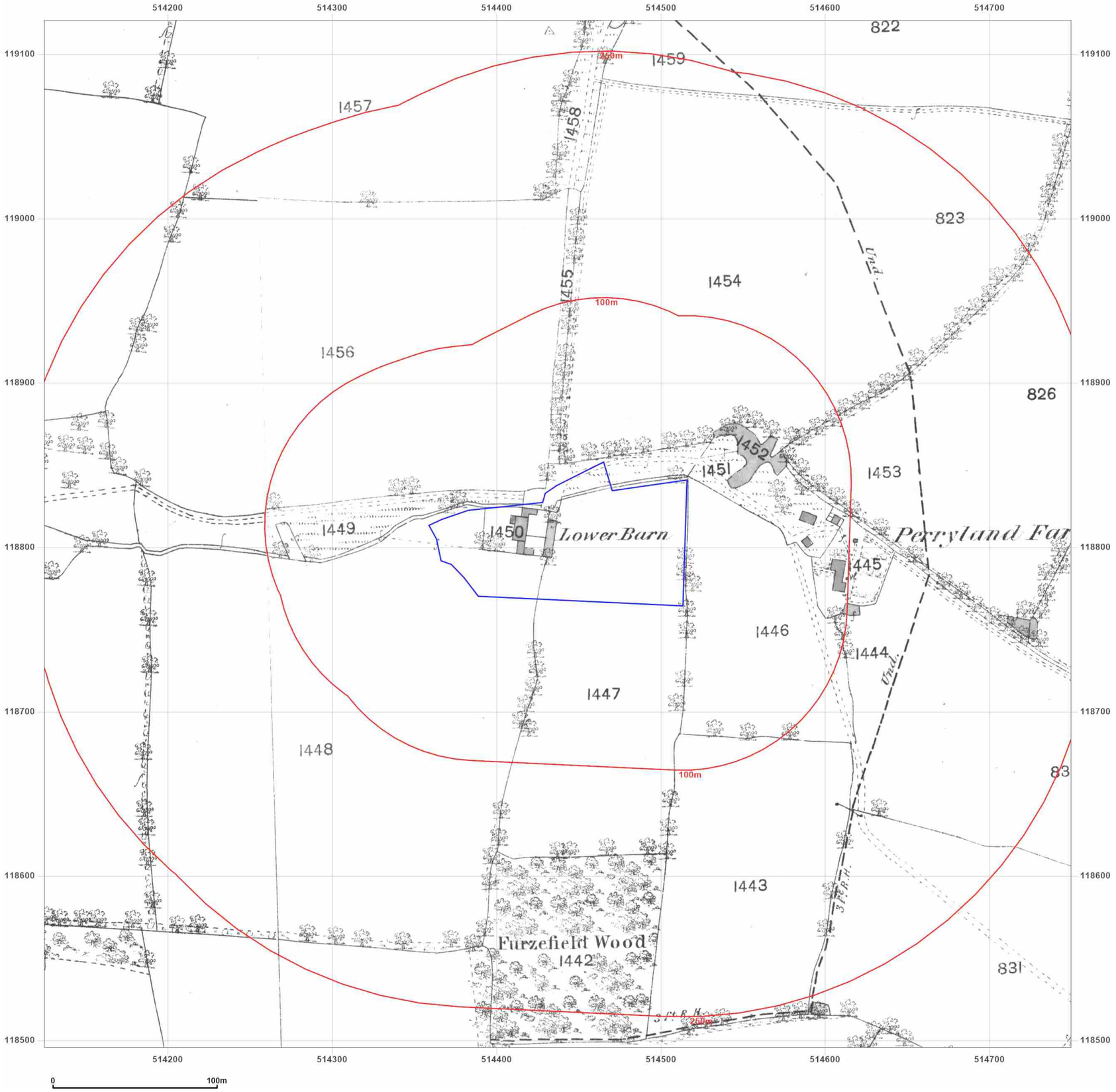
Photo 13 – Fragments of suspected asbestos cement on the ground.

APPENDIX D – GROUNDSURE REPORT



Groundsure INSIGHTS

Site Details:

Lower Perrylands Farm

Client Ref: ON251025
Report Ref: GS-XC9-TAM-V2K-G5B
Grid Ref: 514437, 118808

Map Name: County Series
Map date: **1875**
Scale: 1:2,500
Printed at: 1:2,500

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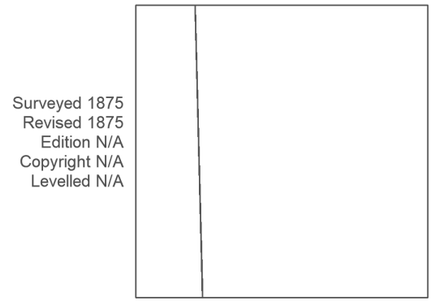

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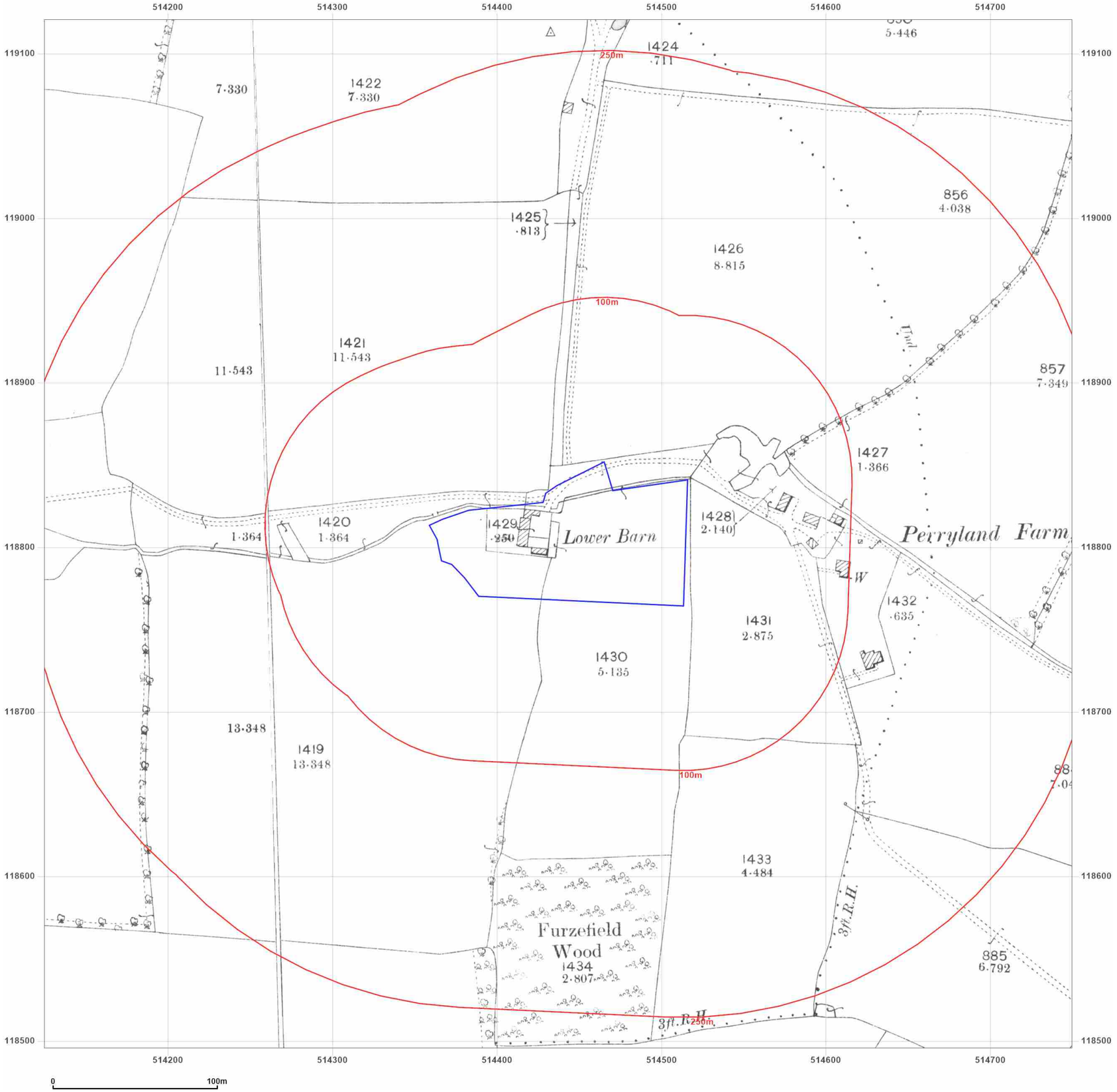

Groundsure INSIGHTS

Site Details:

Lower Perrylands Farm

Client Ref: ON251025
Report Ref: GS-XC9-TAM-V2K-G5B
Grid Ref: 514437, 118808

Map Name: County Series

Map date: **1897**

Scale: 1:2,500

Printed at: 1:2,500

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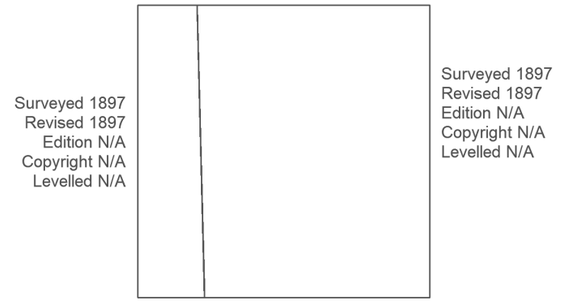

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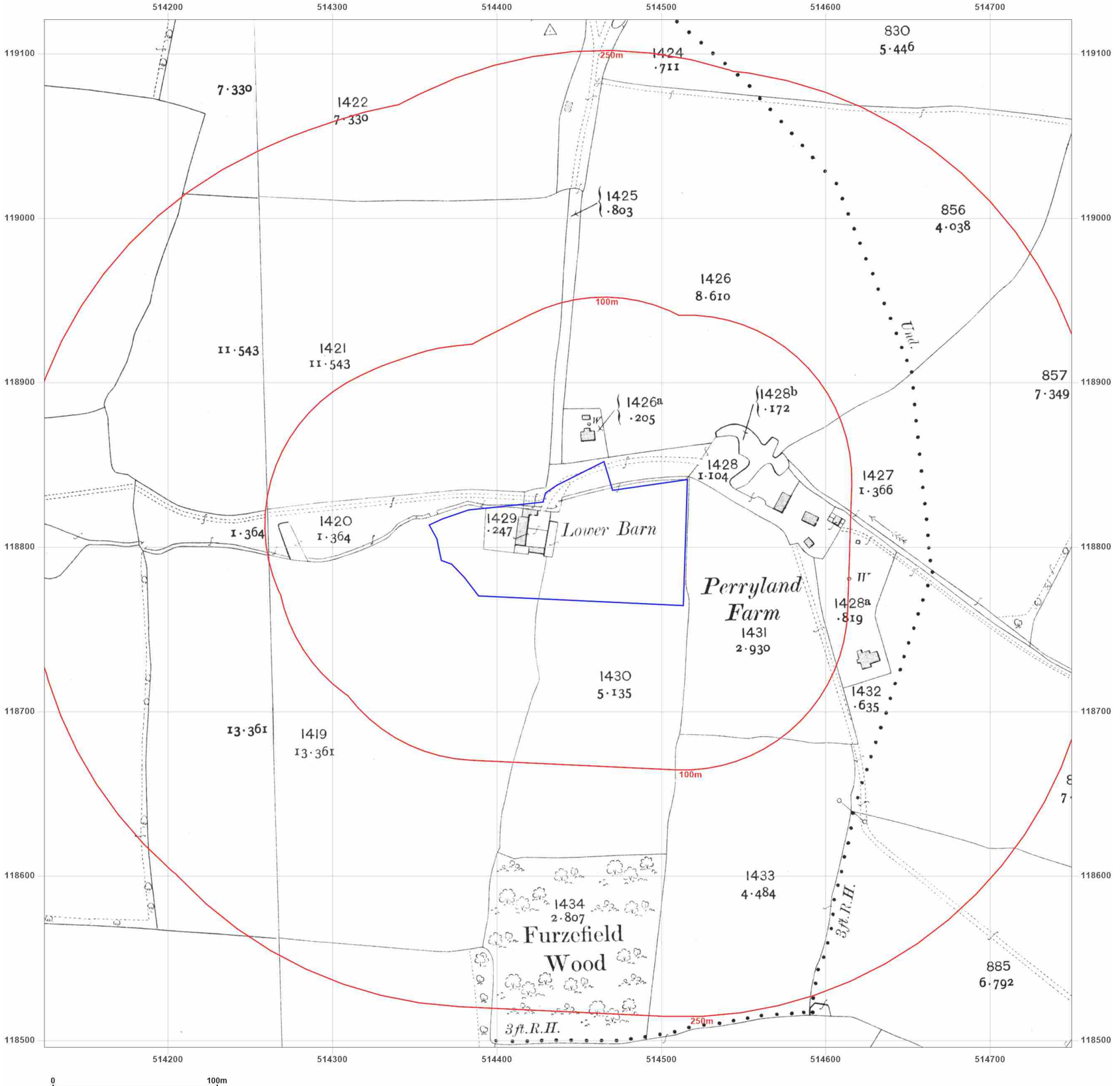

Groundsure INSIGHTS

Site Details:

Lower Perrylands Farm

Client Ref: ON251025
Report Ref: GS-XC9-TAM-V2K-G5B
Grid Ref: 514437, 118808

Map Name: County Series
Map date: **1911**
Scale: 1:2,500
Printed at: 1:2,500

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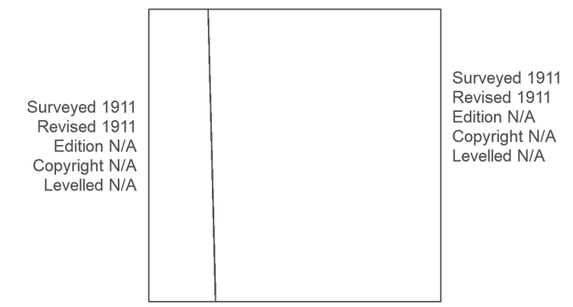

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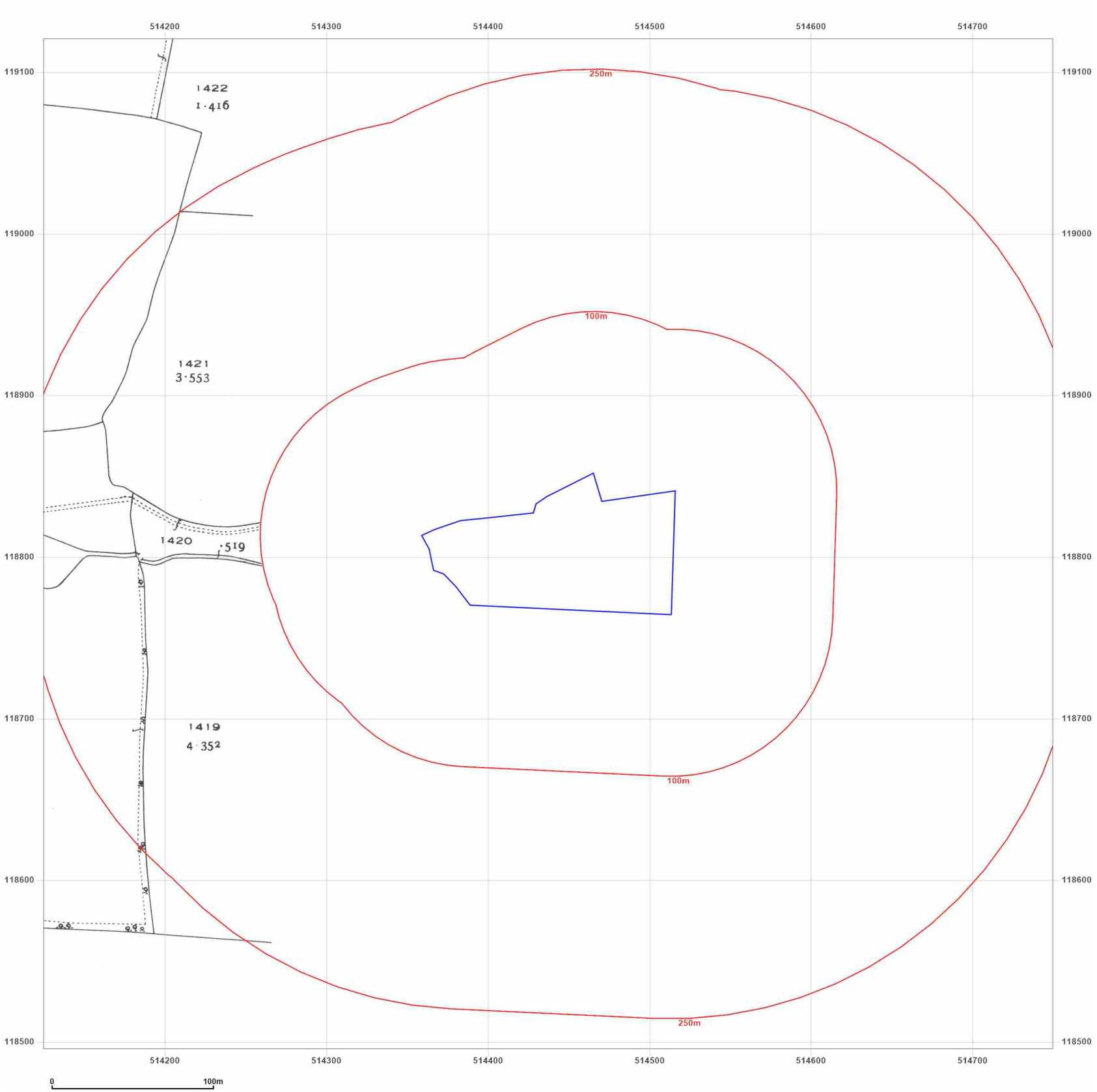

Groundsure INSIGHTS

Site Details:

Lower Perrylands Farm

Client Ref: ON251025
Report Ref: GS-XC9-TAM-V2K-G5B
Grid Ref: 514437, 118808

Map Name: County Series
Map date: **1939**
Scale: 1:2,500
Printed at: 1:2,500

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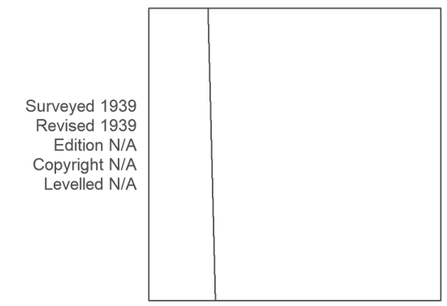

Surveyed 1939
Revised 1939
Edition N/A
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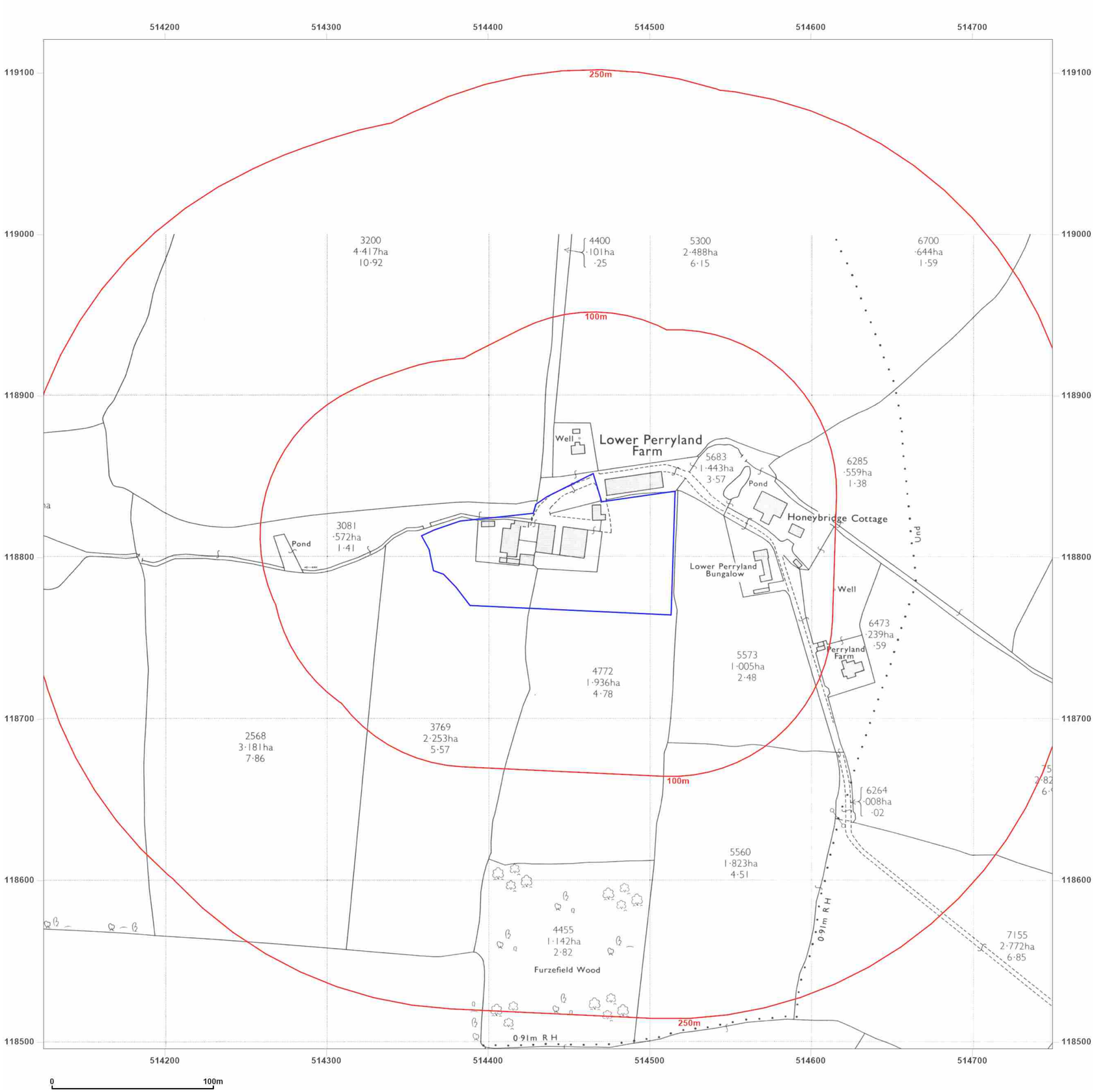

Groundsure INSIGHTS

Site Details:

Lower Perrylands Farm

Client Ref: ON251025
Report Ref: GS-XC9-TAM-V2K-G5B
Grid Ref: 514437, 118808

Map Name: National Grid

Map date: **1973**

Scale: 1:2,500

Printed at: 1:2,500

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Edition N/A
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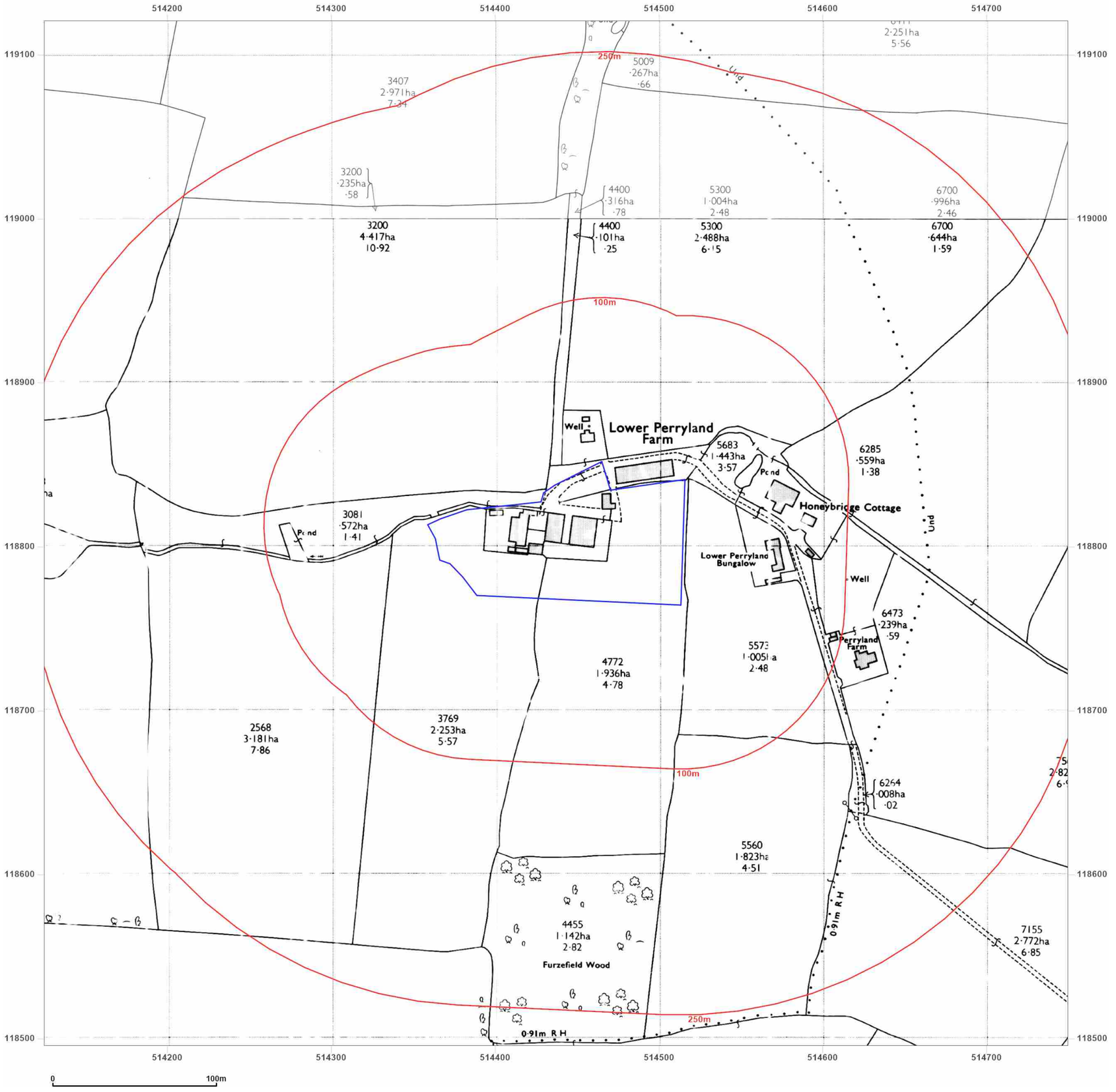

Groundsure INSIGHTS

Site Details:

Lower Perrylands Farm

Client Ref: ON251025
Report Ref: GS-XC9-TAM-V2K-G5B
Grid Ref: 514437, 118808

Map Name: National Grid

Map date: **1973-1974**

Scale: 1:2,500

Printed at: 1:2,500

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Surveyed 1973
Revised 1973
Edition N/A
Copyright 1974
Levelled 1966

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

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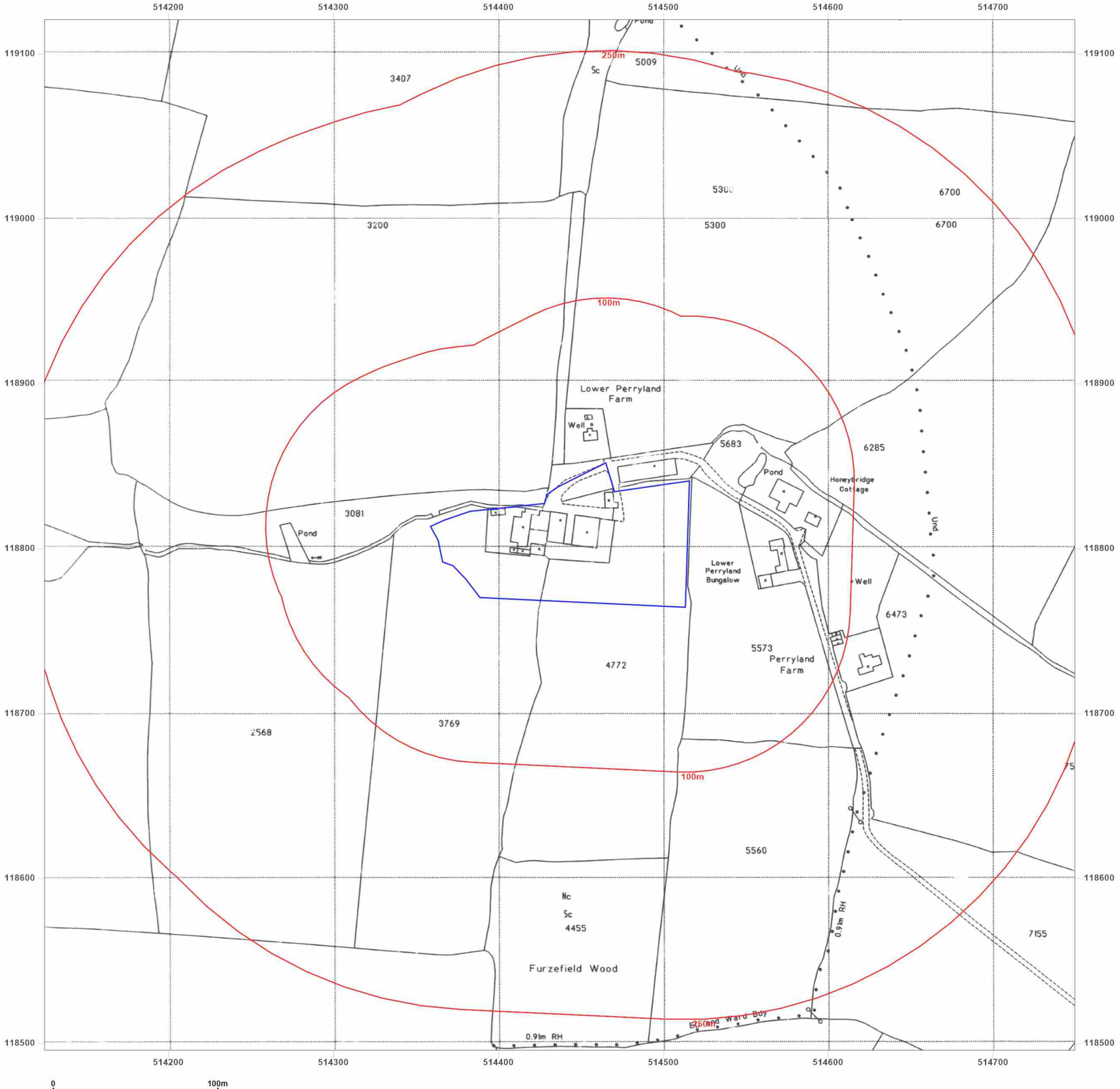

Groundsure INSIGHTS

Site Details:

Lower Perrylands Farm

Client Ref: ON251025
Report Ref: GS-XC9-TAM-V2K-G5B
Grid Ref: 514437, 118808

Map Name: National Grid
Map date: **1993**
Scale: 1:2,500
Printed at: 1:2,500

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

Surveyed 1993
Revised N/A
Edition N/A
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Groundsure INSIGHTS

Site Details:

Lower Perrylands Farm

Client Ref: ON251025
Report Ref: GS-XC9-TAM-V2K-G5B
Grid Ref: 514437, 118808

Map Name: LandLine
Map date: **2003**
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Printed at: 1:1,250

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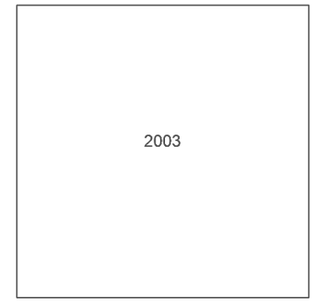

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Groundsure INSIGHTS

Site Details:

Lower Perrylands Farm

Client Ref: ON251025
Report Ref: GS-XC9-TAM-V2K-G5B
Grid Ref: 514437, 118808

Map Name: County Series

Map date: **1875**

Scale: 1:10,560

Printed at: 1:10,560

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Surveyed 1875
Revised 1875
Edition N/A
Copyright N/A
Levelled N/A

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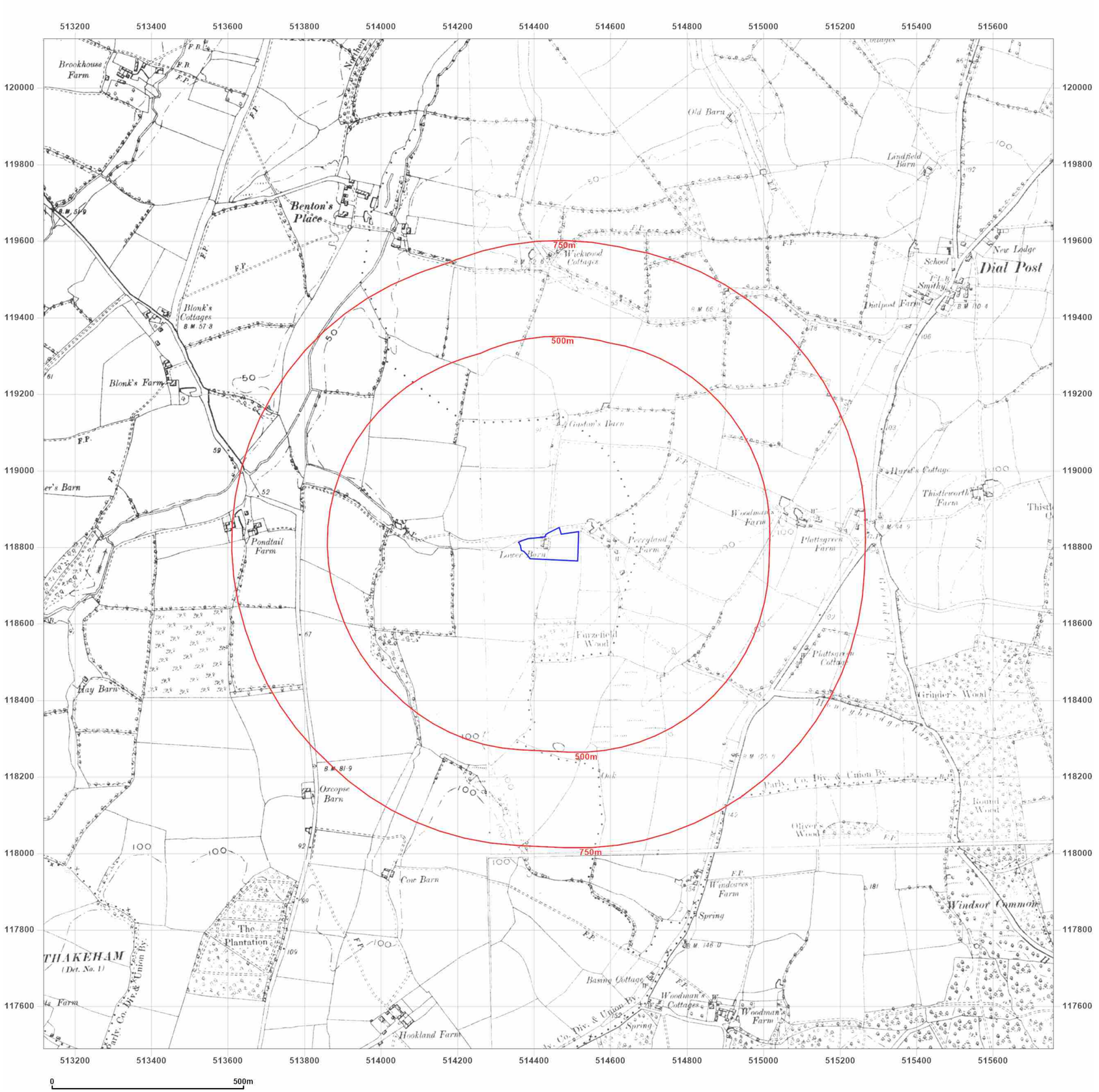

Groundsure INSIGHTS

Site Details:

Lower Perrylands Farm

Client Ref: ON251025
Report Ref: GS-XC9-TAM-V2K-G5B
Grid Ref: 514437, 118808

Map Name: County Series

Map date: **1896**

Scale: 1:10,560

Printed at: 1:10,560

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Surveyed 1876 Revised 1896 Edition N/A Copyright N/A Levelled N/A	Surveyed 1875 Revised 1896 Edition N/A Copyright N/A Levelled N/A

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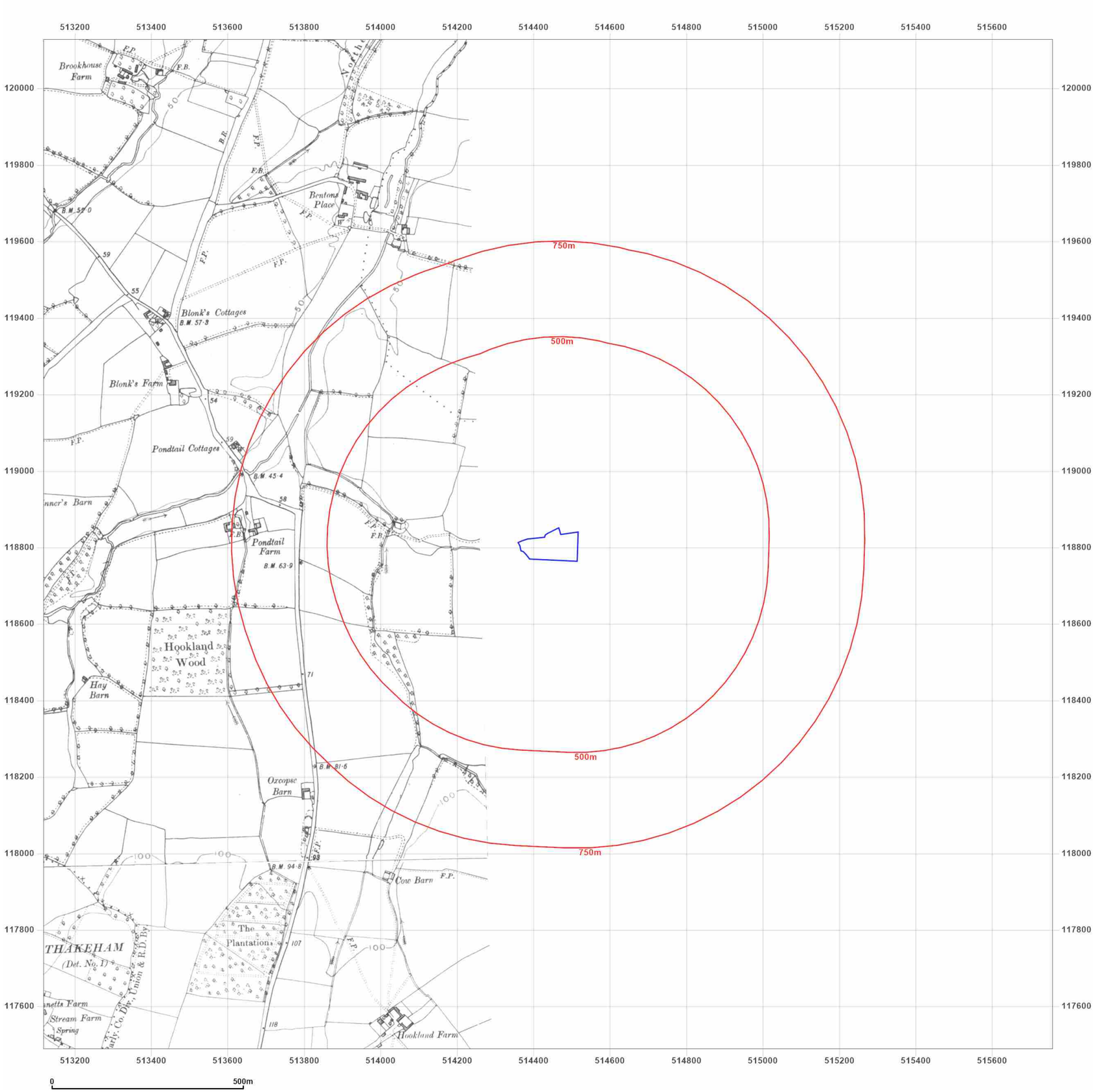

Groundsure INSIGHTS

Site Details:

Lower Perrylands Farm

Client Ref: ON251025
Report Ref: GS-XC9-TAM-V2K-G5B
Grid Ref: 514437, 118808

Map Name: County Series

Map date: **1909**

Scale: 1:10,560

Printed at: 1:10,560

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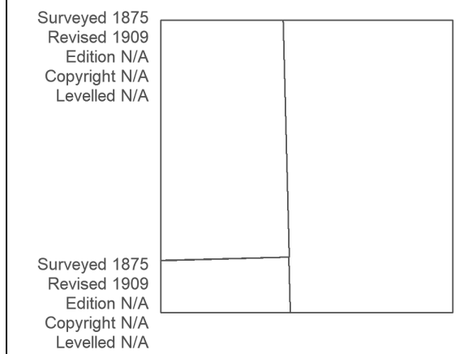

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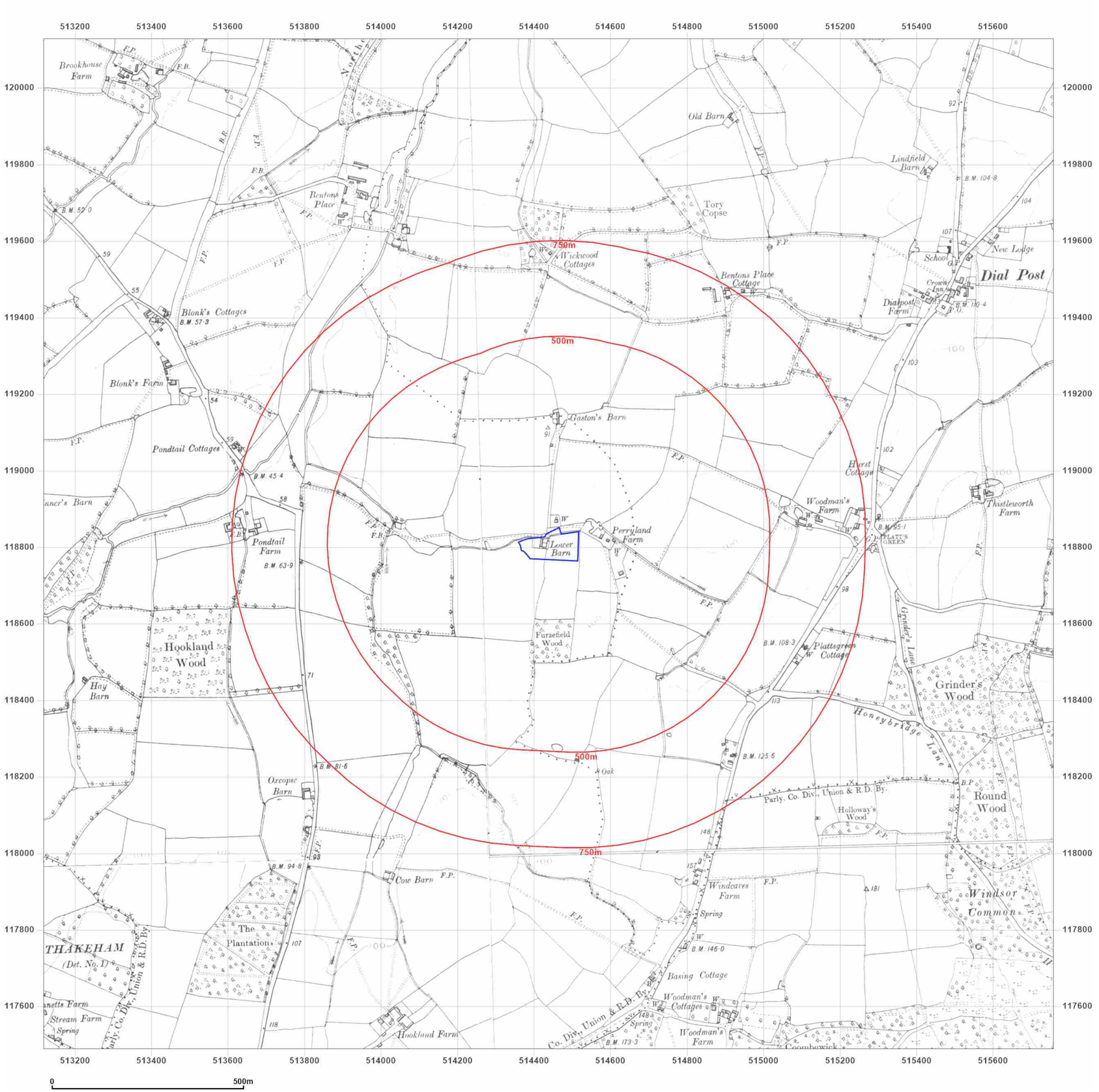

Groundsure INSIGHTS

Site Details:

Lower Perrylands Farm

Client Ref: ON251025
Report Ref: GS-XC9-TAM-V2K-G5B
Grid Ref: 514437, 118808

Map Name: County Series

Map date: **1909-1913**

Scale: 1:10,560

Printed at: 1:10,560

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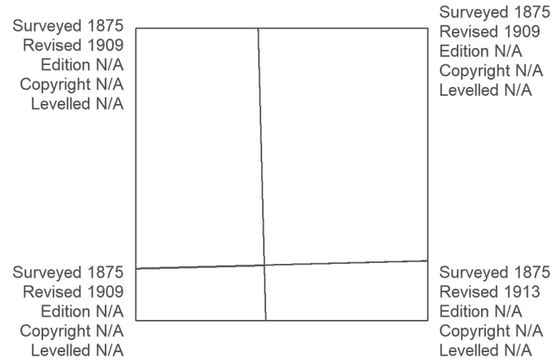

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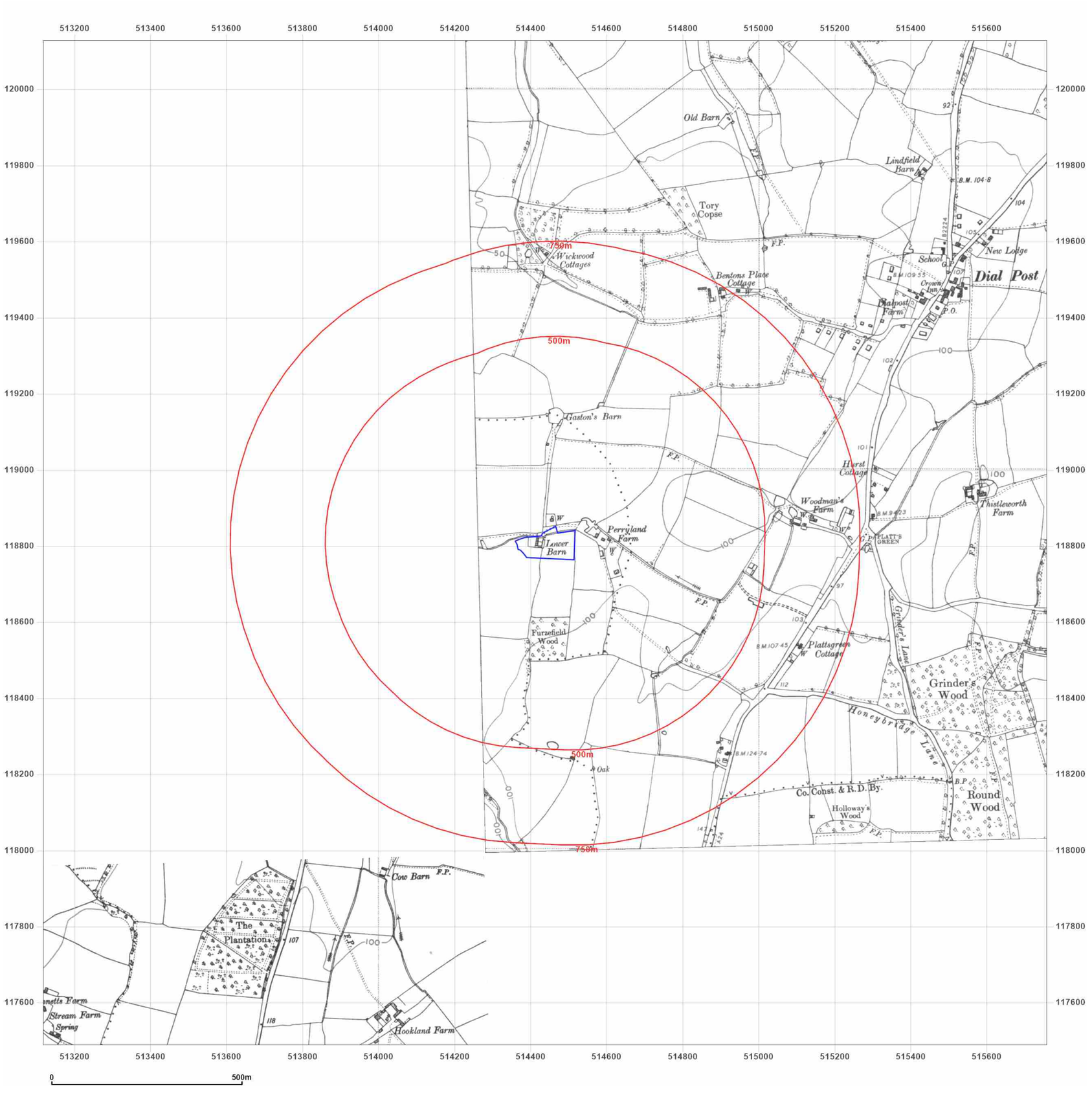

Groundsure INSIGHTS

Site Details:

Lower Perrylands Farm

Client Ref: ON251025
Report Ref: GS-XC9-TAM-V2K-G5B
Grid Ref: 514437, 118808

Map Name: County Series

Map date: **1946**

Scale: 1:10,560

Printed at: 1:10,560

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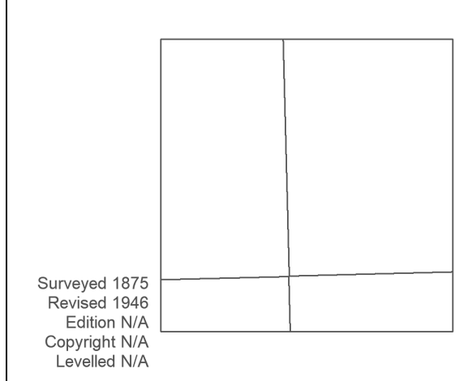

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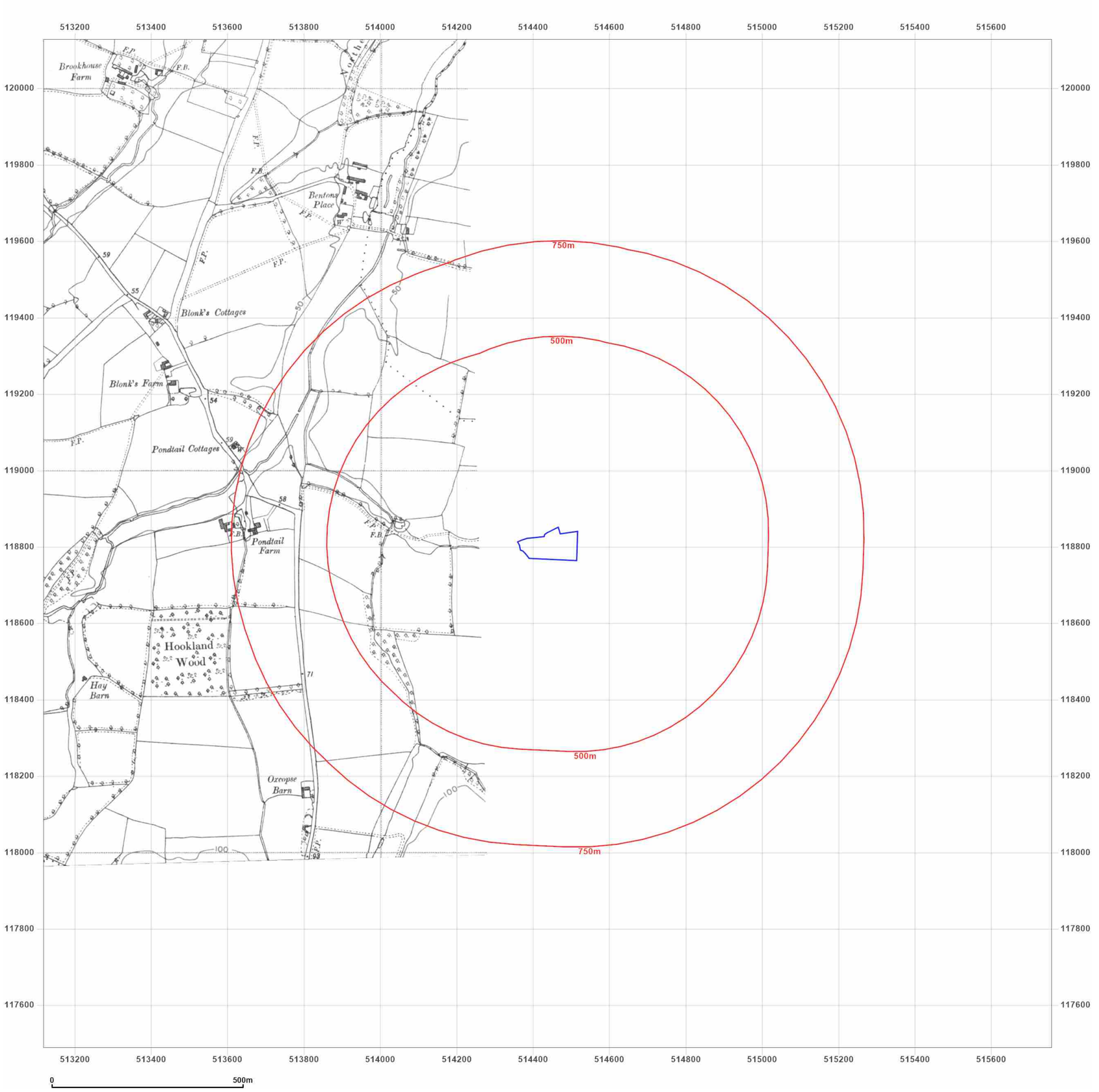

Groundsure INSIGHTS

Site Details:

Lower Perrylands Farm

Client Ref: ON251025
Report Ref: GS-XC9-TAM-V2K-G5B
Grid Ref: 514437, 118808

Map Name: County Series

Map date: **1946**

Scale: 1:10,560

Printed at: 1:10,560

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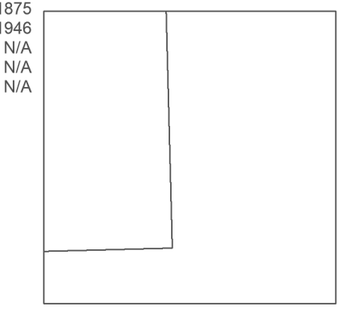
Surveyed 1875
Revised 1946
Edition N/A
Copyright N/A
Levelled N/A



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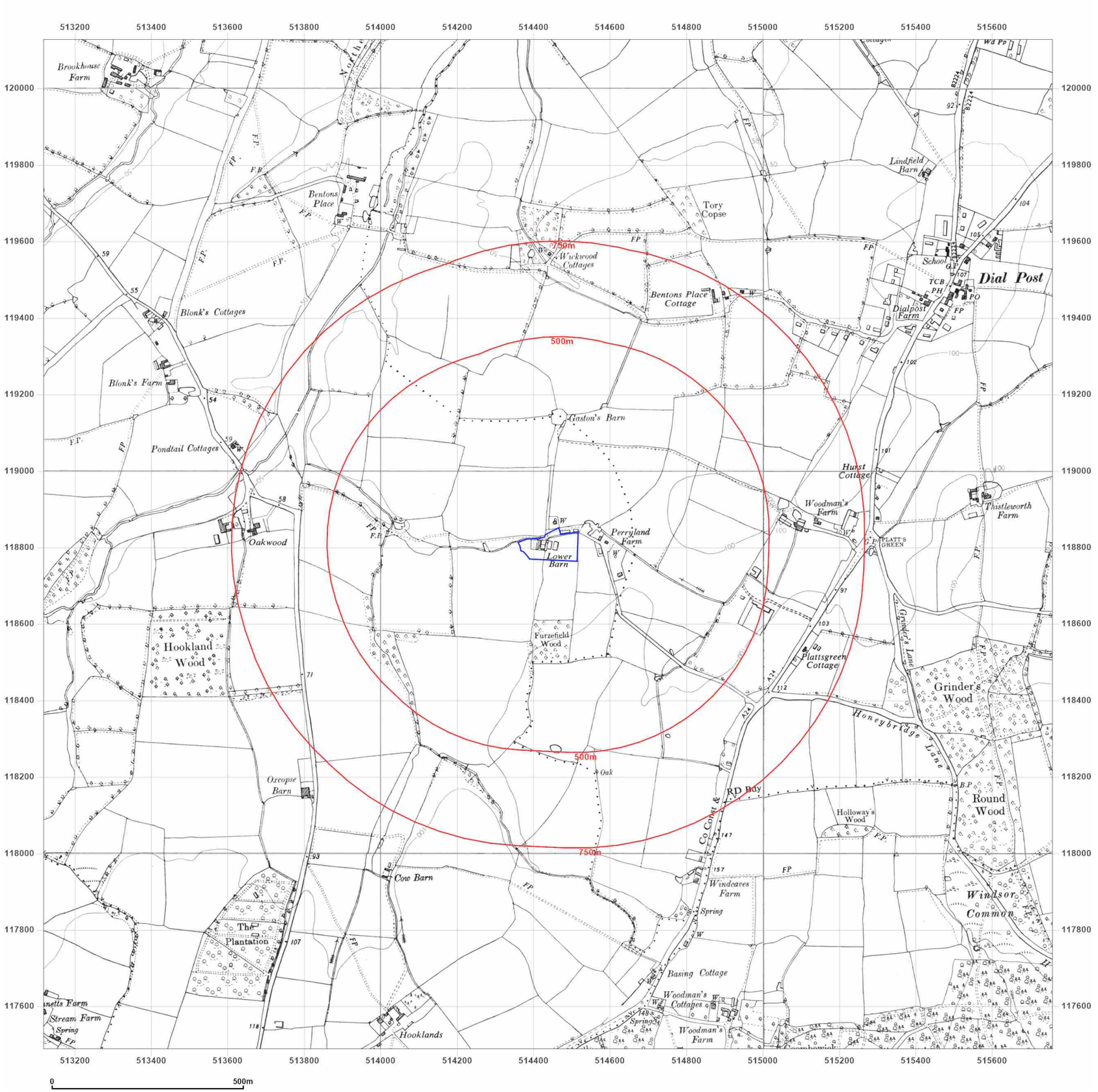

Groundsure INSIGHTS

Site Details:

Lower Perrylands Farm

Client Ref: ON251025
Report Ref: GS-XC9-TAM-V2K-G5B
Grid Ref: 514437, 118808

Map Name: Provisional

Map date: **1956-1957**

Scale: 1:10,560

Printed at: 1:10,560

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Surveyed 1956
Revised 1956
Edition N/A
Copyright N/A
Levelled N/A

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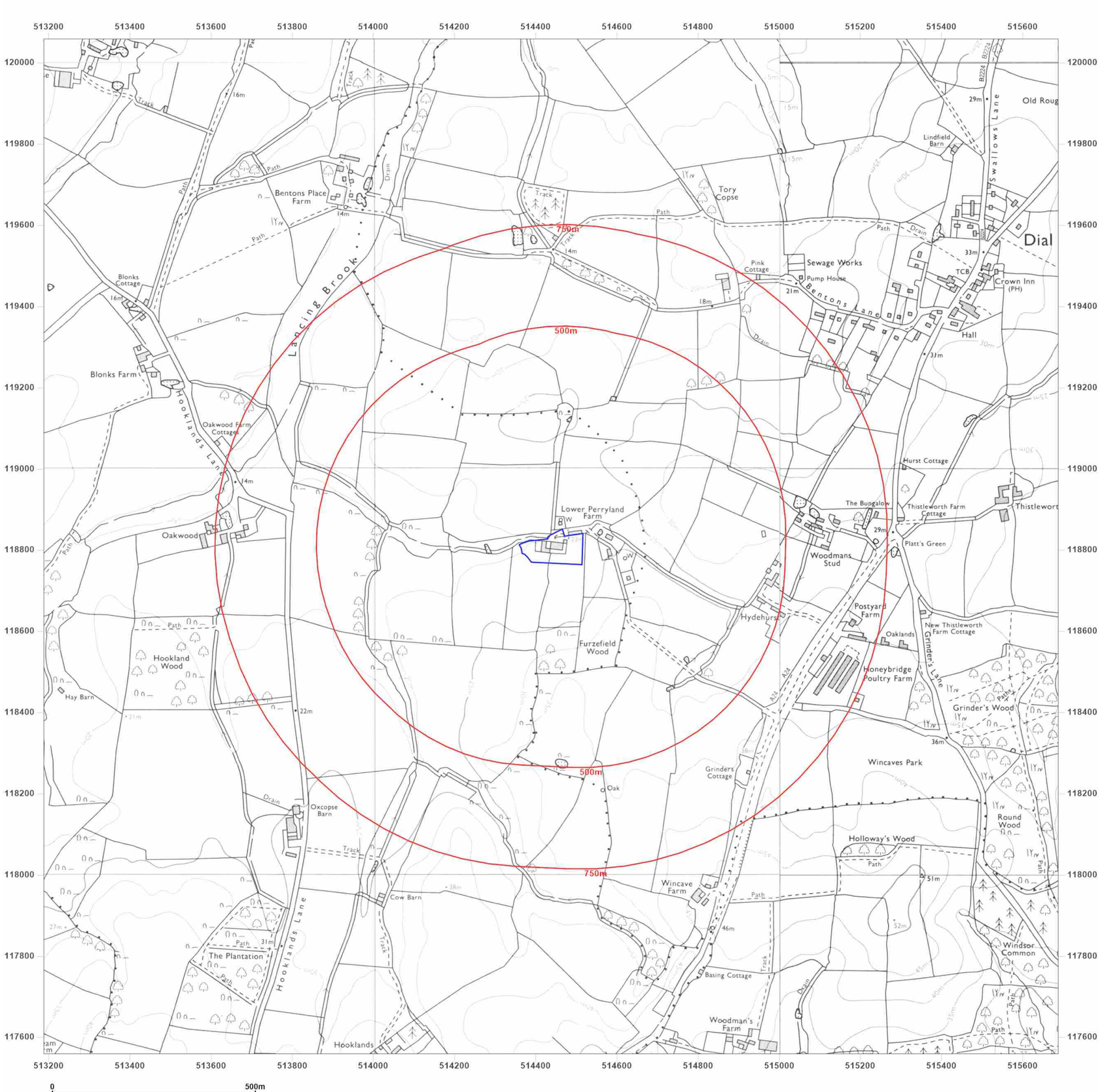

Groundsure INSIGHTS

Site Details:

Lower Perrylands Farm

Client Ref: ON251025
Report Ref: GS-XC9-TAM-V2K-G5B
Grid Ref: 514437, 118808

Map Name: National Grid

Map date: **1980-1981**

Scale: 1:10,000

Printed at: 1:10,000

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Surveyed 1976
Revised 1981
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1977
Revised 1981
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1973
Revised 1980
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1973
Revised 1980
Edition N/A
Copyright N/A
Levelled N/A

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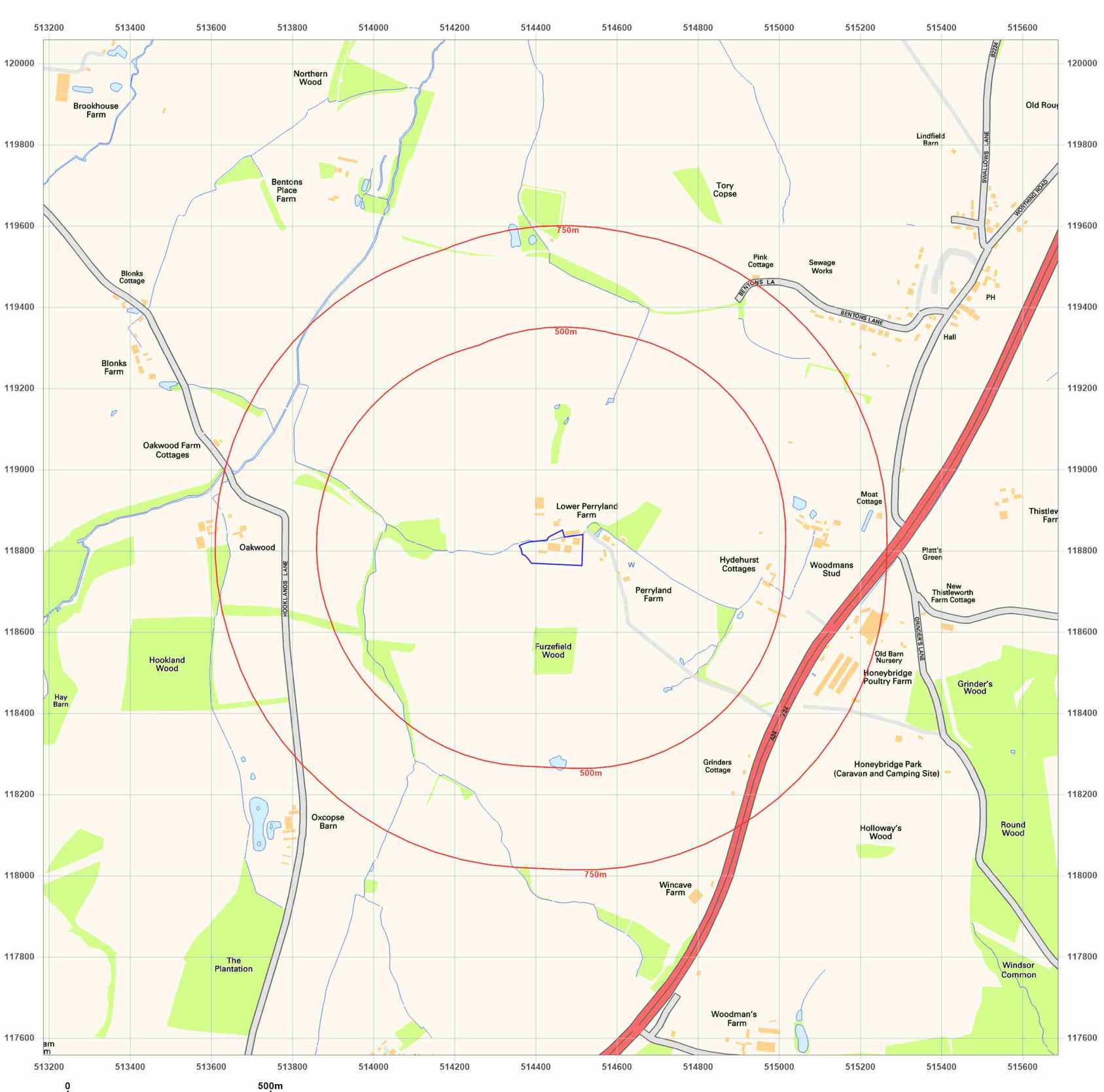

Groundsure INSIGHTS

Site Details:

Lower Perrylands Farm

Client Ref: ON251025
Report Ref: GS-XC9-TAM-V2K-G5B
Grid Ref: 514437, 118808

Map Name: National Grid

Map date: **2001**

Scale: 1:10,000

Printed at: 1:10,000

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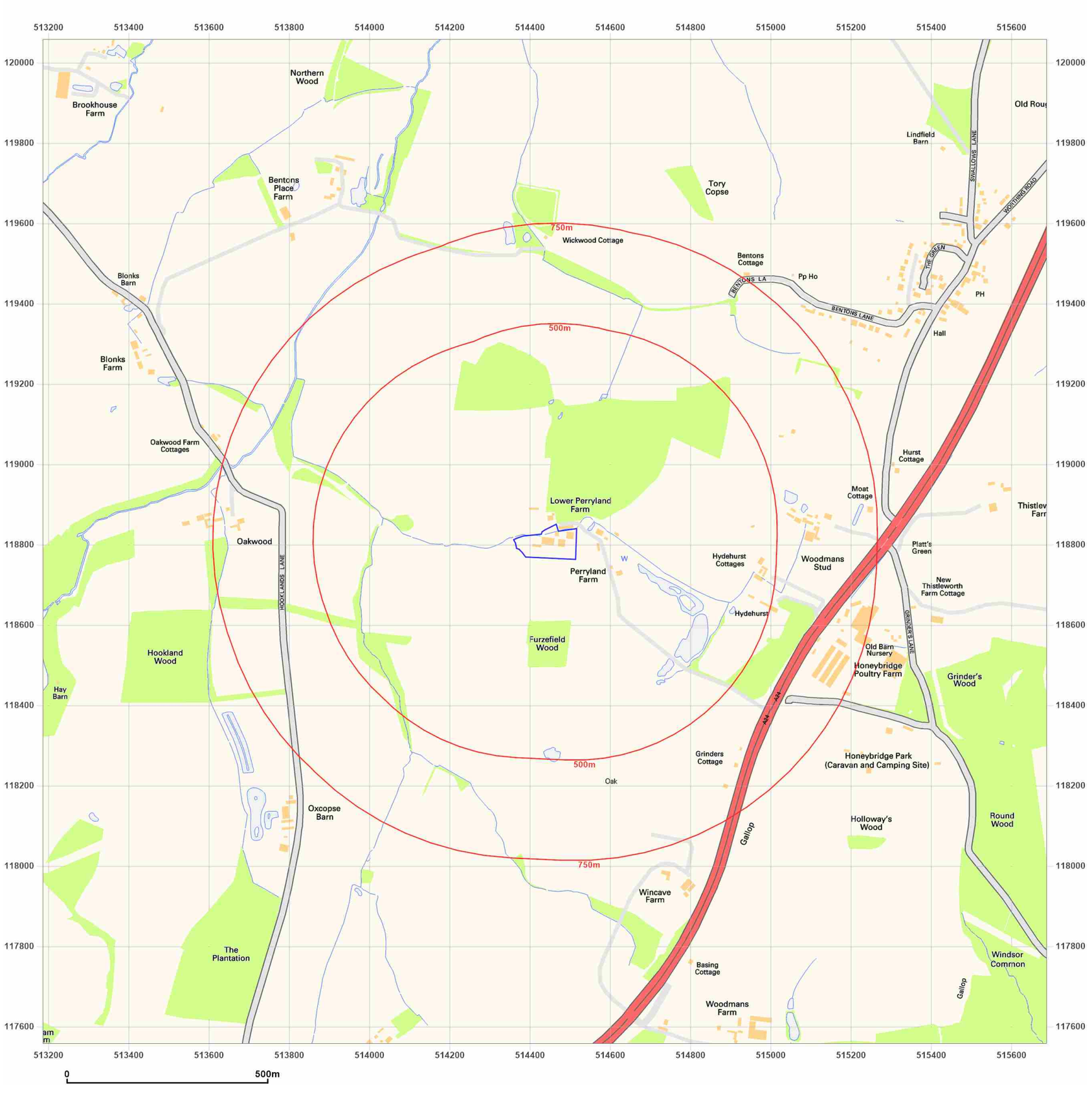

Groundsure INSIGHTS

Site Details:

Lower Perrylands Farm

Client Ref: ON251025
Report Ref: GS-XC9-TAM-V2K-G5B
Grid Ref: 514437, 118808

Map Name: National Grid

Map date: **2010**

Scale: 1:10,000

Printed at: 1:10,000

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Production date: 01 April 2025

Map legend available at:
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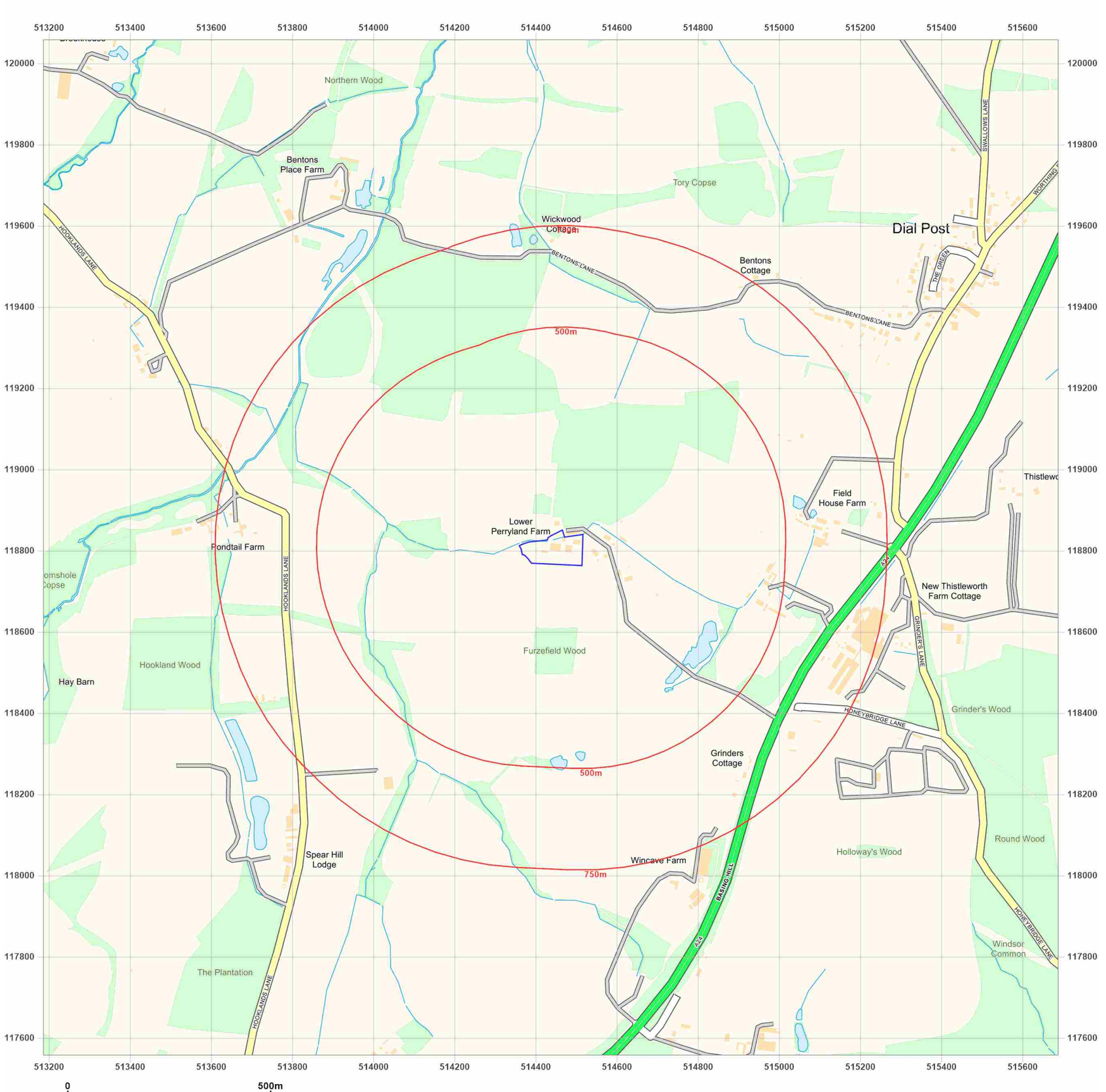

Groundsure INSIGHTS

Site Details:

Lower Perrylands Farm

Client Ref: ON251025
Report Ref: GS-XC9-TAM-V2K-G5B
Grid Ref: 514437, 118808

Map Name: National Grid

Map date: **2025**

Scale: 1:10,000

Printed at: 1:10,000

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Production date: 01 April 2025

Map legend available at:
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APPENDIX E – PRELIMINARY RISK ASSESSMENT AND GEOTECHNICAL RISK REGISTER

Preliminary Risk Assessment (PRA)

ONYXGEO CONSULTING LTD.	**Project Name:**	Lower Perryland Farm, Dial Post
	Client:	Church Barn Holdings Ltd
	Report ref:	ON251025-ON-PD-XX-RP-G-712-C01

Introduction

This preliminary risk assessment uses a qualitative approach to assess the risk posed by various source, pathway, receptor linkages. The risk is classified based on both the likelihood that a contaminant is present and that a pathway exists through which the receptor may be exposed as well as the severity of the consequences of that exposure.
The severity of the exposure is classified as either, minor, mild, moderate or severe. The Likelihood of exposure if classified as unlikely, low likelihood, likely or highly likely.
The risk is then classified as either, very low, low, low to moderate, moderate, high or very high. Whereby **very low** means that the possibility of a receptor being exposed is low and the consequence of that exposure would be minimal conversely **very high** means that it is highly likely that a receptor is exposed to a severe harm and some degree of control measure or remediation will almost certainly be required.

Source	Pathway	Receptor	Potential for exposure	Consequence of exposure	Risk Rating	Comments
Contaminants heavy metals, PAH compounds) in soil (excluding asbestos)	Direct skin contact, inhalation or ingestion of soil or consumption of produce grown in contaminated soils.	Human Health (Future residents)	Likely	Mild	Low to Moderate	Given the centre of the site was developed prior to 1875 and that subsequent structures were built in the 1940s, 1970s and 2000s it is likely that made ground is present with the potential to be impacted with contaminants. As the development includes private gardens a potential pathway exists for future residents to be exposed to any soil contaminants.
	Direct skin contact with or inhalation or ingestion of soil	Human Health (Construction workers)	Highly likely	Mild	Moderate	Groundworkers are subject to all the same exposure pathways as future residents other than those associated with home grown produce albeit for a short duration and are more likely to come into direct contact with the soil. **However, the risk to groundworkers will be reduced assuming that appropriate PPE is in use and that hand washing prior to meals and other breaks are adopted.**
	Overland water flow	Controlled waters (surface water)	Low Likelihood	Mild	Low	No significant evidence for contamination was observed on site. Given the site is relatively level it is unlikely that significant overland flow carrying contaminants has discharged into the onsite stream.
	Leaching or contaminants as percolating rainwater enters the groundwater	Controlled waters (Groundwater)	Unlikely	Minor	Very Low	Limited evidence for contamination has been observed on site (other than asbestos). The site is underlain by unproductive strata of the Weald Clay Formation which generally exhibits negligible permeability as such the risk

						to groundwater receptors is considered very low.
Pesticides in soils	Direct skin contact inhalation or ingestion of, soil or consumption of produce grown in contaminated soils	Human Health (Future residents)	Likely	Mild	Low to Moderate	Parts of the site have been agricultural land since prior to the earliest historical maps with the remainder of the site occupied by agricultural buildings. It is likely that pesticides have been used or stored on site historically.
	Direct skin contact with or inhalation or ingestion of soil	Human Health (Construction workers)	Highly likely	Mild	Moderate	Groundworkers are subject to all the same exposure pathways as future residents other than those associated with home grown produce albeit for a short duration and are more likely to come into direct contact with the soil. **However, the risk to groundworkers will be reduced assuming that appropriate PPE is in use and that hand washing prior to meals and other breaks are adopted.**
	Overland water flow.	Controlled waters (surface water)	Low Likelihood	Mild	Low	Unlikely that significant overland flow carrying contaminants has discharged into the onsite stream.
	Leaching or contaminants as percolating rainwater enters the groundwater	Controlled waters (Groundwater)	Unlikely	Minor	Very Low	The site is underlain by unproductive strata of the Weald Clay Formation which generally exhibits negligible permeability as such the risk to groundwater receptors is considered very low.
Asbestos in the soil	Inhalation of asbestos	Human Health (Future residents)	Likely	Severe	High	Some of the structures on site with built in the 1940s/50s and include suspected asbestos cement within their structure, this was noted to be broken in several locations and fragments of this material was observed on the ground surface. It is likely that asbestos may therefore have impacted the shallow soils on site.

	Inhalation of asbestos	Human Health (Construction workers)	Likely	Severe	High	Groundworkers would be exposed to any asbestos present within the soils. This would pose an unacceptable risk to their health unless suitable control measures were put in place to prevent exposure.
Petroleum Hydrocarbons in soil	Direct skin contact with or ingestion of contaminated soils or inhalation of vapours	Human Health (Future residents)	Low Likelihood	Mild	Low	Aerial imagery appears to show several vehicles parked on site and the walkover observed farm machinery. As such there is the potential that minor hydrocarbon spills / leaks have occurred on site. A single area of darkly stained concrete was observed within one of the barns which may represent a former fuel spill. Although it is noted that this was on an area of concrete so may not have directly impacted the underlying soils. Any such contamination if present is likely to be relatively minor and localised.
	Direct skin contact with or ingestion of contaminated soils or inhalation of vapours	Human Health (Construction workers)	Low Likelihood	Mild	Low	Groundworkers are subject to all the same exposure pathways as future residents other than those associated with home grown produce albeit for a short duration and are more likely to come into direct contact with the soil. **However, the risk to groundworkers will be reduced assuming that appropriate PPE is in use and that hand washing prior to meals and other breaks are adopted.**
	Overland flow	Controlled waters (surface water)	Low Likelihood	Mild	Low	No significant evidence for fuel spillage / leaked was observed on site. Therefore, there is a low likelihood that significant hydrocarbon contamination

						has impacted the stream or will impact the stream during development.
	Infiltration of aqueous product into the groundwater.	Controlled waters (Groundwater)	Unlikely	Minor	Very Low	The site is underlain by unproductive strata of the Weald Clay Formation which generally exhibits negligible permeability as such the risk to groundwater receptors is considered very low.
Offsite pond fill generating ground gas	Lateral gas migration through the subsurface and vertically into confined spaces within the structure.	Human Health (Future residents)	Unlikely	Severe	Low to Moderate	An offsite pond situated ~20m from the site appears to have been partially infilled between 1957 and 1973. Given the site and the pond are underlain by relatively impermeable Weald Clay and the backfilling occurred at least 50 years ago it is considered unlikely that significant gas generation is ongoing, or that gas would migrate onto the subject site rather than discharging directly to the atmosphere.

Preliminary Geotechnical Risk Register (GRR)

ONYXGEO CONSULTING LTD.	**Project Name:**	Lower Perryland Farm, Dial Post
	Client:	Church Barn Holdings Ltd
	Report ref:	ON251025-ON-PD-XX-RP-G-712-C01

Introduction

Geotechnical risk is the risk to the construction work created by the ground conditions. This Geotechnical Risk Register (GRR) has been compiled to provide an assessment of the likely risks that may impact on the proposed development of the land Lower Perryland Farm, Dial Post with residential properties for incorporation into the Phase 1 Desk Study Report.
The risk in the register does not indicate that the risk is present, rather the likelihood of mitigation measures being required due to that risk, based on the available data. Equally, a risk classified as low indicates that mitigation measures are unlikely to be required for the hazard identified based on the available data. The potential risks should be continually reassessed throughout the design and construction process as new information comes to light or due to site specific of weather specific conditions.
The risk register is a live document and should be refined throughout the design and construction process such that it will enable the management of geotechnical risk. The risks reported in this register comprise of both H&S related risks, and project risks. The Effect of Hazard scale accounts for both types of risks.
The GRR has been developed in accordance with the guidance CD622 "Managing Geotechnical Risk" (2020). The risk is determined by combining the likelihood of a hazard occurring and the effect of the hazard on the project. The effect may be measured in one or more aspect e.g. increased cost, delays in the program, health and safety etc. The scale of the likelihood, effect and risk are determined as follows.

Likelihood of Occurrence	
Score	Likelihood
4	Probable
3	Likely
2	Unlikely
1	Negligible

Effect of Hazard		
Score	Effect	Risk
4	Very High	Fatality/major injury **or** >10% increase in project cost
3	High	Significant Injury **or** 4-10% increase in project cost
2	Low	Lost-time Injury **or** 1-4% increase in project cost
1	Very Low	First-aid/none **or** <1% increase in project cost

Degree of Risk	
Score	Risk Level
1-4	Trivial
5-8	Significant
9-12	Substantial
13-16	Intolerable

Hazard	Probability	Effect	Risk	Notes	Mitigation
Soils Susceptible to Shrinkage and Swelling	3	3	9	The Weald Clay often exhibits moderate to high plasticity. Given the presence of trees and hedges on site this is likely to impact foundation design.	Foundations may require deepening to account for the potential volume change of the shallow soils.
Aggressive Ground Conditions for Concrete Design	3	2	6	The Weald Clay is amongst those listed by the BRE Special Digest 1 on aggressive ground conditions as potentially containing pyrite.	Concrete design should account for the potential for elevated sulphide and sulphate concentrations within the ground.
Variable or Compressible Soils	2	2	4	The Weald Clay Formation generally comprises over consolidated clays and silts near surface and as such, compressible strata are not anticipated. There is the potential for some localised soft/compressible strata associated with the stream on site.	Foundations should be designed to extend through any compressible strata to intact strata at depth.
Frost Susceptible Strata	3	2	6	The Weald Clay locally contains significant proportions of silt. Silt is often susceptible to frost action.	Allowance should be made for the use of frost-resistant subbase within the construction of any hardstanding of roads.
Deep Made Ground	2	3	6	Deep made ground is not anticipated on site. Shallow made ground may be present within the footprint of the existing structures.	Foundations should extend through any made ground into suitable load bearing strata below. Excavations in made ground are likely to be unstable and lateral support may be required.

Solution Features	1	4	4	The Weald Clay which underlies the site is not susceptible to dissolution, there is no other evidence to suggest subterranean voids are present on site.	n/a
Elevated Groundwater Levels	2	2	4	The Weald Clay generally exhibits negligible permeability and as such a discrete groundwater surface is not anticipated within the shallow soils on site. However the potential for perched groundwater, and therefore minor seepages from any granular horizons or made ground cannot be entirely discounted.	Allowance should be made for light pumping of excavations.
Slope Instability	1	4	4	The site is relatively level with no steep slopes or retaining structures observed during the walkover.	Assuming no significant cut and fill activities or large retaining structures are proposed then no further assessment is required.
UXO	1	4	4	The site is situated within an area mapped as low risk for UXO according to the freely available Zetica risk mapping.	n/a