

PHASE I DESK STUDY

HALL FARM, 10 THE GREEN, ORTON-
ON-THE-HILL

SINGULAR HOMES LTD

FEBRUARY 2022



SUMMARY TABLE: PHASE I DESK STUDY	
SITE:	Hall Farm, 10 The Green, Orton-on-the-Hill, Atherstone, CV9 3NG
CLIENT:	Singular Homes Ltd
DATE:	February 2022
REFERENCE:	IV.32.22
DEVELOPMENT PROPOSAL:	Subdivision, conversion, and extension of existing dwelling and outbuildings to form six residential properties, with associated gardens and parking.
HUMAN HEALTH:	Negligible risk.
CONTROLLED WATERS:	Negligible risk.
GAS RISK:	Negligible risk.
RADON GAS:	No protection required.
RECOMMENDATIONS:	Geo-Environmental Assessment (Phase II site investigation) not required.

Written:		Siân Silcock <i>Environmental Consultant</i>
Authorised:		Richard Sutton MRICS <i>Director</i>
Date:	February 2022	
Version:	1.0	



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1.0 INTRODUCTION

1.1 PREAMBLE

This Phase I Preliminary Risk Assessment has been produced for Singular Homes Ltd to provide a pre-development contamination and geotechnical assessment of the site known as Hall Farm, 10 The Green, Orton-on-the-Hill, Atherstone. The site has planning permission for subdivision, conversion, and extension of existing dwelling and outbuildings to form six residential properties, with associated gardens and parking.

1.2 SITE LOCATION

The site is located in the west of the village of Orton-on-the-Hill, approximately 6 km north of Atherstone town centre, comprising an area of approximately 0.7 Ha. The National Grid Reference (NGR) for the approximate centre of the site is SK 303 037. The site location, development proposal and site layout are illustrated in Appendix A.

1.3 PROJECT BRIEF

The brief for the Phase I Preliminary Risk Assessment incorporates:

- A review and assessment of the site history, with reference to potentially contaminative uses.
- A review of regulatory authority and environmental data relating to the site and its environs.
- A site inspection.
- An appraisal of potential environmental risks.
- Development of a Phase I Conceptual Model.

1.4 DATA REFERENCES

- Environmental Search Data (Supplied by Emapsite Ltd).
- Historical Ordnance Survey (OS) Mapping (Supplied by Emapsite Ltd).
- British Geological Survey Online Geological Mapping.
- Information provided by Hinckley and Bosworth Borough Council.

1.5 LIMITATIONS

This report has been produced in accordance with industry best practice at the time of writing.

Ivy House Environmental Ltd has, in the production of this report, relied upon information provided by third parties. Ivy House Environmental Ltd does not warrant the accuracy of this information and will not be responsible for any opinions which Ivy House Environmental has expressed, or conclusions which it has drawn, in reliance upon information which is subsequently proven to be inaccurate.

All statements and opinions provided in this report have been reported in good faith and are based on the information gained during, and restrictions imposed by, site investigation techniques used at the time. Ivy House Environmental cannot be held responsible for conditions not revealed by the investigation.

This report has been prepared for the sole use of the client and shall not be relied upon or transferred to third parties without the express written consent of Ivy House Environmental. Unauthorised third parties rely upon the information contained within this report at their own risk.

No additional site-specific limitations are known to apply to this assessment.

2.0 PRELIMINARY RISK ASSESSMENT

2.1 SITE DESCRIPTION

The site is located within the village of Orton-on-the-Hill, and forms an irregular parcel of land to the south-east of The Green. The site is currently occupied by a large U-shaped residential dwelling and six outbuildings, including three barns, a stable, a greenhouse, and a storage building used for log storage. All outbuildings are of modern construction and were noted to be in good condition with relatively new roofs. Gardens, numerous shrubs, parking areas, and a hardstanding driveway are also present within the site area. A heating oil tank was noted to the east of the northernmost barn.

Historically the site has only known to have been used for residential use and farming.

2.2 DEVELOPMENT PROPOSAL

The existing buildings on site are proposed to be redeveloped to form six residential properties, via subdivision, conversion, and extension. The development is also proposed to comprise associated gardens and parking areas.

2.3 ACCESS

Access to the site will be from the existing access from The Green, via the existing hardstanding driveway.

2.4 HISTORICAL REVIEW: SITE DEVELOPMENT

Ordnance Survey maps have been reviewed for the years 1884 - 2022. The historical development of the site and the locality are detailed below; the OS maps are contained in Appendix C.

1837 – The site is illustrated as largely residential, with a U-shaped property with two small outbuildings in the centre, a larger outbuilding to the north, and two dwellings (as part of a five-dwelling terrace) in the northernmost region of the site. An area of deciduous woodland occupies the southern area, with some additional trees present further north. The general surrounding area comprises residential properties in the north and east, and vacant or agricultural land in the south and west.

1903 – The two terraced properties are no longer present, appearing to have been replaced with a footpath or driveway into the centre of the site. Two wells are present to the north-west and east of the site, 10 m and 5 m respectively.

1924 – A marl pit is located approximately 160 m to the north.

1957 – A pond is illustrated in the east of the site, extending to the site boundary.

1994 – The on-site woodland is no longer marked. The marl pit is also no longer present.

2.4.1 SUMMARY

The site has been occupied by a U-shaped residential dwelling and associated outbuildings since the earliest available mapping from 1837. The site has remained largely unchanged, with the exception of the removal of woodland, and demolition of two terraced dwellings in the very north of the site.

The surrounding area has generally comprised residential areas and agricultural land. No industrial sites have been recorded within 500 m of the site.

2.5 ANTICIPATED GEOLOGY

The BGS Geology of Britain viewer illustrates solid strata of the Gunthorpe Member Formation, consisting of beds of dolomitic siltstone. No superficial deposits are indicated to be present at the site.

No geological faults have been identified within 250 m of the site.

2.6 HYDROGEOLOGY & HYDROLOGY

2.6.1 Hydrogeology

The Gunthorpe Member bedrock is classified by the Environment Agency as a Secondary B (minor) Aquifer of lower permeability, storing limited amounts of groundwater within localised features.

There are no licensed groundwater abstractions within 250 m of the site, and the site is not located within a groundwater Source Protection Zone (SPZ). No information on groundwater levels is available for the site.

2.6.2 Hydrology

The nearest surface water body is a pond located in the east of the site. The nearest off-site surface body (pond) is located approximately 60 m north-west of the site.

Environment Agency data suggests that the site does not lie within an indicative fluvial floodplain. The risk of surface water flooding on site is considered negligible.

2.7 COAL FIELDS

The site is not located within a coal mining reporting area, and is therefore not anticipated to be affected by coal mining.

A Coal Authority (CA) report is not considered necessary.

2.8 MINERAL RESOURCES

One clay & shale surface mineral working was located 193 m to the north-west of the site, however mining at this site has ceased.

2.9 POTENTIALLY CONTAMINATIVE LAND USES

Environmental search data supplied by Environmental Data Ltd (Appendix C) states that:

- The site is not located within 500 m of a landfill site.
- There are no waste treatment facilities located within 250 m of the site.
- There are two discharge consents within 250 m of the site. They are located 103 and 110 m east respectively, both relating to treated sewage effluent discharges into groundwater. These discharges are currently active, being issued in August 2020.
- There are no fuel sites located within 500 m of the site.

In addition, a historical heating oil tank leak occurred. This is detailed in Section 2.14.

2.10 ASBESTOS

No Asbestos containing materials (ACMs) were observed on site or on neighbouring sites.

2.11 RADON GAS ASSESSMENT

The site is not within an area recorded to require basic or full Radon precautions, as shown by a statistical analysis of Radon in houses by Public Health England.

The Joint Indicative Atlas of Radon in Great Britain published by Public Health England/British Geological Survey (2011), indicates that the site has less than 1% of houses exceeding the Action level for Radon.

2.12 PLANNING REVIEWS

The Online Planning Portal for Hinckley and Bosworth Borough Council was accessed on 23rd February 2022 to review planning applications pertaining to the site in order to identify any potentially contaminative activities or potential planning constraints.

No potentially contaminative activities or other information pertinent to this assessment was identified from the historical planning records.

2.13 REGULATORY ENQUIRES

The Environmental Health Officer (EHO) for Hinckley and Bosworth Borough Council was contacted with a request for any previous reports or site investigations. An enquiry was also made into the status of the site and whether it is considered on the list of prioritised sites under Part 2A.

The EHO confirmed that the site is not currently of interest with respect to Part 2A.

A copy of the correspondence is appended as Appendix D.

2.14 PREVIOUS REPORTS

Ivy House Environmental has obtained a previous validation report written by Ecologia, dated 12th June 2014 (Ref. 14.061.3), relating to the escape of heating oil from a storage tank located to the east of the northernmost barn. A summary of pertinent information is provided below;

- Ecologia was instructed to carry out appropriate emergency works, including a Phase 1 survey, in response to an escape of kerosene heating oil that was first identified on 7th February 2014.
- The oil storage tank had a volume of 5000 litres, formed of steel and sat atop of a 1.5 m brick walled platform. The surrounding area comprised gravel and planted beds, underlain by a membrane (in gravelled areas), topsoil, and clay.
- The exact volume of escaped heating oil was unknown, however a range of 600-1000 litres was estimated. The homeowner stopped the oil flow and excavated a channel and sump to collect the escaped oil. This was then pumped into an empty IBC of 1000 litre capacity.
- Ecologia delineated the extent of the contaminated soils via several hand-augured boreholes. Peak PID readings of contaminated soils were recorded at 400 ppm. Oil absorbent booms were installed upon the surface of the nearby garden pond, and oil absorbent pads were applied to any visibly-impacted standing water in the affected area.
- Soils and gravel within the affected area were excavated and transferred to Visqueen-lined waste skips for disposal at a suitably licensed landfill facility. PID screening of the soils remaining in-situ indicated a significant reduction in contamination, with resultant readings being only marginally elevated (17.8 ppm on excavation sides, 0.5 ppm at base).
- Oil-impacted water beneath the storage tank and within the IBC were removed via vacuum tanker for offsite disposal at a suitable waste management facility.
- Six soil samples were obtained from the sides and base of the excavation and were tested for TPH, BTEX, and soil organic matter at an MCERTS accredited laboratory. Results indicated low residual TPH and BTEX values. One sample recorded a marginal GAC exceedance of Xylenes, however this was not considered to be associated with the escaped heating oil, and was not considered to pose a significant risk.
- All excavations were backfilled with suitable materials, and all membranes, brickwork, and plants were reinstated upon completion of the works.

A copy of the report is provided in Appendix E.

3.0 PRELIMINARY RISK ASSESSMENT CONCEPTUAL MODEL

3.1 SOURCE-PATHWAY-RECEPTOR

The conceptual model for the site considers the development proposal for residential use with plant uptake, and the preceding information.

The site's former uses as a residential property alongside possible farming are considered in respect to potential contaminative sources. The historical heating oil leak was suitably remediated and is therefore not considered to pose a significant risk to end users.

No potentially contaminative sites have been identified within close proximity of the site. The surrounding area is therefore not considered to pose a significant contaminant risk to end users of the site.

Potential contaminants of concern for the end user include Heavy Metals, Polycyclic Aromatic Hydrocarbons (PAHs), Total Petroleum Hydrocarbons, Herbicides, and Pesticides. These contaminants are commonly associated with storage of vehicles/machinery and additional substances used in farming.

Pathways for the end user of the site include direct contact (dermal) with potentially contaminated soil dust, ingestion and inhalation of potentially contaminated soil dust, and ingestion of vegetables grown in potentially contaminated soil and potentially contaminated soil attached to vegetables.

The primary receptors for the site are construction workers and end users of the site (residents).

The primary receptor for controlled waters is the pond in the south-eastern corner of the site.

Potential contaminants of concern for controlled waters include Heavy Metals, Polycyclic Aromatic Hydrocarbons (PAHs), Total Petroleum Hydrocarbons, Herbicides, and Pesticides.

The primary pathway for controlled waters is the leaching and vertical migration of potential contaminants through the vadose zone to the saturated zone.

The development of the conceptual model is illustrated on Figure 3.1.

On the basis of the site's long history of residential use, the risks identified within this preliminary risk assessment and the associated conceptual model are considered negligible.

It is therefore considered that further assessments are not required.

Figure 3.1: Conceptual Site Model

HUMAN HEALTH			
SOURCE	PATHWAY	RECEPTOR	SOLUTION
Potentially contaminated made ground from historical agricultural site use. Potential contaminants of concern include Heavy Metals, PAHs, TPH, Herbicides, and Pesticides.	Dermal contact with potentially contaminated soil dust, ingestion and inhalation of potentially contaminated soil dust, ingestion of vegetables grown in potentially contaminated soil and potentially contaminated soil attached to vegetables.	Construction Workers	Basic PPE for all workers (overalls, gloves, dust mask if required) and wash facilities/personal hygiene.
		End Users (e.g. residents)	Negligible risk considering the site's long history of residential use, and no evidence of contaminative substances observed. Any unexpected contamination identified is to be appropriately managed by a suitably qualified engineer.
	Leaching into water supply pipes	Water Supply/End Users	Aluminium sheathed or steel water pipes may be required.
CONTROLLED WATERS			
Potentially contaminated made ground from historical agricultural site use. Potential contaminants of concern include Heavy Metals, PAHs, TPH, Herbicides, and Pesticides.	Leaching and vertical migration through the vadose zone to the saturated zone	Secondary B Aquifer	Secondary B Aquifers are of limited storage and do not influence local water supplies, therefore not considered to be vulnerable.
	Leaching and horizontal migration to surface waters	On-site pond	Negligible risk considering the site's long history of residential use, and no evidence of contaminative substances observed.

4.0 RECOMMENDATIONS

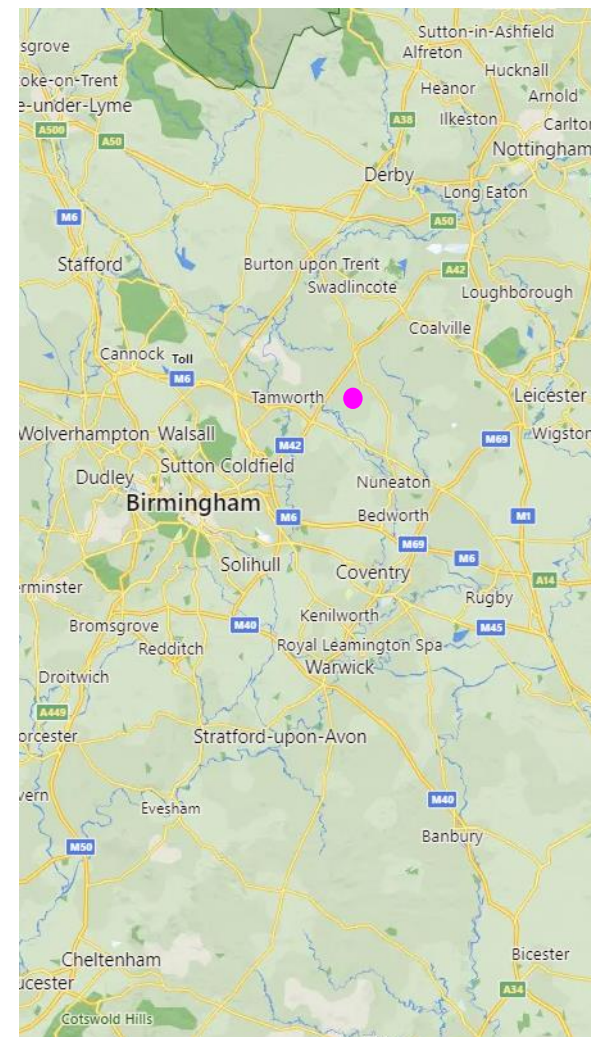
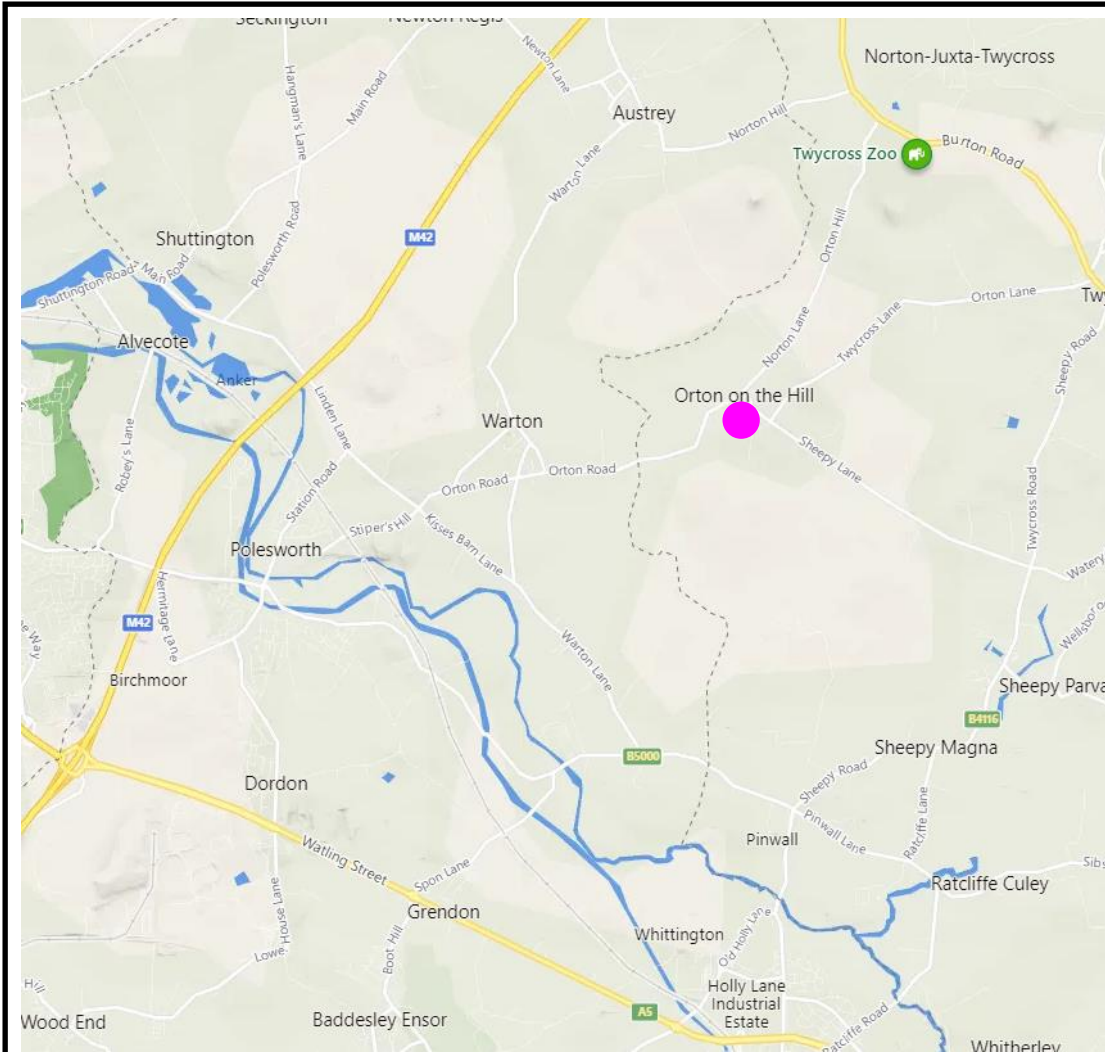
Further assessment of the site is not considered necessary based upon the outcomes of the preliminary risk assessment conceptual model.

5.0 CONCLUSIONS

The Preliminary Risk Assessment has illustrated that the proposed redevelopment of the site for residential use does not pose significant risk to end users of the site or the environment.

APPENDIX A





KEY:

 Approximate Site Location

DO NOT SCALE



TITLE:

Site Location Plan

PROJECT:

Hall Farm, Orton-on-the-Hill

PROJECT No:

IV.32.22

DATE:

02/2022

SCALE:

NTS

DRAWN:

SRS

DWG No:

Figure 1



KEY:



Site Boundary

DO NOT SCALE



Scotland Farm, Ockbrook, Derby, DE72 3RX
 rps@ivyhousenv.co.uk • www.ivyhousenv.co.uk • 01332 661 987

TITLE:

Site Layout

PROJECT:

Hall Farm, Orton-on-the-Hill

PROJECT No:

IV.32.22

DATE:

02/2022

SCALE:

NTS

DRAWN:

SRS

DWG No:

Figure 2



KEY:



Site Development Area



IVY HOUSE
environmental

Scotland Farm, Ockbrook, Derby, DE72 3RX
rps@ivyhousenv.co.uk • www.ivyhousenv.co.uk • 01332 661 987

TITLE:

Development Proposal

PROJECT:

Hall Farm, Orton-on-the-Hill

PROJECT No:

IV.32.22

DATE:

02/2022

SCALE:

NTS

DRAWN:

SRS

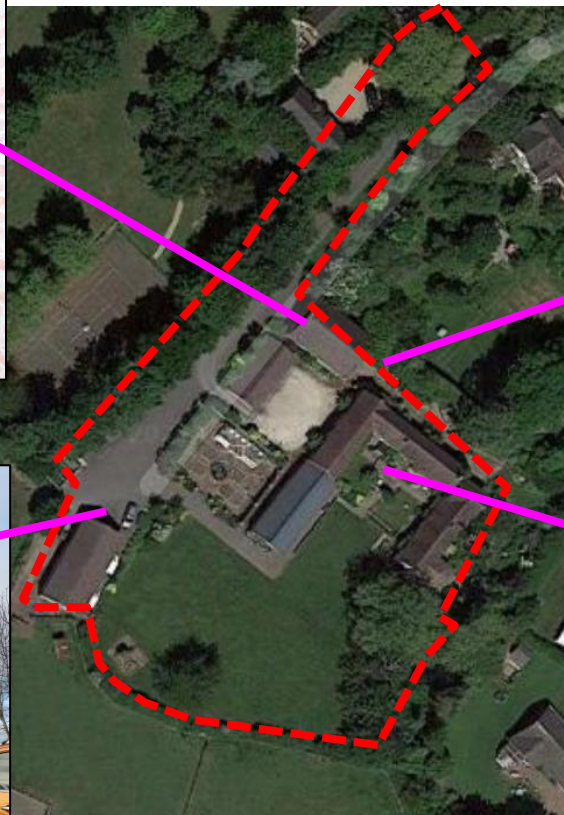
DWG No:

Figure 3

DO NOT SCALE



Northern barn



Heating oil tank



Southern barn



Main house

KEY:

DO NOT SCALE



Scotland Farm, Ockbrook, Derby, DE72 3RX
rps@ivyhousenv.co.uk • www.ivyhousenv.co.uk • 01332 661 987

TITLE:

Site Photographs

PROJECT:

Hall Farm, Orton-on-the-Hill

PROJECT No:

IV.32.22

DATE:

02/2022

SCALE:

NTS

DRAWN:

SRS

DWG No:

Figure 4

APPENDIX B



Site Details:

Hall Farm, 10 The Green, Orton-on-the-Hill, Atherstone, CV9 3NG

Client Ref: EMS_761651_986093
Report Ref: EMS-761651_986093
Grid Ref: 430380, 303790

Map Name: County Series

Map date: 1885

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1885
 Revised 1885
 Edition 1885
 Copyright N/A
 Levelled N/A

Surveyed 1885
 Revised 1885
 Edition N/A
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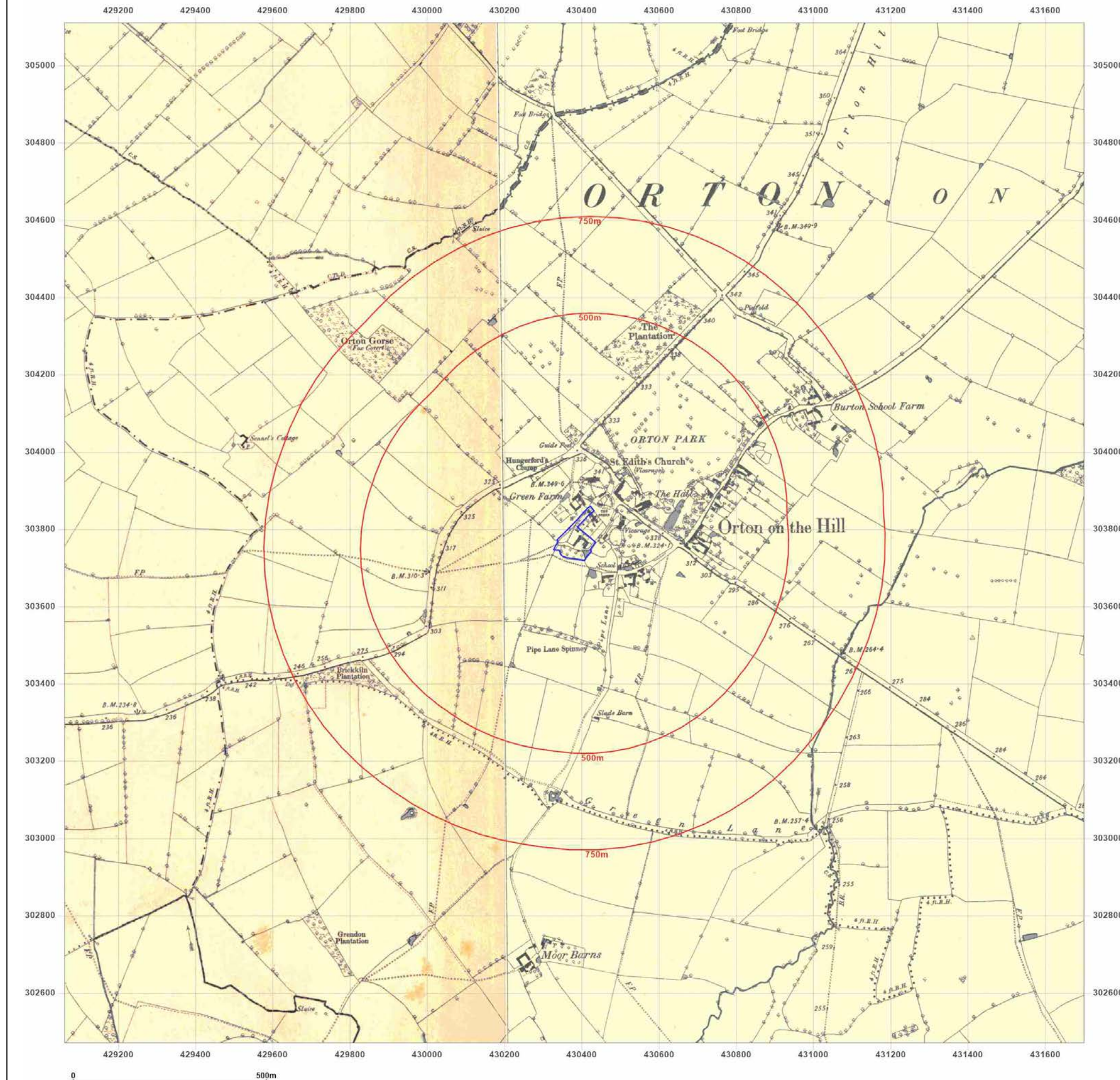


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Map legend available at:
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Site Details:

Hall Farm, 10 The Green, Orton-on-the-Hill, Atherstone, CV9 3NG

Client Ref: EMS_761651_986093
Report Ref: EMS-761651_986093
Grid Ref: 430380, 303790

Map Name: County Series

Map date: 1901

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1881
 Revised 1900
 Edition 1901
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Surveyed N/A
 Revised N/A
 Edition N/A
 Copyright N/A
 Levelled N/A



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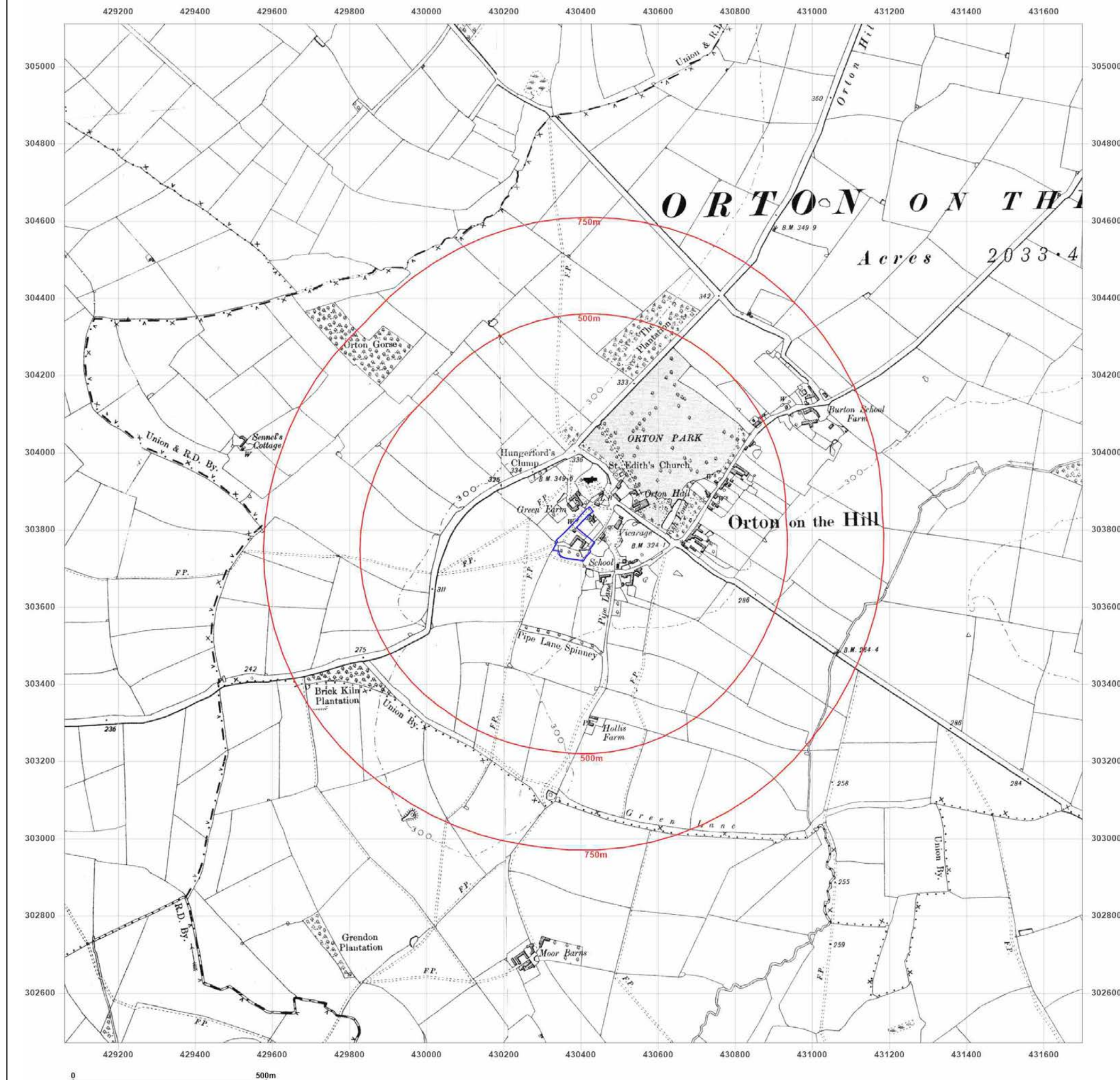


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Site Details:

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Client Ref: EMS_761651_986093
Report Ref: EMS-761651_986093
Grid Ref: 430380, 303790

Map Name: County Series

Map date: 1901

Scale: 1:10,560

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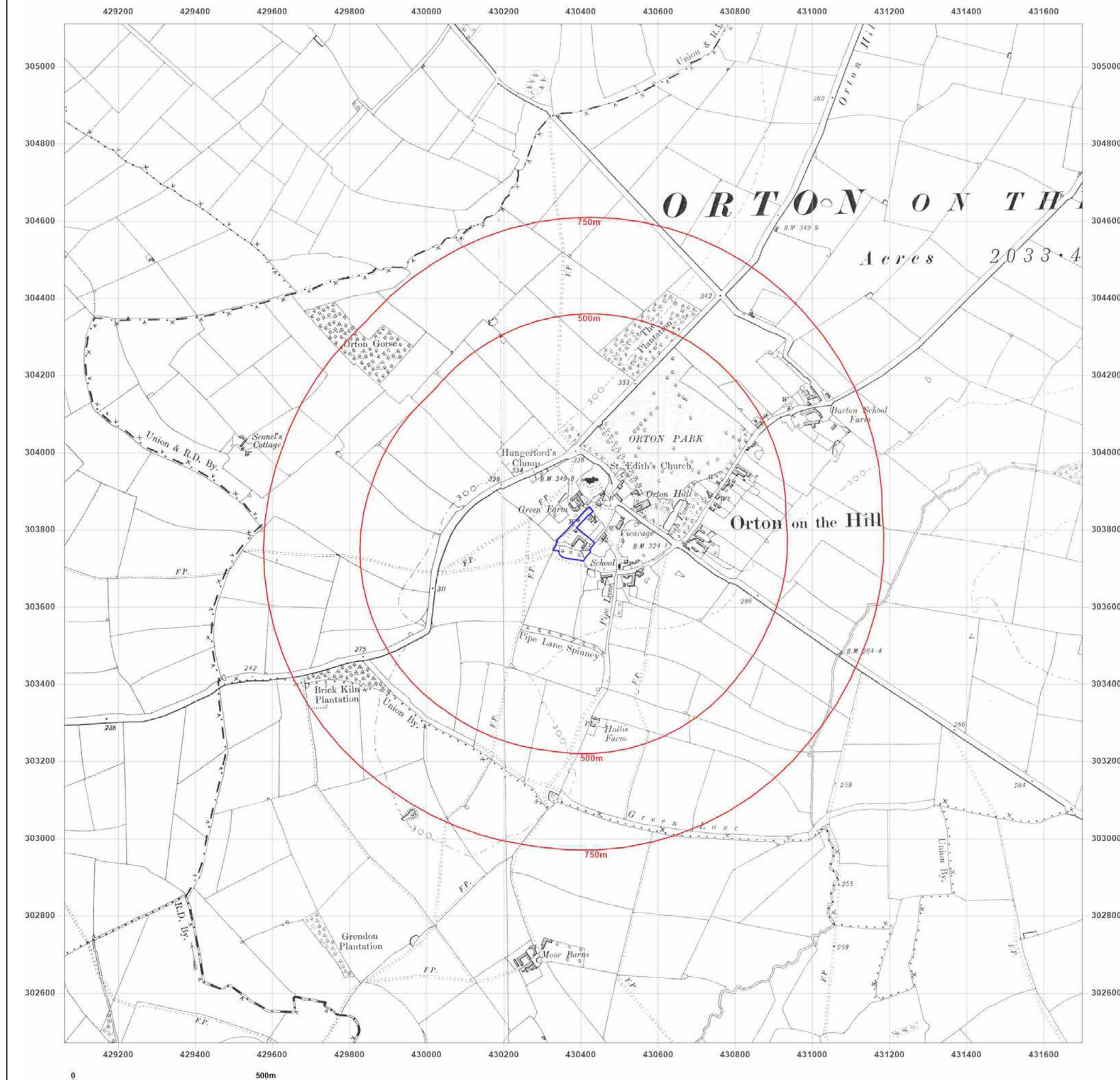


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Site Details:

Hall Farm, 10 The Green, Orton-on-the-Hill, Atherstone, CV9 3NG

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Report Ref: EMS-761651_986093
Grid Ref: 430380, 303790

Map Name: County Series

Map date: 1924

Scale: 1:10,560

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 Edition 1924
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 Edition N/A
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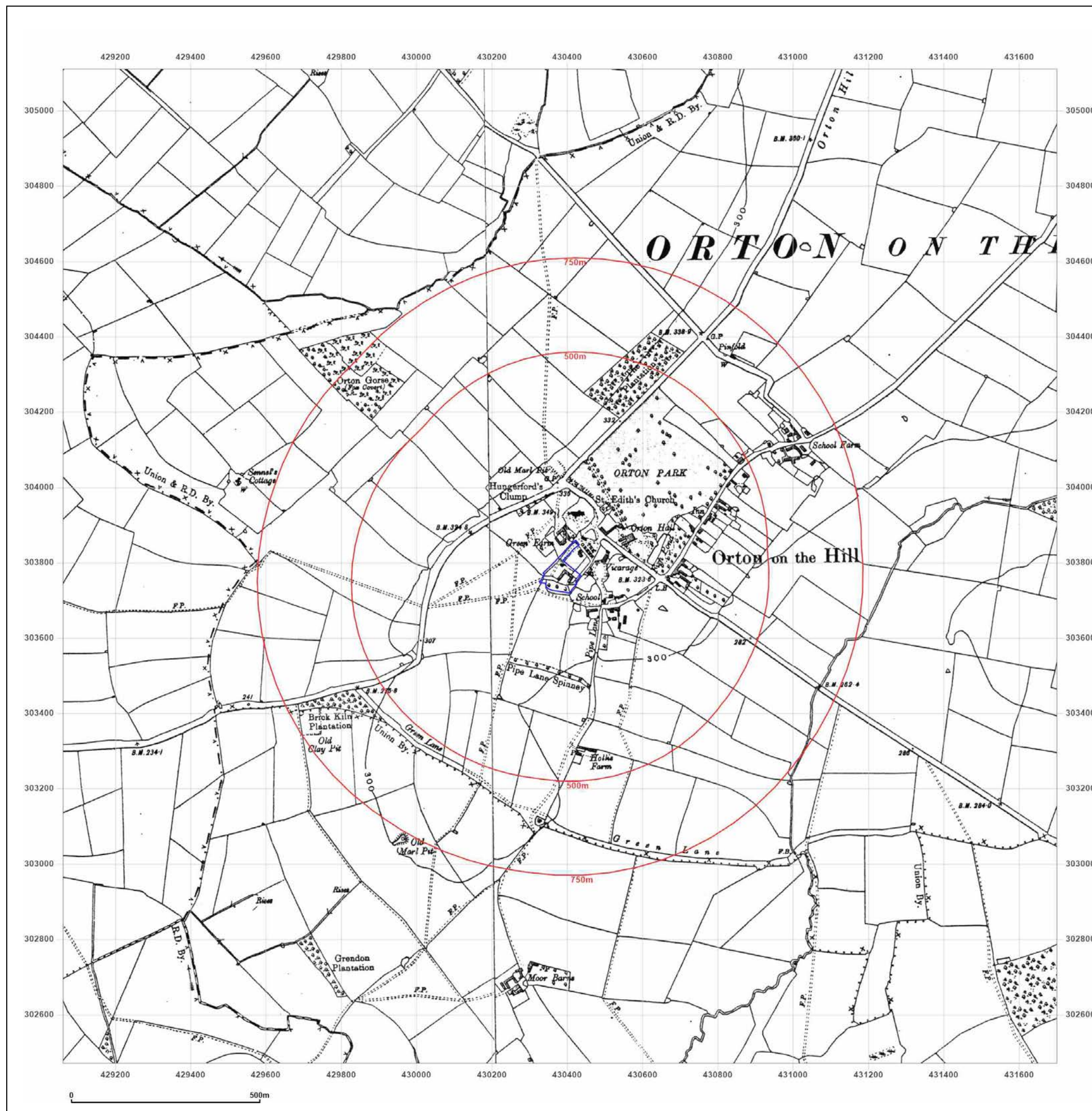


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Site Details:

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Map Name: County Series

Map date: 1924

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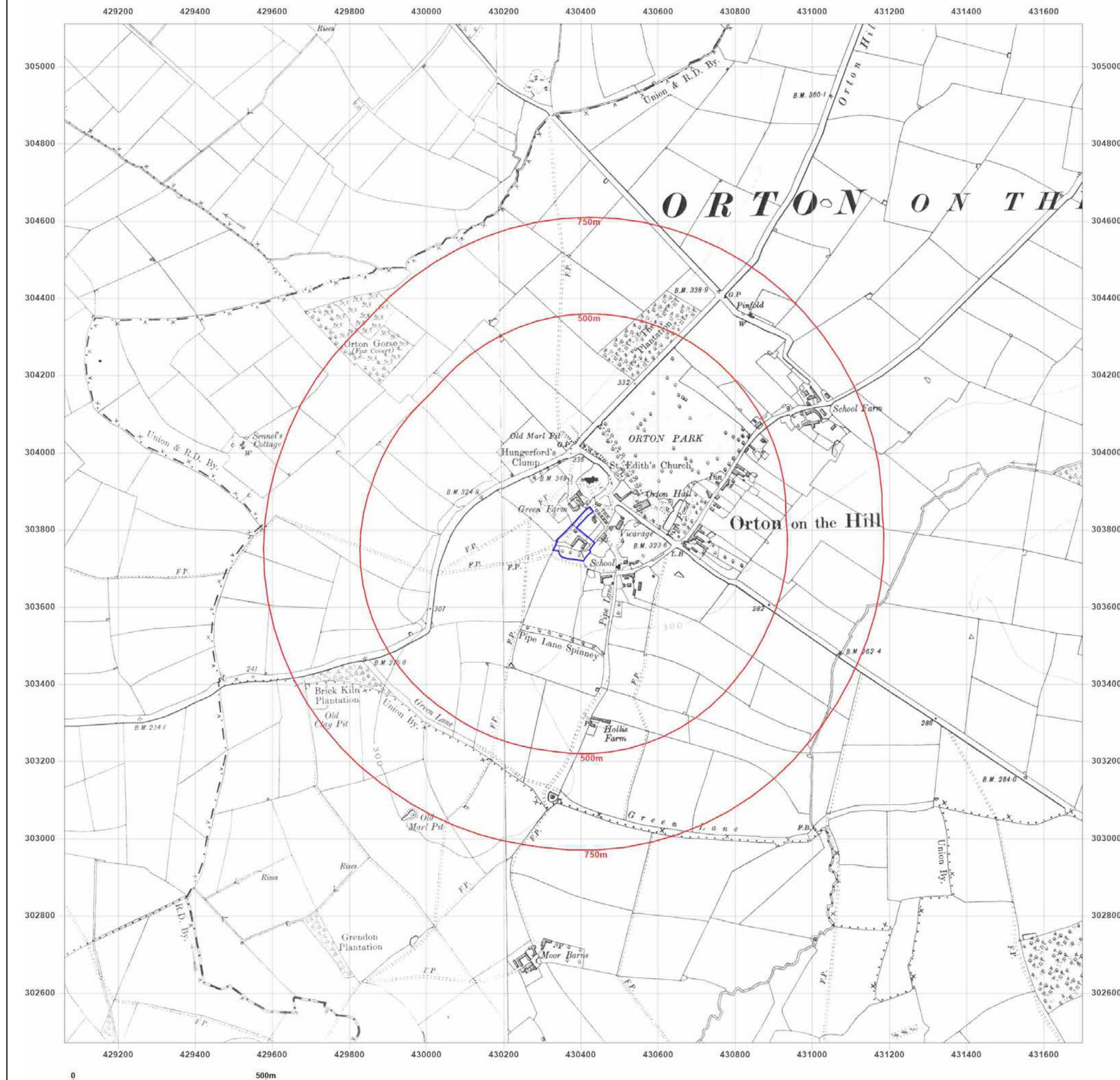


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Site Details:

Hall Farm, 10 The Green, Orton-on-the-Hill, Atherstone, CV9 3NG

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Map Name: Provisional

Map date: 1950-1955

Scale: 1:10,560

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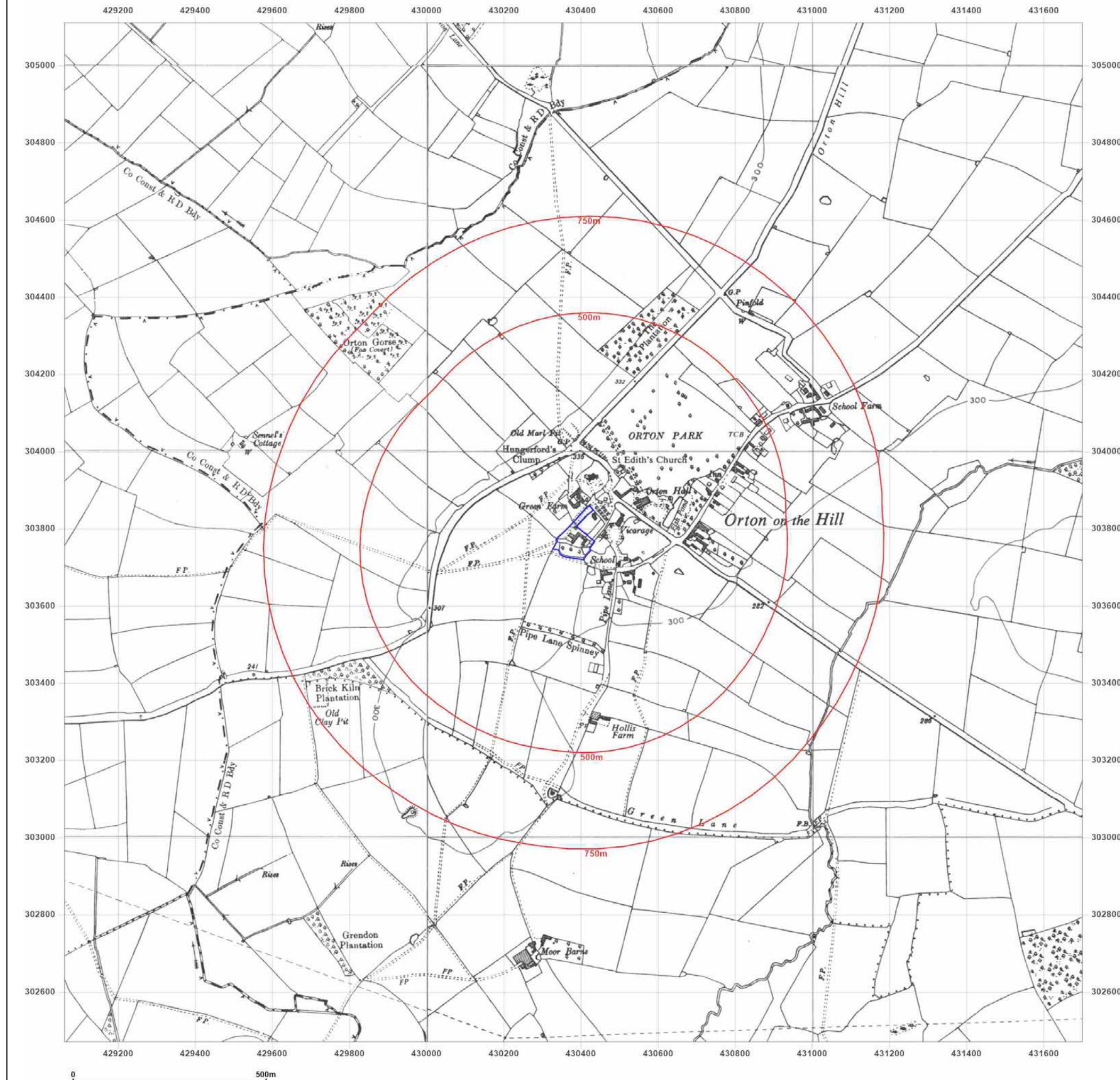


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Site Details:

Hall Farm, 10 The
Green, Orton-on-the-Hill, Atherst
one, CV9 3NG

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Report Ref: EMS-761651_986093
Grid Ref: 430380, 303790

Map Name: Provisional

Map date: 1966

Scale: 1:10,560

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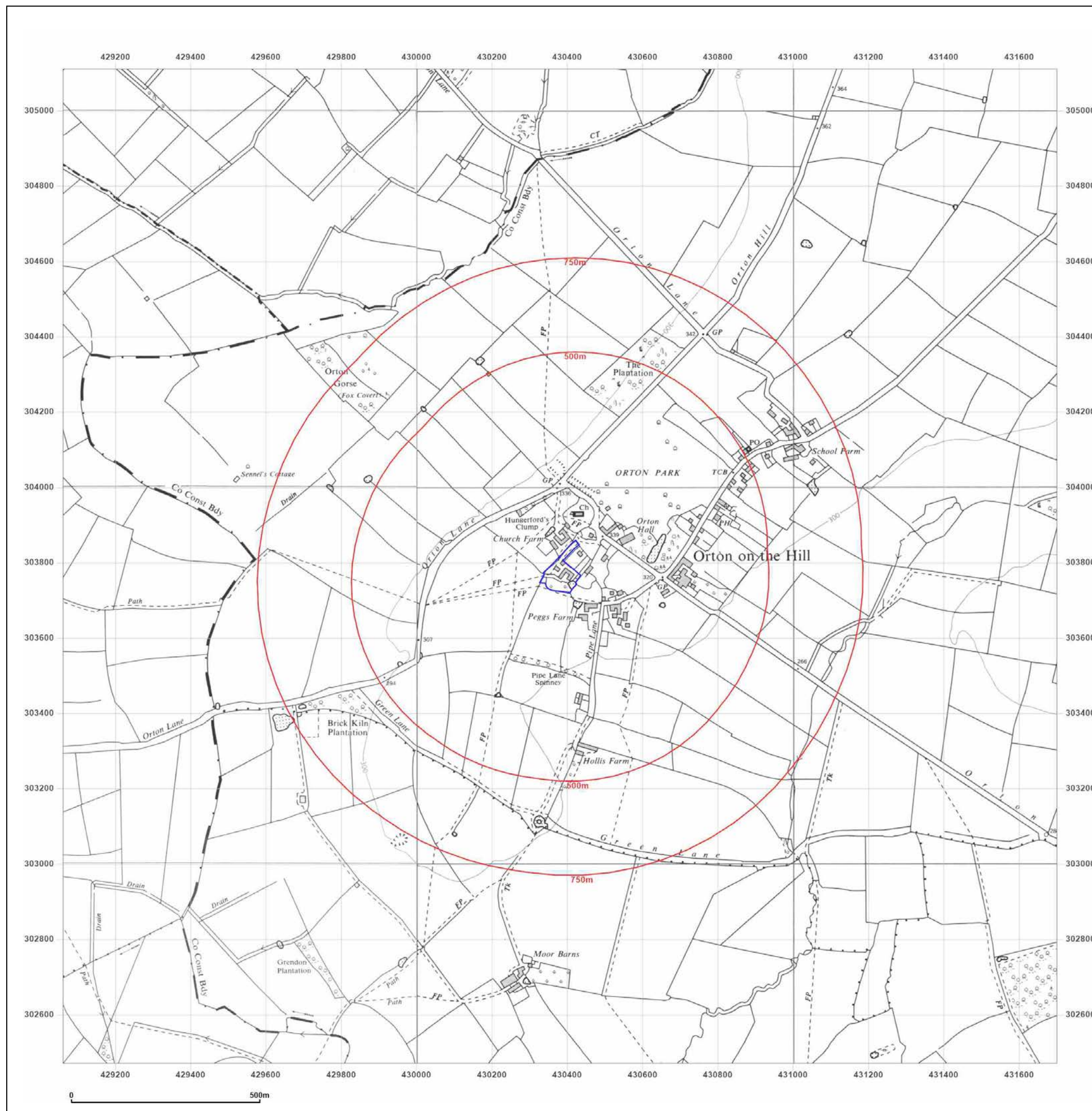


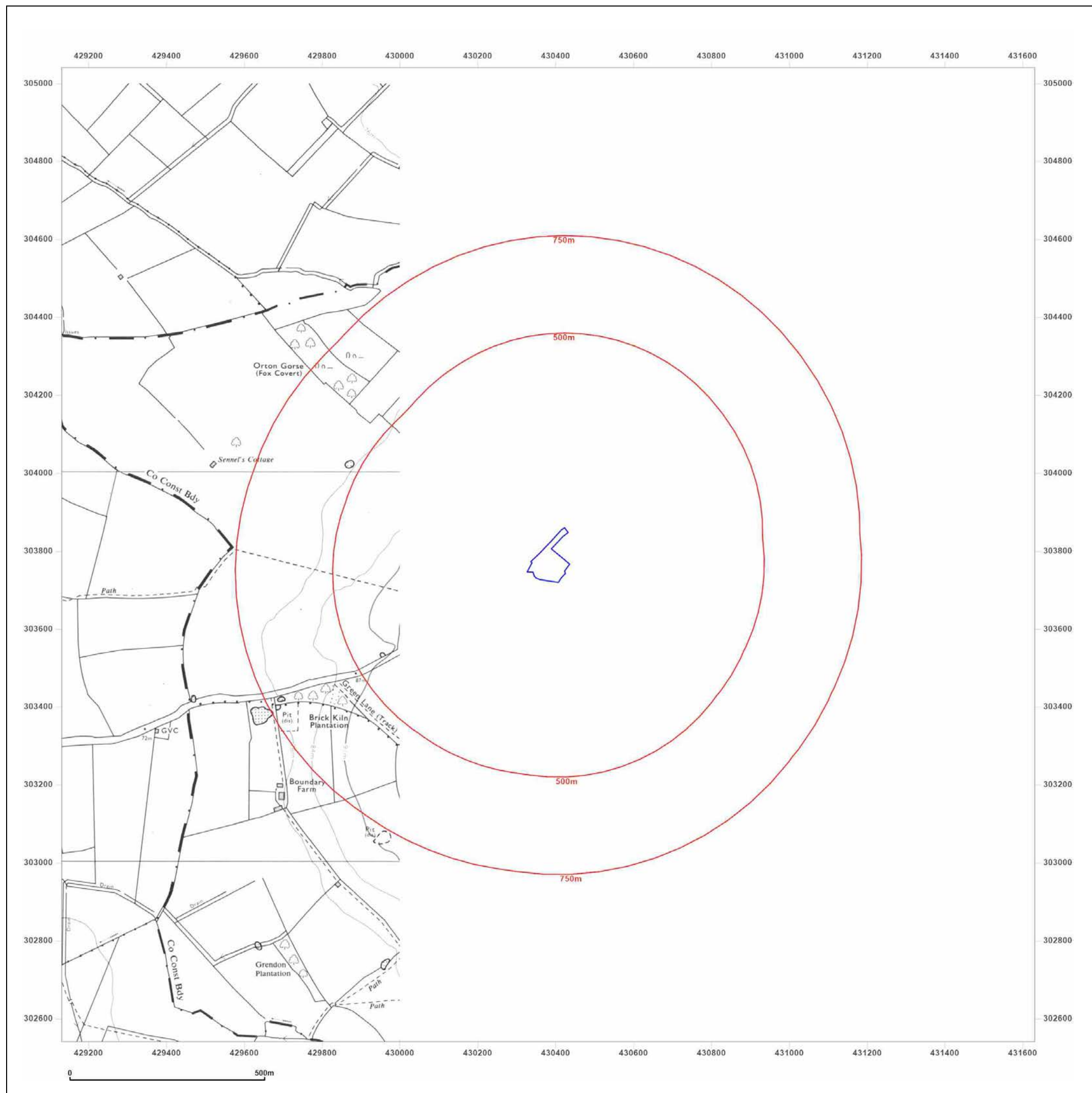
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Site Details:

Hall Farm, 10 The
Green, Orton-on-the-Hill, Atherst
one, CV9 3NG

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Report Ref: EMS-761651_986093
Grid Ref: 430380, 303790

Map Name: National Grid

Map date: 1976

Scale: 1:10,000

Printed at: 1:10,000



Surveyed 1973
Revised 1976
Edition N/A
Copyright 1976
Levelled 1967



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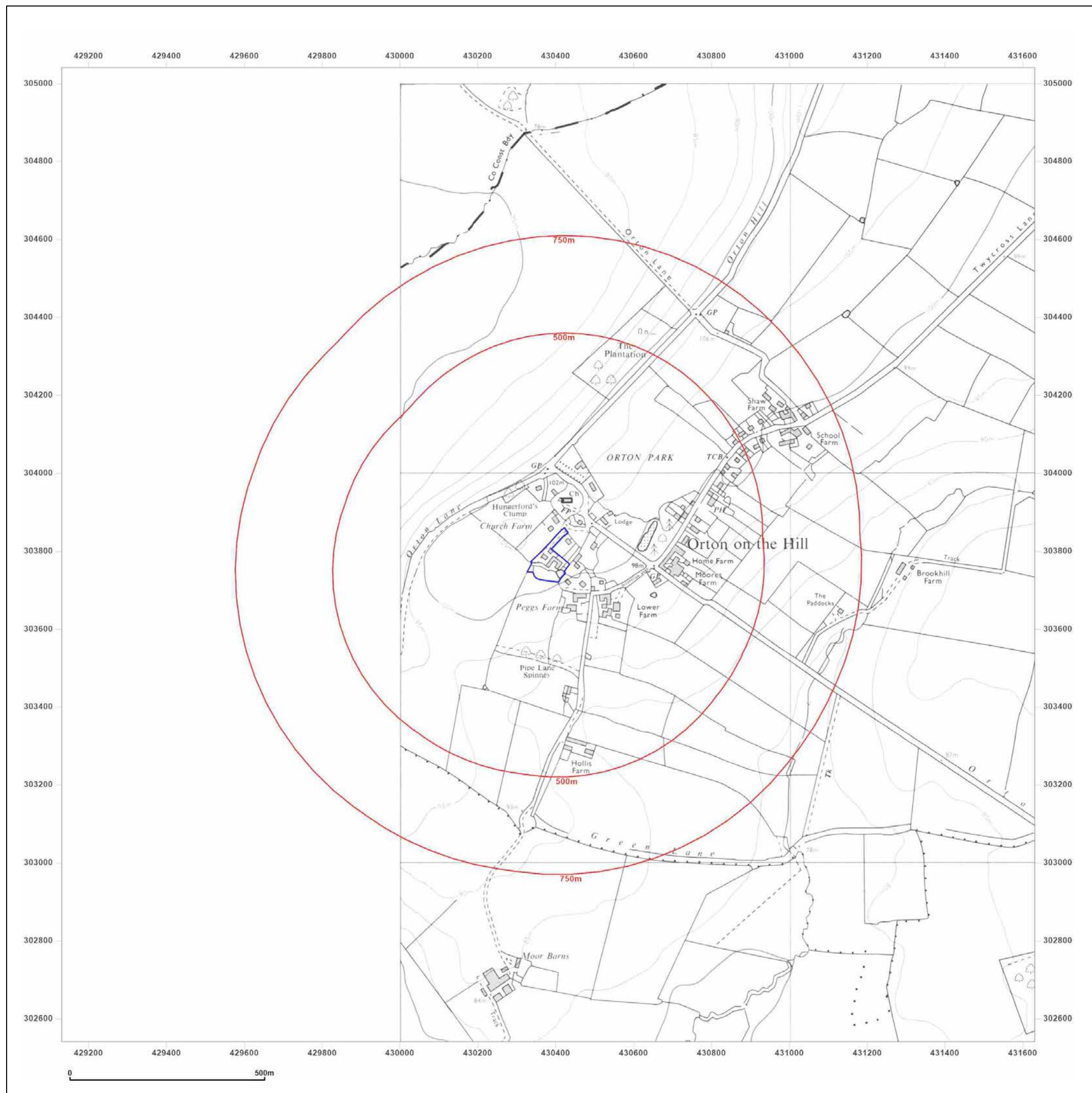


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Site Details:

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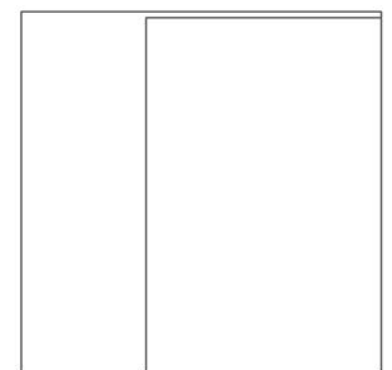
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Grid Ref: 430380, 303790

Map Name: National Grid

Map date: 1982

Scale: 1:10,000

Printed at: 1:10,000



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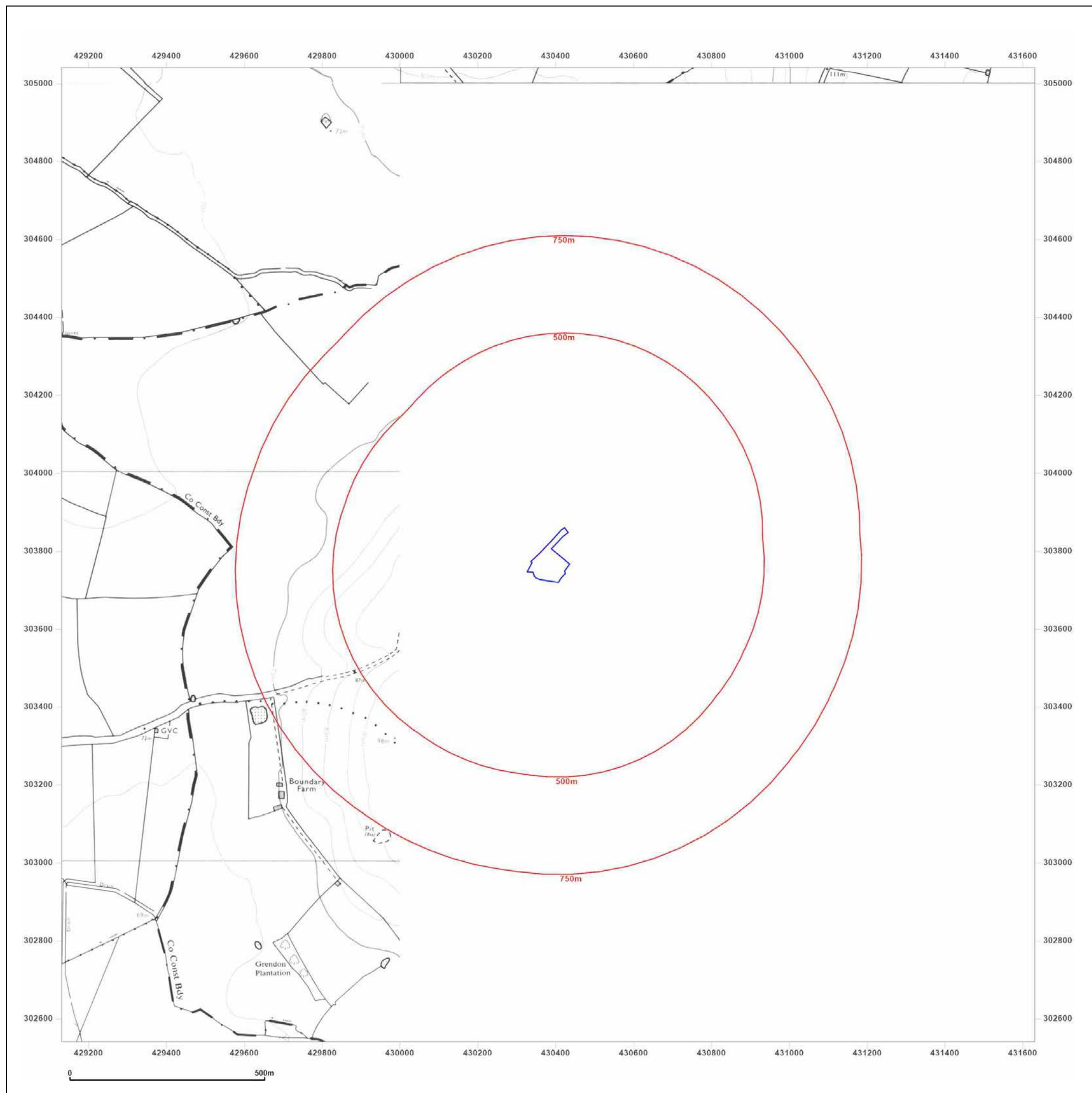


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Site Details:

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one, CV9 3NG

Client Ref: EMS_761651_986093
Report Ref: EMS-761651_986093
Grid Ref: 430380, 303790

Map Name: National Grid

Map date: 1988-1989

Scale: 1:10,000

Printed at: 1:10,000



Surveyed 1972
Revised 1988
Edition N/A
Copyright 1988
Levelled 1981

Surveyed 1969
Revised 1989
Edition N/A
Copyright 1989
Levelled 1981

Surveyed 1973
Revised 1989
Edition N/A
Copyright 1989
Levelled 1981



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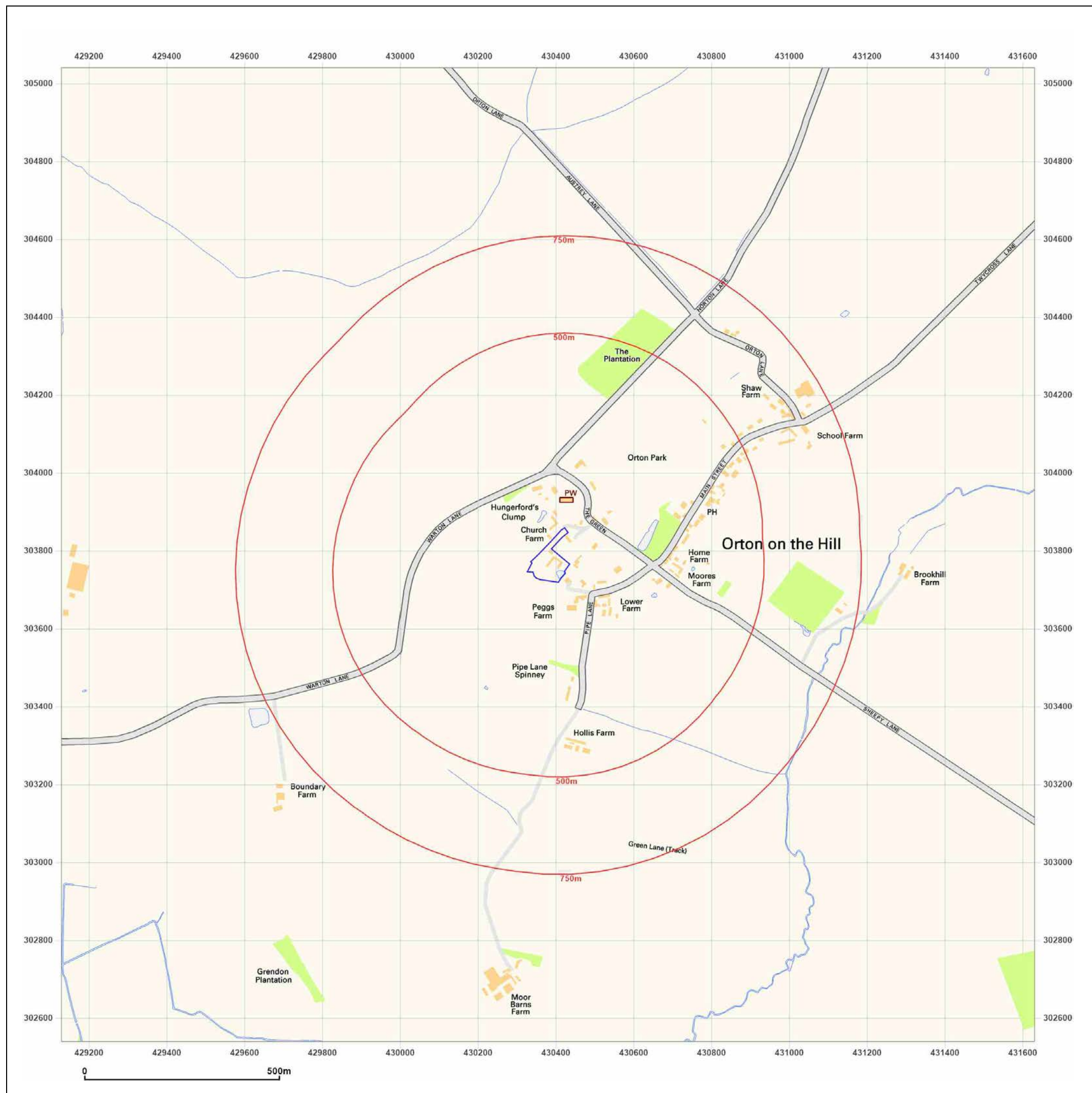


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Site Details:

Hall Farm, 10 The Green, Orton-on-the-Hill, Atherstone, CV9 3NG

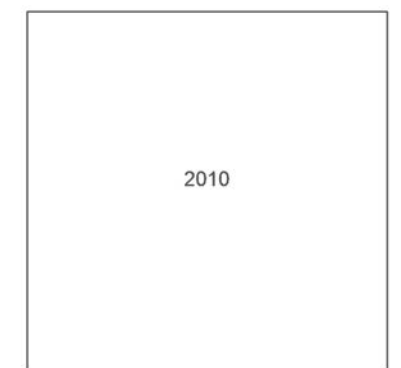
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Report Ref: EMS-761651_986093
Grid Ref: 430380, 303790

Map Name: National Grid

Map date: 2010

Scale: 1:10,000

Printed at: 1:10,000



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Client Ref: EMS_761651_986093
Report Ref: EMS-761651_986093
Grid Ref: 430380, 303790

Map Name: National Grid

Map date: 2022

Scale: 1:10,000

Printed at: 1:10,000



2022



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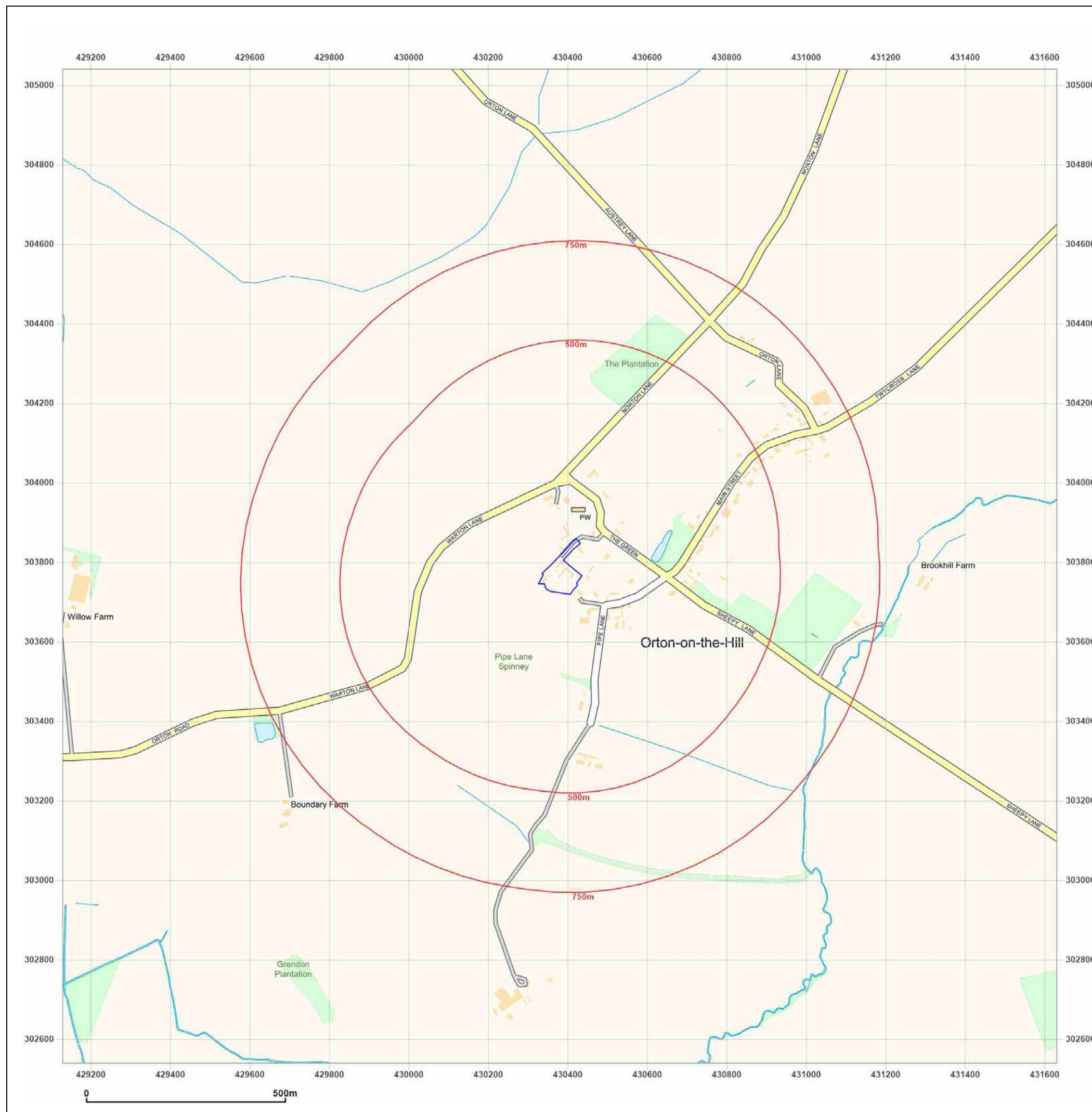


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Site Details:

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Client Ref: EMS_761651_986093
Report Ref: EMS-761651_986093
Grid Ref: 430380, 303790

Map Name: County Series

Map date: 1884-1886

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1884
 Revised N/A
 Edition 1884
 Copyright N/A
 Levelled N/A

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

Surveyed 1886
 Revised 1886
 Edition N/A
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 Revised 1886
 Edition N/A
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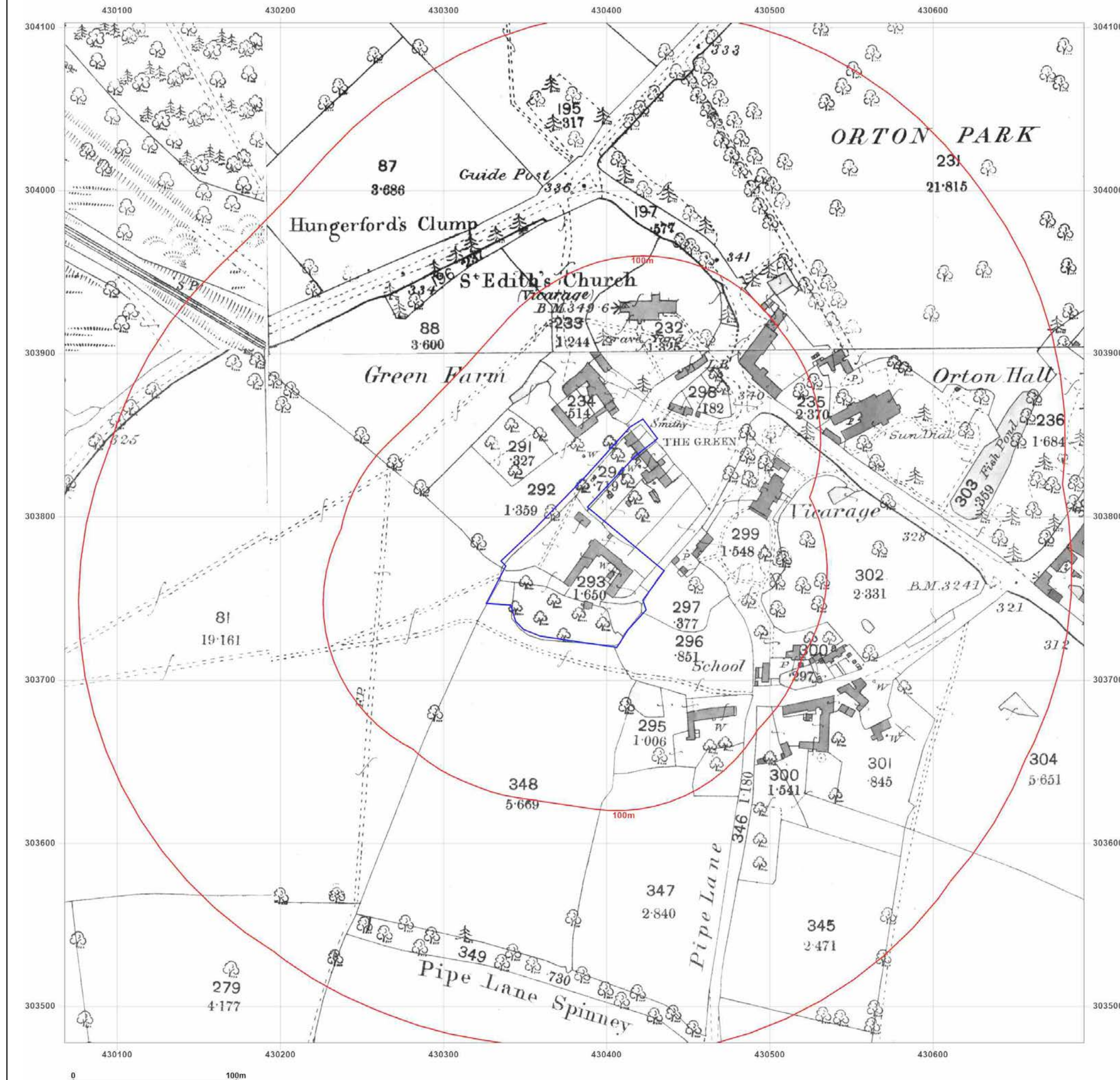


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Site Details:

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Client Ref: EMS_761651_986093
Report Ref: EMS-761651_986093
Grid Ref: 430380, 303790

Map Name: County Series

Map date: 1903

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1886
 Revised 1902
 Edition 1903
 Copyright N/A
 Levelled N/A

Surveyed 1903
 Revised 1903
 Edition N/A
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Surveyed 1903
 Revised 1903
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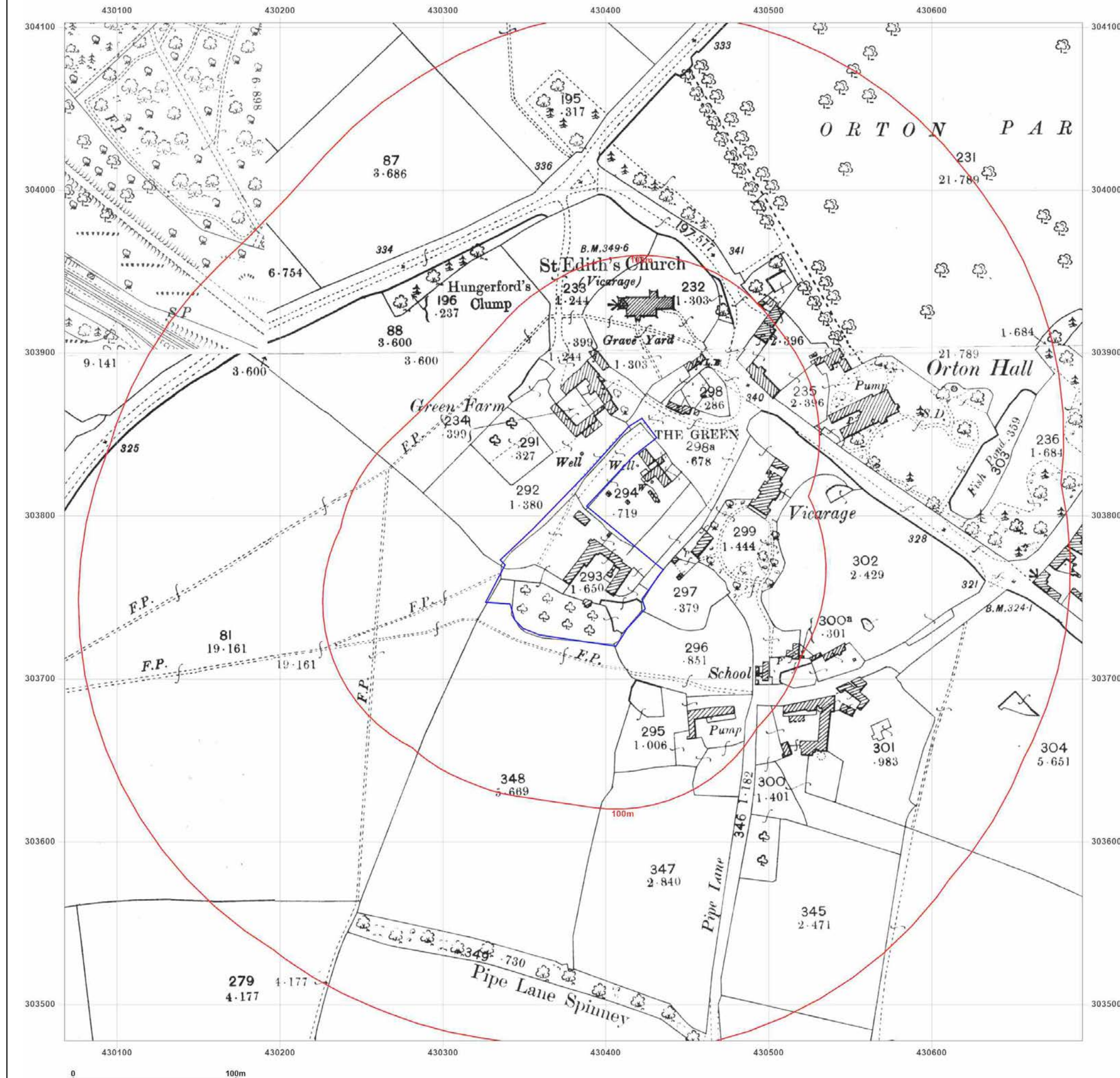


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Production date: 23 February 2022

Map legend available at:
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Site Details:

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Client Ref: EMS_761651_986093
Report Ref: EMS-761651_986093
Grid Ref: 430380, 303790

Map Name: County Series

Map date: 1924

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1881
 Revised 1920
 Edition 1924
 Copyright N/A
 Levelled 1901

Surveyed 1924
 Revised 1924
 Edition N/A
 Copyright N/A
 Levelled N/A

Surveyed 1924
 Revised 1924
 Edition N/A
 Copyright N/A
 Levelled N/A

Surveyed 1924
 Revised 1924
 Edition N/A
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Site Details:

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Client Ref: EMS_761651_986093
Report Ref: EMS-761651_986093
Grid Ref: 430380, 303790

Map Name: National Grid

Map date: 1957

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1957
 Revised 1957
 Edition N/A
 Copyright N/A
 Levelled 1922

Surveyed 1957
 Revised 1957
 Edition N/A
 Copyright N/A
 Levelled 1922



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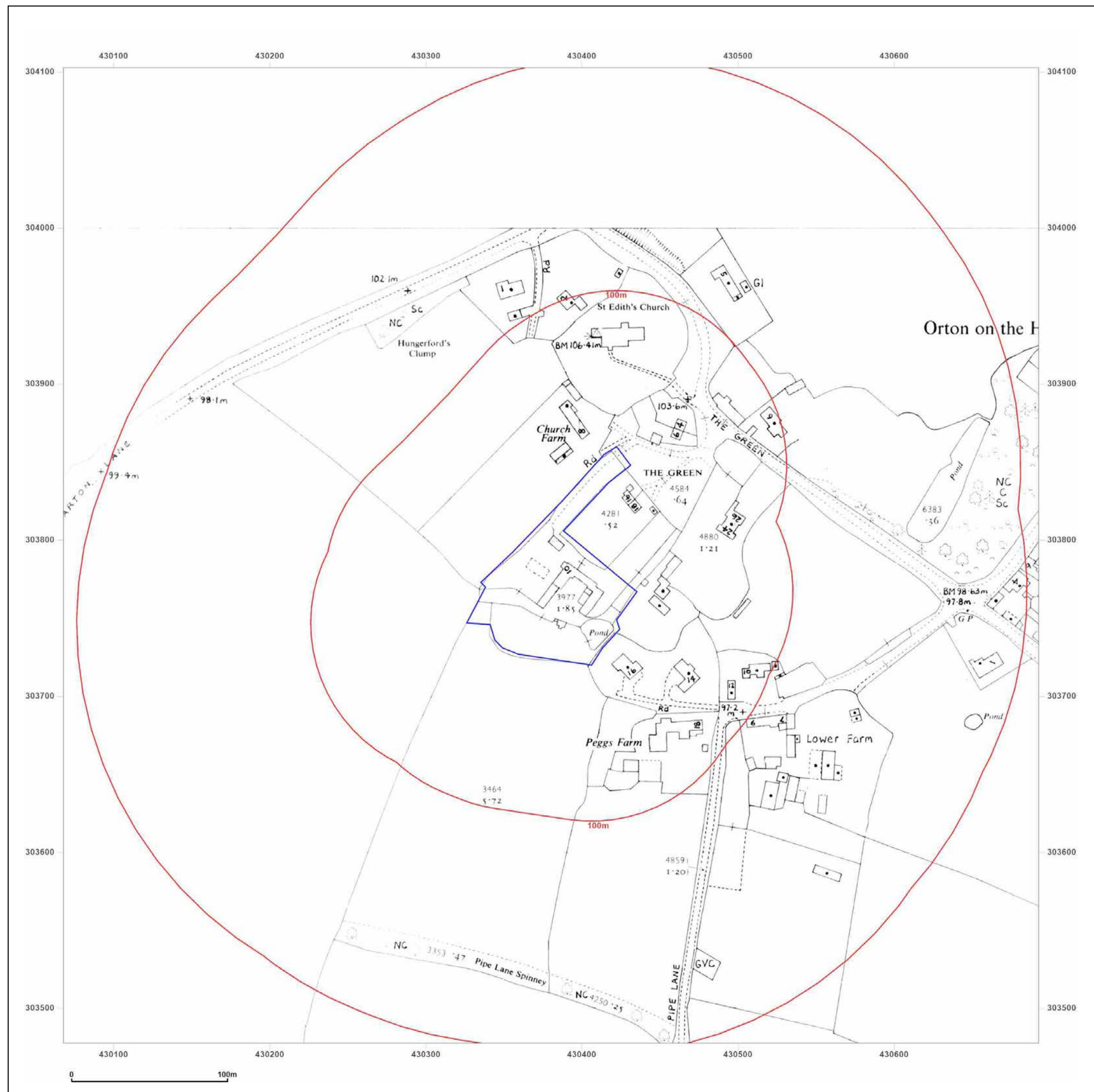
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Site Details:

Hall Farm, 10 The Green, Orton-on-the-Hill, Atherstone, CV9 3NG

Client Ref: EMS_761651_986093
Report Ref: EMS-761651_986093
Grid Ref: 430380, 303790

Map Name: National Grid

Map date: 1988

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1958
Revised 1988
Edition N/A
Copyright 1988
Levelled 1958



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Production date: 23 February 2022

Map legend available at:
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emapsite™

Site Details:

Hall Farm, 10 The Green, Orton-on-the-Hill, Atherstone, CV9 3NG

Client Ref: EMS_761651_986093
Report Ref: EMS-761651_986093
Grid Ref: 430380, 303790

Map Name: National Grid

Map date: 1994

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1994
Revised N/A
Edition N/A
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Levelled N/A

Surveyed 1994
Revised N/A
Edition N/A
Copyright 1994
Levelled N/A



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Site Details:

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Client Ref: EMS_761651_986093
Report Ref: EMS-761651_986093
Grid Ref: 430380, 303790

Map Name: LandLine

Map date: 2003

Scale: 1:1,250

Printed at: 1:1,250



2003



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Production date: 23 February 2022

Map legend available at:
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APPENDIX C



Hall Farm, 10 The Green, Orton-on-the-Hill, Atherstone, CV9 3NG

Order Details

Date: 23/02/2022
Your ref: EMS_761651_986094
Our Ref: EMS-761651_986094
Client: emapsite

Site Details

Location: 430384 303771
Area: 0.7 ha
Authority: [Hinckley and Bosworth Borough Council](#)



Summary of findings

p. 2 **Aerial image**

p. 8

OS MasterMap site plan

p.13 groundsure.com/insightuserguide

Summary of findings

Page	Section	Past land use	On site	0-50m	50-250m	250-500m	500-2000m
14	1.1	<u>Historical industrial land uses</u>	0	0	5	0	-
15	1.2	Historical tanks	0	0	0	0	-
15	1.3	Historical energy features	0	0	0	0	-
15	1.4	Historical petrol stations	0	0	0	0	-
16	1.5	Historical garages	0	0	0	0	-
16	1.6	Historical military land	0	0	0	0	-
Page	Section	Past land use - un-grouped	On site	0-50m	50-250m	250-500m	500-2000m
17	2.1	<u>Historical industrial land uses</u>	0	0	8	0	-
18	2.2	Historical tanks	0	0	0	0	-
18	2.3	Historical energy features	0	0	0	0	-
18	2.4	Historical petrol stations	0	0	0	0	-
19	2.5	Historical garages	0	0	0	0	-
Page	Section	Waste and landfill	On site	0-50m	50-250m	250-500m	500-2000m
20	3.1	Active or recent landfill	0	0	0	0	-
20	3.2	Historical landfill (BGS records)	0	0	0	0	-
20	3.3	Historical landfill (LA/mapping records)	0	0	0	0	-
20	3.4	Historical landfill (EA/NRW records)	0	0	0	0	-
20	3.5	Historical waste sites	0	0	0	0	-
21	3.6	Licensed waste sites	0	0	0	0	-
21	3.7	Waste exemptions	0	0	0	0	-
Page	Section	Current industrial land use	On site	0-50m	50-250m	250-500m	500-2000m
22	4.1	Recent industrial land uses	0	0	0	-	-
22	4.2	Current or recent petrol stations	0	0	0	0	-
23	4.3	Electricity cables	0	0	0	0	-
23	4.4	<u>Gas pipelines</u>	0	0	1	0	-
23	4.5	Sites determined as Contaminated Land	0	0	0	0	-



23	4.6	Control of Major Accident Hazards (COMAH)	0	0	0	0	-
24	4.7	Regulated explosive sites	0	0	0	0	-
24	4.8	Hazardous substance storage/usage	0	0	0	0	-
24	4.9	Historical licensed industrial activities (IPC)	0	0	0	0	-
24	4.10	Licensed industrial activities (Part A(1))	0	0	0	0	-
24	4.11	Licensed pollutant release (Part A(2)/B)	0	0	0	0	-
25	4.12	Radioactive Substance Authorisations	0	0	0	0	-
25	4.13	<u>Licensed Discharges to controlled waters</u>	0	0	2	1	-
25	4.14	Pollutant release to surface waters (Red List)	0	0	0	0	-
26	4.15	Pollutant release to public sewer	0	0	0	0	-
26	4.16	List 1 Dangerous Substances	0	0	0	0	-
26	4.17	List 2 Dangerous Substances	0	0	0	0	-
26	4.18	<u>Pollution Incidents (EA/NRW)</u>	0	0	0	5	-
27	4.19	Pollution inventory substances	0	0	0	0	-
27	4.20	Pollution inventory waste transfers	0	0	0	0	-
27	4.21	Pollution inventory radioactive waste	0	0	0	0	-
Page	Section	Hydrogeology	On site	0-50m	50-250m	250-500m	500-2000m
28	5.1	<u>Superficial aquifer</u>	Identified (within 500m)				
29	5.2	<u>Bedrock aquifer</u>	Identified (within 500m)				
31	5.3	<u>Groundwater vulnerability</u>	Identified (within 50m)				
32	5.4	Groundwater vulnerability- soluble rock risk	None (within 0m)				
32	5.5	Groundwater vulnerability- local information	None (within 0m)				
33	5.6	<u>Groundwater abstractions</u>	0	0	0	0	3
34	5.7	Surface water abstractions	0	0	0	0	0
35	5.8	Potable abstractions	0	0	0	0	0
35	5.9	Source Protection Zones	0	0	0	0	-
35	5.10	Source Protection Zones (confined aquifer)	0	0	0	0	-
Page	Section	Hydrology	On site	0-50m	50-250m	250-500m	500-2000m
36	6.1	Water Network (OS MasterMap)	0	0	0	-	-

36	6.2	<u>Surface water features</u>	0	0	1	-	-
37	6.3	<u>WFD Surface water body catchments</u>	1	-	-	-	-
37	6.4	<u>WFD Surface water bodies</u>	0	0	0	-	-
38	6.5	<u>WFD Groundwater bodies</u>	1	-	-	-	-
Page	Section	River and coastal flooding	On site	0-50m	50-250m	250-500m	500-2000m
39	7.1	Risk of flooding from rivers and the sea	None (within 50m)				
39	7.2	Historical Flood Events	0	0	0	-	-
39	7.3	Flood Defences	0	0	0	-	-
40	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
40	7.5	Flood Storage Areas	0	0	0	-	-
41	7.6	Flood Zone 2	None (within 50m)				
41	7.7	Flood Zone 3	None (within 50m)				
Page	Section	Surface water flooding					
42	8.1	Surface water flooding	Negligible (within 50m)				
Page	Section	Groundwater flooding					
43	9.1	<u>Groundwater flooding</u>	Negligible (within 50m)				
Page	Section	Environmental designations	On site	0-50m	50-250m	250-500m	500-2000m
44	10.1	Sites of Special Scientific Interest (SSSI)	0	0	0	0	0
44	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
44	10.3	Special Areas of Conservation (SAC)	0	0	0	0	0
44	10.4	Special Protection Areas (SPA)	0	0	0	0	0
45	10.5	National Nature Reserves (NNR)	0	0	0	0	0
45	10.6	Local Nature Reserves (LNR)	0	0	0	0	0
45	10.7	Designated Ancient Woodland	0	0	0	0	0
45	10.8	Biosphere Reserves	0	0	0	0	0
46	10.9	Forest Parks	0	0	0	0	0
46	10.10	Marine Conservation Zones	0	0	0	0	0
46	10.11	Green Belt	0	0	0	0	0
46	10.12	Proposed Ramsar sites	0	0	0	0	0



46	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
47	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
47	10.15	Nitrate Sensitive Areas	0	0	0	0	0
47	10.16	<u>Nitrate Vulnerable Zones</u>	1	0	0	0	1
48	10.17	<u>SSSI Impact Risk Zones</u>	1	-	-	-	-
49	10.18	SSSI Units	0	0	0	0	0
Page	Section	Visual and cultural designations	On site	0-50m	50-250m	250-500m	500-2000m
50	11.1	World Heritage Sites	0	0	0	-	-
51	11.2	Area of Outstanding Natural Beauty	0	0	0	-	-
51	11.3	National Parks	0	0	0	-	-
51	11.4	<u>Listed Buildings</u>	0	1	2	-	-
52	11.5	<u>Conservation Areas</u>	1	0	0	-	-
52	11.6	Scheduled Ancient Monuments	0	0	0	-	-
52	11.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	Agricultural designations	On site	0-50m	50-250m	250-500m	500-2000m
53	12.1	<u>Agricultural Land Classification</u>	Grade 3 (within 250m)				
54	12.2	Open Access Land	0	0	0	-	-
54	12.3	Tree Felling Licences	0	0	0	-	-
54	12.4	Environmental Stewardship Schemes	0	0	0	-	-
55	12.5	Countryside Stewardship Schemes	0	0	0	-	-
Page	Section	Habitat designations	On site	0-50m	50-250m	250-500m	500-2000m
56	13.1	<u>Priority Habitat Inventory</u>	0	0	3	-	-
57	13.2	Habitat Networks	0	0	0	-	-
57	13.3	Open Mosaic Habitat	0	0	0	-	-
57	13.4	Limestone Pavement Orders	0	0	0	-	-
Page	Section	Geology 1:10,000 scale	On site	0-50m	50-250m	250-500m	500-2000m
58	14.1	<u>10k Availability</u>	Identified (within 500m)				
59	14.2	Artificial and made ground (10k)	0	0	0	0	-
60	14.3	<u>Superficial geology (10k)</u>	0	0	0	1	-

61	14.4	Landslip (10k)	0	0	0	0	-
62	14.5	<u>Bedrock geology (10k)</u>	2	0	3	6	-
63	14.6	<u>Bedrock faults and other linear features (10k)</u>	0	0	0	2	-
Page	Section	Geology 1:50,000 scale	On site	0-50m	50-250m	250-500m	500-2000m
64	15.1	<u>50k Availability</u>	Identified (within 500m)				
65	15.2	Artificial and made ground (50k)	0	0	0	0	-
65	15.3	Artificial ground permeability (50k)	0	0	-	-	-
66	15.4	<u>Superficial geology (50k)</u>	0	0	0	1	-
67	15.5	Superficial permeability (50k)	None (within 50m)				
67	15.6	Landslip (50k)	0	0	0	0	-
67	15.7	Landslip permeability (50k)	None (within 50m)				
68	15.8	<u>Bedrock geology (50k)</u>	2	0	2	4	-
69	15.9	<u>Bedrock permeability (50k)</u>	Identified (within 50m)				
69	15.10	<u>Bedrock faults and other linear features (50k)</u>	0	0	0	1	-
Page	Section	Boreholes	On site	0-50m	50-250m	250-500m	500-2000m
70	16.1	<u>BGS Boreholes</u>	0	0	1	-	-
Page	Section	Natural ground subsidence					
71	17.1	<u>Shrink swell clays</u>	Very low (within 50m)				
72	17.2	<u>Running sands</u>	Negligible (within 50m)				
73	17.3	<u>Compressible deposits</u>	Negligible (within 50m)				
74	17.4	<u>Collapsible deposits</u>	Very low (within 50m)				
75	17.5	<u>Landslides</u>	Very low (within 50m)				
76	17.6	<u>Ground dissolution of soluble rocks</u>	Negligible (within 50m)				
Page	Section	Mining, ground workings and natural cavities	On site	0-50m	50-250m	250-500m	500-2000m
77	18.1	Natural cavities	0	0	0	0	-
78	18.2	<u>BritPits</u>	0	0	1	0	-
78	18.3	<u>Surface ground workings</u>	1	1	21	-	-
79	18.4	Underground workings	0	0	0	0	0
79	18.5	Historical Mineral Planning Areas	0	0	0	0	-



80	18.6	Non-coal mining	0	0	0	0	0
80	18.7	Mining cavities	0	0	0	0	0
80	18.8	JPB mining areas	None (within 0m)				
80	18.9	Coal mining	None (within 0m)				
80	18.10	Brine areas	None (within 0m)				
81	18.11	Gypsum areas	None (within 0m)				
81	18.12	Tin mining	None (within 0m)				
81	18.13	Clay mining	None (within 0m)				
Page	Section	Radon					
82	19.1	Radon	Less than 1% (within 0m)				
Page	Section	Soil chemistry	On site	0-50m	50-250m	250-500m	500-2000m
83	20.1	BGS Estimated Background Soil Chemistry	2	0	-	-	-
83	20.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-
83	20.3	BGS Measured Urban Soil Chemistry	0	0	-	-	-
Page	Section	Railway infrastructure and projects	On site	0-50m	50-250m	250-500m	500-2000m
84	21.1	Underground railways (London)	0	0	0	-	-
84	21.2	Underground railways (Non-London)	0	0	0	-	-
84	21.3	Railway tunnels	0	0	0	-	-
84	21.4	Historical railway and tunnel features	0	0	0	-	-
84	21.5	Royal Mail tunnels	0	0	0	-	-
85	21.6	Historical railways	0	0	0	-	-
85	21.7	Railways	0	0	0	-	-
85	21.8	Crossrail 1	0	0	0	0	-
85	21.9	Crossrail 2	0	0	0	0	-
85	21.10	HS2	0	0	0	0	-

Recent aerial photograph



Capture Date: 03/07/2019

Site Area: 0.7ha



Recent site history - 2018 aerial photograph



Capture Date: 01/07/2018

Site Area: 0.7ha



Recent site history - 2012 aerial photograph



Capture Date: 26/07/2012

Site Area: 0.7ha



Recent site history - 2010 aerial photograph



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Capture Date: 24/04/2010

Site Area: 0.7ha



Recent site history - 1999 aerial photograph



Capture Date: 17/11/1999

Site Area: 0.7ha



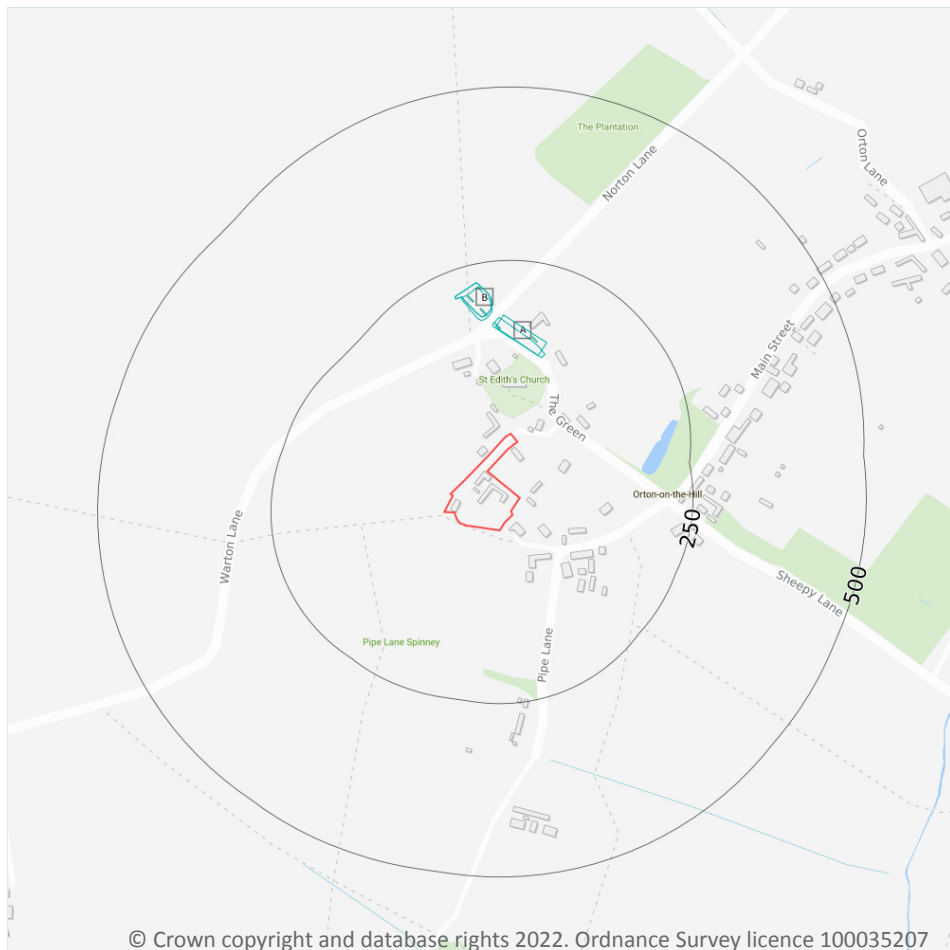
OS MasterMap site plan



Site Area: 0.7ha



1 Past land use



- Site Outline
- Search buffers in metres (m)
- Historical industrial land uses

1.1 Historical industrial land uses

Records within 500m

5

Potentially contaminative land use features digitised from historical Ordnance Survey mapping at 1:10,000 and 1:10,560 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on **page 14**

ID	Location	Land use	Dates present	Group ID
A	118m N	Unspecified Pit	1924	1615722



ID	Location	Land use	Dates present	Group ID
A	120m N	Unspecified Pit	1966 - 1982	1708714
B	169m N	Old Marl Pit	1924	1646866
B	174m N	Unspecified Pit	1966	1611308
B	174m N	Old Marl Pit	1950	1688353

This data is sourced from Ordnance Survey / Groundsure.

1.2 Historical tanks

Records within 500m

0

Tank features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original ungrouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

1.3 Historical energy features

Records within 500m

0

Energy features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original ungrouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

1.4 Historical petrol stations

Records within 500m

0

Petrol stations digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original ungrouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.



1.5 Historical garages

Records within 500m

0

Garages digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original ungrouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

1.6 Historical military land

Records within 500m

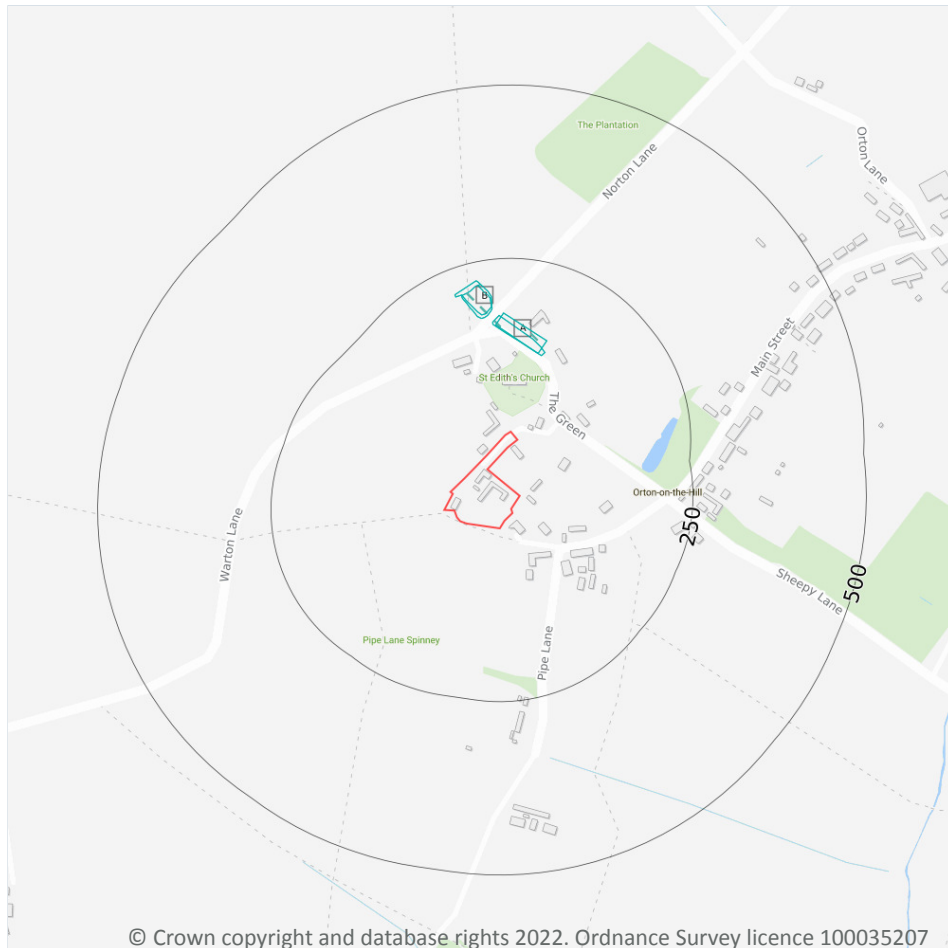
0

Areas of military land digitised from multiple sources including the National Archives, local records, MOD records and verified other sources, intelligently grouped into contiguous features.

This data is sourced from Ordnance Survey / Groundsure / other sources.



2 Past land use - un-grouped



— Site Outline
Search buffers in metres (m)
■ Historical industrial land uses

2.1 Historical industrial land uses

Records within 500m

8

Potentially contaminative land use features digitised from historical Ordnance Survey mapping at 1:10,000 and 10,560 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on **page 17**

ID	Location	Land Use	Date	Group ID
A	118m N	Unspecified Pit	1924	1615722
A	118m N	Unspecified Pit	1924	1615722
A	120m N	Unspecified Pit	1982	1708714

ID	Location	Land Use	Date	Group ID
A	120m N	Unspecified Pit	1966	1708714
B	169m N	Old Marl Pit	1924	1646866
B	169m N	Old Marl Pit	1924	1646866
B	174m N	Old Marl Pit	1950	1688353
B	174m N	Unspecified Pit	1966	1611308

This data is sourced from Ordnance Survey / Groundsure.

2.2 Historical tanks

Records within 500m

0

Tank features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

2.3 Historical energy features

Records within 500m

0

Energy features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

2.4 Historical petrol stations

Records within 500m

0

Petrol stations digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

2.5 Historical garages

Records within 500m

0

Garages digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.



3 Waste and landfill

3.1 Active or recent landfill

Records within 500m

0

Active or recently closed landfill sites under Environment Agency/Natural Resources Wales regulation.

This data is sourced from the Environment Agency and Natural Resources Wales.

3.2 Historical landfill (BGS records)

Records within 500m

0

Landfill sites identified on a survey carried out on behalf of the DoE in 1973. These sites may have been closed or operational at this time.

This data is sourced from the British Geological Survey.

3.3 Historical landfill (LA/mapping records)

Records within 500m

0

Landfill sites identified from Local Authority records and high detail historical mapping.

This data is sourced from the Ordnance Survey/Groundsure and Local Authority records.

3.4 Historical landfill (EA/NRW records)

Records within 500m

0

Known historical (closed) landfill sites (e.g. sites where there is no PPC permit or waste management licence currently in force). This includes sites that existed before the waste licensing regime and sites that have been licensed in the past but where a licence has been revoked, ceased to exist or surrendered and a certificate of completion has been issued.

This data is sourced from the Environment Agency and Natural Resources Wales.

3.5 Historical waste sites

Records within 500m

0

Waste site records derived from Local Authority planning records and high detail historical mapping.

This data is sourced from Ordnance Survey/Groundsure and Local Authority records.



3.6 Licensed waste sites

Records within 500m
0

Active or recently closed waste sites under Environment Agency/Natural Resources Wales regulation.

This data is sourced from the Environment Agency and Natural Resources Wales.

3.7 Waste exemptions

Records within 500m
0

Activities involving the storage, treatment, use or disposal of waste that are exempt from needing a permit. Exemptions have specific limits and conditions that must be adhered to.

This data is sourced from the Environment Agency and Natural Resources Wales.



4 Current industrial land use



- Site Outline
- Search buffers in metres (m)
- Gas pipelines
- Licensed Discharges to controlled waters
- Pollution Incidents (EA/NRW)

4.1 Recent industrial land uses

Records within 250m

0

Current potentially contaminative industrial sites.

This data is sourced from Ordnance Survey.

4.2 Current or recent petrol stations

Records within 500m

0

Open, closed, under development and obsolete petrol stations.

This data is sourced from Experian.

4.3 Electricity cables

Records within 500m

0

High voltage underground electricity transmission cables.

This data is sourced from National Grid.

4.4 Gas pipelines

Records within 500m

1

High pressure underground gas transmission pipelines.

Features are displayed on the Current industrial land use map on **page 22**

ID	Location	Pipe Name	Details	
1	112m SW	ALREWAS TO CHURCHOVE R	Pipe Number: - Pipeline Safety Regulations Number: - Ownership: National Grid Maximum Operating Pressure (Bar): -	Pipeline Diameter (mm): 900 Wall Thickness (mm): - Year of commission: Not specified Abandonment Status: Not abandoned

This data is sourced from National Grid.

4.5 Sites determined as Contaminated Land

Records within 500m

0

Contaminated Land Register of sites designated under Part 2a of the Environmental Protection Act 1990.

This data is sourced from Local Authority records.

4.6 Control of Major Accident Hazards (COMAH)

Records within 500m

0

Control of Major Accident Hazards (COMAH) sites. This data includes upper and lower tier sites, and includes a historical archive of COMAH sites and Notification of Installations Handling Hazardous Substances (NIHHS) records.

This data is sourced from the Health and Safety Executive.

4.7 Regulated explosive sites

Records within 500m

0

Sites registered and licensed by the Health and Safety Executive under the Manufacture and Storage of Explosives Regulations 2005 (MSER). The last update to this data was in April 2011.

This data is sourced from the Health and Safety Executive.

4.8 Hazardous substance storage/usage

Records within 500m

0

Consents granted for a site to hold certain quantities of hazardous substances at or above defined limits in accordance with the Planning (Hazardous Substances) Regulations 2015.

This data is sourced from Local Authority records.

4.9 Historical licensed industrial activities (IPC)

Records within 500m

0

Integrated Pollution Control (IPC) records of substance releases to air, land and water. This data represents a historical archive as the IPC regime has been superseded.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.10 Licensed industrial activities (Part A(1))

Records within 500m

0

Records of Part A(1) installations regulated under the Environmental Permitting (England and Wales) Regulations 2016 for the release of substances to the environment.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.11 Licensed pollutant release (Part A(2)/B)

Records within 500m

0

Records of Part A(2) and Part B installations regulated under the Environmental Permitting (England and Wales) Regulations 2016 for the release of substances to the environment.

This data is sourced from Local Authority records.

4.12 Radioactive Substance Authorisations

Records within 500m

0

Records of the storage, use, accumulation and disposal of radioactive substances regulated under the Radioactive Substances Act 1993.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.13 Licensed Discharges to controlled waters

Records within 500m

3

Discharges of treated or untreated effluent to controlled waters under the Water Resources Act 1991. Features are displayed on the Current industrial land use map on **page 22**

ID	Location	Address	Details	
A	103m E	PLOT 2 THE GREEN, ORTON-ON-THE-HILL, ATHERSTONE, LEICESTERSHIRE, CV9 3NG	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: EPRSB3095DW Permit Version: 1 Receiving Water: GROUNDWATER	Status: NEW ISSUED UNDER EPR 2010 Issue date: 13/08/2020 Effective Date: 13/08/2020 Revocation Date: -
A	110m E	PLOT 1 THE GREEN, ORTON-ON-THE-HILL, ATHERSTONE, LEICESTERSHIRE, CV9 3NG	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: EPRSB3095AN Permit Version: 1 Receiving Water: GROUNDWATER	Status: NEW ISSUED UNDER EPR 2010 Issue date: 13/08/2020 Effective Date: 13/08/2020 Revocation Date: -
2	372m E	BROOKHILL HOUSE, ORTON ON THE MILL, NR ATHERSTONE, WARWICKSHIRE	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: 3/28/21/1920 Permit Version: 1 Receiving Water: UNDERGROUND STRATA	Status: PRE NRA LEGISLATION WHERE ISSUE DATE 01-SEP-89 (HISTORIC ONLY) Issue date: 16/03/1972 Effective Date: 16/03/1972 Revocation Date: -

This data is sourced from the Environment Agency and Natural Resources Wales.

4.14 Pollutant release to surface waters (Red List)

Records within 500m

0

Discharges of specified substances under the Environmental Protection (Prescribed Processes and Substances) Regulations 1991.

This data is sourced from the Environment Agency and Natural Resources Wales.



4.15 Pollutant release to public sewer

Records within 500m

0

Discharges of Special Category Effluents to the public sewer.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.16 List 1 Dangerous Substances

Records within 500m

0

Discharges of substances identified on List I of European Directive E 2006/11/EC, and regulated under the Environmental Damage (Prevention and Remediation) Regulations 2015.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.17 List 2 Dangerous Substances

Records within 500m

0

Discharges of substances identified on List II of European Directive E 2006/11/EC, and regulated under the Environmental Damage (Prevention and Remediation) Regulations 2015.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.18 Pollution Incidents (EA/NRW)

Records within 500m

5

Records of substantiated pollution incidents. Since 2006 this data has only included category 1 (major) and 2 (significant) pollution incidents.

Features are displayed on the Current industrial land use map on **page 22**

ID	Location	Details	
B	291m E	Incident Date: 12/05/2003 Incident Identification: 157575 Pollutant: Sewage Materials Pollutant Description: Other Sewage Material	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
B	291m E	Incident Date: 12/05/2003 Incident Identification: 157575 Pollutant: Sewage Materials Pollutant Description: Other Sewage Material	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)

ID	Location	Details	
B	324m E	Incident Date: 11/11/2003 Incident Identification: 200934 Pollutant: Sewage Materials Pollutant Description: Other Sewage Material	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
3	396m E	Incident Date: 18/11/2003 Incident Identification: 202178 Pollutant: Sewage Materials Pollutant Description: Other Sewage Material	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
4	438m E	Incident Date: 24/02/2003 Incident Identification: 139047 Pollutant: Sewage Materials Pollutant Description: Other Sewage Material	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)

This data is sourced from the Environment Agency and Natural Resources Wales.

4.19 Pollution inventory substances

Records within 500m	0
----------------------------	----------

The pollution inventory (substances) includes reporting on annual emissions of certain regulated substances to air, controlled waters and land. A reporting threshold for each substance is also included. Where emissions fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.

4.20 Pollution inventory waste transfers

Records within 500m	0
----------------------------	----------

The pollution inventory (waste transfers) includes reporting on annual transfers and recovery/disposal of controlled wastes from a site. A reporting threshold for each waste type is also included. Where releases fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.

4.21 Pollution inventory radioactive waste

Records within 500m	0
----------------------------	----------

The pollution inventory (radioactive wastes) includes reporting on annual releases of radioactive substances from a site, including the means of release. Where releases fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.



5 Hydrogeology - Superficial aquifer



- Site Outline**
- Search buffers in metres (m)**
- Principal
 - Secondary A
 - Secondary B
 - Secondary Undifferentiated
 - Unproductive
 - Unknown

5.1 Superficial aquifer

Records within 500m

1

Aquifer status of groundwater held within superficial geology.

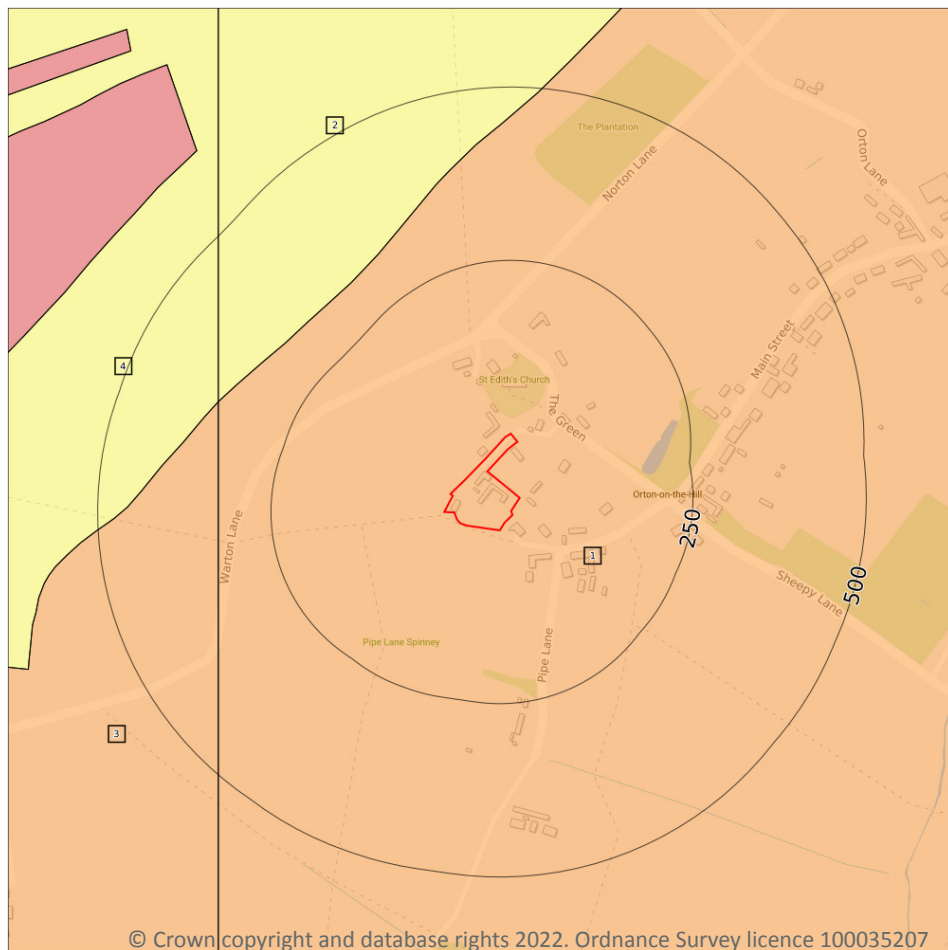
Features are displayed on the Hydrogeology map on **page 28**

ID	Location	Designation	Description
1	305m S	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers

This data is sourced from the British Geological Survey, the Environment Agency and Natural Resources Wales.



Bedrock aquifer



- Site Outline**
- Search buffers in metres (m)**
- Principal
 - Secondary A
 - Secondary B
 - Secondary Undifferentiated
 - Unproductive

5.2 Bedrock aquifer

Records within 500m

4

Aquifer status of groundwater held within bedrock geology.

Features are displayed on the Bedrock aquifer map on **page 29**

ID	Location	Designation	Description
1	On site	Secondary B	Predominantly lower permeability layers which may store/yield limited amounts of groundwater due to localised features such as fissures, thin permeable horizons and weathering. These are generally the water-bearing parts of the former non-aquifers
2	315m NW	Secondary (undifferentiated)	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type

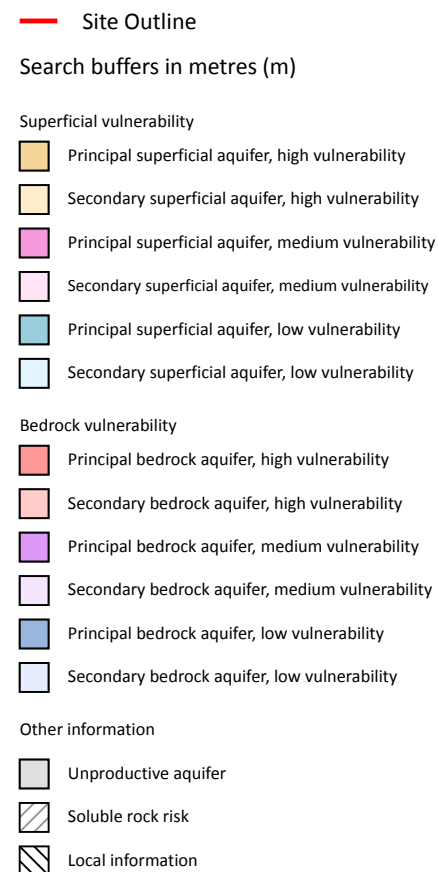
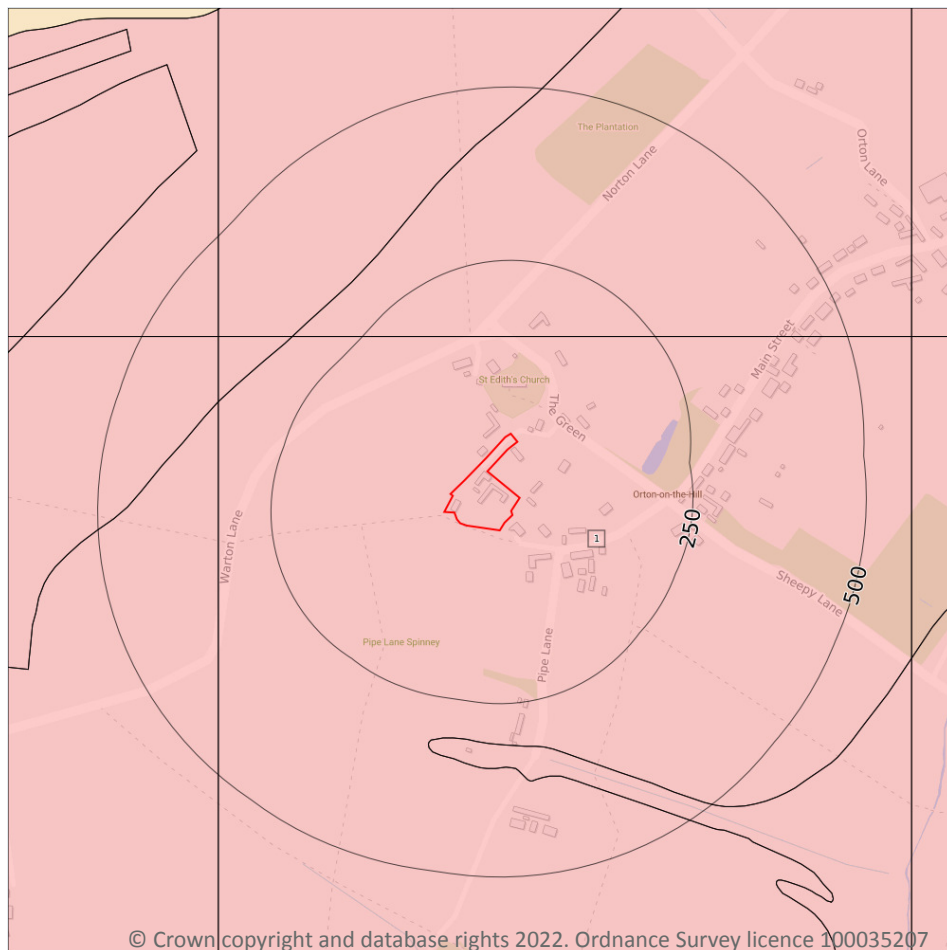


ID	Location	Designation	Description
3	326m W	Secondary B	Predominantly lower permeability layers which may store/yield limited amounts of groundwater due to localised features such as fissures, thin permeable horizons and weathering. These are generally the water-bearing parts of the former non-aquifers
4	360m W	Secondary (undifferentiated)	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type

This data is sourced from the British Geological Survey, the Environment Agency and Natural Resources Wales.



Groundwater vulnerability



5.3 Groundwater vulnerability

Records within 50m

1

An assessment of the vulnerability of groundwater to a pollutant discharged at ground level based on the hydrological, geological, hydrogeological and soil properties within a one kilometre square grid. Groundwater vulnerability is described as High, Medium or Low as follows:

- High - Areas able to easily transmit pollution to groundwater. They are likely to be characterised by high leaching soils and the absence of low permeability superficial deposits.
- Medium - Intermediate between high and low vulnerability.
- Low - Areas that provide the greatest protection from pollution. They are likely to be characterised by low leaching soils and/or the presence of superficial deposits characterised by a low permeability.

Features are displayed on the Groundwater vulnerability map on **page 31**

ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
1	On site	Summary Classification: Secondary bedrock aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, No Superficial Aquifer	Leaching class: Intermediate Infiltration value: 40-70% Dilution value: <300mm/year	Vulnerability: - Aquifer type: - Thickness: <3m Patchiness value: <90% Recharge potential: No Data	Vulnerability: High Aquifer type: Secondary Flow mechanism: Well connected fractures

This data is sourced from the British Geological Survey, the Environment Agency and Natural Resources Wales.

5.4 Groundwater vulnerability- soluble rock risk

Records on site	0
------------------------	----------

This dataset identifies areas where solution features that enable rapid movement of a pollutant may be present within a 1km grid square.

This data is sourced from the British Geological Survey and the Environment Agency.

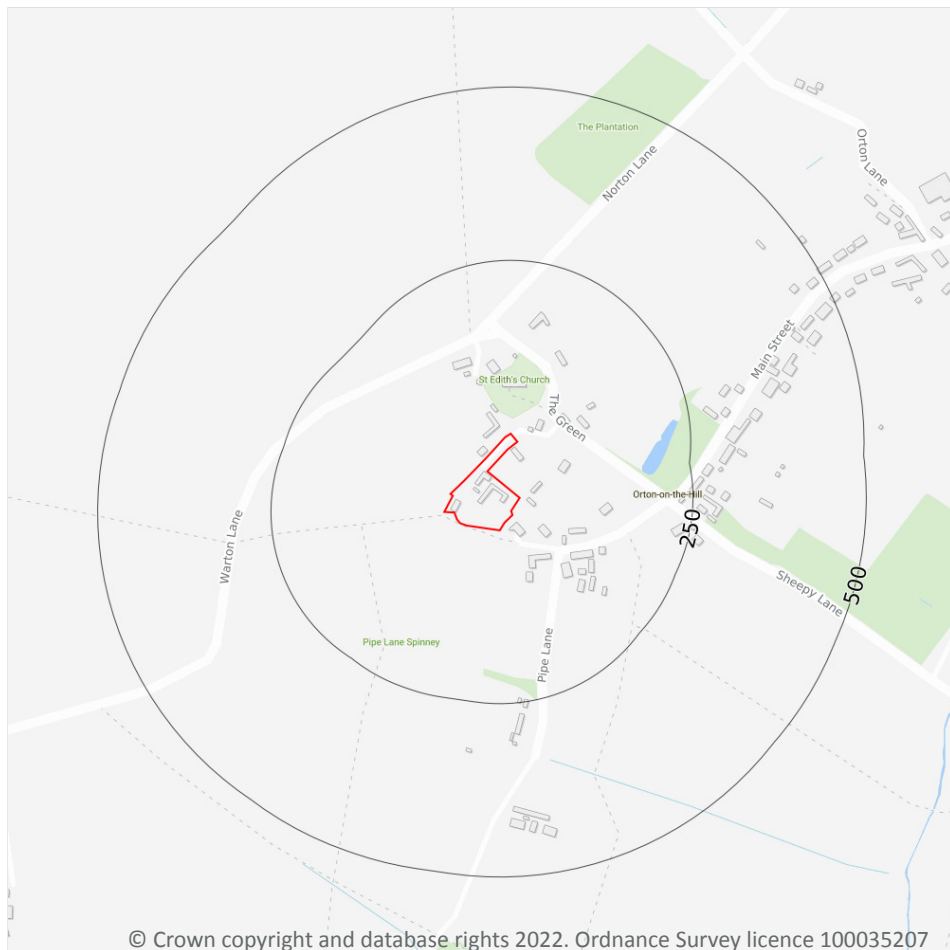
5.5 Groundwater vulnerability- local information

Records on site	0
------------------------	----------

This dataset identifies areas where additional local information affecting vulnerability is held by the Environment Agency. Further information can be obtained by contacting the Environment Agency local Area groundwater team through the Environment Agency National Customer Call Centre on 03798 506 506 or by email on enquiries@environment-agency.gov.uk.

This data is sourced from the British Geological Survey and the Environment Agency.

Abstractions and Source Protection Zones



- Site Outline
- Search buffers in metres (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
- Source Protection Zone 1c
Inner catchment - confined aquifer
- Source Protection Zone 2c
Outer catchment - confined aquifer
- Source Protection Zone 3c
Total catchment - confined aquifer
- Drinking water abstraction licences
Polygon features
- Drinking water abstraction licences
Linear features
- Groundwater abstraction licence (point)
- Groundwater abstraction licence (area)
- Groundwater abstraction licence (linear)
- Surface Water Abstractions (point)
- Surface Water Abstractions (area)
- Surface Water Abstractions (linear)

5.6 Groundwater abstractions

Records within 2000m

3

Licensed groundwater abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, between two points (line data) or a larger area.

Features are displayed on the Abstractions and Source Protection Zones map on **page 33**

ID	Location	Details	
-	1281m N	Status: Historical Licence No: 03/28/21/0010 Details: General Farming & Domestic Direct Source: Groundwater Midlands Region Point: AUSTREY HOUSE, B'HOLE Data Type: Point Name: CORBETT Easting: 430100 Northing: 305100	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 17/01/1966 Expiry Date: - Issue No: 100 Version Start Date: 17/01/1966 Version End Date: -
-	1866m SE	Status: Historical Licence No: 03/28/21/0012 Details: General Farming & Domestic Direct Source: Groundwater Midlands Region Point: NEW HOUSE GRANGE, WELL Data Type: Point Name: POULSON & CO Easting: 431900 Northing: 302600	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 17/01/1966 Expiry Date: - Issue No: 100 Version Start Date: 17/08/1993 Version End Date: -
-	1942m S	Status: Historical Licence No: 03/28/21/0019 Details: General Farming & Domestic Direct Source: Groundwater Midlands Region Point: BENN HILL FARM, B'HOLE Data Type: Point Name: CORMACK Easting: 430700 Northing: 301800	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 24/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 06/08/1993 Version End Date: -

This data is sourced from the Environment Agency and Natural Resources Wales.

5.7 Surface water abstractions

Records within 2000m

0

Licensed surface water abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, a stretch of watercourse or a larger area.

This data is sourced from the Environment Agency and Natural Resources Wales.



5.8 Potable abstractions

Records within 2000m

0

Licensed potable water abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, a stretch of watercourse or a larger area.

This data is sourced from the Environment Agency and Natural Resources Wales.

5.9 Source Protection Zones

Records within 500m

0

Source Protection Zones define the sensitivity of an area around a potable abstraction site to contamination.

This data is sourced from the Environment Agency and Natural Resources Wales.

5.10 Source Protection Zones (confined aquifer)

Records within 500m

0

Source Protection Zones in the confined aquifer define the sensitivity around a deep groundwater abstraction to contamination. A confined aquifer would normally be protected from contamination by overlying geology and is only considered a sensitive resource if deep excavation/drilling is taking place.

This data is sourced from the Environment Agency and Natural Resources Wales.



6 Hydrology



- Site Outline
- Search buffers in metres (m)
- Water Network (OS MasterMap)
- Surface water features (wider than 5m)
- Surface water features (narrower than 5m)
- ⋯ WFD River, canal and surface water transfer water bodies
- WFD Lake water bodies
- WFD Transitional and coastal water bodies
- WFD Surface water body catchments boundaries
- WFD Groundwater body boundaries

6.1 Water Network (OS MasterMap)

Records within 250m

0

Detailed water network of Great Britain showing the flow and precise central course of every river, stream, lake and canal.

This data is sourced from the Ordnance Survey.

6.2 Surface water features

Records within 250m

1

Covering rivers, streams and lakes (some overlap with OS MasterMap Water Network data in previous section) but additionally covers smaller features such as ponds. Rivers and streams narrower than 5m are represented as a single line. Lakes, ponds and rivers or streams wider than 5m are represented as polygons.

Features are displayed on the Hydrology map on **page 36**

This data is sourced from the Ordnance Survey.

6.3 WFD Surface water body catchments

Records on site	1
------------------------	----------

The Water Framework Directive is an EU-led framework for the protection of inland surface waters, estuaries, coastal waters and groundwater through river basin-level management planning. In terms of surface water, these basins are broken down into smaller units known as management, operational and water body catchments.

Features are displayed on the Hydrology map on **page 36**

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
A	On site	River	Anker from River Sence to River Tame	GB104028046460	Sence Anker and Bourne Rivers and Lakes	Tame Anker and Mease

This data is sourced from the Environment Agency and Natural Resources Wales.

6.4 WFD Surface water bodies

Records identified	1
---------------------------	----------

Surface water bodies under the Directive may be rivers, lakes, estuary or coastal. To achieve the purpose of the Directive, environmental objectives have been set and are reported on for each water body. The progress towards delivery of the objectives is then reported on by the relevant competent authorities at the end of each six-year cycle. The river water body directly associated with the catchment listed in the previous section is detailed below, along with any lake, canal, coastal or artificial water body within 250m of the site. Click on the water body ID in the table to visit the EA Catchment Explorer to find out more about each water body listed.

Features are displayed on the Hydrology map on **page 36**

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
-	2440m W	River	Anker from River Sence to River Tame	GB104028046460	Poor	Fail	Poor	2019

This data is sourced from the Environment Agency and Natural Resources Wales.

6.5 WFD Groundwater bodies

Records on site

1

Groundwater bodies are also covered by the Directive and the same regime of objectives and reporting detailed in the previous section is in place. Click on the water body ID in the table to visit the EA Catchment Explorer to find out more about each groundwater body listed.

Features are displayed on the Hydrology map on **page 36**

ID	Location	Name	Water body ID	Overall rating	Chemical rating	Quantitative	Year
A	On site	Tame Anker Mease - Secondary Combined	<u>GB40402G990800</u>	Good	Good	Good	2019

This data is sourced from the Environment Agency and Natural Resources Wales.



7 River and coastal flooding

7.1 Risk of flooding from rivers and the sea

Records within 50m**0**

The chance of flooding from rivers and/or the sea in any given year, based on cells of 50m within the Risk of Flooding from Rivers and Sea (RoFRaS)/Flood Risk Assessment Wales (FRAW) models. Each cell is allocated one of four flood risk categories, taking into account flood defences and their condition. The risk categories for RoFRaS for rivers and the sea and FRAW for rivers are; Very low (less than 1 in 1000 chance in any given year), Low (less than 1 in 100 but greater than or equal to 1 in 1000 chance), Medium (less than 1 in 30 but greater than or equal to 1 in 100 chance) or High (greater than or equal to 1 in 30 chance). The risk categories for FRAW for the sea are; Very low (less than 1 in 1000 chance in any given year), Low (less than 1 in 200 but greater than or equal to 1 in 1000 chance), Medium (less than 1 in 30 but greater than or equal to 1 in 200 chance) or High (greater than or equal to 1 in 30 chance).

This data is sourced from the Environment Agency and Natural Resources Wales.

7.2 Historical Flood Events

Records within 250m**0**

Records of historic flooding from rivers, the sea, groundwater and surface water. Records began in 1946 when predecessor bodies started collecting detailed information about flooding incidents, although limited details may be included on flooding incidents prior to this date. Takes into account the presence of defences, structures, and other infrastructure where they existed at the time of flooding, and includes flood extents that may have been affected by overtopping, breaches or blockages.

This data is sourced from the Environment Agency and Natural Resources Wales.

7.3 Flood Defences

Records within 250m**0**

Records of flood defences owned, managed or inspected by the Environment Agency and Natural Resources Wales. Flood defences can be structures, buildings or parts of buildings. Typically these are earth banks, stone and concrete walls, or sheet-piling that is used to prevent or control the extent of flooding.

This data is sourced from the Environment Agency and Natural Resources Wales.



7.4 Areas Benefiting from Flood Defences

Records within 250m

0

Areas that would benefit from the presence of flood defences in a 1 in 100 (1%) chance of flooding each year from rivers or 1 in 200 (0.5%) chance of flooding each year from the sea.

This data is sourced from the Environment Agency and Natural Resources Wales.

7.5 Flood Storage Areas

Records within 250m

0

Areas that act as a balancing reservoir, storage basin or balancing pond to attenuate an incoming flood peak to a flow level that can be accepted by the downstream channel or to delay the timing of a flood peak so that its volume is discharged over a longer period.

This data is sourced from the Environment Agency and Natural Resources Wales.



River and coastal flooding - Flood Zones

7.6 Flood Zone 2

Records within 50m

0

Areas of land at risk of flooding, when the presence of flood defences are ignored. Covering land between Flood Zone 3 (see next section) and the extent of the flooding from rivers or the sea with a 1 in 1000 (0.1%) chance of flooding each year.

This data is sourced from the Environment Agency and Natural Resources Wales.

7.7 Flood Zone 3

Records within 50m

0

Areas of land at risk of flooding, when the presence of flood defences are ignored. Covering land with a 1 in 100 (1%) or greater chance of flooding each year from rivers or a 1 in 200 (0.5%) or greater chance of flooding each year from the sea.

This data is sourced from the Environment Agency and Natural Resources Wales.



8 Surface water flooding

8.1 Surface water flooding

Highest risk on site

Negligible

Highest risk within 50m

Negligible

Ambiental Risk Analytics surface water (pluvial) FloodMap identifies areas likely to flood as a result of extreme rainfall events, i.e. land naturally vulnerable to surface water ponding or flooding. This data set was produced by simulating 1 in 30 year, 1 in 100 year, 1 in 250 year and 1 in 1,000 year rainfall events. Modern urban drainage systems are typically built to cope with rainfall events between 1 in 20 and 1 in 30 years, though some older ones may flood in a 1 in 5 year rainfall event.

The data shown on the map and in the table above shows the highest likelihood of flood events happening at the site. Lower likelihood events may have greater flood depths and hence a greater potential impact on a site. The table below shows the maximum flood depths for a range of return periods for the site.

Return period	Maximum modelled depth
1 in 1000 year	Negligible
1 in 250 year	Negligible
1 in 100 year	Negligible
1 in 30 year	Negligible

This data is sourced from Ambiental Risk Analytics.



9 Groundwater flooding



— Site Outline
Search buffers in metres (m)

- High
- Moderate - High
- Moderate
- Low
- Negligible

9.1 Groundwater flooding

Highest risk on site

Negligible

Highest risk within 50m

Negligible

Groundwater flooding is caused by unusually high groundwater levels. It occurs when the water table rises above the ground surface or within underground structures such as basements or cellars. Groundwater flooding tends to exhibit a longer duration than surface water flooding, possibly lasting for weeks or months, and as a result it can cause significant damage to property. This risk assessment is based on a 1 in 100 year return period and a 5m Digital Terrain Model (DTM).

Features are displayed on the Groundwater flooding map on **page 43**

This data is sourced from Ambiantal Risk Analytics.

10 Environmental designations

10.1 Sites of Special Scientific Interest (SSSI)

Records within 2000m

0

Sites providing statutory protection for the best examples of UK flora, fauna, or geological or physiographical features. Originally notified under the National Parks and Access to the Countryside Act 1949, SSSIs were re-notified under the Wildlife and Countryside Act 1981. Improved provisions for the protection and management of SSSIs were introduced by the Countryside and Rights of Way Act 2000 (in England and Wales) and (in Scotland) by the Nature Conservation (Scotland) Act 2004 and the Wildlife and Natural Environment (Scotland) Act 2010.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.2 Conserved wetland sites (Ramsar sites)

Records within 2000m

0

Ramsar sites are designated under the Convention on Wetlands of International Importance, agreed in Ramsar, Iran, in 1971. They cover all aspects of wetland conservation and wise use, recognizing wetlands as ecosystems that are extremely important for biodiversity conservation in general and for the well-being of human communities. These sites cover a broad definition of wetland; marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, and even some marine areas.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.3 Special Areas of Conservation (SAC)

Records within 2000m

0

Areas which have been identified as best representing the range and variety within the European Union of habitats and (non-bird) species listed on Annexes I and II to the Directive. SACs are designated under the EC Habitats Directive.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.4 Special Protection Areas (SPA)

Records within 2000m

0

Sites classified by the UK Government under the EC Birds Directive, SPAs are areas of the most important habitat for rare (listed on Annex I to the Directive) and migratory birds within the European Union.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.



10.5 National Nature Reserves (NNR)

Records within 2000m

0

Sites containing examples of some of the most important natural and semi-natural terrestrial and coastal ecosystems in Great Britain. They are managed to conserve their habitats, provide special opportunities for scientific study or to provide public recreation compatible with natural heritage interests.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.6 Local Nature Reserves (LNR)

Records within 2000m

0

Sites managed for nature conservation, and to provide opportunities for research and education, or simply enjoying and having contact with nature. They are declared by local authorities under the National Parks and Access to the Countryside Act 1949 after consultation with the relevant statutory nature conservation agency.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.7 Designated Ancient Woodland

Records within 2000m

0

Ancient woodlands are classified as areas which have been wooded continuously since at least 1600 AD. This includes semi-natural woodland and plantations on ancient woodland sites. 'Wooded continuously' does not mean there is or has previously been continuous tree cover across the whole site, and not all trees within the woodland have to be old.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.8 Biosphere Reserves

Records within 2000m

0

Biosphere Reserves are internationally recognised by UNESCO as sites of excellence to balance conservation and socioeconomic development between nature and people. They are recognised under the Man and the Biosphere (MAB) Programme with the aim of promoting sustainable development founded on the work of the local community.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.9 Forest Parks

Records within 2000m

0

These are areas managed by the Forestry Commission designated on the basis of recreational, conservation or scenic interest.

This data is sourced from the Forestry Commission.

10.10 Marine Conservation Zones

Records within 2000m

0

A type of marine nature reserve in UK waters established under the Marine and Coastal Access Act (2009). They are designated with the aim to protect nationally important, rare or threatened habitats and species.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.11 Green Belt

Records within 2000m

0

Areas designated to prevent urban sprawl by keeping land permanently open.

This data is sourced from the Ministry of Housing, Communities and Local Government.

10.12 Proposed Ramsar sites

Records within 2000m

0

Ramsar sites are areas listed as a Wetland of International Importance under the Convention on Wetlands of International Importance especially as Waterfowl Habitat (the Ramsar Convention) 1971. The sites here supplied have a status of 'Proposed' having been identified for potential adoption under the framework.

This data is sourced from Natural England.

10.13 Possible Special Areas of Conservation (pSAC)

Records within 2000m

0

Special Areas of Conservation are areas which have been identified as best representing the range and variety within the European Union of habitats and (non-bird) species listed on Annexes I and II to the Directive. SACs are designated under the EC Habitats Directive. Those sites supplied here are those with a status of 'Possible' having been identified for potential adoption under the framework.

This data is sourced from Natural England and Natural Resources Wales.



10.14 Potential Special Protection Areas (pSPA)

Records within 2000m

0

Special Protection Areas (SPAs) are areas designated (or 'classified') under the European Union Wild Birds Directive for the protection of nationally and internationally important populations of wild birds. Those sites supplied here are those with a status of 'Potential' having been identified for potential adoption under the framework.

This data is sourced from Natural England.

10.15 Nitrate Sensitive Areas

Records within 2000m

0

Areas where nitrate concentrations in drinking water sources exceeded or was at risk of exceeding the limit of 50 mg/l set by the 1980 EC Drinking Water Directive. Voluntary agricultural measures as a means of reducing the levels of nitrate were introduced by DEFRA as MAFF, with payments being made to farmers who complied. The scheme was started as a pilot in 1990 in ten areas, later implemented within 32 areas. The scheme was closed to further new entrants in 1998, although existing agreements continued for their full term. All Nitrate Sensitive Areas fell within the areas designated as Nitrate Vulnerable Zones (NVZs) in 1996 under the EC Nitrate Directive (91/676/EEC).

This data is sourced from Natural England.

10.16 Nitrate Vulnerable Zones

Records within 2000m

2

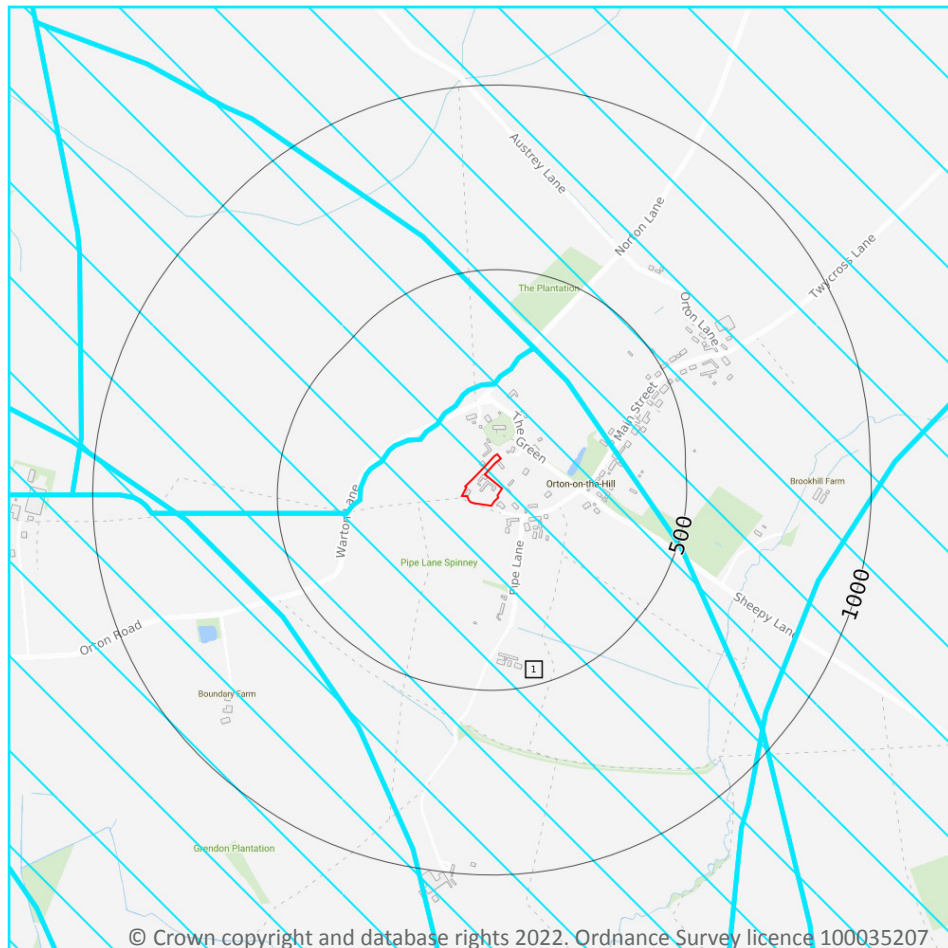
Areas at risk from agricultural nitrate pollution designated under the EC Nitrate Directive (91/676/EEC). These are areas of land that drain into waters polluted by nitrates. Farmers operating within these areas have to follow mandatory rules to tackle nitrate loss from agriculture.

Location	Name	Type	NVZ ID	Status
On site	River Trent (source to confluence with Derwent)	Surface Water	308	Existing
785m W	Burton	Groundwater	34	Existing

This data is sourced from Natural England and Natural Resources Wales.



SSSI Impact Zones and Units



- Site Outline
- Search buffers in metres (m)
- SSSI Impact Risk Zones
- SSSI Units
- Not recorded
- Favourable
- Unfavourable - Recovering
- Unfavourable - No change
- Unfavourable - Declining
- Partially destroyed
- Destroyed

10.17 SSSI Impact Risk Zones

Records on site

1

Developed to allow rapid initial assessment of the potential risks to SSSIs posed by development proposals. They define zones around each SSSI which reflect the particular sensitivities of the features for which it is notified and indicate the types of development proposal which could potentially have adverse impacts.

Features are displayed on the SSSI Impact Zones and Units map on **page 48**

ID	Location	Type of developments requiring consultation
1	On site	Infrastructure - Airports, helipads and other aviation proposals. Minerals, Oil and Gas - Planning applications for quarries, including: new proposals, review of minerals permissions (romp), extensions, variations to conditions etc. oil & gas exploration/extraction. Air pollution - Livestock & poultry units with floorspace > 500m², slurry lagoons & digestate stores > 750m², manure stores > 3500t. Combustion - General combustion processes >50mw energy input. incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion. Discharges - Any discharge of water or liquid waste of more than 5m³/day to ground (ie to seep away) or to surface water, such as a beck or stream.

This data is sourced from Natural England.

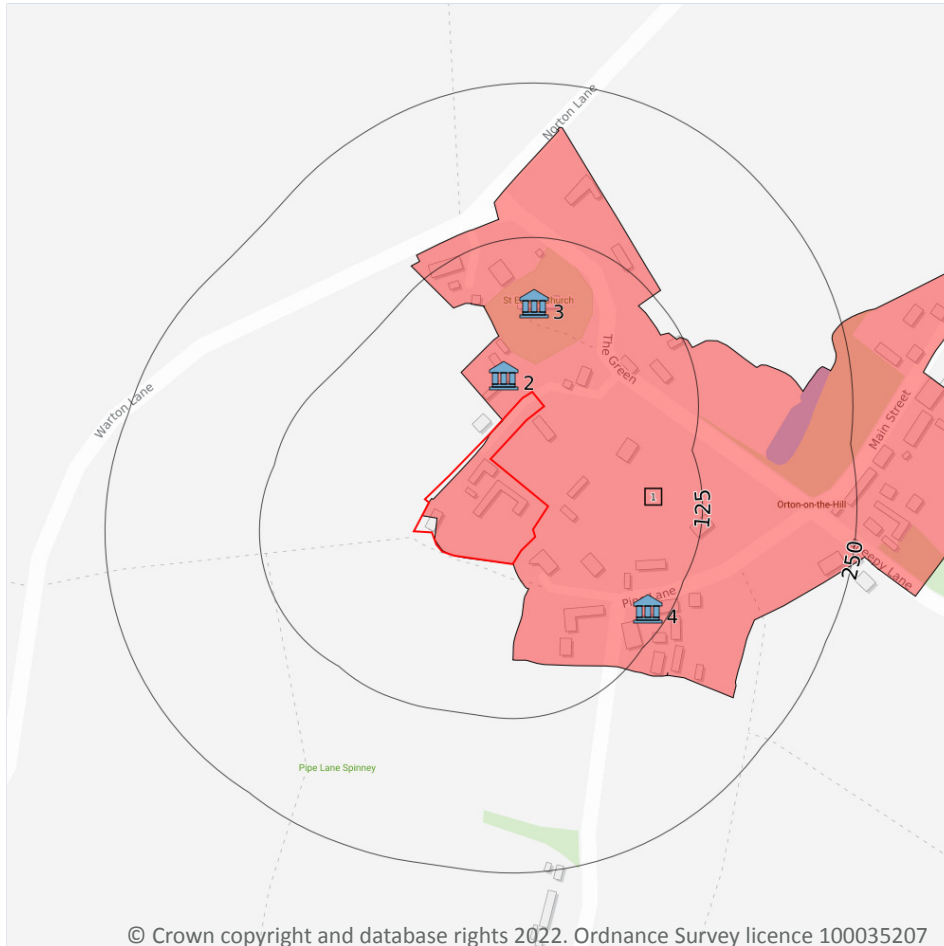
10.18 SSSI Units

Records within 2000m	0
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Divisions of SSSIs used to record management and condition details. Units are the smallest areas for which Natural England gives a condition assessment, however, the size of units varies greatly depending on the types of management and the conservation interest.

This data is sourced from Natural England and Natural Resources Wales.

11 Visual and cultural designations



- Site Outline
- Search buffers in metres (m)
- Listed buildings
- Conservation areas
- Conservation areas - no data
- National Parks
- Areas of Outstanding Natural Beauty
- Registered parks and gardens
- Scheduled Monuments
- World Heritage Sites

11.1 World Heritage Sites

Records within 250m

0

Sites designated for their globally important cultural or natural interest requiring appropriate management and protection measures. World Heritage Sites are designated to meet the UK's commitments under the World Heritage Convention.

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

11.2 Area of Outstanding Natural Beauty

Records within 250m

0

Areas of Outstanding Natural Beauty (AONB) are conservation areas, chosen because they represent 18% of the finest countryside. Each AONB has been designated for special attention because of the quality of their flora, fauna, historical and cultural associations, and/or scenic views. The National Parks and Access to the Countryside Act of 1949 created AONBs and the Countryside and Rights of Way Act, 2000 added further regulation and protection. There are likely to be restrictions to some developments within these areas.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

11.3 National Parks

Records within 250m

0

In England and Wales, the purpose of National Parks is to conserve and enhance landscapes within the countryside whilst promoting public enjoyment of them and having regard for the social and economic well-being of those living within them. In Scotland National Parks have the additional purpose of promoting the sustainable use of the natural resources of the area and the sustainable social and economic development of its communities. The National Parks and Access to the Countryside Act 1949 established the National Park designation in England and Wales, and The National Parks (Scotland) Act 2000 in Scotland.

This data is sourced from Natural England, Natural Resources Wales and the Scottish Government.

11.4 Listed Buildings

Records within 250m

3

Buildings listed for their special architectural or historical interest. Building control in the form of 'listed building consent' is required in order to make any changes to that building which might affect its special interest. Listed buildings are graded to indicate their relative importance, however building controls apply to all buildings equally, irrespective of their grade, and apply to the interior and exterior of the building in its entirety, together with any curtilage structures.

Features are displayed on the Visual and cultural designations map on **page 50**

ID	Location	Name	Grade	Reference Number	Listed date
2	24m NW	Church Farmhouse, Twycross, Hinckley And Bosworth, Leicestershire, CV9	II	1074220	10/08/1989
3	72m N	Church Of St Edith, Twycross, Hinckley And Bosworth, Leicestershire, CV9	I	1188352	07/11/1966
4	108m SE	Lower Farm, Twycross, Hinckley And Bosworth, Leicestershire, CV9	II	1074183	10/08/1989

This data is sourced from Historic England, Cadw and Historic Environment Scotland.



11.5 Conservation Areas

Records within 250m

1

Local planning authorities are obliged to designate as conservation areas any parts of their own area that are of special architectural or historic interest, the character and appearance of which it is desirable to preserve or enhance. Designation of a conservation area gives broader protection than the listing of individual buildings. All the features within the area, listed or otherwise, are recognised as part of its character. Conservation area designation is the means of recognising the importance of all factors and of ensuring that planning decisions address the quality of the landscape in its broadest sense.

Features are displayed on the Visual and cultural designations map on **page 50**

ID	Location	Name	District	Date of designation
1	On site	Orton on the Hill	Hinckley and Bosworth	12/08/1997

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

11.6 Scheduled Ancient Monuments

Records within 250m

0

A scheduled monument is an historic building or site that is included in the Schedule of Monuments kept by the Secretary of State for Digital, Culture, Media and Sport. The regime is set out in the Ancient Monuments and Archaeological Areas Act 1979. The Schedule of Monuments has c.20,000 entries and includes sites such as Roman remains, burial mounds, castles, bridges, earthworks, the remains of deserted villages and industrial sites. Monuments are not graded, but all are, by definition, considered to be of national importance.

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

11.7 Registered Parks and Gardens

Records within 250m

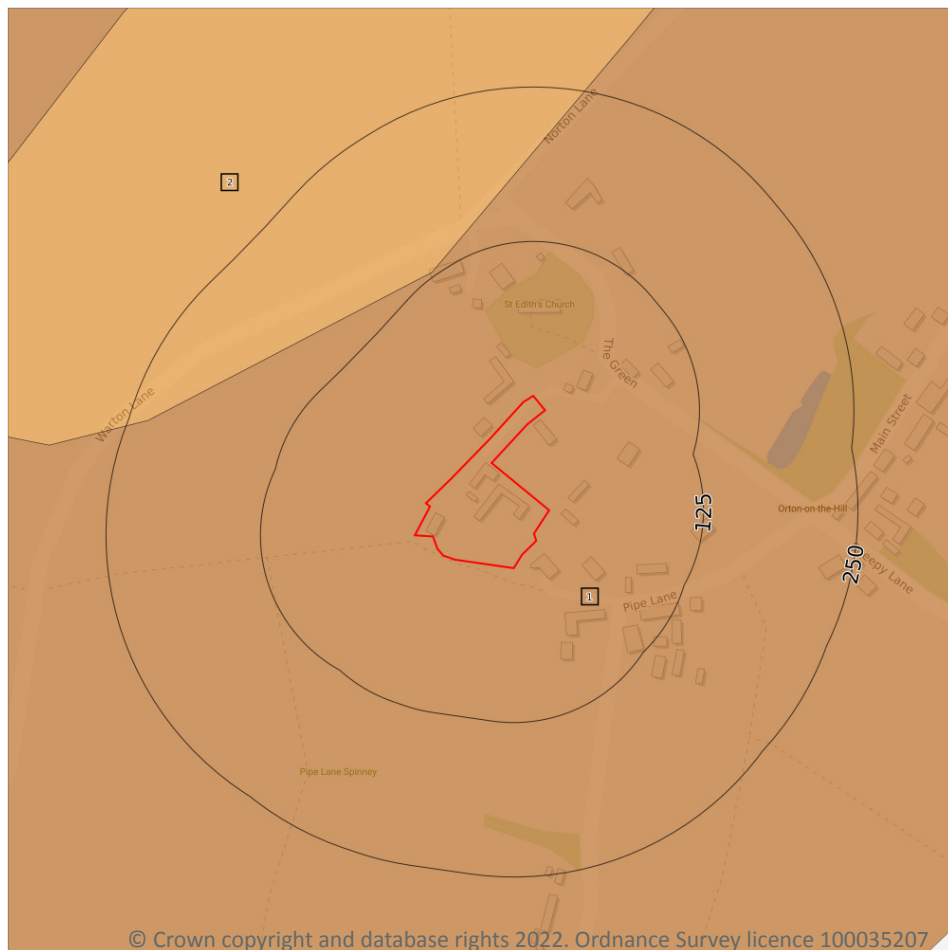
0

Parks and gardens assessed to be of particular interest and of special historic interest. The emphasis being on 'designed' landscapes, rather than on planting or botanical importance. Registration is a 'material consideration' in the planning process, meaning that planning authorities must consider the impact of any proposed development on the special character of the landscape.

This data is sourced from Historic England, Cadw and Historic Environment Scotland.



12 Agricultural designations



- Site Outline
- Search buffers in metres (m)
- Grade 1 - excellent quality
- Grade 2 - very good quality
- Grade 3 - good to moderate quality
- Grade 3a - good quality
- Grade 3b - moderate quality
- Grade 4 - poor quality
- Grade 5 - very poor quality
- Non-agricultural land
- Urban land
- Exclusion land
- Tree felling licences
- Open Access land

12.1 Agricultural Land Classification

Records within 250m

2

Classification of the quality of agricultural land taking into consideration multiple factors including climate, physical geography and soil properties. It should be noted that the categories for the grading of agricultural land are not consistent across England, Wales and Scotland.

Features are displayed on the Agricultural designations map on **page 53**

ID	Location	Classification	Description
1	On site	Grade 2	Very good quality agricultural land. Land with minor limitations which affect crop yield, cultivations or harvesting. A wide range of agricultural and horticultural crops can usually be grown but on some land in the grade there may be reduced flexibility due to difficulties with the production of the more demanding crops such as winter harvested vegetables and arable root crops. The level of yield is generally high but may be lower or more variable than Grade 1.
2	129m NW	Grade 3	Good to moderate quality agricultural land. Land with moderate limitations which affect the choice of crops, timing and type of cultivation, harvesting or the level of yield. Where more demanding crops are grown yields are generally lower or more variable than on land in Grades 1 and 2.

This data is sourced from Natural England.

12.2 Open Access Land

Records within 250m

0

The Countryside and Rights of Way Act 2000 (CROW Act) gives a public right of access to land without having to use paths. Access land includes mountains, moors, heaths and downs that are privately owned. It also includes common land registered with the local council and some land around the England Coast Path. Generally permitted activities on access land are walking, running, watching wildlife and climbing.

This data is sourced from Natural England and Natural Resources Wales.

12.3 Tree Felling Licences

Records within 250m

0

Felling Licence Application (FLA) areas approved by Forestry Commission England. Anyone wishing to fell trees must ensure that a licence or permission under a grant scheme has been issued by the Forestry Commission before any felling is carried out or that one of the exceptions apply.

This data is sourced from the Forestry Commission.

12.4 Environmental Stewardship Schemes

Records within 250m

0

Environmental Stewardship covers a range of schemes that provide financial incentives to farmers, foresters and land managers to look after and improve the environment. The schemes identified may be historical schemes that have now expired, or may still be active.

This data is sourced from Natural England.

12.5 Countryside Stewardship Schemes

Records within 250m

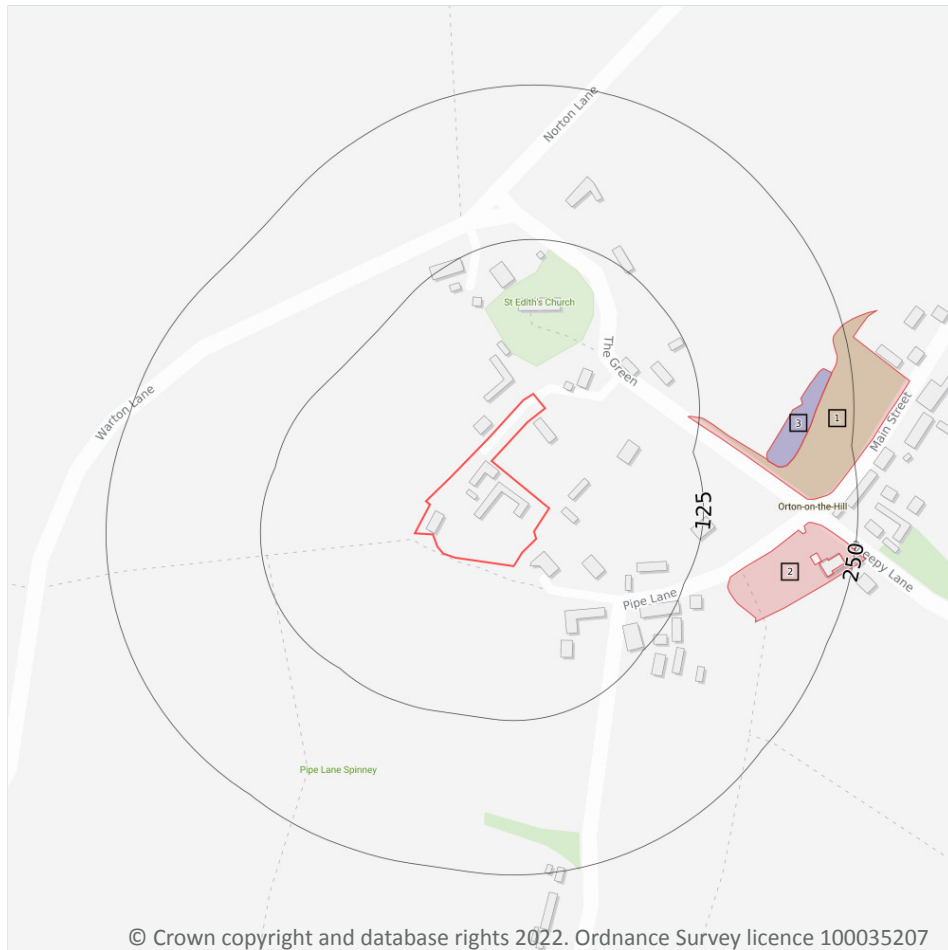
0

Countryside Stewardship covers a range of schemes that provide financial incentives to farmers, foresters and land managers to look after and improve the environment. Main objectives are to improve the farmed environment for wildlife and to reduce diffuse water pollution.

This data is sourced from Natural England.



13 Habitat designations



- Site Outline
- Search buffers in metres (m)
- Priority Habitat Inventory
- Open Mosaic Habitat
- Limestone Pavement Orders
- Habitat Networks
- Primary Habitat
- Restorable Habitat
- Associated Habitats
- Habitat Restoration-Creation
- Network Enhancement Zone 1
- Network Enhancement Zone 2

13.1 Priority Habitat Inventory

Records within 250m

3

Habitats of principal importance as named under Natural Environment and Rural Communities Act (2006) Section 41.

Features are displayed on the Habitat designations map on **page 56**

ID	Location	Main Habitat	Other habitats
1	116m E	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
2	157m E	No main habitat but additional habitats present	Additional: TORCH (INV 50%)
3	181m E	Deciduous woodland	Main habitat: DWOOD (INV > 50%)

This data is sourced from Natural England.



13.2 Habitat Networks

Records within 250m

0

Habitat networks for 18 priority habitat networks (based primarily, but not exclusively, on the priority habitat inventory) and areas suitable for the expansion of networks through restoration and habitat creation.

This data is sourced from Natural England.

13.3 Open Mosaic Habitat

Records within 250m

0

Sites verified as Open Mosaic Habitat. Mosaic habitats are brownfield sites that are identified under the UK Biodiversity Action Plan as a priority habitat due to the habitat variation within a single site, supporting an array of invertebrates.

This data is sourced from Natural England.

13.4 Limestone Pavement Orders

Records within 250m

0

Limestone pavements are outcrops of limestone where the surface has been worn away by natural means over millennia. These rocks have the appearance of paving blocks, hence their name. Not only do they have geological interest, they also provide valuable habitats for wildlife. These habitats are threatened due to their removal for use in gardens and water features. Many limestone pavements have been designated as SSSIs which affords them some protection. In addition, Section 34 of the Wildlife and Countryside Act 1981 gave them additional protection via the creation of Limestone Pavement Orders, which made it a criminal offence to remove any part of the outcrop. The associated Limestone Pavement Priority Habitat is part of the UK Biodiversity Action Plan priority habitat in England.

This data is sourced from Natural England.



14 Geology 1:10,000 scale - Availability



- Site Outline**
- Search buffers in metres (m)
- Full coverage
 - Partial coverage
 - No coverage

14.1 10k Availability

Records within 500m

2

An indication on the coverage of 1:10,000 scale geology data for the site, the most detailed dataset provided by the British Geological Survey. Either 'Full', 'Partial' or 'No coverage' for each geological theme.

Features are displayed on the Geology 1:10,000 scale - Availability map on **page 58**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	Full	Full	Full	No coverage	SK30SW
2	326m W	Full	Full	Full	No coverage	SK20SE

This data is sourced from the British Geological Survey.



Geology 1:10,000 scale - Artificial and made ground

14.2 Artificial and made ground (10k)

Records within 500m

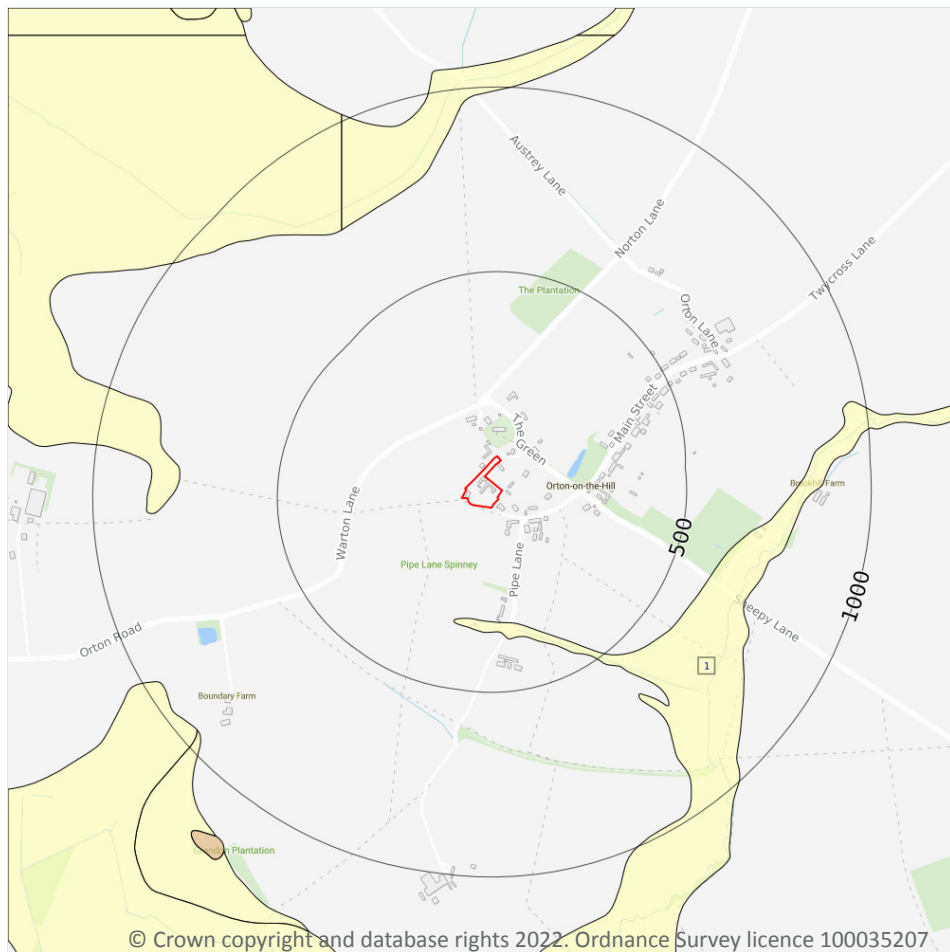
0

Details of made, worked, infilled, disturbed and landscaped ground at 1:10,000 scale. Artificial ground can be associated with potentially contaminated material, unpredictable engineering conditions and instability.

This data is sourced from the British Geological Survey.



Geology 1:10,000 scale - Superficial



Site Outline

Search buffers in metres (m)

Landslip (10k)

Superficial geology (10k)
Please see table for more details.

14.3 Superficial geology (10k)

Records within 500m

1

Superficial geological deposits at 1:10,000 scale. Also known as 'drift', these are the youngest geological deposits, formed during the Quaternary. They rest on older deposits or rocks referred to as bedrock.

Features are displayed on the Geology 1:10,000 scale - Superficial map on **page 60**

ID	Location	LEX Code	Description	Rock description
1	305m S	ALV-XCZSV	Alluvium - Clay, Silt, Sand And Gravel	Clay, Silt, Sand And Gravel

This data is sourced from the British Geological Survey.

14.4 Landslip (10k)

Records within 500m

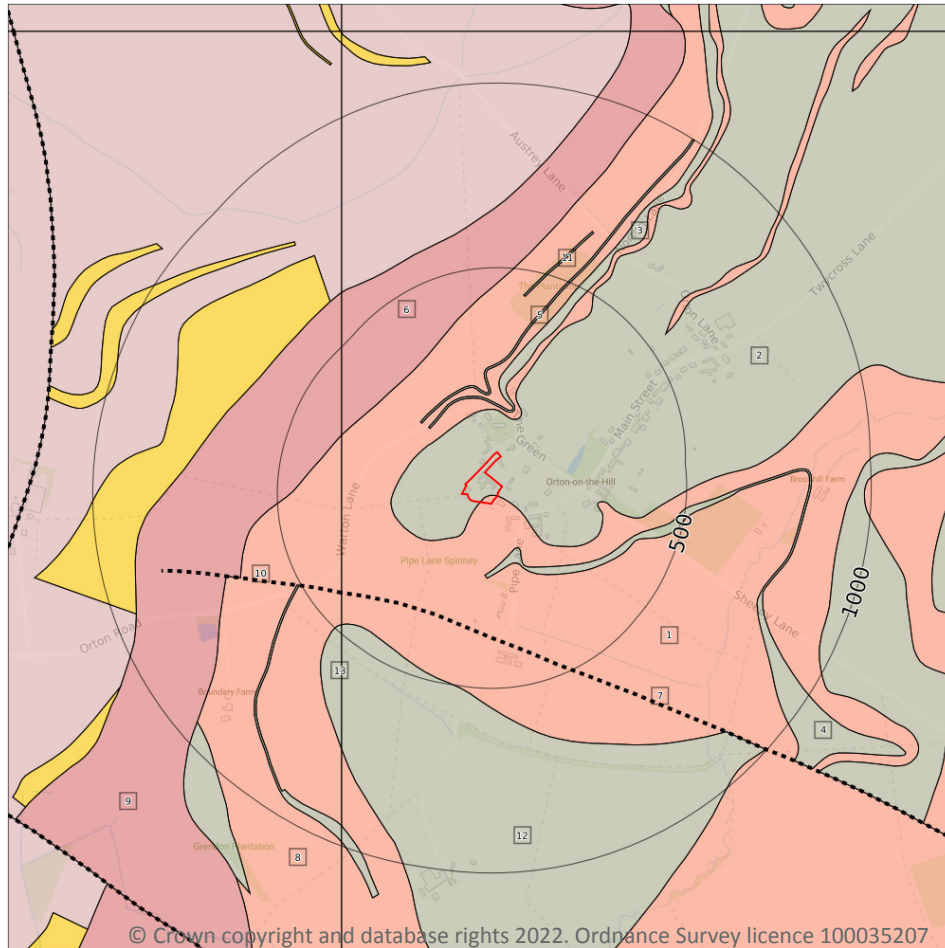
0

Mass movement deposits on BGS geological maps at 1:10,000 scale. Primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground.

This data is sourced from the British Geological Survey.



Geology 1:10,000 scale - Bedrock



Site Outline

Search buffers in metres (m)

..... Bedrock faults and other linear features (10k)

Bedrock geology (10k)
Please see table for more details.

14.5 Bedrock geology (10k)

Records within 500m

11

Bedrock geology at 1:10,000 scale. The main mass of rocks forming the Earth and present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

Features are displayed on the Geology 1:10,000 scale - Bedrock map on **page 62**

ID	Location	LEX Code	Description	Rock age
1	On site	GUN-MDST	Gunthorpe Member - Mudstone	Ladinian Age - Anisian Age
2	On site	GUN-DSLST	Gunthorpe Member - Dolomitic Siltstone	Ladinian Age - Anisian Age
3	113m N	GUN-DSLST	Gunthorpe Member - Dolomitic Siltstone	Ladinian Age - Anisian Age
4	137m SE	GUN-DSLST	Gunthorpe Member - Dolomitic Siltstone	Ladinian Age - Anisian Age



ID	Location	LEX Code	Description	Rock age
5	157m N	GUN-DSLST	Gunthorpe Member - Dolomitic Siltstone	Ladinian Age - Anisian Age
6	315m NW	RDCF-MDST	Radcliffe Member - Mudstone	Anisian Age
8	326m W	GUN-MDST	Gunthorpe Member - Mudstone	Ladinian Age - Anisian Age
9	361m W	RDCF-MDST	Radcliffe Member - Mudstone	Anisian Age
11	429m N	GUN-DSLST	Gunthorpe Member - Dolomitic Siltstone	Ladinian Age - Anisian Age
12	448m SW	GUN-DSLST	Gunthorpe Member - Dolomitic Siltstone	Ladinian Age - Anisian Age
13	481m SW	GUN-DSLST	Gunthorpe Member - Dolomitic Siltstone	Ladinian Age - Anisian Age

This data is sourced from the British Geological Survey.

14.6 Bedrock faults and other linear features (10k)

Records within 500m

2

Linear features at the ground or bedrock surface at 1:10,000 scale of six main types; rock, fault, fold axis, mineral vein, alteration area or landform. Features are either observed or inferred, and relate primarily to bedrock.

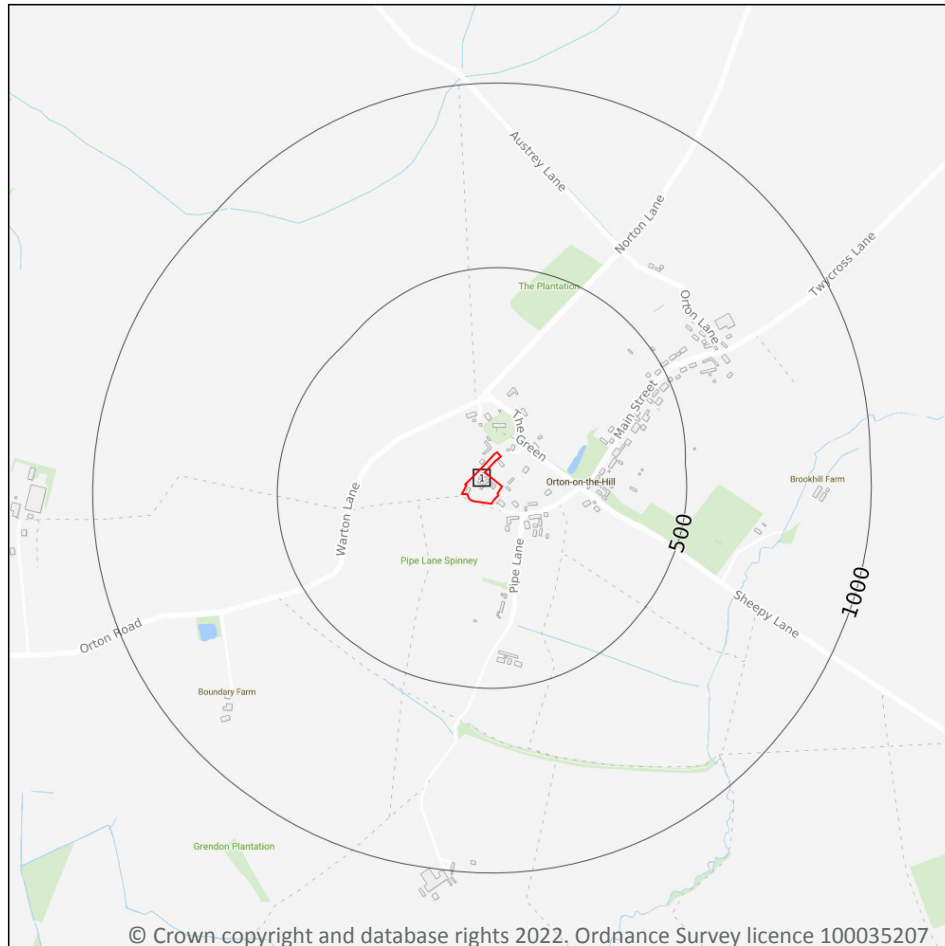
Features are displayed on the Geology 1:10,000 scale - Bedrock map on **page 62**

ID	Location	Category	Description
7	324m S	FAULT	Normal fault, inferred; crossmarks on downthrow side
10	422m SW	FAULT	Normal fault, inferred; crossmarks on downthrow side

This data is sourced from the British Geological Survey.



15 Geology 1:50,000 scale - Availability



— Site Outline
Search buffers in metres (m)

□ Geological map tile

15.1 50k Availability

Records within 500m

1

An indication on the coverage of 1:50,000 scale geology data for the site. Either 'Full' or 'No coverage' for each geological theme.

Features are displayed on the Geology 1:50,000 scale - Availability map on **page 64**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	Full	Full	Full	Full	EW155_coalville_v4

This data is sourced from the British Geological Survey.



Geology 1:50,000 scale - Artificial and made ground

15.2 Artificial and made ground (50k)

Records within 500m

0

Details of made, worked, infilled, disturbed and landscaped ground at 1:50,000 scale. Artificial ground can be associated with potentially contaminated material, unpredictable engineering conditions and instability.

This data is sourced from the British Geological Survey.

15.3 Artificial ground permeability (50k)

Records within 50m

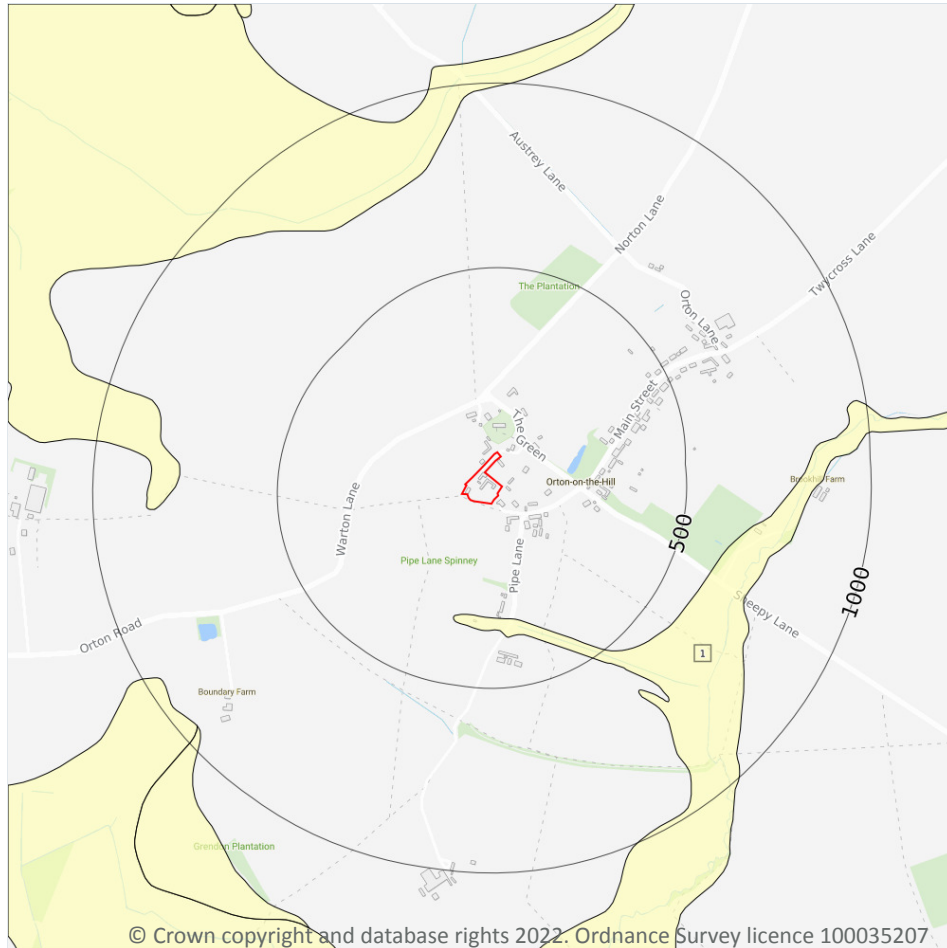
0

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any artificial deposits (the zone between the land surface and the water table).

This data is sourced from the British Geological Survey.



Geology 1:50,000 scale - Superficial



Site Outline

Search buffers in metres (m)

Landslip (50k)

Superficial geology (50k)
Please see table for more details.

15.4 Superficial geology (50k)

Records within 500m

1

Superficial geological deposits at 1:50,000 scale. Also known as 'drift', these are the youngest geological deposits, formed during the Quaternary. They rest on older deposits or rocks referred to as bedrock.

Features are displayed on the Geology 1:50,000 scale - Superficial map on **page 66**

ID	Location	LEX Code	Description	Rock description
1	305m S	ALV-XCZSV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL

This data is sourced from the British Geological Survey.

15.5 Superficial permeability (50k)

Records within 50m

0

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any superficial deposits (the zone between the land surface and the water table).

This data is sourced from the British Geological Survey.

15.6 Landslip (50k)

Records within 500m

0

Mass movement deposits on BGS geological maps at 1:50,000 scale. Primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground.

This data is sourced from the British Geological Survey.

15.7 Landslip permeability (50k)

Records within 50m

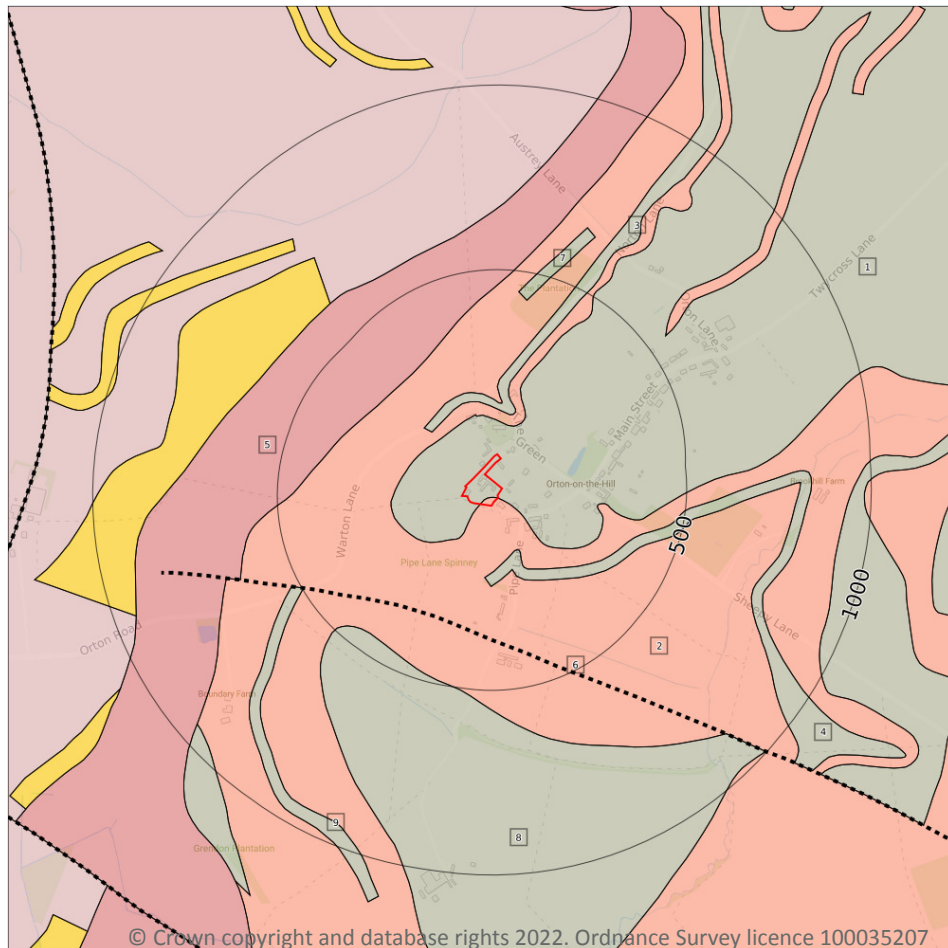
0

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any landslip deposits (the zone between the land surface and the water table).

This data is sourced from the British Geological Survey.



Geology 1:50,000 scale - Bedrock



— Site Outline

Search buffers in metres (m)

.... Bedrock faults and other linear features (50k)

Bedrock geology (50k)
Please see table for more details.

15.8 Bedrock geology (50k)

Records within 500m

8

Bedrock geology at 1:50,000 scale. The main mass of rocks forming the Earth and present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

Features are displayed on the Geology 1:50,000 scale - Bedrock map on **page 68**

ID	Location	LEX Code	Description	Rock age
1	On site	GUN-DSLST	GUNTHORPE MEMBER - SILTSTONE, DOLOMITIC	ANISIAN
2	On site	GUN-MDST	GUNTHORPE MEMBER - MUDSTONE	ANISIAN
3	112m N	GUN-DSLST	GUNTHORPE MEMBER - SILTSTONE, DOLOMITIC	ANISIAN
4	137m SE	GUN-DSLST	GUNTHORPE MEMBER - SILTSTONE, DOLOMITIC	ANISIAN

ID	Location	LEX Code	Description	Rock age
5	315m NW	RDCF-MDST	RADCLIFFE MEMBER - MUDSTONE	ANISIAN
7	425m N	GUN-DSLST	GUNTHORPE MEMBER - SILTSTONE, DOLOMITIC	ANISIAN
8	448m SW	GUN-DSLST	GUNTHORPE MEMBER - SILTSTONE, DOLOMITIC	ANISIAN
9	496m SW	GUN-DSLST	GUNTHORPE MEMBER - SILTSTONE, DOLOMITIC	ANISIAN

This data is sourced from the British Geological Survey.

15.9 Bedrock permeability (50k)

Records within 50m	2
---------------------------	----------

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of bedrock (the zone between the land surface and the water table).

Location	Flow type	Maximum permeability	Minimum permeability
On site	Fracture	Moderate	Low
On site	Fracture	Low	Low

This data is sourced from the British Geological Survey.

15.10 Bedrock faults and other linear features (50k)

Records within 500m	1
----------------------------	----------

Linear features at the ground or bedrock surface at 1:50,000 scale of six main types; rock, fault, fold axis, mineral vein, alteration area or landform. Features are either observed or inferred, and relate primarily to bedrock.

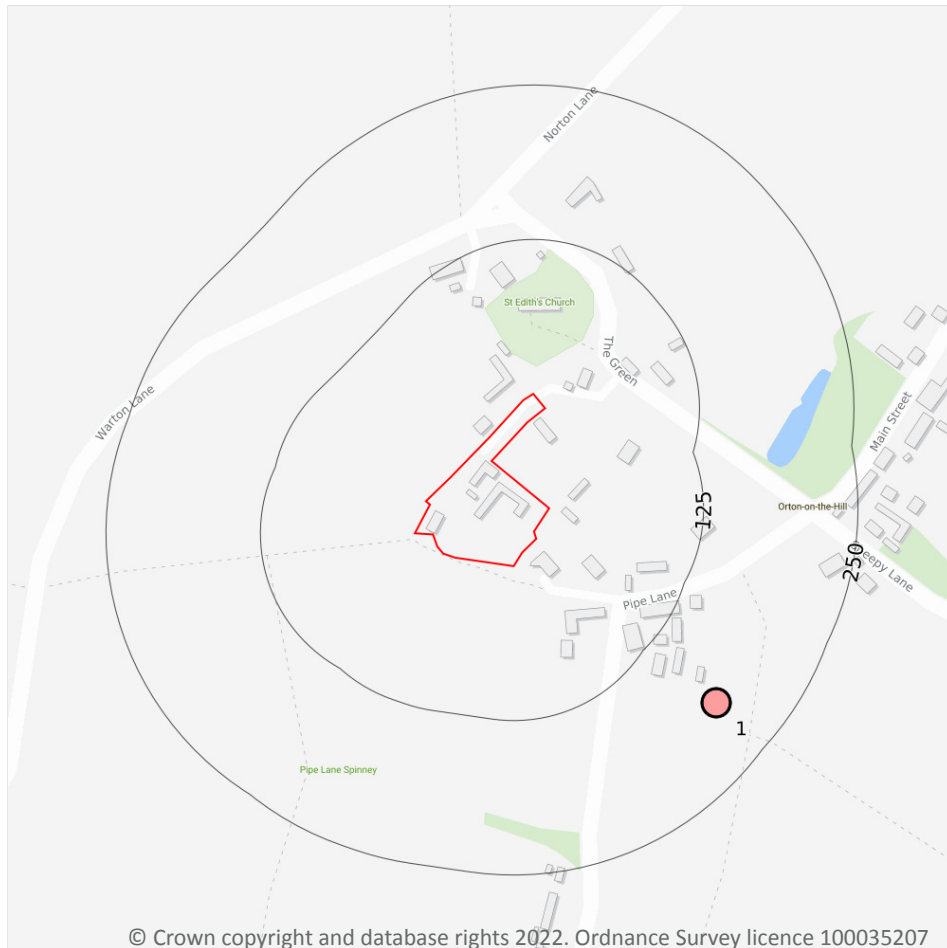
Features are displayed on the Geology 1:50,000 scale - Bedrock map on **page 68**

ID	Location	Category	Description
6	324m S	FAULT	Fault, inferred

This data is sourced from the British Geological Survey.



16 Boreholes



— Site Outline
Search buffers in metres (m)

- Confidential
- 0 - 10m
- 10 - 30m
- 30m+
- Unknown

16.1 BGS Boreholes

Records within 250m

1

The Single Onshore Boreholes Index (SOBI); an index of over one million records of boreholes, shafts and wells from all forms of drilling and site investigation work held by the British Geological Survey. Covering onshore and nearshore boreholes dating back to at least 1790 and ranging from one to several thousand metres deep.

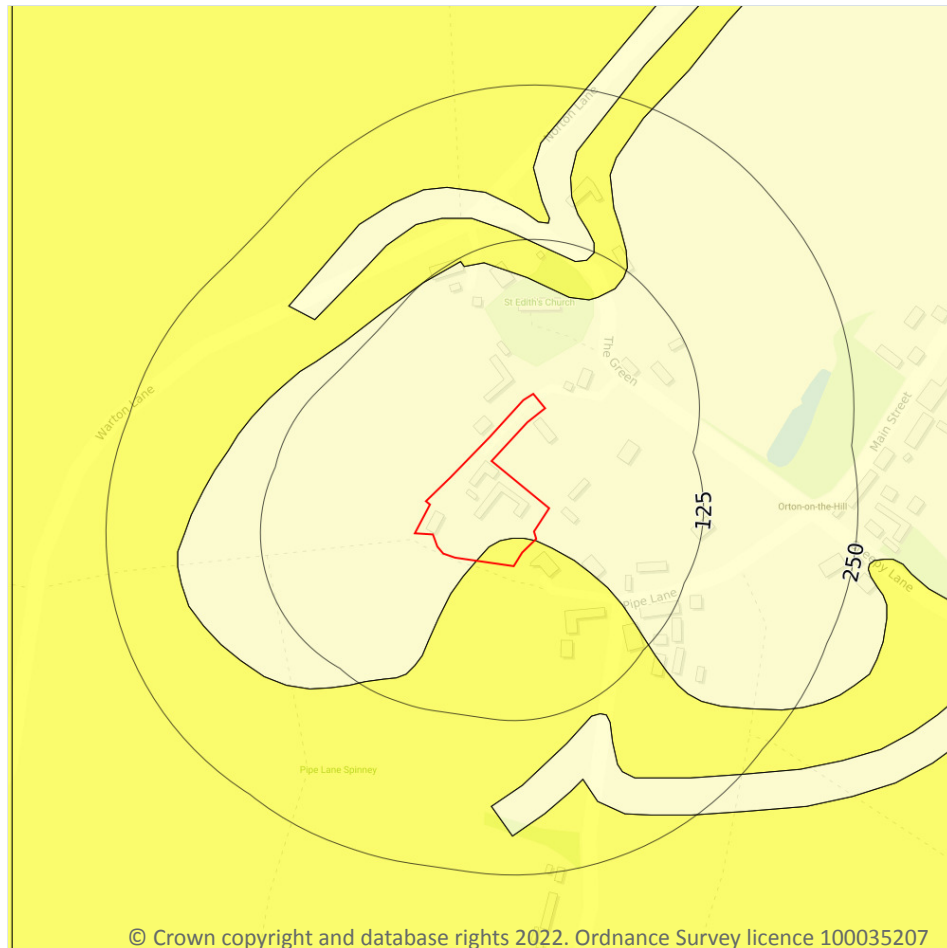
Features are displayed on the Boreholes map on **page 70**

ID	Location	Grid reference	Name	Length	Confidential	Web link
1	197m SE	430570 303610	PEGGS FARM ACTON ON THE HILL	32.3	N	203812

This data is sourced from the British Geological Survey.



17 Natural ground subsidence - Shrink swell clays



- Site Outline
- Search buffers in metres (m)
- ☐ No data
 - ☐ Negligible
 - ☐ Very low
 - ☐ Low
 - ☐ Moderate
 - ☐ High

17.1 Shrink swell clays

Records within 50m

2

The potential hazard presented by soils that absorb water when wet (making them swell), and lose water as they dry (making them shrink). This shrink-swell behaviour is controlled by the type and amount of clay in the soil, and by seasonal changes in the soil moisture content (related to rainfall and local drainage).

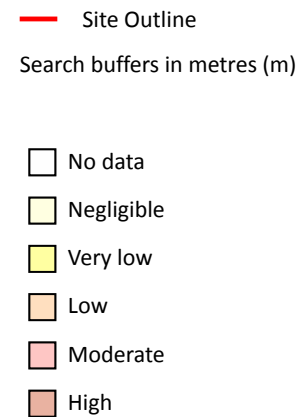
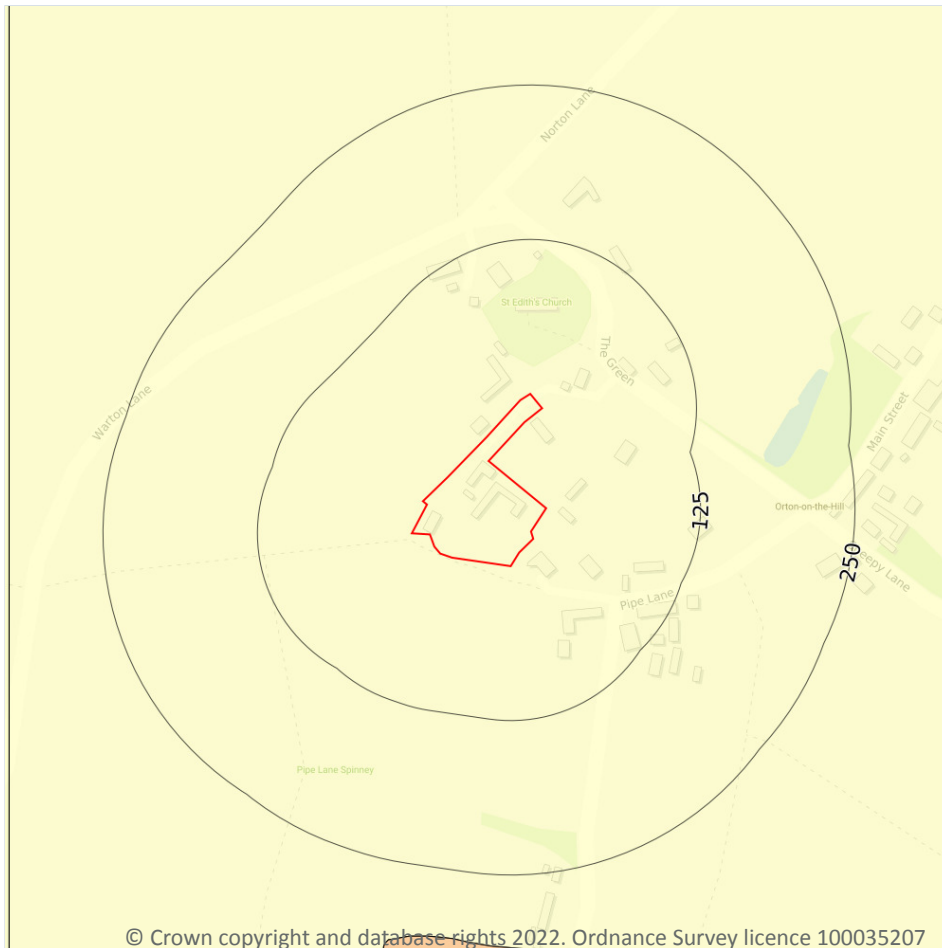
Features are displayed on the Natural ground subsidence - Shrink swell clays map on **page 71**

Location	Hazard rating	Details
On site	Negligible	Ground conditions predominantly non-plastic.
On site	Very low	Ground conditions predominantly low plasticity.

This data is sourced from the British Geological Survey.



Natural ground subsidence - Running sands



17.2 Running sands

Records within 50m

1

The potential hazard presented by rocks that can contain loosely-packed sandy layers that can become fluidised by water flowing through them. Such sands can 'run', removing support from overlying buildings and causing potential damage.

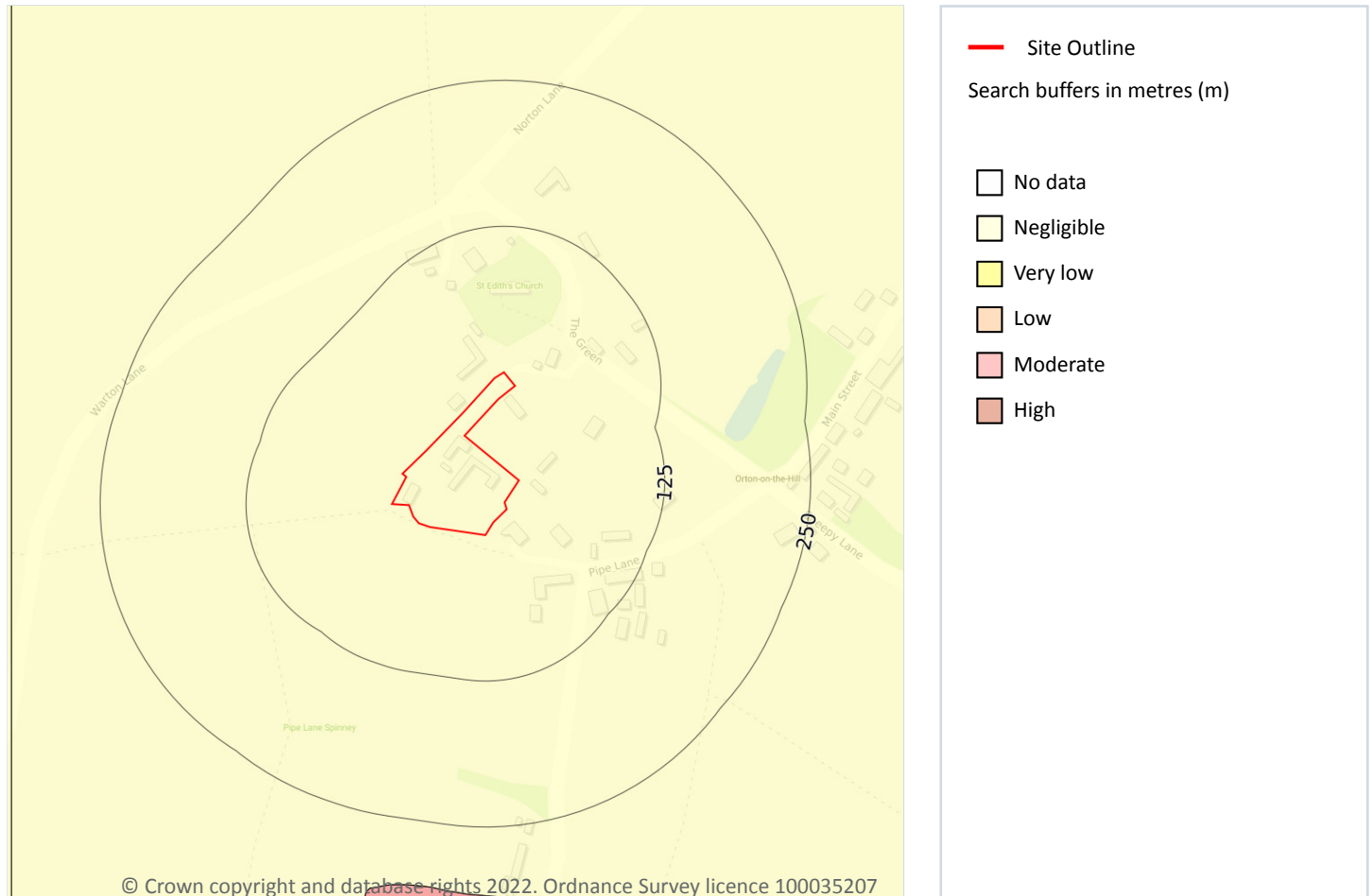
Features are displayed on the Natural ground subsidence - Running sands map on **page 72**

Location	Hazard rating	Details
On site	Negligible	Running sand conditions are not thought to occur whatever the position of the water table. No identified constraints on lands use due to running conditions.

This data is sourced from the British Geological Survey.



Natural ground subsidence - Compressible deposits



17.3 Compressible deposits

Records within 50m

1

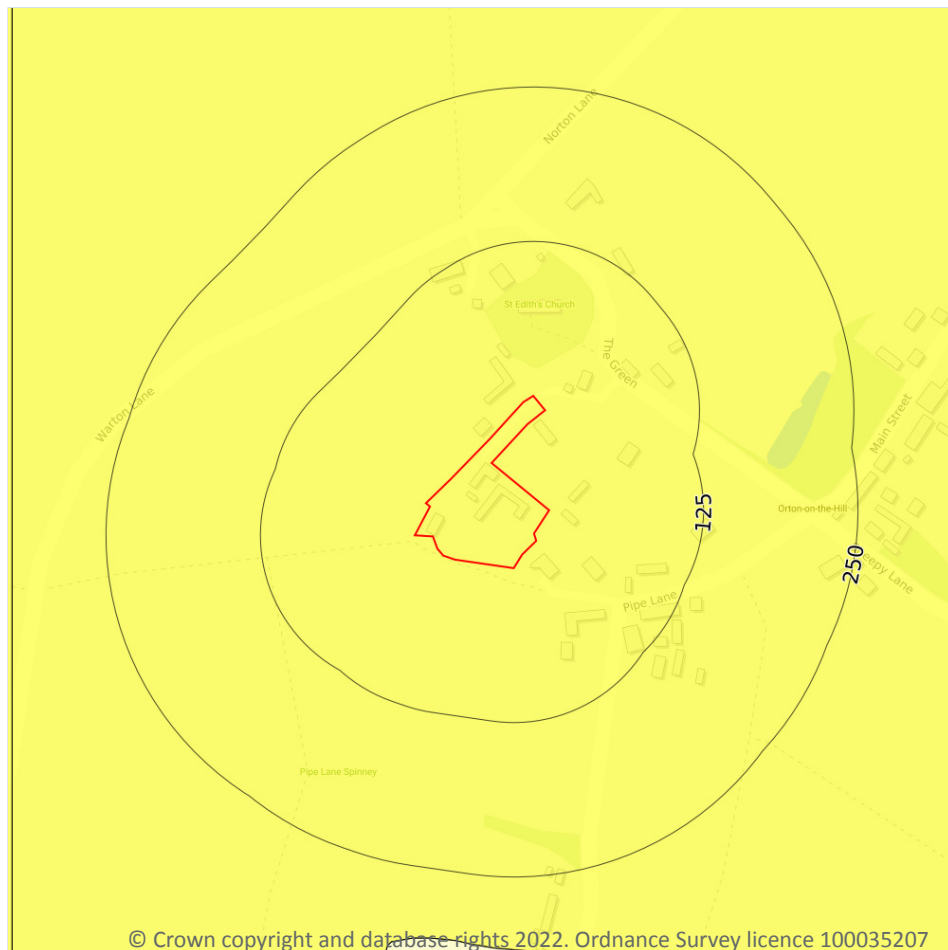
The potential hazard presented by types of ground that may contain layers of very soft materials like clay or peat and may compress if loaded by overlying structures, or if the groundwater level changes, potentially resulting in depression of the ground and disturbance of foundations.

Features are displayed on the Natural ground subsidence - Compressible deposits map on **page 73**

Location	Hazard rating	Details
On site	Negligible	Compressible strata are not thought to occur.

This data is sourced from the British Geological Survey.

Natural ground subsidence - Collapsible deposits



- Site Outline
- Search buffers in metres (m)
- ☐ No data
 - ☐ Negligible
 - ☐ Very low
 - ☐ Low
 - ☐ Moderate
 - ☐ High

17.4 Collapsible deposits

Records within 50m

1

The potential hazard presented by natural deposits that could collapse when a load (such as a building) is placed on them or they become saturated with water.

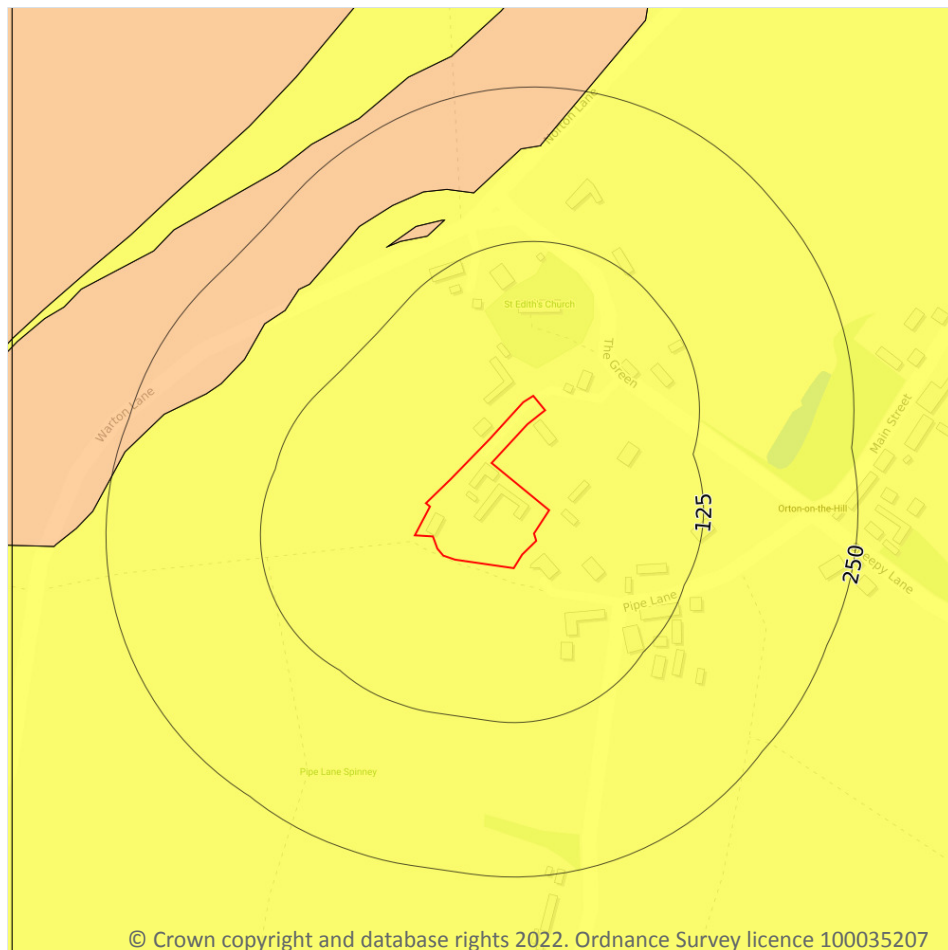
Features are displayed on the Natural ground subsidence - Collapsible deposits map on **page 74**

Location	Hazard rating	Details
On site	Very low	Deposits with potential to collapse when loaded and saturated are unlikely to be present.

This data is sourced from the British Geological Survey.



Natural ground subsidence - Landslides



- Site Outline
- Search buffers in metres (m)
- ☐ No data
 - ☐ Negligible
 - ☐ Very low
 - ☐ Low
 - ☐ Moderate
 - ☐ High

17.5 Landslides

Records within 50m

1

The potential for landsliding (slope instability) to be a hazard assessed using 1:50,000 scale digital maps of superficial and bedrock deposits, combined with information from the BGS National Landslide Database and scientific and engineering reports.

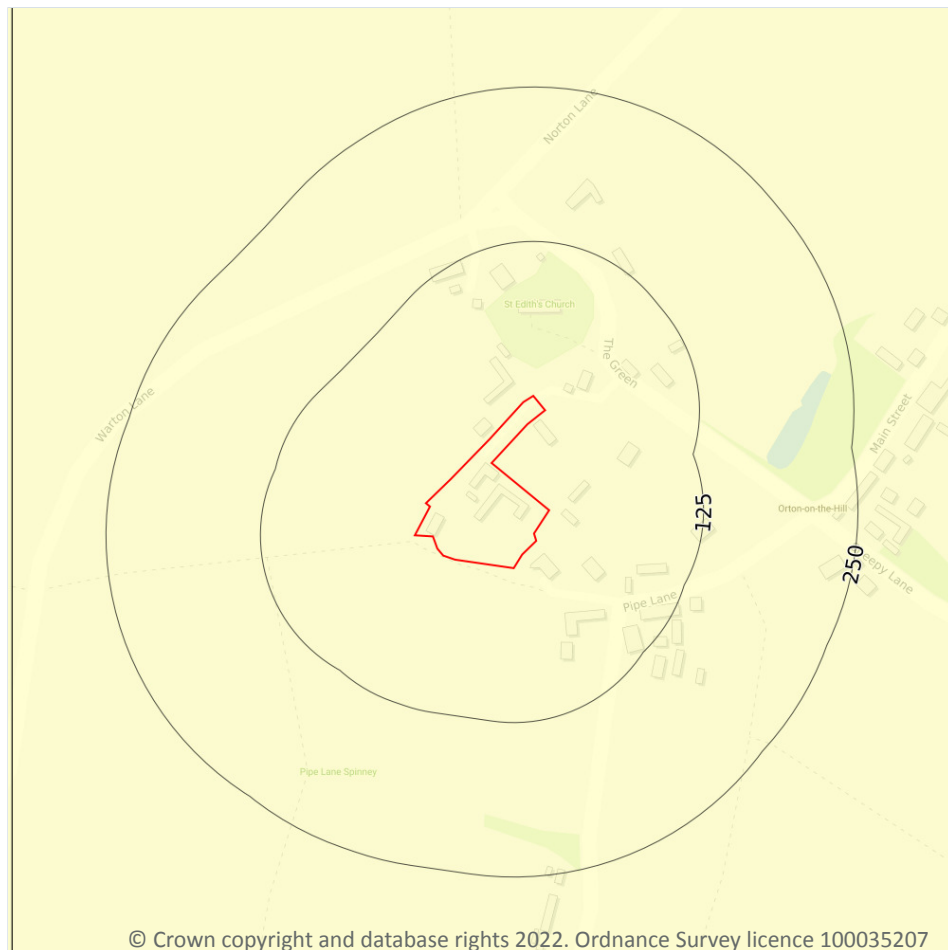
Features are displayed on the Natural ground subsidence - Landslides map on **page 75**

Location	Hazard rating	Details
On site	Very low	Slope instability problems are not likely to occur but consideration to potential problems of adjacent areas impacting on the site should always be considered.

This data is sourced from the British Geological Survey.



Natural ground subsidence - Ground dissolution of soluble rocks



- Site Outline
- Search buffers in metres (m)
- ☐ No data
 - ☐ Negligible
 - ☐ Very low
 - ☐ Low
 - ☐ Moderate
 - ☐ High

17.6 Ground dissolution of soluble rocks

Records within 50m

1

The potential hazard presented by ground dissolution, which occurs when water passing through soluble rocks produces underground cavities and cave systems. These cavities reduce support to the ground above and can cause localised collapse of the overlying rocks and deposits.

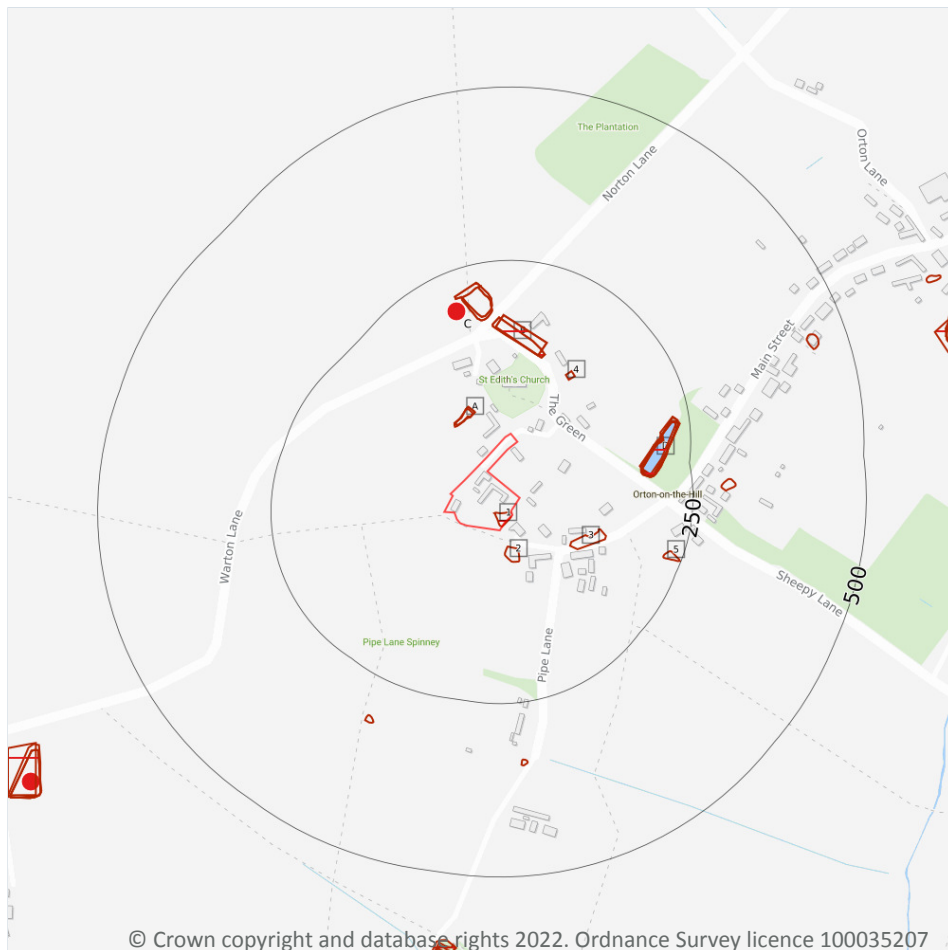
Features are displayed on the Natural ground subsidence - Ground dissolution of soluble rocks map on **page 76**

Location	Hazard rating	Details
On site	Negligible	Soluble rocks are either not thought to be present within the ground, or not prone to dissolution. Dissolution features are unlikely to be present.

This data is sourced from the British Geological Survey.



18 Mining, ground workings and natural cavities



- Site Outline
- Search buffers in metres (m)
- Natural cavities (Area)
- Natural cavities (Point)
- BritPits
- Surface ground workings
- Underground workings
- Historical Mineral Planning Areas
- Mining Cavities
- Non Coal Mining
- Sporadic underground mining of restricted extent possible
- Localised small scale underground mining possible
- Small scale mining possible
- Underground mining known or likely within or in close proximity
- Underground mining known within or in very close proximity

18.1 Natural cavities

Records within 500m

0

Industry recognised national database of natural cavities. Sinkholes and caves are formed by the dissolution of soluble rock, such as chalk and limestone, gulls and fissures by cambering. Ground instability can result from movement of loose material contained within these cavities, often triggered by water.

This data is sourced from Stantec UK Ltd.

18.2 BritPits

Records within 500m

1

BritPits (an abbreviation of British Pits) is a database maintained by the British Geological Survey of currently active and closed surface and underground mineral workings. Details of major mineral handling sites, such as wharfs and rail depots are also held in the database.

Features are displayed on the Mining, ground workings and natural cavities map on **page 77**

ID	Location	Details	Description
C	193m NW	Name: Orton Park Address: Orton-on-the-Hill, SWADLINCOTE, Leicestershire Commodity: Clay & Shale Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority

This data is sourced from the British Geological Survey.

18.3 Surface ground workings

Records within 250m

23

Historical land uses identified from Ordnance Survey mapping that involved ground excavation at the surface. These features may or may not have been subsequently backfilled.

Features are displayed on the Mining, ground workings and natural cavities map on **page 77**

ID	Location	Land Use	Year of mapping	Mapping scale
1	On site	Pond	1924	1:10560
2	26m SE	Pond	1924	1:10560
A	57m NW	Pond	1901	1:10560
A	57m NW	Pond	1885	1:10560
A	57m NW	Pond	1924	1:10560
3	93m SE	Pond	1901	1:10560
4	114m NE	Pond	1924	1:10560
B	118m N	Unspecified Pit	1924	1:10560
B	118m N	Unspecified Pit	1924	1:10560
B	120m N	Unspecified Pit	1982	1:10000



ID	Location	Land Use	Year of mapping	Mapping scale
B	120m N	Unspecified Pit	1966	1:10560
C	169m N	Old Marl Pit	1924	1:10560
C	169m N	Old Marl Pit	1924	1:10560
C	174m N	Old Marl Pit	1950	1:10560
C	174m N	Unspecified Pit	1966	1:10560
D	179m E	Pond	1982	1:10000
D	179m E	Pond	1966	1:10560
D	180m E	Fish Pond	1901	1:10560
D	180m E	Pond	1885	1:10560
D	180m E	Fish Pond	1950	1:10560
D	181m E	Fish Pond	1924	1:10560
D	181m E	Fish Pond	1924	1:10560
5	224m E	Pond	1924	1:10560

This data is sourced from Ordnance Survey/Groundsure.

18.4 Underground workings

Records within 1000m

0

Historical land uses identified from Ordnance Survey mapping that indicate the presence of underground workings e.g. mine shafts.

This data is sourced from Ordnance Survey/Groundsure.

18.5 Historical Mineral Planning Areas

Records within 500m

0

Boundaries of mineral planning permissions for England and Wales. This data was collated between the 1940s (and retrospectively to the 1930s) and the mid 1980s. The data includes permitted, withdrawn and refused permissions.

This data is sourced from the British Geological Survey.



18.6 Non-coal mining

Records within 1000m

0

The potential for historical non-coal mining to have affected an area. The assessment is drawn from expert knowledge and literature in addition to the digital geological map of Britain. Mineral commodities may be divided into seven general categories - vein minerals, chalk, oil shale, building stone, bedded ores, evaporites and 'other' commodities (including ball clay, jet, black marble, graphite and chert).

This data is sourced from the British Geological Survey.

18.7 Mining cavities

Records within 1000m

0

Industry recognised national database of mining cavities. Degraded mines may result in hazardous subsidence (crown holes). Climatic conditions and water escape can also trigger subsidence over mine entrances and workings.

This data is sourced from Stantec UK Ltd.

18.8 JPB mining areas

Records on site

0

Areas which could be affected by former coal and other mining. This data includes some mine plans unavailable to the Coal Authority.

This data is sourced from Johnson Poole and Bloomer.

18.9 Coal mining

Records on site

0

Areas which could be affected by past, current or future coal mining.

This data is sourced from the Coal Authority.

18.10 Brine areas

Records on site

0

The Cheshire Brine Compensation District indicates areas that may be affected by salt and brine extraction in Cheshire and where compensation would be available where damage from this mining has occurred. Damage from salt and brine mining can still occur outside this district, but no compensation will be available.

This data is sourced from the Cheshire Brine Subsidence Compensation Board.



18.11 Gypsum areas

Records on site	0
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Generalised areas that may be affected by gypsum extraction.

This data is sourced from British Gypsum.

18.12 Tin mining

Records on site	0
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Generalised areas that may be affected by historical tin mining.

This data is sourced from Groundsure.

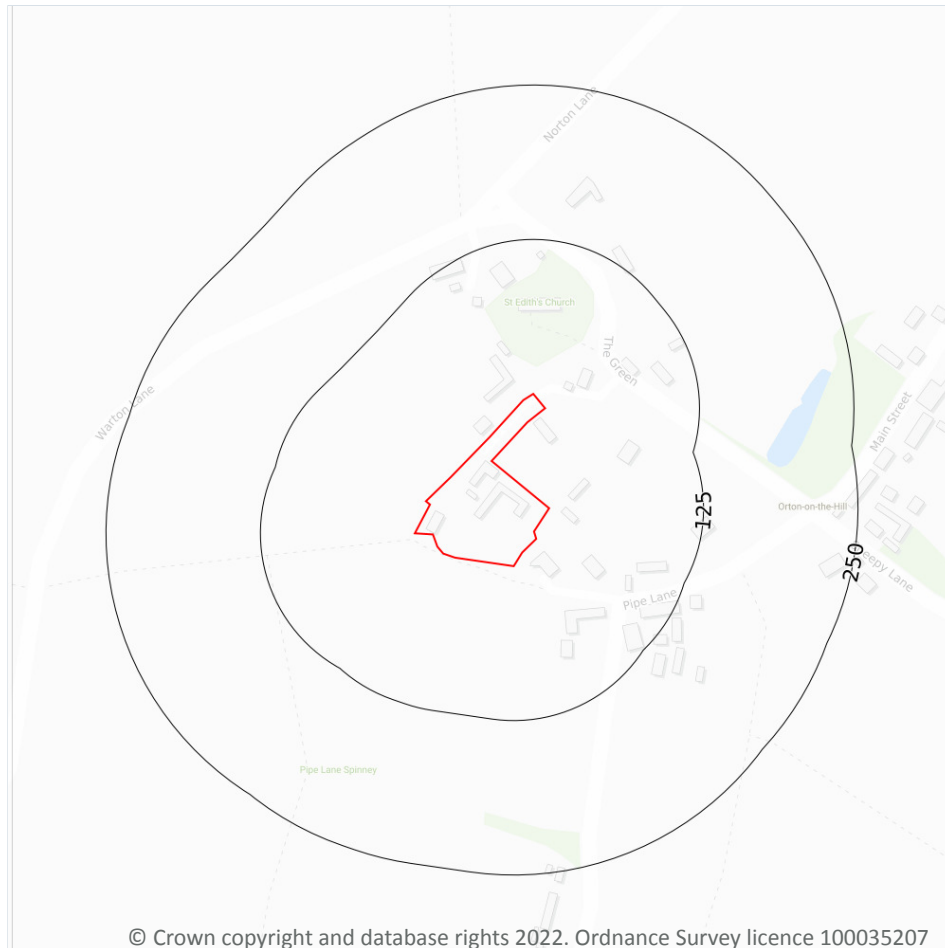
18.13 Clay mining

Records on site	0
-----------------	---

Generalised areas that may be affected by kaolin and ball clay extraction.

This data is sourced from the Kaolin and Ball Clay Association (UK).

19 Radon



— Site Outline
Search buffers in metres (m)

- Greater than 30%
- Between 10% and 30%
- Between 5% and 10%
- Between 3% and 5%
- Between 1% and 3%
- Less than 1%

19.1 Radon

Records on site

1

Estimated percentage of dwellings exceeding the Radon Action Level. This data is the highest resolution radon dataset available for the UK and is produced to a 75m level of accuracy to allow for geological data accuracy and a 'residential property' buffer. The findings of this section should supersede any estimations derived from the Indicative Atlas of Radon in Great Britain. The data was derived from both geological assessments and long term measurements of radon in more than 479,000 households.

Features are displayed on the Radon map on **page 82**

Location	Estimated properties affected	Radon Protection Measures required
On site	Less than 1%	None**

This data is sourced from the British Geological Survey and Public Health England.



20 Soil chemistry

20.1 BGS Estimated Background Soil Chemistry

Records within 50m

2

The estimated values provide the likely background concentration of the potentially harmful elements Arsenic, Cadmium, Chromium, Lead and Nickel in topsoil. The values are estimated primarily from rural topsoil data collected at a sample density of approximately 1 per 2 km². In areas where rural soil samples are not available, estimation is based on stream sediment data collected from small streams at a sampling density of 1 per 2.5 km²; this is the case for most of Scotland, Wales and southern England. The stream sediment data are converted to soil-equivalent concentrations prior to the estimation.

Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg

This data is sourced from the British Geological Survey.

20.2 BGS Estimated Urban Soil Chemistry

Records within 50m

0

Estimated topsoil chemistry of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc and bioaccessible Arsenic and Lead in 23 urban centres across Great Britain. These estimates are derived from interpolation of the measured urban topsoil data referred to above and provide information across each city between the measured sample locations (4 per km²).

This data is sourced from the British Geological Survey.

20.3 BGS Measured Urban Soil Chemistry

Records within 50m

0

The locations and measured total concentrations (mg/kg) of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc in urban topsoil samples from 23 urban centres across Great Britain. These are collected at a sample density of 4 per km².

This data is sourced from the British Geological Survey.



21 Railway infrastructure and projects

21.1 Underground railways (London)

Records within 250m

0

Details of all active London Underground lines, including approximate tunnel roof depth and operational hours.

This data is sourced from publicly available information by Groundsure.

21.2 Underground railways (Non-London)

Records within 250m

0

Details of the Merseyrail system, the Tyne and Wear Metro and the Glasgow Subway. Not all parts of all systems are located underground. The data contains location information only and does not include a depth assessment.

This data is sourced from publicly available information by Groundsure.

21.3 Railway tunnels

Records within 250m

0

Railway tunnels taken from contemporary Ordnance Survey mapping.

This data is sourced from the Ordnance Survey.

21.4 Historical railway and tunnel features

Records within 250m

0

Railways and tunnels digitised from historical Ordnance Survey mapping as scales of 1:1,250, 1:2,500, 1:10,000 and 1:10,560.

This data is sourced from Ordnance Survey/Groundsure.

21.5 Royal Mail tunnels

Records within 250m

0

The Post Office Railway, otherwise known as the Mail Rail, is an underground railway running through Central London from Paddington Head District Sorting Office to Whitechapel Eastern Head Sorting Office. The line is 10.5km long. The data includes details of the full extent of the tunnels, the depth of the tunnel, and the depth to track level.



This data is sourced from Groundsure/the Postal Museum.

21.6 Historical railways

Records within 250m

0

Former railway lines, including dismantled lines, abandoned lines, disused lines, historic railways and razed lines.

This data is sourced from OpenStreetMap.

21.7 Railways

Records within 250m

0

Currently existing railway lines, including standard railways, narrow gauge, funicular, trams and light railways.

This data is sourced from Ordnance Survey and OpenStreetMap.

21.8 Crossrail 1

Records within 500m

0

The Crossrail railway project links 41 stations over 100 kilometres from Reading and Heathrow in the west, through underground sections in central London, to Shenfield and Abbey Wood in the east.

This data is sourced from publicly available information by Groundsure.

21.9 Crossrail 2

Records within 500m

0

Crossrail 2 is a proposed railway linking the national rail networks in Surrey and Hertfordshire via an underground tunnel through London.

This data is sourced from publicly available information by Groundsure.

21.10 HS2

Records within 500m

0

HS2 is a proposed high speed rail network running from London to Manchester and Leeds via Birmingham. Main civils construction on Phase 1 (London to Birmingham) of the project began in 2019, and it is currently anticipated that this phase will be fully operational by 2026. Construction on Phase 2a (Birmingham to Crewe) is anticipated to commence in 2021, with the service fully operational by 2027. Construction on Phase 2b (Crewe to Manchester and Birmingham to Leeds) is scheduled to begin in 2023 and be operational by 2033.

This data is sourced from HS2 Ltd.



Data providers

Groundsure works with respected data providers to bring you the most relevant and accurate information. To find out who they are and their areas of expertise see <https://www.groundsure.com/sources-reference>.

Terms and conditions

Groundsure's Terms and Conditions can be accessed at this link: <https://www.groundsure.com/terms-and-conditions-jan-2020/>.



APPENDIX D



Sian Silcock

From: Giles Rawdon <Giles.Rawdon@hinckley-bosworth.gov.uk>
Sent: 25 February 2022 12:14
To: Sian Silcock
Subject: RE: Contaminated land enquiry - CV9 3NG

Good morning Sian

The site is not a site of interest currently- as with all sites that can change should information come to light.

Kind regards

Giles Rawdon
Environmental Health Officer (Pollution)
Hinckley & Bosworth Borough Council
Environmental Health
Hinckley Hub
Rugby Road
Hinckley
Leics LE10 0FR
01455 255684

From: Sian Silcock <srs@ivyhousenv.co.uk>
Sent: 25 February 2022 10:00
To: Giles Rawdon <Giles.Rawdon@hinckley-bosworth.gov.uk>
Subject: Contaminated land enquiry - CV9 3NG

Good morning Giles,

We are in the process of writing a preliminary risk assessment for a site located at Hall Farm, 10 The Green, Orton-on-the-Hill, CV9 3NG, and would be grateful if you could confirm whether the site is considered on the list of prioritised sites under Part 2A?

The approximate site boundary is shown in orange on the attached image.

Kind regards,

Sian Silcock

Environmental Consultant
BSc (Hons) MSc



Sign up to our newsletter [HERE](#)

W. www.ivyhouseenv.co.uk

T. 01332 661987

A. [Scotland Farm, Far Lane, Ockbrook, DE72 3RX](#)

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APPENDIX E



Mr Andrew Davenport,
Hall Farm,
The Green,
Orton-on-the-Hill,
Atherstone,
Warwickshire,
CV9 3NG

Environmental Claims Unit
7th Floor
Kent House
Romney Place
Maidstone
ME15 6LH

Tel: 0845 674 0523
Fax: 0845 070 9501
environmental@questgates.co.uk

Our Ref: QG1E341636/DAH/MTK
Insurer Ref: 629674
Date: 17 June 2014

Dear Mr Davenport,

Incident: Escape of Oil
Date of Incident: Discovered 7th February 2014

I refer to the above and write to advise having received final invoicing from Ecologia for their oil remedial works.

Please find attached a copy of Ecologia's Validation Report which describes the works undertaken and confirms that no further works are necessary. As the attached document represents conclusion of the matter, I confirm having submitted my Final Report to Insurers.

I trust that you will find the attached to be in order, but in the event of any query, please do not hesitate to contact me.

Yours sincerely,

QuestGates

David Hopper
Mobile No. 07739 879244
QuestGates
Chartered Loss Adjusters & Claims Specialists

Enclosure: Copy Ecologia Validation Report.
cc harry.atkinson@holmans.co.uk

Please ensure that our reference is quoted in all correspondence

Chartered Loss Adjusters & Claims Specialists

Offices at: Birmingham, Belfast, Bolton, Bristol, Edinburgh, Glasgow, Leeds,
London City, Maidstone, Newcastle, Portsmouth, Reading

QuestGates Limited is registered in England, Company No. 4612407

www.questgates.co.uk

David Hopper
QuestGates
Environmental Claims Unit
7th Floor, Kent House
Romney Place
Maidstone
ME15 6LH

Ecologia Ref: 14.061.3

Client Ref: QG1E341636/DAH
12/6/2014

Dear David,

**Re: Mr Andrew Davenport – Hall Farm, The Green, Orton on the Hill, Atherstone,
Leicestershire, CV9 3NG**

1. Introduction

Ecologia was instructed by Tony Burnett of Questgates on Tuesday 11th February 2014 to carry out appropriate emergency works and carry out a Phase 1 Survey at Hall Farm following an escape of heating oil at the property. Ecologia attended site on Wednesday 12th February and met with the homeowner, Mr Davenport to discuss the incident and to carry out installation of absorbent booms to protect the garden pond from any potential heating oil impact. The findings of the site walkover survey are detailed in our report EES 14.061.1 dated 14/2/2014.

A second site visit was carried out on 13/3/14 following the submission of our initial proposal to further confirm the impacted area and to allow the proposed remedial works to be fully optimised. Remediation works were subsequently proposed and instructed. The following report details the remediation works carried out at the property including results of the soil validation analysis and an updated conceptual site model.

2. Site Background Information and Environmental Setting

Site Address:

Hall Farm
The Green
Orton on the Hill
Atherstone
CV9 3NG

Unit 4, Romford Road
Astonfields
Stafford
ST16 3DZ UK

TEL +44 (0)1785 878010
FAX +44 (0)1785 249540
midlandinfo@ecologia-environmental.com



Registered in England No: 3951107
Ecologia is the trading name of Ecologia Environmental Solutions Ltd.
Registered Address: Kent Science Park, Sittingbourne, Kent ME98AG



Site Description

Orton on the Hill is a hamlet forming part of the Twycross civil parish in the Hinckley and Bosworth district of Leicestershire. It is located on top of a hill and is surrounded by fields predominantly used for farmland.

The property is a detached dwelling comprising a two storey building which is approached via a driveway accessed from The Green. The garden extends out to the rear of the property with a large pond situated at the foot of the garden area. A planted / gravelled area is located at the side of the main house; the oil storage tank is situated in the far corner of this gravelled area in front of the garage building on a raised platform approximately 5 m from the house.

Geology and Hydrogeology

Information obtained from the British Geological Survey (BGS) indicates that the site is underlain by Gunthorpe Member – siltstone and has no recorded superficial deposits. Information obtained from the Environment Agency indicates that the area does not lie within a groundwater source protection zone (SPZ); the bedrock is designated as a Minor Aquifer.

Contamination History

The oil storage tank is of steel construction and has a volume of 5000 litres, it is situated in the far corner of the gravelled / planted area at the side of the main house and sits on top of a 1.5 m high brick walled platform. The gravelled / planted area is located in front of the tank and lies between the main house and the boundary wall, the gravelled area comprises gravel, membrane, top soil and then on to clay beneath.

Mr Davenport stated that, on the evening of Friday February 7th 2014, he noticed that the sight glass on the side of the oil storage tank had ruptured causing heating oil to escape to the gravelled / planted area below. The flow of oil was stopped by Mr Davenport and a narrow channel was excavated parallel to the boundary wall to direct the escaped oil toward a small pit excavated at the foot of the gravelled area – the mix of oil / water was then pumped into an empty 1000 litre IBC procured by the Insured.

An unknown volume of escaped oil has also impacted one of the beneath ground water storage tanks, the underflow outlet from this is into the large garden pond.

Mr Davenport has estimated that between 600 and 1000 litres of heating oil may have been lost to ground following the incident.

Initial Phase 1 Survey

Ecologia attended site on 12th February 2014 and met with the insured to discuss the details of the incident. During this visit several hand augered boreholes were advanced in and around the spill area to delineate the extent of the contaminated soils. Oil absorbent booms were installed onto the surface of the garden pond to protect from any potential heating oil impact; oil absorbent pads were applied to the areas of standing water within the affected area where free phase heating oil had been observed.

A soil sample was taken for waste classification purposes and was submitted for analysis of carbon banded TPH (Total Petroleum Hydrocarbons) and BTEX (Benzene, Toluene, Ethyl-



Benzene and Xylene) compounds at an MCERTS accredited laboratory. Free phase heating oil was observed on the surface of standing water within the affected area. Soil headspace concentrations for hydrocarbon vapours gave a peak reading of 400 ppm by hand held PID (Photo Ionisation Detector).

Remediation Works

The overall aim of the remediation works was to remove the kerosene impacted soils from the affected area in the rear garden to mitigate potential risks to surface water, building structure, groundwater, drainage and human health.

Scope of Works

The original proposed scope of works was as set out below:

- Set up of two (2 No) eight yard skips on the yard area of the property, these will be lined with Visqueen as necessary and placed onto boards to prevent damage to the yard / driveway;
- Installation of protective boarding to the main driveway and path between the work area and skips to prevent damage to the paths and driveway surface;
- Pump out of the oil impacted water from the beneath ground storage tank to a tanker for off site disposal. Carry out further assessment / validation before reuse for irrigation;
- Pump out of the oil contaminated water from the IBC to a tanker for off site disposal;
- Removal of electrical services (ground level lights) from the impacted area;
- Excavation of the gravelled / planted area including gravel, soil, membrane and surface scrape of the underlying clay to remove oil contaminated materials – approximate dimensions 22 m x 2.5 m x 0.2 m;
- Expose the drainage path from the oil storage tank toward the courtyard to remove contaminated materials;
- Excavation of the small gravelled area opposite the main affected area including gravel / soil / membrane and surface scrape of the underlying clay to remove contaminated materials – area approximately 3m x 3 m x 0.2 m.
- Validation of the exposed excavation using a hand held PID instrument followed by the removal of five (5 No) soil samples from the base and sides of the excavation for carbon banded TPH and BTEX analysis to confirm that all contaminated materials have been removed;
- Reinstatement of the excavated area using clean materials compacted into layers as necessary;



Amendments to Scope

The following amendments were made to the original scope as outlined above:

- Excavation of the path of the trunking to allow removal of contaminated trunking and the impacted surrounding soils;
- Excavation of the soil alongside the main house to remove free phase oil and contaminated soils – approximate area 20 m x 1 m x 0.4 m
- Excavate area in front of the oil tank (within the main gravelled area) to remove contaminated materials from below the trunking – approximate area 2 m x 4 m to a depth of 0.3 m.

Site Preparation

Following the initial Phase 1 walkover survey, remedial excavation works were undertaken at the property to remove kerosene impacted soils from the affected area in the rear garden of the property. Ecologia attended site on Monday 24th March to supervise the excavation works; an eight yard skip was provided for the storage of potentially contaminated waste to await off site disposal to an appropriately licensed landfill facility. The skip was on the driveway of the property and lined with Visqueen to prevent potential leaching of contaminants onto the driveway. Protective boards were placed through the courtyard area between the skip and work location to protect the area from damage during the works.

Contaminated Soil Excavation

Initially the affected area as identified from the Phase 1 survey was excavated and transferred to waste skips to await disposal. The excavation was extended as per the amendments listed above to ensure contaminated soils around the below ground trunking and soils / gravel immediately adjacent to the main house were removed for disposal. Subsequent PID screening of the remaining soils within the excavation indicated that the contamination levels had been significantly reduced as only marginally elevated readings of 17.8 ppm were detected from the sides of the excavation and a reading of 0.5 ppm detected from the base.

Contaminated Water Removal

Following the excavation of the contaminated soils and gravel from the affected garden area, the oil impacted water located within the IBC and also the beneath ground storage tanks was removed via vacuum tanker for offsite disposal as a suitable waste management facility.



Soil Validation

Following completion of the remedial excavation works, six (6 No) soil samples were collected from the sides and base of the exposed excavations. These samples were submitted to an MCERTS accredited laboratory for carbon banded TPH, BTEX and soil organic matter analysis. The full laboratory data is presented in Appendix II. This is shown in Table 1 below:

	Determinant	Concentrations and depths below ground level (m)						
		GAC*	VS1 (0.3)	VS2 (0.5)	VS3 (0.4)	VS4 (0.2)	VS5 (0.3)	VS6 (0.4)
BTEX (ug/kg)	Benzene	0.0792	<12	<12	<12	<12	<12	<12
	Toluene	119	<12	<12	<12	<12	<12	<12
	Ethylbenzene	65	<12	<12	16	<12	<12	<12
	Xylenes	131	<36	<36	152	<36	<36	<36
TPH (mg/kg)	C ₈ – C ₁₀	27	<2	<2	<2	<2	<2	<2
	C ₁₀ – C ₁₂	69	<2	<2	<2	<2	<2	<2
	C ₁₂ – C ₁₆	140	<2	<2	<2	<2	3.38	<2
	C ₁₆ – C ₂₁	250	<2	<2	<2	<2	<2	<2
	C ₂₁ – C ₃₅	890	12.5	<5.3	<5.29	<5.27	<5.31	<5.25
Soil Organic Matter %			1.49	0.86	0.35	0.37	0.51	0.39

*All results have been assessed against the Ecologia Environmental Solutions generic assessment criteria (GAC) guidance values for soil for residential with consumption of home grown produce land usage.

The analysis of the soil validation samples shows low residual total TPH values across the base and sides of the excavations with the majority of concentrations below the laboratory detection limit. Concentrations of BTEX compounds were all below the guidance values with the exception of VS3 which concentrations of xylenes have marginally exceeded the GAC screening value. Given that no exceedances of TPH were recorded and that the other samples have not shown elevated concentrations of Xylenes, the residually elevated Xylene concentration is not considered to be related to the spill or to pose a significant risk.

Reinstatement

All excavations were backfilled with MOT Type 1 with the material compacted in 150mm layers using a vibrating plate to prevent settlement upon completion. Gravel paths, membrane, brickwork and plants were all reinstated following the completion of the works.

3. Conclusions and Recommendations

The kerosene heating oil had impacted the gravelled / planted area at the side of the main house, one of the beneath ground water storage tanks and the large garden pond. Table 1, below, summarises the potential contamination sources and receptors that may be affected by the escape of heating oil.



Table 1: Preliminary Conceptual Site Model

Source	Pathway	Receptor	Risk Justification	Risk Mitigation
Loss of heating oil	Environmental	Groundwater	RISK: LOW to MODERATE The site does not lie within a groundwater SPZ and is located above a minor aquifer	RISK: LOW Following the excavation and disposal of kerosene contaminated soils and the subsequent validation of the affected area, the risk of groundwater contamination is considered to be low.
	Lateral migration	Surface Water	RISK: HIGH Large garden pond has been impacted as evidenced by the slight sheen on the water surface. Oil absorbent booms have been deployed to mitigate further impact.	RISK: LOW Contaminated water identified within the beneath ground storage tanks has been removed for offsite disposal, in addition following the excavation of kerosene contaminated soils and subsequent validation of the affected area the risk to surface water is considered low.
		Drainage	RISK: HIGH One of the beneath ground water storage tanks has been impacted by the escape of oil	RISK: LOW Contaminated water identified within the beneath ground storage tanks has been removed for offsite disposal, in addition following the excavation of kerosene contaminated soils and subsequent validation of the affected area the risk to drainage is considered low
		Migration onto third party land	RISK: LOW Escape of oil has been contained to the gravelled area and water storage tank on the insured property	RISK: LOW No Change
		Building / structure impact	RISK: LOW to MODERATE Oil contamination has been confined to the gravelled area and water storage tank. Shallow contamination could migrate to impact building structure	RISK: LOW Following the excavation and disposal of the kerosene contaminated soils and the subsequent validation of the affected area, the risk to the building structure is considered low.



	Human health	Occupiers of the dwelling	RISK: MODERATE to HIGH	RISK: LOW
	Inhalation Dermal contact Ingestion		Oil contamination was observed on the surface of standing water in the gravelled area. There are therefore potential risks via ingestion and dermal contact pathways. The water tanks should not be used for irrigation until remedial and validation works are complete.	Contaminated water identified within the beneath ground storage tanks has been removed for disposal along with any remaining standing water. In addition following excavation and disposal of the kerosene impacted soils (the source) and subsequent validation of the impacted area the risk to human health is considered low.

Following completion of the remediation works at the property and assessment of the soil validation data, the risks to human health, the building structure, drainage and controlled waters are considered to be low. On this basis Ecologia recommend that no further works are required at the property.

We trust that this meets with your requirements, however, please do not hesitate to contact me if you require any further information.

Yours Sincerely,

For and on behalf of Ecologia

Prepared by: David Slater
Project Manager

Checked & Authorised by: Chris Williams
Regional Manager

Enc: Appendix I: Photographic Report



APPENDIX I
PHOTOGRAPHIC REPORT



Plate 1: Hall Farm



Plate 2: Trench excavated by the insured following the discovery of the escape of oil



Plate 3: Free phase oil on the surface of the standing water within the affected area



Plate 4: Free phase heating oil within the excavation



Plate 5: Initial excavation showing line of ducting and free phase oil



Plate 6: Small trench advanced next to the house showing free phase oil above the footing



Plate 7: Second small trench advanced in the flower bed showing free phase oil above the footing



Plate 8: Small gravelled area following reinstatement

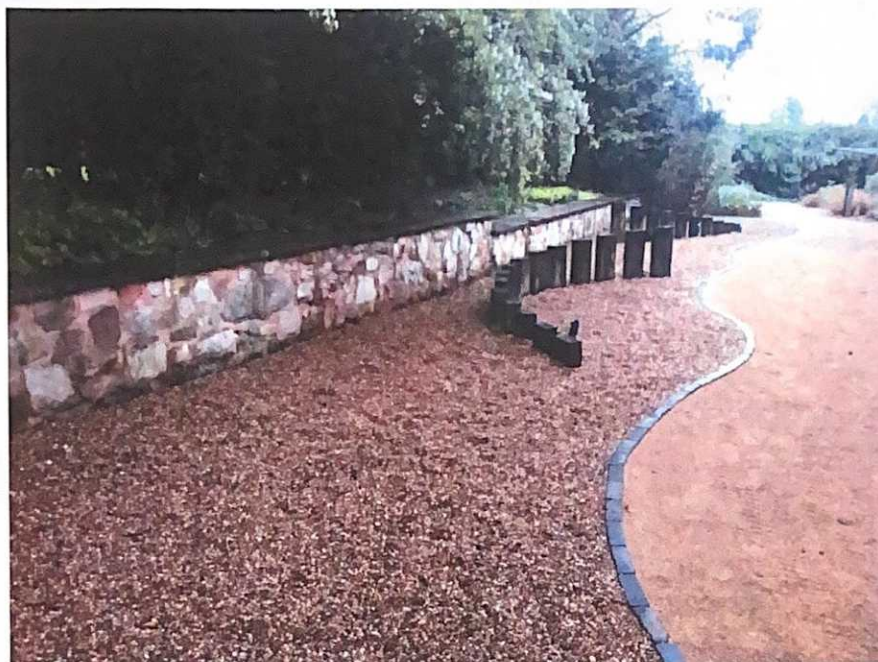


Plate 9: Reinstated gravelled area



Plate 10: Reinstated path and gravelled area



Plate 11: Reinstated smaller gravelled area



Plate 12: Reinstated small gravelled area