

PHASE I & II GEO-ENVIRONMENTAL ASSESSMENT

LAND AT ROOKERY FARM
FENNY DRAYTON, WARCS

DRAYTON GRANGE FARM LTD

MAY 2025



SUMMARY TABLE: PHASE I & II GEO-ENVIRONMENTAL ASSESSMENT	
SITE:	Rookery Farm, Fenny Drayton, Warks
CLIENT:	Drayton Grange Farm
DATE:	May 2026
REFERENCE:	LN.04.26
DEVELOPMENT PROPOSAL:	5No Residential Houses with Gardens
HUMAN HEALTH:	Upgraded water pipes may be required for plots 3 – 5.
CONTROLLED WATERS:	No Risk
GAS RISK:	No Risk
RADON GAS:	No Risk
COMMENTS:	No remediation required.
FOUNDATIONS:	Traditional foundations should be suitable for the proposed development at depths of 1.2 - 1.4mbgl.
FLOOR SLABS:	Beam and block
CONCRETE:	Design Sulphate Class DS-1 and ACEC AC - 1
SOAKAWAYS:	Strata not suitable for soakaway drainage
COMMENTS:	Structural Engineer to review & approve foundation specification.

Authorised:		Richard Sutton MRICS <i>Director</i>
Date:	12.05.26	
Version:	1.0	



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Environmental Ltd

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1.0 INTRODUCTION

1.1 PREAMBLE

This Phase I & II Geo-Environmental Assessment has been produced for Drayton Grange Farm Ltd to provide a pre-development contamination and geotechnical assessment of the site known as *Rookery Farm, Fenny Drayton, Nuneaton*. The development proposal for the site is for 5 No residential houses with gardens

1.2 SITE LOCATION

The site is located approximately 5km north-west of Nuneaton town centre. The National Grid Reference (NGR) for the approximate centre of the site is SP 349 970. The site location, development proposal and site layout are illustrated in Appendix A.

1.3 PROJECT BRIEF

The brief for the Phase I & II Geo-Environmental Assessment incorporates:

- A review and assessment of the site history, with reference to potentially contaminative uses.
- A review of regulatory authority and environmental data relating to the site and its environs.
- A site inspection.
- An appraisal of potential environmental risks.
- Development of a Phase I Conceptual Model.
- Provide a strategy for, and to implement, a Phase II Environmental and Geotechnical Assessment.
- Development of the Phase II Conceptual Model.
- To provide recommendations to mitigate against environmental risks.
- Provide geotechnical design for the proposed development.

1.4 DATA REFERENCES

- Environmental Search Data (Groundsure Ltd).
- British Geological Survey Online Geological Mapping.
- BR211 (2023): Radon: Guidance on protective measures for new buildings.
- Land contamination risk management (LCRM); published by the Environment Agency October 2020.
- LQM/CIEH (2009), The LQM/CIEH Generic Assessment Criteria for Human Health Risk Assessment, 2nd edition.

1.5 LIMITATIONS

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

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

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

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

2.0 DESK STUDY AND SITE OBSERVATIONS

2.1 HISTORICAL REVIEW: SITE DEVELOPMENT

The site was originally open land within the curtilage of Rookery Farm, which housed a livestock barn and a grainstore. A residential bungalow is located in the centre of the site. Historical maps are contained in Appendix B.

2.1.1 SUMMARY

DATE	ON – SITE	OFF - SITE
1887-1901	The site is undeveloped and forms part of an agricultural field (pasture).	St Michael's Church is to the immediate East. Pond on North – West Boundary. Grave Yard, Rectory 50m to East & South East. Rookery Farm to North of site. School, Smithy and Post Office illustrated 100m to east.
1904	Pond illustrated on North-west site boundary, <i>Moat</i> Illustrated immediately North – West.	No significant change.
1914-17	No significant change to site.	
1959		Bungalow Constructed adjacent to the site.
1973 – 77	Agricultural barn illustrated to the north of the site.	Further residential development illustrated across the village to the east and to the south.
1994		Housing constructed on site of Rookery Farm to the north of the site.
2025		

The site has remained as pasture land throughout the years reviewed, no development has occurred on site whilst a Bungalow and Agricultural barn have been constructed over the site boundary over the years.

The village has expanded with residential housing over the years, with the expansion restricted eastwards by the A444 trunk road.

2.2 DEVELOPMENT PROPOSAL

The site is to be developed with 5 No residential houses with gardens and parking.

2.3 SITE DESCRIPTION

The site comprises a farm yard and paddock on the western boundary of the Village of Fenny Drayton. The site houses an agricultural Grainstore type building in the northern section and a small residential bungalow in the centre.

To the East is *St Michael and All Angels* parish church, with the remainder of the village expanding to the east and north up to the A444 trunk road. To the north, south and west are arable fields, with a new build residential property located on the south-west boundary.

Site cover is largely pasture, with rough made ground to the north – west and an overgrown pond on the North-Western boundary. The yard to the North – East of the Site is laid with concrete hard standing.

Trees on the site boundary include mature conifers around the bungalow, mature conifers and Poplar along the western boundary and mixed Hawthorn and conifer along the southern

boundary. A Hawthorn hedge running along the south of the grainstore was removed by the client a number of years ago.

2.4 ANTICIPATED GEOLOGY

The BGS geological map for this area illustrates solid strata of the Gunthorpe member consisting of *Dolomitic Siltstone*. Superficial strata are not present on site.

2.5 HYDROGEOLOGY & HYDROLOGY

2.5.1 Hydrogeology

The Gunthorpe member is classified as a *Secondary B* Aquifer.

There are no licensed groundwater abstractions within 250m of the site; the site is not located within a groundwater Source Protection Zone (SPZ).

2.5.2 Hydrology

A Pond is located on the north-western boundary of the site.

Environment Agency data suggests that the site does not lie within an indicative fluvial floodplain.

2.6 COAL FIELDS

The site is not located in an area which is likely to be at risk of Coal Mining related ground instability.

2.7 MINERAL RESOURCES

There are no significant historical mineral workings within 250m of the site.

2.8 POTENTIALLY CONTAMINATIVE LAND USES

A review of commercially available environmental information confirms:

- The site is not located within 500m of a landfill site.
- There are no waste treatment facilities located within 250m of the site.
- There are no discharge consents within 250m of the site.
- There are no hazardous substance or IPC consents located within 250m of the site.
- There are no fuel sites located within 500m of the site.

The Industrial profile for agricultural use confirms that such sites are likely to be at risk from the following brownfield contaminants:

- Heavy metals, inorganics, PAHS, TPH, pathogens, pesticides and herbicides.

On reflection:

- The client has confirmed that the development site has not been subject to the application of agricultural chemicals for at least 20 years;
- Animals have not been kept on site for at least 5 years.
- The existing agricultural building is a potential source of asbestos fibres.
- Made ground is noted to the west of the grainstore.
- There is no source of Petroleum Hydrocarbons on site.

2.9 ASBESTOS

A demolition asbestos survey will be required prior to the demolition of the Grainstore building.

2.10 ACCESS

Access to the site will be from the existing access off Church Lane

2.11 RADON GAS ASSESSMENT

The site is not within an area recorded to require basic or full Radon precautions.

3.0 PHASE I CONCEPTUAL MODEL

3.1 SOURCE-PATHWAY-RECEPTOR

The conceptual model for the site considers the development proposal for residential housing with gardens use (residential with produce model) and the preceding information.

The site's historical use as an arable and a livestock farm are considered in regards to the potential risks posed to human health.

There are no landfill sites within 500m of the site. The pasture field has not been subject to the application of agricultural chemicals for at least 20 years. There is no source of Petroleum hydrocarbons on site. The former grain store on site is clad with potential asbestos cement sheeting.

Potential contaminants of concern for the end user include Heavy Metals, Polycyclic Aromatic Hydrocarbons (PAHs), Total Petroleum Hydrocarbons, Asbestos.

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

Exposure to contamination via water supply pipes.

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

For the controlled waters environment the primary receptor is *Secondary B aquifer* underlying the site. The proximal pond is not at risk as contamination migration via the underlying solid clay strata is considered unlikely.

Potential contaminants of concern for the environment include Heavy Metals, Polycyclic Aromatic Hydrocarbons (PAHs), Total Petroleum Hydrocarbons.

The primary pathway for controlled waters is the leaching and vertical migration of potential contaminants through the vadose zone to the saturated zone. Migration is unlikely via the underlying solid clay strata.

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

Figure 3.1: Conceptual Site Model

HUMAN HEALTH			
SOURCE	PATHWAY	RECEPTOR	SOLUTION
Potentially contaminated made ground from historical site use (Agriculture). Potential contaminants of concern include Heavy Metals, Polycyclic Aromatic Hydrocarbons (PAHs), Total Petroleum Hydrocarbons, Asbestos.	Dermal contact with potentially contaminated soil dust; ingestion and inhalation of potentially contaminated soil dust; ingestion of vegetables grown in potentially contaminated soil and potentially contaminated soil attached to vegetables.	Construction Workers	Basic PPE for all workers (overalls, gloves, dust mask if required) and wash facilities/personal hygiene
		End Users (e.g. residents)	Phase 2 Investigation recommended.
	Inhalation of potential soil vapours and potential ground gas.		Radon protection not required.
Structures clad with potential Asbestos containing materials	Inhalation of fibres	Construction Workers	Appropriate PPE for all workers as per HSE Regs.
		End Users (staff)	Screening and removal of ACMs as part of an appropriate Asbestos Management Plan.
Potentially contaminated made ground and natural strata	Leaching into water supply pipes	Water Supply/End Users	Aluminium sheathed or steel water pipes potentially required.
CONTROLLED WATERS			
Potentially contaminated made ground from historical site use (Agriculture). Potential contaminants of concern include Heavy Metals, Polycyclic Aromatic Hydrocarbons (PAHs), Total Petroleum Hydrocarbons.	Leaching and vertical migration through the vadose zone to the saturated zone	Secondary B Aquifer	Solid strata unlikely to be permeable
	Leaching and horizontal migration to surface waters	Pond	

4.0 PHASE II FIELDWORK

4.1 INTRODUCTION

The Phase II intrusive investigation was undertaken on the 7th April 2026 under the supervision of a suitably qualified engineer and in general accordance with the Code of Practice for Site Investigations BS5930: 2015+A1: 2020

The Phase II investigation incorporated the following:

- The excavation of 4No trial pits to a maximum depth of 2.20mbgl.
- The analysis of 4No samples for a standard 'CLEA' screening suite and selected site specific determinands.
- The analysis of 3No samples for geotechnical design criteria including Water Soluble Sulphate and pH and 3No Plasticity Index tests.

Trial pit logs are contained in Appendix C.

4.2 RATIONALE

The Phase II investigation has been designed to facilitate an assessment of the general ground conditions across the site, including contaminant sources, pathways and receptors. The investigation has also been designed in consideration of the current site layout and access restrictions, the development proposal and health and safety issues, the rationale behind the location of each exploratory hole is detailed in table 4.1 below:

Table 4.1: Phase II Rationale

Hole ID	Location	Notes
TP1 – 5	General grid	Screen/TPH

4.3 LABORATORY ANALYSIS & TESTING

Selected soil samples were analysed at specialist environmental and geotechnical laboratories as detailed in the following sections.

4.3.1 Chemical Analysis

A total of 4No samples of Topsoil/made ground and 3No samples of natural strata (mudstone) were sent for analysis at a UKAS/MCERTS accredited laboratory. The scheduled parameters are detailed in table 4.2.

Table 4.2: Soil Analysis

Sample ID	Depth (mbgl)	Strata	Suite
TP1 – 4	0.3 – 0.6	Topsoil/Made Ground	CLEA/TPHCWG
TP1 – 4	1.2 – 1.5	Mudstone	pH/WS SO ₄

The soil chemical analysis results are contained in Appendix D.

4.3.2 Geotechnical Testing

Three samples of Clay were sent to a UKAS accredited laboratory and subjected to Plasticity Index (PI), Water Soluble Sulphate and pH testing.

The geotechnical test results are contained in Appendix E.

4.3.3 Gas Monitoring and Sampling

Due to the lack of potential sources of Ground Gas, gas monitoring was not included in the scope of works for this project.

5.0 GROUND CONDITIONS

The intrusive investigation has revealed that Topsoil and made ground across the site overlies weathered bedrock of the Gunthorpe Mudstone member. The site specific observations are detailed in the following sections.

5.1 MADE GROUND

Made ground materials were present at a depth range of 0.6 and 0.8 – 1.4mbgl.

Made ground was encountered in trial pit TP1 at a depth of 0.8 – 1.4mbgl and coincided with a clay pipe run which had been backfilled with bricks; Made ground was also encountered in trial pit TP4 from ground level to 0.6m and comprised: *silty sandy clay with gravel of brick, tarmac, clinker, ash and fire brick*.

5.2 SUPERFICIAL STRATA

Superficial strata were not encountered on site.

5.3 SOLID STRATA

Solid strata of the Gunthorpe Mudstone group were present at depths of 0.3 - 2.2mbgl. These strata generally comprised:

- Brown, silty, stiff CLAY with fine to coarse gravel of mudstone and quartzite;
- Stiff silty Clay;
- Red, weathered mudstone with occasional quartzite gravel;
- Stiff red/brown silty CLAY; Very stiff Grey Silty CLAY.

5.4 FIELD OBSERVATIONS

Table 5.1 illustrates the pertinent geological and contamination observations made during the intrusive investigation.

Table 5.1: Fieldwork Observations

Location	Depth/Strata (mbgl)	Observation
TP1	Made ground @ 0.8 – 1.4	Drain run encountered.
TP2	Dessicated >1.8mbgl	Potential desiccation @ >1.8m
TP4	0.6mbgl/Made ground	Potential desiccation at >1.2mbgl

5.5 GROUNDWATER

Groundwater strikes were not encountered in the trial pits excavated.

NOTE: Groundwater levels are subject to seasonal variations and may be affected by local abstraction rates.

5.5.1 SOAKAWAY TESTING

As the strata across the site predominantly clay, soakaway drainage is not considered suitable for the proposed development.

6.0 GEOTECHNICAL ASSESSMENT

The geotechnical assessment considers the development proposal for 5No two storey houses with gardens.

6.1 GEOTECHNICAL LABORATORY TESTING

The results contained in Appendix G illustrate PI values of between 17 and 24% and moisture contents between 16.4 and 27.9%, indicating the mudstone deposits sampled at 1.2 – 1.5mbgl to be of low – intermediate plasticity and medium volume change potential.

Water Soluble Sulphate and pH analysis revealed results of 0.010 – 0.13/ISO₄ g/l and 7.2-7.5 respectively.

Determinand	Topsoil	Gunthorpe Member
Moisture Content %	-	16.4-27.9%
Liquid Limit %	-	34 – 48%
Plastic Limit %	-	17-24%
Plasticity Index %	-	17 – 24%
% passing 0.425mm %	-	61 – 70%
Modified Plasticity Index* %	-	10.3 - 15.12%
pH	-	7.2 – 7.4
Water Soluble Sulphate content mg/l	-	0.010 – 0.13mg/l

Notes: * Modified Plasticity Index Calculated in Accordance with NHBC Guidance, Chapter 4.

The plasticity index results indicate that clays of the Gunthorpe Member, have volume change potential that can be classified as 'Medium', after applying the correction factor recommended by the NHBC. Therefore foundation depths of 1.2 – 1.4 mbgl are recommended across the site.

6.2 FOUNDATION DESIGN & FLOOR SLABS

The intrusive investigation has revealed topsoil overlies strata of the Gunthorpe member generally comprising interbedded layers of grey/red/brown clayey silty gravelly clay and firm red brown silty gravelly clay to a maximum depth of 2.20mbgl.

6.2.1 Foundations

It is anticipated that traditional foundations should be suitable for the proposed development at depths of 1.2 - 1.4 mbgl due to the medium shrinkage potential of the underlying clays. At this depth, presumed allowable bearing pressure of 100kN/m² is considered achievable when bearing on clays of at least firm strength.

Foundations spanning both cohesive and granular deposits may require reinforcement to prevent differential settlement.

Trees and shrubs of varying type and maturity have been recorded across the site boundary. Foundations within close proximity of trees or shrubs or historical hedgerows are likely to require deepening in accordance to the recorded distances as per NHBC Standards (Building Near Trees Chapter 4.2). Where information regarding past or future tree removal/planting is available, then the guidance provided in NHBC Standards (Chapter 4.2: Building Near Trees) should be followed together with advice from a qualified structural engineer. The existing

arboricultural survey should be referenced to assess tree types and assist with foundation design.

The above assessment should be confirmed by the appointed structural engineer.

A beam and block floor slab is considered suitable for the proposed new build units.

6.3 EXCAVATION & GROUNDWATER CONDITIONS

Excavations across the site should be within the capability of normal earthmoving plant.

Excavations for foundations and services/utilities should remain stable when unsupported in the short term, however all excavations should be inspected on completion. Any loose, very wet or soft soils should be removed and replaced with compacted granular fill or lean mix concrete.

If loose soils are encountered, temporary shoring may be required if excavations are to remain open for extended periods of time. If soft clays are encountered, temporary shoring may be required if excavations are to remain open for extended periods of time.

On no account should personnel be permitted to enter unsupported excavations

6.4 HIGHWAYS CONSTRUCTION

CBR testing may be required to confirm the design criteria for the estate roads.

7.0 CONTAMINATION ASSESSMENT

7.1 HUMAN HEALTH

With regards to the soil risk assessment, Linden Environmental observe the following hierarchy:

- Category 4 Screening Levels (C4SLs)
- LQM Suitable 4 Use Levels (S4uls)

Where no C4SLs have been generated Linden will use the LQM S4ULs. Similar assumptions and land uses to C4SLs have been used. However, toxicological information has been based on minimal risk' as per previous guidelines and assumptions.

7.2 HUMAN HEALTH

None of the reported concentrations of the contaminants of concern exceed their respective *Generic Assessment Criteria* (Appendix F) for the *Residential with Plant Uptake Model*.

Elevated arsenic in a sample from TP4 @ 0.6m (15mg/kg) exceeds the WRAS threshold. Upgraded water pipes may be required for plots 3 – 5. STW should be consulted to confirm the assessment.

7.2.1 Ground Gas and Soil Vapours

No potential source of ground gas is present on site, therefore monitoring installations were not included in the scope of works for the project.

7.2.2 Asbestos Contamination

The grainstore structure on site is clad with potential asbestos containing cement sheets. An asbestos survey should be scheduled prior to demolition of the structure.

7.3 CONTROLLED WATERS

Groundwater was not encountered on site. As the local strata is largely impermeable clay, the risk posed to the proximal pond is considered to be negligible.

8.0 PHASE II CONCEPTUAL SITE MODEL

The conceptual model for the site considers the development proposal for residential with gardens use and the information gathered during the Phase I and II assessments.

The site's former use as part of a farm yard and pasture field is considered in light of the potential risk posed to human health.

The Phase 2 investigation does not report any soil contamination. There are no landfills within 250m of the site.

However, due to elevated arsenic in topsoil, plots 3 – 5 may require upgraded water pipes.

Contaminants of concern for the end user include a hotspot of Arsenic which poses a risk to water supply pipes via infiltration and ingestion of contaminated drinking water.

Pathways for the end user of the site include the absorption of arsenic contaminated soils into the water supply network.

The primary receptors for the site are construction workers and end users of the site (Residents of completed development). The risk posed to human health receptors is considered moderate, therefore remediation will be required.

For the environment (controlled waters) the primary receptor is the underlying secondary B aquifer.

There is no significant contamination reported and, therefore, remediation is not required to protect controlled waters.

The development of the conceptual model is illustrated on Figure 8.1.

Figure 8.1: Phase II Conceptual Site Model

HUMAN HEALTH			
SOURCE	PATHWAY	RECEPTOR	SOLUTION
Arsenic Hotspot.	Leaching into water supply pipes	Water Supply/End Users	Requirement for upgraded water pipes, e.g. aluminium sheathed or steel pipes.
		End Users (Residents)	Removal of poor quality made ground and replacement with site won soil.
Potential Asbestos containing materials in on site structures.	Inhalation of fibres	Construction Workers	Appropriate PPE for all workers as per HSE Regs.
		End Users (Residents)	Screening and removal of ACMs as part of an appropriate Asbestos Management Plan. Removal or encapsulation of material that may release asbestos fibres.
CONTROLLED WATERS			
No risk posed to controlled waters.	Leaching and vertical migration through the vadose zone to the saturated zone	Secondary B Aquifer	Negligible permeability. No local abstractions or surface water receptors. Negligible risk.
	Leaching and horizontal migration to surface waters	Surface Waters - Pond	

9.0 RISK MANAGEMENT & REMEDIATION

Previous sections have quantified the risk posed to identified receptors which, in some instances, require remediation to protect or reduce levels of risk. The following section details measures and recommendations for dealing with risks associated with soil, gas and groundwater contamination in respect to the development proposal of residential housing with produce.

9.1 REMEDIATION TO PROTECT END USERS

Due to a hotspot of Arsenic, upgraded water supply pipes may be required for plots 3 - 5.

Made ground around the proposed Plots 3 – 5 should be removed and replaced with site won topsoil to improve the landscape aesthetic for each plot.

9.2 REMEDIATION TO PROTECT CONTROLLED WATERS

No remediation is required to protect this receptor.

9.3 REMEDIATION TO PROTECT CONSTRUCTION WORKERS

No remediation is required to protect this receptor.

9.4 REMEDIATION TO PROTECT THIRD PARTIES

No remediation is required to protect this receptor.

9.5 REMEDIATION TO PROTECT CONSTRUCTION MATERIALS

Upgraded water pipes may be required for plots 3 – 5.

9.6 WASTE MANAGEMENT

Surplus topsoil generated on site can be used on site for gardens and landscaping.

Surplus subsoils/clay generated during construction should be classed as inert and be suitable for use at a restoration site.

10.0 RECOMMENDATIONS

Recommendations for further assessment of the site include:

- A demolition asbestos survey will be required prior to the demolition of the grainstore building.
- Surplus topsoil generated on site can be used for landscaping across the site.
- A copy of this report should be provided to Severn Trent for review in respect of the requirement to install upgraded water pipes.

11.0 CONCLUSIONS

The Phase I and Phase II Assessment and the recommendations contained within has illustrated that the proposed development of the site for residential housing with gardens use does not pose a significant risk to end users of the site or the environment.

However, upgraded water pipes should be specified for plots 3 – 5, subject to STW confirmation.

If the recommendations of this report are carried out to mitigate or remove all hazards presented in the conceptual model, the site can be made suitable for the proposed use.

APPENDIX A



KEY:

● Approximate Site Location

DO NOT SCALE



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Linden, Potter Street, Spondon,
Derby DE21 7UH

TITLE:

Site Location Plan

PROJECT:

Church Lane, Fenny Drayton

PROJECT No:

LN.04.26

DATE:

04.2026

SCALE:

NTS

DRAWN:

RPS

DWG No:

Figure 1



KEY:



Site Boundary

DO NOT SCALE



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Linden, Potter Street, Spondon,
Derby DE21 7UH

TITLE:

Site Layout

PROJECT:

Church Lane, Fenny Drayton

PROJECT No:

LN.04.26

DATE:

04.2026

SCALE:

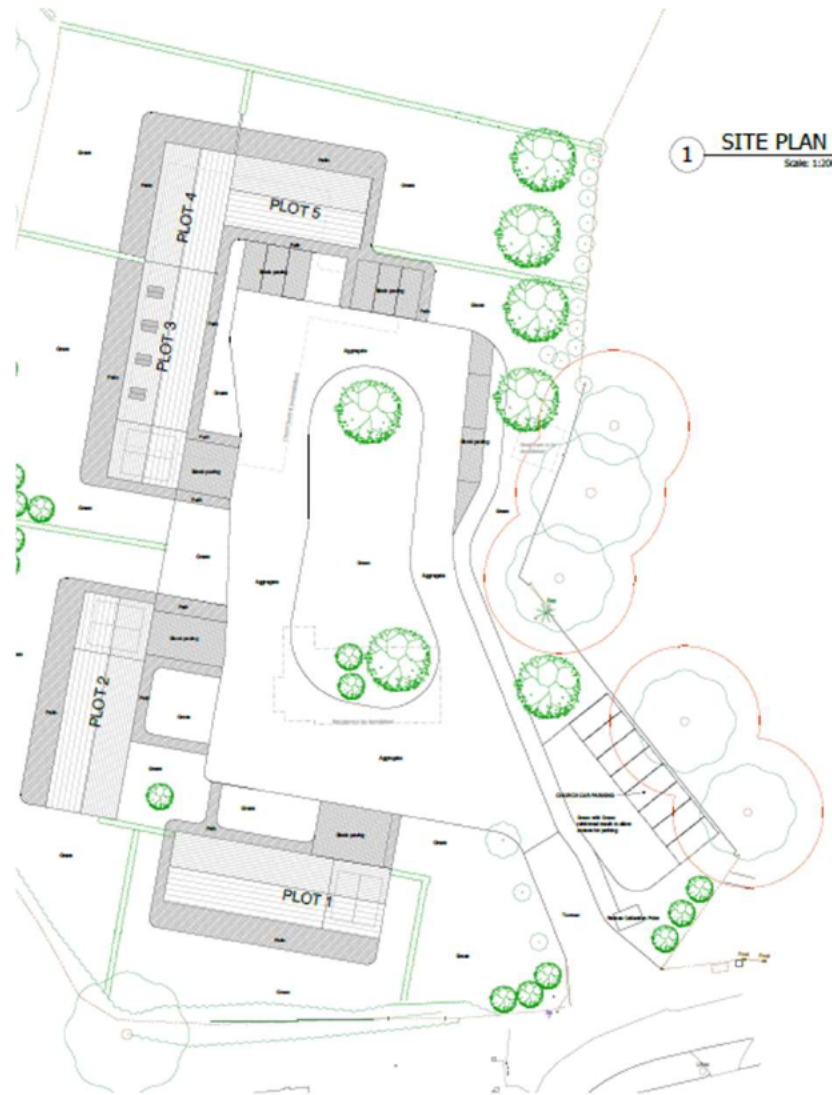
NTS

DRAWN:

RPS

DWG No:

Figure 2



KEY:

DO NOT SCALE



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lindenhouseenv@outlook.com

Linden, Potter Street, Spondon,
Derby DE21 7UH

TITLE:

Development Proposal

PROJECT:

Church Lane, Fenny Drayton

PROJECT No:

LN.04.26

DATE:

04.2026

SCALE:

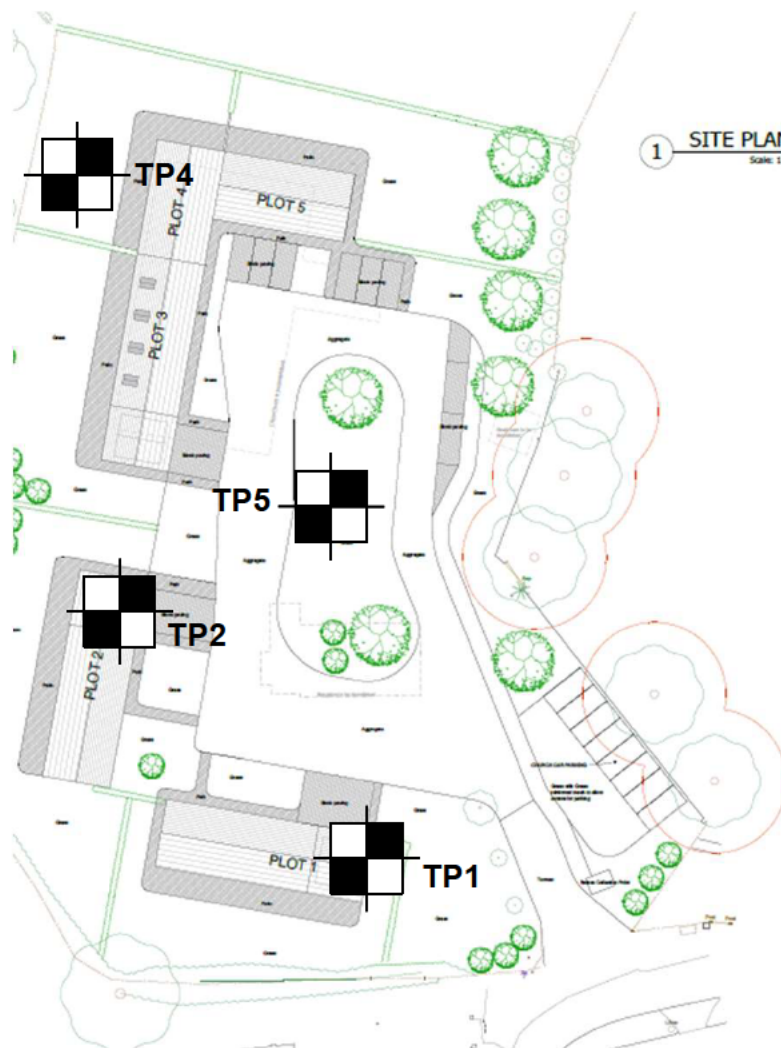
NTS

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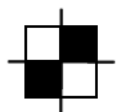
RPS

DWG No:

Figure 3



KEY:



Trial Pit

DO NOT SCALE



**Linden
Environmental Ltd**

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lindenhouseenv@outlook.com

Linden, Potter Street, Spondon,
Derby DE21 7UH

TITLE:

Exploratory Hole Location Plan

PROJECT:

Church Lane, Fenny Drayton

PROJECT No:

LN.04.26

DATE:

04.2026

SCALE:

NTS

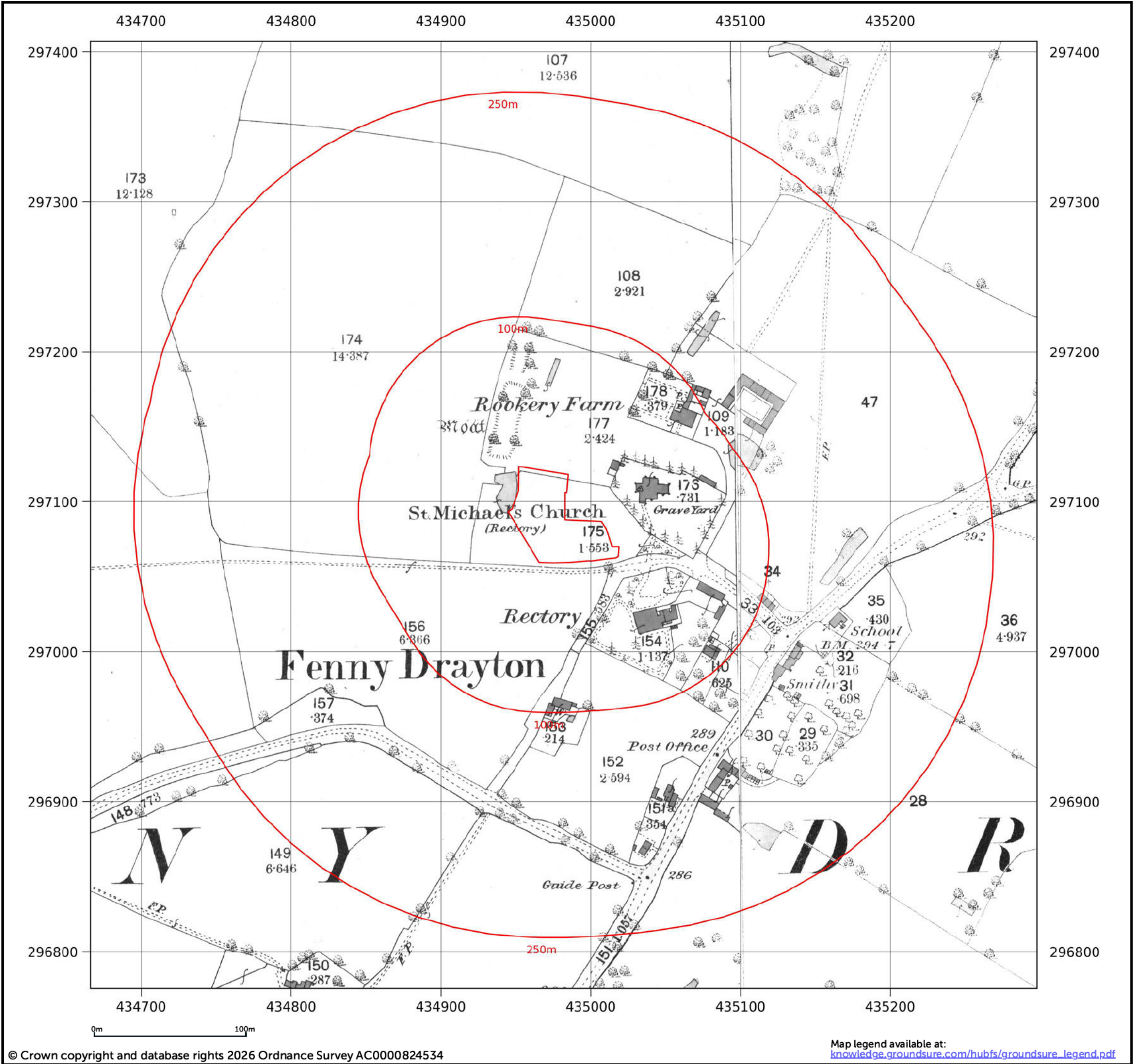
DRAWN:

RPS

DWG No:

Figure 4

APPENDIX B



Site details:	ROOKERY FARM, 6, CHURCH LANE, FENNY DRAYTON, LEICESTERSHIRE, CV13 6BA
Client ref:	LN.04.26
Report ref:	GS-IH2-LC9-U91-666
Grid ref:	434976.81, 297086.55
Production date:	8 May 2026

Map name:	County Series
Map date:	1888-1889
Scale:	1:2,500
Printed at:	1:2,500


Date: 1889
Surveyed: 1889
Revised: 1889
Date: 1888
Surveyed: 1888
Revised: 1888

Contact us with any questions at:
info@groundsure.com
01273 257 755



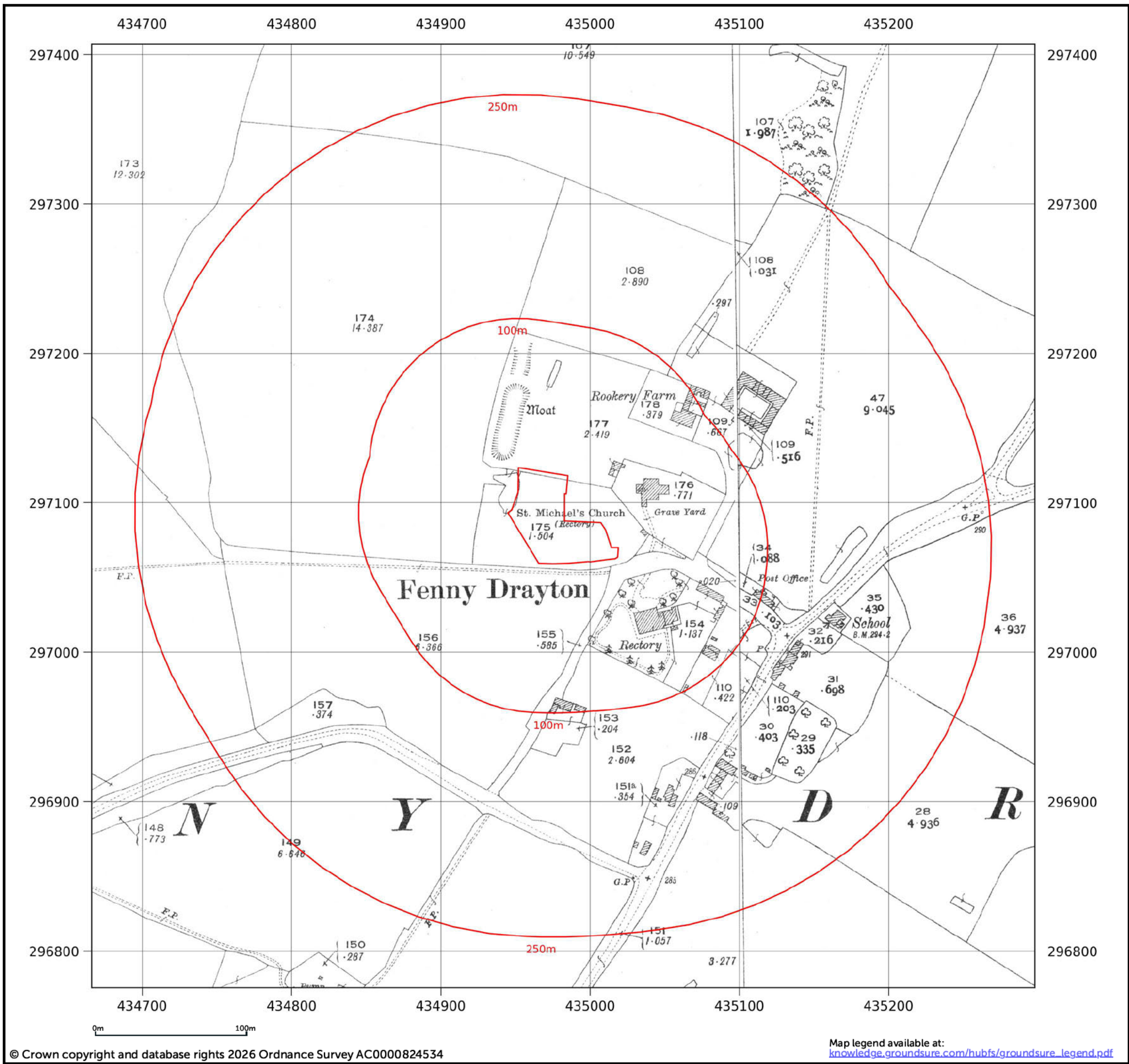
Site details:	ROOKERY FARM, 6, CHURCH LANE, FENNY DRAYTON, LEICESTERSHIRE, CV13 6BA
Client ref:	LN.04.26
Report ref:	GS-IH2-LC9-U91-666
Grid ref:	434976.81, 297086.55
Production date:	8 May 2026

Map name:	County Series
Map date:	1903
Scale:	1:2,500
Printed at:	1:2,500



Date: 1903 Surveyed: 1903 Revised: 1903	Date: 1903 Surveyed: 1903 Revised: 1903
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Contact us with any questions at:
info@groundsure.com
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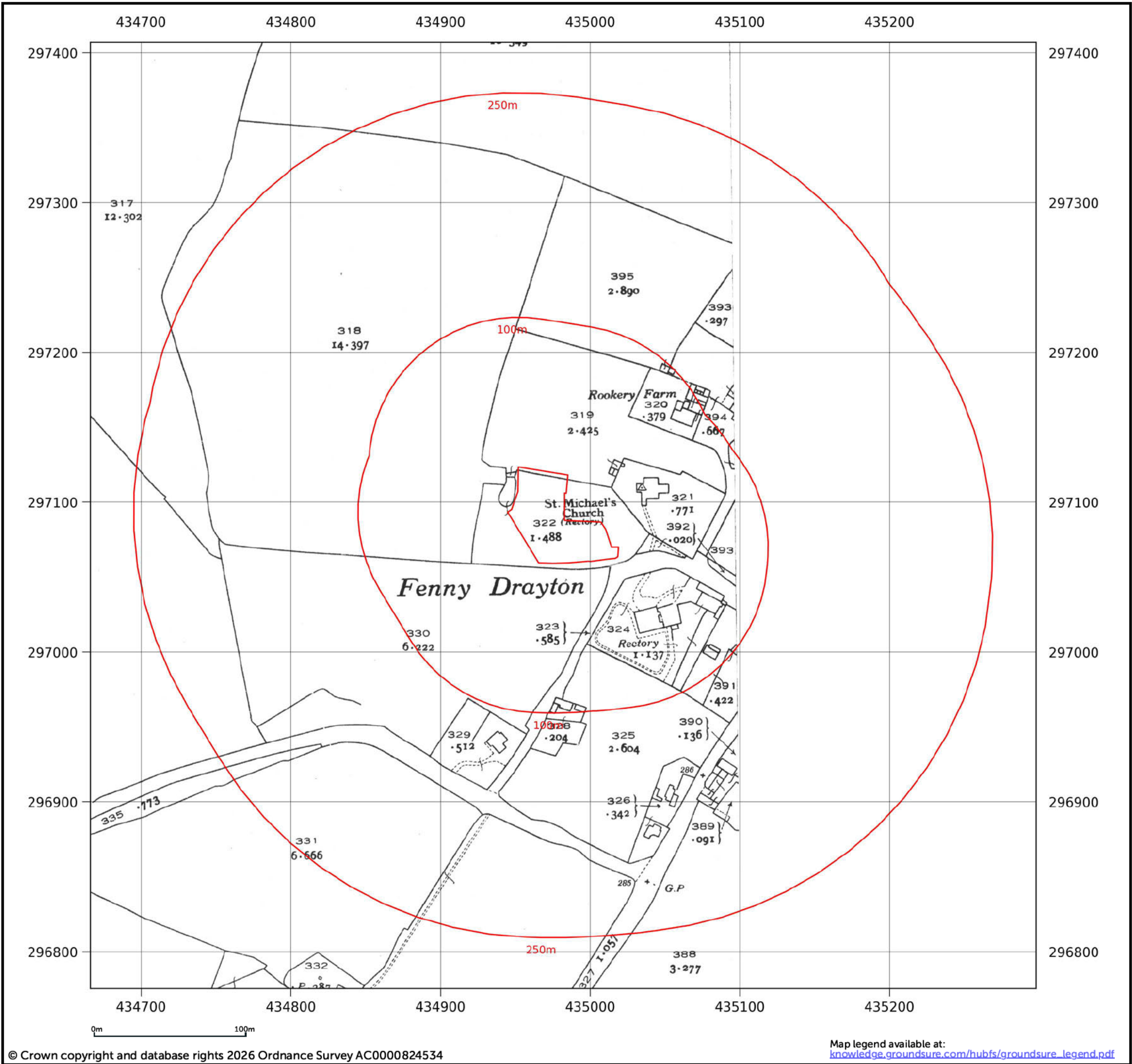
Site details:	ROOKERY FARM, 6, CHURCH LANE, FENNY DRAYTON, LEICESTERSHIRE, CV13 6BA
Client ref:	LN.04.26
Report ref:	GS-IH2-LC9-U91-666
Grid ref:	434976.81, 297086.55
Production date:	8 May 2026

Map name:	County Series
Map date:	1924-1929
Scale:	1:2,500
Printed at:	1:2,500



Date: 1924 Surveyed: 1924 Revised: 1924	Date: 1929 Surveyed: 1929 Revised: 1929
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Contact us with any questions at:
info@groundsure.com
 01273 257 755



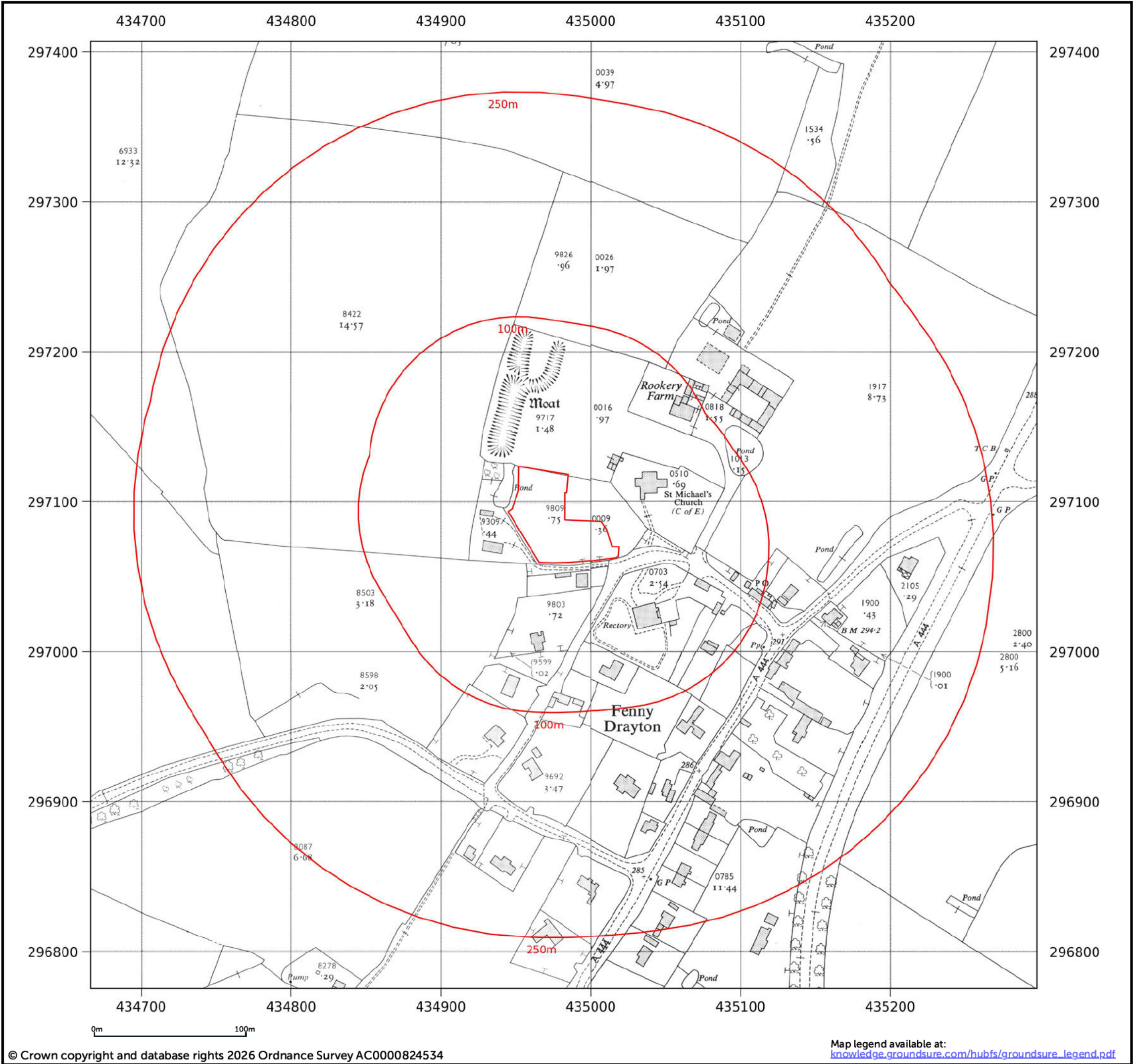
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Client ref:	LN.04.26
Report ref:	GS-IH2-LC9-U91-666
Grid ref:	434976.81, 297086.55
Production date:	8 May 2026

Map name:	County Series
Map date:	1938
Scale:	1:2,500
Printed at:	1:2,500

Date: 1938
Surveyed: 1938
Revised: 1938



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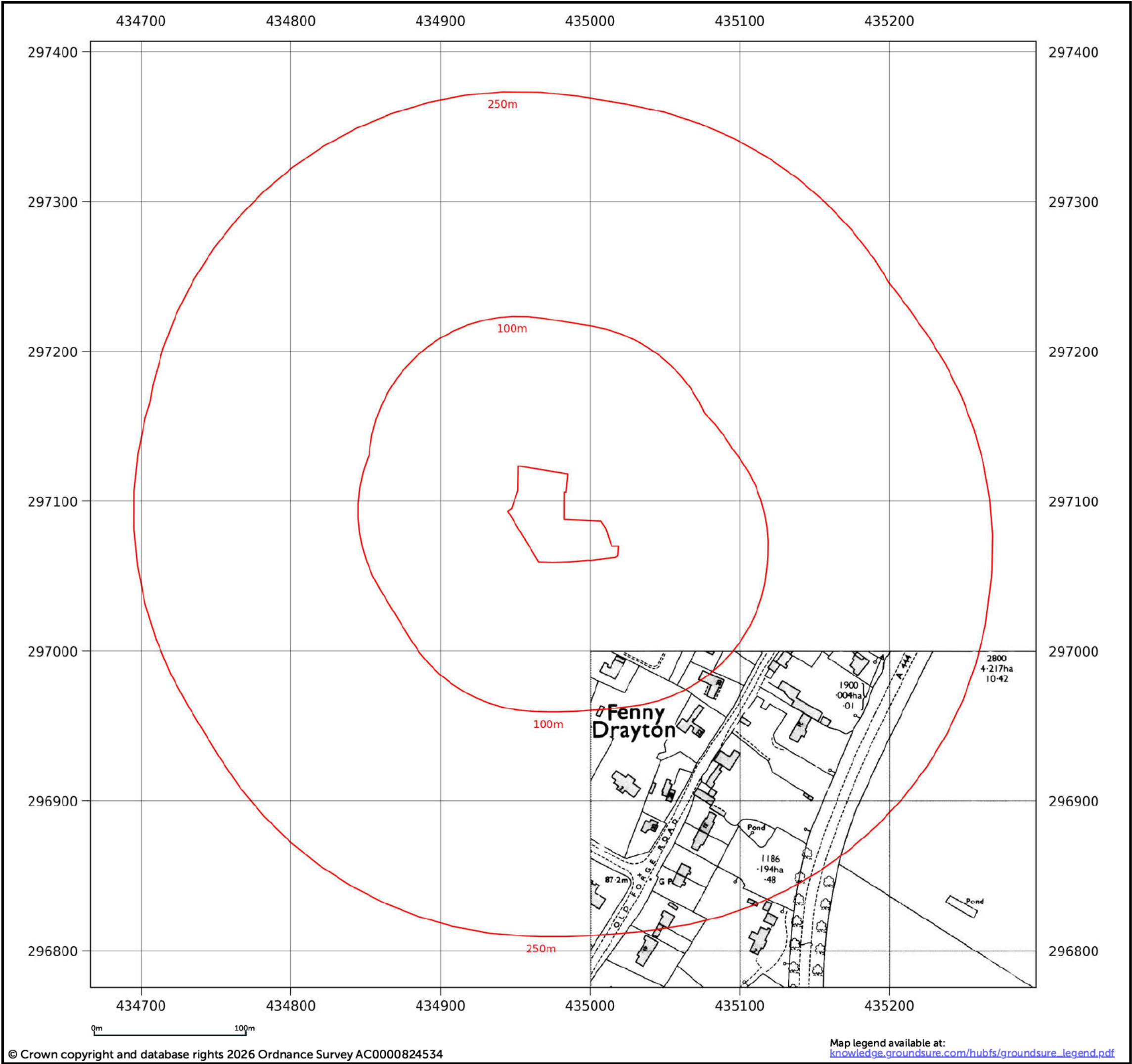
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Client ref:	LN.04.26
Report ref:	GS-IH2-LC9-U91-666
Grid ref:	434976.81, 297086.55
Production date:	8 May 2026

Map name:	National Grid
Map date:	1959
Scale:	1:2,500
Printed at:	1:2,500



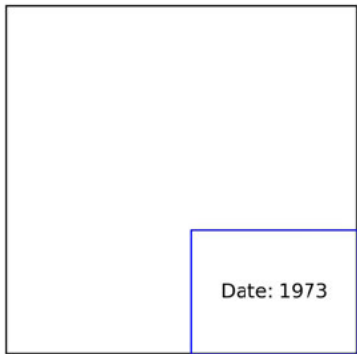
Date: 1959 Surveyed: 1958 Revised: 1958 Copyright: 1959 Levelled: 1922	Date: 1959 Surveyed: 1958 Revised: 1958 Copyright: 1959 Levelled: 1922
Date: 1959 Surveyed: 1958 Revised: 1958 Copyright: 1959 Levelled: 1922	Date: 1959 Surveyed: 1958 Revised: 1958 Copyright: 1959 Levelled: 1922

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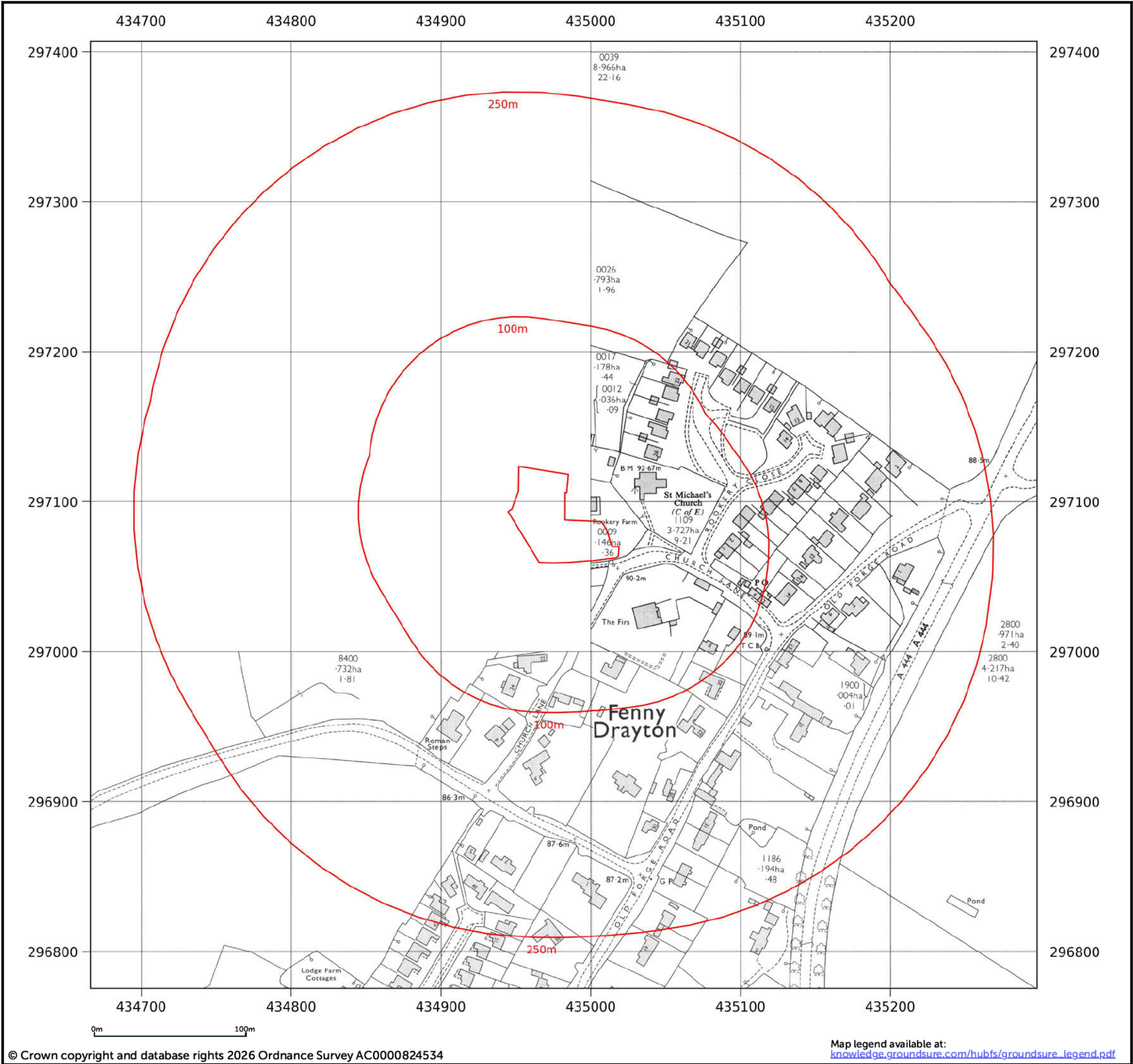
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Client ref:	LN.04.26
Report ref:	GS-IH2-LC9-U91-666
Grid ref:	434976.81, 297086.55
Production date:	8 May 2026

Map name:	National Grid
Map date:	1973
Scale:	1:2,500
Printed at:	1:2,500



Date: 1973

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Site details:	ROOKERY FARM, 6, CHURCH LANE, FENNY DRAYTON, LEICESTERSHIRE, CV13 6BA
Client ref:	LN.04.26
Report ref:	GS-IH2-LC9-U91-666
Grid ref:	434976.81, 297086.55
Production date:	8 May 2026

Map name:	National Grid
Map date:	1973-1977
Scale:	1:2,500
Printed at:	1:2,500

Date: 1977
Surveyed: 1976
Revised: 1976
Copyright: 1977
Levelled: 1963

Date: 1973
Surveyed: 1972
Revised: 1972
Copyright: 1973
Levelled: 1963



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Site details:	ROOKERY FARM, 6, CHURCH LANE, FENNY DRAYTON, LEICESTERSHIRE, CV13 6BA
Client ref:	LN.04.26
Report ref:	GS-IH2-LC9-U91-666
Grid ref:	434976.81, 297086.55
Production date:	8 May 2026

Map name:	National Grid
Map date:	1994
Scale:	1:2,500
Printed at:	1:2,500



Date: 1994 Surveyed: 1994 Revised: 1994	Date: 1994
Date: 1994 Surveyed: 1994 Revised: 1994 Copyright: 1994	Date: 1994 Copyright: 1994

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info@groundsure.com
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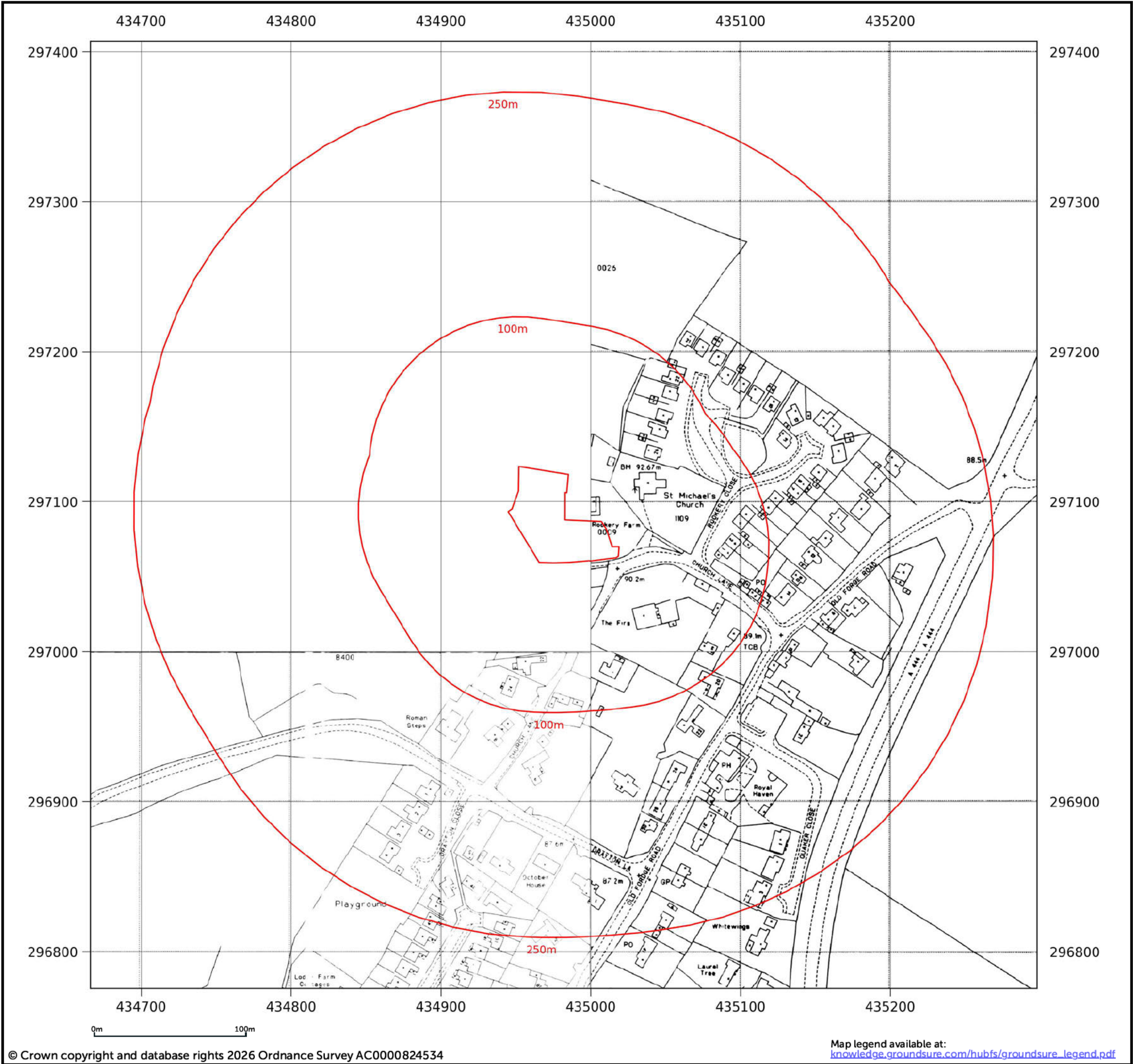
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Client ref:	LN.04.26
Report ref:	GS-IH2-LC9-U91-666
Grid ref:	434976.81, 297086.55
Production date:	8 May 2026

Map name:	National Grid
Map date:	1994
Scale:	1:2,500
Printed at:	1:2,500



Date: 1994 Surveyed: 1994 Revised: 1994	
Date: 1994 Copyright: 1994	Date: 1994 Surveyed: 1994

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Site details:	ROOKERY FARM, 6, CHURCH LANE, FENNY DRAYTON, LEICESTERSHIRE, CV13 6BA
Client ref:	LN.04.26
Report ref:	GS-IH2-LC9-U91-666
Grid ref:	434976.81, 297086.55
Production date:	8 May 2026

Map name:	National Grid
Map date:	1994
Scale:	1:2,500
Printed at:	1:2,500



	Date: 1994 Copyright: 1994
Date: 1994 Copyright: 1994	Date: 1994 Copyright: 1994

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Site details: ROOKERY FARM, 6, CHURCH LANE, FENNY DRAYTON, LEICESTERSHIRE, CV13 6BA

Client ref: LN.04.26

Report ref: GS-IH2-LC9-U91-666

Grid ref: 434976.81, 297086.55

Production date: 8 May 2026

Map name: LandLine

Map date: 2003

Scale: 1:1,250

Printed at: 1:1,250



Date: 2003

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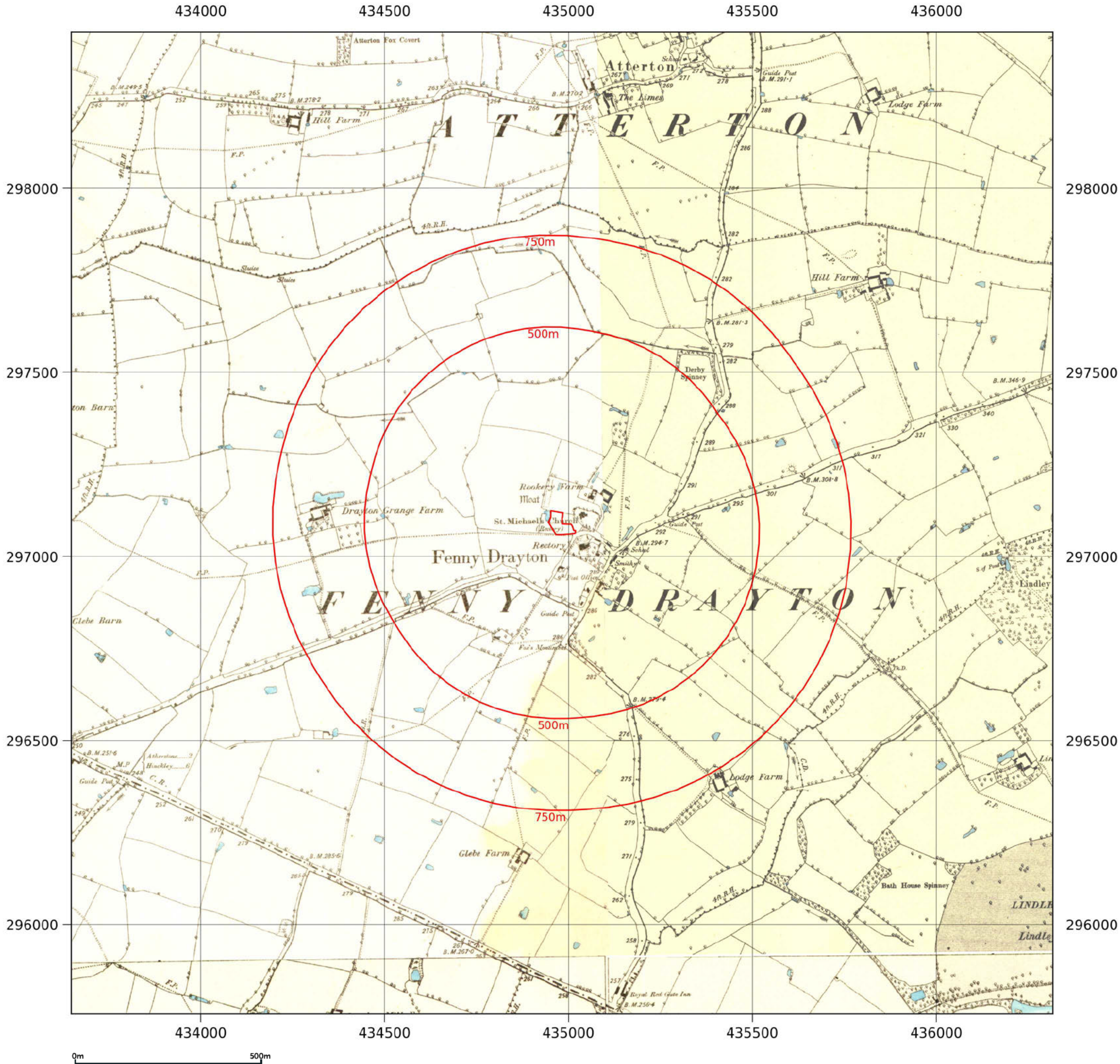
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Client ref: LN.04.26
Report ref: GS-IH2-LC9-U91-666
Grid ref: 434976.81, 297086.55
Production date: 8 May 2026

Map name: County Series
Map date: 1887
Scale: 1:10,560
Printed at: 1:10,560



Date: 1887 Surveyed: 1887 Revised: 1887	Date: 1887 Surveyed: 1887 Revised: 1887
Date: 1887 Surveyed: 1887 Revised: 1887	Date: 1887 Surveyed: 1887 Revised: 1887

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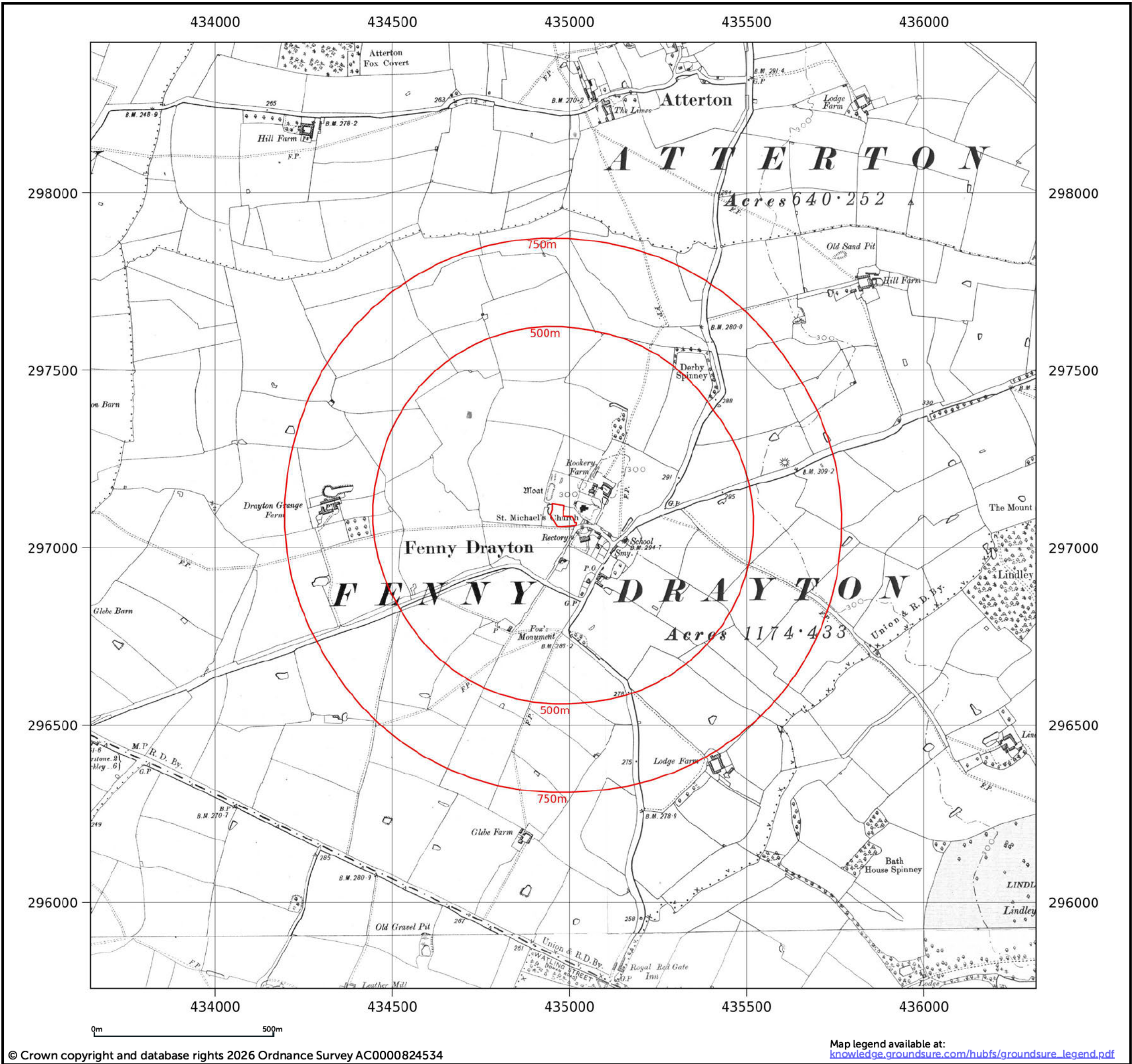
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Client ref:	LN.04.26
Report ref:	GS-IH2-LC9-U91-666
Grid ref:	434976.81, 297086.55
Production date:	8 May 2026

Map name:	County Series
Map date:	1901
Scale:	1:10,560
Printed at:	1:10,560



Date: 1901	Date: 1901 Surveyed: 1887 Revised: 1901
Date: 1901 Surveyed: 1886 Revised: 1901	Date: 1901 Surveyed: 1887 Revised: 1901

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Site details: ROOKERY FARM, 6, CHURCH LANE, FENNY DRAYTON, LEICESTERSHIRE, CV13 6BA

Client ref: LN.04.26

Report ref: GS-IH2-LC9-U91-666

Grid ref: 434976.81, 297086.55

Production date: 8 May 2026

Map name: County Series

Map date: 1901-1902

Scale: 1:10,560

Printed at: 1:10,560



Date: 1901
Surveyed: 1887
Revised: 1901

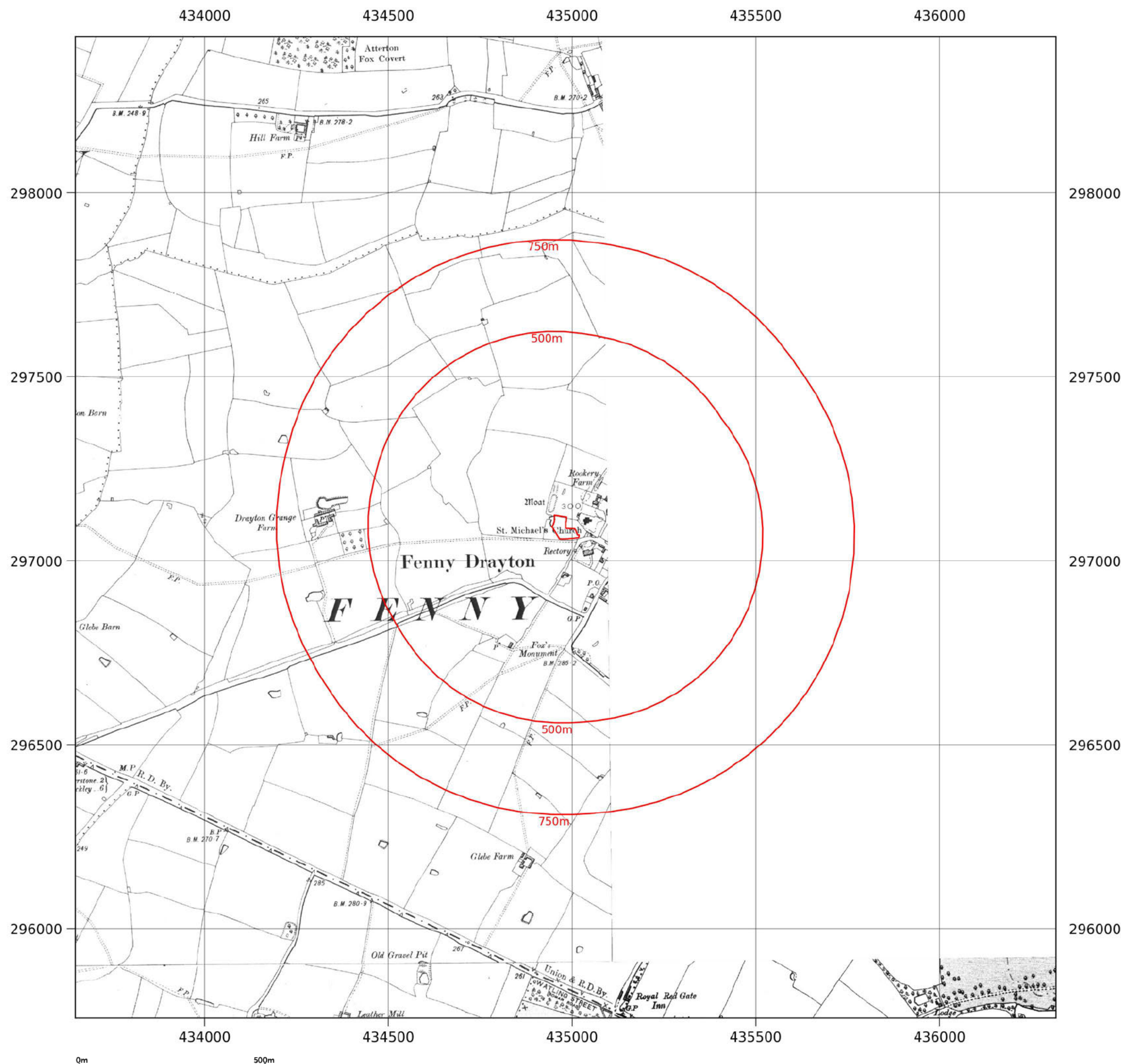
Date: 1902

Date: 1902

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Site details: ROOKERY FARM, 6, CHURCH LANE, FENNY DRAYTON, LEICESTERSHIRE, CV13 6BA
Client ref: LN.04.26
Report ref: GS-IH2-LC9-U91-666
Grid ref: 434976.81, 297086.55
Production date: 8 May 2026

Map name: County Series
Map date: 1923-1925
Scale: 1:10,560
Printed at: 1:10,560

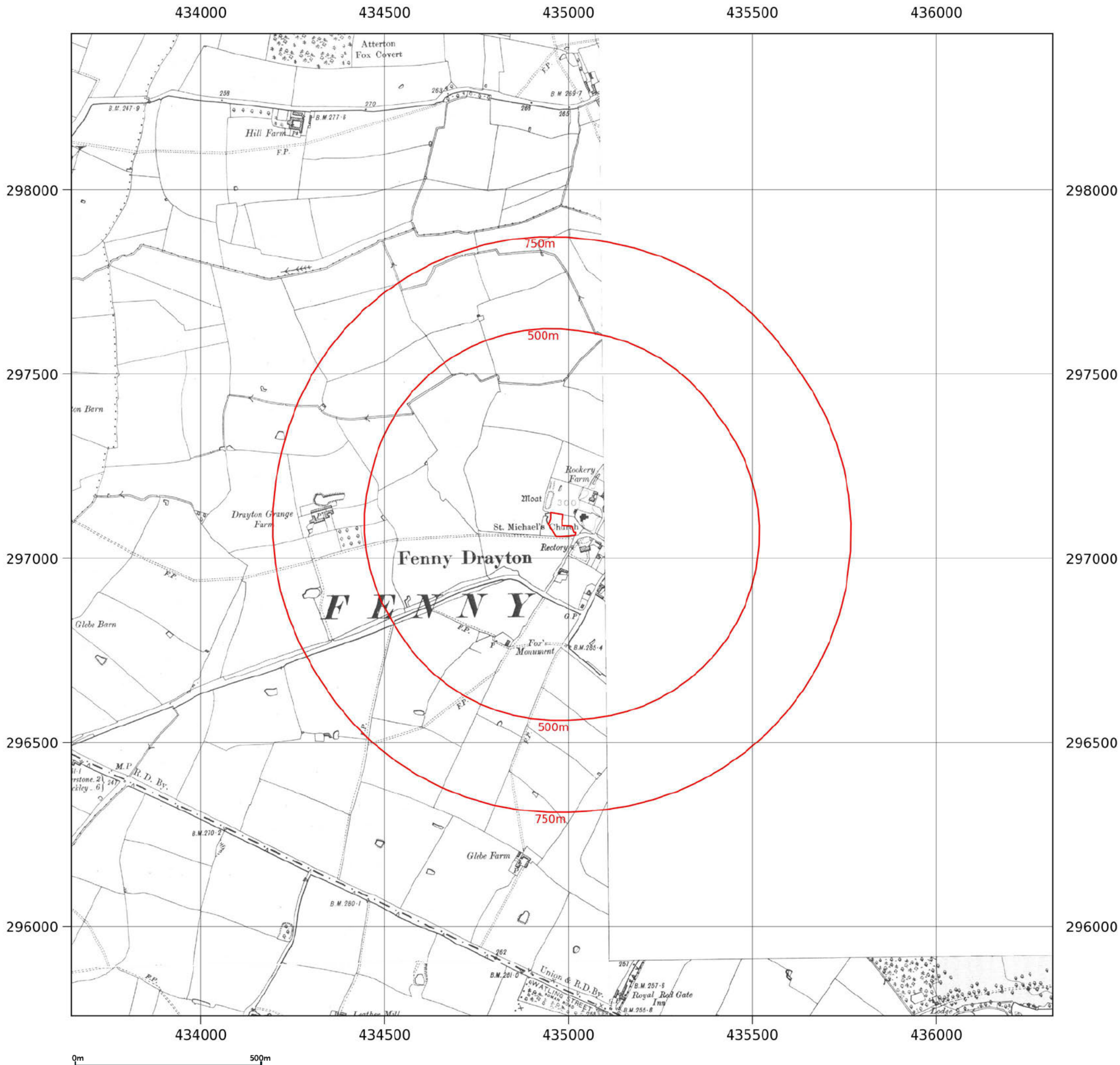


Date: 1925
Surveyed: 1886
Revised: 1925

Date: 1923
Surveyed: 1886
Revised: 1923

Date: 1923
Surveyed: 1886
Revised: 1923

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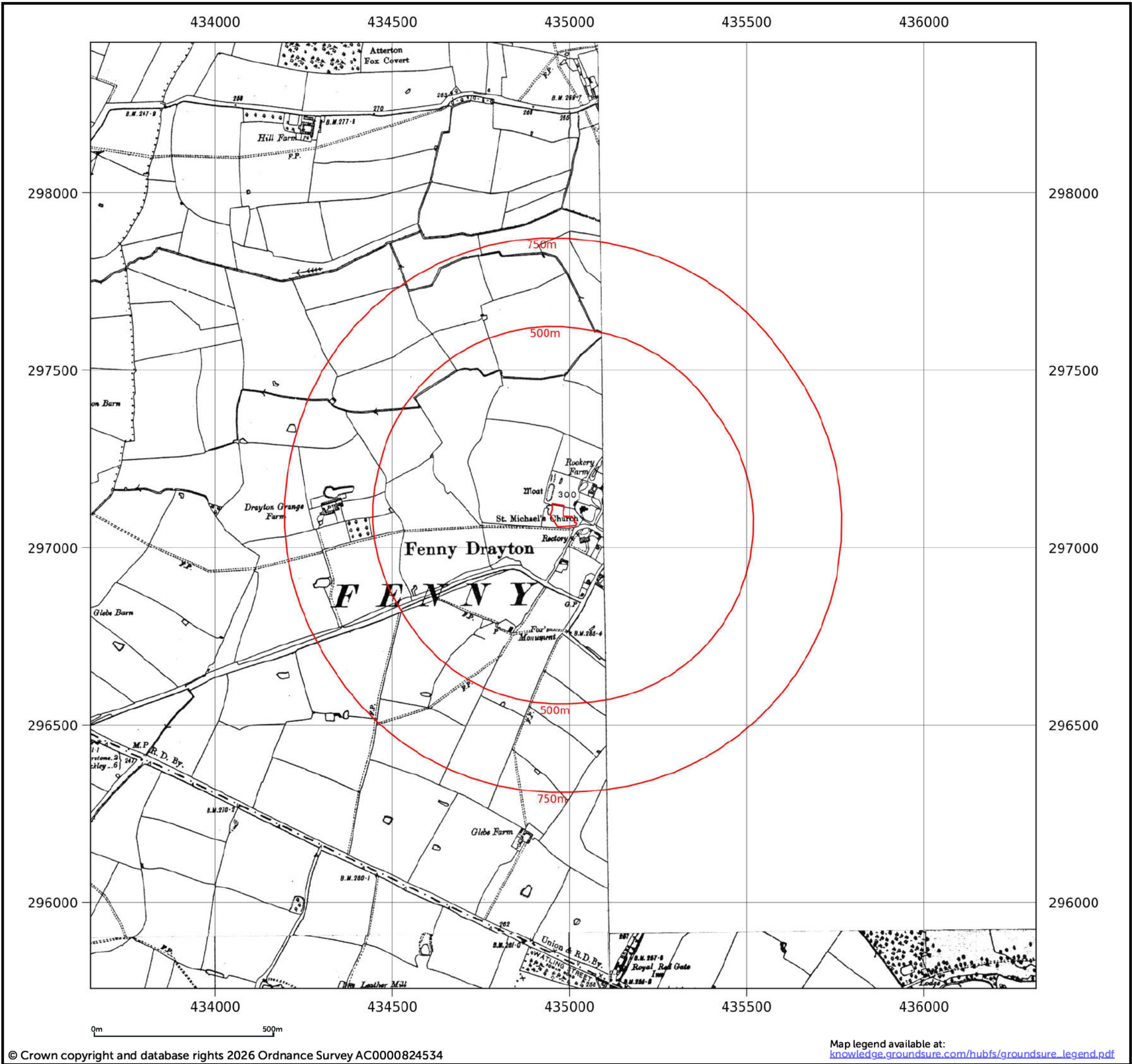
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Client ref:	LN.04.26
Report ref:	GS-IH2-LC9-U91-666
Grid ref:	434976.81, 297086.55
Production date:	8 May 2026

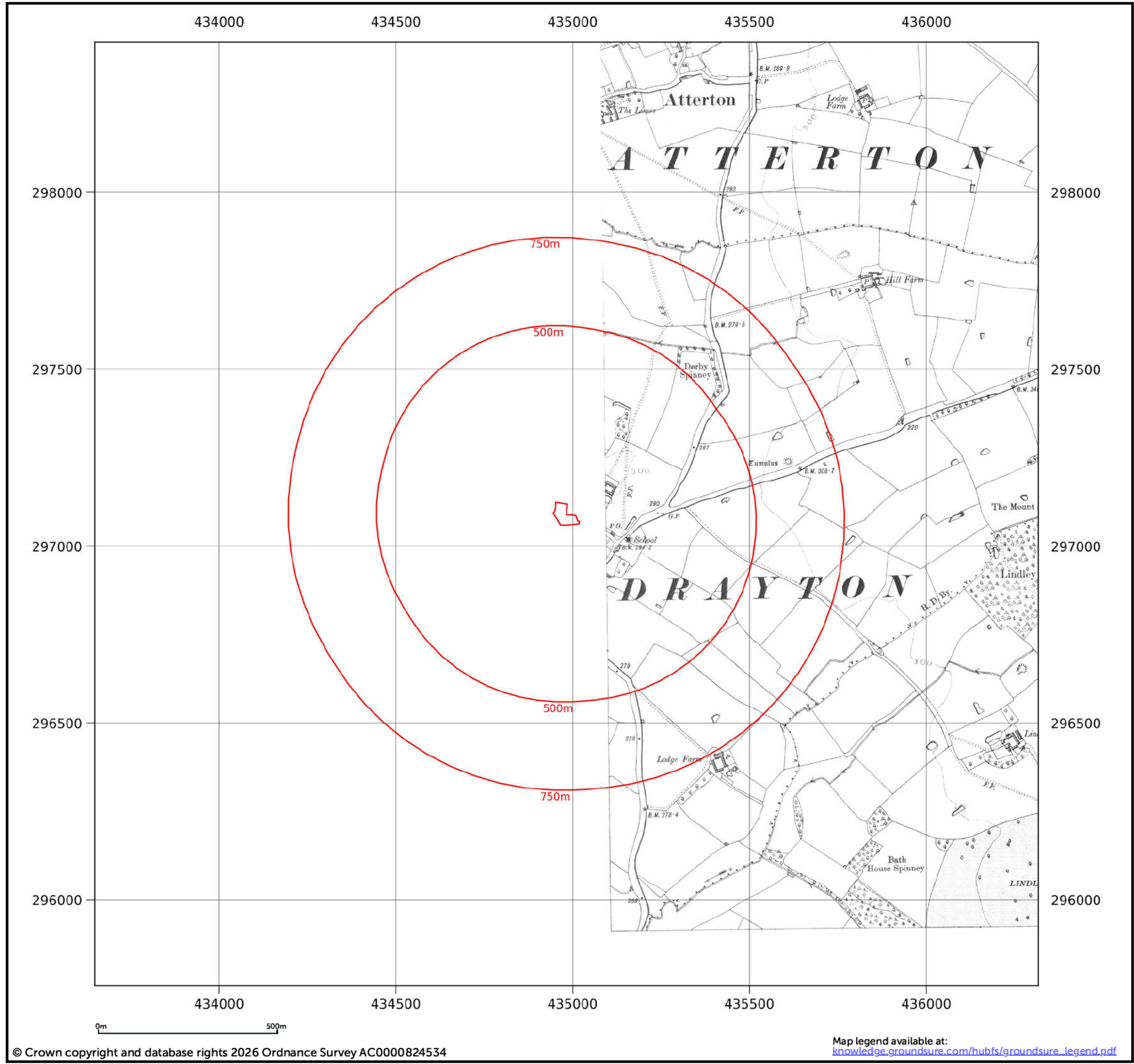
Map name:	County Series
Map date:	1923-1925
Scale:	1:10,560
Printed at:	1:10,560



Date: 1925
Date: 1923
Date: 1923

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Site details:	ROOKERY FARM, 6, CHURCH LANE, FENNY DRAYTON, LEICESTERSHIRE, CV13 6BA
Client ref:	LN.04.26
Report ref:	GS-IH2-LC9-U91-666
Grid ref:	434976.81, 297086.55
Production date:	8 May 2026

Map name:	County Series
Map date:	1930
Scale:	1:10,560
Printed at:	1:10,560



Date: 1930 Surveyed: 1886 Revised: 1930

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Site details:

ROOKERY FARM, 6, CHURCH LANE, FENNY DRAYTON, LEICESTERSHIRE, CV13 6BA

Client ref:

LN.04.26

Report ref:

GS-IH2-LC9-U91-666

Grid ref:

434976.81, 297086.55

Production date:

8 May 2026

Map name:

Provisional

Map date:

1950-1955

Scale:

1:10,560

Printed at:

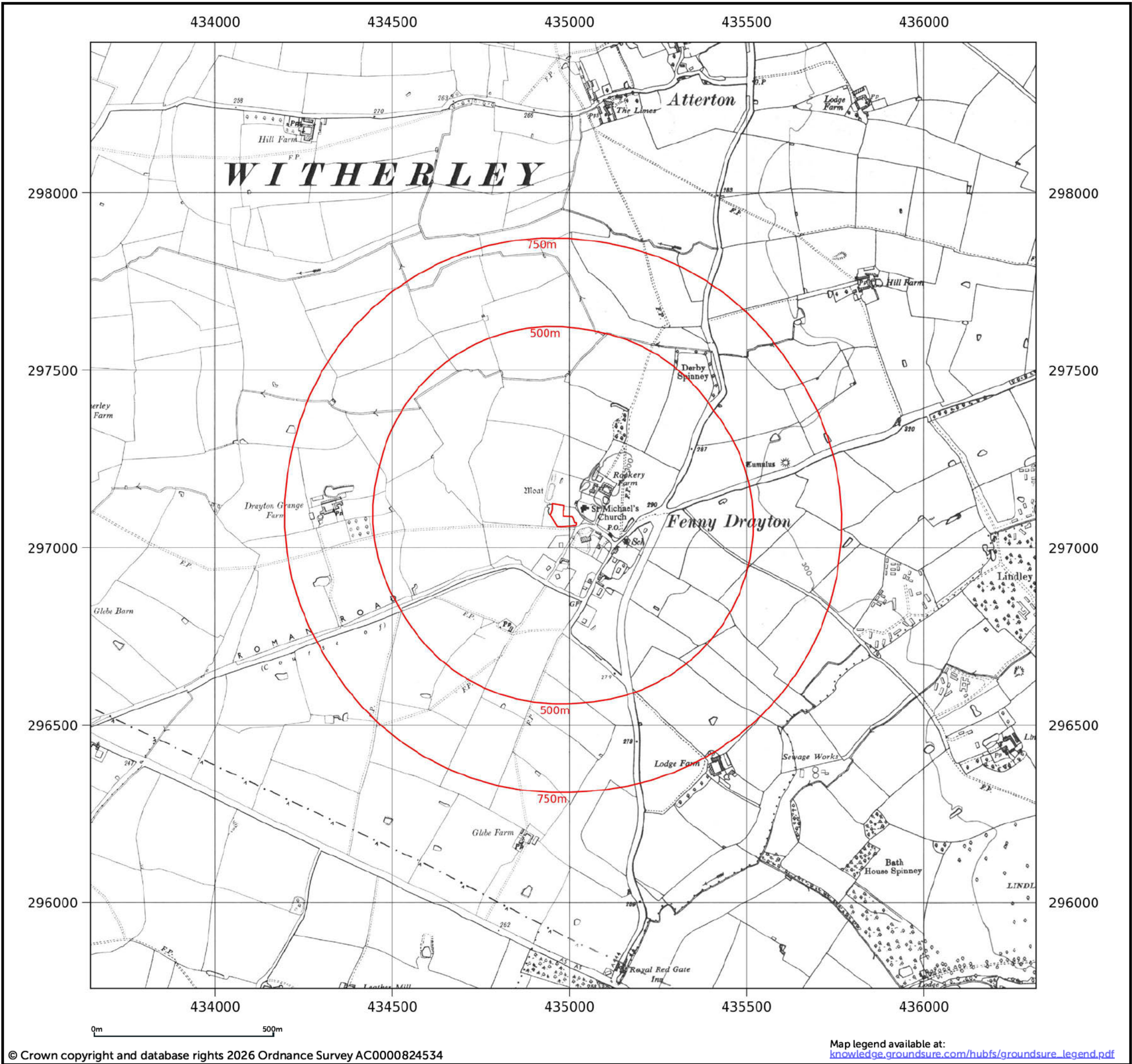
1:10,560

Date: 1950
Surveyed: 1950
Revised: 1950

Date: 1955
Revised: 1954
Copyright: 1955



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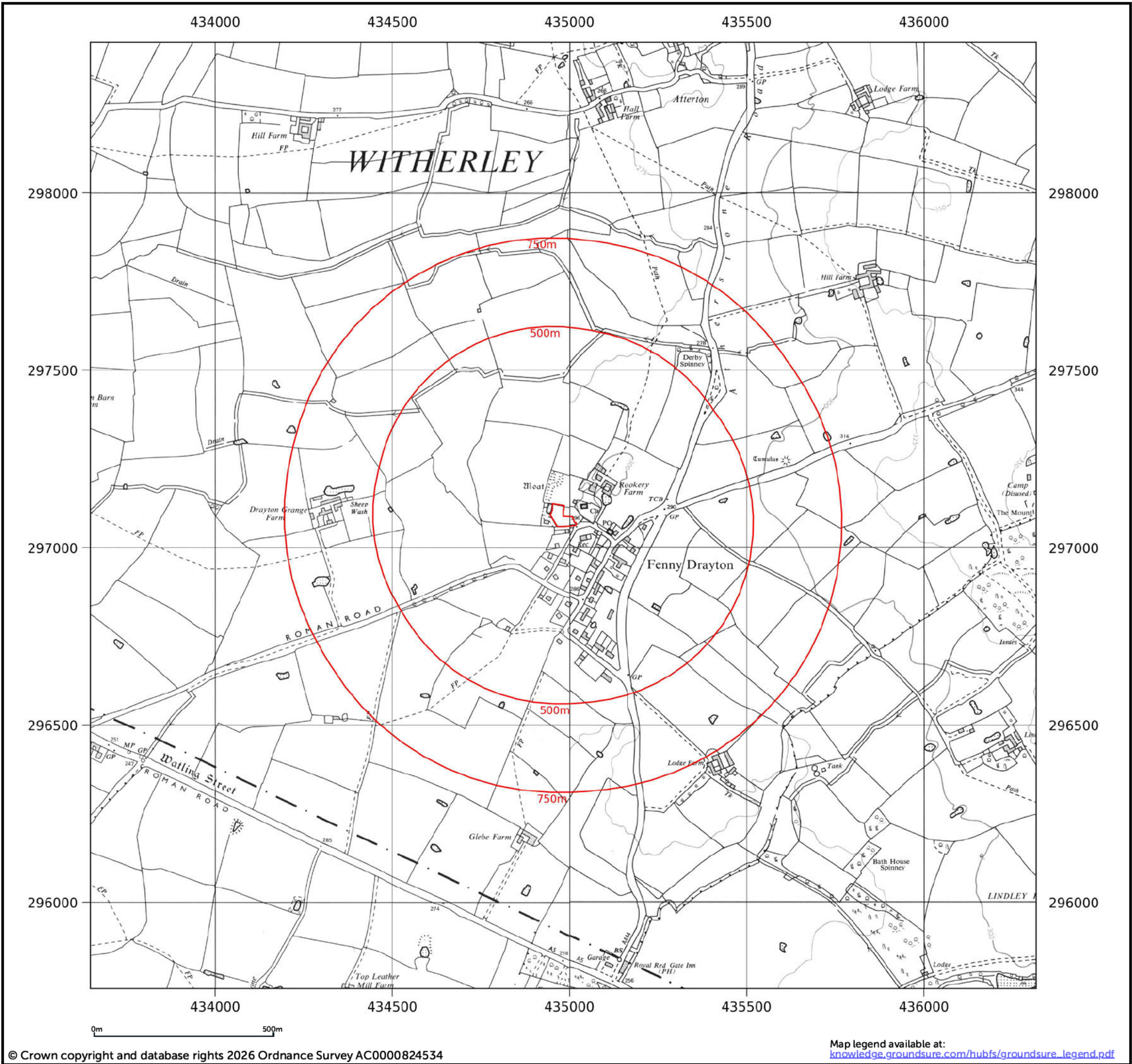


Site details:	ROOKERY FARM, 6, CHURCH LANE, FENNY DRAYTON, LEICESTERSHIRE, CV13 6BA
Client ref:	LN.04.26
Report ref:	GS-IH2-LC9-U91-666
Grid ref:	434976.81, 297086.55
Production date:	8 May 2026

Map name:	Provisional
Map date:	1965-1968
Scale:	1:10,560
Printed at:	1:10,560

Date: 1965 Surveyed: 1965 Revised: 1965	Date: 1968 Surveyed: 1968 Revised: 1968
---	---

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Site details: ROOKERY FARM, 6, CHURCH LANE, FENNY DRAYTON, LEICESTERSHIRE, CV13 6BA

Client ref: LN.04.26

Report ref: GS-IH2-LC9-U91-666

Grid ref: 434976.81, 297086.55

Production date: 8 May 2026

Map name: National Grid

Map date: 1974

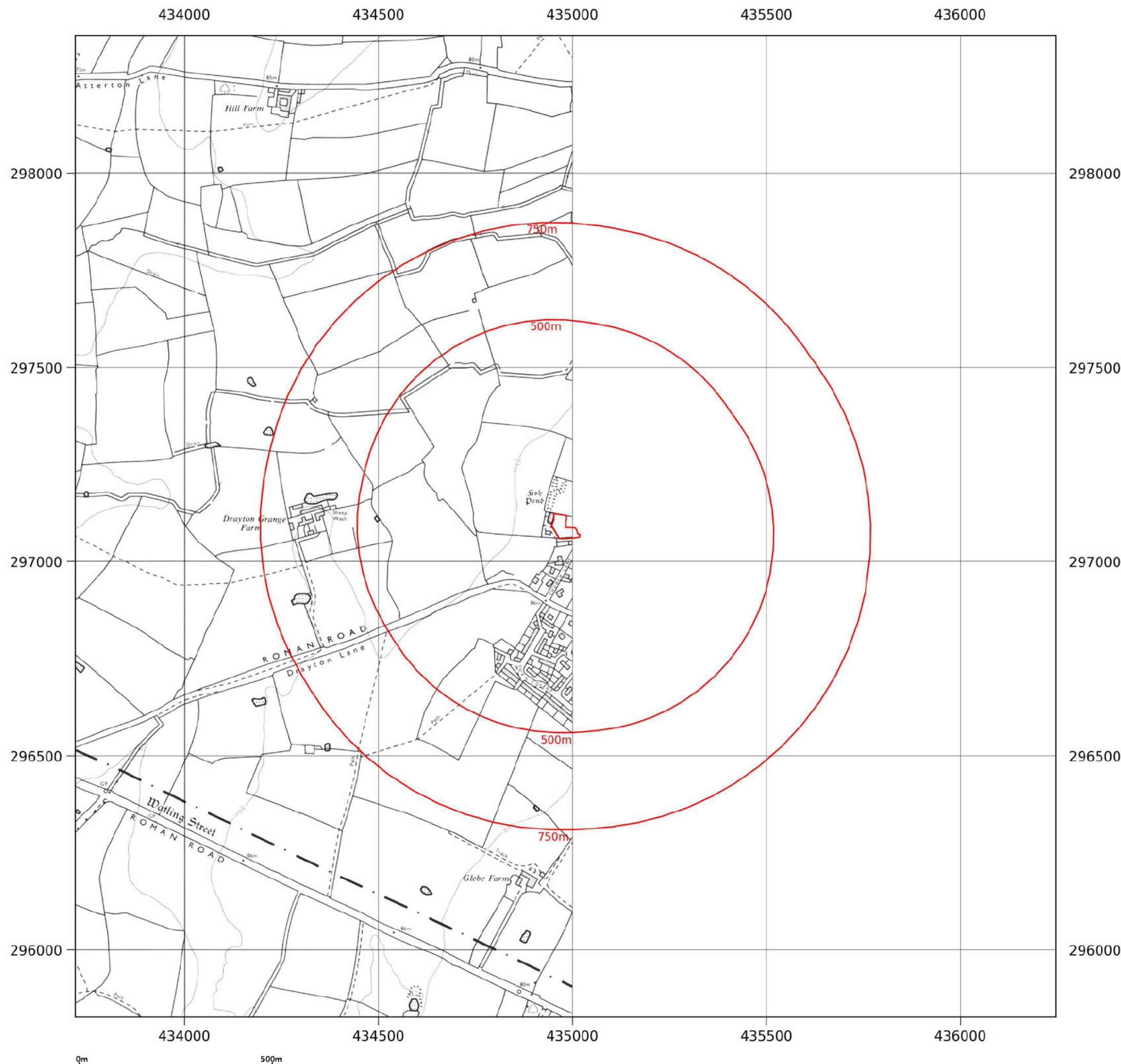
Scale: 1:10,000

Printed at: 1:10,000



Date: 1974
Surveyed: 1973
Revised: 1974
Copyright: 1974
Levelled: 1967

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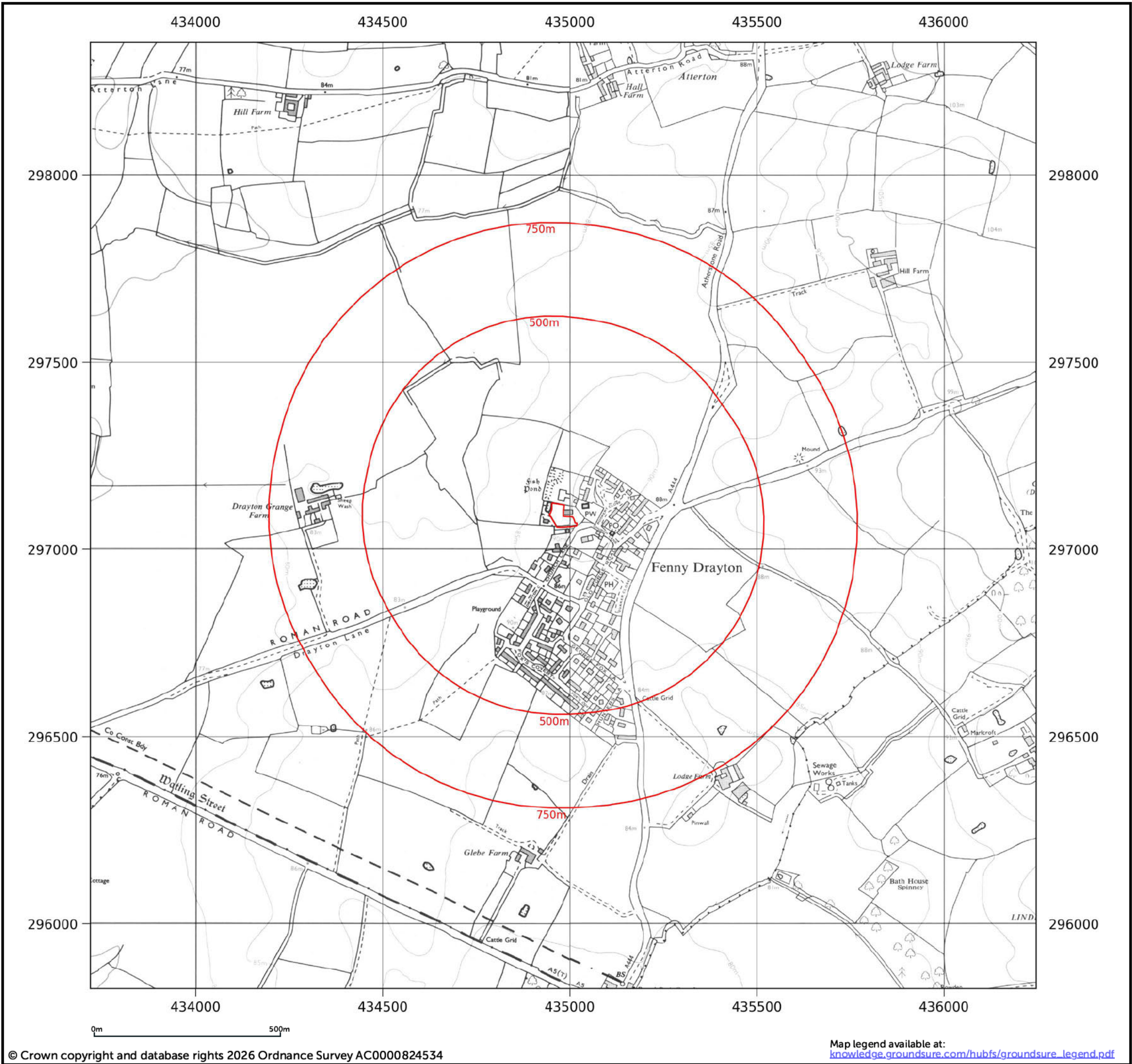
Site details:	ROOKERY FARM, 6, CHURCH LANE, FENNY DRAYTON, LEICESTERSHIRE, CV13 6BA
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Report ref:	GS-IH2-LC9-U91-666
Grid ref:	434976.81, 297086.55
Production date:	8 May 2026

Map name:	National Grid
Map date:	1988-1991
Scale:	1:10,000
Printed at:	1:10,000



Date: 1991 Surveyed: 1988 Revised: 1991	Date: 1988 Surveyed: 1982 Revised: 1988
---	---

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Site details:	ROOKERY FARM, 6, CHURCH LANE, FENNY DRAYTON, LEICESTERSHIRE, CV13 6BA
Client ref:	LN.04.26
Report ref:	GS-IH2-LC9-U91-666
Grid ref:	434976.81, 297086.55
Production date:	8 May 2026

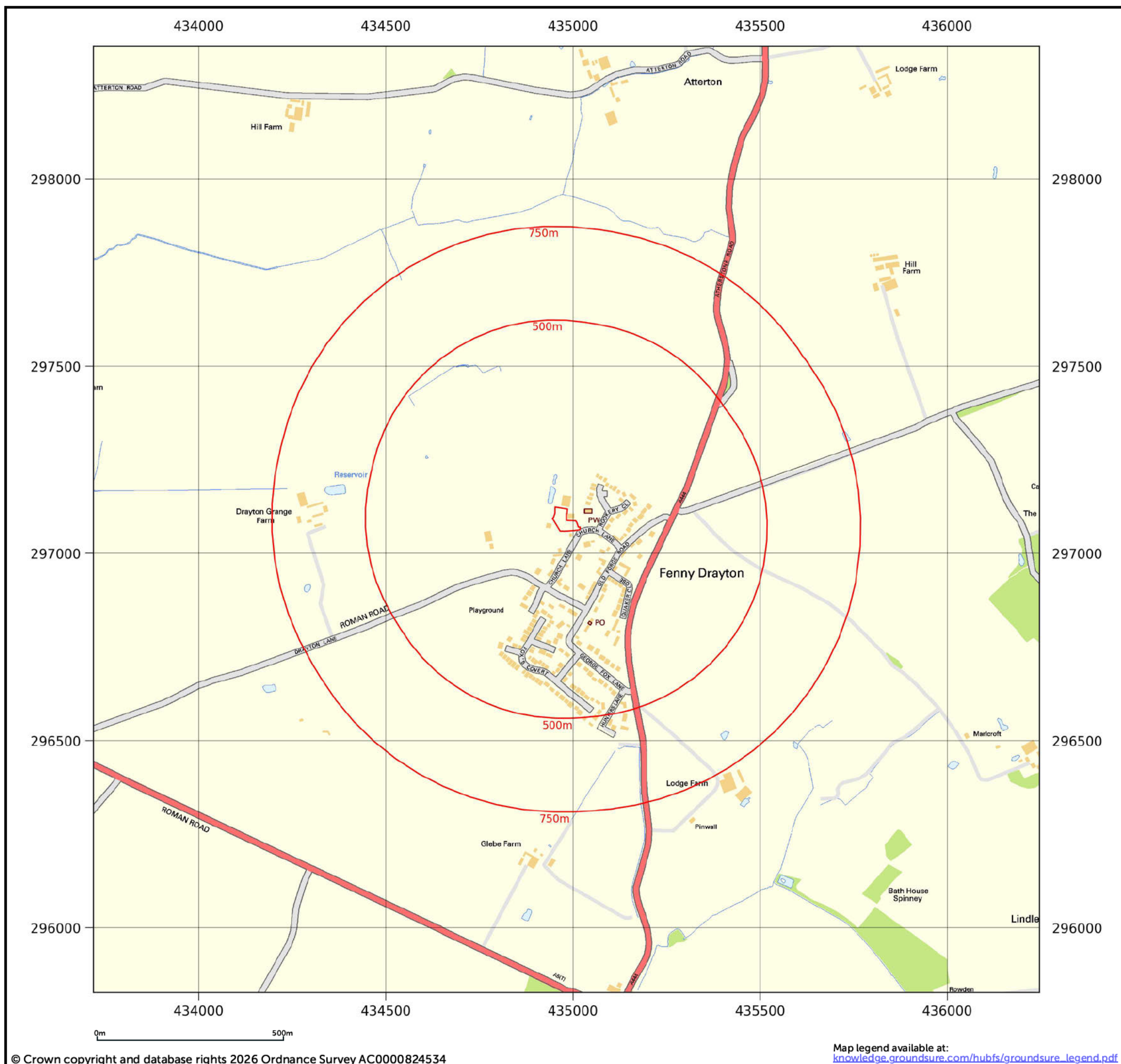
Map name:	National Grid
Map date:	2001
Scale:	1:10,000
Printed at:	1:10,000



Date: 2001

Date: 2001

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Site details: ROOKERY FARM, 6, CHURCH LANE, FENNY DRAYTON, LEICESTERSHIRE, CV13 6BA

Client ref: LN.04.26

Report ref: GS-IH2-LC9-U91-666

Grid ref: 434976.81, 297086.55

Production date: 8 May 2026

Map name: National Grid

Map date: 2010

Scale: 1:10,000

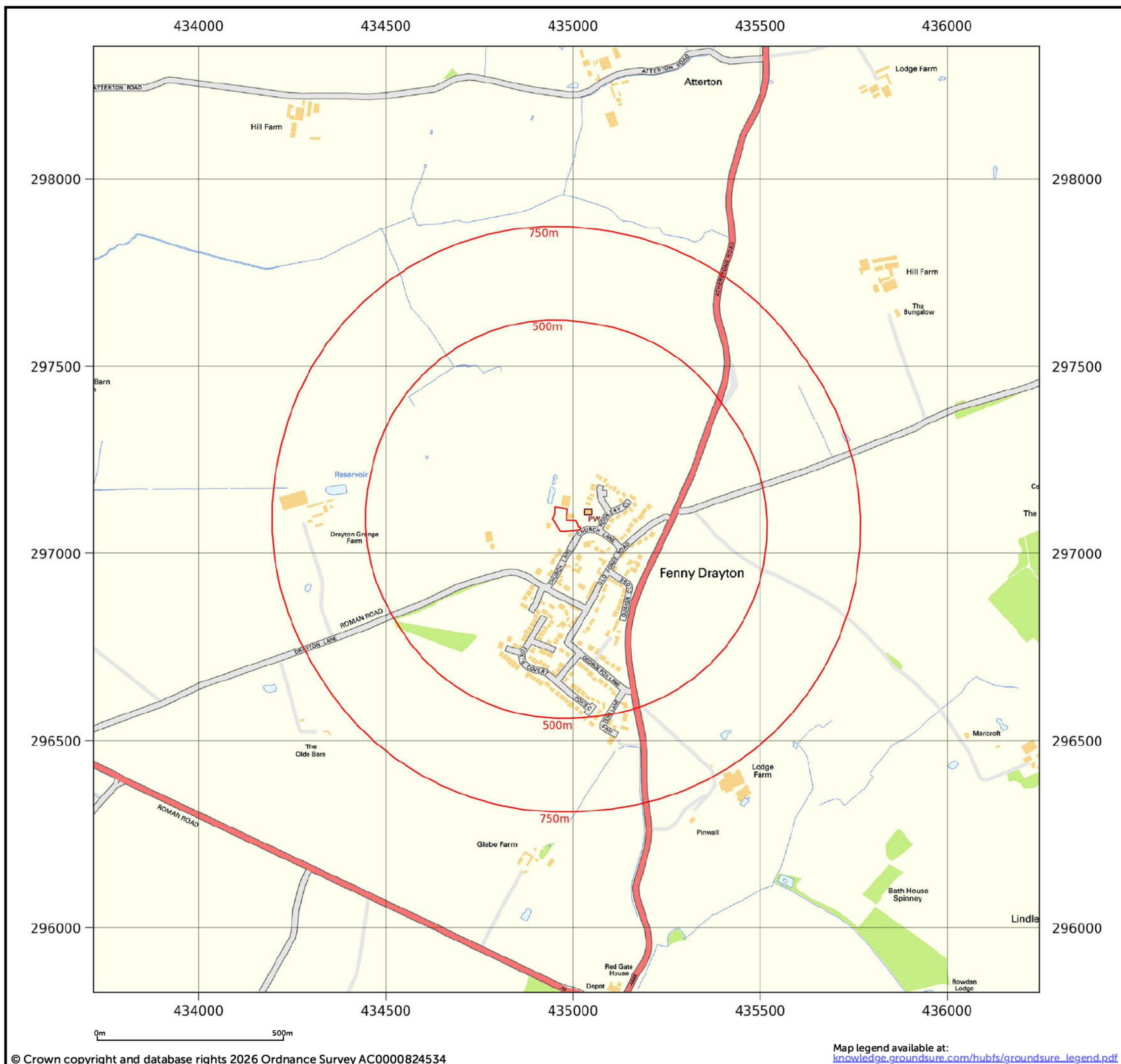
Printed at: 1:10,000



Date: 2010

Date: 2010

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info@groundsure.com
 01273 257 755



Site details: ROOKERY FARM, 6, CHURCH LANE, FENNY DRAYTON, LEICESTERSHIRE, CV13 6BA

Client ref: LN.04.26

Report ref: GS-IH2-LC9-U91-666

Grid ref: 434976.81, 297086.55

Production date: 8 May 2026

Map name: National Grid

Map date: 2015

Scale: 1:10,000

Printed at: 1:10,000



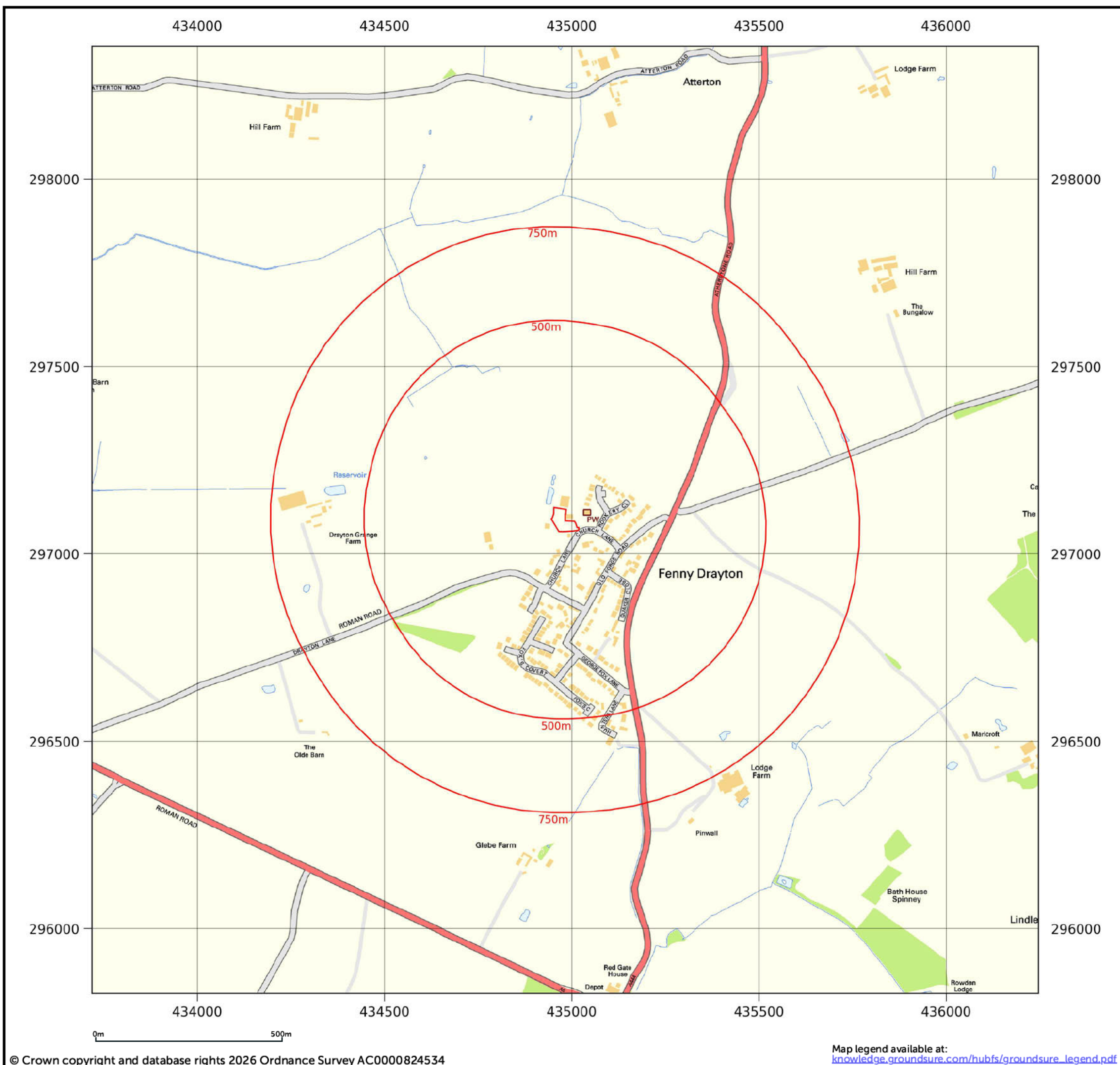
Date: 2015

Date: 2015

Contact us with any questions at:

info@groundsure.com

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Site details: ROOKERY FARM, 6, CHURCH LANE, FENNY DRAYTON, LEICESTERSHIRE, CV13 6BA

Client ref: LN.04.26

Report ref: GS-IH2-LC9-U91-666

Grid ref: 434976.81, 297086.55

Production date: 8 May 2026

Map name: National Grid

Map date: 2025

Scale: 1:10,000

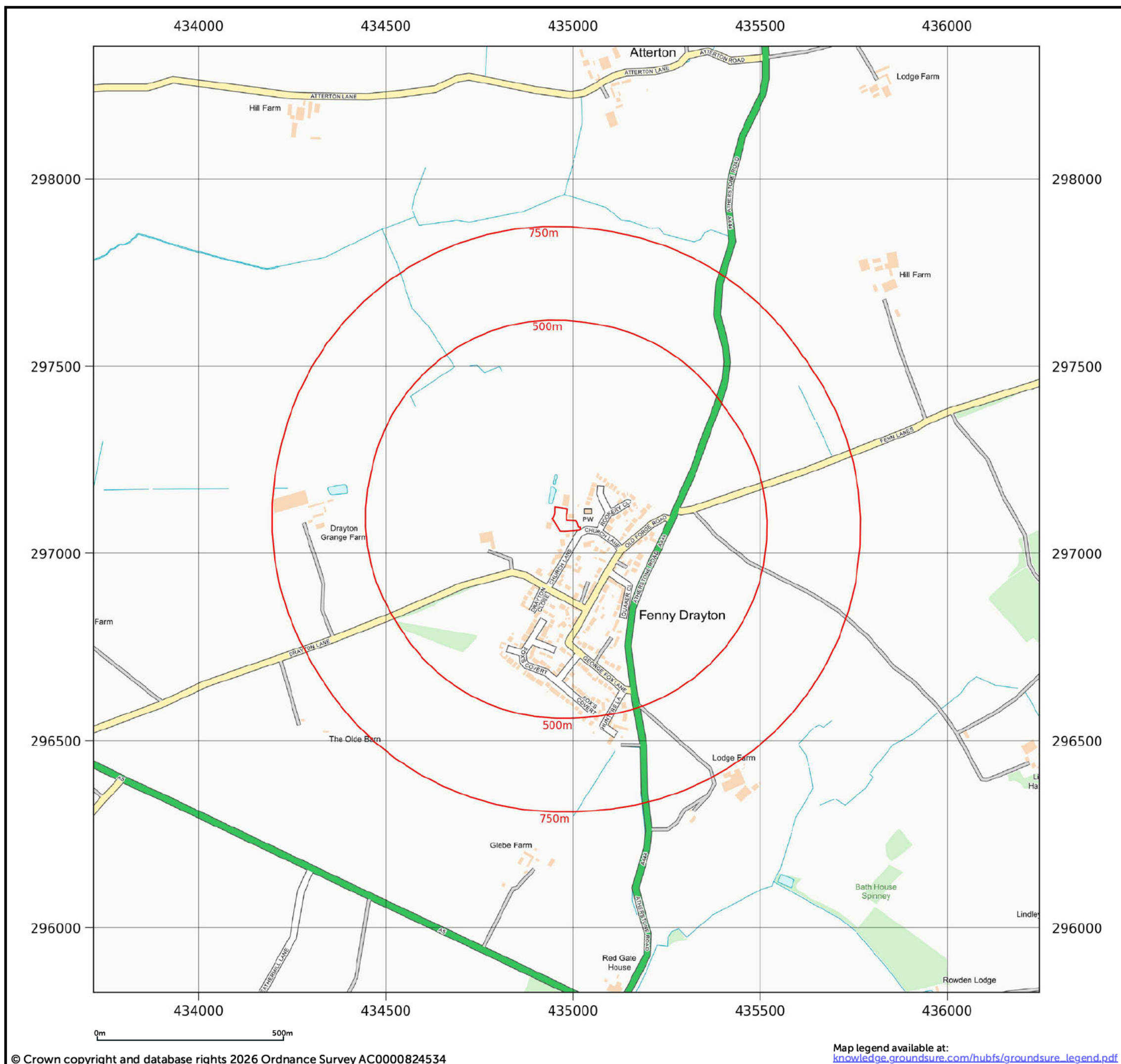
Printed at: 1:10,000



Date: 2025

Date: 2025

Contact us with any questions at:
info@groundsure.com
 01273 257 755



APPENDIX C



Trial Pit

TP1
Sheet 1 of 1

Hole Type TP	Easting 434798.00	Northing 296974.00	Ground Level (m) 82.00	Scale 1:25
Project Name Rookery farm	Project No. LN.04.26		Start Date 07.04.26	End Date 07.04.26

Client Drayton Grange Farm	Consultant Linden Env	Contractor Drayton Grange Farm
-------------------------------	--------------------------	-----------------------------------

Inst/ Backfill	Water Levels	Samples and Tests			Level (m)	Depth (m) (thickness)	Strata		
		Depth (m)	Type/ Ref	Results			Legend	Description	
								Topsoil - Dark brown sandy, Clayey with gravel of mudstone and quartzite cobbles	
					81.70	0.30		Brown silty Stiff CLAY with fine to coarse gravel of mudstone and quartzite	0.5
					81.20	0.80		Made ground brickwork & Land Drain	1.0
					80.60	1.40 (0.10)		Stiff CLAY	1.5
					80.50	1.50		Silty sandy CLAY	
					80.10	1.90 (0.20)		Weathered, very silty Mudstone	2.0
					79.90	2.10 (0.10)		Weathered Mudstone with Boulders	
					79.80	2.20		End of Trial Pit at 2.20m	
									2.5
									3.0
									3.5
									4.0
									4.5
									5.0

Remarks	Method, Plant, Stability, Dimensions 0.00 - 0.30m TP Mini Digger L = 2.00m W = 1.00m	Logger R Sutton
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Trial Pit

TP4

Sheet 1 of 1

Hole Type TP	Easting	Northing	Ground Level (m)	Scale 1:25
Project Name Rookery farm	Project No. LN.04.26		Start Date	End Date

Client Drayton Grange Farm	Consultant Linden Env	Contractor Drayton Grange Farm
-------------------------------	--------------------------	-----------------------------------

Inst/ Backfill	Water Levels	Samples and Tests			Level (m)	Depth (m) (thickness)	Strata		
		Depth (m)	Type/ Ref	Results			Legend	Description	
						(0.60)		Black brown silty sandy Clay with gravel of brick and tarmac, clinker, ash and firebrick.	0.5
						0.60		Stiff red/brown silty CLAY	
						(0.60)			1.0
						1.20		Stiff grey CLAY	
						(0.50)			1.5
						1.70		Very stiff Grey silty CLAY	
						(0.30)			2.0
						2.00		End of Trial Pit at 2.00m	
									2.5
									3.0
									3.5
									4.0
									4.5
									5.0

Remarks	Method, Plant, Stability, Dimensions			Logger R Sutton
	0.00 - 0.60m TP Mini Digger			
	L = 2.00m			
	W = 1.00m			



Trial Pit

TP5
Sheet 1 of 1

Hole Type TP	Easting	Northing	Ground Level (m)	Scale 1:25
Project Name Rookery farm	Project No. LN.04.26		Start Date	End Date

Client Drayton Grange Farm	Consultant Linden Env	Contractor Drayton Grange Farm
-------------------------------	--------------------------	-----------------------------------

Inst/ Backfill	Water Levels	Samples and Tests			Level (m)	Depth (m) (thickness)	Strata		
		Depth (m)	Type/ Ref	Results			Legend	Description	
								Stiff Orange/Brown silty CLAY with some quartzite Gravel	
						(0.50)			
						0.50		Very stiff Grey/Brown/Red CLAY	0.5
						(0.70)			
						1.20		Weathered/Dessicated Red Mudstone	
						(0.70)			1.5
						1.90		End of Trial Pit at 1.90m	2.0
									2.5
									3.0
									3.5
									4.0
									4.5
									5.0

Remarks	Method, Plant, Stability, Dimensions		Logger R Sutton
	0.00 - 0.50m	TP Mini Digger	

APPENDIX D



Final Report

Report No.: 26-11053-1

Initial Date of Issue: 29-Apr-2026

Re-Issue Details:

Client *Linden Environmental Ltd*

Client Address: *Ashleigh Villa
143 Tamworth Road
Long Eaton
Nottingham
NG10 1BX*

Contact(s): *Richard Sutton*

Project *LN.04.26 Rookery F arm. Fenny
Drayton*

Quotation No.: **Date Received:** 09-Apr-2026

Order No.: **Date Instructed:** 09-Apr-2026

No. of Samples: 7

Turnaround (Wkdays): 10 **Results Due:** 22-Apr-2026

Date Approved: 29-Apr-2026



David Smith, Technical Director

For details about application of accreditation to specific matrix types, please refer to the Table at the back of this report

Results - Soil

Project: LN.04.26 Rookery F arm. Fenny Drayton

Client: Linden Environmental Ltd		Chemtest Job No.:				26-11053	26-11053	26-11053	26-11053	26-11053
Quotation No.:		Chemtest Sample ID.:				2106554	2106555	2106556	2106557	2106558
		Client Reference:				TP1	TP2	TP4	TP5	TP1
		Sample Type:				SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):				0.30	0.30	0.00	0.40	1.20
		Bottom Depth (m):						0.60		
		Date Sampled:				07-Apr-2026	07-Apr-2026	07-Apr-2026	07-Apr-2026	07-Apr-2026
		Asbestos Lab:				DURHAM	DURHAM	DURHAM	DURHAM	
Determinand	HWOL Code	Accred.	SOP	Units	LOD					
ACM Type		N	2192		N/A	-	-	-	-	
Asbestos Identification		U	2192		N/A	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	
Moisture		N	2030	%	0.020	16	16	16	15	15
Soil Colour		N	2030		N/A	Brown	Brown	Brown	Brown	Brown
Other Material		N	2030		N/A	Stones and Roots	Stones and Roots	Stones and Roots	Roots and Stones	Stones and Roots
Soil Texture		N	2030		N/A	Clay	Clay	loam / clay	Clay	Clay
pH at 20C		M	2010		4.0	7.6	6.6	7.5	6.8	7.2
Sulphate (2:1 Water Soluble) as SO4		M	2120	g/l	0.010	0.014	0.021	0.028	< 0.010	0.023
Sulphate (Total)		U	2430	%	0.010	0.038	0.035	0.12	0.039	
Arsenic		M	2455	mg/kg	0.5	3.7	2.1	15	3.2	
Cadmium		M	2455	mg/kg	0.10	0.14	0.11	1.8	0.26	
Chromium		M	2455	mg/kg	0.5	24	12	18	14	
Copper		M	2455	mg/kg	0.50	20	12	35	14	
Mercury		M	2455	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	
Nickel		M	2455	mg/kg	0.50	24	12	32	13	
Lead		M	2455	mg/kg	0.50	14	31	21	25	
Selenium		M	2455	mg/kg	0.25	0.43	< 0.25	1.6	0.53	
Vanadium		U	2455	mg/kg	0.5	24	13	28	16	
Zinc		M	2455	mg/kg	0.50	52	48	51	54	
Chromium (Hexavalent)		N	2490	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	
Aliphatic VPH >C5-C6	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05		< 0.05		
Aliphatic VPH >C6-C7	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05		< 0.05		
Aliphatic VPH >C7-C8	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05		< 0.05		
Aliphatic VPH >C6-C8 (Sum)	HS_2D_AL	N	2780	mg/kg	0.10	< 0.10		< 0.10		
Aliphatic VPH >C8-C10	HS_2D_AL	U	2780	mg/kg	0.05	< 0.05		< 0.05		
Total Aliphatic VPH >C5-C10	HS_2D_AL	U	2780	mg/kg	0.25	< 0.25		< 0.25		
Aromatic VPH >C5-C7	HS_2D_AR	U	2780	mg/kg	0.05	< 0.05		< 0.05		
Aromatic VPH >C7-C8	HS_2D_AR	U	2780	mg/kg	0.05	< 0.05		< 0.05		
Aromatic VPH >C8-C10	HS_2D_AR	U	2780	mg/kg	0.05	< 0.05		< 0.05		
Total Aromatic VPH >C5-C10	HS_2D_AR	U	2780	mg/kg	0.25	< 0.25		< 0.25		
Total VPH >C5-C10	HS_2D_Total	U	2780	mg/kg	0.50	< 0.50		< 0.50		
Aliphatic EPH >C10-C12	EH_2D_AL_#1	M	5002	mg/kg	2.00	< 2.0		< 2.0		
Aliphatic EPH >C12-C16	EH_2D_AL_#1	M	5002	mg/kg	2.00	< 2.0		< 2.0		
Aliphatic EPH >C16-C21	EH_2D_AL_#1	M	5002	mg/kg	2.00	< 2.0		< 2.0		
Aliphatic EPH >C21-C35	EH_2D_AL_#1	M	5002	mg/kg	3.00	25		< 3.0		
Aliphatic EPH >C35-C40	EH_2D_AL_#1	N	5002	mg/kg	10.00	< 10		< 10		
Aliphatic EPH >C40-C44	EH_2D_AL_#1	N	5002	mg/kg	1.00	< 1.0		< 1.0		
Total Aliphatic EPH >C10-C35	EH_2D_AL_#1	M	5002	mg/kg	7.00	26		< 7.0		
Total Aliphatic EPH >C10-C40	EH_2D_AL_#1	N	5002	mg/kg	10.00	30		< 10		

Results - Soil

Project: LN.04.26 Rookery F arm. Fenny Drayton

Client: Linden Environmental Ltd		Chemtest Job No.:				26-11053	26-11053	26-11053	26-11053	26-11053
Quotation No.:		Chemtest Sample ID.:				2106554	2106555	2106556	2106557	2106558
		Client Reference:				TP1	TP2	TP4	TP5	TP1
		Sample Type:				SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):				0.30	0.30	0.00	0.40	1.20
		Bottom Depth (m):						0.60		
		Date Sampled:				07-Apr-2026	07-Apr-2026	07-Apr-2026	07-Apr-2026	07-Apr-2026
		Asbestos Lab:				DURHAM	DURHAM	DURHAM	DURHAM	
Determinand	HWOL Code	Accred.	SOP	Units	LOD					
Total Aliphatic EPH >C10-C44	EH 2D AL #1	N	5002	mg/kg	10.00	30		< 10		
Aromatic EPH >C10-C12	EH 2D AR #1	U	5002	mg/kg	2.00	< 2.0		< 2.0		
Aromatic EPH >C12-C16	EH 2D AR #1	U	5002	mg/kg	2.00	< 2.0		< 2.0		
Aromatic EPH >C16-C21	EH 2D AR #1	U	5002	mg/kg	2.00	< 2.0		< 2.0		
Aromatic EPH >C21-C35	EH 2D AR #1	U	5002	mg/kg	2.00	8.9		10		
Aromatic EPH >C35-C40	EH 2D AR #1	N	5002	mg/kg	1.00	2.3		14		
Aromatic EPH >C40-C44	EH 2D AR #1	N	5002	mg/kg	1.00	< 1.0		2.2		
Total Aromatic EPH >C10-C35	EH 2D AR #1	U	5002	mg/kg	4.00	10		12		
Total Aromatic EPH >C10-C40	EH 2D AR #1	N	5002	mg/kg	10.00	13		26		
Total Aromatic EPH >C10-C44	EH 2D AR #1	N	5002	mg/kg	10.00	13		28		
Total EPH >C10-C35	EH 2D Total #1	U	5002	mg/kg	10.00	36		14		
Total EPH >C10-C40	EH 2D Total #1	N	5002	mg/kg	10.00	42		28		
Total EPH >C10-C44	EH 2D Total #1	N	5002	mg/kg	10.00	42		30		
Organic Matter		M	2625	%	0.40	1.4	2.8	5.4	2.7	
Naphthalene		M	5003	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	
Acenaphthylene		M	5003	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	
Acenaphthene		M	5003	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	
Fluorene		M	5003	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	
Phenanthrene		M	5003	mg/kg	0.05	< 0.05	< 0.05	1.0	< 0.05	
Anthracene		M	5003	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	
Fluoranthene		M	5003	mg/kg	0.05	< 0.05	< 0.05	3.9	0.06	
Pyrene		M	5003	mg/kg	0.05	< 0.05	< 0.05	4.1	0.06	
Benzo[a]anthracene		M	5003	mg/kg	0.05	< 0.05	< 0.05	1.9	< 0.05	
Chrysene		M	5003	mg/kg	0.05	< 0.05	< 0.05	1.6	< 0.05	
Benzo[b]fluoranthene		M	5003	mg/kg	0.05	< 0.05	< 0.05	2.8	0.09	
Benzo[k]Fluoranthene		M	5003	mg/kg	0.05	< 0.05	< 0.05	0.93	< 0.05	
Benzo[a]pyrene		M	5003	mg/kg	0.05	< 0.05	< 0.05	2.3	0.06	
Indeno(1,2,3-c,d)Pyrene		M	5003	mg/kg	0.05	< 0.05	< 0.05	1.8	0.07	
Dibenz(a,h)Anthracene		M	5003	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	
Benzo[g,h,i]perylene		M	5003	mg/kg	0.05	< 0.05	< 0.05	1.5	0.06	
Total Of 16 PAH's		M	5003	mg/kg	0.05	< 0.05	< 0.05	22	0.40	

Results - Soil

Project: LN.04.26 Rookery F arm. Fenny Drayton

Client: Linden Environmental Ltd		Chemtest Job No.:				26-11053	26-11053
Quotation No.:		Chemtest Sample ID.:				2106559	2106560
		<i>Client Reference:</i>				TP2	TP4
		<i>Sample Type:</i>				SOIL	SOIL
		<i>Top Depth (m):</i>				1.50	1.20
		<i>Bottom Depth (m):</i>					
		<i>Date Sampled:</i>				07-Apr-2026	07-Apr-2026
		Asbestos Lab:					
Determinand	HWOL Code	Accred.	SOP	Units	LOD		
ACM Type		N	2192		N/A		
Asbestos Identification		U	2192		N/A		
Moisture		N	2030	%	0.020	15	21
Soil Colour		N	2030		N/A	Brown	Brown
Other Material		N	2030		N/A	Stones	None
Soil Texture		N	2030		N/A	Clay	Clay
pH at 20C		M	2010		4.0	7.5	7.4
Sulphate (2:1 Water Soluble) as SO4		M	2120	g/l	0.010	< 0.010	0.13
Sulphate (Total)		U	2430	%	0.010		
Arsenic		M	2455	mg/kg	0.5		
Cadmium		M	2455	mg/kg	0.10		
Chromium		M	2455	mg/kg	0.5		
Copper		M	2455	mg/kg	0.50		
Mercury		M	2455	mg/kg	0.05		
Nickel		M	2455	mg/kg	0.50		
Lead		M	2455	mg/kg	0.50		
Selenium		M	2455	mg/kg	0.25		
Vanadium		U	2455	mg/kg	0.5		
Zinc		M	2455	mg/kg	0.50		
Chromium (Hexavalent)		N	2490	mg/kg	0.50		
Aliphatic VPH >C5-C6	HS_2D_AL	U	2780	mg/kg	0.05		
Aliphatic VPH >C6-C7	HS_2D_AL	U	2780	mg/kg	0.05		
Aliphatic VPH >C7-C8	HS_2D_AL	U	2780	mg/kg	0.05		
Aliphatic VPH >C6-C8 (Sum)	HS_2D_AL	N	2780	mg/kg	0.10		
Aliphatic VPH >C8-C10	HS_2D_AL	U	2780	mg/kg	0.05		
Total Aliphatic VPH >C5-C10	HS_2D_AL	U	2780	mg/kg	0.25		
Aromatic VPH >C5-C7	HS_2D_AR	U	2780	mg/kg	0.05		
Aromatic VPH >C7-C8	HS_2D_AR	U	2780	mg/kg	0.05		
Aromatic VPH >C8-C10	HS_2D_AR	U	2780	mg/kg	0.05		
Total Aromatic VPH >C5-C10	HS_2D_AR	U	2780	mg/kg	0.25		
Total VPH >C5-C10	HS_2D_Total	U	2780	mg/kg	0.50		
Aliphatic EPH >C10-C12	EH_2D_AL_#1	M	5002	mg/kg	2.00		
Aliphatic EPH >C12-C16	EH_2D_AL_#1	M	5002	mg/kg	2.00		
Aliphatic EPH >C16-C21	EH_2D_AL_#1	M	5002	mg/kg	2.00		
Aliphatic EPH >C21-C35	EH_2D_AL_#1	M	5002	mg/kg	3.00		
Aliphatic EPH >C35-C40	EH_2D_AL_#1	N	5002	mg/kg	10.00		
Aliphatic EPH >C40-C44	EH_2D_AL_#1	N	5002	mg/kg	1.00		
Total Aliphatic EPH >C10-C35	EH_2D_AL_#1	M	5002	mg/kg	7.00		
Total Aliphatic EPH >C10-C40	EH_2D_AL_#1	N	5002	mg/kg	10.00		

Results - Soil

Project: LN.04.26 Rookery F arm. Fenny Drayton

Client: Linden Environmental Ltd		Chemtest Job No.:				26-11053	26-11053
Quotation No.:		Chemtest Sample ID.:				2106559	2106560
		<i>Client Reference:</i>				TP2	TP4
		<i>Sample Type:</i>				SOIL	SOIL
		<i>Top Depth (m):</i>				1.50	1.20
		<i>Bottom Depth (m):</i>					
		<i>Date Sampled:</i>				07-Apr-2026	07-Apr-2026
		<i>Asbestos Lab:</i>					
Determinand	HWOL Code	Accred.	SOP	Units	LOD		
Total Aliphatic EPH >C10-C44	EH 2D AL #1	N	5002	mg/kg	10.00		
Aromatic EPH >C10-C12	EH 2D AR #1	U	5002	mg/kg	2.00		
Aromatic EPH >C12-C16	EH 2D AR #1	U	5002	mg/kg	2.00		
Aromatic EPH >C16-C21	EH 2D AR #1	U	5002	mg/kg	2.00		
Aromatic EPH >C21-C35	EH 2D AR #1	U	5002	mg/kg	2.00		
Aromatic EPH >C35-C40	EH 2D AR #1	N	5002	mg/kg	1.00		
Aromatic EPH >C40-C44	EH 2D AR #1	N	5002	mg/kg	1.00		
Total Aromatic EPH >C10-C35	EH 2D AR #1	U	5002	mg/kg	4.00		
Total Aromatic EPH >C10-C40	EH 2D AR #1	N	5002	mg/kg	10.00		
Total Aromatic EPH >C10-C44	EH 2D AR #1	N	5002	mg/kg	10.00		
Total EPH >C10-C35	EH 2D Total #1	U	5002	mg/kg	10.00		
Total EPH >C10-C40	EH 2D Total #1	N	5002	mg/kg	10.00		
Total EPH >C10-C44	EH 2D Total #1	N	5002	mg/kg	10.00		
Organic Matter		M	2625	%	0.40		
Naphthalene		M	5003	mg/kg	0.05		
Acenaphthylene		M	5003	mg/kg	0.05		
Acenaphthene		M	5003	mg/kg	0.05		
Fluorene		M	5003	mg/kg	0.05		
Phenanthrene		M	5003	mg/kg	0.05		
Anthracene		M	5003	mg/kg	0.05		
Fluoranthene		M	5003	mg/kg	0.05		
Pyrene		M	5003	mg/kg	0.05		
Benzo[a]anthracene		M	5003	mg/kg	0.05		
Chrysene		M	5003	mg/kg	0.05		
Benzo[b]fluoranthene		M	5003	mg/kg	0.05		
Benzo[k]Fluoranthene		M	5003	mg/kg	0.05		
Benzo[a]pyrene		M	5003	mg/kg	0.05		
Indeno(1,2,3-c,d)Pyrene		M	5003	mg/kg	0.05		
Dibenz(a,h)Anthracene		M	5003	mg/kg	0.05		
Benzo[g,h,i]perylene		M	5003	mg/kg	0.05		
Total Of 16 PAH's		M	5003	mg/kg	0.05		

Test Methods

SOP	Title	Parameters included	Method summary	Water Accred.
2010	pH Value of Soils	pH at 20°C	pH Meter	
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <30°C.	
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES	
2192	Asbestos Quantification in Soils Sediments Ballast & Aggregate Crushed Concrete & Demolition Rubble	Asbestos	Polarised light microscopy / Gravimetry	
2430	Total Sulphate in soils	Total Sulphate	Acid digestion followed by determination of sulphate in extract by ICP-OES.	
2455	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.	
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.	
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.	
2780	VPH A/A Split	Aliphatics: >C5–C6, >C6–C7,>C7–C8,>C8–C10 Aromatics: >C5–C7,>C7–C8,>C8–C10	Water extraction / Headspace GCxGC FID detection	
5002	EPH A/A Split	Aliphatics: >C10–C12, >C12–C16, >C16–C21, >C21– C35, >C35– C40 Aromatics: >C10–C12, >C12–C16, >C16–C21, >C21– C35, >C35– C40	Acetone/Hexane extraction / GCxGC FID detection	
5003	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-MS	Acenaphthene; Acenaphthylene; Anthracene; Benzo[a]Anthracene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[ghi]Perylene; Benzo[k]Fluoranthene; Chrysene; Dibenz[ah]Anthracene; Fluoranthene; Fluorene; Indeno[123cd]Pyrene; Naphthalene; Phenanthrene; Pyrene	Hexane / Acetone extraction GC-MS	

Report Information

Key	
U	UKAS accredited
M	MCERTS and UKAS accredited
N	Unaccredited
S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
T	This analysis has been subcontracted to an unaccredited laboratory
I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"
SOP	Standard operating procedure
LOD	Limit of detection

Text example All items indicated in italic font represent customer-supplied information that may not be independently verified by the laboratory

This report shall not be reproduced except in full, and only with the prior approval of the laboratory.

Any comments or interpretations are outside the scope of UKAS accreditation.

The Laboratory is not accredited for any sampling activities and reported results relate to the samples 'as received' at the laboratory.

Uncertainty of measurement for the determinands tested are available upon request .

None of the results in this report have been recovery corrected.

All results are expressed on a dry weight basis.

The following tests were analysed on samples 'as received' and the results subsequently corrected to a dry weight basis EPH, VPH, TPH, BTEX, VOCs, SVOCs, PCBs, Phenols.

For all other tests the samples were dried at $\leq 30^{\circ}\text{C}$ prior to analysis.

All Asbestos testing is performed at the indicated laboratory .

Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1.

Where analysis is performed on a dried and crushed sample, it has been prepared by crushing all of the sample. If material has been removed prior to crushing, or by request of the client, this will be stated on the report.

NEW_ASB Eurofins Chemtest Limited, 11 Depot Road, Newmarket, CB8 0AL

DURHAM Eurofins Chemtest Limited, Unit A North Wing, Prospect Business Park, Crookhall Lane, Consett, Co Durham, DH8 7PW

Sample Deviation Codes

As a result of any of the below deviations applying, the test results may be unreliable

A - Date of sampling not supplied

B - Sample age exceeds stability time (sampling to extraction)

C - Sample not received in appropriate containers

D - Broken Container

E - The required amount of sample for analysis was not received

H - Appropriate cooling measures were not taken for sample transportation

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt.

All water samples will be retained for 14 days from the date of receipt.

Report Information

Charges may apply to extended sample storage.

Water Sample Category Key for Accreditation

DW - Drinking Water (Non-Regulatory)
GW - Ground Water
LE - Land Leachate
NA - Not Applicable
PL - Prepared Leachate
PW - Processed Water
RE - Recreational Water
SA - Saline Water
SW - Surface Water
TE - Treated Effluent
TS - Treated Sewage
UL - Unspecified Liquid

Clean Up Codes

NC - No Clean Up
MC - Mathematical Clean Up
FC - Florisil Clean Up

HWOL Acronym System

HS - Headspace analysis
EH - Extractable hydrocarbons – i.e. everything extracted by the solvent
CU - Clean-up – e.g. by Florisil, silica gel
1D - GC – Single coil gas chromatography
Total - Aliphatics & Aromatics
AL - Aliphatics only
AR - Aromatic only
2D - GC-GC – Double coil gas chromatography
#1 - EH_2D_Total but with humics mathematically subtracted
#2 - EH_2D_Total but with fatty acids mathematically subtracted
+ - Operator to indicate cumulative e.g. EH+EH_Total or EH_CU+HS_Total

Asbestos Tests LOD = LOQ

Limit of Detection = Limit of Quantification for asbestos results only

If you require extended retention of samples, please email your requirements to:
cs@etuki.eurofins.com

APPENDIX E

**LABORATORY TEST CERTIFICATE
MATERIALS LABORATORY**



Certificate No: 314-26-00

To : Richard Sutton
Client : Linden House Environmental
Linden
Potter Street
Spondon
Derby
DE21 7LH

Date: 21/04/2026

Dear Sirs,

FIELD & LABORATORY TESTING

Introduction

We refer to samples taken from Rookery Farm Farm and delivered to our laboratory on the 07.04.2026

Sample Reference : S1065-1067

Description : Please see report sheets

Date Sampled : 07th April 2026

Date Tested : 14th April 2026

Source : Please see report sheets

Weather : Overcast

Test Results;

Please see attached

Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.
This report should not be reproduced except in full without the written approval of the laboratory.
All remaining samples for this project will be disposed of 28 days after issue of this test certificate
When a statement of conformity is requested for a test result against limits set out in a standard or specification (e.g. BS EN ISO, SHW) that already considers measurement uncertainty, **MSS Ltd** decision rule is to follow conformity requirements of the applicable standard or specification.
The results reported only relate to the items tested or sampled. For customer provided samples, the reported results apply to the sample(s) as received.

Remarks;

Approved for Issue: Luke Tannahill

Position: Technical & Operational Support Manager

Issuing Office:

Unit 6, Canalgate Park, Nottingham Road, Spondon, Derby, DE21 7SN

LABORATORY TEST CERTIFICATE

10 Queenslie Point
Queenslie Industrial Estate
120 Stepps Road
Glasgow
G33 3NQ

Certificate No : 26/442 - 01-1
To : Richard Sutton
Client : Linden House
Environmental
Potter Street
Spondon
Derby
DE21 7LH

Tel: 0141 774 4032

email: info@mattest.org
Website: www.mattest.org

LABORATORY TESTING OF SOIL

Introduction

We refer to samples taken from Rookery Farm, Fenny Drayton and delivered to our laboratory on 14th April 2026.

Material & Source

Sample Reference : See Report Plates
Sampled By : MSS Limited
Sampling Certificate : Not Supplied
Location : See Report Plates
Description : See Page 2
Date Sampled : 07th April 2026
Date Tested : 14th April 2026 Onwards
Source : IV.56-20-PD - Rookery Farm, Fenny Drayton

Test Results

As Detailed On Page 2 to Page 4 inclusive

Comments

The results contained in this report relate to the sample(s) as received
Opinions and interpretations expressed herein are outside the scope of UKAS accreditation
This report should not be reproduced except in full without the written approval of the laboratory
All remaining samples for this project will be disposed of 28 days after issue of this test certificate

Remarks



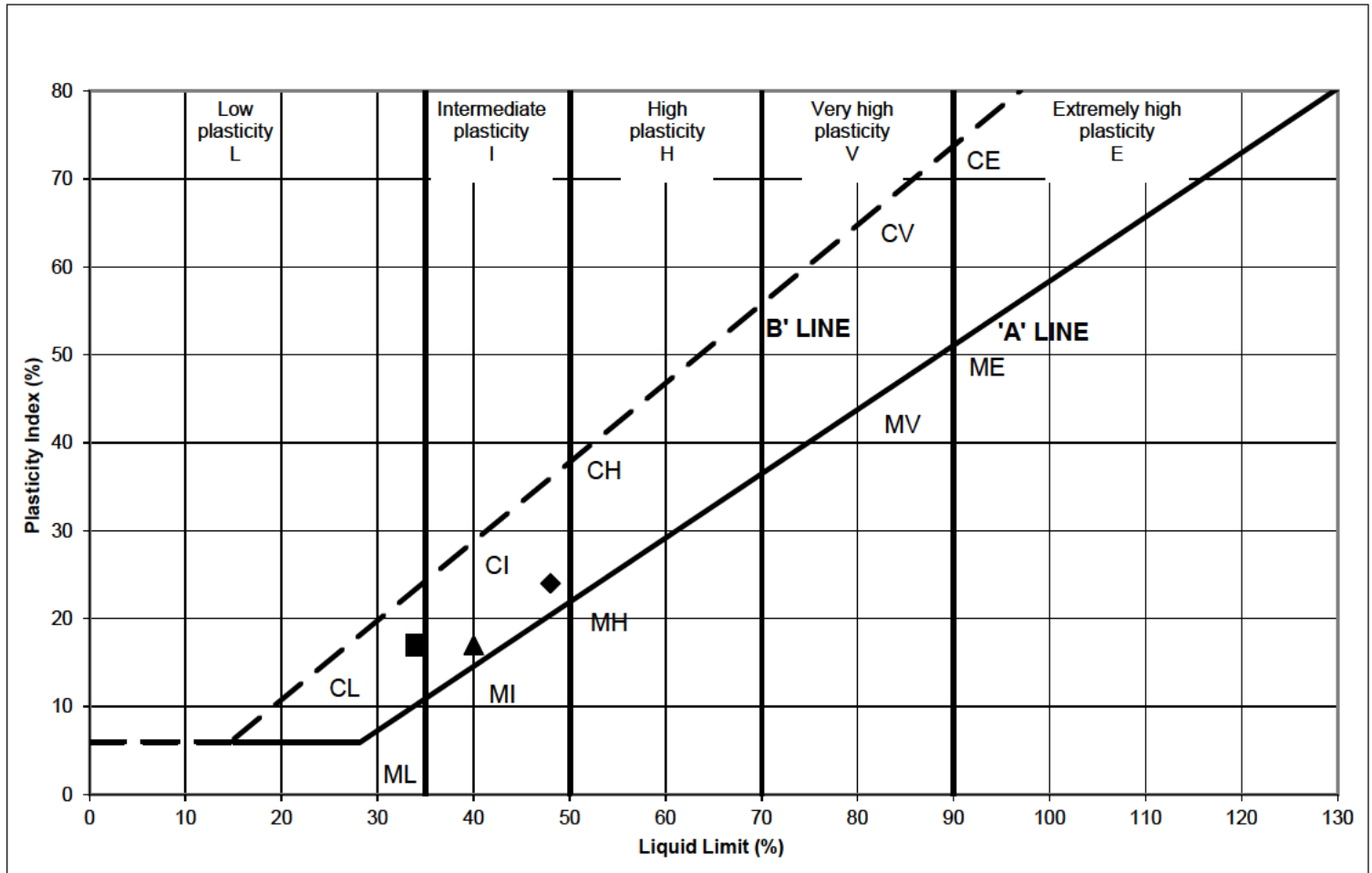
T McLelland (Director)

Date 21/04/2026

TRIAL PIT	SAMPLE	DEPTH (m)	SAMPLE DESCRIPTION
TP01	S1065	1.50	Brown slightly gravelly slightly sandy CLAY with root fibres. Gravel is fine to medium.
TP04	S1066	1.20	Brown slightly gravelly slightly sandy CLAY. Gravel is fine to medium.
TP05	S1067	1.50	Brown slightly gravelly slightly sandy CLAY. Gravel is fine to medium.

SUMMARY OF SAMPLE DESCRIPTIONS

TRIAL PIT	SAMPLE	DEPTH (m)	WATER CONTENT (%)
TP01	S1065	1.50	16.4
TP04	S1066	1.20	27.9
TP05	S1067	1.50	21.2



Symbol	Trial Pit	Sample	Depth	Water Content (%)	Liquid Limit (%)	Plastic Limit (%)	Plasticity Index (%)	% Passing 0.425mm Sieve	Remarks
■	TP01	S1065	1.50	16.4	34	17	17	70	Clay with low plasticity
◆	TP04	S1066	1.20	27.9	48	24	24	63	Clay with intermediate plasticity
▲	TP05	S1067	1.50	21.2	40	23	17	61	Clay with intermediate plasticity
●									
□									
◇									
△									
○									
×									
*									

Tested in accordance with BS EN ISO 17892-12 : 2018 + A2 2022 : Clause 5.3, 5.5 & 6.5 : One point method / BS 1377-2 : 2022
All samples were washed on a 0.425mm test sieve prior to test.

SUMMARY OF ATTERBERG LIMITS TEST RESULTS

APPENDIX F

Generic Assessment Criteria					
Land Use Scenario					
Contaminants	Residential With Produce	Residential Without Produce	POS (Resi)	Commercial	Source
	6% SOM	6% SOM	6% SOM	6% SOM	S4UL
Arsenic	37	40	79	635	
Cadmium	11	85	120	230	
Chromium VI	6	6	8	34	
Chromium III	910	910	1500	8840	
Copper	2400	7100	12000	71700	
Lead	200	310	630	2300	
Mercury, elemental	1	1	16	83	
Mercury, inorganic	40	56	120	3640	
Mercury, methyl	11	15	40	409	
Nickel	180	180	230	980	
Vanadium	410	1200	2000	9000	
Zinc	3700	40000	81000	665000	
Selenium	250	430	1100	13000	
Asbestos Fibre	>0.01%	>0.01%	>0.01%	>0.01%	

Note:

All figures are in mg/kg

LQM/CIEH/S4UL Adopted.

Soil type chosen is sandy loam, pH 7



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