

**Archaeological geophysical survey at
Church Farm, Maids Moreton
Buckinghamshire
October 2015**

Report No. 15/202

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OASIS REPORT

PROJECT DETAILS	molanort1-231000	
Project name	Archaeological geophysical survey at Church Farm, Maids Moreton, Buckinghamshire	
Short description	MOLA was commissioned to carry out a detailed magnetometer survey of land at Church Farm, Maids Moreton, Buckinghamshire. The survey detected a probable Iron Age or Roman settlement with enclosures, trackways and various unenclosed features. Medieval to early post-medieval ridge and furrow, a probable medieval to post-medieval droveway and a modern pipeline were also detected.	
Project type	Geophysical survey	
Site status	None	
Previous work	None	
Current Land use	Arable/Pasture	
Future work	Trial Trenching	
Monument type/ period	Iron Age / Roman enclosures Medieval / Post-medieval ridge and furrow Medieval / Post-medieval droveway	
Significant finds	None	
PROJECT LOCATION		
County	Buckinghamshire	
Site address	Church Farm, Maids Moreton, Buckinghamshire	
Study area	c 7.5ha	
OS Easting & Northing	SP 707 356	
Height OD	c 105m aOD	
PROJECT CREATORS		
Organisation	MOLA Northampton	
Project brief originator	CgMs Consulting	
Project design originator	MOLA Northampton	
Director/Supervisor	John Walford	
Project Manager	John Walford	
Sponsor or funding body	CgMs Consulting	
PROJECT DATE		
Start date	3 November 2015	
End date	4 November 2015	
ARCHIVES	Location	Content
Physical	N/A	
Paper	MOLA Northampton	Site survey records
Digital		Geophysical survey & GIS data
BIBLIOGRAPHY	Journal/monograph, published or forthcoming, or unpublished client report	
Title	Archaeological geophysical survey at Church Farm, Maids Moreton, Buckinghamshire, November 2015	
Serial title & volume	MOLA Northampton report 15/202	
Author(s)	Olly Dindol and John Walford	
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**ARCHAEOLOGICAL GEOPHYSICAL SURVEY AT
CHURCH FARM, MAIDS MORETON, BUCKINGHAMSHIRE
NOVEMBER 2015**

ABSTRACT

MOLA was commissioned to carry out a detailed magnetometer survey of land at Church Farm, Maids Moreton, Buckinghamshire. The survey detected a probable Iron Age or Roman settlement with enclosures, trackways and various unenclosed features. Medieval to early post-medieval ridge and furrow, a probable medieval to post-medieval droveway and a modern pipeline were also detected.

1 INTRODUCTION

MOLA was commissioned by CgMs Consulting to carry out a detailed magnetometer survey of c 7.5ha of land at Church Farm, Maids Moreton, Buckinghamshire (NGR SP 707 356; Fig 1). The purpose of the survey was to identify and map any archaeological remains which may be affected by a proposed development scheme. The fieldwork was undertaken from 3rd to 4th November 2015.

2 TOPOGRAPHY AND GEOLOGY

The survey area lies on the northern side of Maids Moreton, between Church Farm in the south-west and Maids Moreton House in the north-east. It comprises three fields (two arable and one pasture) and a belt of trees, covering c 7.5ha in total. It is bounded to the west by Walnut Drive and the track to Maids Moreton House, to the south by modern housing, to the north by farm land and to the east by Fosscote Road.

The survey area lies on a shoulder of high ground at around 105m to 115m aOD. The western and central parts of the site are relatively level, but the ground is steeper in the east where it slopes down towards the Ouze Valley.

The geology of the survey area is mapped as Cornbrash limestone on the western edge, Rutland mudstone on the eastern edge and Kellaways sandstone and siltstone across the rest of the area. The overlying superficial geology consists of a mixture of mid-Pleistocene sands and gravels (BGS 2015).

3 ARCHAEOLOGICAL BACKGROUND

The survey area has been the subject of a recent desk-based assessment (Whitely 2015). This report considered data from the Buckinghamshire Historic Environment Record (HER), along with historic maps and other sources, and provides the basis for the following summary.

Iron Age pottery has been discovered in the north-western part of the survey area during topsoil stripping for pipeline (HER No 0659200000). Other recorded Roman and earlier archaeology within a 1km radius of the area is fairly sparse, comprising the find spots of a worked flint, a Bronze Age cremation burial and a Roman denarius (Whitely 2015, 11-12).

Earthworks of medieval to early post medieval ridge and furrow survive in the north-western field of the survey area, and a broad low ridge crosses the central field from north-east to south-west (*pers obs*). The ridge corresponds to a possible droveway depicted on an estate map dating from 1595, and the arrangement of the ridge and furrow earthworks can also be matched with the field system shown on this map (Whitely 2015, fig 4). Other medieval and post-medieval archaeology in the vicinity includes settlement earthworks, extant historic buildings (mostly 17th-century and later) and a possible windmill mound situated to the west of the village (Whitely 2015, 13-14).

4 METHODOLOGY

The magnetometer survey was conducted with Bartington Grad 601-2, twin sensor array, vertical component fluxgate gradiometers (Bartington and Chapman 2003). These are standard instruments for archaeological survey and can resolve magnetic variations as slight as 0.1 nanoTesla (nT).

An independent network of 30m grid squares was established across each of the fields to be surveyed. The grids were set out with a tape measure and optical square and were tied in to the Ordnance Survey National Grid by means of a Leica Viva RTK GPS. The gradiometers were carried at a brisk but steady pace through each grid square, collecting data along 1m spaced traverse lines. Measurements were automatically triggered every 0.25m along the traverses, giving a total of 3600 measurements per square. All fieldwork methods complied with the guidelines issued by Historic England and by the Institute for Archaeologists (HE 2015; ClfA 2014).

The survey data were largely processed using Geoplot 3.00v software. Most of the striping was removed using the 'Zero Mean Traverse' function but some areas had to be de-striped separately, using a spreadsheet based routine, in order to preserve linear anomalies lying parallel to the traverse direction. Destaggering of the data was performed where necessary.

The processed data is presented in this report in the form of greyscale plots at a range of +5nT to -5nT (black / white) (Fig 2). An interpretative overlay is presented in Figure 3, and Figure 4 presents the unprocessed survey data.

5 SURVEY RESULTS

Magnetic anomalies of archaeological origin have been detected across much of the survey area, with a particular concentration in the northern portions of the central and south-eastern fields. These anomalies indicate probable settlement remains of Iron Age to Roman date overlain by ridge and furrow and a possible droveway dating from the medieval to early post-medieval periods. Modern features, including a water pipe, have also been detected.

In the central field there are a series of positive linear and curvilinear anomalies representing a sub-square ditched enclosure with a probable trackway running around its southern and eastern sides. A branch of this trackway forks off to the east and continues into the adjacent field where it appears to form a crossroads with another, less well defined track. To the north of this crossroads there is a penannular anomaly, c 13m across, which probably indicates the site of a roundhouse and to the east and south there are other anomalies suggesting the presence of smaller enclosures, pits and miscellaneous sections of ditch or gully.

Other positive anomalies of archaeological interest, representing possible ditches and pits, are widely dispersed across the central and south-eastern fields. There is some coherence to their arrangement, with many of the putative ditches having similar north-west to south-east alignments, but the anomalies are too fragmentary and widespread to support a detailed interpretation.

Although most of the dispersed anomalies are likely to represent ditches and pits, some are particularly intense and perhaps arise from burnt sediments associated with hearths, ovens or other small 'industrial' features. One such anomaly occurs to the north of the main enclosure and is square, c 3m across, with irregular projections on either side. Another occurs at the southern edge of the field and is a broad elongated feature, c 7m long, with a weak negative halo. Three others, which are much smaller elongated features, c 3m to 4m long, form a tight cluster in the western part of the field.

Probable Iron Age or Roman features also occur in the northern portion of the north-western field. Two linear anomalies (one almost parallel with the ridge and furrow) define an L-shaped feature which may be part of a ditched enclosure. Within this there is a mass of moderately enhanced positive anomalies which suggest an intercutting group of pits that may contain much industrial debris (slag, *etc*) or midden material within their fills. To the north there are two other possible pit clusters, one of which is associated with a 'staple-shaped' feature which may be part of a very small enclosure ditch.

Medieval to early post-medieval ridge and furrow is ubiquitous across the survey area, and has produced particularly clear anomalies in the north-western field where the ridges and furrows survive as conspicuous earthworks. The furrows are represented by parallel, evenly spaced linear anomalies mostly aligned from north-west to south-east, following the prevailing direction of slope. At the extreme north-west of the survey area there are two furrows aligned north-east to south-west, separated from the other furrows by a headland.

A broad but weak and diffuse positive anomaly crosses the central field from south-west to north-east, coinciding with the line of the probable droveway earthwork. This appears to overlie the Iron Age to Roman archaeology. It may also overlie the medieval ridge and furrow, but this is less clearly apparent from the survey data.

A broad and intensely positive linear anomaly, flanked by negative halos, indicates the course of a modern water pipe extending east to west across the north-western field. It was presumably somewhere along this line that the Iron Age pottery referred to in Section 3 (above) was discovered. Other anomalies of modern origin include the magnetic halos from the metal fences along the southern edge of the central and south-eastern fields and those from the buildings of Church Farm at the south-eastern end of the site.

Small dipolar magnetic anomalies occur widely across the survey area, indicating isolated pieces of scrap metal within the ploughsoil. Greater concentrations of such anomalies form areas of 'magnetic noise' that can be identified across the survey area, primarily on the southern and western edges of the western field and the western edge of the central field. A narrow band of such noise extends across the centre of the north-western field and corresponds to a deposit of hardcore and other debris used to reinforce a modern farm track.

6 CONCLUSION

The survey has detected archaeological remains of probable Iron Age to Roman date across all three fields of the proposed development area. The most clearly defined features are a large enclosure with associated trackways and other remains that cover c 1.5ha - 2ha of the central and south-eastern fields. Other features of possible archaeological interest, including some possible industrial features (kilns / hearths / ovens, etc) are more widely dispersed across the surrounding area.

The survey has also detected ridge and furrow and a possible droveway of medieval to early post-medieval date. Some of these features are known from surviving earthworks, but the ridge and furrow detected in the central and western fields has been levelled by modern ploughing.

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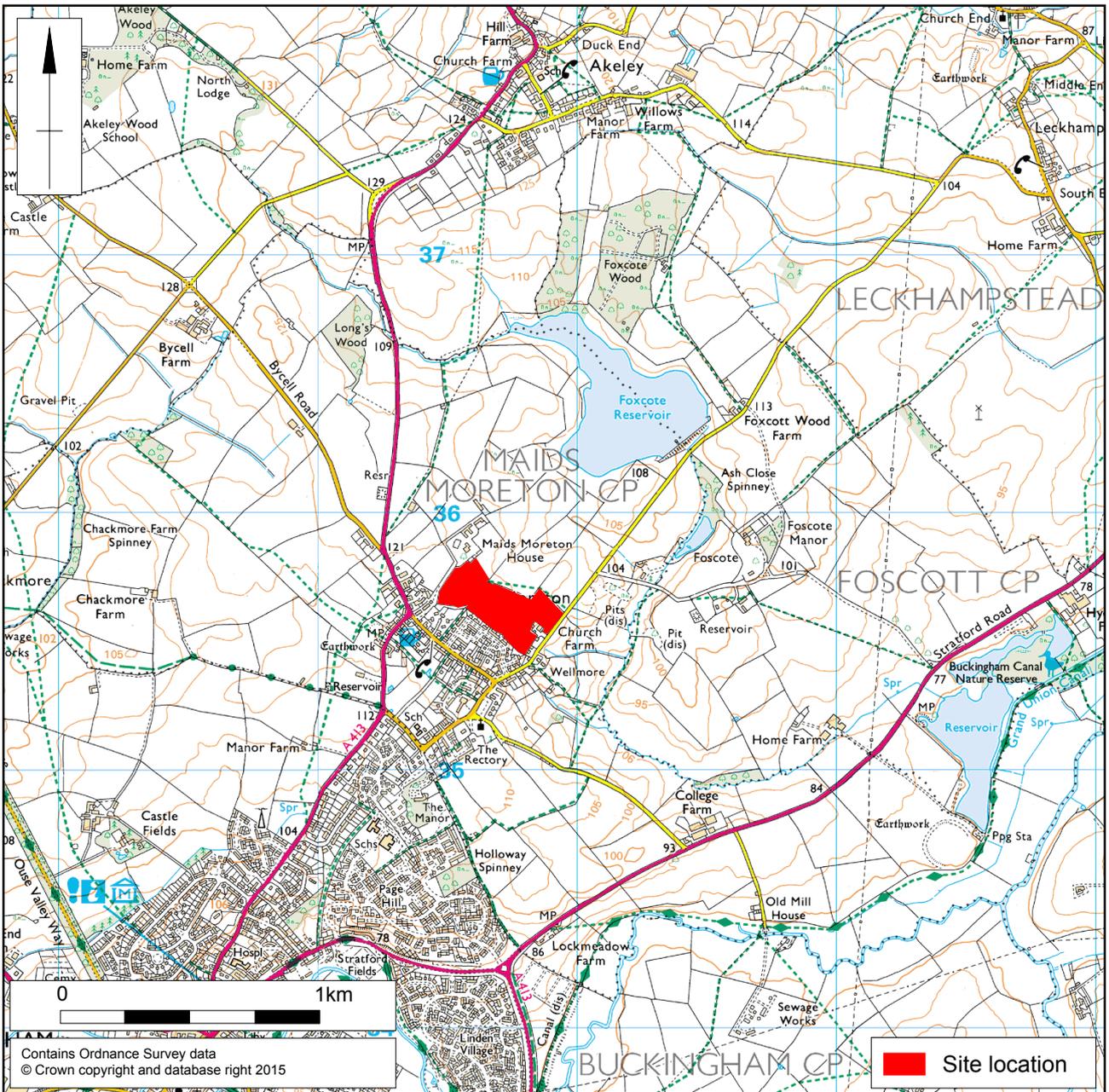
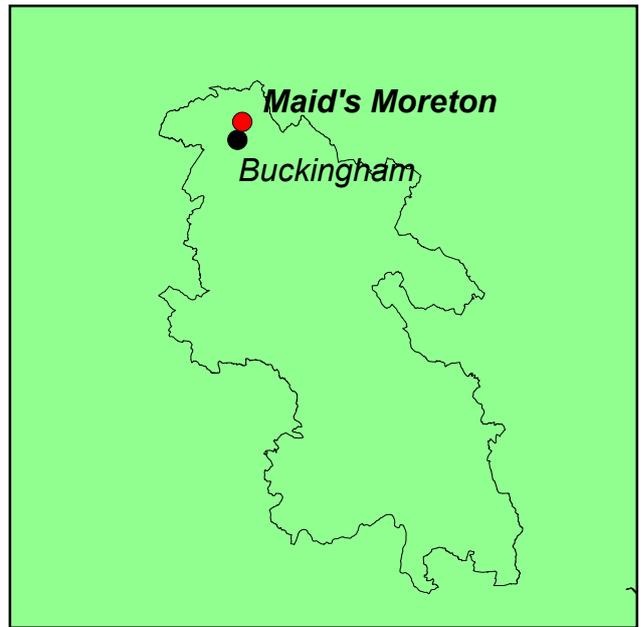
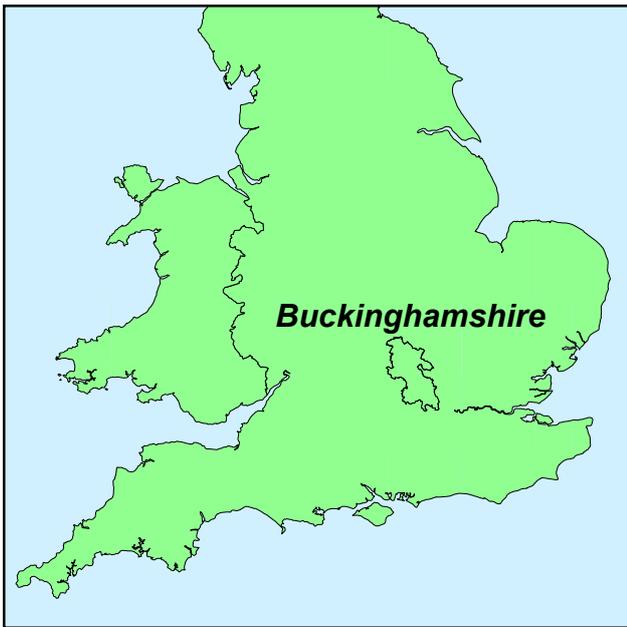
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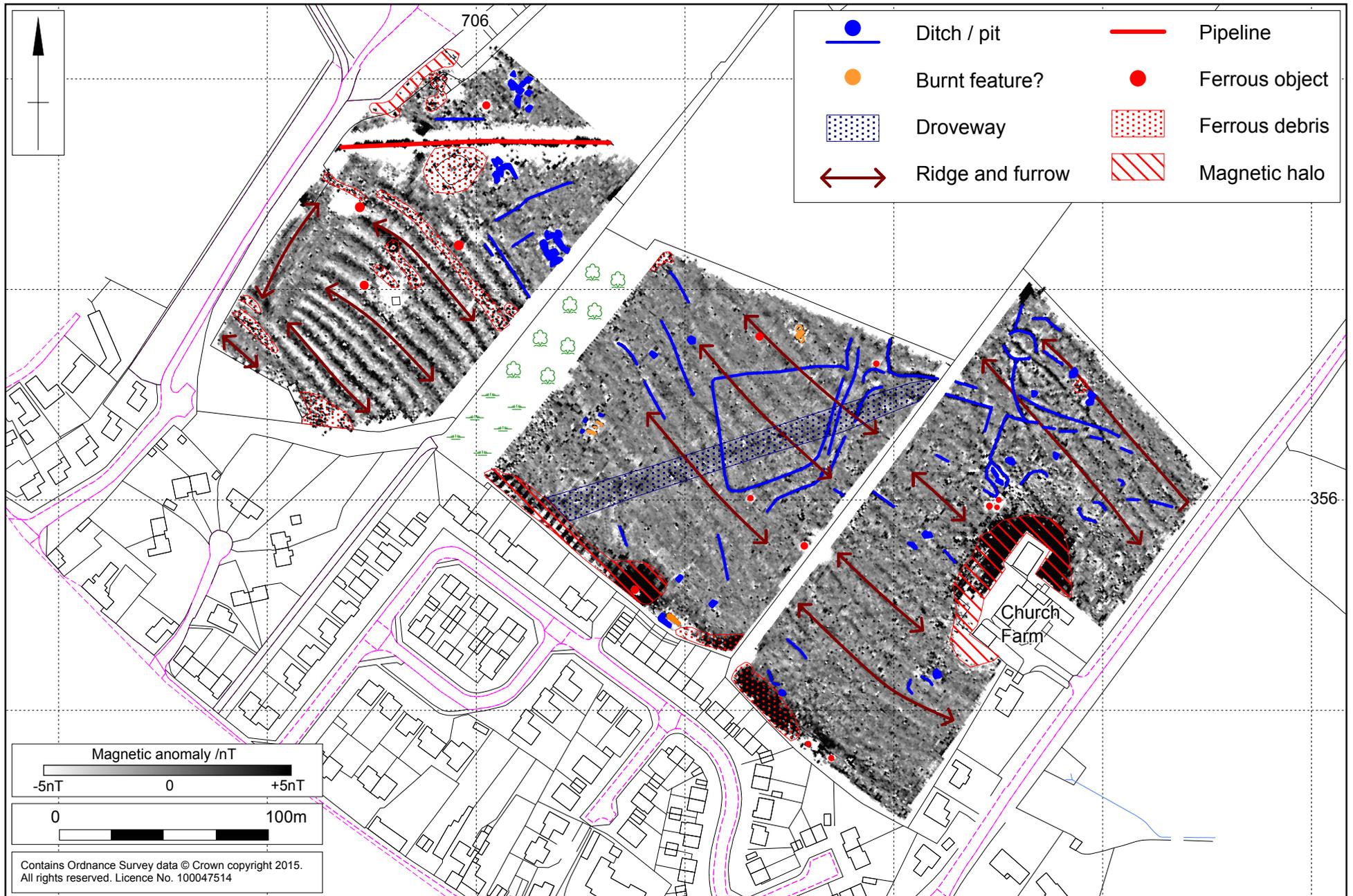
Scale 1:25,000

Site location Fig 1



Scale 1:2500

Magnetometer survey results Fig 2



Scale 1:2500

Magnetometer survey interpretation Fig 3



Scale 1:2500

Unprocessed magnetometer data Fig 4



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