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ENVIRONMENTAL LTD

PROPOSED RESIDENTIAL DEVELOPMENT
LAND OFF HIGH ROAD
WHAPLODE
SPALDING
LINCS..

PROPOSED RESIDENTIAL DEVELOPMENT LAND OFF HIGH ROAD WHAPLODE SPALDING LINCS..

GEOENVIRONMENTAL DESK STUDY

Report Ref.: 0603/1

Prepared by :

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Date:

March 2019

Goldfinch Environmental Limited
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PROPOSED RESIDENTIAL DEVELOPMENT

LAND OFF HIGH ROAD, WHAPLODE

SPALDING

LINCS..

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 & Mrs K R Jackson (the Client), via the offices of G R Merchant Ltd at a site located between Numbers 272 and 282 High Road, Whaplode, Spalding Lincolnshire.

A site location plan as Figure 1 has been included towards the back of this report to assist the reader.

At the time of preparation of this report a proposed layout plan was not available but it was understood that the application scheme would comprise establishment of a (single) bungalow on the site.

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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.

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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 *un*acceptable 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.

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4. SITE LOCATION AND DESCRIPTION.

4.1 Introduction

This site description and the following sections of this Desk Study report are specific to the curtilage shown on the historic map editions towards the back of this report.

A site visit was carried out during 21 March 2019 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.

Approximate Grid Reference ^{5}32359 ^{3}24340 refers.

The site comprised a subrectangular shaped plot of land on the northern side of the public highway (High Road) in Whaplode, Lincolnshire.

Topographic levels at the site, by visual inspection, appeared to change little across the site.

At the time of the site walkover survey the site was capped with hard cover of concrete with a small gravelled area in the south of the site fronting the public highway.

There were no structures present on the site as can be seen in Photograph 1 below.

The site boundaries were approximately defined by wooden and galvanised palisade fencing as shown in Photograph 1.

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Photograph 1: View of The Site From The Southwestern Corner.

Following the site walkover survey there was evidence, which can be seen in Photograph 1 above, of the existence of former structures which had latterly been removed.

There were no signs of unusual staining or odours in the peripheral exposed soils or hard cover to suggest impact by potential contamination from historic site usage.

Following visual inspection of the site there were no notable features with regard to land contamination. In addition, although the site had been subject to previous 'development' there was no apparent evidence of:~

1. The presence of Made Ground other than the inert hard cover area as referred above.

2. The presence or storage of potentially leachable materials/chemicals.

3. Demolition or dispersal of *contaminated* rubble or other materials.

4. Importation of potentially contaminated fill onto the site.

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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.

(The reader should note at this point that occasionally on the older map editions the site boundaries can be slightly 'shifted' relative to more recent maps.).

1887 Edition {County Series - Scale 1:10 560}

The site was shown as an undeveloped plot of land at the western end of the town of Whaplode.

Surrounding land to the north and west was undeveloped. The developed environs of Whaplode lay to the south and east of the site.

1888 Edition {County Series - Scale 1:2 500}

There were no apparent changes to the site or its immediate environs.

A '*Smithy*' was established on land to the south of the site.

1903 Editions {County Series - Scale 1:10 560}

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

The Smithy referred above was no longer shown.

1904 Edition {County Series - Scale 1:2 500}

There were no apparent further changes to the site or its immediate surroundings at this scale of mapping although this does not preclude minor development having taken place.

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1929 Edition {County Series - Scale 1:10 560}

There were no apparent further changes to the site. However, the immediate surroundings showed further development at this scale of mapping. (Notably land to the west and southwest of the site.).

1931 Edition {County Series - Scale 1:2 500}

There were no apparent changes to the site.

There were further developments to surrounding land.

1938 Edition {County Series - Scale 1:10 560}

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

1950 Edition {County Series - Scale 1:10 560}

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

1955-8 Edition {Provisional - Scale 1:10 560}

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

1968 Edition {National Grid - Scale 1:2 500}

The site now showed its first phase of development. A building was shown in the northern part of the site, annotated '*Offices*', with possible hard cover in southern part of the site.

Land to the west of the site had undergone development and was annotated '*Works*', while land to the east had been developed to a residential end use.

Other surrounding land had also undergone further development.

1971 Edition {National Grid - Scale 1:10 000}

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

1977 Edition {National Grid - Scale 1:2 500}

There were no apparent changes to the site or its immediate environs at this scale of mapping. This appeared to be a reissue of an earlier map edition.

1981 Editions {National Grid - Scale 1:2 500}

The site and its immediate environs appeared to have undergone changes as shown in the number and layout of structures shown.

1992 Edition {National Grid - Scale 1:10 000}

There were no apparent further changes to the site although the surrounding environs had possibly undergone minor development.

1993 Editions {National Grid - Scale 1:2 500}

There were no apparent further changes to the site although the surrounding environs had possibly undergone minor development.

1995 Edition {National Grid - Scale 1:2 500}

There were no apparent further changes to the site although the surrounding environs had possibly undergone further minor development.

2002 Edition {Raster - Scale 1:10 000}

There were no apparent changes to the site.

There were no apparent changes to the immediate environs of the site.

2010 Edition {National Grid - Scale 1:10 000}

There were no further changes to the site.

There were no apparent changes to the surrounding environs with respect to land contamination.

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2014 Edition {National Grid - Scale 1:10 000}

There were no apparent changes to the site or surrounding environs with respect to land contamination.

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 five records for the category 'Potentially Contaminative Uses identified from 1:10 000 scale mapping' within this dataset for the referred search radius. Supplied information indicated there were none for the site, two were within 50m of the site and the remaining three were located between approximately 104 and 194m distant from the site, and were given as '*Unspecified Works*' (x2); '*Police Station*' and '*Smithy*'.

There were no records for the category 'Additional Information – Historical Tank Database' within this dataset for the referred search radius.

There were five records for the category 'Historical Energy Features Database' within this dataset for the referred search radius. Supplied information indicated these were located between approximately 239 and 240m distant from the site and were given as '*Electricity Substation*'.

There were no records for the category 'Historical Petrol and Fuel Site Database' within this dataset for the referred search radius.

There were no records for the category 'Historical Garage and Motor Vehicle Repair Database' within this dataset for the referred search radius.

There were five records for the category 'Potentially Infilled Land' within this dataset for the referred search radius. Supplied information indicated these were located between approximately 69 and 147m distant from the site and were given as '*Pond(s)*'(x3) and '*Water Body*' (x2).

5.2.2 Environmental Permits, Incidents and Registers.

There were two records for the category '*Records of Part A(2) and Part B Activities and Enforcements*' within this dataset for the referred search radius. Supplied information indicated these were located approximately 31m distant from the site.

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There were fifteen records for the category 'Records of Licensed Discharge Consents' within this dataset for the referred search radius.The reader is referred to Section 2.1.8 of the 'Enviroinsight' report for further details.

5.2.3 Landfill and Other Wastes.

There was one record for the category '*Environment Agency/Natural Resources Wales Historic Landfill Sites*' within this dataset for the referred search radius. Supplied information indicated this was located approximately 142m distant from the site and was given as '*Licence Surrendered*'.

5.2.4 Current Land Uses.

There were four records within this dataset for the referred search radius. Supplied information indicated these were located between approximately 31 and 234m distant from the site and were given as '*Vehicle Repair, Testing and Servicing*'; '*Electrical Features*' (x2) and '*Unspecified Works or Factories*'.

5.2.4.i Petrol & Fuel Sites.

There was one record for the category '*Petrol & Fuel Sites*' within this dataset for the referred search radius. Supplied information indicated this was located approximately 93m distant from the site and its status was given as '*Obsolete*'.

5.2.5 Geology.

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

There were records listed within the category 'Superficial Ground and Drift Geology present beneath the site'. Supplied information indicated Tidal Flat Deposits (Clay and Silt).

The Bedrock & Solid Geology was given as West Walton Formation (Mudstone & Siltstone).

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' an '*Identified*' response was provided. Supplied information indicated the site was underlain by a '*Unproductive*' aquifer.

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For the category 'Are there any records of Strata Classification in the Bedrock geology within 500m of the site' an '*Identified*' 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' for the site.

There were no records of Environment Agency information on River Quality available within 1500m of the site.

There were fourteen records for the category 'Ordnance Survey MasterMap Water Network' within the search radius for the site. The reader is referred to Section 6.10 of the 'Enviroinsight' report for further details.

There were two 'Surface Water Features' reportedly within 250m of the study site that were not represented on mapping.

5.2.7 Flooding.

There were Environment Agency Flood Zone 2 floodplains within 250m of the site.

There were Environment Agency Flood Zone 3 floodplains within 250m of the site.

There was a '*Medium*' risk of flooding from Rivers and Sea for the site.

There were no Flood Defences 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.

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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 records for the site within this dataset except the site was within a Nitrate Vulnerable Zone.

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.

There were no 'Non-Coal Mining areas' within 50m of the study site (Chalk).

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 extensions and new dwellings.

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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 residential development.

6.2 Conceptual Model.

Source (s) (Potential)	Pathway	Target	Risk
Soil: The site had existed as 'undeveloped' plot of land until sometime between the 1955-8 and 1968 map editions with occasional minor changes to the present day. At the time of the site walkover survey carried out during 21 March 2019 by this Author the existing building had been removed (Anecdotal comment indicated the site had seen use as a builders yard). There were no site-specific indicators of potential soil-borne contamination and the hard cover at the site would prevent impact on the underlying soils. Visual and olfactory indicators of plausible potential contamination immediately nearby off site were not noted.	❖ Dermal contact, ingestion and inhalation	• Present users • End users • Construction workers • General public	• Low • Low • 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 were 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

Negligible 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 probably or certainly present and likely to have an unacceptable impact on key targets.

Notes: n/a = not applicable

The risk assessment follows below:-

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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 residential development (a single bungalow).

6.3.1 Human Health (Site Users & Construction Workers)

The site had a limited documented developmental history as described above. There is potential for the presence of inert Made Ground as referred in Section 4.1 of this report.

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

A *Low* risk has been identified until proven otherwise.

6.3.2 Services and Construction Materials

6.3.2.1 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. However, in this instance and based on the absence of Made Ground and the foregoing:-

A *Low* risk has been identified.

6.4 Landscaping & Planting

Based on the foregoing a '*Low*' risk is presented to this receptor.

6.5 Groundwater (Controlled Waters)

The site is underlain by '*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 the site.

A *Low* risk to deeper groundwater has been identified.

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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 foregoing:~

A *Low* risk has been identified.

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7. RECOMMENDATIONS FOLLOWING PRELIMINARY RISK ASSESSMENT.

7.1 Overview.

The desk study information (including the outcome of the walkover survey), showed the site had a limited documented developmental history.

The site walkover survey and the searches carried out as part of this Desk Study indicated that there were no plausible readily identifiable sources of contamination.

On that basis, and subject to the final paragraph in this report (in blue text), the need for a Phase 2 intrusive investigation is considered *un*warranted.

The opinions and recommendations in this report are subject to the agreement of the Regulators.

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8. CONCLUSIONS.

This geoenvironmental desk study prepared by Goldfinch Environmental Limited was undertaken on the instruction of Mr & Mrs K R Jackson (the Client), via the offices of G R Merchant Ltd at a site located between Numbers 272 and 282 High Road, Whaplode, Spalding Lincolnshire.

The site had a limited history of development and was proposed for residential use.

There were no notable features present in the context of land contamination.

Desk Study searches have shown that the site rests on Tidal Flat Deposits (Clay and Silt) underlain by Mudstone & Siltstone.

An *overall Low* risk is associated with the site *subject to the final paragraph in this report.*

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

Also, at all times especially once any necessary groundworks have commenced, the final paragraph below applies regarding 'unanticipated' contamination.

The reader should note that the opinions, recommendations and conclusions in this report are subject to the agreement of the Local Authority who are the final arbiters in these matters.

Based on the foregoing, 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.

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.

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FIGURES

Approximate Site Location

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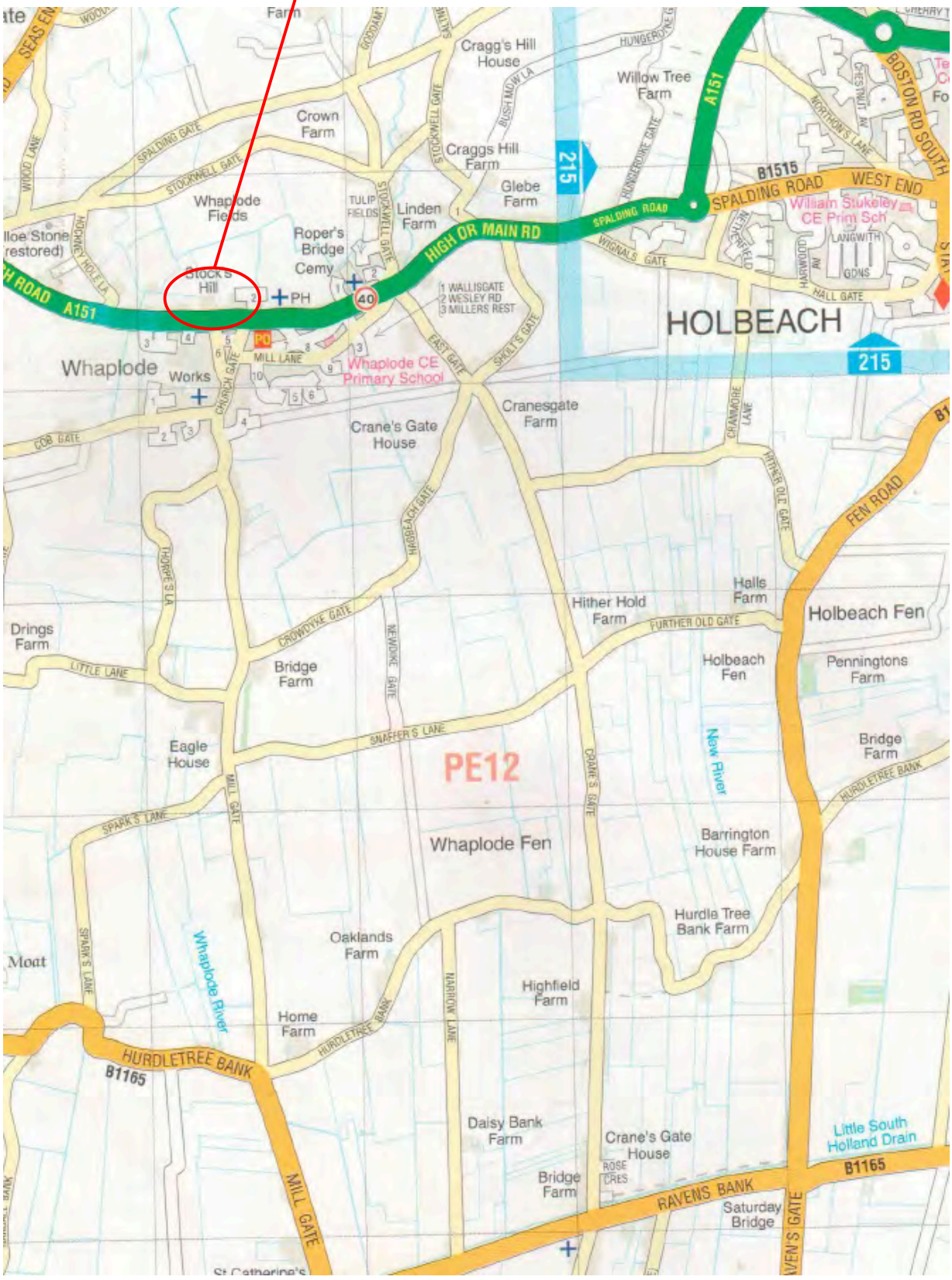
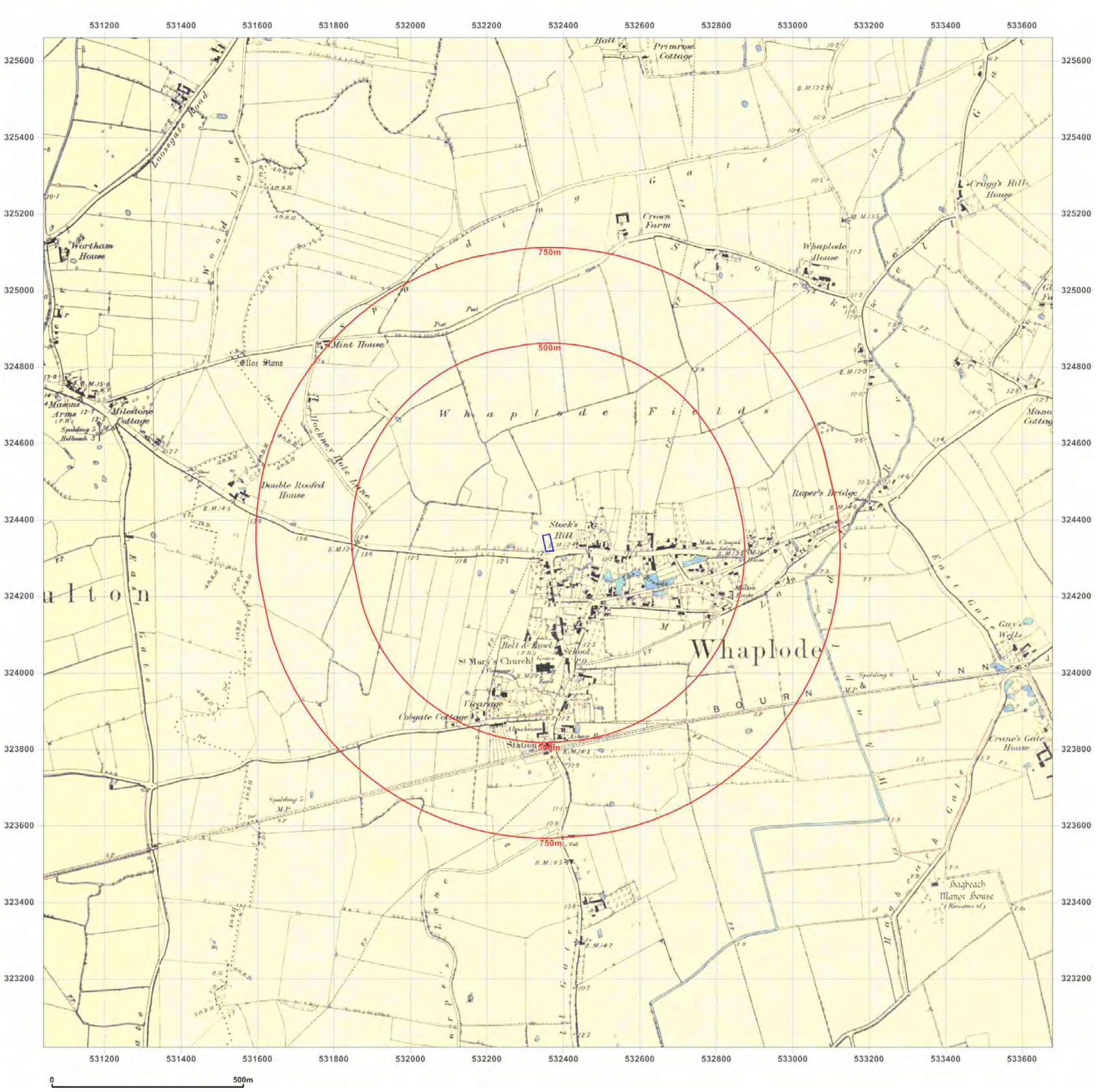


Figure 1	Site Location Plan	**Goldfinch** Environmental Ltd
Ref: 0603/1		

APPENDIX 1

'Groundsure' Report



Groundsure INSIGHTS

Site Details:

LAND OFF HIGH ROAD,
WHAPLODE, SPALDING, PE12
6TG

Client Ref: 0603-ds
Report Ref: GS-2391-5896031
Grid Ref: 532359, 324340

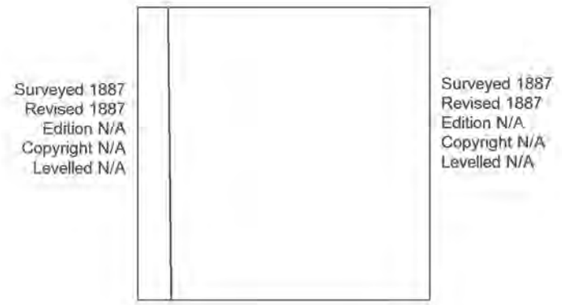
Map Name: County Series

Map date: **1887**

Scale: 1:10,560

Printed at: 1:10,560

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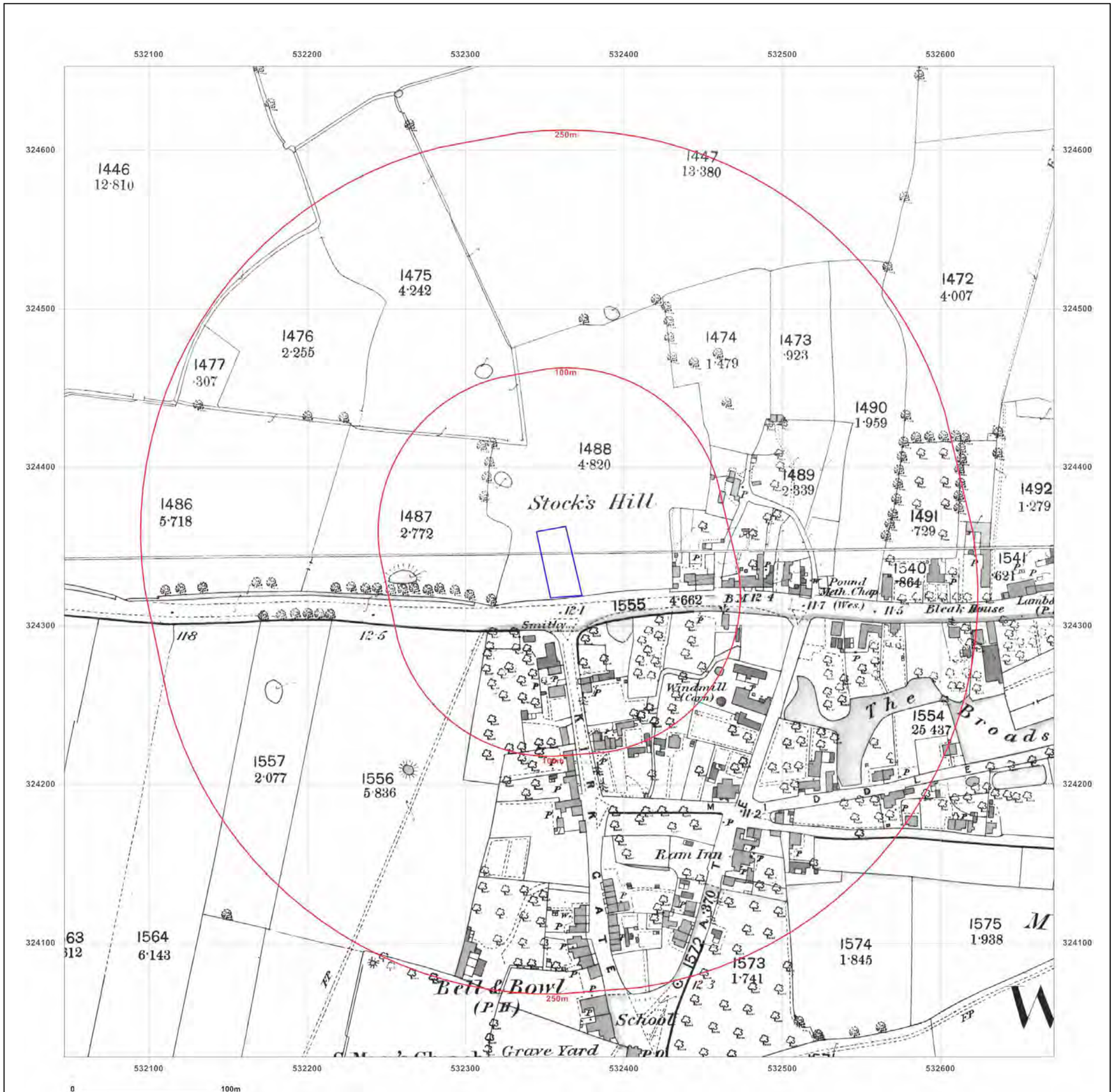
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Production date: 22 March 2019

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



Groundsure INSIGHTS

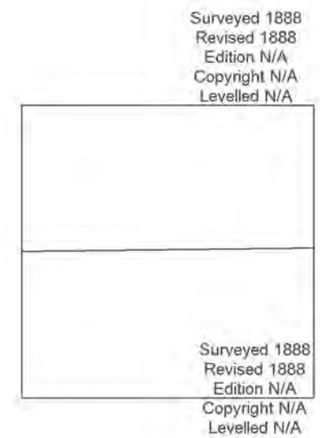
Site Details:

LAND OFF HIGH ROAD,
WHAPLODE, SPALDING, PE12
6TG

Client Ref: 0603-ds
Report Ref: GS-2391-5896031
Grid Ref: 532359, 324340

Map Name: County Series
Map date: **1888**
Scale: 1:2,500
Printed at: 1:2,500

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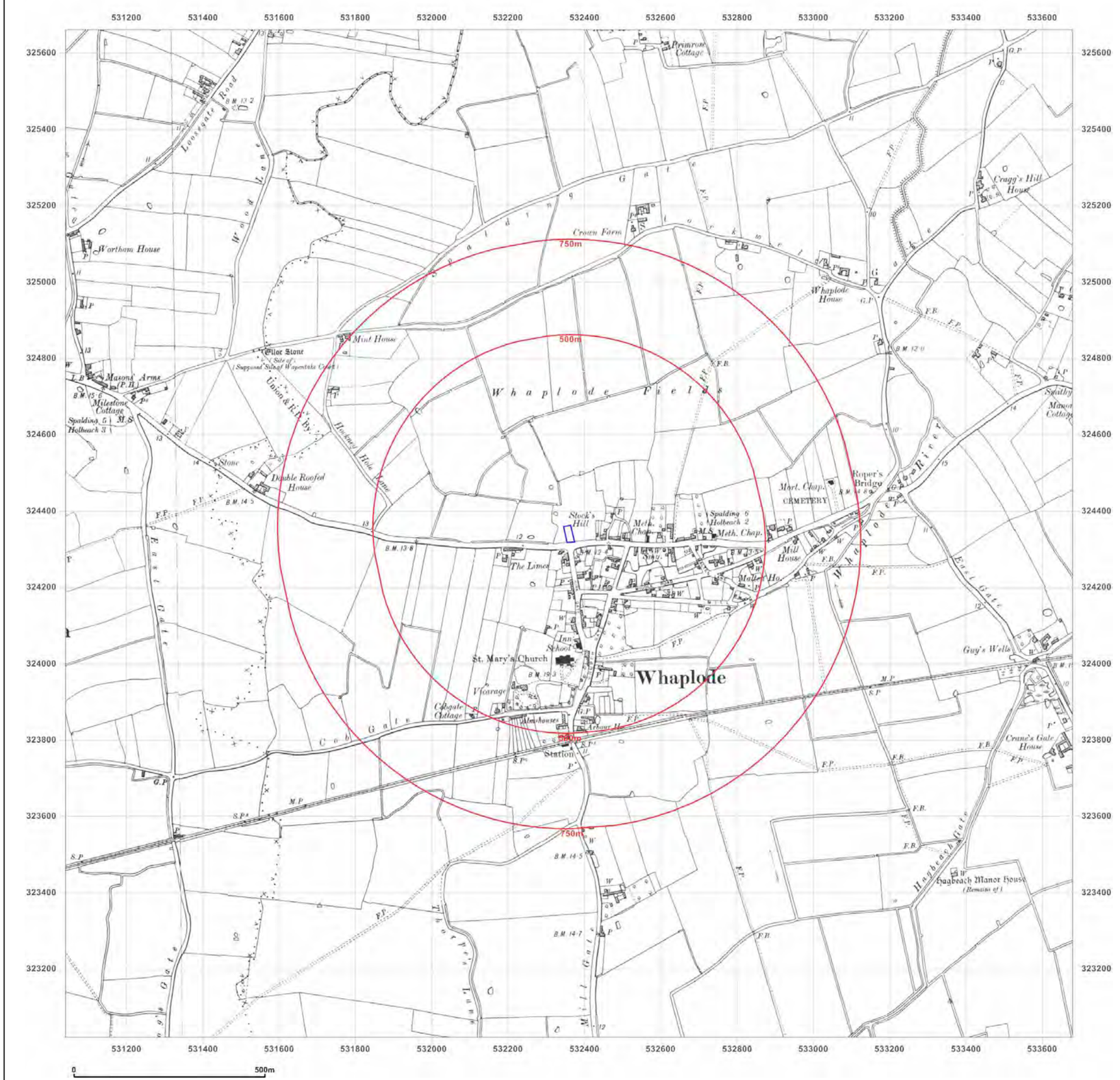
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Surveyed 1886
Revised 1903
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1886
Revised 1903
Edition N/A
Copyright N/A
Levelled N/A

Groundsure INSIGHTS

Site Details:

LAND OFF HIGH ROAD,
WHAPLODE, SPALDING, PE12
6TG

Client Ref: 0603-ds
Report Ref: GS-2391-5896031
Grid Ref: 532359, 324340

Map Name: County Series

Map date: **1903**

Scale: 1:10,560

Printed at: 1:10,560

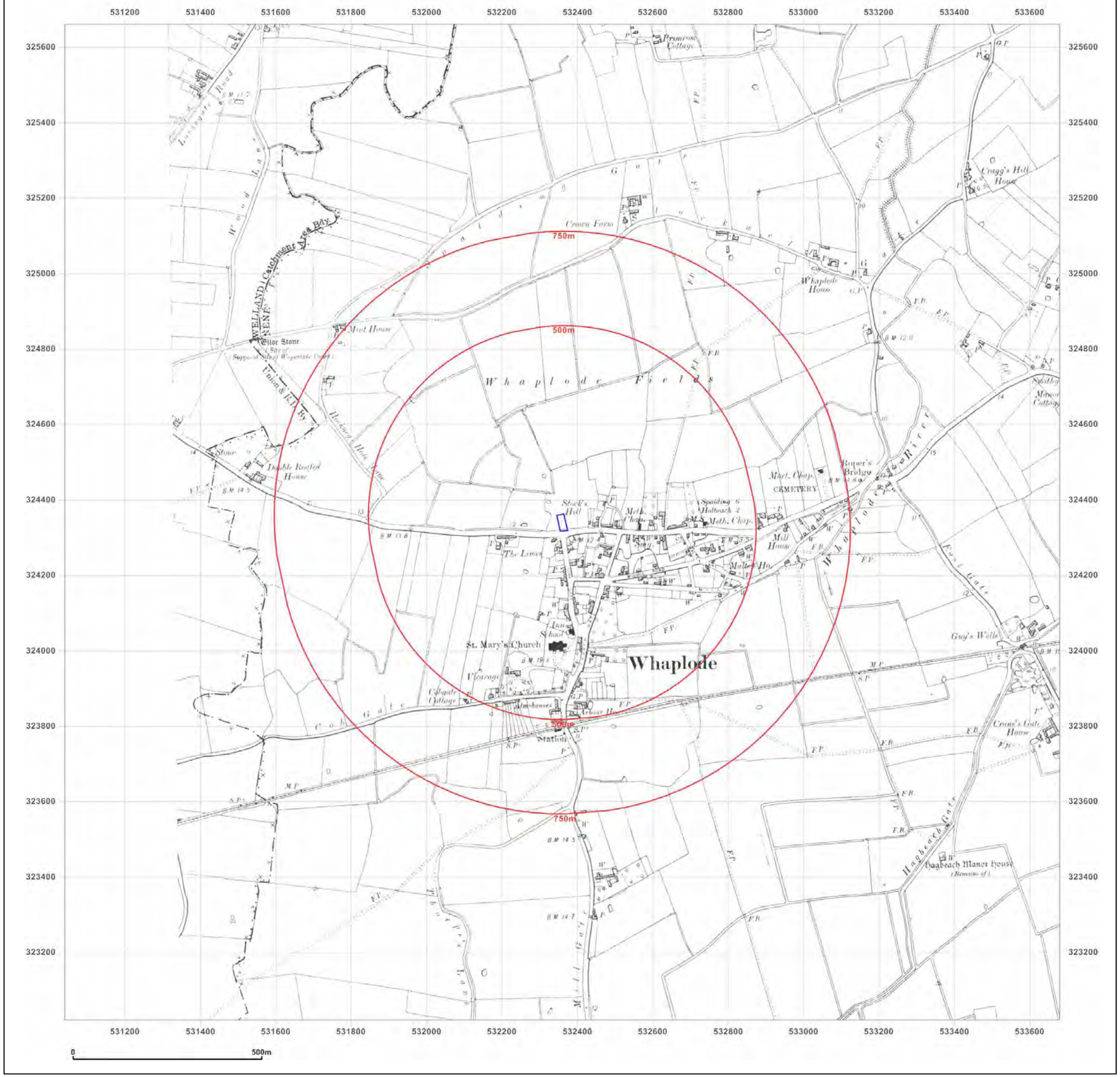
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Groundsure INSIGHTS

Site Details:

LAND OFF HIGH ROAD,
WHAPLODE, SPALDING, PE12
6TG

Client Ref: 0603-ds
Report Ref: GS-2391-5896031
Grid Ref: 532359, 324340

Map Name: County Series

Map date: **1903**

Scale: 1:10,560

Printed at: 1:10,560

N
W E
S

Surveyed 1886
Revised 1903
Edition N/A
Copyright N/A
Levelled N/A

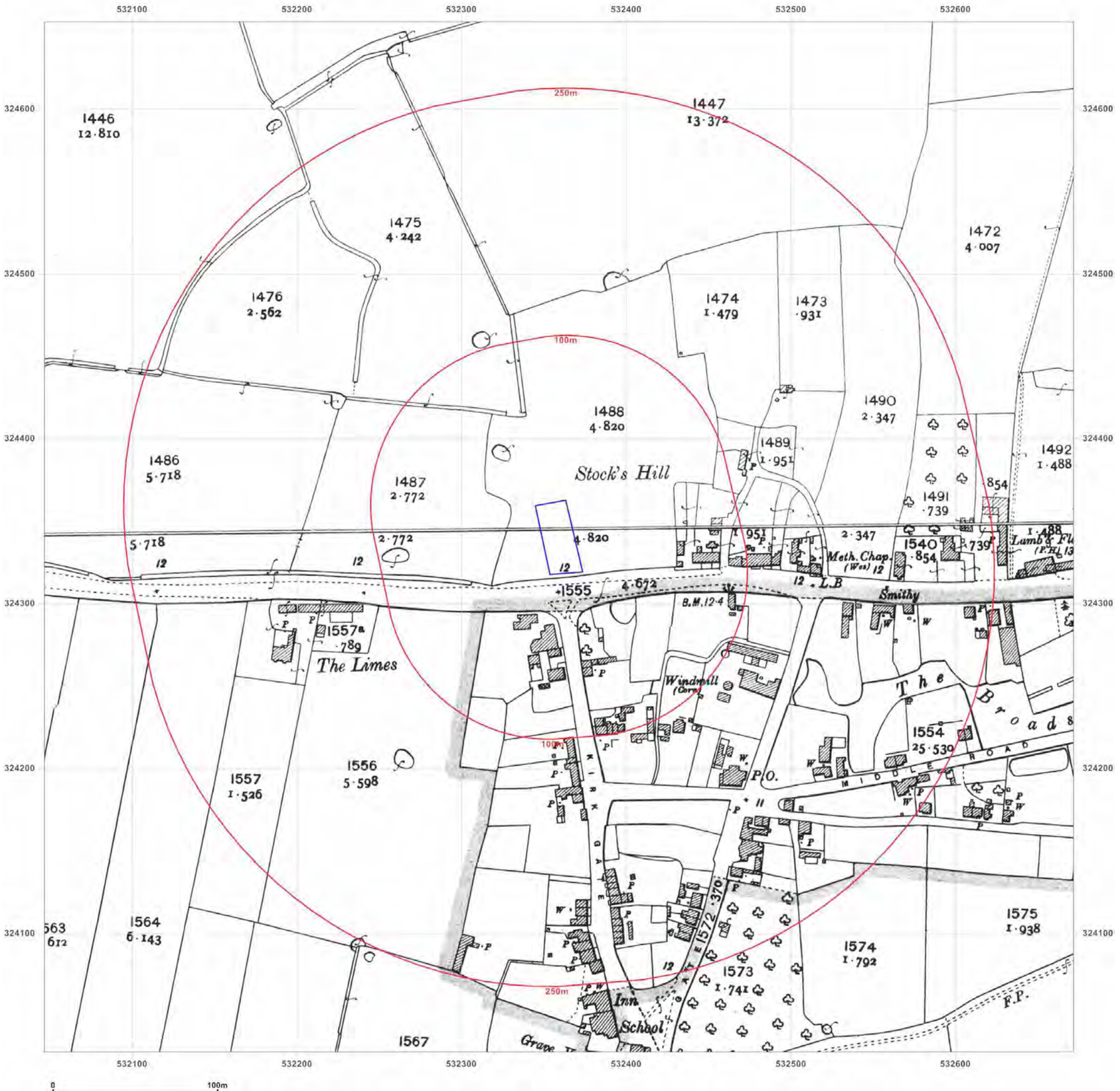
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Groundsure INSIGHTS

Site Details:

LAND OFF HIGH ROAD,
WHAPLODE, SPALDING, PE12
6TG

Client Ref: 0603-ds
Report Ref: GS-2391-5896031
Grid Ref: 532359, 324340

Map Name: County Series

Map date: **1904**

Scale: 1:2,500

Printed at: 1:2,500

N
W E
S

Surveyed 1904
Revised 1904
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1904
Revised 1904
Edition N/A
Copyright N/A
Levelled N/A

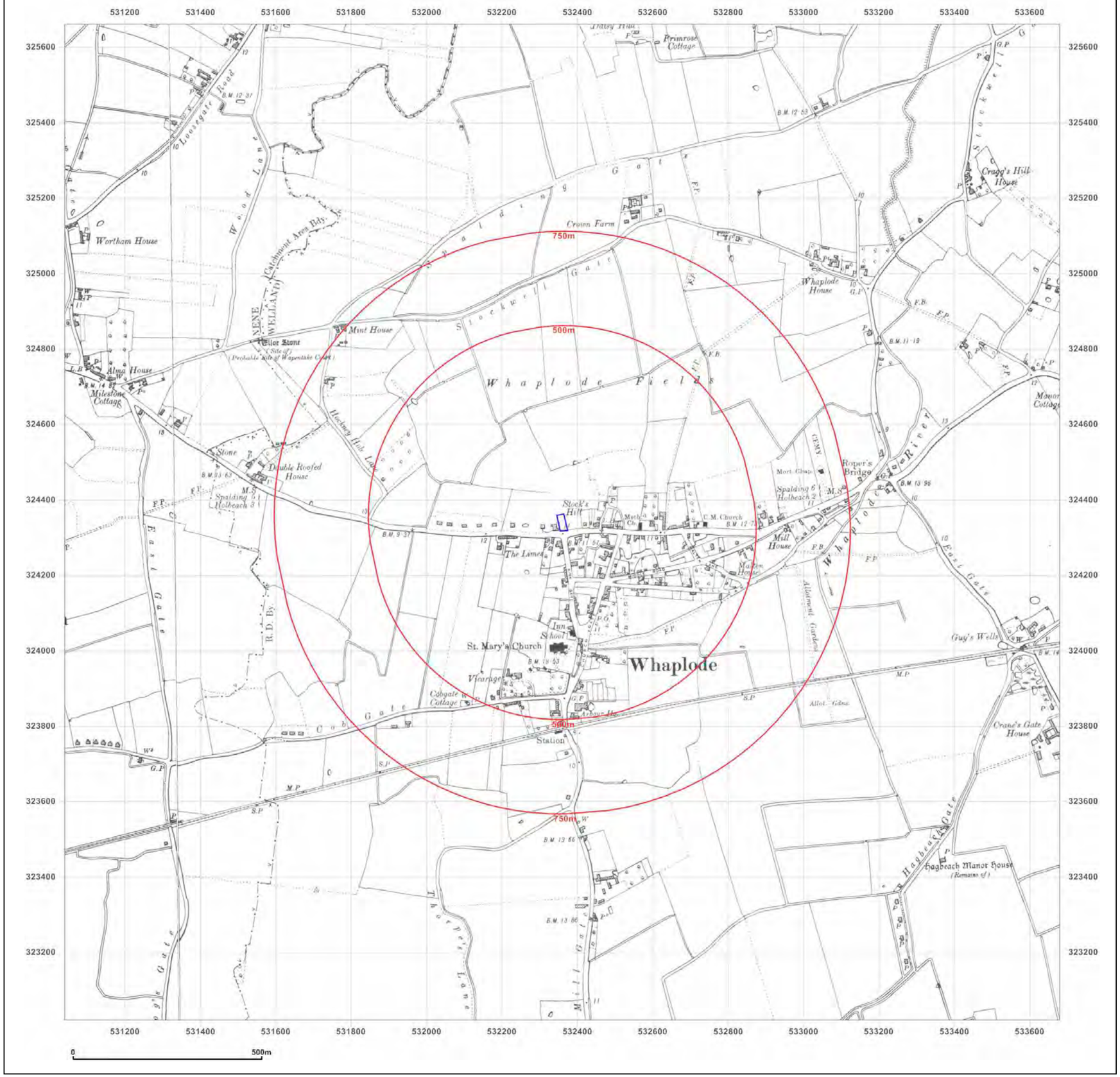
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Site Details:

LAND OFF HIGH ROAD,
WHAPLODE, SPALDING, PE12
6TG

Client Ref: 0603-ds
Report Ref: GS-2391-5896031
Grid Ref: 532359, 324340

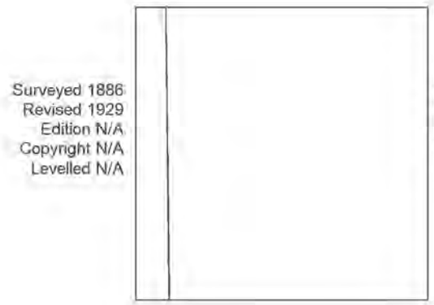
Map Name: County Series

Map date: **1929**

Scale: 1:10,560

Printed at: 1:10,560

N
W E
S



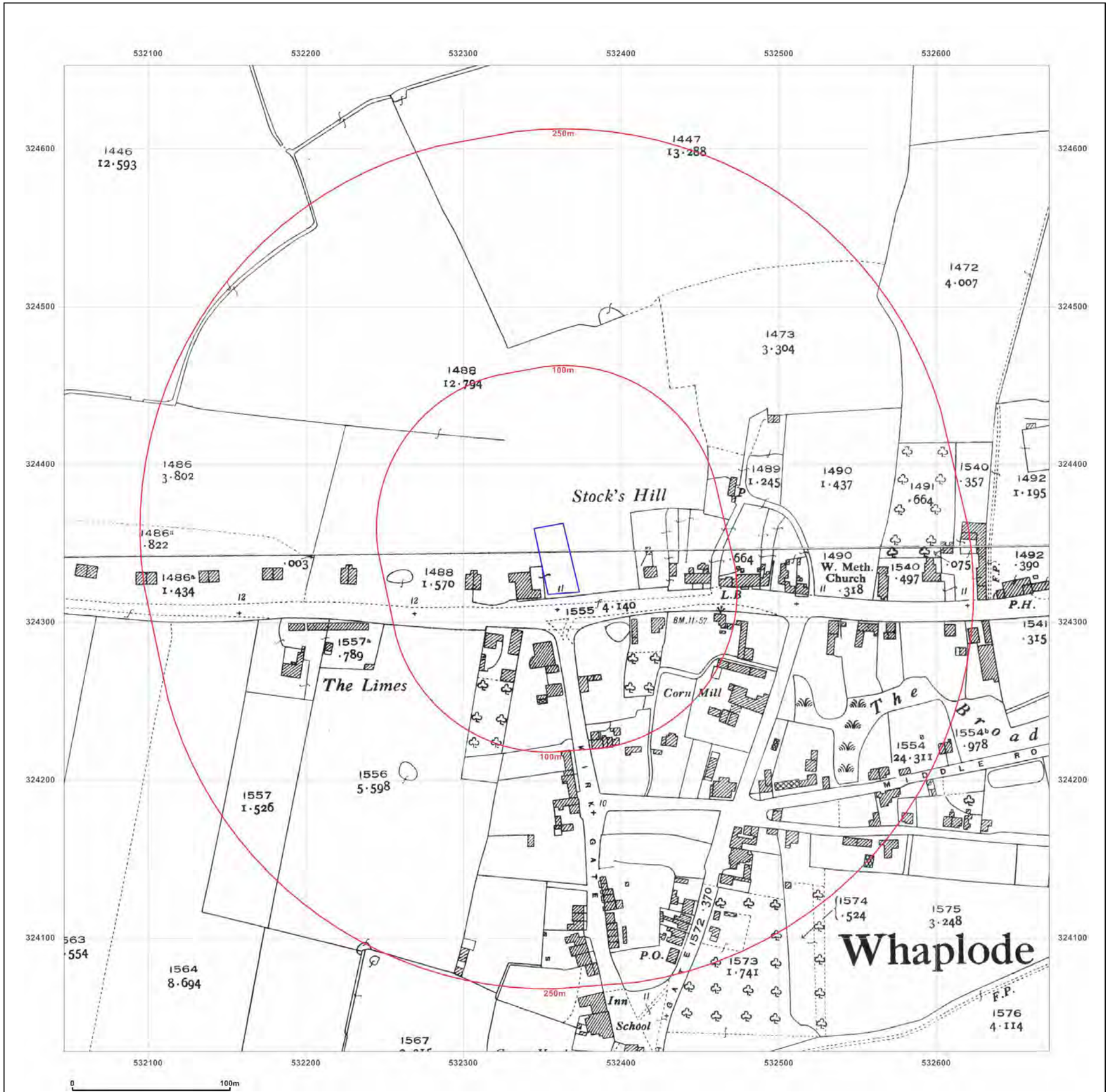
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Site Details:

LAND OFF HIGH ROAD,
WHAPLODE, SPALDING, PE12
6TG

Client Ref: 0603-ds
Report Ref: GS-2391-5896031
Grid Ref: 532359, 324340

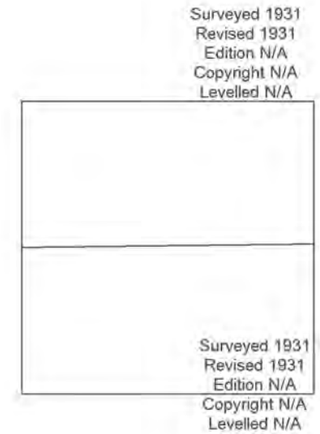
Map Name: County Series

Map date: **1931**

Scale: 1:2,500

Printed at: 1:2,500

N
W E
S



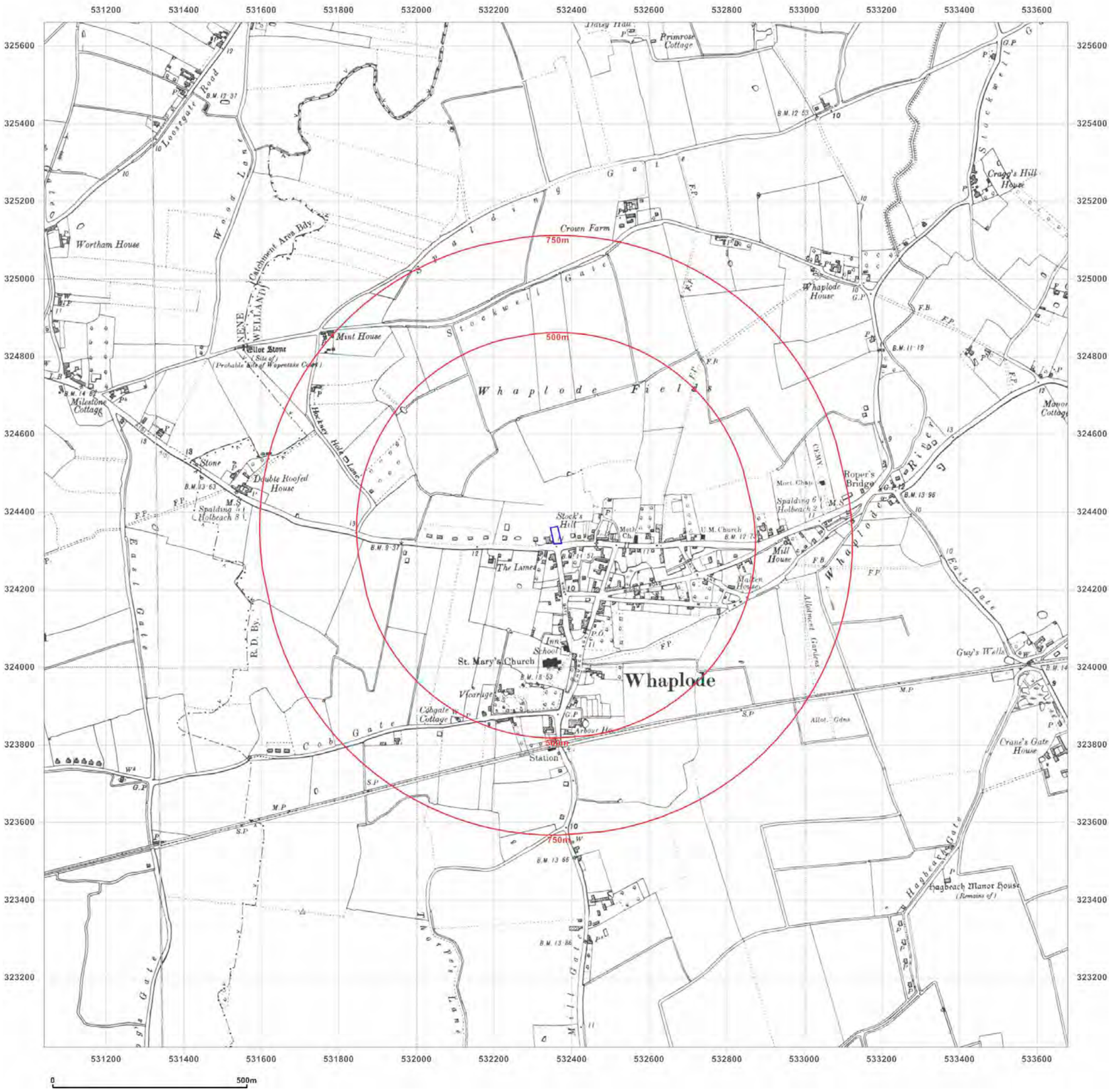
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Site Details:

LAND OFF HIGH ROAD,
WHAPLODE, SPALDING, PE12
6TG

Client Ref: 0603-ds
Report Ref: GS-2391-5896031
Grid Ref: 532359, 324340

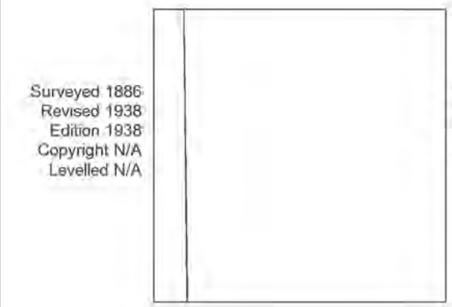
Map Name: County Series

Map date: **1938**

Scale: 1:10,560

Printed at: 1:10,560

N
W E
S



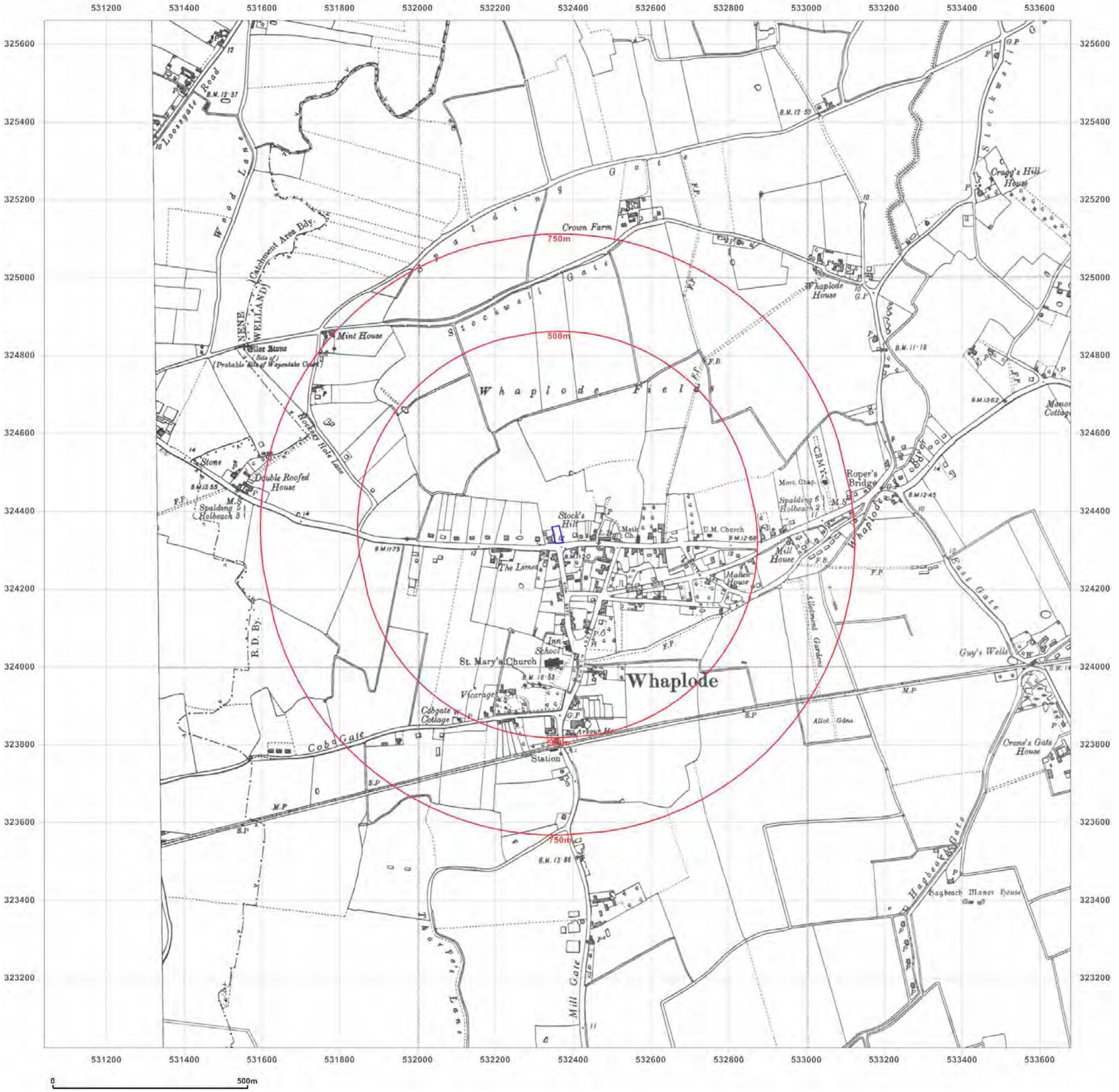
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Site Details:

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WHAPLODE, SPALDING, PE12
6TG

Client Ref: 0603-ds
Report Ref: GS-2391-5896031
Grid Ref: 532359, 324340

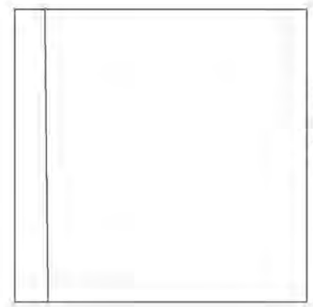
Map Name: County Series

Map date: **1950**

Scale: 1:10,560

Printed at: 1:10,560

N
W E
S



Surveyed 1886
Revised 1950
Edition N/A
Copyright N/A
Levelled N/A

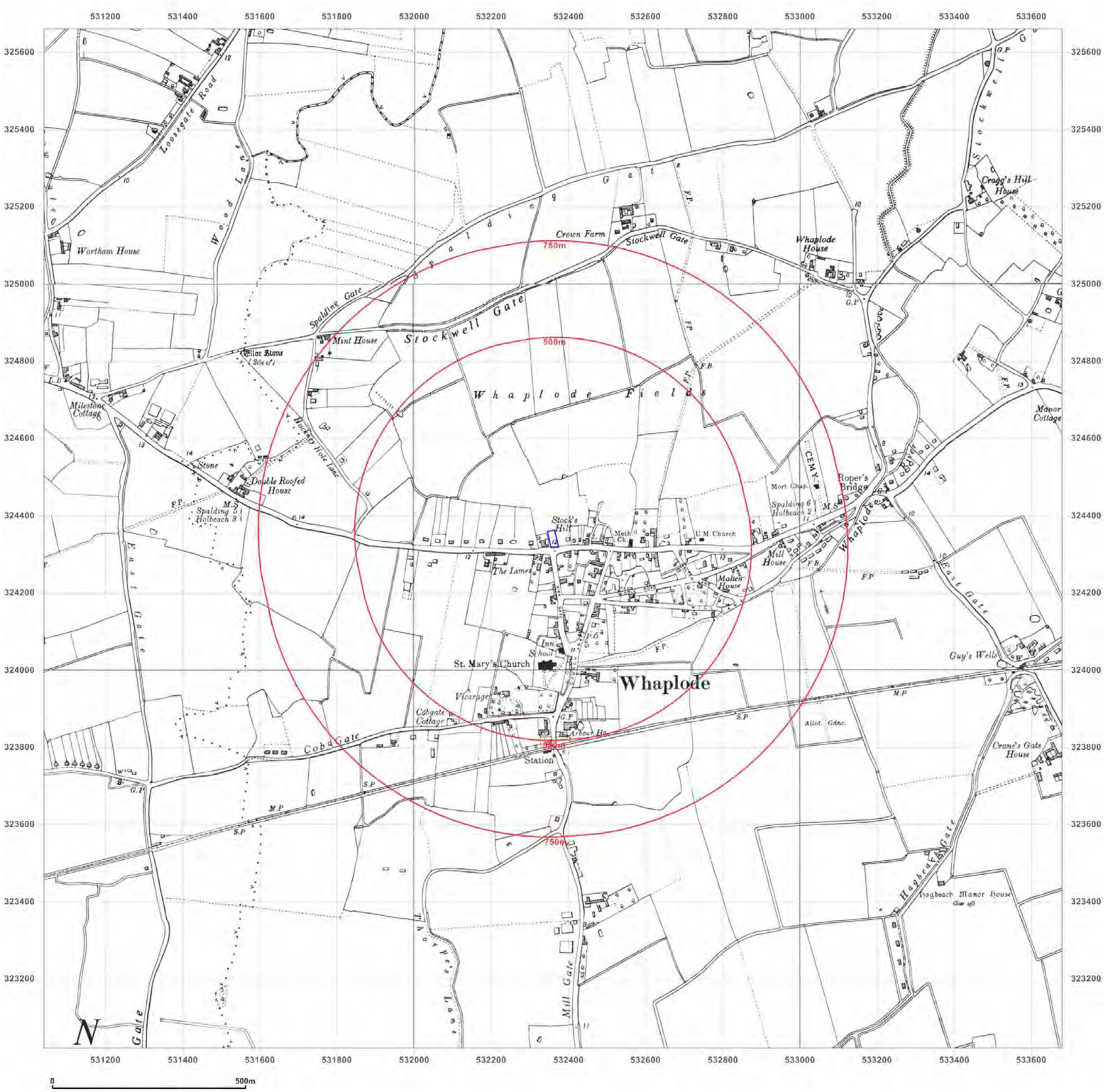
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Site Details:

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WHAPLODE, SPALDING, PE12
6TG

Client Ref: 0603-ds
Report Ref: GS-2391-5896031
Grid Ref: 532359, 324340

Map Name: Provisional

Map date: **1955-1958**

Scale: 1:10,560

Printed at: 1:10,560

N
W E
S

Surveyed N/A
Revised 1955
Edition N/A
Copyright N/A
Levelled N/A

Surveyed N/A
Revised 1958
Edition N/A
Copyright N/A
Levelled N/A

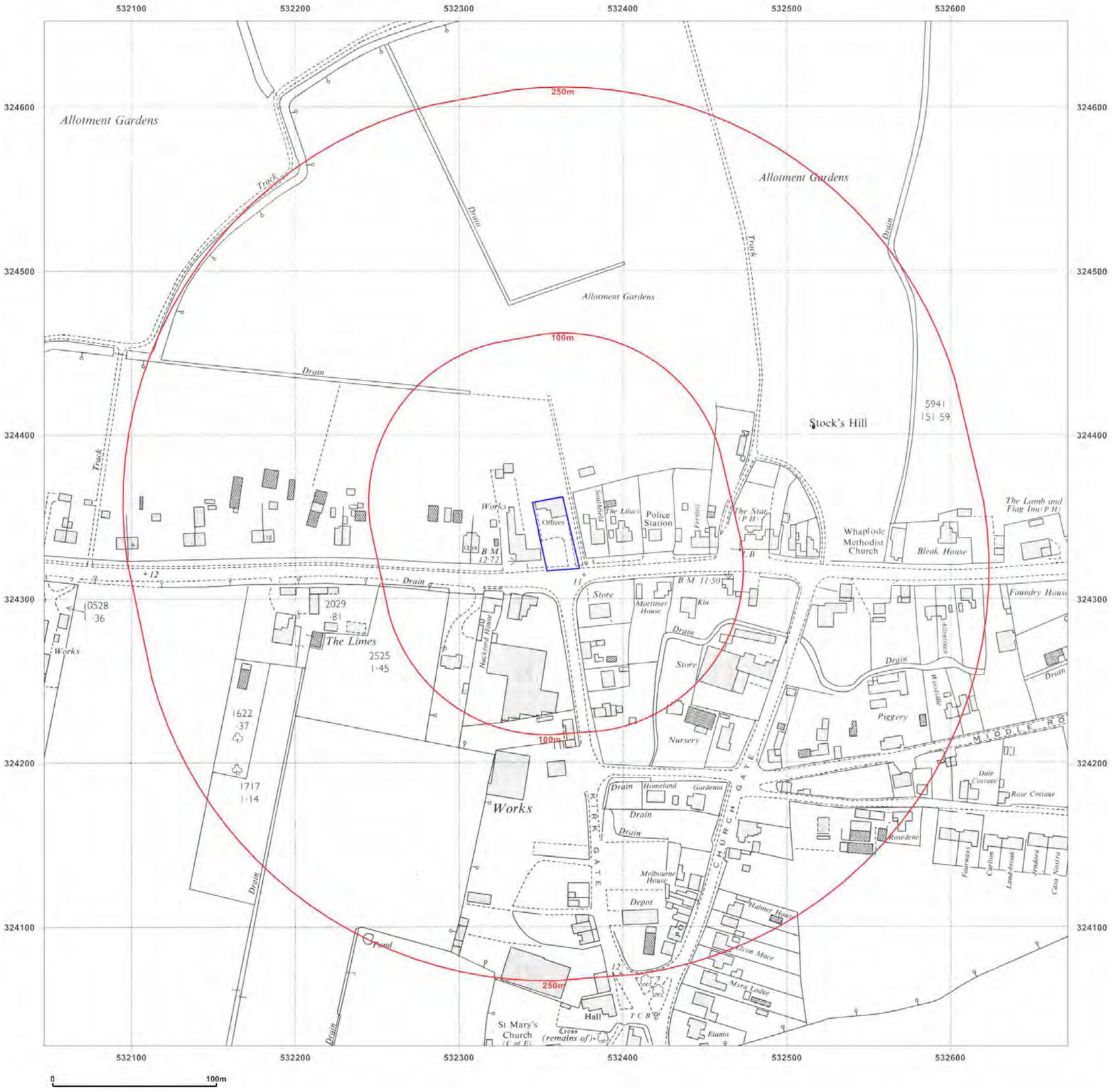
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Site Details:

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WHAPLODE, SPALDING, PE12
6TG

Client Ref: 0603-ds
Report Ref: GS-2391-5896031
Grid Ref: 532359, 324340

Map Name: National Grid

Map date: **1968**

Scale: 1:2,500

Printed at: 1:2,500

N
W E
S

Surveyed 1968
Revised 1968
Edition N/A
Copyright 1970
Levelled 1968

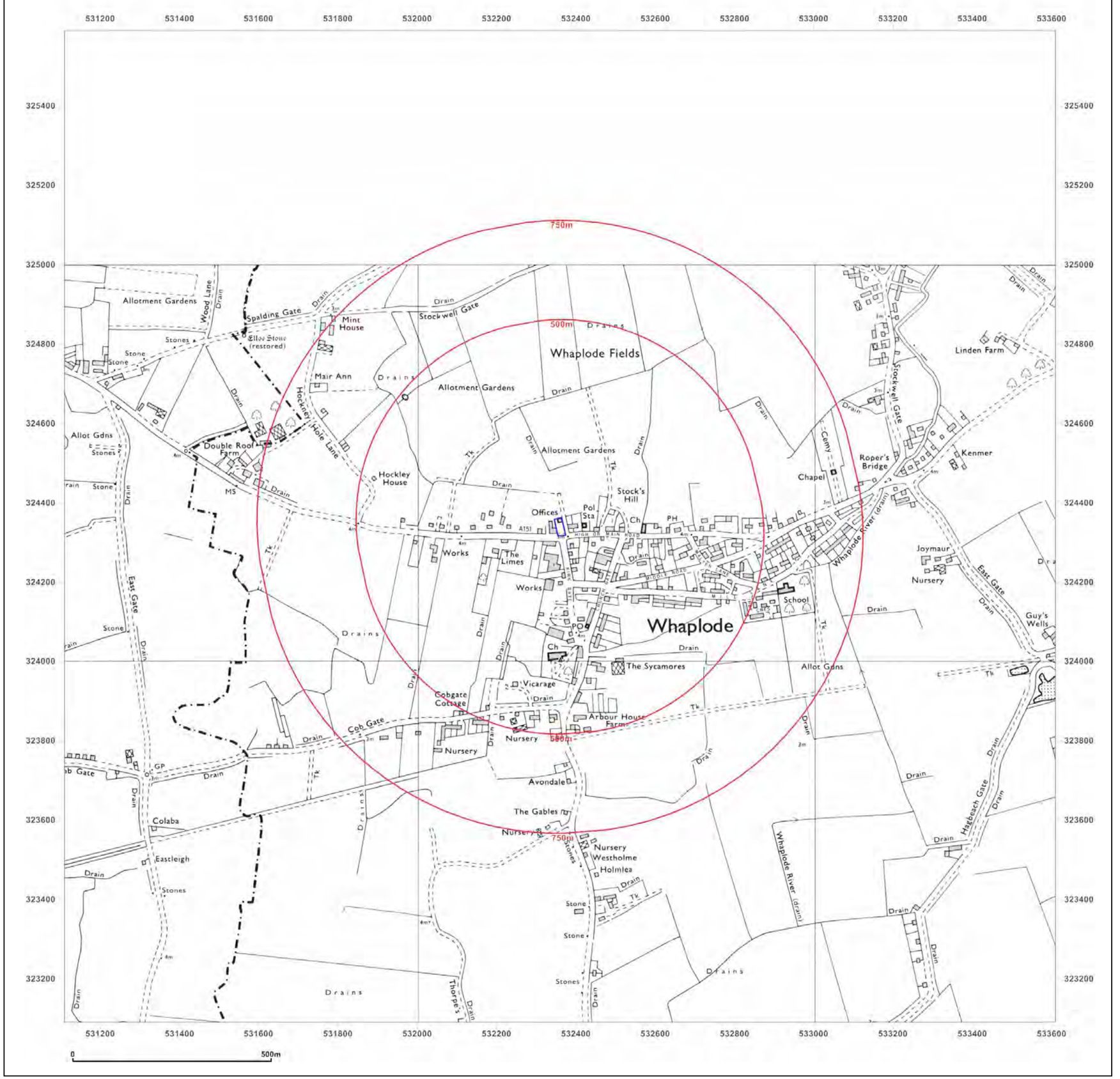
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Site Details:

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6TG

Client Ref: 0603-ds
Report Ref: GS-2391-5896031
Grid Ref: 532359, 324340

Map Name: National Grid

Map date: **1971**

Scale: 1:10,000

Printed at: 1:10,000

N
W E
S



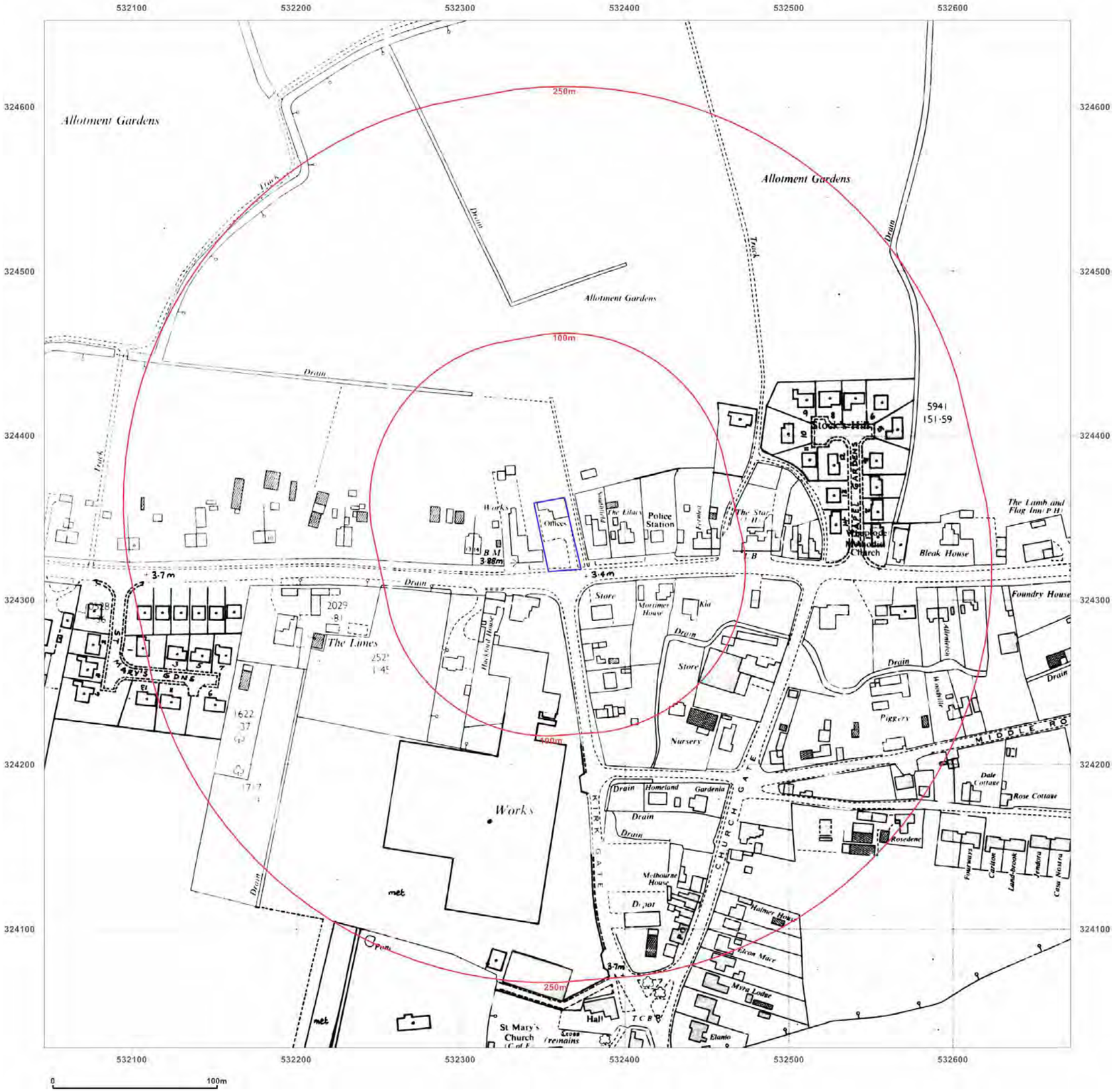
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Site Details:

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WHAPLODE, SPALDING, PE12
6TG

Client Ref: 0603-ds
Report Ref: GS-2391-5896031
Grid Ref: 532359, 324340

Map Name: National Grid

Map date: **1977**

Scale: 1:2,500

Printed at: 1:2,500

N
W E
S

Surveyed N/A
Revised N/A
Edition N/A
Copyright N/A
Levelled N/A

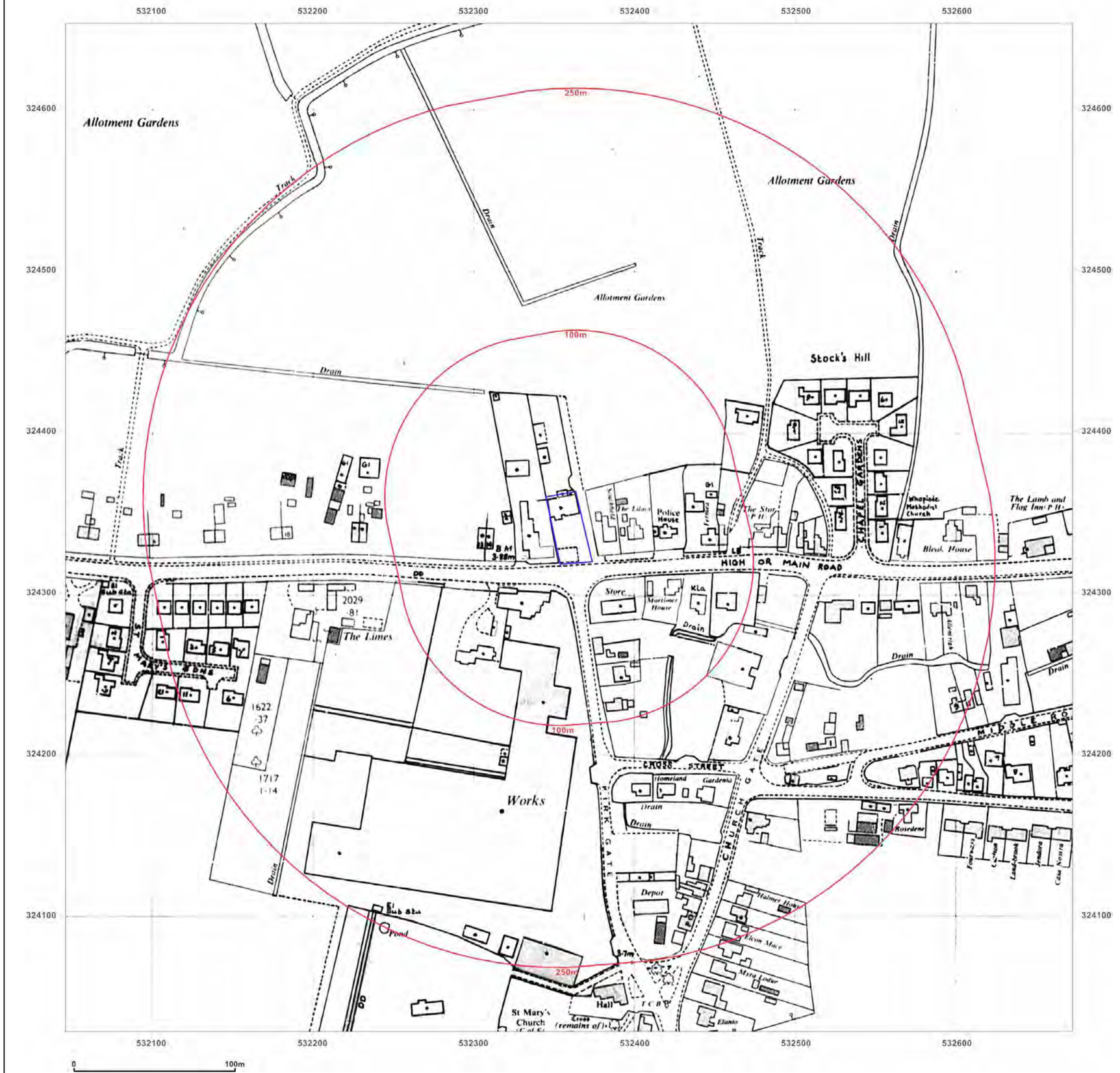
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Site Details:

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6TG

Client Ref: 0603-ds
Report Ref: GS-2391-5896031
Grid Ref: 532359, 324340

Map Name: National Grid

Map date: **1981**

Scale: 1:2,500

Printed at: 1:2,500

N
W E
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Surveyed 1965
Revised 1981
Edition N/A
Copyright 1981
Levelled 1965

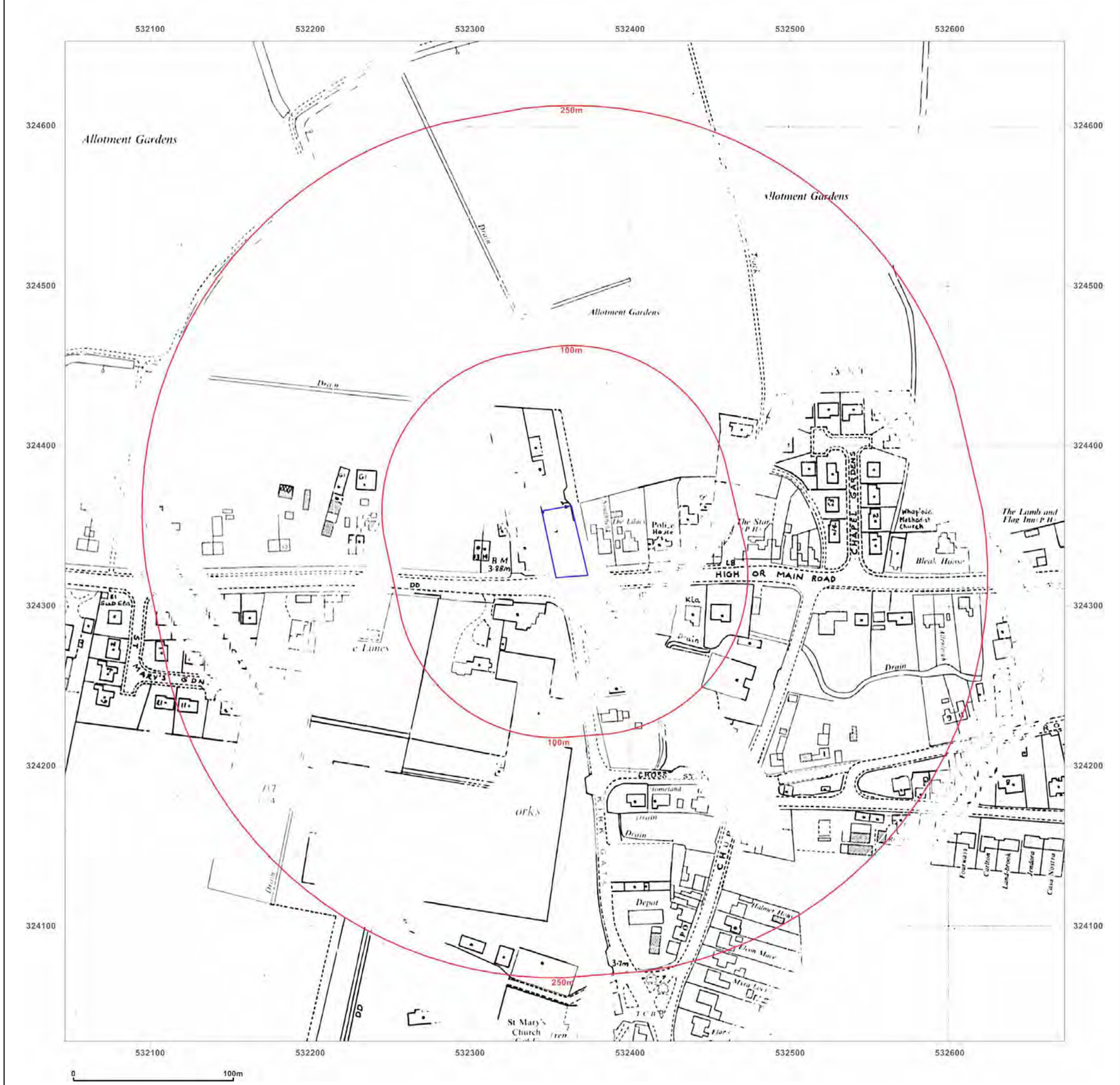
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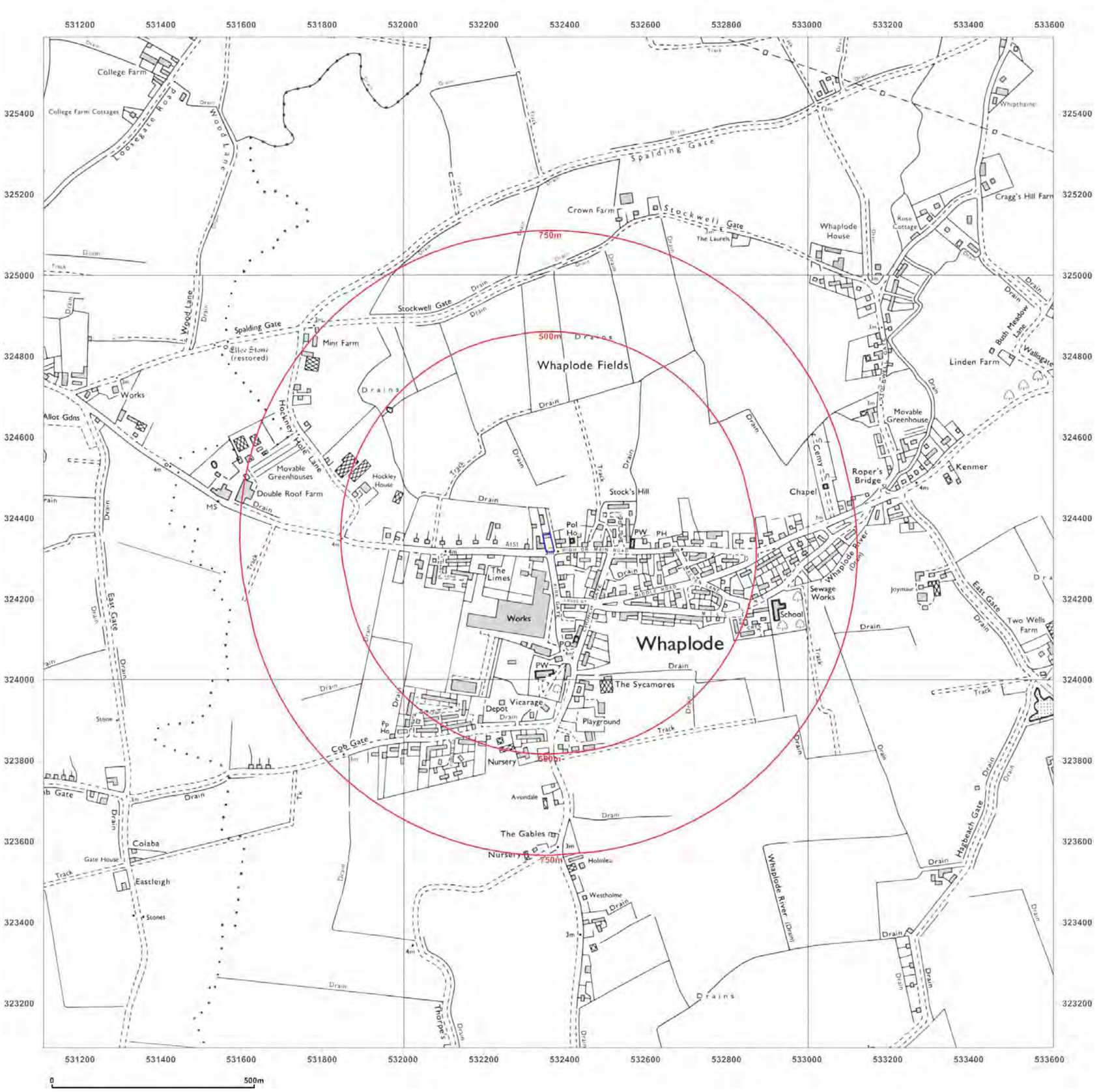
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532100
532200
532300
532400
532500
532600
324600
324500
324400
324300
324200
324100
250m
100m
Allotment Gardens
Allotment Gardens
Allotment Gardens
Drain
Drain
HIGH OR MAIN ROAD
CHAPEL GARDENS
Whaplode Methodist Church
The Star P.H.
The Lamb and Flag Inn P.H.
Bleak House
Police House
The Lilacs
BM 3·88m
Kla
Drain
Drain
Drain
CHURCH
Homeland
Depot
Holmer House
Orchard Mace
Mace Lea
Drain
Drain
Drain



Groundsure INSIGHTS

Site Details:

LAND OFF HIGH ROAD,
WHAPLODE, SPALDING, PE12 6TG

Client Ref: 0603-ds
Report Ref: GS-2391-5896031
Grid Ref: 532359, 324340

Map Name: National Grid

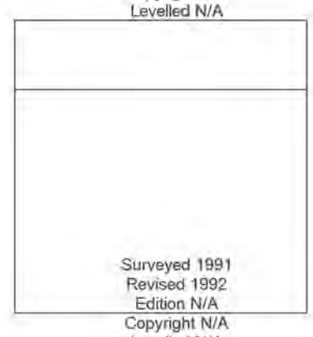
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Scale: 1:10,000

Printed at: 1:10,000

N
W E
S

Surveyed 1991
Revised 1992
Edition N/A
Copyright N/A
Levelled N/A



Surveyed 1991
Revised 1992
Edition N/A
Copyright N/A
Levelled N/A

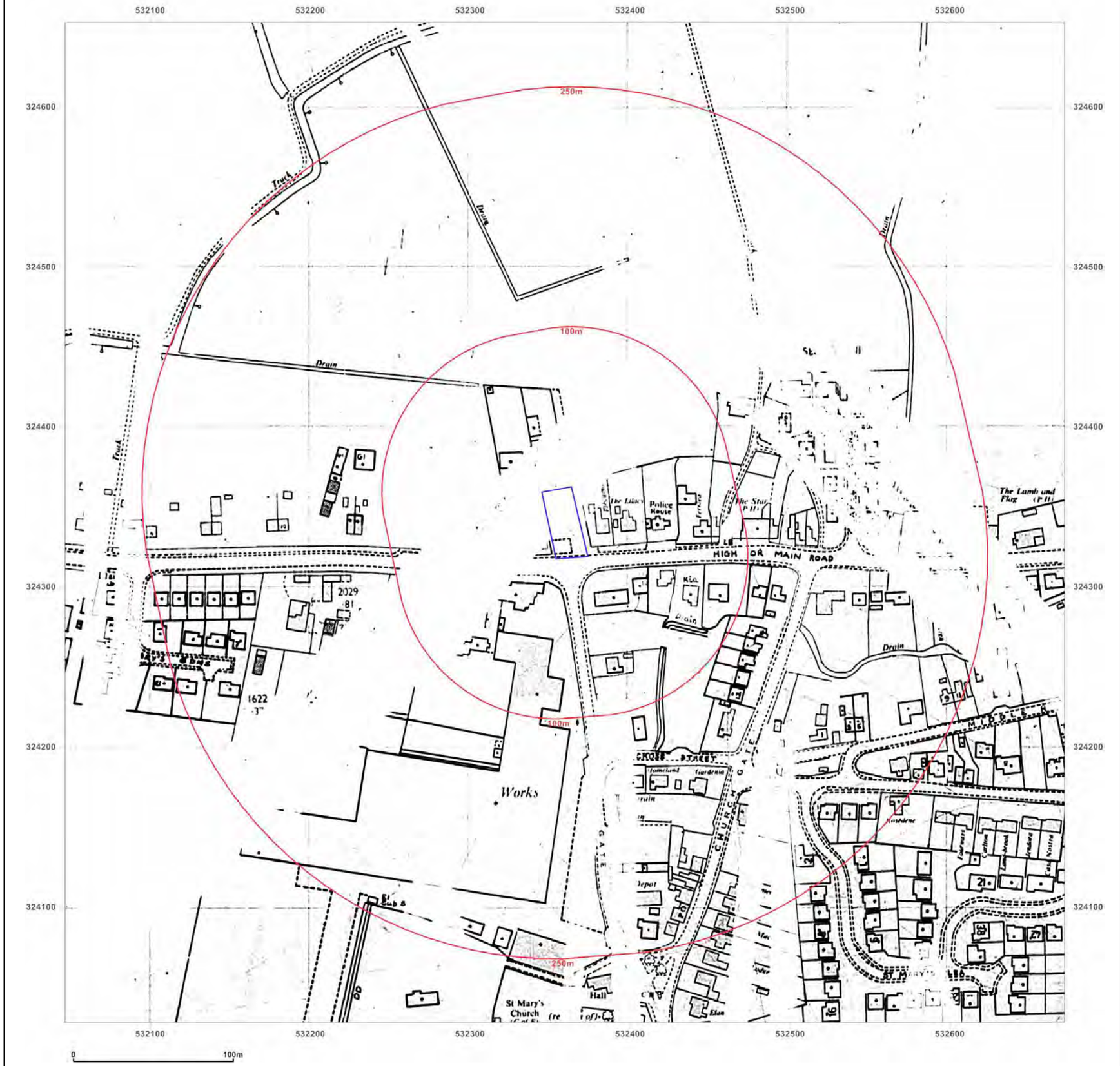
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Groundsure INSIGHTS

Site Details:

LAND OFF HIGH ROAD,
WHAPLODE, SPALDING, PE12
6TG

Client Ref: 0603-ds
Report Ref: GS-2391-5896031
Grid Ref: 532359, 324340

Map Name: National Grid

Map date: **1993**

Scale: 1:2,500

Printed at: 1:2,500

N
W E
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Surveyed 1993
Revised 1993
Edition N/A
Copyright 1993
Levelled N/A

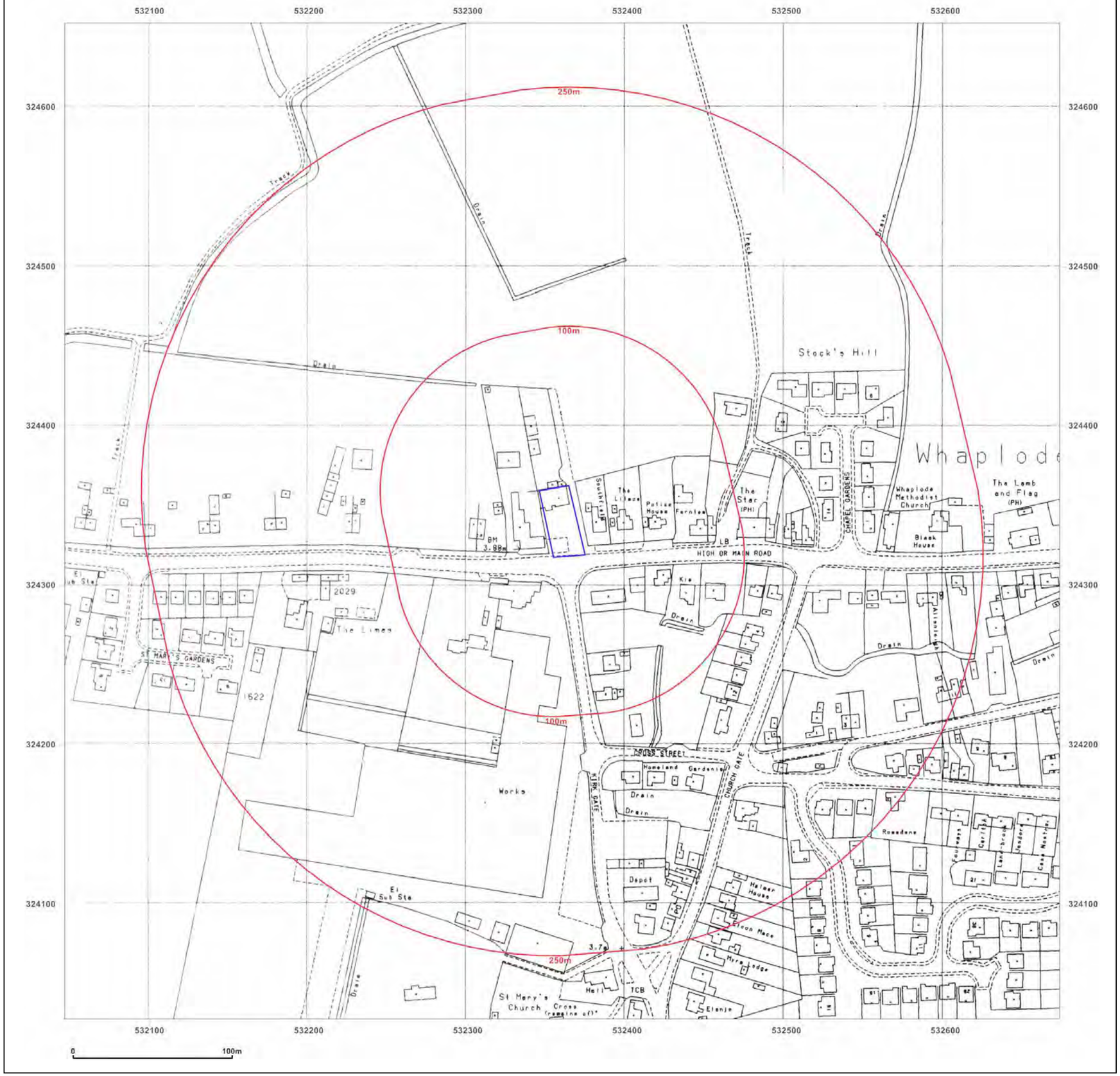
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Groundsure INSIGHTS

Site Details:

LAND OFF HIGH ROAD,
WHAPLODE, SPALDING, PE12 6TG

Client Ref: 0603-ds
Report Ref: GS-2391-5896031
Grid Ref: 532359, 324340

Map Name: National Grid

Map date: **1993**

Scale: 1:2,500

Printed at: 1:2,500

N
W E
S

Surveyed 1993
Revised 1993
Edition N/A
Copyright 1993
Levelled N/A

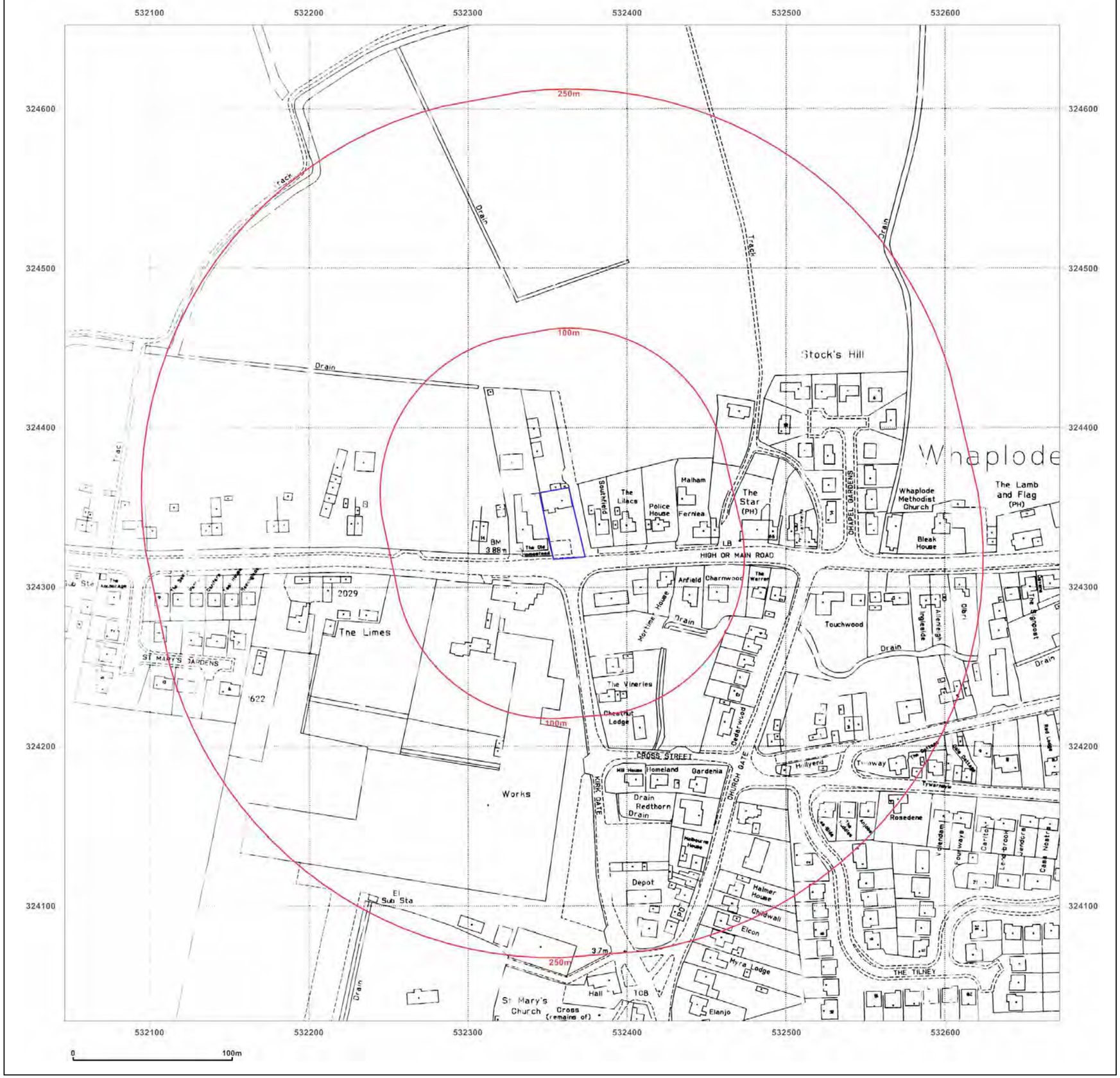
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Groundsure INSIGHTS

Site Details:

LAND OFF HIGH ROAD,
WHAPLODE, SPALDING, PE12 6TG

Client Ref: 0603-ds
Report Ref: GS-2391-5896031
Grid Ref: 532359, 324340

Map Name: National Grid

Map date: **1995**

Scale: 1:2,500

Printed at: 1:2,500

N
W E
S

Surveyed N/A
Revised N/A
Edition N/A
Copyright 1995
Levelled N/A

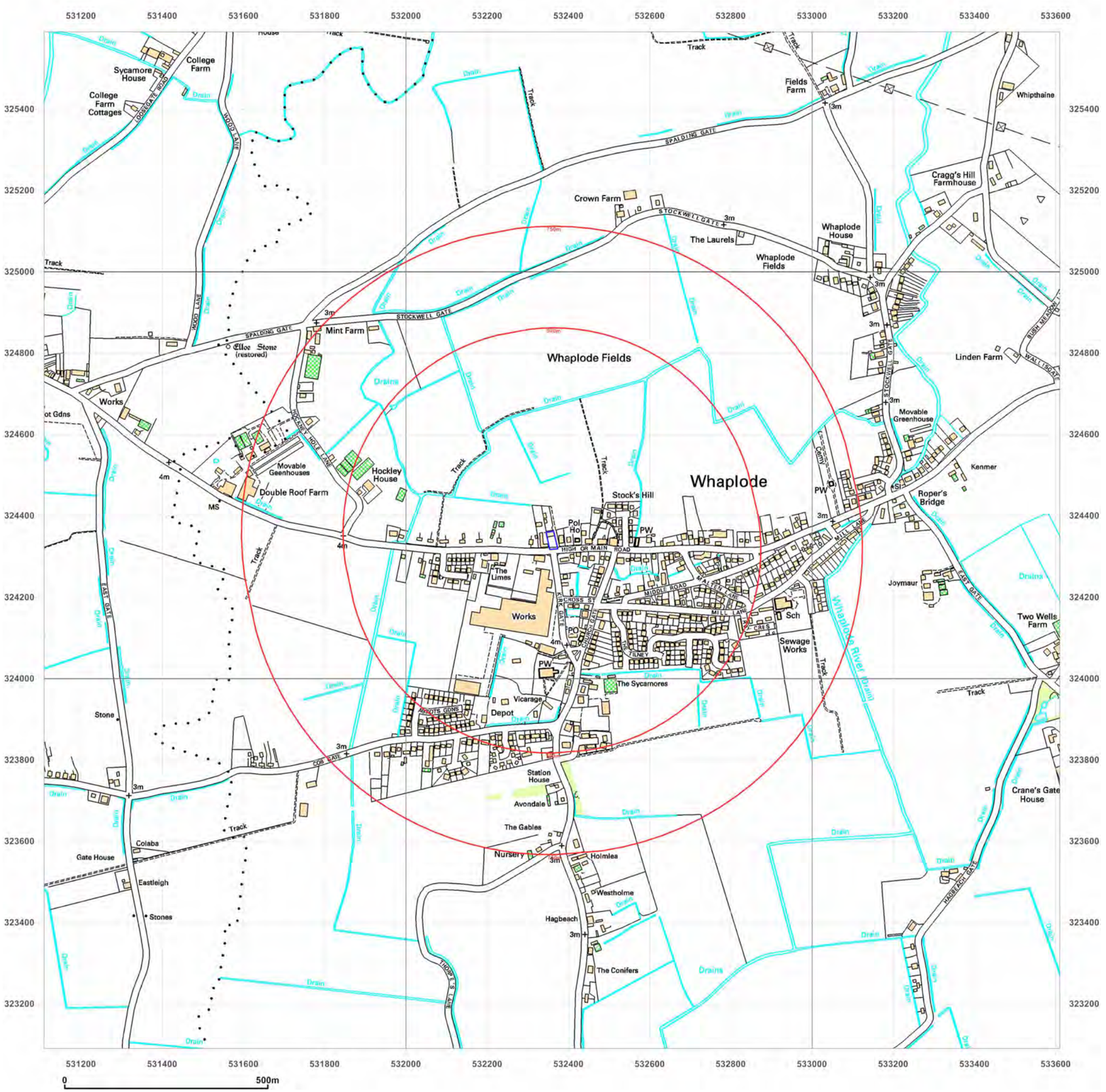
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Groundsure INSIGHTS

Site Details:

LAND OFF HIGH ROAD,
WHAPLODE, SPALDING, PE12
6TG

Client Ref: 0603-ds
Report Ref: GS-2391-5896031
Grid Ref: 532359, 324340

Map Name: 1:10,000 Raster
Map date: **2002**
Scale: 1:10,000
Printed at: 1:10,000

N
W E
S



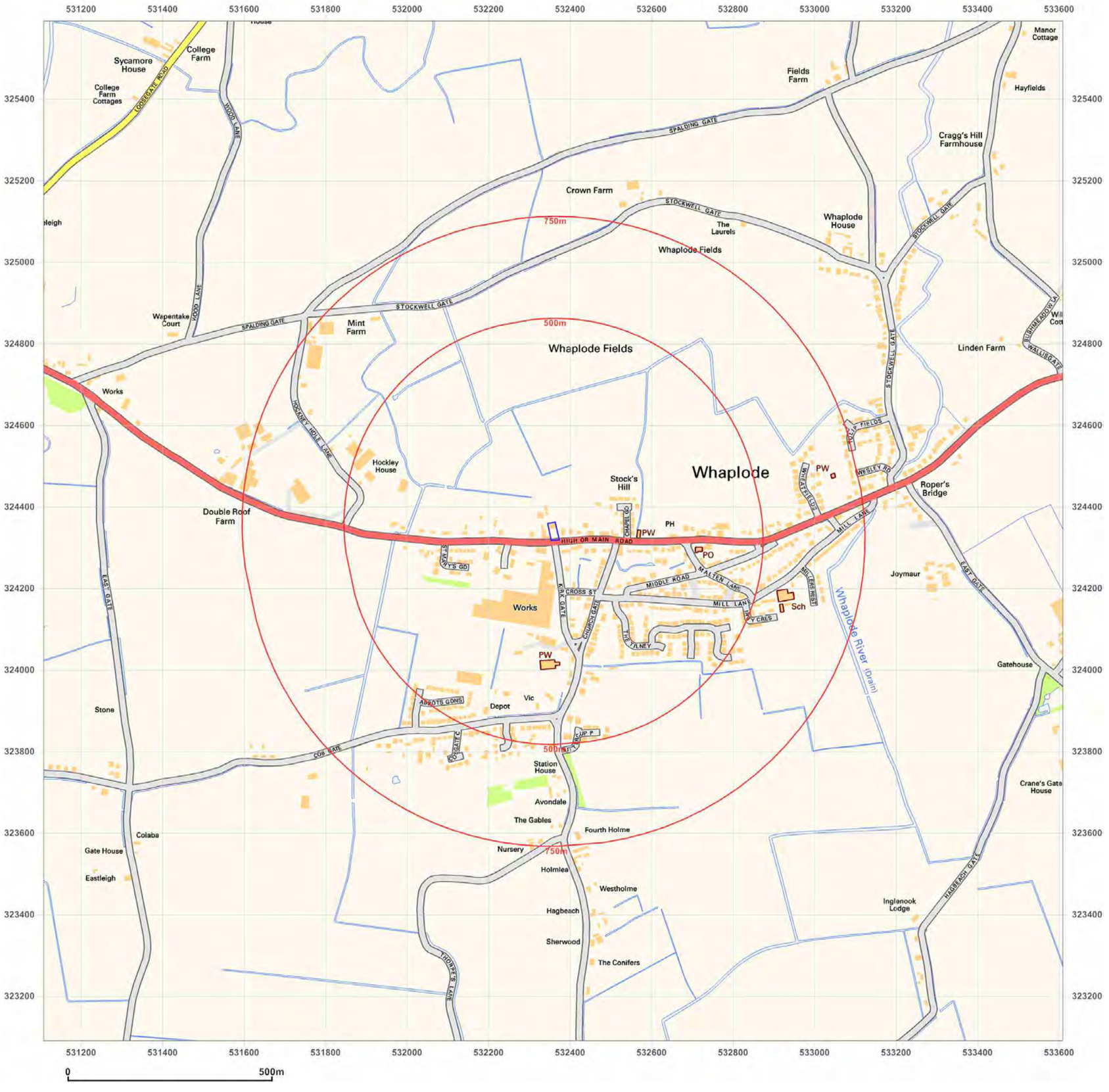
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Groundsure INSIGHTS

Site Details:

LAND OFF HIGH ROAD,
WHAPLODE, SPALDING, PE12 6TG

Client Ref: 0603-ds
Report Ref: GS-2391-5896031
Grid Ref: 532359, 324340

Map Name: National Grid
Map date: **2010**
Scale: 1:10,000
Printed at: 1:10,000

N
W E
S



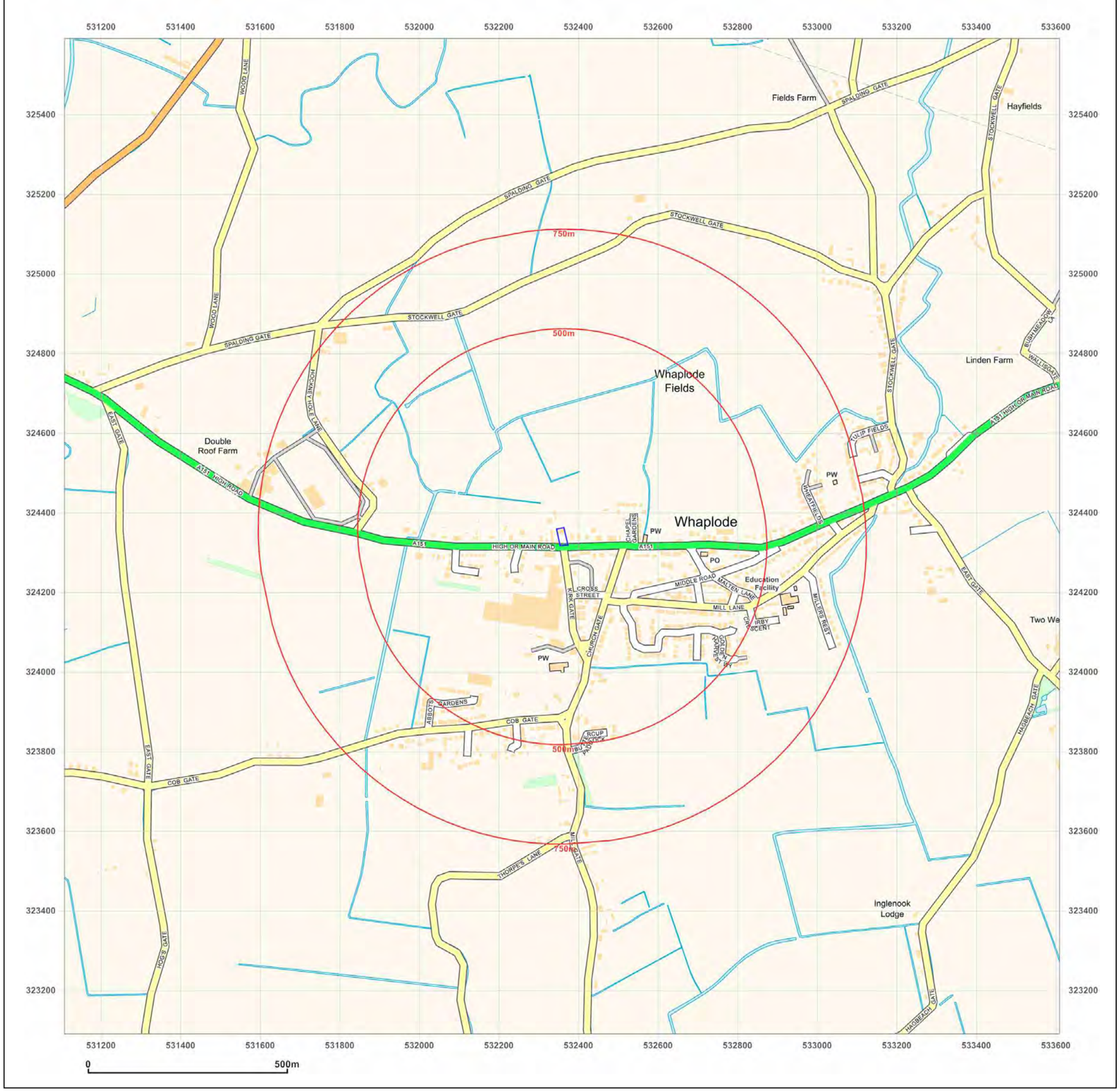
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Groundsure INSIGHTS

Site Details:

LAND OFF HIGH ROAD,
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Client Ref: 0603-ds
Report Ref: GS-2391-5896031
Grid Ref: 532359, 324340

Map Name: National Grid
Map date: 2014
Scale: 1:10,000
Printed at: 1:10,000

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Groundsure Reference:	GS-2391-5896030
Your Reference:	0603-ds
Report Date	22 Mar 2019
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Enviro Insight

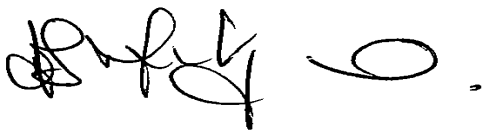
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Dear Sir/ Madam,

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

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

Yours faithfully,



Managing Director
Groundsure Limited

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Enviro Insight

Address:	**LAND OFF HIGH ROAD, WHAPLODE, SPALDING, PE12 6TG**
Date:	**22 Mar 2019**
Reference:	**GS-2391-5896030**
Client:	**Goldfinch Environmental Limited**

NW N NE

W E



SW S SE

Aerial Photograph Capture date:	06-Apr-2015
Grid Reference:	532358,324341
Site Size:	0.0841ha

Report Reference: GS-2391-5896030
Client Reference: 0603-ds

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Overview of Findings

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

Section 1: Historical Industrial Sites	On-site	0-50	51-250	251-500
1.1 Potentially Contaminative Uses identified from 1:10,000 scale mapping	0	2	3	5
1.2 Additional Information – Historical Tank Database	0	0	0	9
1.3 Additional Information – Historical Energy Features Database	0	0	5	17
1.4 Additional Information – Historical Petrol and Fuel Site Database	0	0	0	1
1.5 Additional Information – Historical Garage and Motor Vehicle Repair Database	0	0	0	11
1.6 Historical military sites	0	0	0	0
1.7 Potentially Infilled Land	0	0	5	4

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	2	0	2
2.1.7 Records of Category 3 or 4 Radioactive Substances Authorisations	0	0	0	0
2.1.8 Records of Licensed Discharge Consents	0	0	15	9
2.1.9 Records of Water Industry Referrals	0	0	0	0
2.1.10 Records of Planning Hazardous Substance Consents and Enforcements within 500m of the study site	0	0	0	0
2.2 Records of COMAH and NIHHS sites	0	0	0	0
2.3 Environment Agency/Natural Resources Wales Recorded Pollution Incidents				
2.3.1 National Incidents Recording System, List 2	0	0	0	0
2.3.2 National Incidents Recording System, List 1	0	0	0	0
2.4 Sites Determined as Contaminated Land under Part 2A EPA 1990	0	0	0	0

Section 3: Landfill and Other Waste Sites	On-site	0-50m	51-250	251-500	501-1000	1000-1500
3.1 Landfill Sites						
3.1.1 Environment Agency/Natural Resources Wales Registered Landfill Sites	0	0	0	0	0	Not searched
3.1.2 Environment Agency/Natural Resources Wales Historic Landfill Sites	0	0	1	1	0	0
3.1.3 BGS/DoE Landfill Site Survey	0	0	0	0	0	0
3.1.4 Records of Landfills in Local Authority and Historical Mapping Records	0	0	0	0	0	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/Natural Resources Wales Licensed Waste Sites	0	0	0	0	0	0

Section 4: Current Land Use	On-site	0-50m	51-250	251-500
4.1 Current Industrial Sites Data	0	1	3	Not searched
4.2 Records of Petrol and Fuel Sites	0	0	1	2
4.3 National Grid Underground Electricity Cables	0	0	0	0
4.4 National Grid Gas Transmission Pipelines	0	0	0	0

Section 5: Geology	
5.1 Records of Artificial Ground and Made Ground present beneath the study site	None identified
5.2 Records of Superficial Ground and Drift Geology present beneath the study site	Identified
5.3 For records of Bedrock and Solid Geology beneath the study site see the detailed findings section.	

Section 6: Hydrogeology and Hydrology	0-500m
6.1 Records of Strata Classification in the Superficial Geology within 500m of the study site	Identified
6.2 Records of Strata Classification in the Bedrock Geology within 500m of the study site	Identified

	On-site	0-50m	51-250	251-500	501-1000	1000-2000
6.3 Groundwater Abstraction Licences (within 2000m of the study site)	0	0	0	0	0	0
6.4 Surface Water Abstraction Licences (within 2000m of the study site)	0	0	0	0	0	0
6.5 Potable Water Abstraction Licences (within 2000m of the study site)	0	0	0	0	0	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

Section 6: Hydrogeology and Hydrology

	0-500m					
	On-site	0-50m	51-250	251-500	501-1000	1000-1500
6.9 Environment Agency/Natural Resources Wales information on river quality within 1500m of the study site	No	No	No	No	Yes	No
6.10 Ordnance Survey MasterMap Water Network entries within 500m of the site	0	0	14	42	Not searched	Not searched
6.11 Surface water features within 250m of the study site	No	No	Yes	Not searched	Not searched	Not searched

Section 7: Flooding

7.1 Enviroment Agency Zone 2 floodplains within 250m of the study site	Identified
7.2 Environment Agency/Natural Resources Wales Zone 3 floodplains within 250m of the study site	Identified
7.3 Risk of flooding from Rivers and the Sea (RoFRaS) rating for the study site	Medium
7.4 Flood Defences within 250m of the study site	None identified
7.5 Areas benefiting from Flood Defences within 250m of the study site	None identified
7.6 Areas used for Flood Storage within 250m of the study site	None identified
7.7 Maximum BGS Groundwater Flooding susceptibility within 50m of the study site	Not Prone
7.8 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

Section 8: Designated Environmentally Sensitive Sites

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

Section 9: Natural Hazards

9.1 Maximum risk of natural ground subsidence	Moderate
9.1.1 Maximum Shrink-Swell hazard rating identified on the study site	Low
9.1.2 Maximum Landslides hazard rating identified on the study site	Very Low
9.1.3 Maximum Soluble Rocks hazard rating identified on the study site	Negligible
9.1.4 Maximum Compressible Ground hazard rating identified on the study site	Moderate
9.1.5 Maximum Collapsible Rocks hazard rating identified on the study site	Negligible
9.1.6 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 site is not in a Radon Affected Area, as less than 1% of properties are above the Action Level.
9.2.2 Is the property in an area where Radon Protection are required for new properties or extensions to existing ones as described in publication BR211 by the Building Research Establishment?	No radon protective measures are necessary.

Section 10: Mining

10.1 Coal mining areas within 75m of the study site	None identified
10.2 Non-Coal Mining areas within 50m of the study site boundary	None identified
10.3 Brine affected areas within 75m of the study site	None identified

Using this report

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

1. Historical Industrial Sites

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

2. Environmental Permits, Incidents and Registers

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

3. Landfills and Other Waste Sites

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

4. Current Land Uses

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

5. Geology

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

6. Hydrogeology and Hydrology

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

7. Flooding

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

8. Designated Environmentally Sensitive Sites

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

9. Natural Hazards

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

10. Mining

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

11. Contacts

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

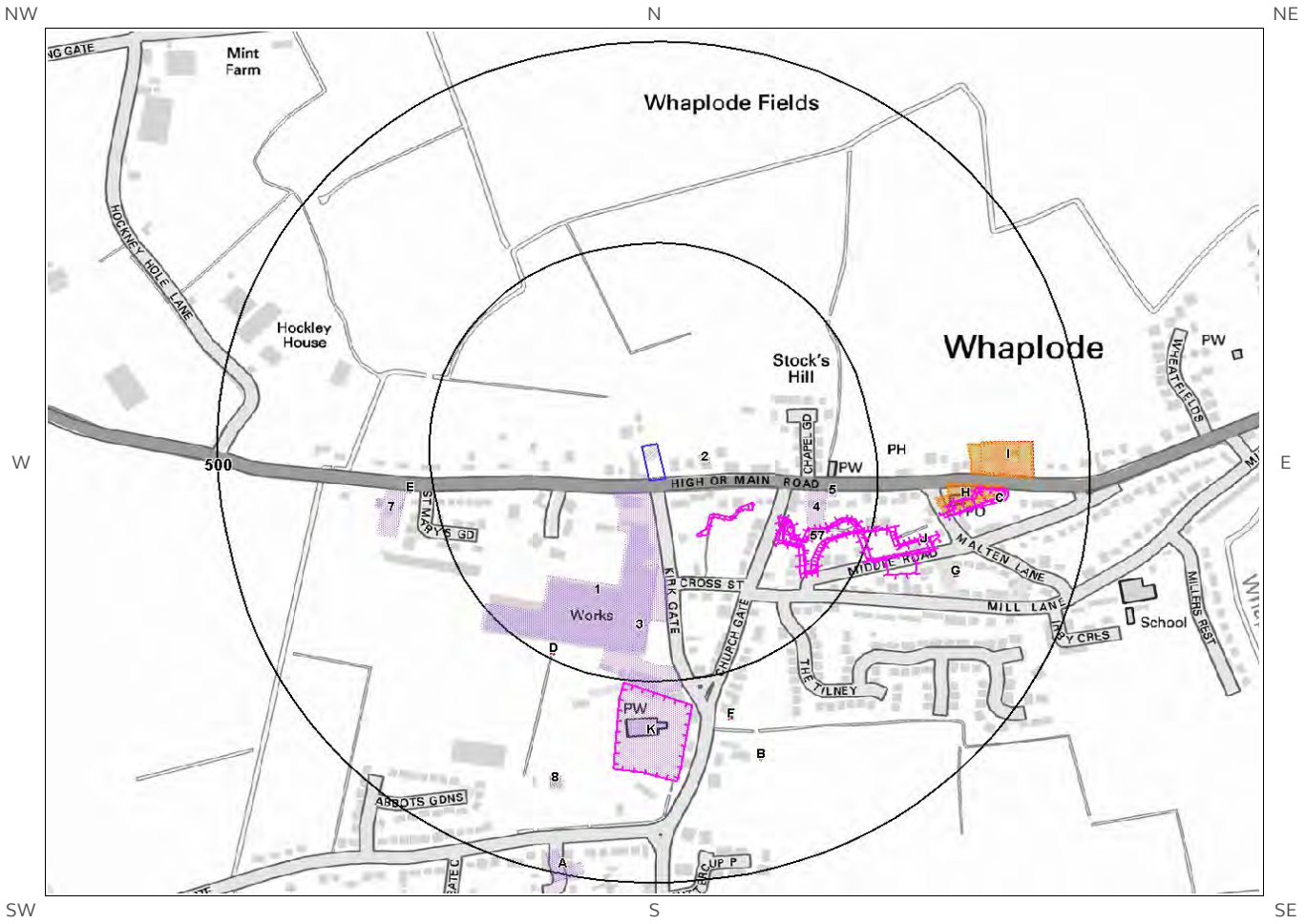
Note: Maps

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

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

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

1. Historical Land Use



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Site Outline

250
500
Search Buffers (m)

Historical 1:10,000 and 1:10,560 scale mapping

Industrial Land Use

Potentially Infilled Land

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

Energy Features

Petrol Stations

Historical military sites

Tanks

Garages

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: 10

ID	Distance [m]	Direction	Use	Date
1	13	S	Unspecified Works	1992
2	44	E	Police Station	1971
3	104	S	Unspecified Works	1971
4	166	E	Smithy	1903
5	194	E	Smithy	1903
6K	253	S	Grave Yard	1887
7	281	W	Unspecified Works	1971
8	382	S	Unspecified Depot	1992
9A	471	S	Nursery	1971
10A	471	S	Nursery	1992

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: 9

ID	Distance (m)	Direction	Use	Date
11B	360	S	Tanks	1995
12B	360	S	Tanks	1996
13B	360	S	Tanks	1968
14C	391	E	Unspecified Tank	1993
15C	391	E	Unspecified Tank	1993
16C	391	E	Unspecified Tank	1981
17C	391	E	Unspecified Tank	1981
18C	391	E	Unspecified Tank	1995
19C	392	E	Unspecified Tank	1968

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: 22

ID	Distance (m)	Direction	Use	Date
20D	239	SW	Electricity Substation	1995
21D	240	SW	Electricity Substation	1993
22D	240	SW	Electricity Substation	1981
23D	240	SW	Electricity Substation	1981
24D	240	SW	Electricity Substation	1993
25E	276	W	Electricity Substation	1981
26E	276	W	Electricity Substation	1981
27E	276	W	Electricity Substation	1993
28E	276	W	Electricity Substation	1993
29E	276	W	Electricity Substation	1995
30F	304	S	Electricity Substation	1968
31F	305	S	Electricity Substation	1995
32F	305	S	Electricity Substation	1993
33F	305	S	Electricity Substation	1981
34F	305	S	Electricity Substation	1993
35F	305	S	Electricity Substation	1981
36G	358	E	Electricity Substation	1995
37G	358	E	Electricity Substation	1993
38G	358	E	Electricity Substation	1981
39G	358	E	Electricity Substation	1981
40G	358	E	Electricity Substation	1993
41G	359	E	Electricity Substation	1968

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: 1

ID	Distance (m)	Direction	Use	Date
42I	373	E	Filling Station	1968

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: 11

ID	Distance (m)	Direction	Use	Date
43H	317	E	Garage	1993
44H	319	E	Garage	1981
45H	319	E	Garage	1993
46H	319	E	Garage	1981
47H	320	E	Garage	1995
48H	333	E	Garage	1968
49I	357	E	Garage	1993
50I	357	E	Garage	1993
51I	358	E	Garage	1981
52I	358	E	Garage	1981
53I	359	E	Garage	1995

1.6 Historical military sites

Certain military installations were not noted on historic mapping for security reasons. Whilst not all military land is necessarily of concern, Groundsure has researched and digitised a number of Ordnance Factories and other military industrial features (e.g. Ordnance Depots, Munitions Testing Grounds) which may be of contaminative concern. This research was drawn from a number of different sources, and should not be regarded as a definitive or exhaustive database of potentially contaminative military installations. The boundaries of sites within this database have been estimated from the best evidence available to Groundsure at the time of compilation.

Records of historical military sites within 500m of the search boundary: 0

Database searched and no data found.

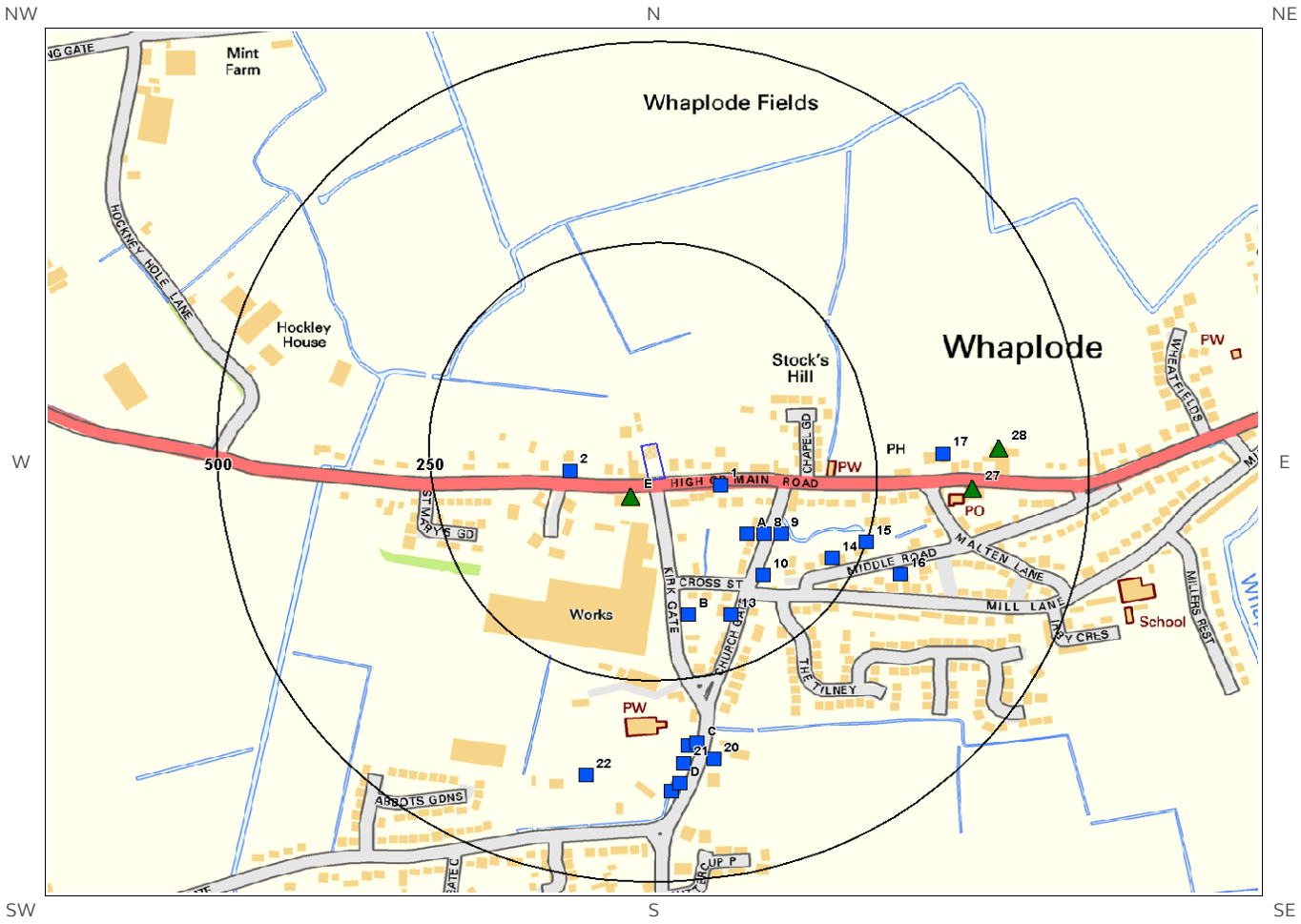
1.7 Potentially Infilled Land

Records of Potentially Infilled Features from 1:10,000 scale mapping within 500m of the study site: 9

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

ID	Distance(m)	Direction	Use	Date
54	69	SE	Pond	1887
55J	140	E	Water Body	1958
56J	145	E	Water Body	1950
57	145	E	Pond	1938
58J	147	E	Ponds	1887
59K	253	S	Grave Yard	1887
60H	330	E	Pond	1958
61H	334	E	Pond	1938
62H	337	E	Pond	1887

2. Environmental Permits, Incidents and Registers Map



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

2. Environmental Permits, Incidents and Registers

2.1 Industrial Sites Holding Licences and/or Authorisations

Searches of information provided by the Environment Agency/Natural Resources Wales and Local Authorities reveal the following information:

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

0

Database searched and no data found.

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

0

Database searched and no data found.

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

0

Database searched and no data found.

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

0

Database searched and no data found.

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

0

Database searched and no data found.

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

4

The following Part A(2) and Part B Activities are represented as points on the Environmental Permits, Incidents and Registers Map:

ID	Distance (m)	Direction	NGR	Details	
25E	31	SW	532332 324295	Address: D A Green & Sons, High Road, Whaplode, Spalding, Lincs, PE12 6TL Process: Coating Processes Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of Enforcement: No Enforcements Notified Comment: No Enforcements Notified
26E	31	SW	532332 324295	Address: D A Green & Sons, High Road, Whaplode, Spalding, Lincs, PE12 6TL Process: Coating Processes Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of Enforcement: No Enforcements Notified Comment: No Enforcements Notified
27	362	E	532735 324305	Address: Lincolnshire Co-operative Society, High Road, Whaplode, Spalding, Lincolnshire, PE12 6TJ Process: Unloading of Petrol into Storage at Service Stations Status: Current Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of Enforcement: No Enforcements Notified Comment: No Enforcements Notified
28	394	E	532766 324355	Address: Whaplode Service Station, High Road, Whaplode, Spalding, Lincolnshire, PE12 6TJ Process: Unloading of Petrol into Storage at Service Stations Status: Current Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of Enforcement: No Enforcements Notified Comment: No Enforcements Notified

2.1.7 Records of Category 3 or 4 Radioactive Substances Authorisations:

0

Database searched and no data found.

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

24

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

ID	Distance (m)	Direction	NGR	Details	
1	65	E	532438 324311	Address: THE BUNGALOW, HIGH ROAD, WHAPLODE, SPALDING, LINCS, PE12 6TG Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: PR5LF3467 Permit Version: 1	Receiving Water: land Status: PRE NRA LEGISLATION WHERE ISSUE DATE < 01-SEP-89 (HISTORIC ONLY) Issue date: 17/01/1978 Effective Date: 17-Jan-1978 Revocation Date: 28/08/1997

ID	Distance (m)	Direction	NGR	Details	
2	88	W	532261 324329	Address: HIGH RD MOULTON PS, HIGH ROAD, WHAPLODE, SPALDING, LINCS, PE12 6TG Effluent Type: SEWAGE DISCHARGES - PUMPING STATION - WATER COMPANY Permit Number: AW5NF2105 Permit Version: 1	Receiving Water: - Status: PRE NRA LEGISLATION WHERE ISSUE DATE < 01-SEP-89 (HISTORIC ONLY) Issue date: 06/06/1963 Effective Date: 06-Jun-1963 Revocation Date: -
3A	119	SE	532470 324250	Address: CHURCHGATE PLOTS, CHURCHGATE, WHAPLODE, SPALDING, LINCS, PE12 6TA Effluent Type: UNSPECIFIED Permit Number: PR5LF5011 Permit Version: 1	Receiving Water: land Status: PRE NRA LEGISLATION WHERE ISSUE DATE < 01-SEP-89 (HISTORIC ONLY) Issue date: 18/10/1984 Effective Date: 18-Oct-1984 Revocation Date: 01/10/1996
4A	119	SE	532470 324250	Address: CHURCHGATE PLOTS, CHURCHGATE, WHAPLODE, SPALDING, LINCS, PE12 6TA Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: PR5LF5009 Permit Version: 1	Receiving Water: land Status: PRE NRA LEGISLATION WHERE ISSUE DATE < 01-SEP-89 (HISTORIC ONLY) Issue date: 18/10/1984 Effective Date: 18-Oct-1984 Revocation Date: 01/10/1996
5A	119	SE	532470 324250	Address: CHURCHGATE PLOTS, CHURCHGATE, WHAPLODE, SPALDING, LINCS, PE12 6TA Effluent Type: UNSPECIFIED Permit Number: PR5LF5013 Permit Version: 1	Receiving Water: land Status: PRE NRA LEGISLATION WHERE ISSUE DATE < 01-SEP-89 (HISTORIC ONLY) Issue date: 18/10/1984 Effective Date: 18-Oct-1984 Revocation Date: 01/10/1996
6A	119	SE	532470 324250	Address: CHURCHGATE PLOTS, CHURCHGATE, WHAPLODE, SPALDING, LINCS, PE12 6TA Effluent Type: UNSPECIFIED Permit Number: PR5LF5012 Permit Version: 1	Receiving Water: land Status: PRE NRA LEGISLATION WHERE ISSUE DATE < 01-SEP-89 (HISTORIC ONLY) Issue date: 18/10/1984 Effective Date: 18-Oct-1984 Revocation Date: 01/10/1996
7A	119	SE	532470 324250	Address: CHURCHGATE PLOTS, CHURCHGATE, WHAPLODE, SPALDING, LINCS, PE12 6TA Effluent Type: UNSPECIFIED Permit Number: PR5LF5010 Permit Version: 1	Receiving Water: land Status: PRE NRA LEGISLATION WHERE ISSUE DATE < 01-SEP-89 (HISTORIC ONLY) Issue date: 18/10/1984 Effective Date: 18-Oct-1984 Revocation Date: 01/10/1996
8	136	SE	532490 324250	Address: CORNER HOUSE AT WHAPLODE, SPALDING. Effluent Type: UNSPECIFIED Permit Number: PR5LF3541 Permit Version: 1	Receiving Water: Land Status: PRE NRA LEGISLATION WHERE ISSUE DATE < 01-SEP-89 (HISTORIC ONLY) Issue date: 25/10/1978 Effective Date: 25-Oct-1978 Revocation Date: 01/10/1996
9	153	SE	532510 324250	Address: Q8 FILLING STATION WHAPLODE, SPALDING, LINCS Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: PRNNF02341 Permit Version: 1	Receiving Water: Culverted Drain Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: 08/03/1990 Effective Date: 08-Mar-1990 Revocation Date: 19/09/1996
10	167	SE	532489 324199	Address: CHURCH COTTAGE, CHURCH GATE, WHAPLODE, SPALDING, LINCS, PE12 6TA Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: PRNNF09840 Permit Version: 1	Receiving Water: WHAPLODE VICARAGE DRAIN Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: 23/03/1995 Effective Date: 23-Mar-1995 Revocation Date: -
11B	171	S	532400 324150	Address: CROSS STREET NO.7, KIRKGATE, WHAPLODE, SPALDING, LINCS, PE12 6TF Effluent Type: UNSPECIFIED Permit Number: PR5LF5189	Receiving Water: land Status: PRE NRA LEGISLATION WHERE ISSUE DATE < 01-SEP-89 (HISTORIC ONLY) Issue date: 26/08/1986

ID	Distance (m)	Direction	NGR	Details	
				Permit Version: 1	Effective Date: 26-Aug-1986 Revocation Date: 01/10/1996
12B	171	S	532400 324150	Address: CROSS STREET, KIRKGATE, WHAPLODE, SPALDING, LINCS, PE12 6TF Effluent Type: UNSPECIFIED Permit Number: PR5LF3500 Permit Version: 1	Receiving Water: land Status: PRE NRA LEGISLATION WHERE ISSUE DATE < 01-SEP-89 (HISTORIC ONLY) Issue date: 27/04/1978 Effective Date: 27-Apr-1978 Revocation Date: 01/10/1996
13	186	SE	532450 324150	Address: CHURCHGATE, WHAPLODE, SPALDING, LINCOLNSHIRE, PE12 6TA Effluent Type: UNSPECIFIED Permit Number: PRNLF01597 Permit Version: 1	Receiving Water: land Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: 08/08/1989 Effective Date: 08-Aug-1989 Revocation Date: 01/10/1996
14	220	SE	532570 324220	Address: MIDDLE ROAD, WHAPLODE, SPALDING, LINCOLNSHIRE, PE12 6TW Effluent Type: UNSPECIFIED Permit Number: PRNLF01596 Permit Version: 1	Receiving Water: land Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: 08/08/1989 Effective Date: 08-Aug-1989 Revocation Date: 01/10/1996
15	250	E	532610 324240	Address: 10 MIDDLE ROAD, WHAPLODE, SPALDING, LINCOLNSHIRE, PE12 6TW Effluent Type: UNSPECIFIED Permit Number: PRNLF01598 Permit Version: 1	Receiving Water: land Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: 08/08/1989 Effective Date: 08-Aug-1989 Revocation Date: 01/10/1996
16	301	SE	532650 324200	Address: MILL LANE/MIDDLE ROAD, BETWEEN MILL LANE/MIDDLE ROAD, WHAPLODE, SPALDING, LINCS, PE12 6TP Effluent Type: UNSPECIFIED Permit Number: PRNLF00036 Permit Version: 1	Receiving Water: land Status: PRE NRA LEGISLATION WHERE ISSUE DATE < 01-SEP-89 (HISTORIC ONLY) Issue date: 25/11/1988 Effective Date: 25-Nov-1988 Revocation Date: 01/10/1996
17	328	E	532700 324350	Address: HIGH ROAD NO.216, WHAPLODE, SPALDING, LINCS, PE12 6TJ Effluent Type: UNSPECIFIED Permit Number: PR5LF3559 Permit Version: 1	Receiving Water: Land Status: PRE NRA LEGISLATION WHERE ISSUE DATE < 01-SEP-89 (HISTORIC ONLY) Issue date: 14/12/1978 Effective Date: 14-Dec-1978 Revocation Date: 01/10/1996
18C	331	S	532410 323990	Address: BIRCHTREE COTTAGE, CHURCHGATE, WHAPLODE, SPALDING, LINCS, PE12 6TA Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: PRNNF09450 Permit Version: 1	Receiving Water: Whaplode Vicarage Drain Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: 27/11/1992 Effective Date: 27-Nov-1992 Revocation Date: 02/09/1993
19C	333	S	532400 323987	Address: BIRCHTREE COTTAGE, CHURCHGATE, WHAPLODE, SPALDING, LINCS, PE12 6TA Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: PRNNF09450 Permit Version: 2	Receiving Water: Whaplode Vicarage Drain Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: 03/09/1993 Effective Date: 03-Sep-1993 Revocation Date: 29/04/1996
20	354	S	532430 323970	Address: CHURCH GATE, WHAPLODE, SPALDING, PE12 6TA Effluent Type: UNSPECIFIED Permit Number: PR5LF5556 Permit Version: 1	Receiving Water: Land Status: PRE NRA LEGISLATION WHERE ISSUE DATE < 01-SEP-89 (HISTORIC ONLY) Issue date: 29/07/1988 Effective Date: 29-Jul-1988 Revocation Date: 01/10/1996

ID	Distance (m)	Direction	NGR	Details	
21	355	S	532395 323965	Address: GLEBE COTTAGE, CHURCHGATE, WHAPLODE, SPALDING., LINCS, PE12 6TA Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: PRNNF09451 Permit Version: 2	Receiving Water: WHAPLODE VICARAGE DRAIN Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: 03/09/1993 Effective Date: 03-Sep-1993 Revocation Date: -
22	375	S	532280 323950	Address: SOUTHERN PLOT, CHURCHGATE, WHAPLODE, SPALDING, LINCS Effluent Type: UNSPECIFIED Permit Number: PRNLF01498 Permit Version: 1	Receiving Water: land Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: 15/08/1989 Effective Date: 15-Aug-1989 Revocation Date: 01/10/1996
23D	379	S	532390 323940	Address: GLEBE COTTAGE, CHURCHGATE, WHAPLODE, SPALDING., LINCS, PE12 6TA Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: PRNNF09451 Permit Version: 1	Receiving Water: Whaplode Vicarage Drain Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: 27/11/1992 Effective Date: 27-Nov-1992 Revocation Date: 02/09/1993
24D	389	S	532380 323930	Address: CHURCHGATE, WHAPLODE, SPALDING, LINCOLNSHIRE, PE12 6TA Effluent Type: UNSPECIFIED Permit Number: PRNLF01788 Permit Version: 1	Receiving Water: land Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: 26/09/1989 Effective Date: 26-Sep-1989 Revocation Date: 01/10/1996

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

0

Database searched and no data found.

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

0

Database searched and no data found.

2.2 Dangerous or Hazardous Sites

Records of COMAH & NIHHS sites within 500m of the study site: 0

Database searched and no data found.

2.3 Environment Agency/Natural Resources Wales Recorded Pollution Incidents

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

0

Database searched and no data found.

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

0

Database searched and no data found.

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

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

Database searched and no data found.

---

3. Landfill and Other Waste Sites Map



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Site Outline

250
500
Search Buffers (m)

EA/NRW Active Landfill

EA/NRW Historic Landfill

BGS / DoE Survey Landfill

Historic and Planned Waste Sites

EA/NRW Licensed Waste Site

Local Authority/Historical Mapping Landfill Records

3. Landfill and Other Waste Sites

3.1 Landfill Sites

3.1.1 Records from Environment Agency/Natural Resources Wales landfill data within 1000m of the study site:

0

Database searched and no data found.

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

2

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

ID	Distance (m)	Direction	NGR	Details	
1	142	E		Site Address: Piggery, Whaplode, Lincolnshire Waste Licence: - Site Reference: RD7-47-01/89, SH-47-01/89, 2500/5062, 7/48 Waste Type: Household Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: Licence Surrendered: Licence Holder Address: - Operator: - Licence Holder: - First Recorded: - Last Recorded: -
2	263	E		Site Address: Foundry House, Whaplode, Lincolnshire Waste Licence: - Site Reference: RD7-47-01/89, SH-48-01/89, 2500/5061 Waste Type: Household Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: Licence Surrendered: Licence Holder Address: - Operator: - Licence Holder: - First Recorded: - Last Recorded: -

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

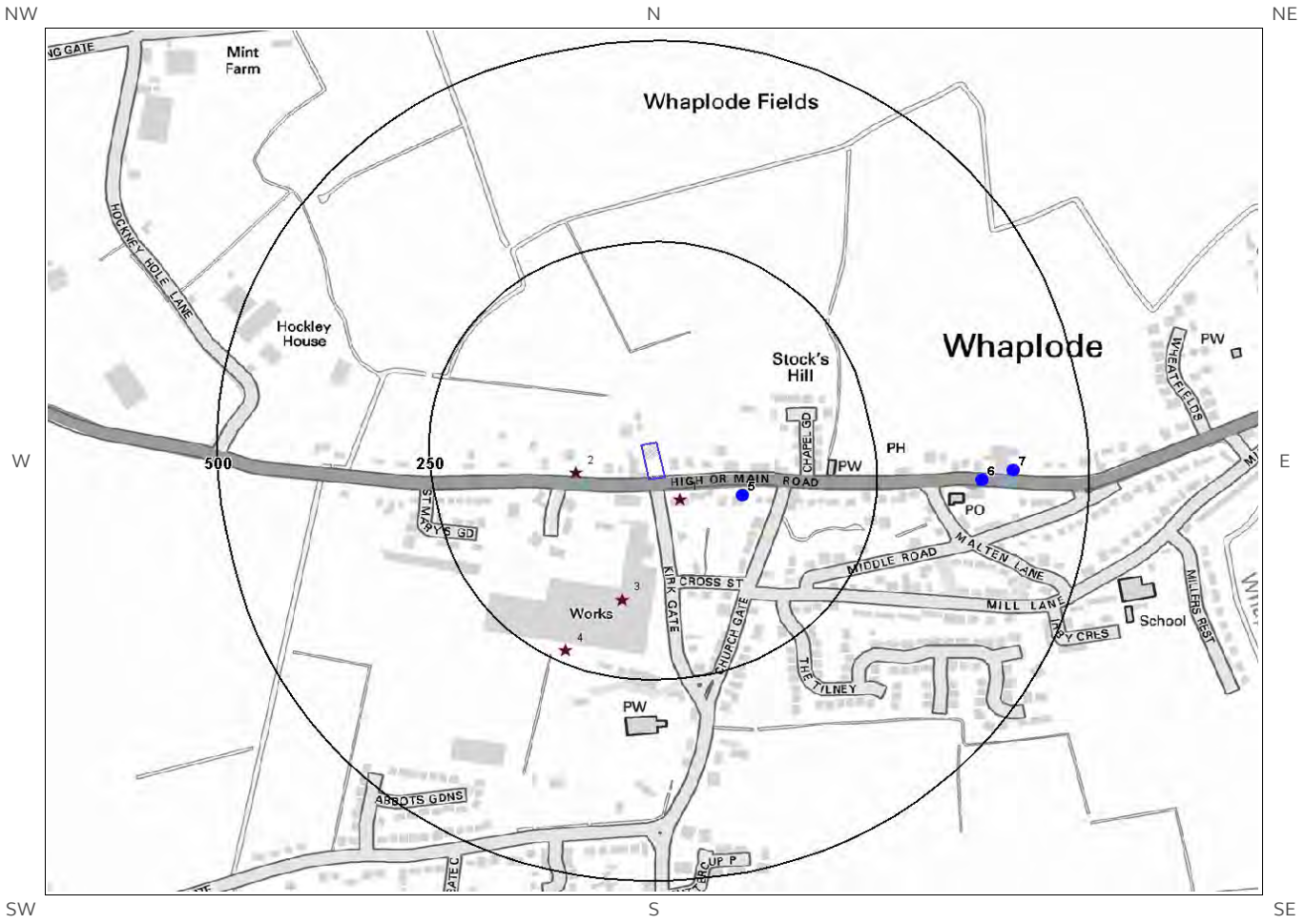
Database searched and no data found.

3.2.2 Records of Environment Agency/Natural Resources Wales licensed waste sites within 1500m of the study site:

0

Database searched and no data found.

4. Current Land Use Map



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Site Outline

Search Buffers (m)
250
500

Current Industrial Sites

Petrol & Fuel Sites

Electricity Transmission Cables

Gas Transmission Pipelines

4. Current Land Uses

4.1 Current Industrial Data

Records of potentially contaminative industrial sites within 250m of the study site: 4

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

ID	Distance (m)	Direction	Company	NGR	Address	Activity	Category
1	31	SE	Tointons Motors	532390 324293	271, High Road, Whaplode, Spalding, Lincolnshire, PE12 6TG	Vehicle Repair, Testing and Servicing	Repair and Servicing
2	82	W	Electricity Sub Station	532268 324326	Lincolnshire, PE12	Electrical Features	Infrastructure and Facilities
3	153	S	Works	532322 324168	Lincolnshire, PE12	Unspecified Works Or Factories	Industrial Features
4	234	SW	Electricity Sub Station	532255 324105	Lincolnshire, PE12	Electrical Features	Infrastructure and Facilities

4.2 Petrol and Fuel Sites

Records of petrol or fuel sites within 500m of the study site: 3

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

ID	Distance (m)	Direction	NGR	Company	Address	LPG	Status
5	93	E	532464 324297	OBSOLETE	High Road, Whaplode, Spalding, Lincolnshire, PE12 6TJ	Not Applicable	Obsolete
6	372	E	532746 324316	GULF	High Road, Whaplode, Spalding, Lincolnshire, PE12 6TA	No	Open
7	409	E	532783 324328	TEXACO	High Road, Whaplode, Spalding, Lincolnshire, PE12 6TJ	Yes	Open

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
TFD-XCZ	TIDAL FLAT DEPOSITS	CLAY AND SILT

5.3 Bedrock and Solid Geology

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

Lex Code	Description	Rock Type
WWB-MDSI	WEST WALTON FORMATION	MUDSTONE AND SILTSTONE

(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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Site Outline

250
500
Search Buffers (m)

Principal Aquifer

Secondary (A) Aquifer - Permeable Layers

Secondary (B) Aquifer - Lower Permeability Layers

Secondary Aquifer - Undifferentiated Layers

Unproductive

Unknown (lakes and landslip)

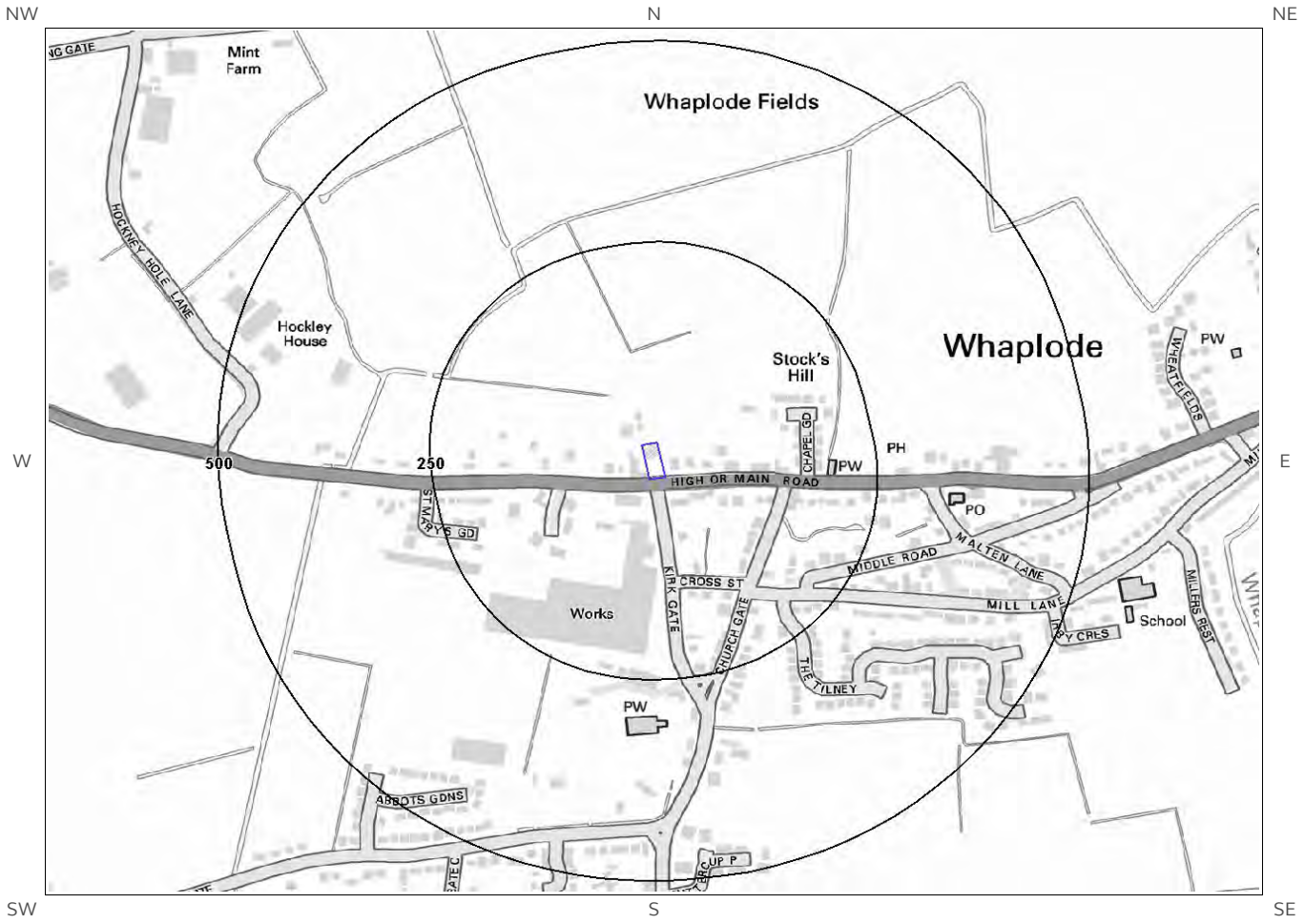
6b. Aquifer Within Bedrock Geology and Abstraction Licences



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Site Outline
250
500
Search Buffers (m)
Principal Aquifer
Secondary (A) Aquifer - Permeable Layers
Secondary (B) Aquifer - Lower Permeability Layers
Groundwater Abstraction Licence
Secondary Aquifer - Undifferentiated Layers
Unproductive
Unknown (lakes and landslip)
Surface Water Abstraction Licence

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



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Site Outline

250 500 Search Buffers (m)

Source Protection Zone 1 - Inner Catchment

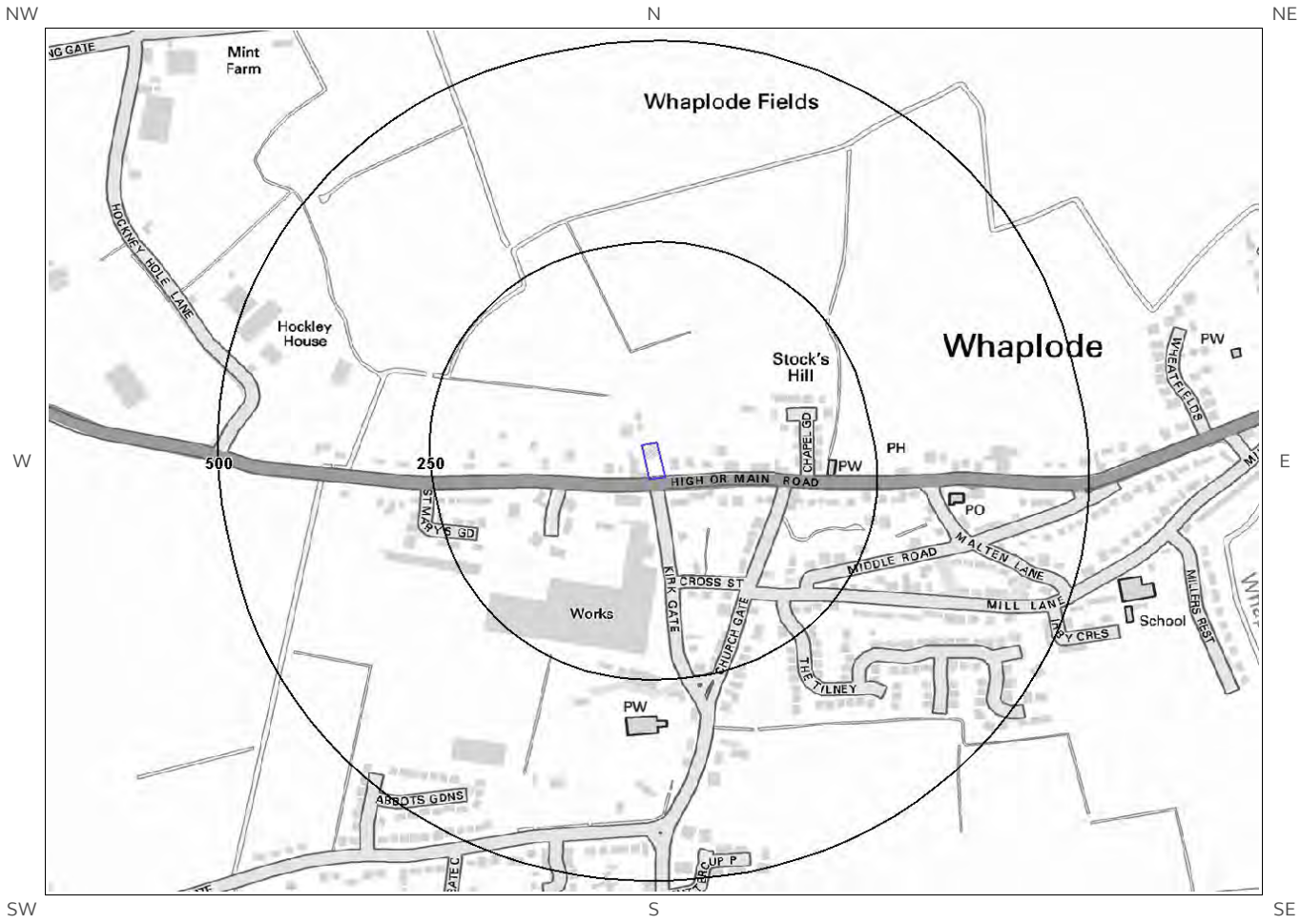
Source Protection Zone 2 - Outer Catchment

Source Protection Zone 3 - Total Catchment

Source Protection Zone 4 - Zone of Special Interest

Potable Water Abstraction Licence

6d. Hydrogeology – Source Protection Zones within confined aquifer



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Source Protection Zone 1 - Inner Catchment

Source Protection Zone 2C - Outer Catchment within Confined Aquifer

Source Protection Zone 3C - Total Catchment within Confined Aquifer

Site Outline

250
500
Search Buffers (m)

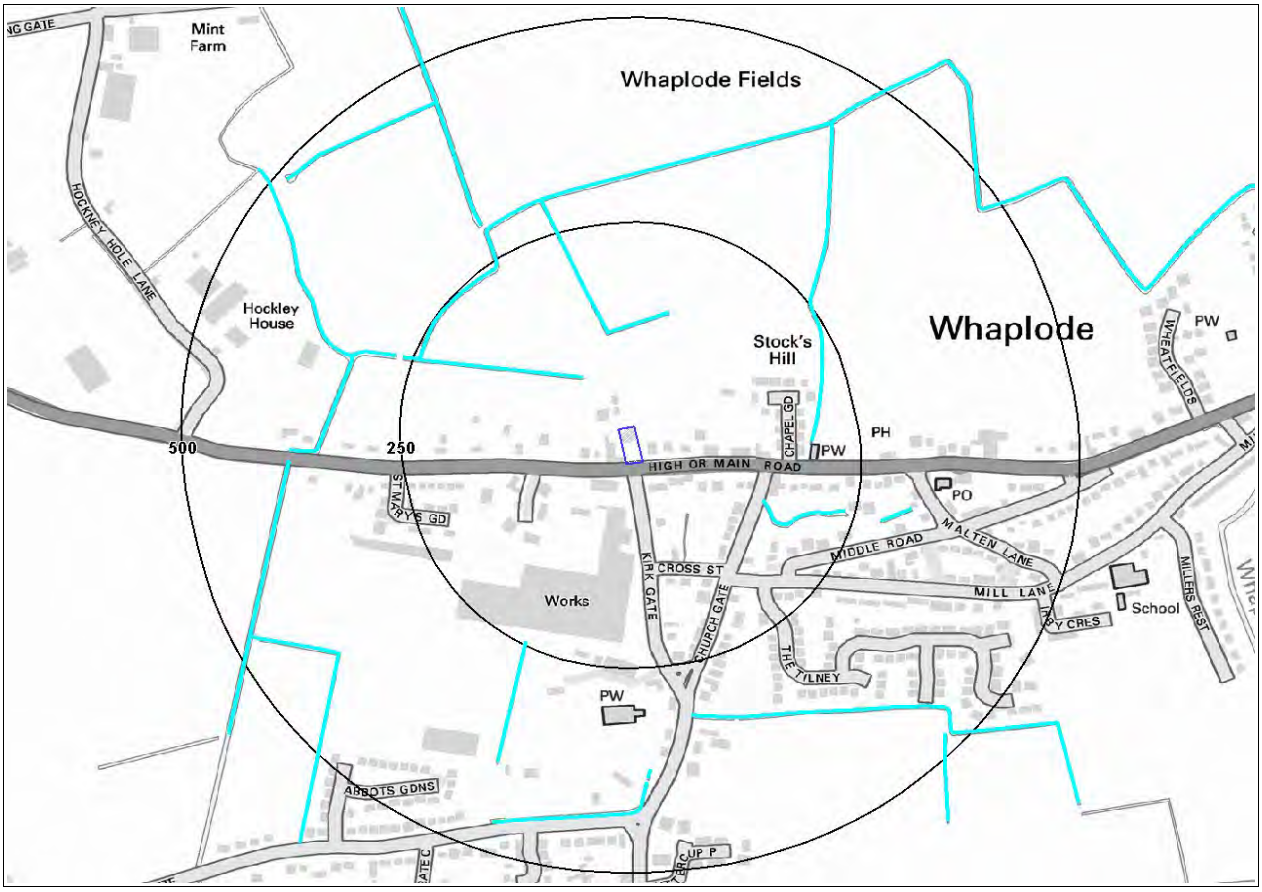
Potable Water Abstraction Licence

6e. Hydrology – Watercourse Network and River Quality

NW N NE

W E

SW S SE



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Site Outline

250 500 Search Buffers (m)

Tidal River

Inland River

Underground or Elevated Tidal River

Underground or Elevated Inland River

Foreshore

General Quality Assessment: Chemistry

Canal

Underground or Elevated Canal

Lock or Flight of Locks

Lake, Reservoir, or Marsh

Drain or Transfer

General Quality Assessment: Biology

6.Hydrogeology and Hydrology

6.1 Aquifer within Superficial Deposits

Records of strata classification within the superficial geology at or in proximity to the property Yes

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

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

ID	Distance (m)	Direction	Designation	Description
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

Records of strata classification within the bedrock geology at or in proximity to the property Yes

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

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

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

6.3 Groundwater Abstraction Licences

Groundwater Abstraction Licences within 2000m of the study site None identified

Database searched and no data found.

6.4 Surface Water Abstraction Licences

Surface Water Abstraction Licences within 2000m of the study site None identified

Database searched and no data found.

6.5 Potable Water Abstraction Licences

Potable Water Abstraction Licences within 2000m of the study site — None identified

Database searched and no data found.

6.6 Source Protection Zones

Source Protection Zones within 500m of the study site — None identified

Database searched and no data found.

6.7 Source Protection Zones within Confined Aquifer

Source Protection Zones within the Confined Aquifer within 500m of the study site — None identified

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

Database searched and no data found.

6.8 Groundwater Vulnerability and Soil Leaching Potential

Environment Agency/Natural Resources Wales information on groundwater vulnerability and soil leaching potential within 500m of the study site — None identified

Database searched and no data found.

6.9 River Quality

Environment Agency/Natural Resources Wales information on river quality within 1500m of the study site — Identified

6.9.1 Biological Quality:

Database searched and no data found.

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 (6e):

					Chemical Quality Grade				
ID	Distance (m)	Direction	NGR	River Quality Grade	2005	2006	2007	2008	2009
Not shown	846	E	533200 324500	River Name: Whaplode R Reach: Headwaters Tinsleys End/Start of Stretch: Start of Stretch NGR	E	E	E	E	E

6.10 Ordnance Survey MasterMap Water Network

Ordnance Survey MasterMap Water Network entries within 500m of the study site

This watercourse information is provided by Ordnance Survey MasterMap Water Network. The data provides a detailed centre line following the curve of the waterway precisely, so all distances provided in the report should be understood as measurements to the centreline rather than a measurement to the nearest point of the watercourse. Underground watercourses are inferred from entry and exit points so caution is advised in using these to indicate precise locations of underground watercourses when planning site investigation and development.

The following Ordnance Survey MasterMap Water Network records are represented on the Hydrology Map (6e):

ID	Distance/ Direction	Name	Type of Watercourse	Additional Details
1	75 NW	Not Specified	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 2.1
32	75 NW	Not Specified	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 2.1
2	119 N	Not Specified	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 2.0
33	119 N	Not Specified	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 2.0
3	144 E	Not Specified	Inland river not influenced by normal tidal action.	Catchment Area: Nene Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions)

ID	Distance/ Direction	Name	Type of Watercourse	Additional Details
				Average Width in Watercourse Section (m): 3.4
34	144 E	Not Specified	Inland river not influenced by normal tidal action.	Catchment Area: Nene Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 3.4
4	194 E	Not Specified	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 3.9
35	194 E	Not Specified	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 3.9
5	242 NW	Not Specified	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 4.7
36	242 NW	Not Specified	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 4.7
6	243 W	Not Specified	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 4.7
37	243 W	Not Specified	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 4.7
7	245 SW	Not Specified	Inland river not influenced by normal tidal action.	Catchment Area: Nene Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 2.4
38	245 SW	Not Specified	Inland river not influenced by normal tidal action.	Catchment Area: Nene Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 2.4
8	269 W	Not Specified	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 5.7
39	269 W	Not Specified	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 5.7
9	281 E	Not Specified	Inland river not influenced by normal tidal action.	Catchment Area: Nene Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 2.1

ID	Distance/ Direction	Name	Type of Watercourse	Additional Details
40	281 E	Not Specified	Inland river not influenced by normal tidal action.	Catchment Area: Nene Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 2.1
10	294 N	Not Specified	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 4.3
Not shown	294 N	Not Specified	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 4.3
11	295 NW	Not Specified	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 5.8
42	295 NW	Not Specified	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 5.8
12	313 S	Not Specified	Inland river not influenced by normal tidal action.	Catchment Area: Nene Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 2.3
Not shown	313 S	Not Specified	Inland river not influenced by normal tidal action.	Catchment Area: Nene Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 2.3
13	316 W	Not Specified	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 3.8
44	316 W	Not Specified	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 3.8
14	317 W	Not Specified	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 3.2
45	317 W	Not Specified	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 3.2
15	375 S	Not Specified	Inland river not influenced by normal tidal action.	Catchment Area: Nene Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 1.4
Not shown	375	Not Specified	Inland river not influenced by normal tidal action.	Catchment Area: Nene Relationship to Ground Level: On ground surface

ID	Distance/ Direction	Name	Type of Watercourse	Additional Details
	S			Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 1.4
16	379 W	Not Specified	Inland river not influenced by normal tidal action.	Catchment Area: Nene Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 6.5
Not shown	379 W	Not Specified	Inland river not influenced by normal tidal action.	Catchment Area: Nene Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 6.5
17	390 S	Not Specified	Inland river not influenced by normal tidal action.	Catchment Area: Nene Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 3.4
Not shown	390 S	Not Specified	Inland river not influenced by normal tidal action.	Catchment Area: Nene Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 3.4
18	402 SW	Not Specified	Inland river not influenced by normal tidal action.	Catchment Area: Nene Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 2.4
49	402 SW	Not Specified	Inland river not influenced by normal tidal action.	Catchment Area: Nene Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 2.4
19	434 NE	Not Specified	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 5.1
Not shown	434 NE	Not Specified	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 5.1
20	450 NW	Not Specified	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 3.6
21	450 NW	Not Specified	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 6.1
Not shown	450 NW	Not Specified	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 3.6
Not shown	450 NW	Not Specified	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions)

ID	Distance/ Direction	Name	Type of Watercourse	Additional Details
				Average Width in Watercourse Section (m): 6.1
22	455 S	Not Specified	Inland river not influenced by normal tidal action.	Catchment Area: Nene Relationship to Ground Level: Underground Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided
Not shown	455 S	Not Specified	Inland river not influenced by normal tidal action.	Catchment Area: Nene Relationship to Ground Level: Underground Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided
23	457 S	Not Specified	Inland river not influenced by normal tidal action.	Catchment Area: Nene Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 3.6
Not shown	457 S	Not Specified	Inland river not influenced by normal tidal action.	Catchment Area: Nene Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 3.6
24	470 SW	Not Specified	Inland river not influenced by normal tidal action.	Catchment Area: Nene Relationship to Ground Level: Underground Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided
Not shown	470 SW	Not Specified	Inland river not influenced by normal tidal action.	Catchment Area: Nene Relationship to Ground Level: Underground Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided
25	477 SW	Not Specified	Inland river not influenced by normal tidal action.	Catchment Area: Nene Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 6.1
Not shown	477 SW	Not Specified	Inland river not influenced by normal tidal action.	Catchment Area: Nene Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 6.1
26	479 SE	Not Specified	Inland river not influenced by normal tidal action.	Catchment Area: Nene Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 2.2
27	479 SW	Not Specified	Inland river not influenced by normal tidal action.	Catchment Area: Nene Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 6.3
Not shown	479 SE	Not Specified	Inland river not influenced by normal tidal action.	Catchment Area: Nene Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 2.2
Not shown	479 SW	Not Specified	Inland river not influenced by normal tidal action.	Catchment Area: Nene Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 6.3

ID	Distance/ Direction	Name	Type of Watercourse	Additional Details
28	484 NW	Not Specified	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 3.6
Not shown	484 NW	Not Specified	Inland river not influenced by normal tidal action.	Catchment Area: Welland Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 3.6

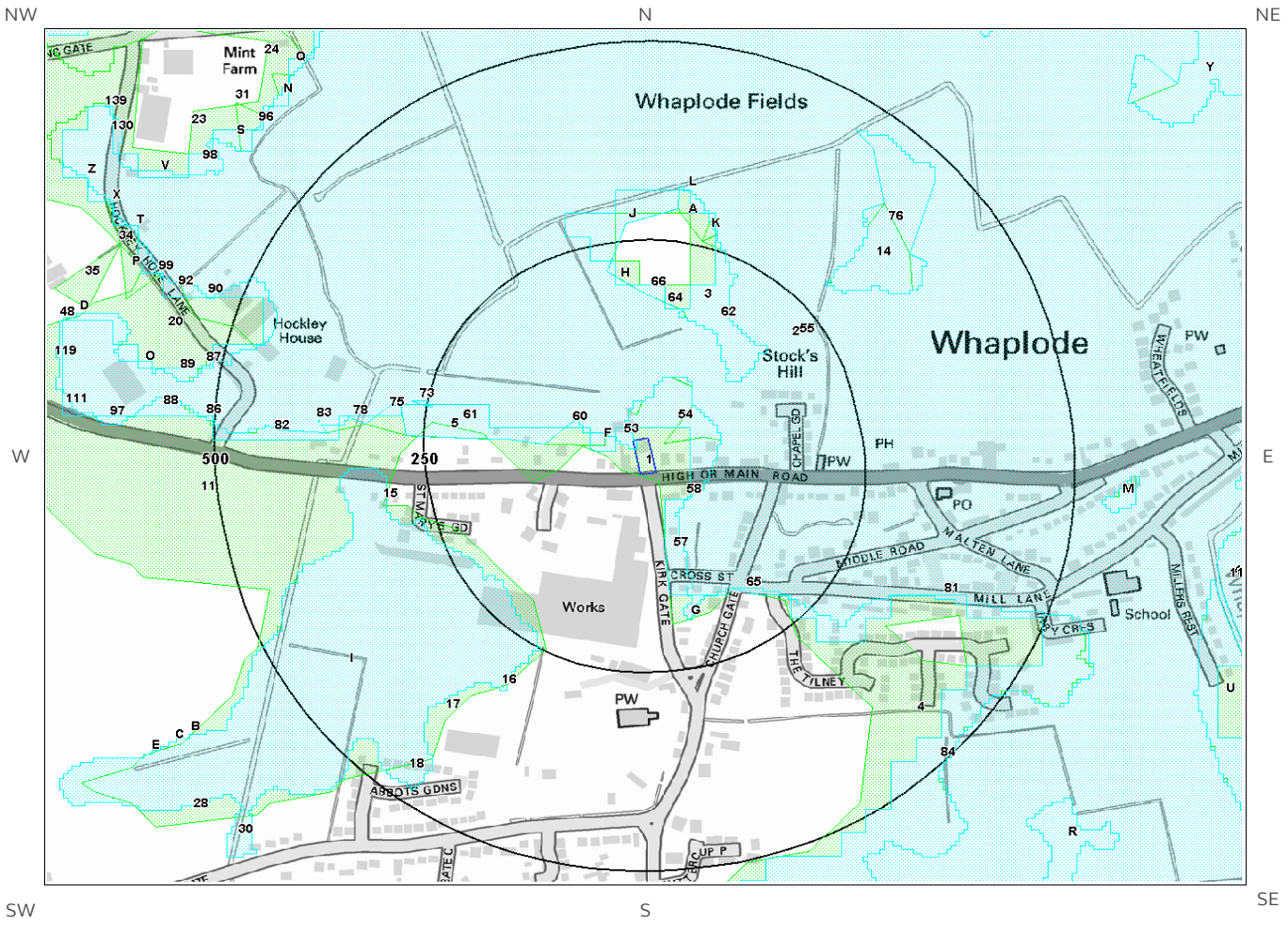
6.11 Surface Water Features

Surface water features within 250m of the study site Identified

The following surface water records are not represented on mapping:

Distance (m)	Direction
74	NW
192	E

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



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Site Outline

100
250
Search Buffers (m)

Zone 2 Floodplain

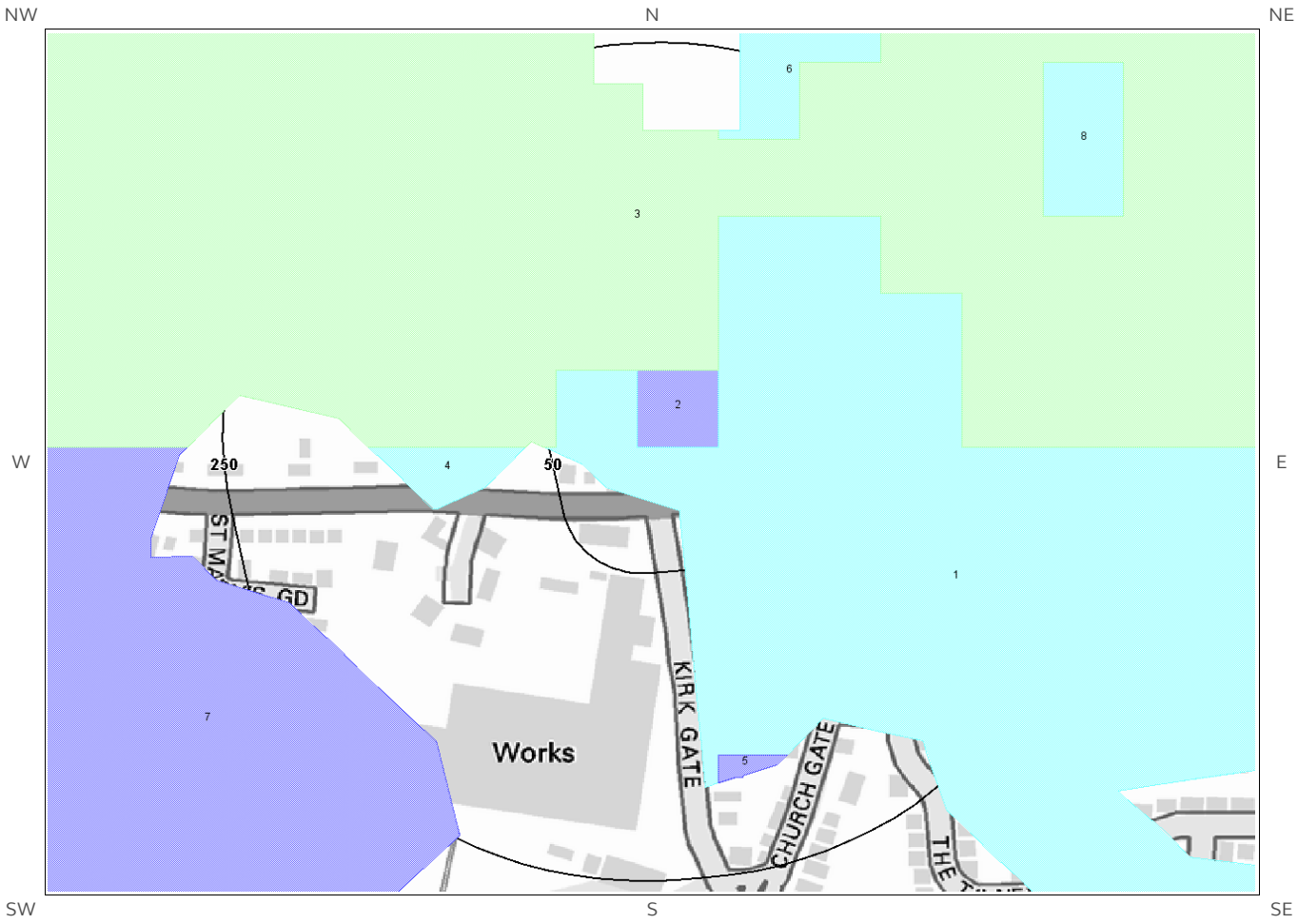
Zone 3 Floodplain

Flood Defences

Area used for Flood Storage

Area Benefiting from Flood Defences

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



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Site Outline

100
250
Search Buffers (m)

RoFRaS Rating

Very Low

Low

Medium

High

7 Flooding

7.1 River and Coastal Zone 2 Flooding

Environment Agency/Natural Resources Wales Zone 2 floodplain within 250m — Identified

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

ID	Distance (m)	Direction	Update	Type
1	0	On Site	21-Feb-2019	Zone 2 - (Fluvial /Tidal Models)
2	0	On Site	21-Feb-2019	Zone 2 - (Fluvial /Tidal Models)
3	117	NE	21-Feb-2019	Zone 2 - (Fluvial /Tidal Models)
4	164	S	21-Feb-2019	Zone 2 - (Fluvial /Tidal Models)
5	173	W	21-Feb-2019	Zone 2 - (Fluvial /Tidal Models)
6G	187	S	21-Feb-2019	Zone 2 - (Fluvial /Tidal Models)
7	203	SW	21-Feb-2019	Zone 2 - (Fluvial /Tidal Models)
8I	211	SW	21-Feb-2019	Zone 2 - (Fluvial /Tidal Models)
9J	239	N	21-Feb-2019	Zone 2 - (Fluvial /Tidal Models)

7.2 River and Coastal Zone 3 Flooding

Environment Agency/Natural Resources Wales Zone 3 floodplain within 250m — Identified

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

ID	Distance (m)	Direction	Update	Type
1	0	On Site	21-Feb-2019	Zone 3 - (Fluvial /Tidal Models)
2	13	N	21-Feb-2019	Zone 3 - (Fluvial /Tidal Models)
3	17	N	21-Feb-2019	Zone 3 - (Fluvial /Tidal Models)
4	21	W	21-Feb-2019	Zone 3 - (Fluvial /Tidal Models)

5	35	S	21-Feb-2019	Zone 3 - (Fluvial /Tidal Models)
6G	47	SE	21-Feb-2019	Zone 3 - (Fluvial /Tidal Models)
7	52	W	21-Feb-2019	Zone 3 - (Fluvial /Tidal Models)
8I	62	W	21-Feb-2019	Zone 3 - (Fluvial /Tidal Models)
9J	83	W	21-Feb-2019	Zone 3 - (Fluvial /Tidal Models)
	117	NE	21-Feb-2019	Zone 3 - (Fluvial /Tidal Models)
	157	S	21-Feb-2019	Zone 3 - (Fluvial /Tidal Models)
	165	N	21-Feb-2019	Zone 3 - (Fluvial /Tidal Models)
	166	SE	21-Feb-2019	Zone 3 - (Fluvial /Tidal Models)
	173	N	21-Feb-2019	Zone 3 - (Fluvial /Tidal Models)
	194	N	21-Feb-2019	Zone 3 - (Fluvial /Tidal Models)
	208	N	21-Feb-2019	Zone 3 - (Fluvial /Tidal Models)
	211	SW	21-Feb-2019	Zone 3 - (Fluvial /Tidal Models)
	212	SE	21-Feb-2019	Zone 3 - (Fluvial /Tidal Models)
	226	SE	21-Feb-2019	Zone 3 - (Fluvial /Tidal Models)
	228	N	21-Feb-2019	Zone 3 - (Fluvial /Tidal Models)
	249	W	21-Feb-2019	Zone 3 - (Fluvial /Tidal Models)

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

Highest risk of flooding onsite — Medium

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

RoFRaS data for the study site indicates the property is in an area with a 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	Low
2	0.0	On Site	Medium
3	37.0	N	Very Low

7.4 Flood Defences

Flood Defences within 250m of the study site — None identified

Database searched and no data found.

7.5 Areas benefiting from Flood Defences

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

7.6 Areas benefiting from Flood Storage

Areas used for Flood Storage within 250m of the study site — None identified

7.7 Groundwater Flooding Susceptibility Areas

7.7.1 British Geological Survey groundwater flooding susceptibility areas within 50m of the boundary of the study site — None identified

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

7.7.2 Highest susceptibility to groundwater flooding in the search area based on the underlying geological conditions

Not Prone

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

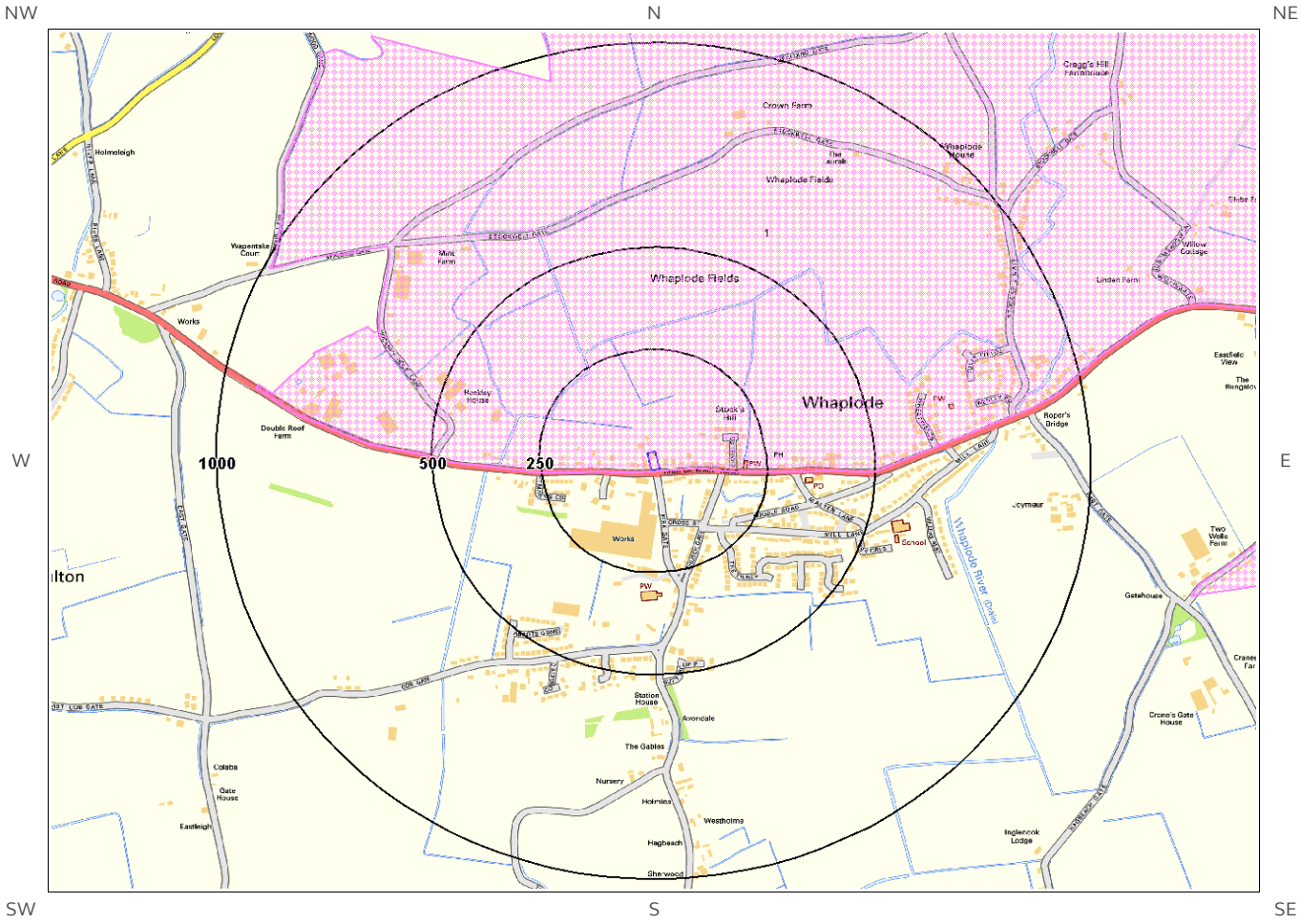
7.8 Groundwater Flooding Confidence Areas

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



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Site Outline

100
250
Search Buffers (m)

AONB
National Park
SSSI
Special Protection Areas
Nitrate Vulnerable Zones

Green Belt
Environmentally Sensitive Areas
Special Areas of Conservation
World Heritage Sites
Nitrate Sensitive Areas

Ancient Woodland
National Nature Reserve
Local Nature Reserves
Ramsar Sites

8. Designated Environmentally Sensitive Sites

Designated Environmentally Sensitive Sites within 2000m of the study site	Identified

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

0

Database searched and no data found.

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

0

Database searched and no data found.

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

0

Database searched and no data found.

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

0

Database searched and no data found.

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

0

Database searched and no data found.

8.6 Records of Ancient Woodland within 2000m of the study site:

0

Database searched and no data found.

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

0

Database searched and no data found.

8.8 Records of World Heritage Sites within 2000m of the study site:

0

Database searched and no data found.

8.9 Records of Environmentally Sensitive Areas within 2000m of the study site:

0

Database searched and no data found.

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

0

Database searched and no data found.

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

0

Database searched and no data found.

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

0

Database searched and no data found.

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

1

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

ID	Distance (m)	Direction	NVZ Name	Data Source
1	0	On Site	New	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 Geo Insight, available from our website. The following information has been found:

9.1.1 Shrink Swell

Maximum Shrink-Swell*[*] hazard rating identified on the study site — 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 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.

9.1.2 Landslides

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

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

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

9.1.3 Soluble Rocks

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

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

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

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

9.1.4 Compressible Ground

Maximum Compressible Ground* hazard rating identified on the study site — Moderate

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

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

9.1.5 Collapsible Rocks

Maximum Collapsible Rocks* hazard rating identified on the study site — 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

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 pipe leakage or soak-aways). 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.

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

9.2 Radon

9.2.1 Radon Affected Areas

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

The radon data in this report is supplied by the BGS/Public Health England and is the definitive map of Radon Affected Areas in Great Britain and Northern Ireland. The dataset was created using long-term radon measurements in over 479,000 homes across Great Britain and 23,000 homes across Northern Ireland, combined with geological data. The dataset is considered accurate to 50m to allow for the margin of error in geological lines, and the findings of this report supercede any answer given in the less accurate Indicative Atlas of Radon in Great Britain, which simplifies the data to give the highest risk within any given 1km grid square. As such, the radon atlas is considered indicative, whereas the data given in this report is considered definitive.

9.2.2 Radon Protection

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

10. Mining

10.1 Coal Mining

Coal mining areas within 75m of the study site — None identified

Database searched and no data found.

10.2 Non-Coal Mining

Non-Coal Mining areas within 50m of the study site boundary — None identified

Database searched and no data found.

10.3 Brine Affected Areas

Brine affected areas within 75m of the study site — None identified
Guidance: No Guidance Required.

Contact Details

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

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Kingsley Dunham Centre
Keyworth, Nottingham NG12 5GG
Tel: 0115 936 3143.
Fax: 0115 936 3276.
Email:
Web:**www.bgs.ac.uk**
BGS Geological Hazards Reports and general geological enquiries:
enquiries@bgs.ac.uk

Environment Agency
National Customer Contact Centre, PO Box 544
Rotherham, S60 1BY
Tel: 03708 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
133-155 Waterloo Road, London, SE1 8UG
www.gov.uk/phe
Email:**enquiries@phe.gov.uk**
Main switchboard**: 020 7654 8000**

The Coal Authority
200 Lichfield Lane
Mansfield
Notts NG18 4RG
Tel: 0345 7626 848
DX 716176 Mansfield 5
www.coal.gov.uk

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

Local Authority
Authority: South Holland District Council
Phone: 01775 761 161
Web: http://www.sholland.gov.uk/
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