facsimile number or email address of the relevant party as may have been notified by such party to the other for such purpose or in the absence of such notification the last known address.

12.9 Such notice shall be deemed to have been received on the day of delivery if delivered by hand, facsimile or email (save to the extent such day is not a working day when it shall be deemed to have been delivered on the next working day) and on the second working day after the day of posting if sent by first class post.

12.10 The Contract constitutes the entire agreement between the parties and shall supersede all previous arrangements between the parties relating to the subject matter hereof.

12.11 Each of the provisions of the Contract is severable and distinct from the others and if one or more provisions is or should become invalid, illegal or unenforceable, the validity and enforceability of the remaining provisions shall not in any way be limited or impaired.

12.12 This Contract shall be governed by and construed in accordance with English law and any proceedings arising out of or connected with this Contract shall be subject to the exclusive jurisdiction of the English courts.

12.13 Groundsure is an executive member of the Council of Property Search Organisation (CPSO) and has signed up to the Search Code administered by the Property Codes Compliance Board (PCCB). All Risk Sourcing Reports shall be supplied in accordance with the provisions of the Search Code.

12.14 If the Client or Beneficiary has a complaint about the Services, written notice should be given to the Compliance Officer at Groundsure who will respond in a timely manner.

12.15 The Client agrees that it shall, and shall procure that each Beneficiary shall, treat in confidence all Confidential Information and shall not, and shall procure that each Beneficiary shall not (i) disclose any Confidential Information to any third party other than in accordance with the terms of this Contract; and (ii) use Confidential Information for a purpose other than the exercise of its rights and obligations under this Contract. Subject to clause 5.6, nothing shall prevent the Client or any Beneficiary from disclosing Confidential Information to the extent required by law. © Groundsure Limited June 2019



Groundsure

LOCATION INTELLIGENCE

Goldfinch Environmental Limited

2, Wrenshall Cottages,
Bury St Edmunds,
Suffolk, IP31 3AS

Groundsure
Reference: GS-2391-2572008

Your Reference: 0331-ds

Report Date: 5 Nov 2015

Report Delivery Method: Email - pdf

Groundsure Geosight

Address: LAND OFF HORSESHOE ROAD, SPALDING, PE11 3JA

Dear Sir/ Madam,

Thank you for placing your order with Groundsure. Please find enclosed the Groundsure Geosight as requested.

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

Yours faithfully,

Managing Director
Groundsure Limited

Enc.
Groundsure Geosight

Groundsure Geoinsight

Address: LAND OFF HORSESHOE ROAD, SPALDING, PE11 3JA
Date: 5 Nov 2015
Reference: GS-2391-2572008
Client: Goldfinch Environmental Limited



Aerial Photograph Capture date: 10-Aug-2007
Grid Reference: 522653,321497
Site Size: 0.35ha

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Overview of Findings

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

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

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

Section 1: Geology

1.1 Artificial Ground	1.1.1 Is there any Artificial Ground/ Made Ground present beneath the study site?	Yes
	1.1.2 Are there any records relating to permeability of artificial ground within the study site boundary?	Yes
1.2 Superficial Geology and Landfills	1.2.1 Is there any Superficial Ground/Drift Geology present beneath the study site?	Yes
	1.2.2 Are there any records relating to permeability of superficial geology within the study site boundary?	Yes
	1.2.3 Are there any records of landfill within 500m of the study site boundary?	Yes
	1.2.4 Are there any records relating to permeability of landfill within the study site boundary?	Yes
1.3 Bedrock, Solid Geology & Faults	1.3.1 For records of Bedrock and Solid Geology beneath the study site* see the detailed findings section.	
	1.3.2 Are there any records relating to permeability of bedrock within the study site boundary?	Yes
	1.3.3 Are there any records of faults within 500m of the study site boundary?	Yes
1.4 Radon data	1.4.1 Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level?	The property is not in a Radon Affected Area, as less than 1% of properties are above the Action Level.
	1.4.2 Is the property in an area where Radon Protection Measures are required for new properties or extensions to existing ones as described in publication BR211 by the Building Research Establishment?	No radon protective measures are necessary

Section 2: Ground Workings	On-site	0-50m	51-250	251-500	501-1000
2.1 Historical Surface Ground Working Features from Small Scale Mapping	0	0	0	Not Searched	Not Searched
2.2 Historical Underground Workings from Small Scale Mapping	0	0	0	0	0
2.3 Current Ground Workings	0	0	0	0	0

Section 3 Mining, Extraction & Natural Cavities	On-site	0-50m	51-250	251-500	501-1000
3.1 Historical Mining	0	0	0	0	0
3.2 Coal Mining	0	0	0	0	0
3.3 Johnson Pools and Bloomer Mining Area	0	0	0	0	0
3.4 Non-Coal Mining	0	0	0	0	0
3.5 Non-Coal Mining Cavities	0	0	0	0	0
3.6 Natural Cavities	0	0	0	0	0
3.7 Brine Extraction	0	0	0	0	0
3.8 Gypsum Extraction	0	0	0	0	0
3.9 Tin Mining	0	0	0	0	0
3.10 Clay Mining	0	0	0	0	0
Section 4 Natural Ground Subsidence	On-site				
4.1 Shrink-Swell Clay	Low				
4.2 Landslides	Very Low				
4.3 Ground Dissolution of Soluble Rocks	Negligible				
4.4 Compressible Deposits	Moderate				
4.5 Collapsible Deposits	Negligible				
4.6 Running Sand	Moderate				
Section 5 Borehole Records	On-site	0-50m	51-250		
5 BGS Recorded Boreholes	0	0	0		
Section 6 Estimated Background Soil Chemistry	On-site	0-50m	51-250		
6 Records of Background Soil Chemistry	2	0	1		
Section 7 Railways and Tunnels	On-site	0-50m	51-250	251-500	
7.1 Tunnels	0	0	0	Not Searched	
7.2 Historical Railway and Tunnel Features	1	0	0	Not Searched	
7.3 Historical Railways	0	1	0	Not Searched	
7.4 Active Railways	0	0	0	Not Searched	

Section 7: Railways and Tunnels

On-site

0-50m

51-250

251-500

7.1 Railway Projects

0

0

0

0

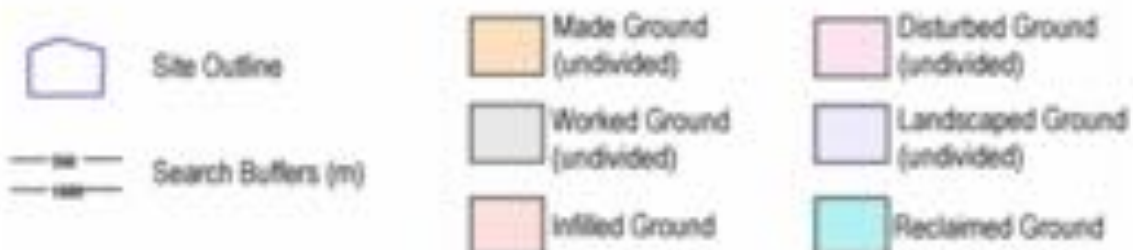
1 Geology

1.1 Artificial Ground Map



Artificial Ground Legend

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1 Geology

1.1 Artificial Ground

1.1.1 Artificial/ Made Ground

The following geological information represented on the mapping is derived from 1:50,000 scale BGS Geological mapping, Sheet No:144

Are there any records of Artificial/Made Ground within 500m of the study site boundary? No

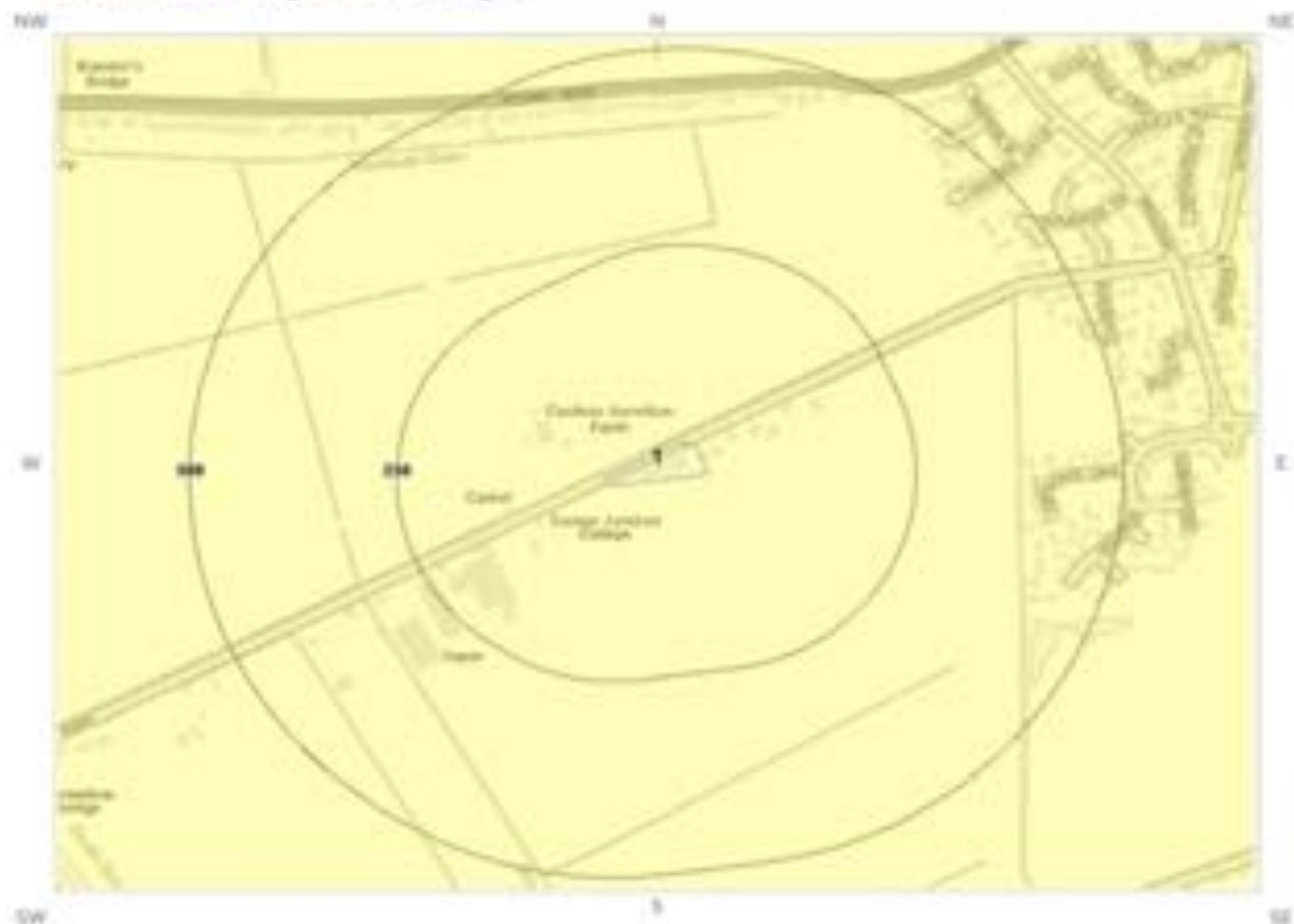
Database searched and no data found.

1.1.2 Permeability of Artificial Ground

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

Database searched and no data found.

1.2 Superficial Deposits and Landslips Map



Superficial Deposits and Landslips
Legend

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-  Site Outline
-  Search Buffers (m)

1.2 Superficial Deposits and Landslips

1.2.1 Superficial Deposits/ Drift Geology

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

ID	Distance (m)	Direction	LEK Code	Description	Rock Description
1	0.0	On Site	TFD	TIDAL FLAT DEPOSITS	CLAY AND SILT (UNLITHIFIED DEPOSITS CODING SCHEME)

1.2.2 Permeability of Superficial Ground

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

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

1.2.3 Landslip

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

Database searched and no data found.

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

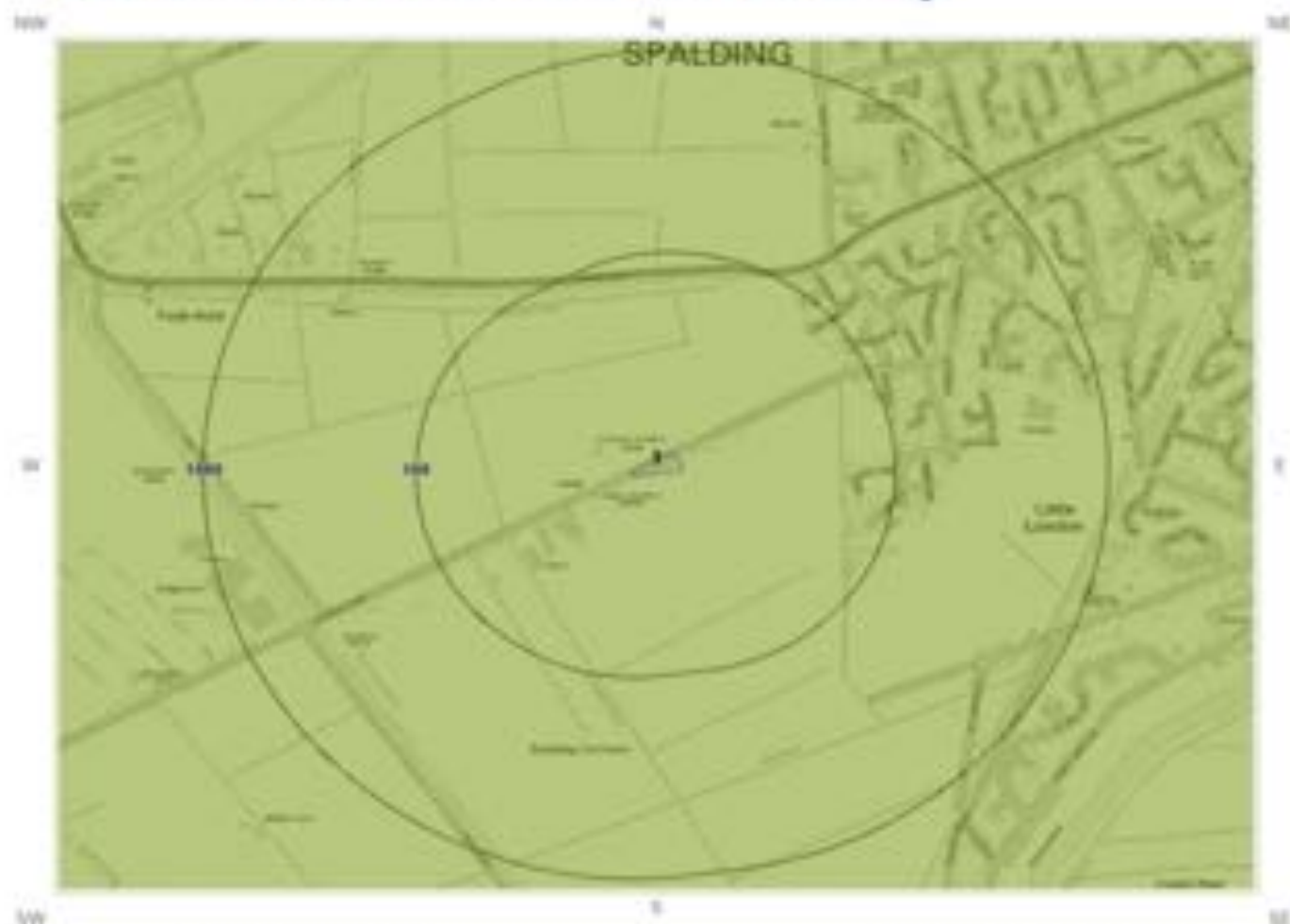
1.2.4 Landslip Permeability

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

Database searched and no data found.

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

1.3 Bedrock and Faults Map



Bedrock and Faults Legend

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1.3 Bedrock, Solid Geology & Faults

The following geological information represented on the mapping is derived from 1:50,000 scale BGS Geological mapping, Sheet No:144

1.3.1 Bedrock/ Solid Geology

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

ID	Distance (m)	Direction	LEX Code	Description	Rock Age
1	0.0	On Site	OxCL-HDST	Oxford Clay Formation - Mudstone	Oxfordian / Callovian

1.3.2 Permeability of Bedrock Ground

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

Distance (m)	Direction	Flow Type	Maximum Permeability	Minimum Permeability
0.0	On Site	Fracture	Low	Very Low

1.3.3 Faults

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

Database searched and no data found.

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

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

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

1.4 Radon Data

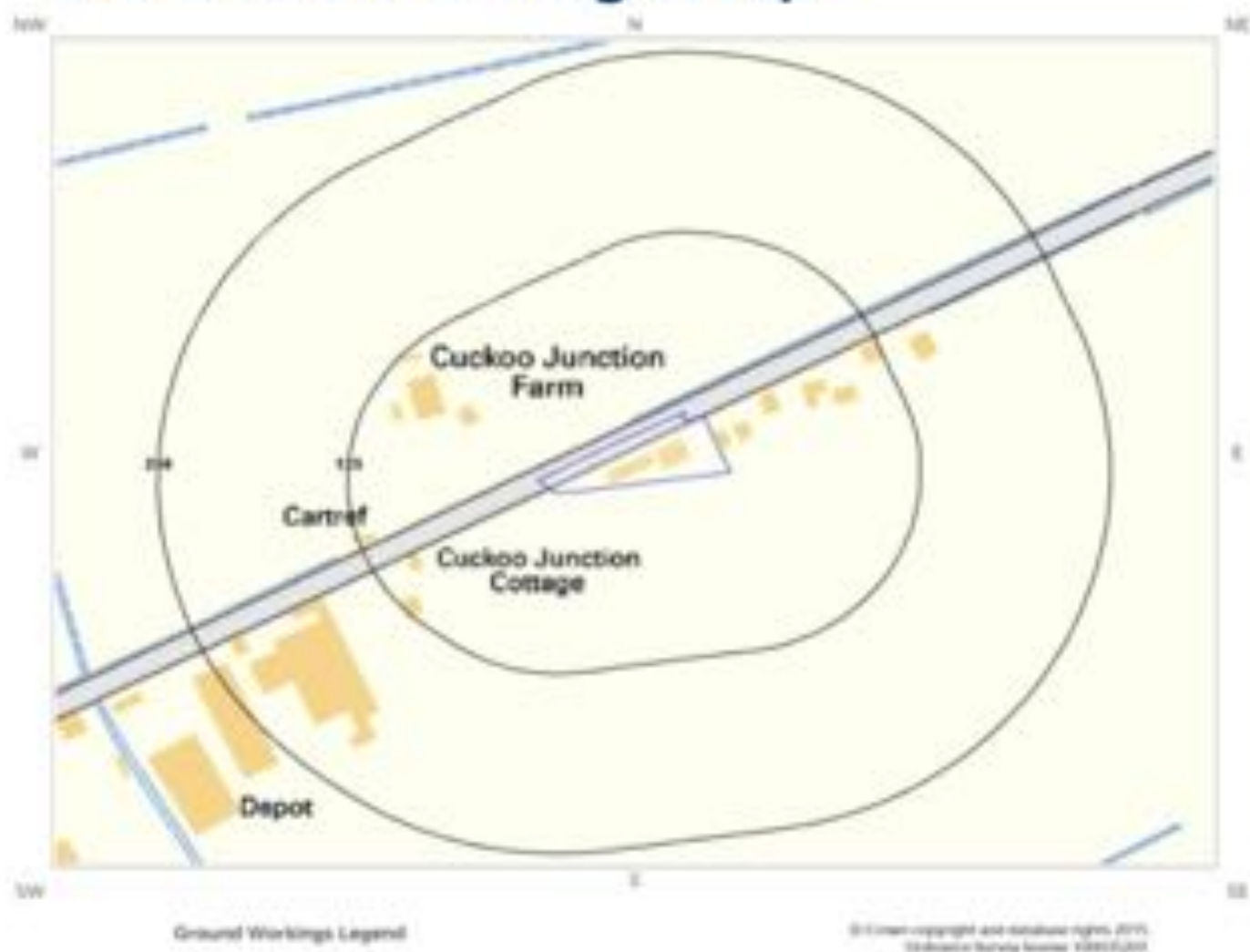
1.4.1 Radon Affected Areas

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

1.4.2 Radon Protection

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

2 Ground Workings Map



- | | | | |
|---|----------------------|---|----------------------------------|
|  | Site Outline |  | Historic Surface Ground Workings |
|  | Search Buffers (15m) |  | Historic Underground Workings |
|  | Search Buffers (30m) |  | Current Ground Workings |

2 Ground Workings

2.1 Historical Surface Ground Working Features derived from Historical Mapping

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

Are there any Historical Surface Ground Working Features within 250m of the study site boundary? No

Database searched and no data found.

2.2 Historical Underground Working Features derived from Historical Mapping

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

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

Database searched and no data found.

2.3 Current Ground Workings

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

Are there any BGS Current Ground Workings within 1000m of the study site boundary? No

Database searched and no data found.

3 Mining, Extraction & Natural Cavities Map



Mining, Extraction and
Natural Cavities Legend

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3 Mining, Extraction & Natural Cavities

3.1 Historical Mining

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

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

Database searched and no data found.

3.2 Coal Mining

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

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

Database searched and no data found.

3.3 Johnson Poole and Bloomer

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

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

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

3.4 Non-Coal Mining

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

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

Database searched and no data found.

3.5 Non-Coal Mining Cavities

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

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

Database searched and no data found.

3.6 Natural Cavities

This dataset provides information based on Peter Brett Associates natural cavities database.

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

Database searched and no data found.

3.7 Brine Extraction

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

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

Database searched and no data found.

3.8 Gypsum Extraction

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

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

Database searched and no data found.

3.9 Tin Mining

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

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

Database searched and no data found.

3.10 Clay Mining

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

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

No

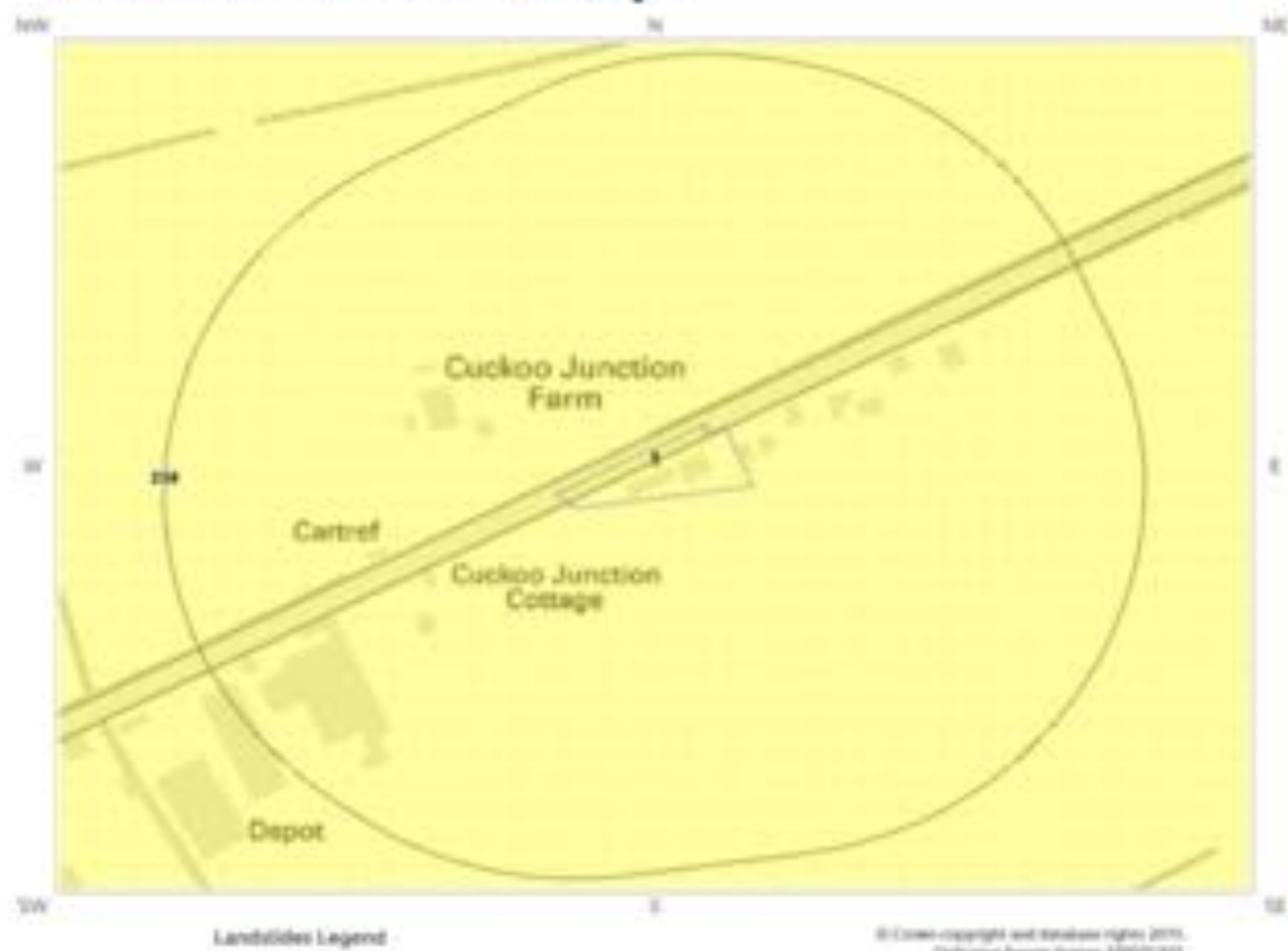
Database searched and no data found.

4 Natural Ground Subsidence

4.1 Shrink-Swell Clay Map



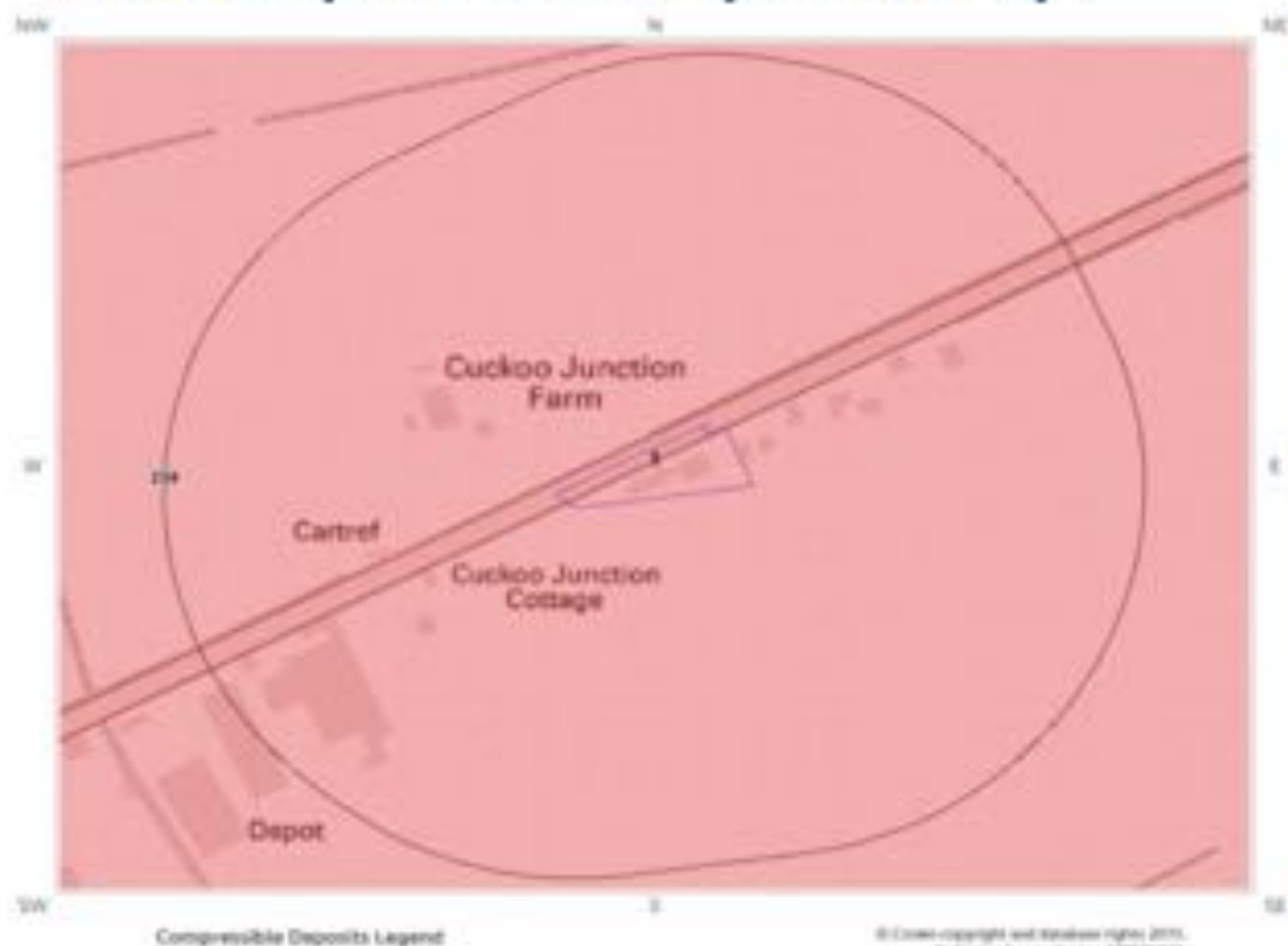
4.2 Landslides Map



4.3 Ground Dissolution Soluble Rocks Map



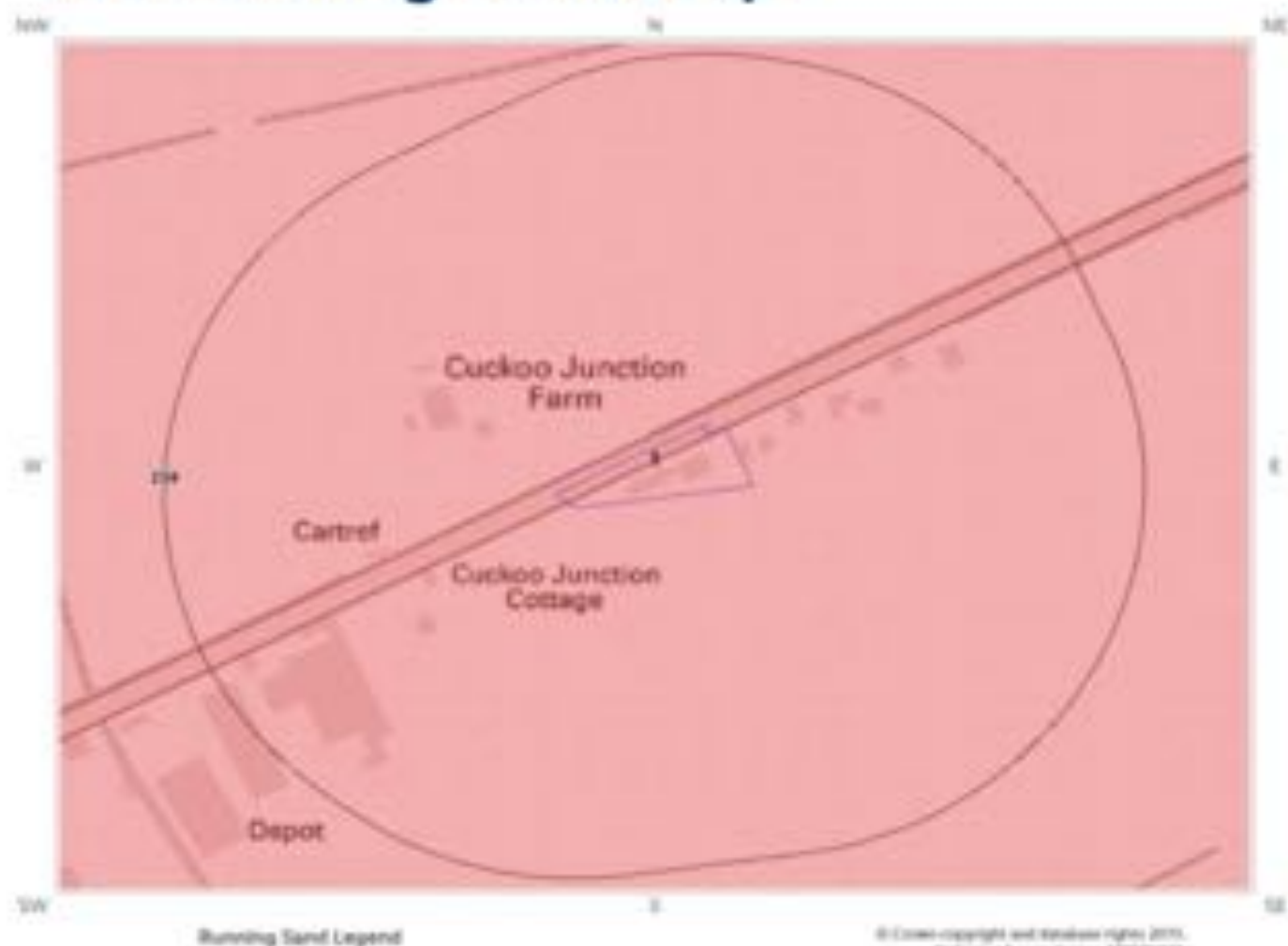
4.4 Compressible Deposits Map



4.5 Collapsible Deposits Map



4.6 Running Sand Map



4 Natural Ground Subsidence

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

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

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

4.1 Shrink-Swell Clays

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

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Low	Ground conditions predominantly medium plasticity. Do not plant trees with high soil moisture demands near to buildings. For new build, consideration should be given to advice published by the National House Building Council (NHBC) and the Building Research Establishment (BRE). There is a possible increase in construction cost to reduce potential shrink-swell problems. For existing property, there is a possible increase in insurance risk, especially during droughts or where vegetation with high moisture demands is present.

4.2 Landslides

The following Landslides information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Very Low	Slope instability problems are unlikely to be present. No special actions required to avoid problems due to landslides. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with landslides.

4.3 Ground Dissolution of Soluble Rocks

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

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Negligible	Soluble rocks are present, but unlikely to cause problems except under exceptional conditions. No special actions required to avoid problems due to soluble rocks. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with soluble rocks.

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

4.4 Compressible Deposits

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

ID	Distance (m)	Direction	Hazard Rating	Details
1	0-5	On Site	Moderate	Significant potential for compressibility problems. Do not drain, load or de-water ground near the property without technical advice. For new build, consider possibility of compressible ground in ground investigation, construction and building design. Consider effects of groundwater changes. Extra construction costs are likely. For existing property, possible increase in insurance risk from compressibility, especially if water conditions or loading of the ground change significantly.

4.5 Collapsible Deposits

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

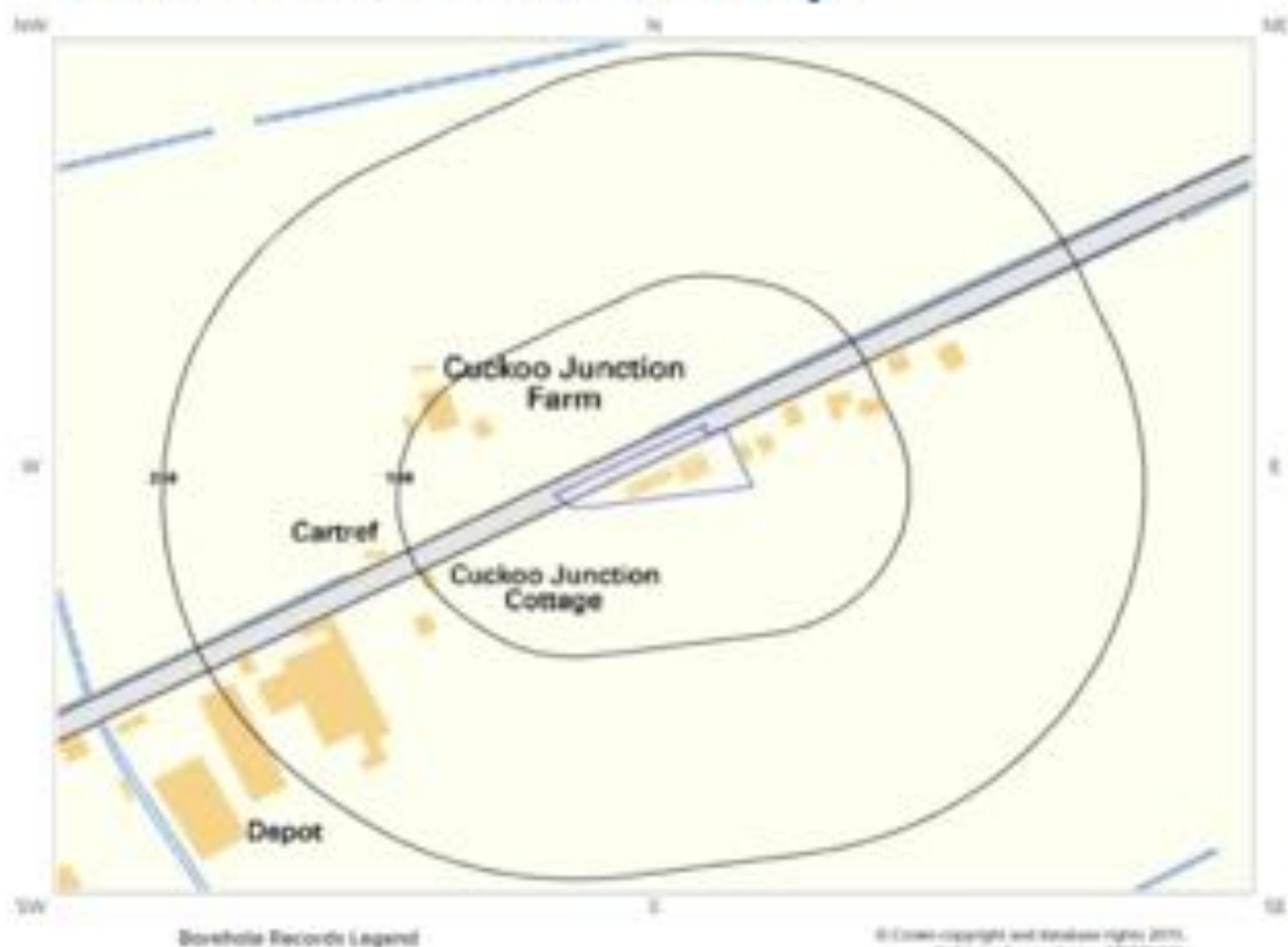
ID	Distance (m)	Direction	Hazard Rating	Details
1	0-5	On Site	Negligible	No indicators for collapsible deposits identified. No actions required to avoid problems due to collapsible deposits. No special ground investigation required, or increased construction costs or increased financial risk due to potential problems with collapsible deposits.

4.6 Running Sands

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

ID	Distance (m)	Direction	Hazard Rating	Details
1	0-5	On Site	Moderate	Significant potential for running sand problems with relatively small changes in ground conditions. Avoid large amounts of water entering the ground (for example through pipe leakage or soak-aways). Do not dig (sleep) holes into saturated ground near the property without technical advice. For new build, consider the consequences of soil and groundwater conditions during and after construction. For existing property, possible increase in insurance risk from running sand, for example, due to water leakage, high rainfall events or flooding.

5 Borehole Records Map



Borehole Locations

5 Borehole Records

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

Records of boreholes within 250m of the study site boundary: 0

Database searched and no data found.

6 Estimated Background Soil Chemistry

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

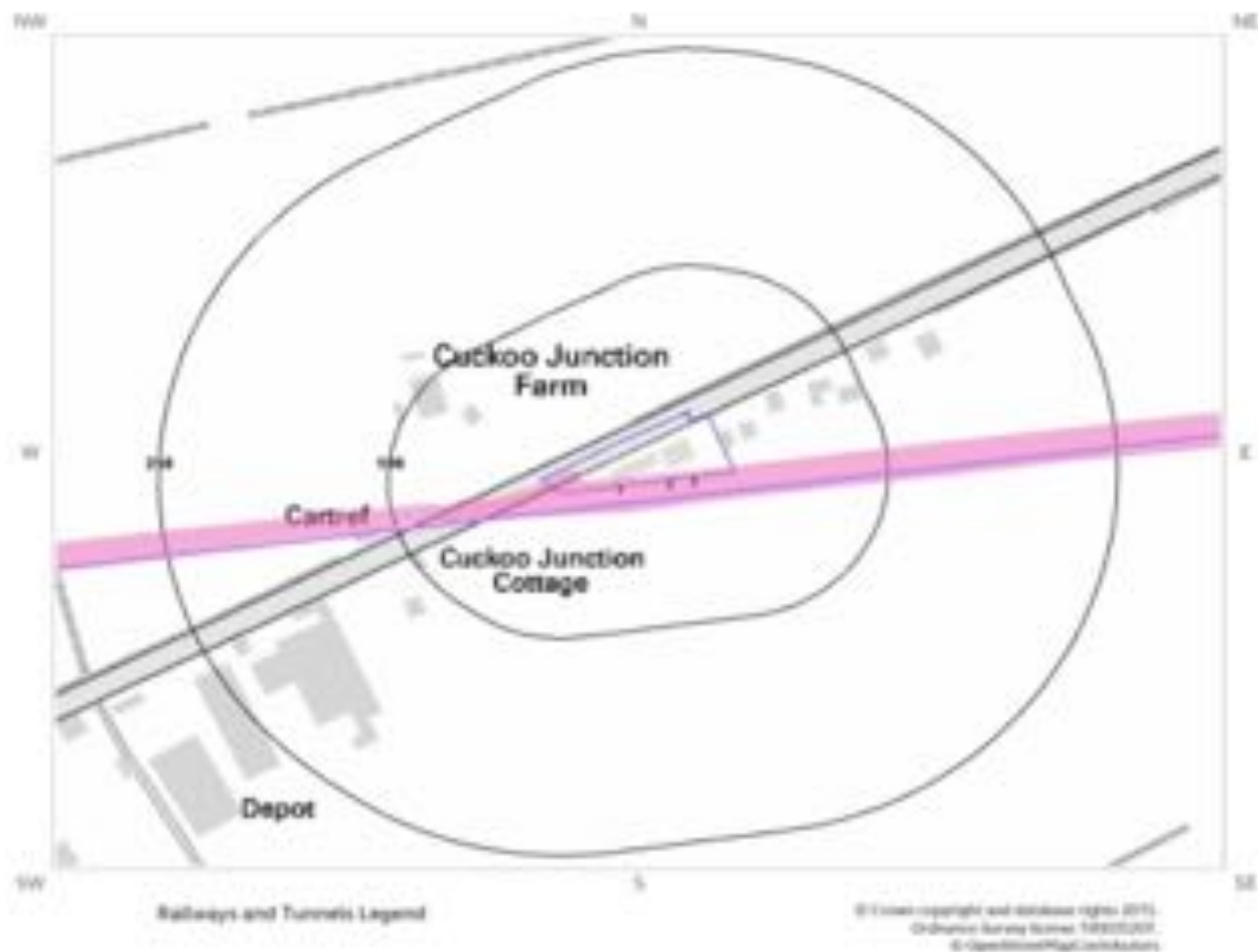
5

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

Distance (m)	Direction	Sample Type	Arsenic (As)	Cadmium (Cd)	Chromium (Cr)	Nickel (Ni)	Lead (Pb)
0.0	On Site	RuralSoil	<15 mg/kg	<1.0 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.0 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
87.0	W	RuralSoil	<15 mg/kg	<1.0 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
88.0	W	RuralSoil	<15 mg/kg	<1.0 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
231.0	S	RuralSoil	<15 mg/kg	<1.0 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg

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

7 Railways and Tunnels Map



7 Railways and Tunnels

7.1 Tunnels

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

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

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

Database searched and no data found.

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

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

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

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

Database searched and no data found.

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

7.2 Historical Railway and Tunnel Features

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

Have any historical railway or tunnel features been identified within the study site boundary? Yes

Have any historical railway or tunnel features been identified within 250m of the study site boundary? Yes

ID	Distance (m)	Direction	NOE	Details	Date
1	0	On Site	n/a	Railway	1887
2	0	On Site	n/a	Railway	1903
3	0	On Site	n/a	Railway	1929

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

7.3 Historical Railways

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

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

Distance (m)	Direction	Status
12	S	Abandoned

Note: multiple sections of the same track may be listed in the detail above.

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

7.4 Active Railways

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

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

Database searched and no data found.

Note: multiple sections of the same track may be listed in the detail above.

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

7.5 Railway Projects

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

Is the study site within 5km of the route of the High Speed 2 rail project?	No
Is the study site within 500m of the route of the Crossrail 1 rail project?	No

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

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

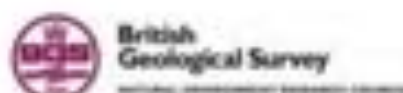
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BGS Geological Hazards Reports and general geological enquiries

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This report has been prepared in accordance with the Groundsure Ltd standard Terms and Conditions of business for work of this nature.

Standard Terms and Conditions

1 Definitions

In these terms and conditions unless the context otherwise requires:

"Beneficiary" means the person or entity for whose benefit the Client has obtained the Services.

"Client" means the party or parties entering into a Contract with Groundsure.

"Commercial" means any building or property which is not Residential.

"Confidential Information" means the contents of this Contract and all information received from the Client as a result of, or in connection with, this Contract other than:

- information which the Client can prove was rightfully in its possession prior to disclosure by Groundsure; and
- any information which is in the public domain (other than by virtue of a breach of this Contract).

"Support Services" means Support Services provided by Groundsure including without limitation, interpreting third party and in-house environmental data, providing environmental support advice, undertaking environmental audits and assessments, site investigation, site monitoring and related items.

"Contract" means the contract between Groundsure and the Client for the provision of the Services, and which shall incorporate these terms and conditions, the Order, and the relevant User Guide.

"Third Party Data Provider" means any third party providing Third Party Content to Groundsure.

"Data Reports" means reports comprising factual data with an accompanying interpretation.

"Fee" has the meaning set out in clause 5.1.

"Groundsure" means Groundsure Limited, a company registered in England and Wales under number 03621526.

"Groundsure Materials" means all materials prepared by Groundsure and provided as part of the Services, including but not limited to Third Party Content, Data Reports, Mapping, and Risk Screening Reports.

"Intellectual Property" means any patent, copyright, design rights, trade or service mark, moral rights, data protection rights, know-how or trade mark in each case whether registered or not and including applications for the same or any other rights of a similar nature anywhere in the world.

"Mapping" means a map, map data or a combination of historical maps of various ages, time periods and scales.

"Order" means an electronic, written or other order form submitted by the Client requesting Services from Groundsure in respect of a specified Site.

"Ordinance Survey" means the Secretary of State for Business, Innovation and Skills, acting through Ordnance Survey, Address Data, Southampton, SO9 1BN, UK.

"Order Website" means the online platform through which Orders may be placed by the Client and accepted by Groundsure.

"Report" means a Risk Screening Report or Data Report for Commercial or Residential property.

"Residential" means any building or property used as or intended to be used as a single dwelling.

"Risk Screening Report" means a risk screening report comprising factual data with an accompanying interpretation by Groundsure.

"Services" means any Report, Mapping and/or Support Services which Groundsure has agreed to provide by accepting an Order pursuant to clause 2.4.

"Site" means the area of land in respect of which the Client has requested Groundsure to provide the Services.

"Third Party Content" means data, database information or other information which is provided to Groundsure by a Third Party Data Provider.

"User Guide" means the user guide, as amended from time to time, available upon request from Groundsure and on the website www.groundsure.com and forming part of this Contract.

2 Scope of Services, terms and conditions, requests for insurance and quotations

2.1 Groundsure agrees to provide the Services in accordance with the Contract.

2.2 Groundsure shall exercise reasonable skill and care in the provision of the Services.

2.3 Subject to clause 2.2 the Client acknowledges that it has not relied on any statement or representation made by or on behalf of Groundsure which is not set out and expressly agreed in writing in the Contract and all such statements and representations are hereby excluded to the fullest extent permitted by law.

2.4 The Client acknowledges that terms and conditions, appearing on a Client's order form, printed stationery or other communication, or any terms or conditions implied by custom, practice or course of dealing shall be of no effect, and that this Contract shall prevail over all others in relation to the Order.

2.5 If the Client or Beneficiary requests insurance in conjunction with or as a result of the Services, Groundsure shall use reasonable endeavours to recommend such insurance, but makes no warranty that such insurance shall be available from insurers or that it will be offered on reasonable terms. Any insurance purchased by the Client or Beneficiary shall be subject solely to the terms of the policy issued by insurers and Groundsure will have no liability therefore. In addition you acknowledge and agree that Groundsure does not act as an agent or broker for any insurance providers. The Client should take (and ensure that the Beneficiary takes) independent advice to ensure that the insurance policy requested or offered is suitable for its requirements.

2.6 Groundsure's quotations or proposals are valid for a period of 30 days only unless an alternative period of time is expressly stipulated by Groundsure.

Groundsure reserves the right to withdraw any quotation or proposal at any time before an Order is accepted by Groundsure. Groundsure's acceptance of an Order shall be binding only when made in writing and signed by Groundsure's authorised representative or when accepted through the Order Website.

3 The Client's obligations

3.1 The Client shall comply with the terms of this Contract and:

- ensure that the Beneficiary or any third party relying on the Services complies with and acts as if it is bound by the Contract and
- be liable to Groundsure for the acts and omissions of the Beneficiary or any third party relying on the Services as if such acts and omissions were those of the Client.

3.2 The Client shall be solely responsible for ensuring that the Services are appropriate and suitable for its and/or the Beneficiary's needs.

3.3 The Client shall supply to Groundsure as soon as practicable and without charge all requisite information (and the Client warrants that such information is accurate, complete and appropriate), including without limitation any environmental information relating to the Site and shall give such assistance as Groundsure shall reasonably require in the provision of the Services including, without limitation, access to the Site, facilities and equipment.

3.4 Where the Client's approval or decision is required to enable Groundsure to carry out work in order to provide the Services, such approval or decision shall be given or processed in reasonable time and so as not to delay or disrupt the performance of the Services.

3.5 Save as expressly provided by this Contract the Client shall not, and shall ensure that the Beneficiary shall not, re-sell, alter, add to, or amend the Groundsure Materials, or use the Groundsure Materials in a manner for which they were not intended. The Client may make the Groundsure Materials available to a third party who is considering acquiring same or all of, or providing funding in relation to, the Site but such third party cannot rely on the same unless expressly permitted under clause 8.

3.6 The Client is responsible for maintaining the confidentiality of its own name and password if using the Order Website and the Client acknowledges that Groundsure accepts no liability of any kind for any loss or damage suffered by the Client as a consequence of using the Order Website.

4 Release

4.1 The Client acknowledges that the Services provided by Groundsure consist of the presentation and analysis of Third Party Content and other content and that information obtained from a Third Party Data Provider cannot be guaranteed or warranted by Groundsure to be reliable.

4.2 In respect of Data Reports, Mapping and Risk Screening Reports, the following classes of person and no other are entitled to rely on their contents:

- the Beneficiary;
- the Beneficiary's professional advisors; (3) any person providing funding to the Beneficiary in relation to the Site (whether directly or as part of a funding application);
- the first purchaser or first tenant of the Site; and
- the professional advisors and lenders of the first purchaser or tenant of the Site.

4.3 In respect of Support Services, only the Client, Beneficiary and parties expressly named in a Report and no other parties are entitled to rely on its contents.

4.4 Save as set out in clauses 4.2 and 4.3 and unless otherwise expressly agreed in writing, no other person or entity of any kind is entitled to rely on any Services or Reports issued or provided by Groundsure. Any party considering such Reports and Services does so at their own risk.

5 Fees and Disbursements

5.1 Groundsure shall charge and the Client shall pay fees at the rate and frequency specified in the written proposal, Order Website or Order acknowledgement form, plus (in the case of Support Services) all proper disbursements incurred by Groundsure. The Client shall in addition pay all value added tax or other tax payable on such fees and disbursements in relation to the provision of the Services (together "Fees").

5.2 The Client shall pay all outstanding Fees to Groundsure in full without deduction, counterclaim or set off within 30 days of the date of Groundsure's invoice or such other period as may be agreed in writing between Groundsure and the Client ("Payment Date"). Interest on late payments will accrue on a daily basis from the Payment Date until the date of payment (whether before or after judgment) at the rate of 8% per annum.

5.3 The Client shall be deemed to have agreed the amount of any invoice unless an objection is made in writing within 28 days of the date of the invoice. As soon as reasonably practicable after being notified of an objection, without prejudice to clause 5.2 a member of Groundsure's management team will contact the Client and the parties shall then use all reasonable endeavours to resolve the dispute within 15 days.

6 Intellectual Property and Confidentiality

6.1 Subject to:

- full payment of all relevant Fees and
- compliance with this Contract, the Client is granted (and is permitted to sub-licence to the Beneficiary) a royalty free, worldwide, non-assignable and non-transferable licence to use the Groundsure Materials.

6.2 All Intellectual Property in the Groundsure Materials are and shall remain owned by Groundsure or Groundsure's licensors (including without limitation the Third Party Data Provider) the Client acknowledges, and shall ensure

acknowledgement by the Beneficiary of such ownership. Nothing in this Contract purports to transfer or assign any rights to the Client or the Beneficiary in respect of such Intellectual Property.

6.3 Third Party Data Providers may enforce any breach of clauses 6.1 and 6.2 against the Client or Beneficiary.

6.4 The Client shall, and shall procure that any recipients of the Groundsure Materials shall:

(i) not remove, suppress or modify any trade mark, copyright or other proprietary marking belonging to Groundsure or any third party from the Services;

(ii) use the information obtained as part of the Services in respect of the subject site only, and shall not store or reuse any information obtained as part of the Services provided in respect of adjacent or nearby sites;

(iii) not create any product or report which is derived directly or indirectly from the Services (save that those acting in a professional capacity to the Beneficiary may provide advice based upon the Services);

(iv) not combine the Services with or incorporate such Services into any other information data or service;

(v) not retransmit or otherwise change (whether by modification, addition or enhancement), the Services (save that those acting for the Beneficiary in a professional capacity shall not be in breach of this clause 6.4(i) where such retransmitting is in the normal course of providing advice based upon the Services);

(vi) where a Report and/or Mapping (contains) material belonging to Ordnance Survey, acknowledge and agree that such content is protected by Crown Copyright, and shall not use such content for any purpose outside of rendering the Services; and

(vii) not copy in whole or in part, by any means any map prints or map on screen containing content belonging to Ordnance Survey (other than that contained within Ordnance Survey's OS Street Map) without first being in possession of a valid Paper Map Copying Licence from Ordnance Survey.

6.5 Notwithstanding clause 6.4, the Client may make reasonable use of the Groundsure Materials in order to advise the Beneficiary in a professional capacity. However, Groundsure shall have no liability in respect of any advice, opinion or report given or provided to beneficiaries by the Client.

6.6 The Client shall procure that any person to whom the Services are made available shall notify Groundsure of any request or requirement to disclose, publish or disseminate any information contained in the Services in accordance with the Freedom of Information Act 2000, the Environmental Information Regulations 2004 or any associated legislation or regulations in force from time to time.

7. Liability: Particular Attention Should Be Paid To This Clause

7.1 This Clause 7 sets out the entire liability of Groundsure, including any liability for the acts or omissions of its employees, agents, consultants, subcontractors and Third Party Content, in respect of:

(i) any breach of contract, including any deliberate breach of the Contract by Groundsure or its employees, agents or subcontractors;

(ii) any use made of the Reports, Services, Materials or any part of them; and

(iii) any representation, statement or tortious act or omission (including negligence) arising under or in connection with the Contract.

7.2 All warranties, conditions and other terms implied by statute or common law are, to the fullest extent permitted by law, excluded from the Contract.

7.3 Nothing in the Contract limits or excludes the liability of the Supplier for death or personal injury resulting from negligence, or for any damage or liability incurred by the Client or Beneficiary as a result of fraud or fraudulent misrepresentation.

7.4 Groundsure shall not be liable for:

(i) loss of profits;

(ii) loss of business;

(iii) depletion of goodwill and/or similar losses;

(iv) loss of anticipated savings;

(v) loss of goods;

(vi) loss of contract;

(vii) loss of use;

(viii) loss or corruption of data or information;

(ix) business interruption;

(x) any kind of special, indirect, consequential or pure economic loss, costs, damages, charges or expenses;

(xi) loss or damage that arise as a result of the use of all or part of the Groundsure Materials in breach of the Contract;

(xii) loss or damage arising as a result of any error, omission or inaccuracy in any part of the Groundsure Materials where such error, omission or inaccuracy is caused by any Third Party Content or any reasonable interpretation of Third Party Content;

(xiii) loss or damage to a computer, software, modem, telephone or other property; and

(xiv) loss or damage caused by a delay or loss of use of Groundsure's internet ordering service.

7.5 Groundsure's total liability in relation to or under the Contract shall be limited to £10 million for any claim or claims.

7.6 Groundsure shall procure that the Beneficiary shall be bound by limitations and exclusions of liability in favour of Groundsure which accord with those detailed in clauses 7.8 and 7.9 (subject to clause 7.3) in respect of all claims which the Beneficiary may bring against Groundsure in relation to the Services or other matters arising pursuant to the Contract.

8 Groundsure's right to suspend or terminate

8.1 If Groundsure reasonably believes that the Client or Beneficiary has not provided the information or assistance required to enable the proper provision of the Services, Groundsure shall be entitled to suspend all further performance of the Services until such time as any such deficiency has been made good.

8.2 Groundsure shall be entitled to terminate the Contract immediately on written notice in the event that:

(i) the Client fails to pay any sum due to Groundsure within 30 days of the Payment Date; or

(ii) the Client (being an individual) has a bankruptcy order made against him or (being a company) shall enter into liquidation whether compulsory or voluntary or have an administration order made against it or if a receiver shall be appointed over the whole or any part of its property assets or undertaking or if the Client is struck off the Register of Companies or dissolved; or

(iii) the Client (being a company) is unable to pay its debts within the meaning of Section 123 of the Insolvency Act 1986 or being an individual appears unable to pay his debts within the meaning of Section 204 of the Insolvency Act 1986 or if the Client shall enter into a composition or arrangement with the Client's creditors or shall suffer distress or execution to be levied on his goods; or

(iv) the Client or the Beneficiary breaches any term of the Contract (including, but not limited to, the obligations in clause 4) which is incapable of remedy or if remediable, is not remedied within five days of notice of the breach.

9. Client's Right to Terminate and Suspend

9.1 Subject to clause 10.5, the Client may at any time upon written notice terminate or suspend the provision of all or any of the Services.

9.2 In any event, where the Client is a consumer (and not a business) he/she hereby expressly acknowledges and agrees that:

(i) the supply of Services under this Contract (and therefore the performance of this Contract) commences immediately upon Groundsure's acceptance of the Order; and

(ii) the Reports and/or Mapping provided under this Contract are

(a) supplied to the Client's specifications; and in any event

(b) by their nature cannot be returned.

10 Consequences of Withdrawal, Termination or Suspension

10.1 Upon termination of the Contract:

(i) Groundsure shall take steps to bring to an end the Services in an orderly manner, vacate any Site with all reasonable speed and shall deliver to the Client and/or Beneficiary any property of the Client and/or Beneficiary in Groundsure's possession or control; and

(ii) the Client shall pay to Groundsure all and any Fees payable in respect of the performance of the Services up to the date of termination or suspension. In respect of any Support Services provided, the Client shall also pay Groundsure any additional costs incurred in relation to the termination or suspension of the Contract.

11 Anti-Bribery

11.1 The Client warrants that it shall:

(i) comply with all applicable laws, statutes and regulations relating to anti-bribery and anti-corruption including but not limited to the Bribery Act 2010;

(ii) comply with each of Groundsure's anti-bribery and anti-corruption policies as are related to the Client from time to time; and

(iii) promptly report to Groundsure any request or demand for any undue financial or other advantage of any kind received by or on behalf of the Client in connection with the performance of this Contract.

11.2 Breach of this Clause 11 shall be deemed a material breach of this Contract.

12 General

12.1 The Mapping contained in the Services is protected by Crown copyright and must not be used for any purpose other than as part of the Services or as specifically provided in the Contract.

12.2 The Client shall be permitted to make one copy only of each Report or Mapping Order. Thereafter the Client shall be entitled to make unlimited copies of the Report or Mapping Order only in accordance with an Ordnance Survey paper map-copy licence available through Groundsure.

12.3 Groundsure reserves the right to amend or vary this Contract. No amendment or variation to this Contract shall be valid unless agreed by an authorised representative of Groundsure.

12.4 No failure on the part of Groundsure to exercise, and no delay in exercising, any right, power or provision under this Contract shall operate as a waiver thereof.

12.5 Save as expressly provided in this Contract, no person other than the persons set out therein shall have any right under the Contract (Rights of Third Parties) Act 1999 to enforce any term of the Contract.

12.6 The Secretary of State for Business, Innovation and Skills ("SIS") or SIS' successor body, as the case may be, acting through Ordnance Survey may enforce a breach of clause 6.4(i) and clause 6.4(vii) of these terms and conditions against the Client in accordance with the provisions of the Contracts (Rights of Third Parties) Act 1999.

12.7 Groundsure shall not be liable to the Client if the provision of the Services is delayed or prevented by one or more of the following circumstances:

- (i) the Client or Beneficiary's failure to provide facilities, access or information;
- (ii) fire, storm, flood, transport or epidemic;
- (iii) Acts of God or the public enemy;
- (iv) riot, civil commotion or war;
- (v) strikes, labour disputes or industrial action;
- (vi) acts or regulations of any governmental or other agency;
- (vii) suspension or delay of services at public registers by Third Party Data Providers;

- (viii) changes in law or
- (ix) any other reason beyond Groundsure's reasonable control.

In the event that Groundsure is prevented from performing the Services (in any part thereof) in accordance with this clause 12.9 for a period of not less than 30 days then Groundsure shall be entitled to terminate this Contract immediately on written notice to the Client.

12.8 Any notice provided shall be in writing and shall be deemed to be properly given if delivered by hand or sent by first class post, facsimile or by email to the address, facsimile number or email address of the relevant party as may have been notified by such party to the other for such purpose or in the absence of such notification the last known address.

12.9 Such notice shall be deemed to have been received on the day of delivery if delivered by hand, facsimile or email (save to the extent such day is not a working day where it shall be deemed to have been delivered on the next working day) and on the second working day after the day of posting if sent by first class post.

12.10 The Contract constitutes the entire agreement between the parties and shall supersede all previous arrangements between the parties relating to the subject matter hereof.

12.11 Each of the provisions of the Contract is severable and distinct from the others and if one or more provisions is or should become invalid, illegal or unenforceable, the validity and enforceability of the remaining provisions shall not in any way be limited or impaired.

12.12 This Contract shall be governed by and construed in accordance with English law and any proceedings arising out of or connected with this Contract shall be subject to the exclusive jurisdiction of the English courts.

12.13 Groundsure is an exclusive member of the Council of Property Search Organisation (CPSO) and has signed up to the Search Code administered by the Property Codes Compliance Board (PCCB). All First Screening Reports shall be supplied in accordance with the provisions of the Search Code.

12.14 If the Client or Beneficiary has a complaint about the Services, written notice should be given to the Compliance Officer at Groundsure who will respond in a timely manner.

12.15 The Client agrees that it shall, and shall procure that each Beneficiary shall, treat as confidential all Confidential Information and shall not, and shall procure that each Beneficiary shall not (i) disclose any Confidential Information to any third party other than in accordance with the terms of this Contract; and (ii) use Confidential Information for a purpose other than the exercise of its rights and obligations under the Contract. Subject to clause 5.6, nothing shall prevent the Client or any Beneficiary from disclosing Confidential Information to the extent

required by law.