



**Archaeological geophysical survey of land  
to the rear of Wentworth Road, Coalville  
Leicestershire  
October 2015**

Accession Number: X.A116.2015

Report No. 15/184

Author: John Walford

Illustrator: John Walford



© MOLA Northampton  
Project Manager: John Walford  
Accession number: X.A116.2015  
NGR: SK 420 139

MOLA  
Bolton House  
Wootton Hall Park  
Northampton  
NN4 8BN 01604 809 800  
[www.mola.org.uk](http://www.mola.org.uk)  
[sparry@mola.org.uk](mailto:sparry@mola.org.uk)



**Archaeological geophysical survey of land  
to the rear of Wentworth Road, Coalville  
Leicestershire  
October 2015**

Report No. 15/184

Quality control and sign off:

<b>Issue No.</b>	<b>Date approved:</b>	<b>Checked by:</b>	<b>Verified by:</b>	<b>Approved by:</b>	<b>Reason for Issue:</b>
1	29/10/15	Pat Chapman	Mark Holmes	Andy Chapman	Client approval

Author: John Walford  
Illustrator: John Walford

© MOLA Northampton 2015

MOLA  
Bolton House  
Wootton Hall Park  
Northampton  
NN4 8BN  
01604 700 493  
[www.mola.org.uk](http://www.mola.org.uk)  
[sparry@mola.org.uk](mailto:sparry@mola.org.uk)

**STAFF**

Project Manager: John Walford BSc MSc

Fieldwork: Olly Dindol BSc  
Pawel Szczepanik BA  
Piotr Szczepanik BA

Text: John Walford

Illustrations: John Walford

**OASIS REPORT**

<b>PROJECT DETAILS</b>		Oasis No. molanort1-228001
Project name	Archaeological geophysical survey of land to the rear of Wentworth Road, Coalville, Leicestershire	
Short description	MOLA Northampton was commissioned to carry out a detailed magnetometer survey on former allotments to the rear of Wentworth Road, Coalville, Leicestershire. The survey area was heavily disturbed and large parts of the magnetic data comprised unintelligible noise. Despite this, medieval ridge and furrow and elements of the former allotment layout were successfully detected.	
Project type	Geophysical survey	
Site status	None	
Previous work	None	
Current land use	Waste ground	
Future work	Unknown	
Monument type/ period	Medieval ridge and furrow	
Significant finds	None	
<b>PROJECT LOCATION</b>		
County	Leicestershire	
Site address	Wentworth Road, Coalville	
Study area	c 5.7ha	
OS Easting & Northing	SK 420 139	
Height OD	c 145-160m aOD	
<b>PROJECT CREATORS</b>		
Organisation	MOLA Northampton	
Project brief originator	CgMs Consulting	
Project design originator	MOLA Northampton	
Director/supervisor	Olly Dindol	
Project manager	John Walford	
Sponsor or funding body	CgMs Consulting	
<b>PROJECT DATE</b>		
Start date	5 October 2015	
End date	16 October 2015	
<b>ARCHIVES</b>	Location	Content
Physical	N/A	
Paper	MOLA Northampton	Site survey records
Digital		Geophysical survey & GIS data
<b>BIBLIOGRAPHY</b>	Journal/monograph, published or forthcoming, or unpublished client report	
Title	Archaeological geophysical survey of land to the rear of Wentworth Road, Coalville, Leicestershire, October 2015	
Serial title & volume	MOLA Northampton Reports 15/184	
Author(s)	John Walford	
Page numbers	3	
Date	27 October 2015	

# Contents

1	INTRODUCTION	1
2	BACKGROUND	1
	2.1 Location and geology	
	2.2 Historical and archaeological background	
3	METHODOLOGY	2
4	SURVEY RESULTS	2
5	CONCLUSION	3
	BIBLIOGRAPHY	3

## Figures

Cover Magnetometer survey results

Fig 1	Site location	1:25,000
Fig 2	Magnetometer survey results	1:2000
Fig 3	Magnetometer survey interpretation	1:2000
Fig 4	Unprocessed magnetometer survey data	1:2000

# Archaeological geophysical survey of land to the rear of Wentworth Road, Coalville, Leicestershire October 2015

## ABSTRACT

*MOLA Northampton was commissioned to carry out a detailed magnetometer survey on former allotments to the rear of Wentworth Road, Coalville, Leicestershire. The survey area was heavily disturbed, and large parts of the magnetic data comprised unintelligible noise. Despite this, medieval ridge and furrow and elements of the former allotment layout were successfully detected.*

## 1 INTRODUCTION

MOLA Northampton was commissioned by CgMs Consulting to undertake a detailed magnetometer survey on c 5.7ha of land to the rear of Wentworth Road, Coalville, Leicestershire (NGR SK 420 139; Fig 1). The fieldwork was undertaken on the 5th and 16th October 2015 and has been recorded with Leicestershire Museum Service under accession number X.A116.2015.

## 2 BACKGROUND

### 2.1 Location and geology

The survey area comprises c 5.7ha of former allotments and waste ground to the west of Wentworth Road at NGR SK 420 139 (Fig 1). It is bounded to the north by Coalville Business Park and to the west by Snibston Discovery Park. The area had been cleared of scrub immediately prior to the survey but was still in a rough condition with some areas obstructed by tree stumps and other debris.

The survey area lies at an elevation of c 145m to 160m aOD and has a pronounced step down towards the east, into the base of a small, southward-draining stream valley. The geology of the area is mapped as Tarporey Siltstone with no substantial overlying drift (BGS 2015).

### 2.2 Historical and archaeological background

The survey area lies immediately north of land which was subject to an archaeological evaluation, comprising desk-based assessment, fieldwalking, geophysical survey and trial trench excavation, in 2011 (Mortimer 2011, Simmonds *et al* 2011, Bashford and Hughes 2011). The fieldwork component of this work resulted in the identification of two Bronze Age burnt mounds, one of which lay within 50m of the present survey area. Both mounds were clearly detected by the geophysical survey and confirmed by the trial trenching.

The Leicestershire Historic Environment Record lists a number of chance finds from the land to the south of the survey area, including a handaxe (MLE9038) and a Roman coin

hoard (MLE16623). However, it does not list any information relating to the survey area itself.

Historic Ordnance Survey maps show that the survey area was divided into allotments sometime around the turn of the 20th century and continued in this use until the 1970s. Between 1975 and 1993 the area of the allotments was reduced with the southern half of the site reverting to scrub-covered waste ground. The northern half of the allotments continued in cultivation for a longer period but is now also disused.

### **3 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 field 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 the Chartered Institute for Archaeologists (HE 2015; ClfA 2014) .

The survey data was processed using Geoplot 3.00v software. Striping, caused by slight sensor imbalances, was removed using the 'Zero Mean Traverse' function. 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 +40nT (black) to -40nT (white). These have been scaled, rotated and resampled (georectified) for display against the Ordnance Survey base mapping (Fig 2). An interpretive overlay and a plot of the unprocessed data are presented in Figure 3 and 4.

### **4 SURVEY RESULTS**

The survey data is dominated by widespread zones of intense 'magnetic noise' that almost certainly relate to the recent use of the land as allotments. It also contains some linear anomalies which can be related to former allotment tracks and boundaries and others which relate to medieval or early post-medieval ridge and furrow.

The intensity of the magnetic noise indicates that its main cause is ferrous debris (probably modern scrap metal); although scatters of other materials such as burnt soil, clinker and brick rubble could be contributory causes. One small zone of noise in the north-western corner of the survey area correlates with the position of a former building depicted on the 1961 Ordnance Survey map, and probably indicates a scatter of demolition debris, but the distribution of the remaining zones is not readily explicable.

A rectilinear pattern of anomalies and trends corresponds well to the mapped pattern of tracks across the former allotments. One other linear anomaly at the western end of the southern field does not correspond to any recorded track but perhaps relates to a modern drain or a path surface. Its intensity, which approaches 40nT in places, is much greater than would be expected for a soil-filled ditch or similar archaeological feature.



A series of relatively weak linear anomalies follow parallel north - south alignments across the survey area. The clearest examples occur in the southern field but weaker examples continue into the field to the north. The regular spacing and parallel alignments of these are typical of ridge and furrow cultivation of medieval to early post-medieval date.

## 5 CONCLUSION

The survey area was not particularly favourable for magnetic survey due the presence of a large quantity of scrap metal and other modern debris. Despite this, some evidence for medieval ridge and furrow cultivation was identified, as were various features associated with the recently disused allotments. However, the survey did not identify any convincing evidence for prehistoric burnt mounds similar to those which had previously been discovered on the land immediately to the south.

## BIBLIOGRAPHY

Bartington, G, and Chapman, C, 2003 A high-stability fluxgate magnetic gradiometer for shallow geophysical survey applications, *Archaeological Prospection*, **11**, 19-34

Bashford, R and Hughes, V, 2011 *Hugglescote, Leicestershire: Archaeological evaluation report*, Oxford Archaeology, Job No. **5162**

BGS 2015 *Geology of Britain Viewer*, <http://www.bgs.ac.uk/discoveringGeology/geologyOfBritain/viewer.html>, consulted October 2015

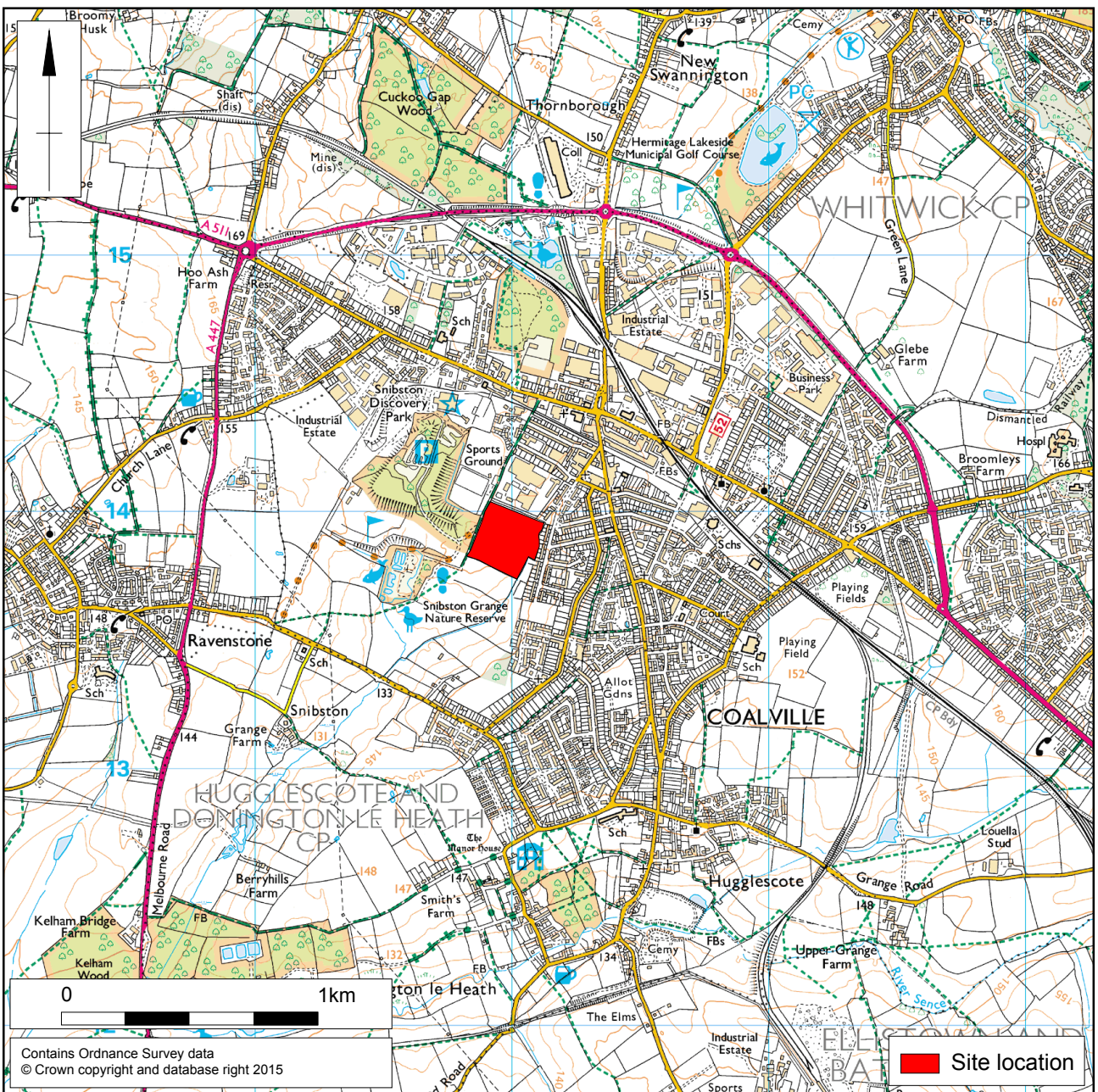
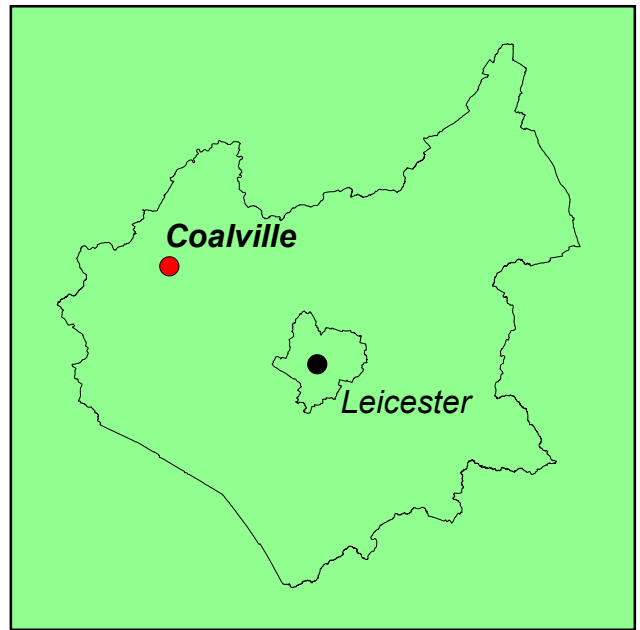
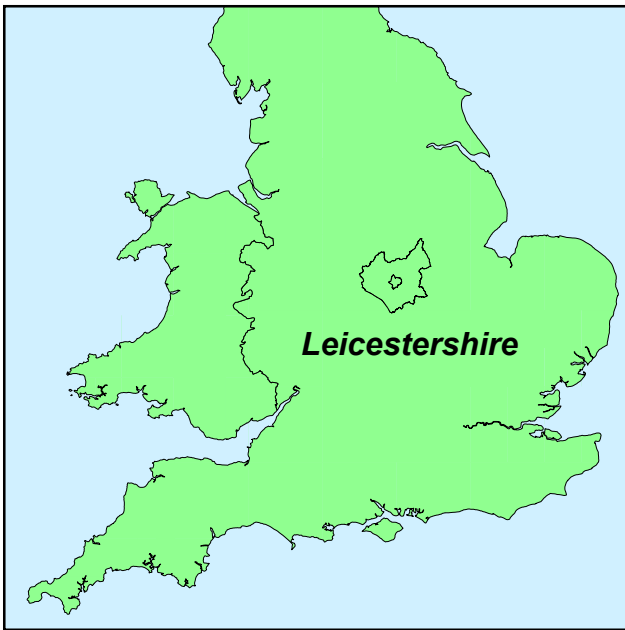
CIfA 2014 *Standard and Guidance for Archaeological Geophysical Survey*, Chartered Institute for Archaeologists

HE 2015 *Geophysical Survey in Archaeological Field Evaluation*, Historic England

Simmonds, C, Upson-Smith, T, and Walford, J, 2011 *Archaeological fieldwalking and geophysical survey at Standard Hill, Hugglescote, Leicestershire*, Northamptonshire Archaeology report, **11/41**

Thomas, A, 2013 *Land south of Bardon Road, Coalville, Leicestershire, Archaeology and Cultural Heritage Assessment*, the Environmental Dimension Partnership (EDP), **H\_EDP1762\_01a**

MOLA  
29 October 2015



Scale 1:25,000

Site location Fig 1





1:2000

Magnetometer survey results Fig 2



1:2000

Magnetometer survey interpretation Fig 3





1:2000

Unprocessed magnetometer data Fig 4



MOLA  
Bolton House  
Wootton Hall Park  
Northampton  
NN4 8BN  
01604 809 800  
[www.mola.org.uk](http://www.mola.org.uk)  
[sparry@mola.org.uk](mailto:sparry@mola.org.uk)