

Archaeological geophysical survey of land to the west of Old Derby Road Ashbourne, Derbyshire March 2014

Report No. 14/68

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Illustrator: Ian Fisher



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OASIS REPORT FORM

PROJECT DETAILS	Oasis No. Molanort1-175345			
Project name	Archaeological geophysical survey of land to the west of Old Derby Road, Ashbourne, Derbyshire			
Short description	MOLA was commissioned to carry out a detailed magnetometer survey on land to the west of Old Derby Road, Ashbourne, Derbyshire. The survey did not detect any anomalies of potential archaeological origin.			
Project type	Geophysical survey			
Site status	None			
Previous work	Heritage Assessment (Dawson 2013)			
Current Land use	Pasture			
Future work	Unknown			
Monument type/ period	None			
Significant finds	None			
PROJECT LOCATION				
County	Derbyshire			
Site address	Old Derby Road, Ashb	ourne		
Study area	c 8.8ha			
OS Easting & Northing	SK 188 454			
Height OD	c 165-175 m AOD			
PROJECT CREATORS				
Organisation	MOLA			
Project brief originator	CgMs Consulting			
Project design originator	MOLA			
Director/Supervisor	Chris Chinnock			
Project Manager	Mark Holmes			
Sponsor or funding body	CgMs Consulting			
PROJECT DATE				
Start date	13 March 2014			
End date	14 March 2014			
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BIBLIOGRAPHY	Journal/monograph, published or forthcoming, or unpublished client			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			
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ARCHAEOLOGICAL GEOPHYSICAL SURVEY OF LAND TO THE WEST OF OLD DERBY ROAD, ASHBOURNE, DERBYSHIRE MARCH 2014

ABSTRACT

MOLA was commissioned to carry out a detailed magnetometer survey on land to the west of Old Derby Road, Ashbourne, Derbyshire. The survey did not detect any anomalies of potential archaeological origin.

1 INTRODUCTION

MOLA was commissioned by CgMs Consulting to conduct a geophysical survey on land to the west of Old Derby Road, Ashbourne, Derbyshire (NGR SK 188 454; Fig 1). A detailed magnetometer survey was undertaken on 13-14th March 2014, and covered a total area of approximately 8.8ha.

2 TOPOGRAPHY AND GEOLOGY

The survey area is a triangular parcel of land that extends across four pasture fields to the west of Old Derby Road which forms its north-eastern boundary. Its southern boundary is defined by the A52 and housing to the north-west.

The survey area lies between the 165m and 175m contours on a north to north-westerly facing slope. Its underlying geology consists of siltstone, mudstone and sandstone with superficial deposits of till (BGS 2014).

3 ARCHAEOLOGICAL BACKGROUND

The archaeological potential of the site has been examined as part of a Heritage Assessment (Dawson 2013). The site contains no previously recorded archaeological remains although sites from the prehistoric period onwards are known in the vicinity. Historic map data indicates that the site has remained as agricultural land in the post-medieval and modern periods. The overall potential of the site was considered to be low.

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 within 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 1200 dGPS. 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 English Heritage and by the Institute for Archaeologists (EH 2008; IfA 2011).

The survey data were processed using Geoplot 3.00v software. The striping was removed using the 'Zero Mean Traverse' function and 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 +4nT (black) to -4nT (white). These have been have been scaled, rotated and resampled (georectified) for display against the Ordnance Survey base mapping (Fig 2) and are shown with an interpretative overlay in Figure 3.

5 SURVEY RESULTS

The survey has not detected any magnetic anomalies that can be clearly interpreted as archaeologically significant. Anomalies of modern origin and of probable geological origin have also been detected.

In Field 1 there are two key areas of magnetic disturbance, one to the north-east corner of the field and the other to the west. These anomalies could show areas of stone dumping and infilling of natural hollows. The north-east corner of the field slopes away slightly and was notably wetter in this area during the survey.

In Field 2, there is an area of magnetic disturbance at the north of the field close to the farm buildings. There is also a ring of disturbance in the centre of the field. This is surrounding a tree in the field and could be the result of a small track or a possible dumping area of field clearance.

Field 4 shows some magnetic disturbance running across the site in spots but this probably represents a possible plastic or concrete service line with metal fixtures. Alongside this is another area of disturbance similar to those in Fields 1 and 2 which could suggest another hollow fill.

Scattered about the four fields are randomly distributed ferrous anomalies which indicate buried ferrous objects.

6 CONCLUSION

The survey has not detected any anomalies of potential archaeological origin. What anomalies that were present probably relate to areas of modern interference and possible hollow infilling, however, it is unlikely that these are of any archaeological significance.

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Scale 1:10,000











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