



Phase I Geo-Environmental Desk Study

19 Walnut Tree Road

Pirton
Hertfordshire
SG5 3PX

Prepared for:

Mr Paul Shadbolt

19 Walnut Tree Road
Pirton
Hertfordshire
SG5 3PX

EPS Project Reference: UK25.7600

Date Issued: 27th October 2025

Report Status: Issue 2

19 WALNUT TREE ROAD, PIRTON

NON-TECHNICAL CLIENT SUMMARY

This report presents the findings of a Phase I Geo-Environmental Desk Study which was carried out to assess risks posed by contaminated land, and to provide an initial assessment of geological and geotechnical aspects to inform how the proposed development might be affected.

- The site currently comprises a large residential dwelling with an extensive garden area. Proposals are understood to comprise the construction of 4 new residential dwellings with associated gardens and infrastructure, alongside the existing.
- The site is reported to be underlain directly by the West Melbury Marly Chalk Formation which is classified as a Principal Aquifer, although the site is not located within a source protection zone for groundwater abstraction. However, a drainage ditch is present flowing through the middle of the site which is potentially connected to a wider network of watercourses. As such, the site is considered to lie within an area of moderate environmental sensitivity.
- Historically the site appears to have remained undeveloped until around 1960 when the existing house is first shown on mapping, labelled as a vicarage. Little change to the layout has occurred since except for a former pond in the east of the site being infilled in around 2013.
- On this basis, a limited number of plausible risks have been identified which require further investigation, mainly associated with the potential for interaction between future site users and potentially contaminated shallow soils. Therefore, it is recommended that an intrusive site investigation is undertaken to further assess these risks. It may be prudent and cost-effective to combine this with a geotechnical assessment to inform foundation / pavement design etc
- A copy of this report should be provided to the Environmental Health department of North Hertfordshire District Council so that it may be used to support planning proposals. This report should satisfy the pre-application requirements of the planning process relating to contamination and the issue does not appear to present a barrier to a viable redevelopment. The recommended investigation can be carried out under a conditional consent.

The above bullet points represent a simplified summary of our work and **must not** be relied upon to form the basis for key decisions for the proposed development. A full picture is provided in the following report, or alternatively give us a call and we'll talk you through it.



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Date:	27 th October 2025 Revision: 17 th December 2025	
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The report has been written, reviewed and authorised by the persons listed above. It has also undergone EPS' in house quality management inspection. Should you require any further assistance regarding the information provided within the report, please do not hesitate to contact us.

The National Planning Policy Framework requires a competent person to prepare site investigation information, which is defined as a person with a recognised relevant qualification, sufficient experience in dealing with the type(s) of pollution or land instability, and membership of a relevant professional organisation. EPS considers that it fulfils these criteria and would welcome any request for staff CVs or case studies to demonstrate it.

TABLE OF CONTENTS

1	INTRODUCTION	1
1.1	Objectives	1
1.2	Project Limitations and Constraints.....	1
2	SITE CHARACTERISATION	3
2.1	Site Location and Description	3
2.2	Geo-Environmental Setting	4
2.3	Site History	6
3	PRELIMINARY RISK ASSESSMENT & CONCEPTUAL SITE MODEL.....	8
3.1	Background	8
3.2	Source Characterisation.....	8
3.3	Potential Receptors.....	9
3.4	Potential Pathways	10
3.5	Summary of Contaminant Linkages	11
3.6	Key Areas of Potential Concern & Uncertainty.....	13
4	GEOTECHNICAL GROUND MODEL	14
5	CONCLUSIONS & RECOMMENDATIONS.....	16

Figures

Figure 1	Site Location Plan
Figure 2	Current Site Layout
Figure 3	Aerial Photograph

Appendices

Appendix A	Selected Site Photographs & Walkover Notes
Appendix B	Proposed Development Plan
Appendix C	Surrounding Land Use
Appendix D	Geological Context
Appendix E	Groundwater Vulnerability & Flood Risk Maps
Appendix F	A Selection of Historic Maps

1 INTRODUCTION

In October 2025, Environmental Protection Strategies Ltd (EPS) was commissioned by Pentangle Design on behalf of Mr Paul Shadbolt to complete a Phase I Geo-Environmental Desk Study for 19 Walnut Tree Road, Pirton, Hertfordshire, SG5 3PX ('the site'); see Figure 1.

The work was commissioned to support pre-application planning requirements relating to contaminated land, for a proposed development understood to comprise the construction of four new detached residential houses, with associated infrastructure such as access, parking and landscaped areas including private gardens, on land which currently forms part of the extensive rear garden area to the existing property.

This report presents the findings, conclusions, and recommendations of the Phase I Desk Study undertaken for the site as instructed.

1.1 Objectives

The purpose of this desk study is to evaluate the potential contaminant linkages which may be active at the site in its current condition, or could become active in future, and to determine if any action is required to investigate them further or to break them.

This is achieved by carrying out the following activities:

- a) Examining the site history - late 1800s to present day, through collection of historical maps of the area, site records, records held by relevant local authorities, the Environment Agency and review of other information databases.
- b) Characterising the site's environmental and geological sensitivity through examination of existing geological, hydrogeological, topographical, and historical maps and aerial photographs of the area.
- c) Identifying Potential Areas of Concern through a combination of historical map and data review.
- d) Consideration of any future plans for the site and the effects any proposed changes may have on contaminant linkages over time.
- e) Development of a Conceptual Site Model through a Preliminary Risk Assessment to evaluate the potential risks posed by the site and make recommendations for any further work that may be required to ensure suitability for use and safe development. In accordance with the Environment Agency's *Land Contamination: Risk Management* guidance and the *National Planning Policy Framework*.

1.2 Project Limitations and Constraints

The purpose of this report is to present the findings of a Phase I Geo-Environmental Desk Study conducted at the location(s) specified. When examining the data collected from the investigations made during the assessment, EPS makes the following statements:

This report does not include specific investigation for the presence of either Potential Asbestos Containing Material (PACM) or Japanese Knotweed at the subject site however, if obvious evidence of either is observed during EPS site walkover, details will be provided in this report. Specialist contractors should be commissioned to make detailed assessments and recommendations if these materials are suspected.

2 SITE CHARACTERISATION

The following section provides a summary of the information collected in relation to the site location and history.

2.1 Site Location and Description

Detail	Description
Location	The site is located east of Walnut Tree Road at the southern edge of Pirton, Hertfordshire, approximately 2.5km northwest of Hitchin.
National Grid Reference	514950, 231500
Topographic Elevation	The site lies between approximately 69m and 72m above Ordnance Datum (AOD), with a gentle slope up towards the west/northwest.
Description of Site	The site comprises a roughly L-shaped parcel of land covering an area of around 0.68ha. A site walkover survey was undertaken by an EPS representative on 8th October 2025, at which time the site was found to be occupied by a large detached residential dwelling positioned in the north/northwest of the site, with associated external infrastructure including a gravel-surfaced driveway. The majority of the remainder of the site comprised a large soft landscaped garden area predominantly laid to grass, with frequent mature deciduous and coniferous trees consistently present throughout. There is also a patio area of hard landscaping present to the rear (south) of the dwelling. Elsewhere, a small wooden recreational building was present in the east of the site accompanied by a small curtilage of hard landscaping. A large metal structure was also present in the south of the site which was likely used for tools and equipment. This building was located on a large concrete slab which extended north into a ramp at the front of the building. A drainage ditch was noted running through the middle of the site, from west to east, noted to be open at the surface across the west of the site, then culverted under the east.
Surrounding Land Use	The site is bound to the north and southwest by other residential dwellings and associated gardens. The area to the west of the site comprises an area of grassed public space/park known as The Bury, while the area to the east comprises a leisure centre and playing fields associated with Pirton Sports & Social Club. In addition, a small gas governor is present immediately adjacent to the northeast corner of the site.

A plan showing the site location is provided as Figure 1 and the current site layout is detailed on Figure 2, with an aerial photograph included as Figure 3. Selected Site

Photographs are included as Appendix A along with the Walkover Notes, an indicative proposed development plan has been included as Appendix B and relevant extracts of a Landmark Envirocheck report are included as Appendix C.

2.2 Geo-Environmental Setting

Detail	Description	
Geology	Geological maps of the area indicate that is the site to be directly underlain by the West Melbury Marly Chalk Formation, with no superficial deposits shown to be present. Information on the site’s geological context is included as Appendix D.	
British Geological Survey (BGS)	Historic borehole records from the BGS were also reviewed, of which the nearest relates to a location approximately 120m to the southwest. This reports the local ground conditions to initially comprise chalk marl, likely from the West Melbury Marly Chalk Formation, extending to around 6m below ground level (bgl) and underlain by blue clay-like chalk which then extends to around 21m bgl. The Gault Formation (mudstone) was then encountered and was found to extend to beyond the maximum borehole depth of around 36m bgl. No information is given regarding the presence of groundwater. A copy of this historic borehole log is also included within Appendix D.	
Geological Hazards	Hazard	On Site Risk
	Mining (non-coal)	Rare
	Collapsible Ground	Very Low
	Compressible Ground	No Hazard (Very Low @ 53m W)
	Ground Dissolution	No Hazard (Very Low @ 70m S)
	Running Sand	No Hazard (Very Low @ 53m W)
	Landslide	No Hazard (Very Low @ 53m W)
	Shrinking / Swelling Clay	No Hazard (Very Low @ 70m S; Low @ 92m E)
	There are no BGS recorded mineral sites or natural cavities within 1km of the site.	
Radon	The Envirocheck indicates the site to lie in a location where the percentage of homes above the radon action level is less than 1%. It further reports that the site will therefore not require radon protection measures in the construction of new buildings to comply with Building Control.	
Hydrogeology	Groundwater vulnerability maps for the area show that the underlying geology is classified as a Principal Aquifer, however the site does not lie within a Source Protection Zone for local groundwater abstraction.	
	Four groundwater abstractions are recorded within 500m, the closest of which is located around 117m southwest, for agricultural use. Groundwater vulnerability maps are included as Appendix E.	

Detail	Description		
Hydrology & Flood Risk	As mentioned previously, a drainage ditch was observed flowing from west to east through the middle of the, which was culverted in places, although it was dry at the time of the walkover. Mapping indicates this feature to leads to a pond in the east of the site, and then away from the site towards the southeast. However, no evidence of this pond was seen during the site walkover.		
	No surface water abstractions are recorded within 500m.		
	Review of the EA Flood Zone Map for the area indicates that the site lies within Flood Zone 1, which is defined as the area with a low potential risk of flooding from fluvial or tidal sources. It should be noted that the EA maps do not take into account the likelihood of flooding from poor drainage, or groundwater. A copy of the flood map for the site and surrounding area is also included within Appendix E.		
Landfill & Waste	No active or historic landfills, or other waste management facilities, are recorded within 1km of the site. There are also no records of any areas of potentially infilled land within 1km, such as former pit/quarries or water features..		
Industrial Land Use & Points of Interest	The Envirocheck report lists three potentially contaminative industrial land uses/points of interest within 500m, which are summarised below.		
	Land Use	Distance (Direction)	Status
	K Walker (Livestock Farming)	116m (N)	Unspecified
	P & S Walker (Arable Farming)	121m (N)	Unspecified
	Bricks 4 You (Builders’ Merchants)	350m (W)	Inactive
	Stephen M Jaynes (Cabinet Makers)	489m (N)	Inactive
	No entries for environmental permits for specific industrial features are listed within 1km of the site.		
	No historical pollution incidents are recorded within 500m of the site.		
Unexploded Ordnance (UXO)	In order to make a preliminary assessment of risks associated with unexploded ordnance (UXO), reference has been made to UXO Bomb Risk maps available publicly via ZeticaUXO. These maps show that the site and the entirety of Pirton is in an area with a ‘low’ bomb risk and no records of any UXO finds or strategic targets are recorded either on site or in the surrounding area.		

Detail	Description
Previous Investigation / Remediation	EPS are not aware of any previous site investigations or remedial works undertaken at the site.
Sensitive Land Use	The site lies within a Nitrate Vulnerable Zone where both groundwater and surface water are identified as being at risk from nitrates leaching off agricultural land. In addition, the Chilterns Area of Outstanding Natural Beauty (AONB) is located around 235m southwest of the site.

2.3 Site History

A summary of historical map data from 1881 to 2025 is provided below. Key points are highlighted and copies of relevant historic maps and any others examined during the investigation are included in this report as Appendix F.



- The earliest available mapping appears to show that the site comprised undeveloped land in the late 1800s, with a row of trees present along the drainage ditch leading to a pond in the east of the site. The site remained undeveloped until around 1960 when the existing house is first mapped, labelled as a vicarage.

- Despite not being seen during the site walkover, the pond is shown on all historical maps suggesting it was infilled relatively recently. According to historical satellite imagery on Google Earth, this occurred between 2013 and 2016, after which the existing summer house was built in its place. The shed in the south of the site appears to have existed since around 2000.
- Within the surrounding area, the majority of the land is shown to be agricultural in the late 1800s, although allotment gardens are mapped to the immediate east of the site, with orchards to the immediate southwest and Walnut Tree Farm located approximately 60m to the southwest. The village of Pirton is established to the north of the site, including a church and graveyard around 150m northwest.
- The residential expansion of Pirton mostly occurred during the 1960s and 1970s, when the adjacent properties to the north were developed. Also at this time, some of the allotments to the east were removed as the existing sports pavilion was developed. The remaining allotments were present until around 1999, except for a small area of allotments around 50m northeast of the site which remained until around 2013.
- In addition, the ruins of Pirton motte & bailey are shown around 180m northwest of the site on all of the historic maps, also formerly including a number of minor water features labelled 'moats' within the park now known as The Bury. The nearest of these is still present and lies around 30m northwest of the site, while most of the others appear to have been infilled.

3 PRELIMINARY RISK ASSESSMENT & CONCEPTUAL SITE MODEL

In accordance with the Environment Agency's *Land Contamination: Risk Management* guidance, there are three stages to managing contaminated land (Risk Assessment, Remedial Options Appraisal / Remediation and Verification). This section outlines the first tier of Stage 1, the Preliminary Risk Assessment.

The following section provides a review of the contaminant linkages that may be active at the site, whereby EPS have examined the potential sources that may be present as a result of historic and / or current site activities and where potential interaction between these sources and the identified human / environmental receptors may occur.

3.1 Background

A Desk Study comprises the first stage of any geo-environmental assessment, the purpose of which is to determine what potentially contaminative activities may have occurred at the property or the surrounding area which may pose an environmental or geological risk to site users, the surrounding environment or proposed development, either at present or in the future.

The method used in this investigation to assess the environmental risk posed is based on the concept of 'contaminant linkage', which considers the following three factors:

Source	The location from which an environmentally hazardous / contaminative substance is, (or was,) derived.
Pathway	A route or mechanism via which a source could come into contact with a receptor to cause significant harm.
Receptor	An environmentally sensitive object or condition e.g. person, property, controlled water, or ecological system, which may be present now or in future.

If all three factors are identified, there is the potential for a 'contaminant linkage' to be active, which could result in significant harm being caused to the environment or human health.

3.2 Source Characterisation

The following potential contaminant sources have been identified at the site and in the surrounding area:

Potential Source	Source Description	Principal Contaminants of Concern
Current Site Use	In-fill material of unknown origin (Made Ground) used to level areas beneath the existing buildings prior to development.	PAH, Metals, ACM

Potential Source	Source Description	Principal Contaminants of Concern
Historic Site Use	Potentially infilled pond on site.	PAH, Metals, ACM, Ground Gas (CO ₂ , CH ₄)
Current and Historical Surrounding Land Use	Various other current and historical potentially contaminative land uses of the surrounding area including allotment gardens, orchards and farmyards.	TPH, PAH, Metals, Herbicides, Pesticides

Notes: PAH Polycyclic Aromatic Hydrocarbons ACM Asbestos Containing Materials
CH₄ Methane CO₂ Carbon Dioxide
TPH Total Petroleum Hydrocarbons

3.3 Potential Receptors

A framework for the assessment of risks arising from the presence of contamination in soils has been produced by the Environment Agency and the Department for the Environment, Food and Rural Affairs (DEFRA) and is presented with the report: '*Using Science to Create A Better Place: Updated Technical Background to the CLEA Model – Science Report SC050021/SR3*'. This guidance document defines a series of standard land uses which have been further developed into six generic land uses in the Category 4 Screening Levels project for Land Affected by Contamination (DEFRA/Contaminated Land: Applications in Real Environments (CL:AIRE) Project Report SP1010, 2014) which form a basis for the development of the Conceptual Site Model.

Risks posed to controlled waters have been considered in line with the Environment Agency's *approach to groundwater protection* (v1.2, 2018) and associated position statements.

The proposed development plan for the site is understood to comprise the construction of four new residential dwellings, with associated infrastructure and landscaped areas including private gardens. This proposed land use has therefore been considered as:

- Residential (with homegrown produce)

In view of the environmental setting, current and potential future land use of the site and surrounding sites, the potential receptors for any contaminant impact are discussed below:

Receptor	Site Specific Description
Human	Future site users, site workers involved in the site redevelopment, and those working and living in the surrounding area have the potential to be at risk from exposure to potential contaminants of concern (CoCs).

Receptor	Site Specific Description
Groundwater	The site is reported to be underlain by chalk bedrock defined by the EA as a Principal Aquifer. Therefore, whilst the site does not lie within a SPZ for nearby groundwater abstraction, the underlying geology does have resource potential and therefore groundwater should be considered as a potential receptor to site-derived contaminants at this stage.
Surface Water	A small drainage ditch is recorded on site, which is culverted and potentially connected to a wider drainage network. It is considered likely that site-derived contaminants, if present, could impact this feature and on this basis surface waters have been identified as a sensitive receptor within the Conceptual Site Model.
Flora and Fauna	The proposed development includes the provision of private gardens and areas of soft landscaping. Some of the identified contaminants of concern are known to be phytotoxic and as such, the potential for this impact should be considered.
Buildings & Infrastructure	Subsurface structures are likely to be present at the site which may be adversely affected by the potential presence of the identified contaminants of concern. These include concrete used in building foundations, buried potable water supply pipes and other service lines and pipes.
Adjacent Land	Adjacent properties comprise parks, open space and residential dwellings which may also be at risk from potential contaminants found at the site.

3.4 Potential Pathways

Where contaminants may be present in soil, there are a number of potential pathways that enable human receptors to come into contact with or be exposed to them. The most direct pathways, considered under current UK legislation, can be summarised as follows:

- Direct ingestion of contaminated soil
- Ingestion of household dust
- Ingestion of contaminated vegetables
- Ingestion of soil attached to vegetables
- Dermal contact with contaminated soil
- Dermal contact with household dust
- Inhalation of fugitive soil dust
- Inhalation of fugitive household dust
- Inhalation of vapours outdoors
- Inhalation of vapours indoors

Clearly, not all of these potential pathways apply for every standard land-use. For example, ingestion of contaminated vegetables will not apply to land uses other than residential with plant uptake and allotments.

However, in addition to direct exposure pathways, a number of physical transport mechanisms / pathways may also exist at a site that allow remote or less accessible contaminants in soil or groundwater to reach human or environmental receptors both at a site and beyond the site boundary. These include the following:

- Downward and lateral movement of contaminants in soil either by gravity or through being 'leached' by percolating rainwater.
- Lateral migration of contaminants dissolved in groundwater.
- Direct seepage or leaching of contaminants from soil into subsurface drains or supply pipework.
- Volatilisation of contaminants from groundwater or unsaturated soils into buildings or outdoor air.

Through examination of the standard land use and environmental setting at each site, the presence of pathways and transport mechanisms described above must be considered when assessing whether a contaminant linkage may plausibly be active, and therefore be included in the conceptual site model.

3.5 Summary of Contaminant Linkages

Considering the site use and environmental setting, and the proposed land use; the plausible contaminant linkages that have been identified through the Preliminary Risk Assessment to require further investigation are summarised in the following table:

Source	Pathway	Receptor
Contaminated Soil (Made ground)	Direct contact and inadvertent ingestion by eating or smoking with dirty hands	Construction workers during redevelopment & site users
	Inhalation of fugitive dusts	
	Direct uptake and / or adherence of contaminated soil to vegetation and subsequent ingestion	Site users
	Lateral migration through unsaturated soils, or via surface runoff	Surface waters
	Direct uptake via root systems	Plants

The following comments are made with respect to contaminant linkages which have been considered through development of the conceptual model, but have not been concluded as 'plausible' – i.e. through which a significant possibility of significant harm could occur to an identified receptor:

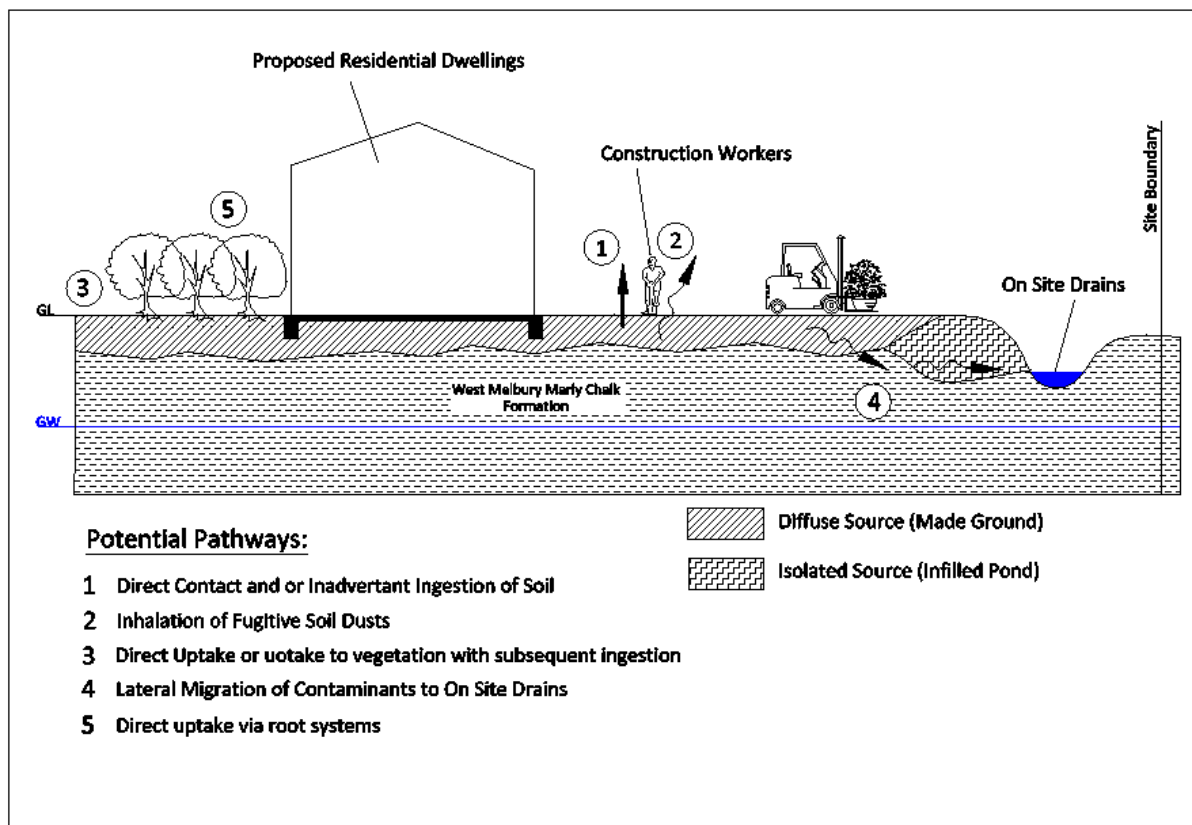
- The typical contaminants of concern associated with general historic made ground beneath the site (heavy metals, PAH compounds, asbestos) are generally considered to be relatively immobile within the environment as a result of their very low solubility and volatility. On this basis, plausible pathways by which these potential contaminants could pose a significant risk to off-site receptors such as the underlying

groundwater are not considered to be active. Similarly, there is not considered to be a significant risk to the site itself from any off-site sources of these contaminants.

- Historical pesticides and herbicides such as lead arsenate were identified as a potential source of contamination related to the adjacent historic allotment gardens and orchards. Given the relatively low mobility and short residency times of these compounds within the soil, they are also not considered to pose a significant risk to the site in the present day.
- Whilst there is a potential for a former small pond to have been infilled on site, due to its limited scale and the infilling having taken place relatively recently (and therefore not likely to have been infilled with putrescible waste material), it is not considered to represent a significant source of ground gas, although it would be prudent to confirm the nature of the infill material through intrusive investigation.
- Given the relatively small size of the nearby farm, it is not considered likely that significant quantities of potential volatile contaminants such as fuels/oils were stored. Therefore, no plausible risks are identified in association with the migration of volatile contaminants towards the site.

The following diagram provides an illustration of the plausible contaminant linkages that may be active at the site and which may need further investigation or control to ensure safe development:

19 Walnut Tree Road, Pirton – Illustrative Conceptual Site Model



3.6 Key Areas of Potential Concern & Uncertainty

The site is likely to be relatively low risk in terms of contamination however the principal areas of concern identified by EPS with respect to the proposed residential development to the rear of 19 Walnut Tree Road mainly relate to the possible presence of contaminated made ground beneath the site as a result of its existing development. There is also some uncertainty around the nature of any material used to infill a potential pond on site and therefore some limited sampling of soils in this area and across the site would be prudent.

Also, although identified contaminants are relatively immobile in the environment, given the presence of a drainage ditch on site, risks to this feature could not be entirely ruled out.

4 GEOTECHNICAL GROUND MODEL

Geological records indicate the ground conditions to comprise bedrock of the West Melbury Marly Chalk Formation, although given the historic use, limited made ground is also anticipated to be present at the surface. A conceptual geotechnical ground model is provided in the table below which assesses design elements, anticipated strata and ground conditions:

Strata	Foundations		
	Allowable Bearing Pressure	Settlement	Volume Change
Made Ground	Not appropriate as bearing strata	High sensitivity	Depends upon the soil composition
West Melbury Marly Chalk Formation	100-125kN/m ²	Moderate sensitivity / Long-term consolidation under loading	Moderate sensitivity
	Drainage – Permeability		
Made Ground	Not suitable for infiltration drainage		
West Melbury Marly Chalk Formation	Possibly suitable for infiltration drainage depending on clay content		
	Concrete Grade		
Made Ground	Low to moderate risk of high sulphate levels		
West Melbury Marly Chalk Formation	Low risk of high sulphate levels		

Potential Hazard	Comment
Trees & Vegetation	A number of large trees have been noted around the site and as shallow soils may be cohesive, this could lead to deepening of foundations. The presence of all trees on and around the site including those recently removed or yet to be planted, must be considered during foundation design.
Below Ground Structures	Some below ground structures / services are likely to be present within the ground from the site's current use, and in addition any fill material may contain waste that could form localised obstructions. All due care should be taken when excavating.
Excavation Stability	While unsupported excavations in chalk can remain stable for short periods, the long-term stability of these should not be relied upon, along with the stability of any excavations in made ground.
Slopes	The site is generally fairly flat, with gentle slopes generally down towards the west/southwest.

5 CONCLUSIONS & RECOMMENDATIONS

The site is generally likely to be fairly low risk in terms of contaminated land. However, this Phase I Desk Study has identified a number of plausible contaminant linkages with the potential to be active or to become active through the proposed redevelopment.

In the context of potentially unacceptable or acceptable risks as outlined within the Environment Agency's *Land Contamination: Risk Management* guidance, the contaminant linkages which pose potentially unacceptable risks and warrant further assessment to determine the most appropriate action are as follows:

- Human health risks associated with interaction between future residents and potentially contaminated shallow soils, especially within domestic garden areas.
- Potential exposure of site workers to contaminated soils during the proposed redevelopment.
- Risks to surface watercourses from site-derived contaminants of concern.

It is therefore recommended that, initially, the identified plausible contaminant linkages should be further investigated by means of exploratory intrusive investigation. Given the nature of the site, this is likely to comprise the forming of a number of small-diameter boreholes across the site on an appropriate sampling pattern to investigate ground conditions and obtain soil samples for laboratory testing. A proposed scope and costing for this work can be provided upon request and, where appropriate discussed and agreed with the local authority prior to commencement. It may be prudent and cost-effective to combine this with a geotechnical assessment to obtain design parameters for foundations, pavements etc.

Any impacts to soil quality by source contaminants which are identified by the exploratory investigation may require further targeted intrusive investigations in order to delineate the contaminants found and quantitatively evaluate the risks posed.

A copy of this report should be provided to the Environmental Health department of North Hertfordshire District Council so that the information may be used to support planning proposals for the site. This report should satisfy the pre-application requirements of the planning process relating to contamination and the issue of contaminated land does not appear to present a barrier to a viable redevelopment. The recommended investigation can then be carried out under a conditional consent.

FIGURES



Rev	Date	Drawn	Description	Chkd



The Geotechnical and Environmental Engineers
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Site
Walnut Tree Road, Pirton

Client
Paul Shabolt

Title
Figure 1 - Site Location Plan

Surveyed:	TH	Drawn by:	MJo
Checked by:	TH	Date:	October 2025

Scale:	(A4 Sheet)	Drawing Reference:
Not to Scale	UK25.7600/1025/01/00	

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KEY:
SITE BOUNDARY

Rev	Date	Drawn	Description	Chkd



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Site
Walnut Tree Road, Pirton

Client
Paul Shabolt

Title
Figure 2 - Current Site Layout

Surveyed:		Drawn by:	MJo
Checked by:	TH	Date:	October 2025

Scale:	(A4 Sheet)	Drawing Reference:	UK25.7600/1025/02/00
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KEY:
SITE BOUNDARY

Rev	Date	Drawn	Description	Chkd



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Site
Walnut Tree Road, Pirton

Client
Paul Shabolt

Title
Figure 3 - Aerial Photograph

Surveyed:		Drawn by:	MJo
Checked by:	TH	Date:	October 2025

Scale: (A4 Sheet) Drawing Reference
Not to Scale UK25.7600/1025/03/00

Job No	Rev
UK25.7600	00

APPENDICES

APPENDIX A

Selected Site Photographs & Walkover Notes

Photo 1: View looking south at the house from the sit entrance in the northwest corner.



Photo 2: View of the northwest section of the garden.



Photo 3: View looking northeast along the southern edge of the house.



Photo 4: View looking east across the garden.



Photo 5: View looking northeast across the garden from the southern edge.



Photo 6: View of the garage towards the south of the site.



Photo 7: View of the outhouse on the eastern edge of the garden.



Photo 8: View of the northeast corner of the garden.



Photo 9: View showing the drain flowing through the site, looking east.



Photo 10: View showing the drain flowing through the site, looking west.



Job Number: UK25.7600
 Date: 8 October 2025
 Engineer: MJ

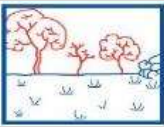
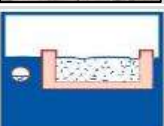


SITE WALKOVER CHECKLIST

GEOTECHNICAL		COMMENTS/EVIDENCE
	Are there any abrupt changes in slope profiles?	<i>Yes - Not severely abrupt but the site does slope down moderately to the rear of the garden.</i>
	Is there evidence of overburden on the slopes?	<i>No</i>
	Is there evidence of excavation at the base of a slope?	<i>No</i>
	Are there signs of landslip, such as tilting trees/posts?	<i>No</i>
	Are there signs of subsidence?	<i>No</i>
	Is there evidence of cracked ground?	<i>No</i>
	Is there evidence of compressible ground (i.e. Peat)?	<i>No</i>
	Is there evidence of an abrupt change in ground conditions?	<i>No</i>
	Is there evidence of high groundwater, such as areas of waterlogged ground?	<i>No</i>
	Do signs of water loving plants such as reeds exist?	<i>No</i>
	Are there any ponds, streams, ditches (even if dry), springs or wells?	<i>Yes - A drainage ditch flows through the site and is culverted in places.</i>
	Is there vegetation? What is the nature of it?	<i>Yes - Mature coniferous and deciduous trees across the site and low lying plants and shrubs around the periphery of the garden.</i>

Job Number: UK25.7600
 Date: 8 October 2025
 Engineer: MJ



	Are trees present? What are the species & height of the trees?	<i>Yes - Up to around 20m</i>
	What is the nature and condition of vegetation on adjoining land?	<i>Similar to onsite. Mature trees and garden bushes / shrubbery.</i>
	Is there evidence of former vegetation?	<i>No</i>
	Is there evidence of movement in any existing structures?	<i>No</i>
	Evidence of below ground structures & services?	<i>Yes - Aforementioned culverted stretch of a drain flowing through the centre of the site.</i>
	Any evidence of mine shafts or adits? (Check Coal Authority Mapping)	<i>No</i>
	Are there any access issues for a digger/drilling rig (slopes, height, gates etc.)?	<i>No</i>

Any other comments?

CONTAMINATION		COMMENTS/EVIDENCE
	Evidence of ground contamination?	<i>No</i>
	Evidence of groundwater /surface water contamination?	<i>No</i>
	Evidence of historic site use?	<i>No</i>
	Have all buildings been accessed internally, what was found?	<i>No</i>

Job Number: UK25.7600
 Date: 8 October 2025
 Engineer: MJ



	Evidence of /suspected asbestos? In building fabric or on ground, describe condition and form (cement/fibrous).	No
	Any man-made surfacing present? Including bituminous road planings/scalplings. Describe condition of hardstanding.	Yes - Some areas of patio and driveway is gravel surfaced.
	Any fuel or oil storage? If above ground, are tanks bunded/ steel/with above ground pipe or any staining?	No
	Obvious drainage features observed such as 3-chamber oil-water interceptor?	Yes - Partially culverted, partially open drain flowing across the site.
	Any waste deposition observed, such as fly-tipped soils or chemical containers/ drums or areas of burning?	No
	Electricity substation present, maintained/operational? Are there any warning stickers on the gates/fence regarding chemicals?	No
	Evidence of previous investigation/remediation (e.g. old monitoring wells)?	No
	Walked around surrounding areas? Identify any off-site sources such as petrol stations, heating oil tanks.	No
	Anecdotal evidence	No

Any other comments?

APPENDIX B

Proposed Development Plan



DIMENSIONS TO BE CHECKED ON SITE BEFORE ANY WORKS.
ANY QUERIES REGARDING DIMENSIONS TO BE TAKEN UP WITH
PENTANGLE DESIGN GROUP. ALL DIMENSIONS OF EXISTING
BUILDINGS TO BE VERIFIED ON SITE. THIS DRAWING IS THE
COPYRIGHT OF PENTANGLE DESIGN GROUP AND SHALL NOT BE IN
ANY WAY USED OR REPRODUCED WITHOUT THEIR PRIOR WRITTEN
CONSENT.

NOTES

PRELIMINARY

PENTANGLE
DESIGN GROUP

SUITE 1, 21 BANCROFT HITCHIN HERTS SG5 1JW
T:01462 431133 E:pdg@pentangledesign.co.uk

JOB TITLE

Proposed Residential Development at
19 Walnut Tree Road, Piton, Hitchin

DRAWING TITLE

Proposed Site Plan

SCALE 1:200

DATE Oct '25

SHT SIZE A1

JOB NUMBER 3942

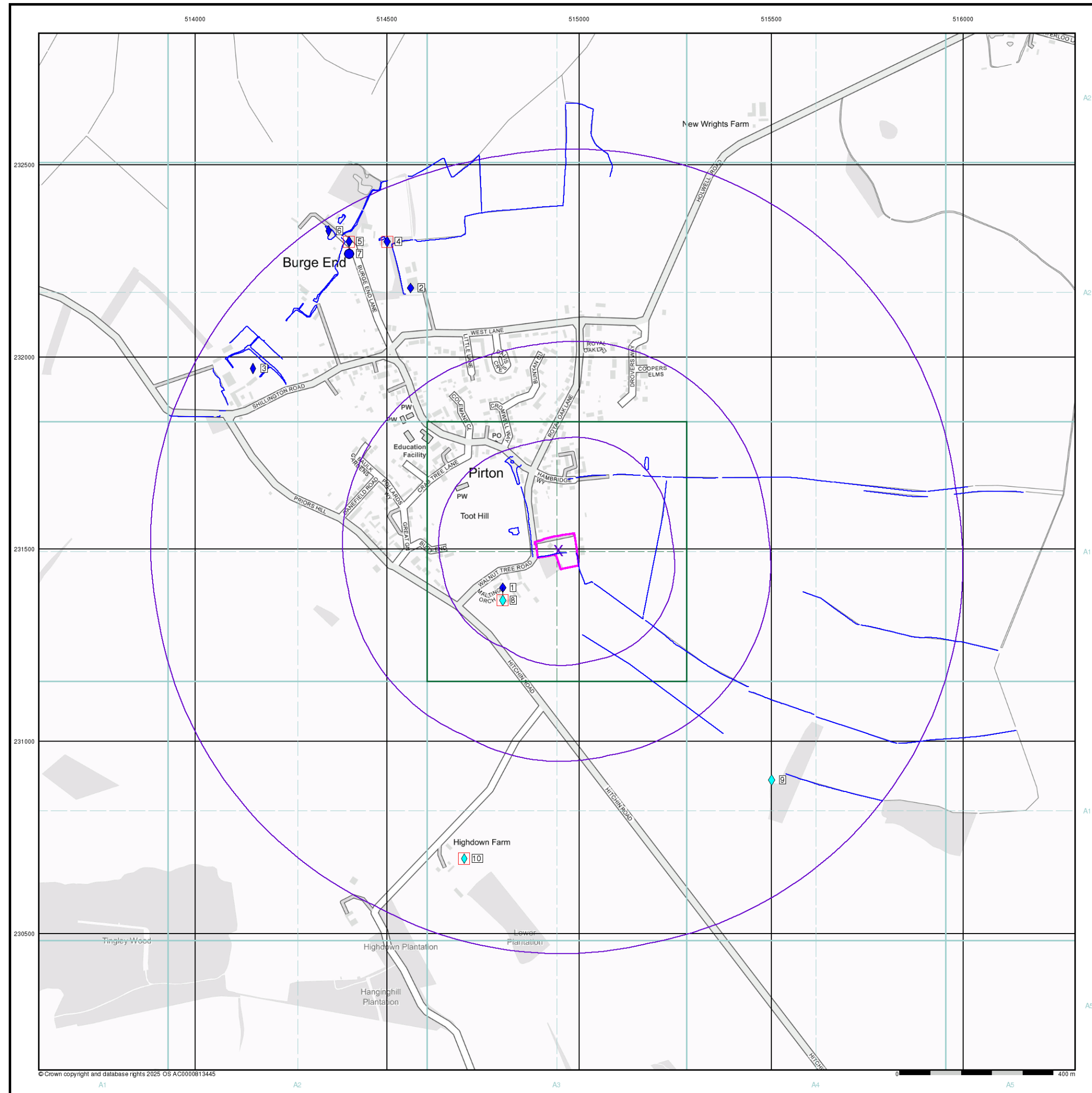
CHARTERED ARCHITECTS

06

A

APPENDIX C

Surrounding Land Use



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- General**

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

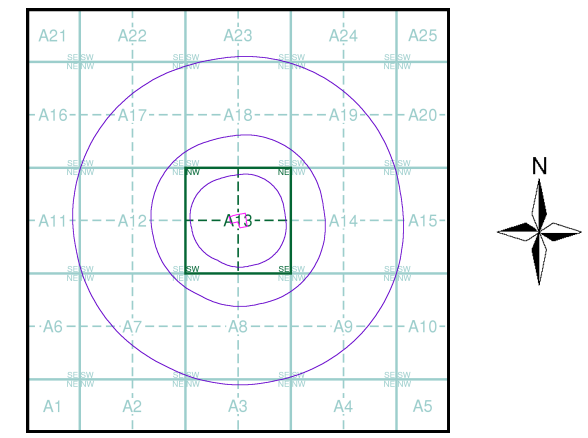
Several of Type at Location
- Agency and Hydrological**

 - Contaminated Land Register Entry or Notice (Location)
 - Contaminated Land Register Entry or Notice
 - Discharge Consent
 - Enforcement or Prohibition Notice
 - Integrated Pollution Control
 - Integrated Pollution Prevention Control
 - Local Authority Integrated Pollution Prevention and Control
 - Local Authority Pollution Prevention and Control
 - Local Authority Pollution Prevention and Control Enforcement
 - Pollution Incident to Controlled Waters
 - Historical Prosecutions
 - Prosecutions
 - Registered Radioactive Substance
 - River Network or Water Feature
 - Substantiated Pollution Incident Register
 - Water Abstraction
 - Water Industry Act Referral
- Waste**

 - BGS Recorded Landfill Site (Location)
 - BGS Recorded Landfill Site
 - EA Historic Landfill (Buffered Point)
 - EA Historic Landfill (Polygon)
 - Integrated Pollution Control Registered Waste Site
 - Licensed Waste Management Facility (Landfill Boundary)
 - Licensed Waste Management Facility (Location)
 - Local Authority Recorded Landfill Site (Location)
 - Local Authority Recorded Landfill Site
 - Potentially Infilled Land (Non-water)
 - Potentially Infilled Land (Non-water)
 - Potentially Infilled Land (Non-water)
 - Potentially Infilled Land (Water)
 - Potentially Infilled Land (Water)
 - Potentially Infilled Land (Water)
 - Registered Landfill Site
 - Registered Landfill Site (Location)
 - Registered Landfill Site (Point Buffered to 100m)
 - Registered Landfill Site (Point Buffered to 250m)
 - Registered Waste Transfer Site (Location)
 - Registered Waste Transfer Site
 - Registered Waste Treatment or Disposal Site (Location)
 - Registered Waste Treatment or Disposal Site
- Hazardous Substances**

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

Site Sensitivity Map - Slice A



Order Details

Order Number: 387257705_1_1
Customer Ref: UK25.7607
National Grid Reference: 514950, 231500
Slice: A
Site Area (Ha): 0.68
Search Buffer (m): 1000

Site Details

Site at 514950, 231500



Industrial Land Use Map

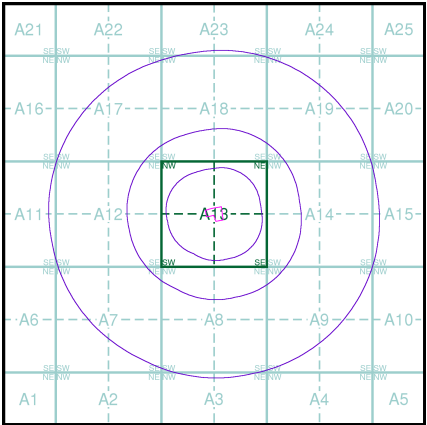
General

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

Industrial Land Use

- Contemporary Trade Directory Entry
- Fuel Station Entry
- Points of Interest - Commercial Services
- Points of Interest - Education and Health
- Points of Interest - Manufacturing and Production
- Points of Interest - Public Infrastructure
- Points of Interest - Recreational and Environmental
- Underground Electrical Cables

Industrial Land Use Map - Slice A



Order Details

Order Number: 387257705_1_1
Customer Ref: UK25.7607
National Grid Reference: 514950, 231500
Slice: A
Site Area (Ha): 0.68
Search Buffer (m): 1000

Site Details

Site at 514950, 231500

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APPENDIX D

Geological Context

Geology 1:50,000 Maps Legends

Artificial Ground and Landslip

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	MGR	Made Ground (Undivided)	Artificial Deposit	Not Supplied - Holocene
	WGR	Worked Ground (Undivided)	Void	Not Supplied - Holocene
	WMGR	Infilled Ground	Artificial Deposit	Not Supplied - Holocene

Superficial Geology

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	ALV	Alluvium	Clay, Silt, Sand and Gravel	Not Supplied - Holocene
	LOFT	Lowestoft Formation	Diamicton	Not Supplied - Anglian
	ODT	Oadby Member	Diamicton	Not Supplied - Anglian
	GFDMP	Glaciofluvial Deposits, Mid Pleistocene	Sand and Gravel	Not Supplied - Cromerian
	GLLMP	Glaciolacustrine Deposits, Mid Pleistocene	Clay and Silt	Not Supplied - Cromerian
	HEAD	Head	Clay, Silt, Sand and Gravel	Not Supplied - Quaternary
	PEAT	Peat	Peat	Not Supplied - Quaternary

Bedrock and Faults

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	WMCH	West Melbury Marly Chalk Formation	Chalk	Not Supplied - Cenomanian
	TTST	Totternhoe Stone Member	Chalk	Not Supplied - Cenomanian
	ZZCH	Zig Zag Chalk Formation	Chalk	Not Supplied - Cenomanian
	MR	Melbourn Rock Member	Chalk	Not Supplied - Cenomanian
	HNCK	Holywell Nodular Chalk Formation and New Pit Chalk Formation (Undifferentiated)	Chalk	Not Supplied - Cenomanian
	GLT	Gault Formation	Mudstone	Not Supplied - Albian
		Faults		



Geology 1:50,000 Maps

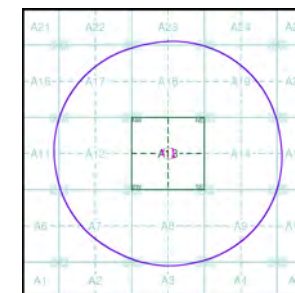
This report contains geological map extracts taken from the BGS Digital Geological map of Great Britain at 1:50,000 scale and is designed for users carrying out preliminary site assessments who require geological maps for the area around the site. This mapping may be more up to date than previously published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

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

Geology 1:50,000 Maps Coverage

Map ID:	1
Map Sheet No:	221
Map Name:	Hitchin
Map Date:	1995
Bedrock Geology:	Available
Superficial Geology:	Available
Artificial Geology:	Available
Faults:	Not Supplied
Landslip:	Available
Rock Segments:	Not Supplied

Geology 1:50,000 Maps - Slice A



Order Details:

Order Number:	387257705_1_1
Customer Reference:	UK25.7607
National Grid Reference:	514950, 231500
Slice:	A
Site Area (Ha):	0.68
Search Buffer (m):	1000

Site Details:

Site at 514950, 231500



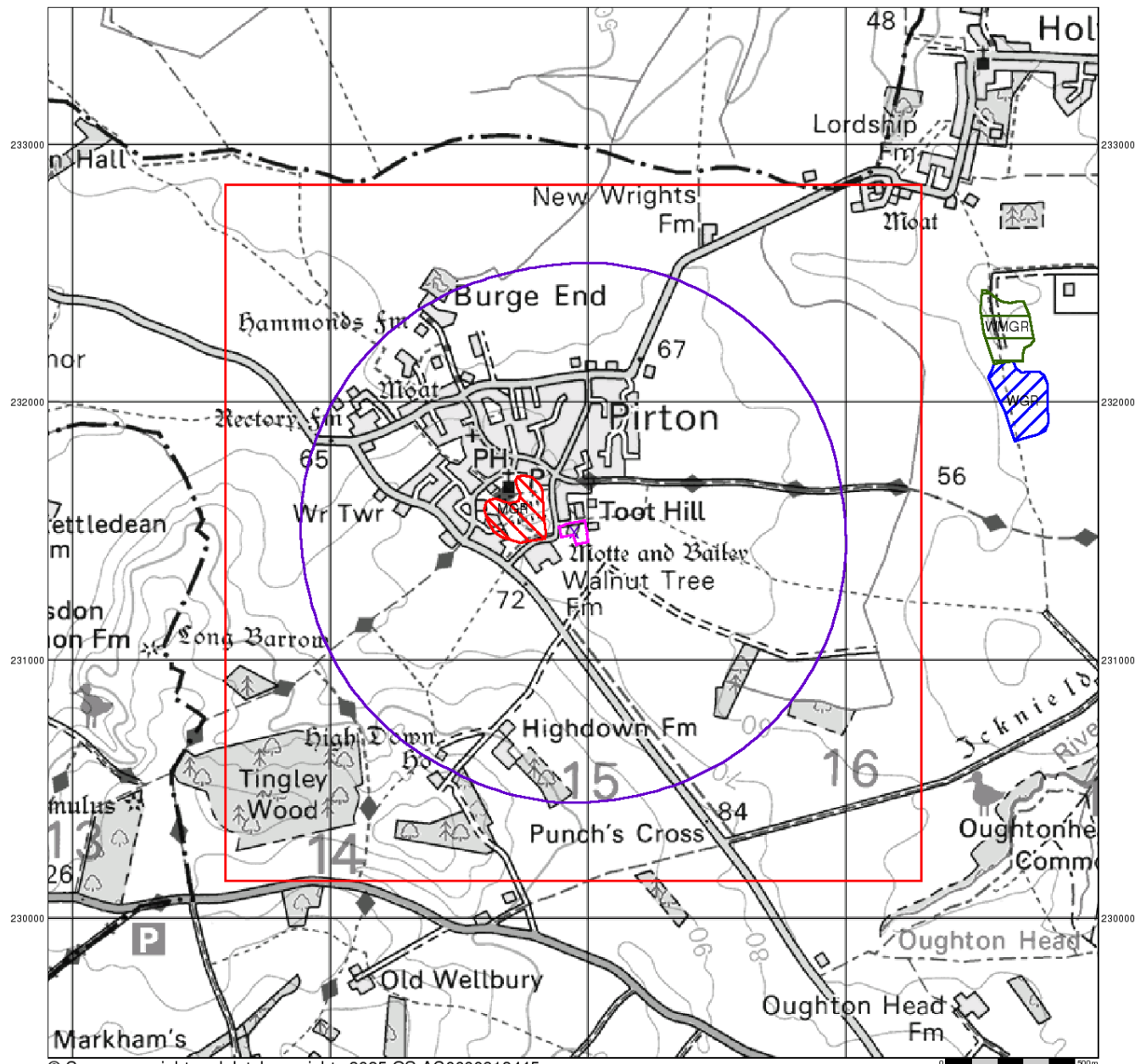
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Artificial Ground and Landslip

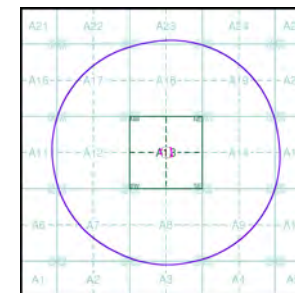
Artificial ground is a term used by BGS for those areas where the ground surface has been significantly modified by human activity. Information about previously developed ground is especially important, as it is often associated with potentially contaminated material, unpredictable engineering conditions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

Artificial ground includes:

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

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

Artificial Ground and Landslip Map - Slice A



Order Details:

Order Number: 387257705_1_1
 Customer Reference: UK25.7607
 National Grid Reference: 514950, 231500
 Slice: A
 Site Area (Ha): 0.68
 Search Buffer (m): 1000

Site Details:

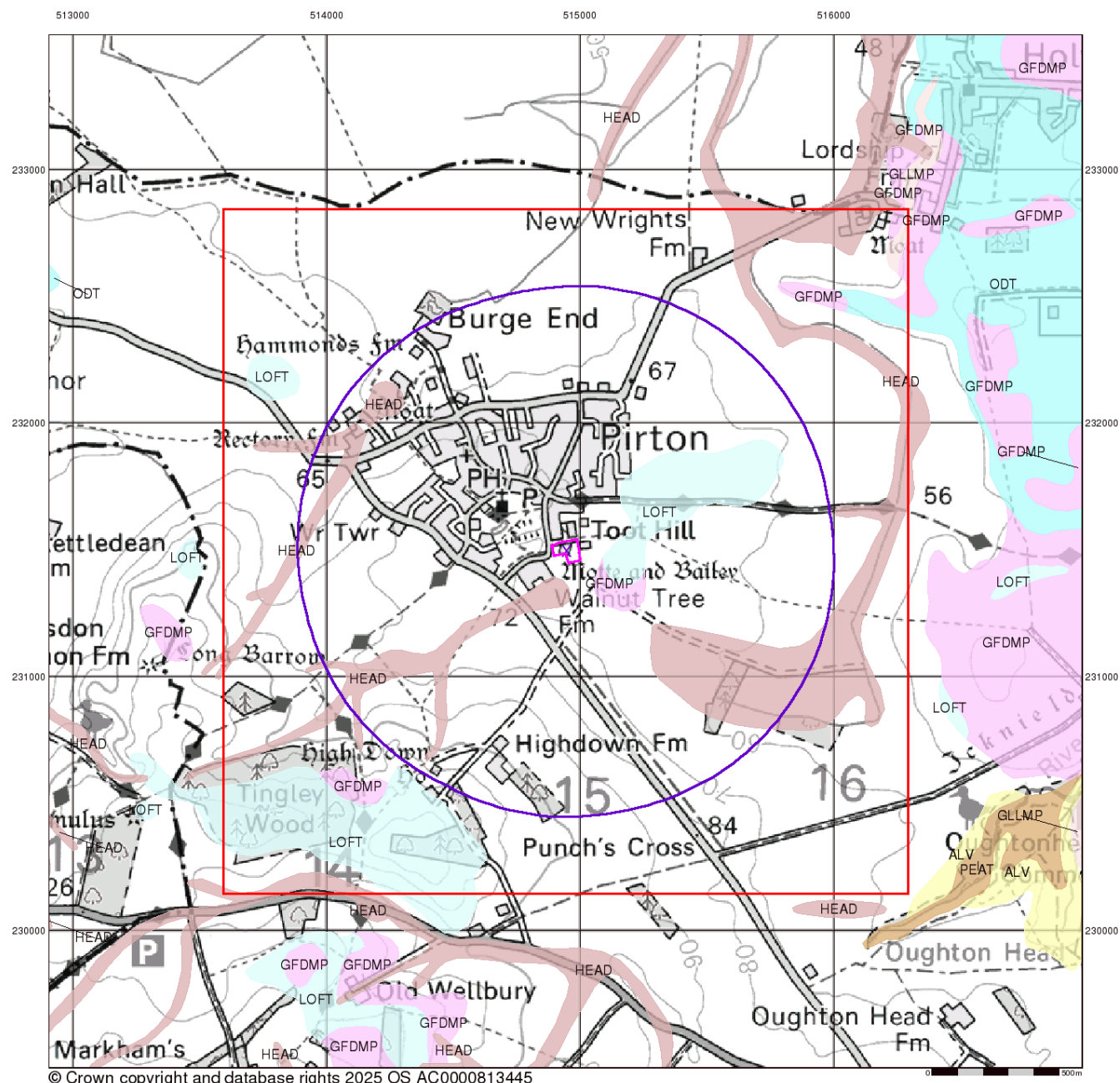
Site at 514950, 231500

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Page 2 of 5



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Bedrock and Faults

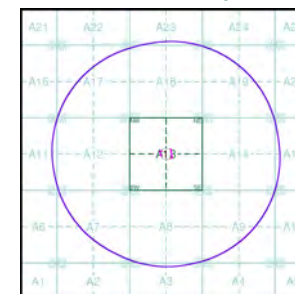
Bedrock geology is a term used for the main mass of rocks forming the Earth and are present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

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

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

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

Bedrock and Faults Map - Slice A



Order Details:

Order Number: 387257705_1_1
 Customer Reference: UK25.7607
 National Grid Reference: 514950, 231500
 Slice: A
 Site Area (Ha): 0.68
 Search Buffer (m): 1000

Site Details:

Site at 514950, 231500

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Page 4 of 5



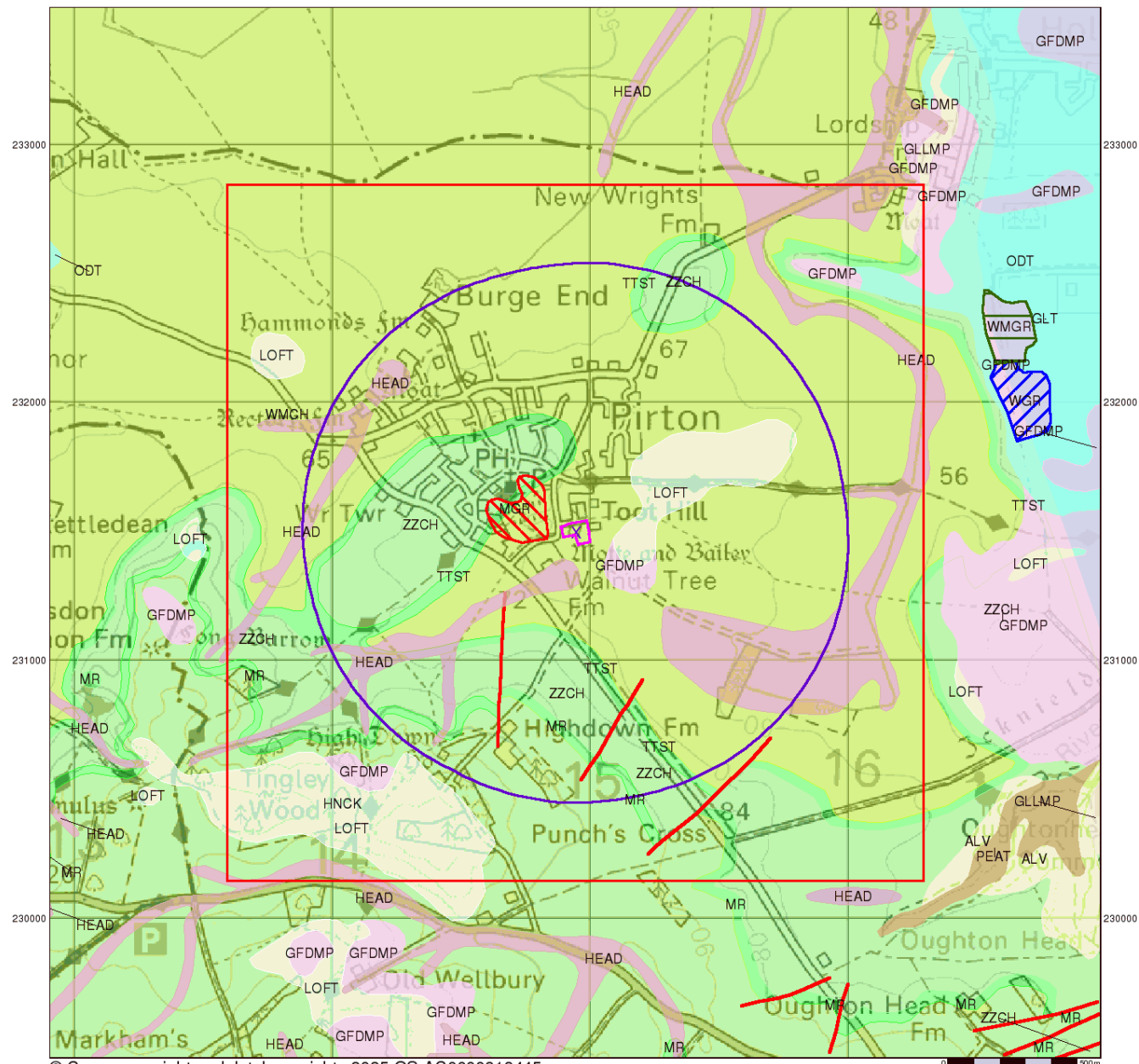
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Combined Surface Geology

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

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

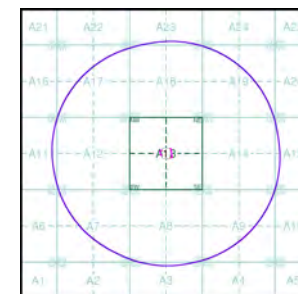
Additional Information

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

Contact

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

Combined Geology Map - Slice A



Order Details:

Order Number: 387257705_1_1
Customer Reference: UK25.7607
National Grid Reference: 514950, 231500
Slice: A
Site Area (Ha): 0.68
Search Buffer (m): 1000

Site Details:

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Page 5 of 5

LL BORING at *Pilton* N. of Church. County *Devon*
Geol. map *221* 1 in. map New Series *221* Date *9/5/15*
Made by *Sunk* feet. Bored *69* feet.
Communicated by *Mr. W. Pollard of Oakfield, Hildesheim*
Height above Ordnance Datum *est 72m* Rest level of water
Yield *Sufficient supply for 2 small cottages.*
Quality (with copy of analysis on separate sheet)

TL 13 SW 19
1463 3172

GEOLOGICAL FORMATION.	NATURE OF STRATA.	THICKNESS.		DEPTH.	
		Feet.	Inches.	Feet.	Inches.
	<i>Chalk Marl</i>	<i>115</i>	<i>35.05</i>		

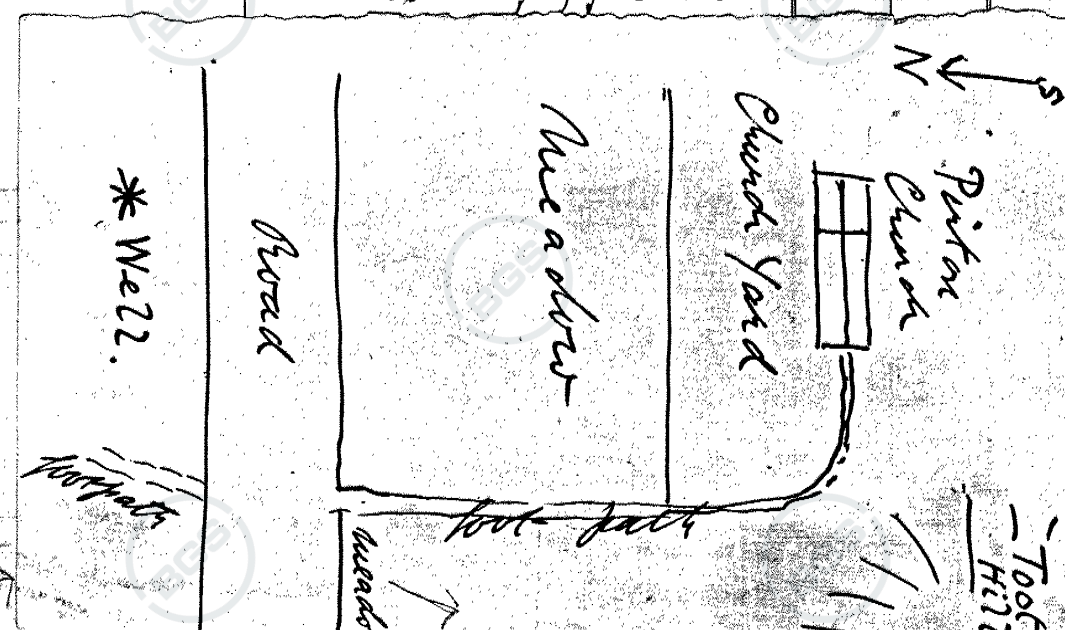
The site of this boring is shown on One-inch Map 221 (in Room 34)

The property of Major Pollard, Cleve Weir, Hildesheim, O.D. 246. Occasional use. Hildesheim U.D.C. D.O. 22/11/1916. The boring was made by Mr. C.P. Martin of Hildesheim, Herts.

The well was bored - a 4½" bore - by the usual punching arrangement.

Specimens from various depths were sent up by Mr Pollard and were all mainly chalk. A specimen from 115 ft was marl - rather of a glauconitic

p. 207





221 TL13/45
69

Pirton.
Ordnance Map 221, new ser. (Herts. 6, SE.). Geologic Map 46, NE.
1. North-west of the Church.
Made by C. P. MARTIN, of Harpenden. Communicated by Dr. W. POLLARD.
A 4 1/2 in. boring, through 115 ft. of Chalk Marl.
Sufficient supply for two cottages.
Judging from specimens, the Upper Greensand was not reached (A. STRAHAN).

Lck 115
mjc July '66

Visited. Pollards Cottages, Crabtree Lane, in use-handpump. O.D. 248 ft.
Sited on 6"- Beds 26 SE/E
[redacted] 24.4.42

100 yds. N.W. of St. Mary's Ch.

Visited. Disused, inassemblable, handpump. Herts 6 SE-E.
mjc 20/9/60.

221/69 Pollards Cottages, Crabtree Lane, Pirton. (Disused) TL13/45
W.S.B.H. p. 237. Surface +246 ft. Bore 4 1/2 in. Handpump. Martin, 1915.
Lck 115 115

GEOLOGICAL CLASSIFICATION	NATURE OF STRATA	THICKNESS ft.	DEPTH ft.
Lck. 115'	Chalk Marl	115	115
At [redacted] July '66.			



221/69 Pollards Cottages, Crabtree Lane, Pirton. (Disused)

TL13/45

W.S.B.H. p. 237. Surface +246¾. Bore 4½ in. Handpump. Martin, 1915.

TL1463 3172

Lck

115

115

GEOLOGICAL
CLASSIFICATION

NATURE OF STRATA

THICKNESS
ft.

DEPTH
ft.

Lck, 115'

Chalk Marl

115

115

pr [redacted] July '66.

221 TL13/45

60

Pirton.

Ordinance Map 221, new ser. (Herts. 6, SE.). Geologic Map 46, NE.

1. North-west of the Church.

Made by C. P. MARTIN, of Harpenden. Communicated by Dr. W. POLLARD.

A 4½ in. boring, through 115 ft. of Chalk Marl.

Sufficient supply for two cottages.

Judging from specimens, the Upper Greensand was not reached (A. STRAHAN).

LCK
115

mje July '66

Visited. Pollards Cottages, Crabtree Lane, in use-handpump. O.D. 248 ft.
Sited on 6"- Beds 26 SE/E

24-4-42

100 yds. N.W. of St. Mary's Ch.

Visited. Disused, inaccessible, handpump. Herts 6 SE-E.

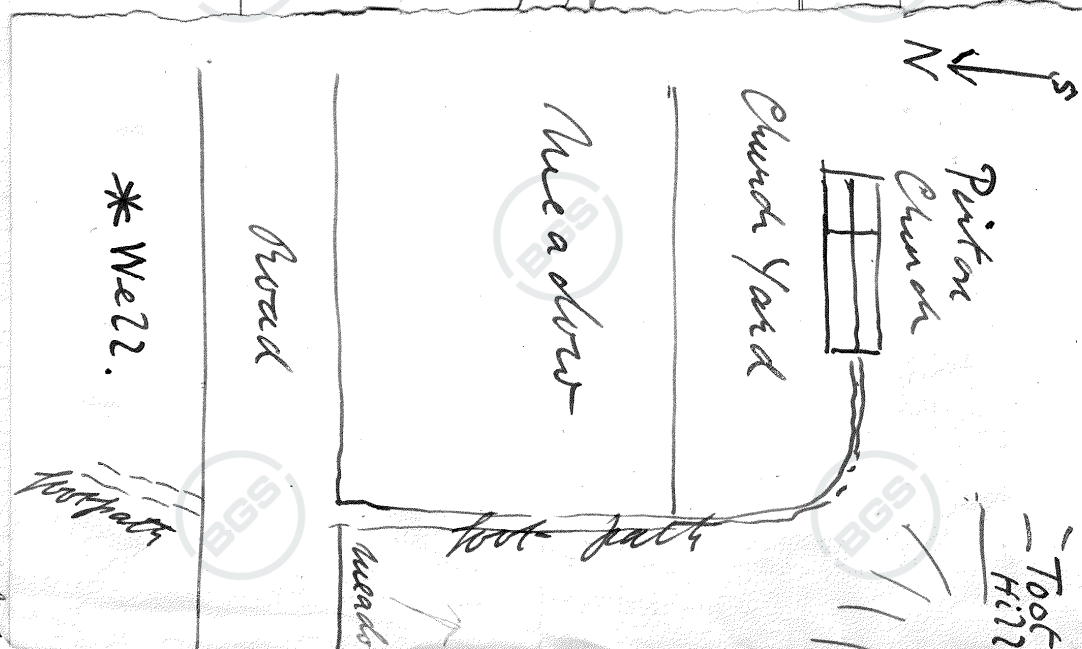
20/9/60.

Water Supply of
Bucks. & Herts.

Page 237

LL BORING at *Piston* N. of Church. County *Herts*
Geol. map 1 in. map New Series *221* 6 in. map *TL13/45*
Made by *Sunk* Date *915*
Sunk feet. Bored feet. *69*
Communicated by *Dr. W. Pollard of Oakfield, Hitchin*
Height above Ordnance Datum Rest level of water
Yield *Sufficient supply for 2 small cottages*
Quality (with copy of analysis on separate sheet)

GEOLOGICAL FORMATION.	NATURE OF STRATA.	THICKNESS.		DEPTH.	
		Feet.	Inches.	Feet.	In.
	<i>Chalk Marl</i>	<i>115</i>	<i>"</i>		
<i>The site of this boring is shown on One-inch Map 221 (in Room 34)</i> <i>The property of Major Pollard, Cleve Works, Winkley, Hants O.D. 246. H. Occasional use. Separation from Hitchin U.D.C. 22/11/1915</i> <i>The boring was made by Mr. C.P. Martin of Hatfield, Herts.</i> <i>The well was bored - a 4½" bore - by the usual punching arrangement.</i> <i>Specimens from various depths were sent up by Dr Pollard and were all mainly chalk. N.V.</i> <i>Upper greensand was apparently not actually touched. A specimen from 115 feet was marl - little if any glauconite</i>					





221/70 Walnut Tree Farm, Pirton

TL1433 3138 TL13/44

W.S.B.H. p. 237. Surface +233. Bore 4 in. Martin, 1910.
Yield 400 g.p.h. Feb. 1956. Yield 1,000 g.p.d. Electric pump. Sept. 1960.

Lck) ... 120 120
? G)

GEOLOGICAL
CLASSIFICATION

NATURE OF STRATA

THICKNESS
ft.

DEPTH
ft.

Lck
+ G ? 126

Chalk Marl
Blue clay-like chalk
Fault

20

20

50

70

50

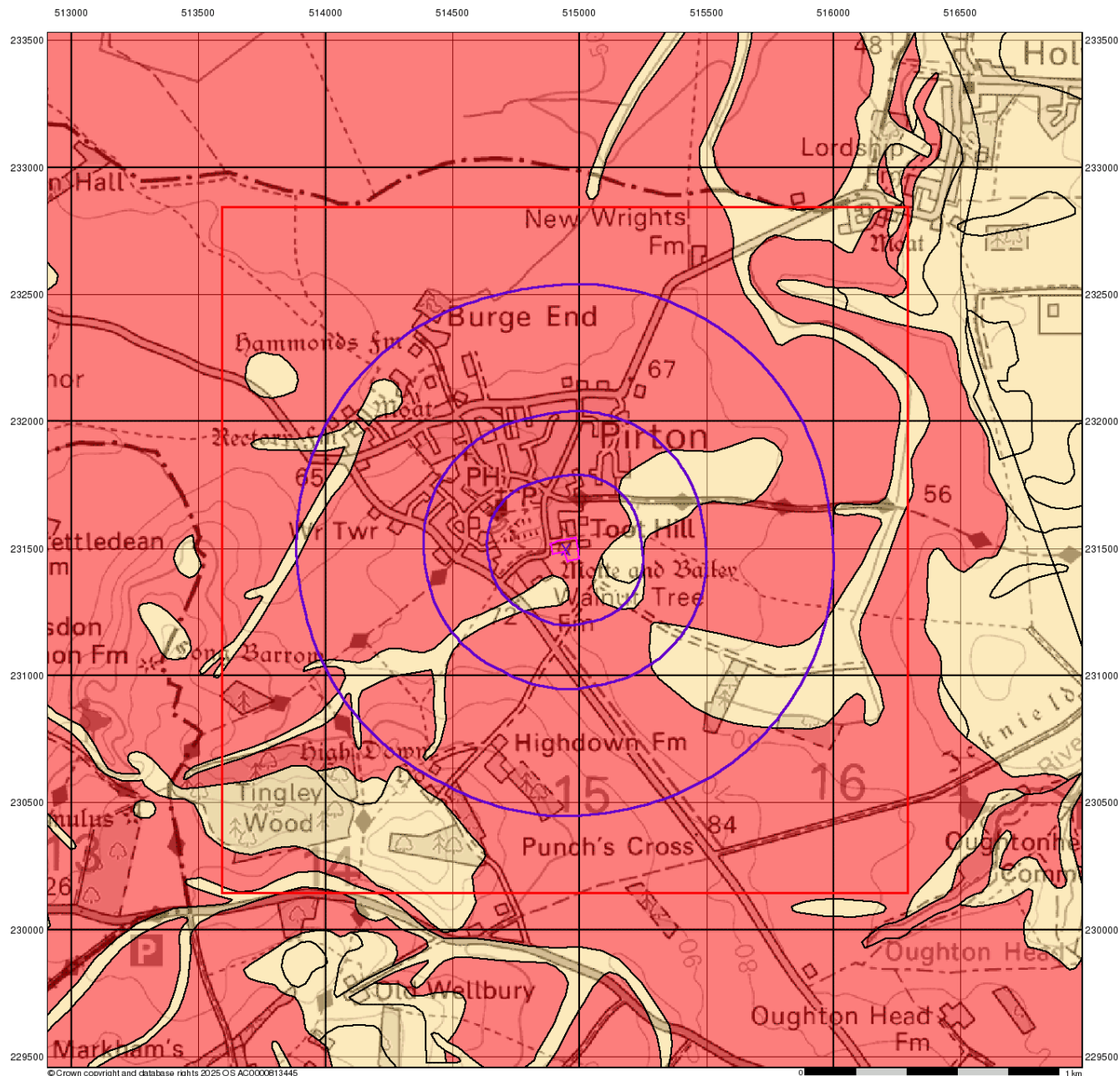
120

PP.

22/3/68.

APPENDIX E

Groundwater Vulnerability & Flood Risk Maps



Groundwater Vulnerability

General

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

Agency and Hydrological

Bedrock Aquifers

- High Vulnerability, Principal Aquifer
- High Vulnerability, Secondary Aquifer
- Medium Vulnerability, Principal Aquifer
- Medium Vulnerability, Secondary Aquifer
- Low Vulnerability, Principal Aquifer
- Low Vulnerability, Secondary Aquifer

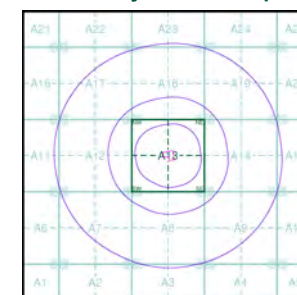
Superficial Aquifers

- High Vulnerability, Principal Aquifer
- High Vulnerability, Secondary Aquifer
- Medium Vulnerability, Principal Aquifer
- Medium Vulnerability, Secondary Aquifer
- Low Vulnerability, Principal Aquifer
- Low Vulnerability, Secondary Aquifer

Unproductive Aquifer

Soluble Rock

Site Sensitivity Context Map - Slice A



Order Details

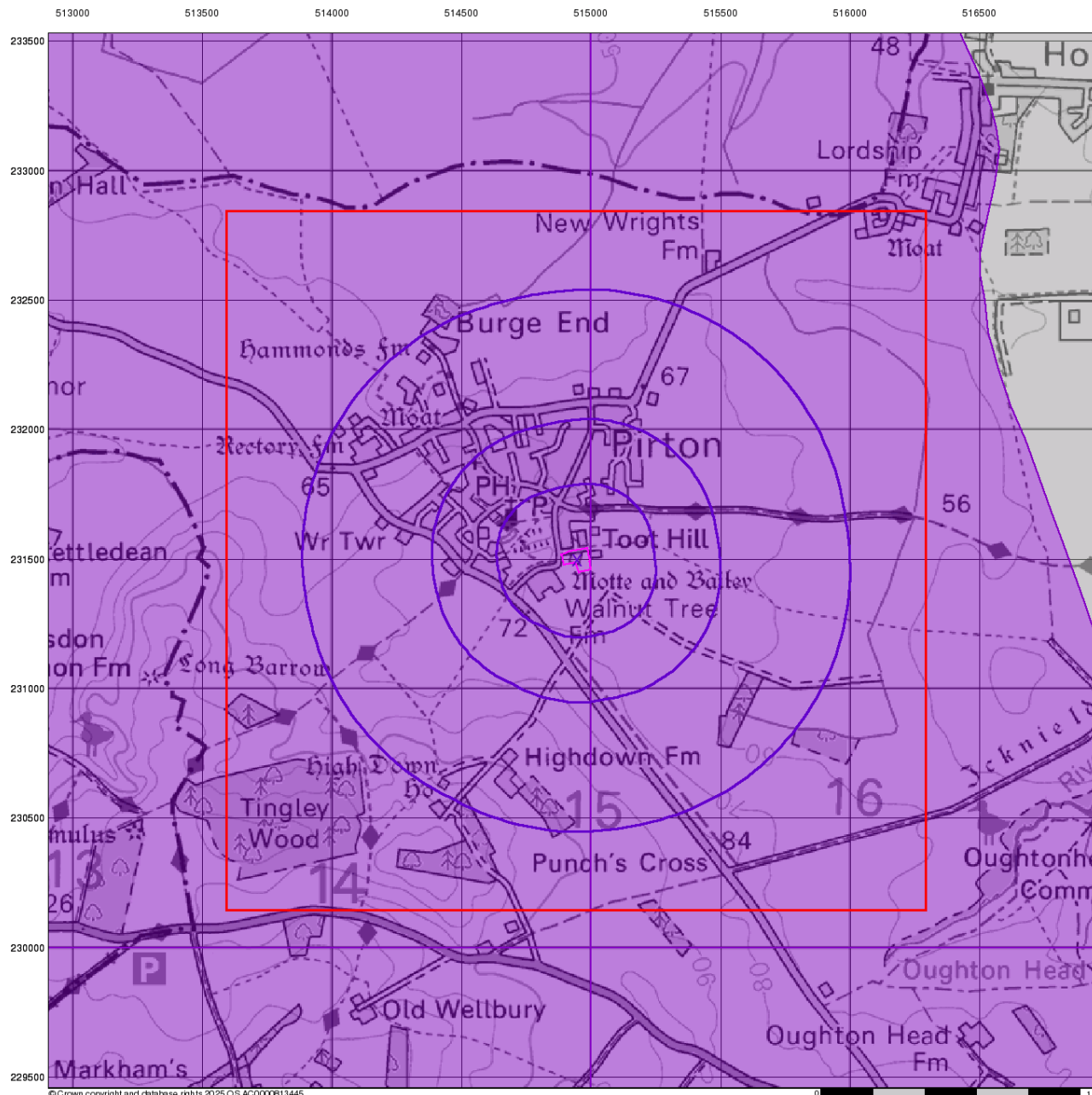
Order Number: 387257705_1_1
 Customer Ref: UK25.7607
 National Grid Reference: 514950, 231500
 Slice: A
 Site Area (Ha): 0.68
 Search Buffer (m): 1000

Site Details

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Bedrock Aquifer Designation

General

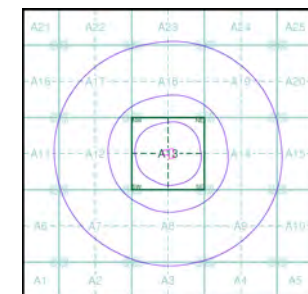
- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Agency and Hydrological

Geological Classes

- Principal Aquifer
- Secondary A Aquifer
- Secondary B Aquifer
- Secondary Undifferentiated
- Unproductive Strata
- Unknown
- Unknown (Lakes and Landslip)

Site Sensitivity Context Map - Slice A



Order Details

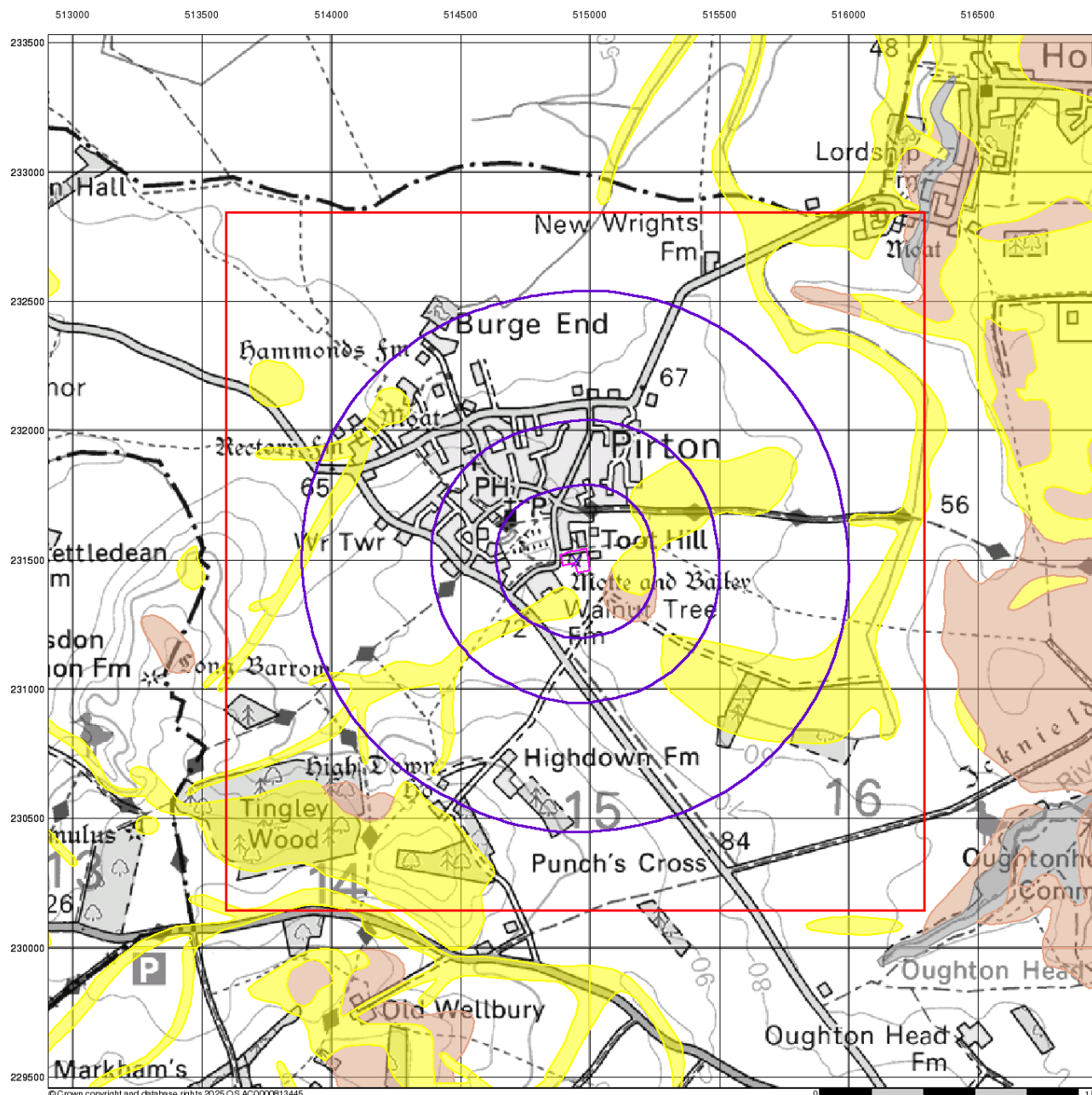
Order Number: 387257705_1_1
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Superficial Aquifer Designation

General

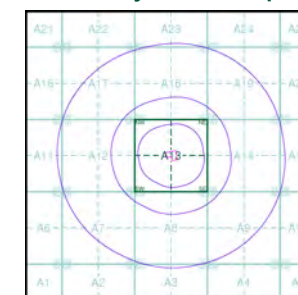
- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Agency and Hydrological

Geological Classes

- Principal Aquifer
- Secondary A Aquifer
- Secondary B Aquifer
- Secondary Undifferentiated
- Unproductive Strata
- Unknown
- Unknown (Lakes and Landslip)

Site Sensitivity Context Map - Slice A



Order Details

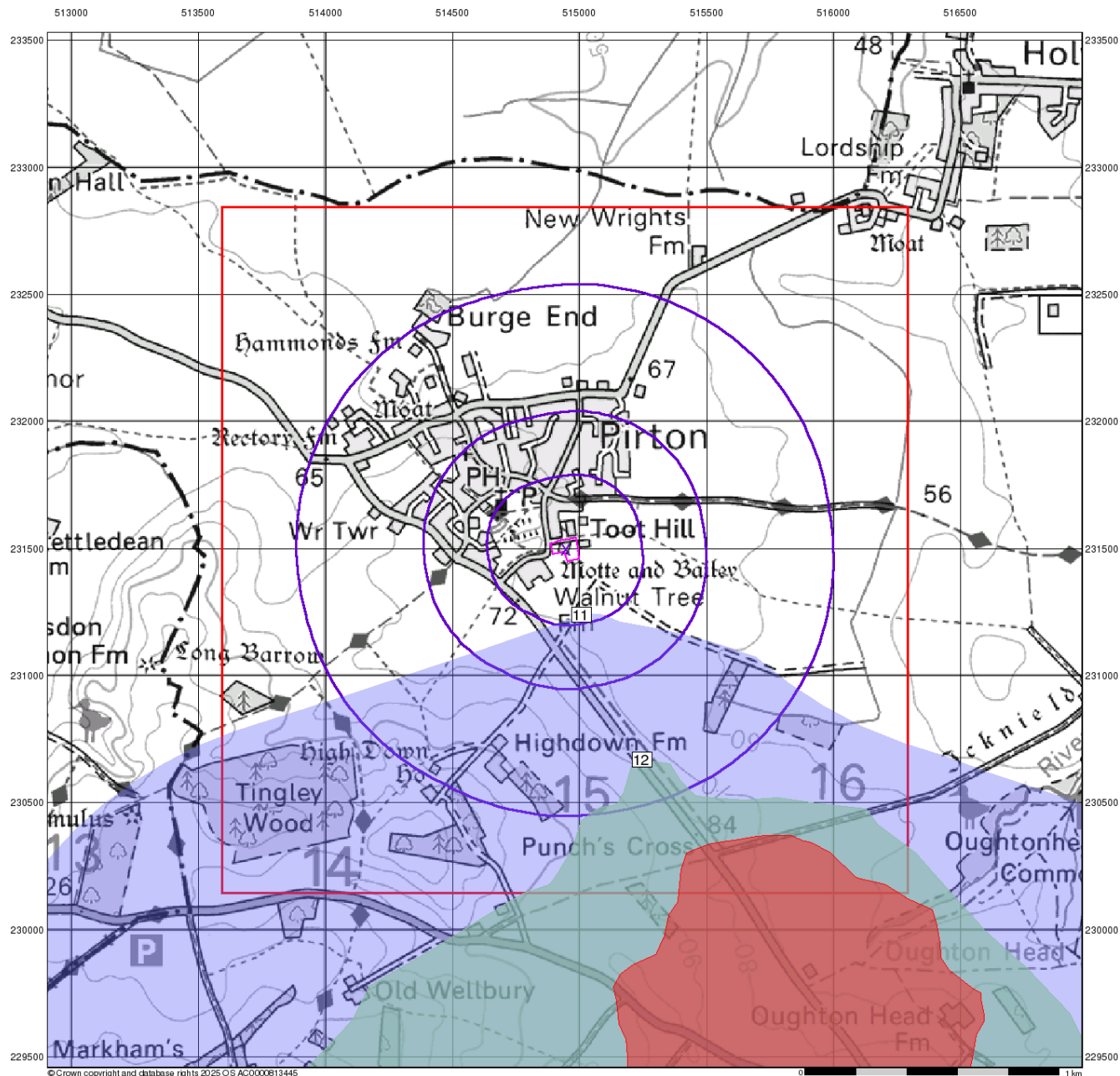
Order Number: 387257705_1_1
 Customer Ref: UK25.7607
 National Grid Reference: 514950, 231500
 Slice: A
 Site Area (Ha): 0.68
 Search Buffer (m): 1000

Site Details

Site at 514950, 231500



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Source Protection Zones

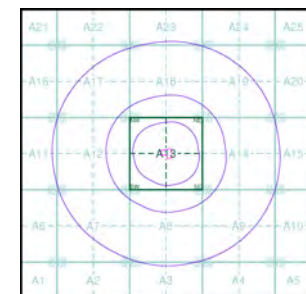
General

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

Agency and Hydrological

- Inner zone (Zone 1)
- Inner zone - subsurface activity only (Zone 1c)
- Outer zone (Zone 2)
- Outer zone - subsurface activity only (Zone 2c)
- Total catchment (Zone 3)
- Total catchment - subsurface activity only (Zone 3c)
- Special interest (Zone 4)

Site Sensitivity Context Map - Slice A



Order Details

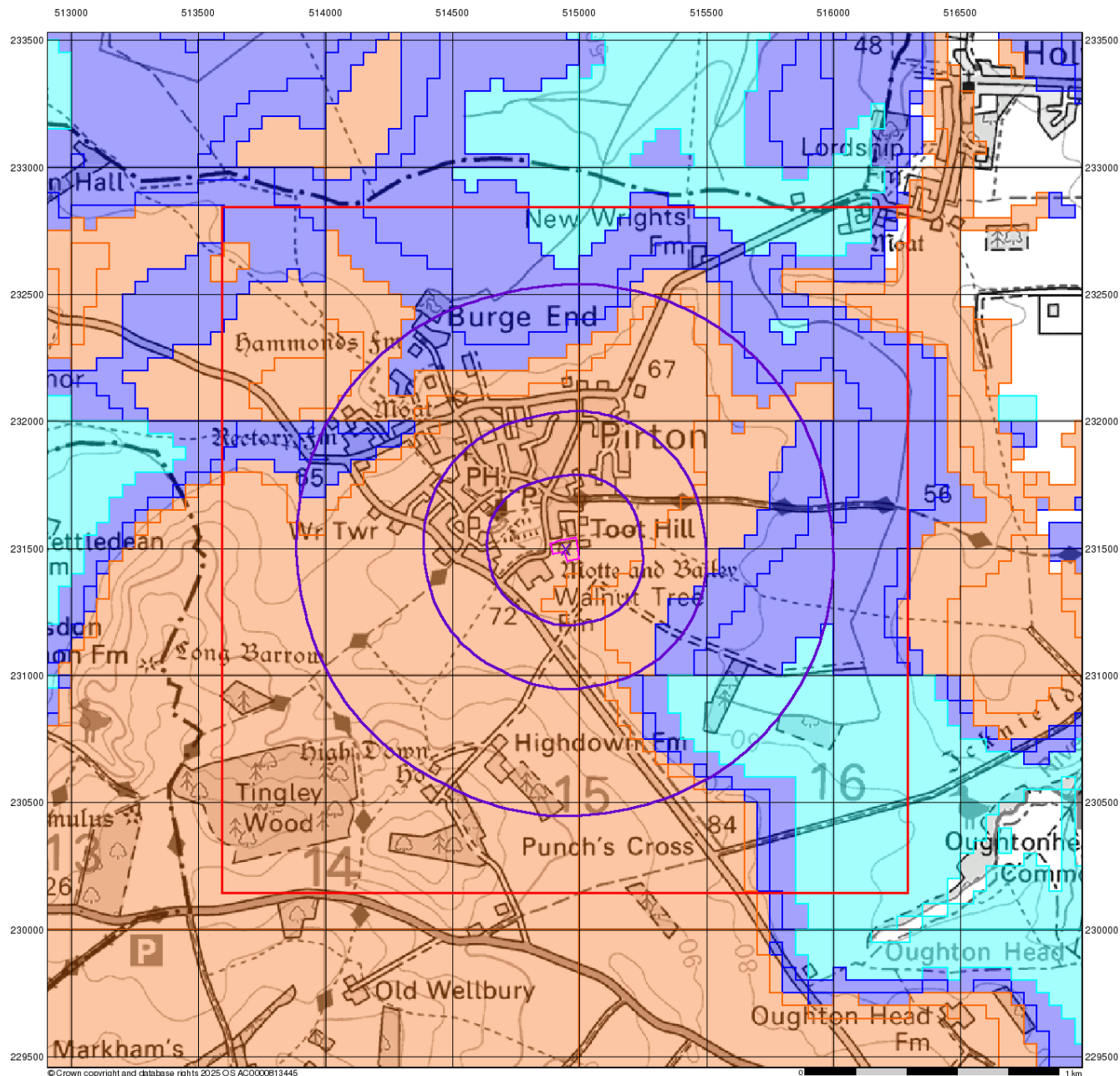
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 Customer Ref: UK25.7607
 National Grid Reference: 514950, 231500
 Slice: A
 Site Area (Ha): 0.68
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BGS Flood GFS Data

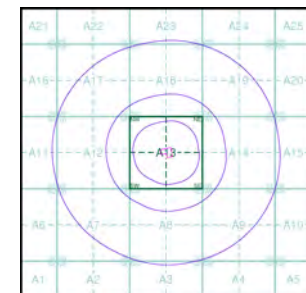
General

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

Agency and Hydrological (Flood)

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

Site Sensitivity Context Map - Slice A



Order Details

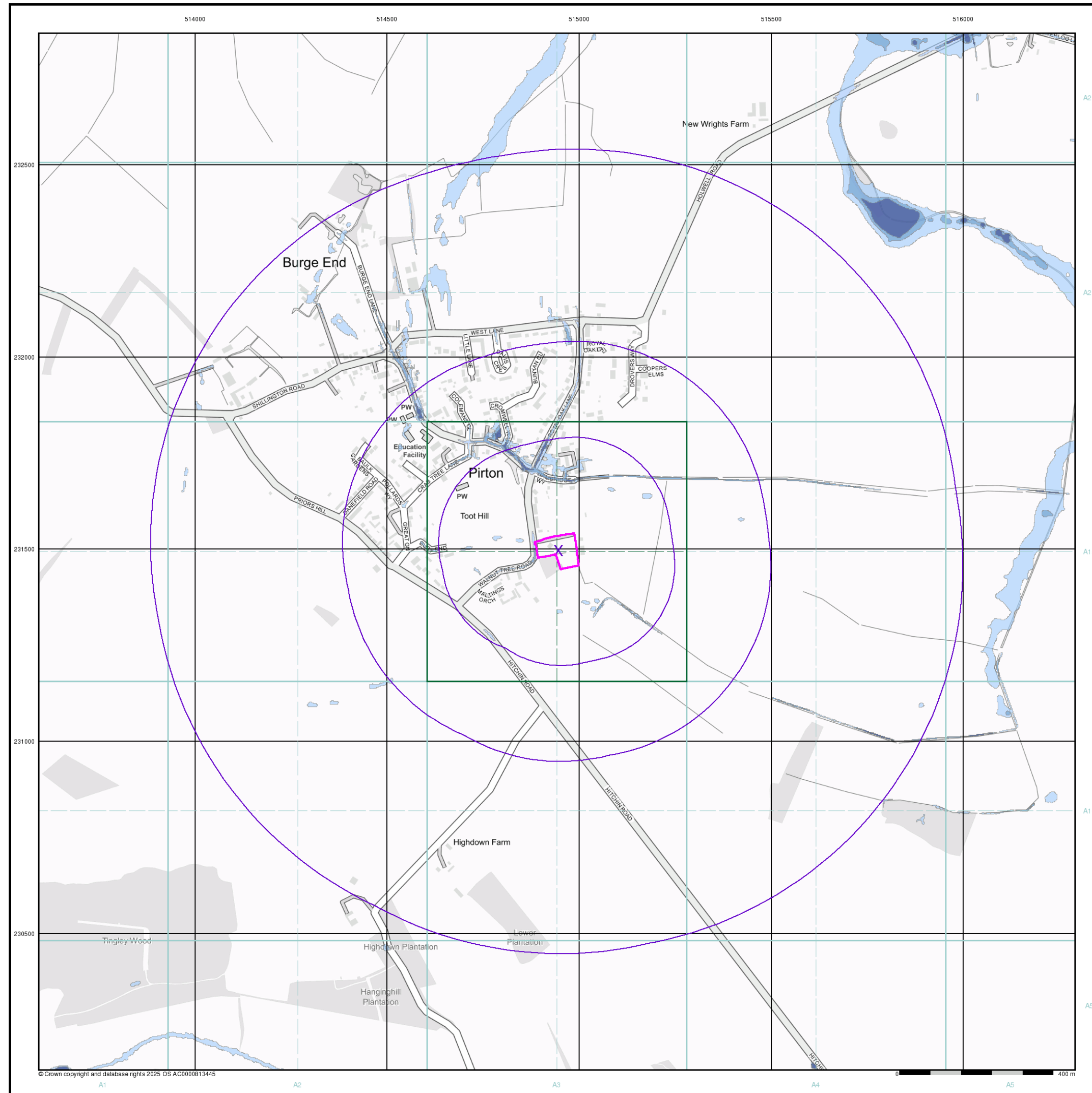
Order Number: 387257705_1_1
 Customer Ref: UK25.7607
 National Grid Reference: 514950, 231500
 Slice: A
 Site Area (Ha): 0.68
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General

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

Risk of Flooding from Surface Water

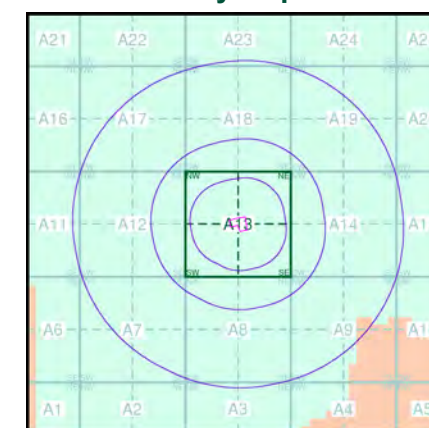
- High - 30 Year Return
- Medium - 100 Year Return
- Low - 1000 Year Return

Suitability

See the suitability map below

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

E/NRW Suitability Map - Slice A



Order Details

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Site Area (Ha): 0.68
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Site Details

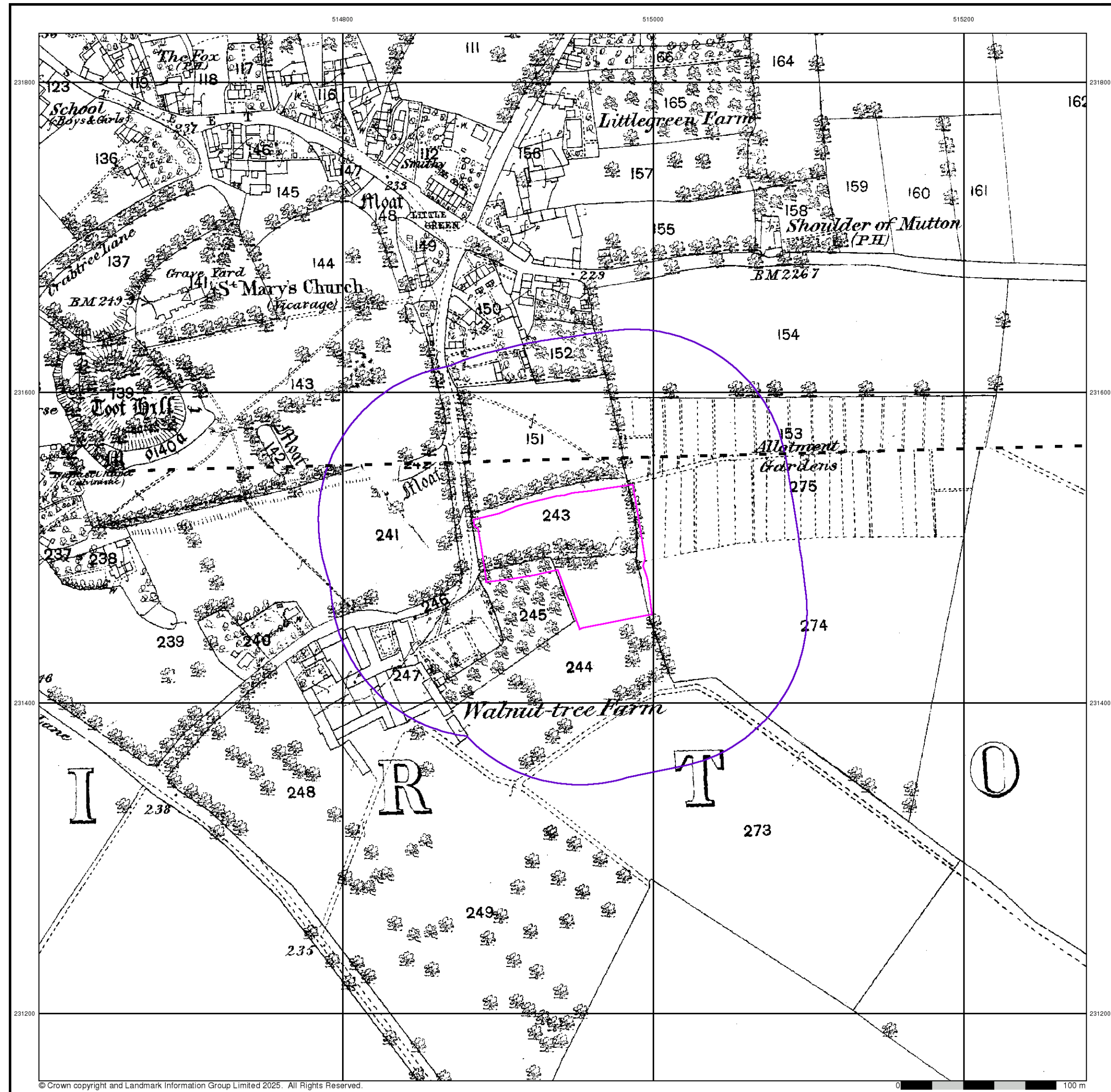
Site at 514950, 231500



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APPENDIX F

A Selection of Historic Maps



Hertfordshire

Published 1881 - 1882

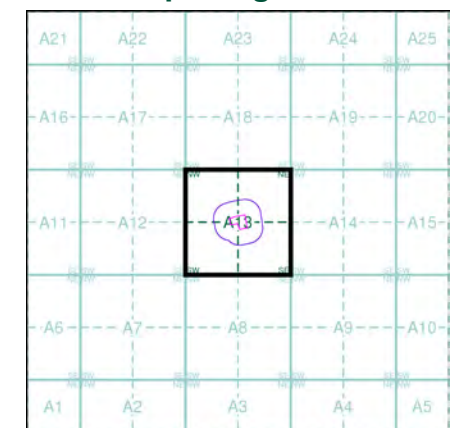
Source map scale - 1:2,500

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

Map Name(s) and Date(s)

006_12
1882
1:2,500
006_16
1881
1:2,500

Historical Map - Segment A13



Order Details

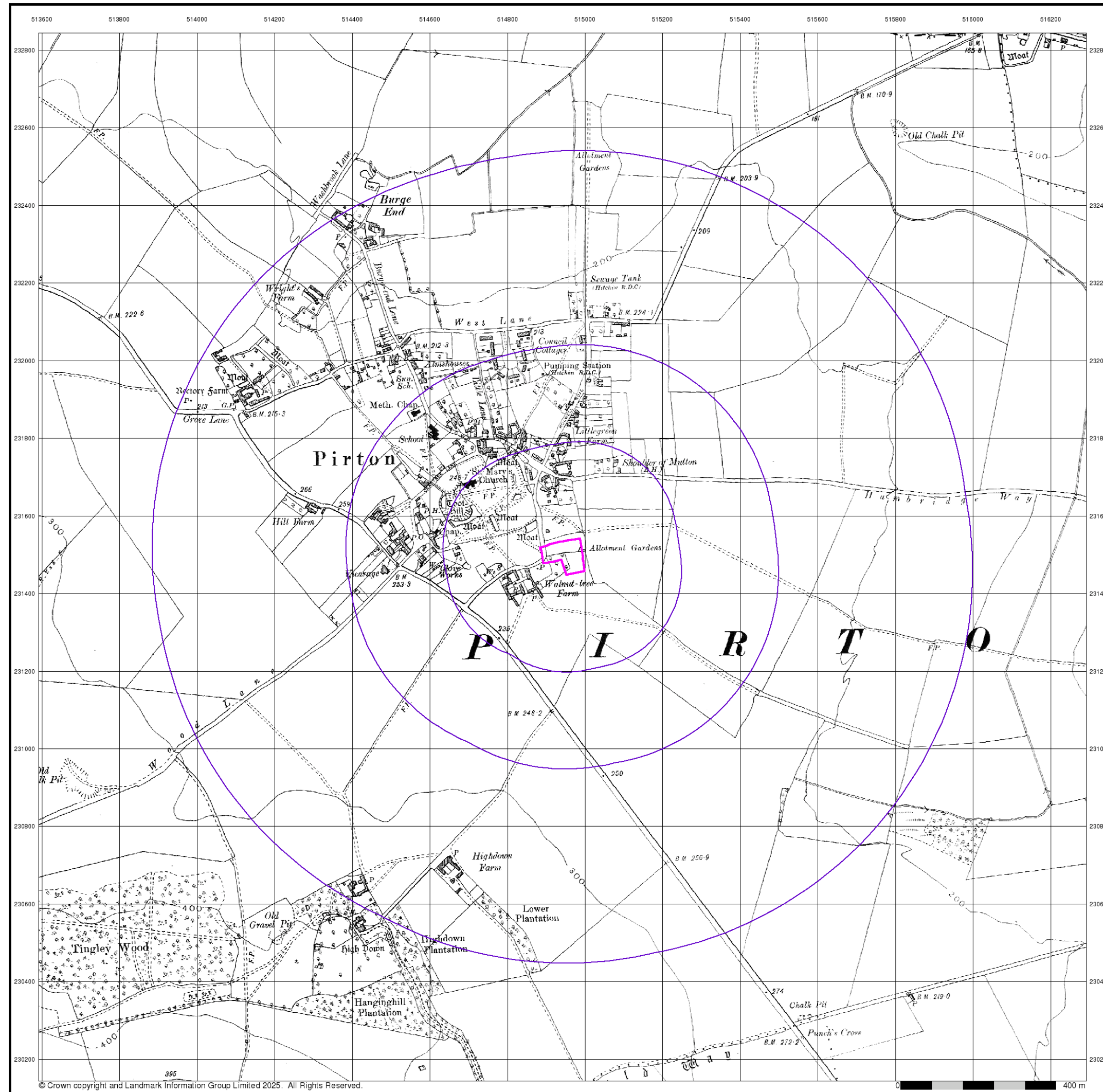
Order Number: 387257705_1_1
Customer Ref: UK25.7607
National Grid Reference: 514950, 231500
Slice: A
Site Area (Ha): 0.68
Search Buffer (m): 100

Site Details

Site at 514950, 231500



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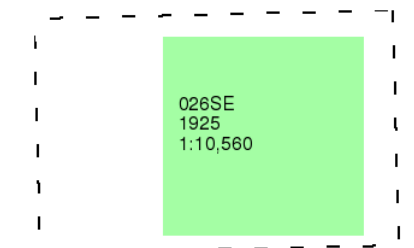
Bedfordshire

Published 1925

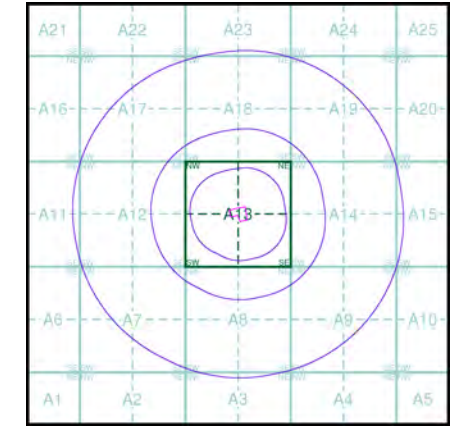
Source map scale - 1:10,560

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

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

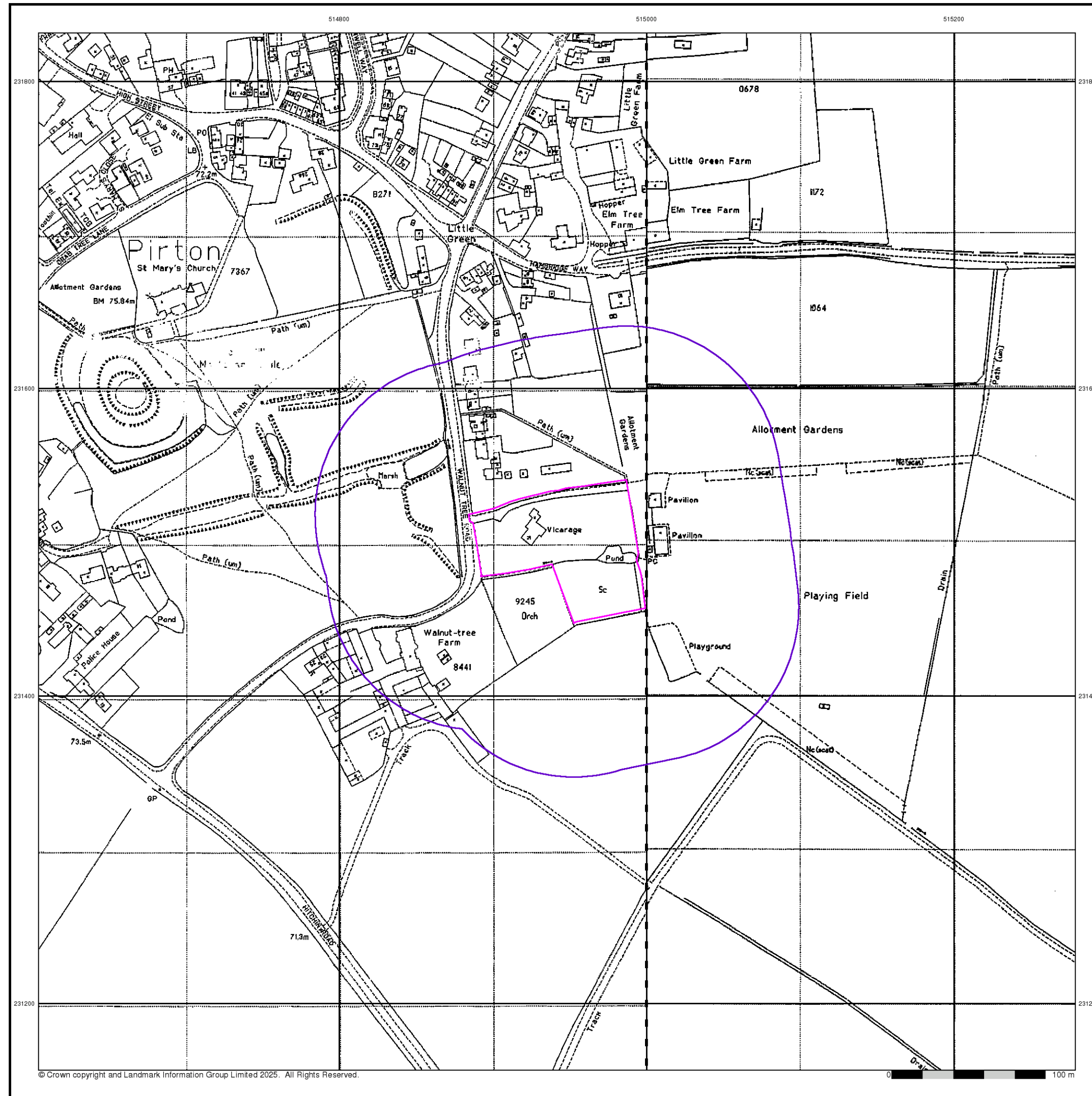
Order Number: 387257705_1_1
Customer Ref: UK25.7607
National Grid Reference: 514950, 231500
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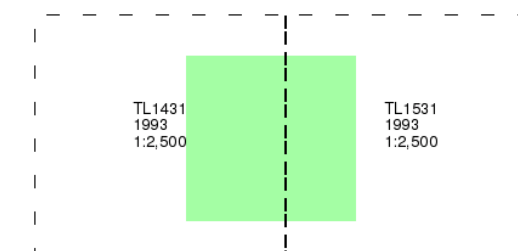
Large-Scale National Grid Data

Published 1993

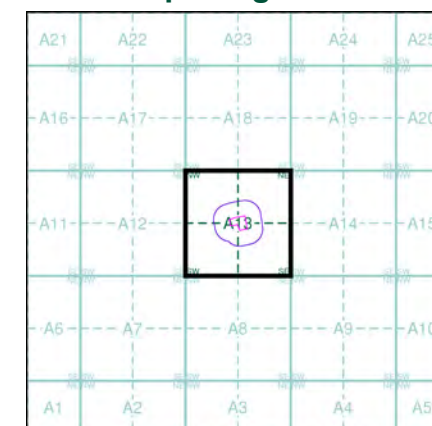
Source map scale - 1:2,500

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

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

Order Number: 387257705_1_1
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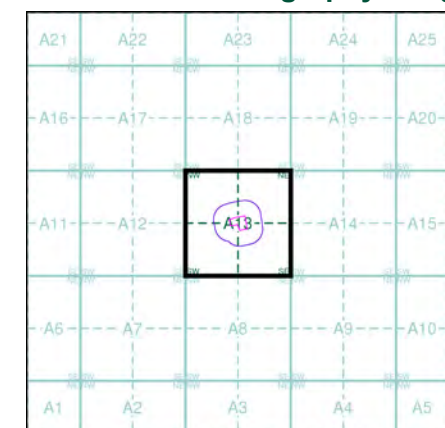


Historical Aerial Photography

Published 1999

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

Historical Aerial Photography - Segment A13



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