Archaeological Services & Consultancy Ltd

GEOPHYSICAL SURVEY:
LAND ADJACENT TO LOWER GRANGE FARM
MARKFIELD
LEICESTERSHIRE

NGR: SK 4900 0955

for

University of Leicester Archaeological Services

on behalf of

Jelson Ltd



Alastair Hancock BSc PgDip MIFA

May 2010

ASC: 1300/MLG/01

CORPORATE MEMBER ISAP

Letchworth House
Chesney Wold, Bleak Hall,
Milton Keynes MK6 1NE
Tel: 01908 608989 Fax: 01908 605700
Email: office@archaeological-services.co.uk
Website: www.archaeological-services.co.uk

REGISTERED IfA ORGANISATION

Site Data

ASC project code:	MLG	*ASC project no:*	1300
OASIS ref:		*Event/Accession no:*	

County:	Leicestershire
Village/Town:	Markfield
Civil Parish:	Markfield
NGR (to 8 figs):	SK 4900 0955
Extent of site:	c.2.7 hectare
Present use:	Arable / Pasture
Planning proposal:	Housing
Planning application ref/date:	Not known
Local Planning Authority:	Hinckley and Bosworth Borough Council
Date of fieldwork:	19th – 20th May 2010
Commissioned by:	University of Leicester Archaeological Services (ULAS) University of Leicester University Road Leicester LE1 7RH
Client:	Jelson Limited 370 Loughborough Road Leicester LE4 5PR
Contact name:	Patrick Clay (Director: ULAS)

Internal Quality Check

Primary Author:	Alastair Hancock	*Date:*	28th May 2010
Revisions:		*Date:*	
Edited/Checked By:	David Fell	*Date:*	28th May 2010

© Archaeological Services & Consultancy Ltd

No part of this document is to be copied in any way without prior written consent.

Every effort is made to provide detailed and accurate information. However, Archaeological Services & Consultancy Ltd cannot be held responsible for errors or inaccuracies within this report.
© Ordnance Survey maps reproduced with the sanction of the Controller of Her Majesty's Stationery Office.
ASC Licence No. AL 100015154

CONTENTS

Summary 4

1. Introduction 4
2. Aims, Methods & Report Presentation 6
3. Geophysical Survey: Results and Discussion 7
4. Conclusions 10
5. References 11
6. Acknowledgements 11

Figures:

1. Location of survey area showing nearby archaeological sites and findspots 3
2. Greyscale plot of gradiometer data 8
3. Interpretation of gradiometer data 9
4. XY trace plot of raw gradiometer data 16

Appendices:

1. Magnetic Survey: Technical Information 12
2. Data Processing and Presentation 14
3. Survey Location Information 15
4. Geophysical Archive 15
5. XY Trace Plot of Raw Gradiometer Data 16
6. ASC OASIS Form 17



Figure 1: Location of survey area *(scale: 1 to 25000)*

Summary

In May 2010 Archaeological Services and Consultancy Ltd undertook geophysical survey (detailed magnetometry) of c.2.7 hectares of arable and pasture land located adjacent to Lower Grange Farm, Markfield in order to inform development proposals. The magnetic background of the survey area is heavily disturbed, suggesting intense late post medieval / modern agricultural activity. A single linear anomaly at the northwest of the survey area could locate an infilled ditch but the anomaly is weakly developed, discontinuous and more probably identifies modern intrusive activity. Three parallel linear magnetic anomalies are also present at the northeast and could locate infilled ditches. However, the alignment of the three anomalies and their position at the lowest topographic area could suggest that they are caused by agricultural field drains. Two discrete areas of magnetic enhancement are also present; this type of magnetic anomaly can identify infilled archaeological pits but the level of modern agricultural / intrusive activity observed suggests that a modern origin is perhaps probable. Intensive archaeological activity such as settlement appears absent and results of the geophysical survey support the conclusions of a desk-based assessment, which suggested that the archaeological potential of the survey area was low to moderate.

1. Introduction

1.1 *General*

In May 2010 *Archaeological Services and Consultancy Ltd* (ASC) carried out geophysical (detailed magnetometer) survey of *c.*2.7 hectares of arable and pasture land located adjacent to Lower Grange Farm, Markfield, Leicestershire.

1.2 *Planning Background*

The geophysical survey was commissioned by *University of Leicester Archaeological Services* (ULAS) on behalf of *Jelson Ltd.* The work was required by the Senior Planning Archaeologist of Leicestershire County Council to inform the planning process and as an aid to formulation of a strategy for further work, should this be required.

1.3 *Archaeological Services & Consultancy Ltd*

Archaeological Services & Consultancy Ltd (ASC) is an independent archaeological practice providing a full range of archaeological services including consultancy, field evaluation, mitigation and post-excavation studies, historic building recording and analysis. ASC is recognised as a *Registered Organisation* by the Institute for Archaeologists, in recognition of its high standards and working practices.

1.4 *The Survey Area*

1.4.1 *Previous Work*

A desk based assessment (DBA) has been prepared by University of Leicester Archaeological Services (Hunt 2010). Examination of information held by the Historic Environment Record for Leicestershire and Rutland shows that the survey area has not been previously examined but that it lies outside the limit of the medieval village core of Markfield and that there are few known archaeological sites in the area . The most significant site is a possible Roman occupation site, which lies 900m south-west of Lower Grange Farm (HER Ref:

MLE2945). The DBA concludes that on present information there is low to moderate potential for archaeological remains to be present within the proposed development area.

1.4.2 *Location & Description*

The survey area comprised all or part of four fields lying immediately north and east of Lower Grange Farm, which is located at the southeastern margin of Markfield, Leicestershire. At the time of survey the northwest field was in use as a paddock, the northeastern field was down to an immature cereal crop and the south was in use as pasture. The boundary fence of a residential property delimited the west of the site, the remainder of the survey area was bounded by hedgelines, except at the southernmost margin, which had no physical boundary. The western part of the site was relatively flat at 164m AOD, elsewhere the survey area exhibited a gentle east-southeast to west-northwest trending slope (163m – 159m AOD).

1.4.3 *Geology*

The soils of the site are of the Whimple 3 Association which comprise *"fine loamy or fine silty over clayey soils with slowly permeable subsoils and slight seasonal waterlogging"* (Soil Survey 1983, Sheet 3). The solid geology of the application area comprises drift over mudstone.

1.4.4 *Proposed Development*

The proposed development comprises construction of up to 112 houses, associated infrastructure and services.

2. Aims, Methods and Report Presentation

2.1 *Aims*

The aims of the survey were:

- To ascertain the character and the spatial extent of any subsurface archaeological features present.
- To aid assessment of the archaeological potential of the application site.

2.2 *Methods*

The methods adopted for the survey were:

- Detailed magnetometer survey of all suitable parts of the *c.*2.7 hectare survey area using a Bartington Grad 601-2.
- Data was collected along zig-zag traverses spaced 1m apart at a sample interval of 0.25m within 20m x 20m grids.

2.3 *Standards*

The work conformed to the relevant sections of the Institute of Archaeologists' *Standard & Guidance Notes* (IFA 2001) and *Code of Conduct* (IFA 2006). The work also conformed to the relevant sections of ASC's own *Operations Manual*, to English Heritage geophysical survey guidelines (EH 2008) and to IFA geophysical survey guidelines (Gaffney *et al* 2002). Data from the magnetometer survey was treated and archived in accordance with Archaeology Data Service guidelines (Schmidt 2003).

2.4 *Report Presentation*

2.4.1 A general site location plan is presented in Figure 1 (1:25000). Figure 2 shows the distribution of survey blocks about the survey area; Figure 3 presents the processed greyscale gradiometer data at 1:1250, accompanying interpretations are presented in Figure 4 at a scale of 1:1250. XY trace plots (1:1250) of the unprocessed gradiometer data are presented in Appendix 5.

2.4.2 Technical details on the underlying principles of magnetic survey, the equipment used and general geophysical survey methodology are given in Appendix 1. Details on data processing and display are given in Appendix 2. Survey location information is presented in Appendix 3 and the composition of the archive described in Appendix 4.

2.4.3 The figures in this report have been produced following analysis of the data in unprocessed 'raw' and processed formats and over a range of different display levels. All figures are presented to most suitably display and interpret the collected data based on the experience and knowledge of ASC staff.

3. Geophysical Survey: Results and Discussion

3.1 Isolated dipolar anomalies ("iron spikes" – Appendix 1) are widely distributed throughout all of the survey blocks although they are particularly prevalent in Blocks 1 and 2. These "iron spike" anomalies are characteristic of ferrous objects incorporated into the topsoil and subsoil, and are usually caused by modern cultural debris. Only the strongest of these anomalies are identified on the interpretation plot (Fig 3). On occasion, archaeological artefacts may cause them and significant clusters associated with other substantiating evidence may be included in the following discussion.

3.2 Areas of magnetic disturbance are evident at the periphery of all survey blocks. Discrete areas of magnetic disturbance are also present within the survey blocks; those in Blocks 1 and 3 correlate with the observed position of recent ground disturbance or dumping. This type of magnetic anomaly is typically caused by proximity of survey to ferrous objects such as wire strand fencing or by accumulations of modern ferrous and thermoremanent material.

3.3 ***Block 1***

A NNE-SSW aligned, weakly positive magnetic trend is present at the northwest of survey Block 1. This type of magnetic anomaly could identify the remnants of a cut and infilled ditch. However, it is discontinuous and located immediately west of an area of recently disturbed ground. An archaeological origin is not discounted but the balance of evidence suggests that it originates with relatively modern intrusive activity.

3.4 ***Block 2***

Three N – S aligned, weakly positive linear magnetic trends are evident at the east of survey Block 2. The linear trends could identify the location of infilled ditches containing weakly magnetically enhanced material. However, they are located toward the lowest point of the survey and their origin may lie with agricultural improvement of this area through construction of field drains. A discrete area of magnetic enhancement is identified at the east of Block 2. This type of magnetic anomaly can locate cut and infilled archaeological pits, but it is approximately aligned with a number of weak NW – SE positive magnetic trends (not shown on interpretation) running parallel with the longer field boundaries and likely caused by relatively modern ploughing. An archaeological origin is possible but the evidence suggests that a modern agricultural origin is probable.

3.5 ***Block 3***

Magnetic anomalies characteristic of cut and infilled archaeological features are not identified in this survey block.

3.6 ***Block 4***

A discrete area of magnetic enhancement is identified at the west of this block. It could identify the position of a cut and infilled archaeological feature but could be caused by relatively modern intrusive activity. The absence of supporting evidence suggests that a relatively modern agricultural origin is probable.

© ASC Ltd 2010



Figure 2: Greyscale plot of gradiometer data *(scale 1:1000)*



Figure 3: Interpretation of gradiometer data *(scale 1:1000)*

4. Conclusions

4.1 Areas of magnetic disturbance and dipolar "iron spike" anomalies are present in Block 1, but they probably locate modern ferrous and thermoremanent objects incorporated into the topsoil and subsoil. A single positive magnetic trend at the northwest of the Block could identify an infilled archaeological ditch, but it is weakly developed and discontinuous and a relatively modern origin is probable. The archaeological potential of this area is characterised as low.

4.2 Areas of magnetic disturbance and dipolar "iron spike" anomalies are also present in Block 2 but also probably identify modern detritus incorporated into the topsoil and subsoil. The eastern part of Block 2 contains three parallel weakly positive magnetic trends and a single area of positive magnetic enhancement which could locate subsurface archaeological features. However, their position and alignment suggests that an origin with relatively modern agricultural activity may be probable. The archaeological potential of Block 2 is characterised as low at the west and as moderate at the east.

4.3 Magnetic anomalies characteristic of subsurface archaeological features are not identified in Block 3. Large areas of modern magnetic disturbance are evident and may mask the weak magnetic anomalies often characteristic of isolated archaeological features. However, it is unlikely that intense archaeological activity would be similarly masked and the archaeological potential of this area is characterised as low.

4.4 Block 4 contains a single magnetic anomaly that could locate a cut and infilled archaeological feature. However, areas of modern magnetic disturbance are present nearby which suggests that a relatively recent origin may be likely. The archaeological potential of this area is characterised as moderate.

4.5 The exact origin of the anomalies discussed above remains unclear but the results of the geophysical survey suggest that intense archaeological activity, such as settlement, is probably absent from the area examined.

The results of geophysical surveys and interpretation of collected data should not be treated as an absolute representation of the underlying archaeological and non-archaeological remains. Confirmation of the origin of geophysical anomalies and the presence or absence of archaeological remains can only be achieved by direct investigation of sub-surface deposits.

© ASC Ltd 2010

5. References

Standards & Specifications

English Heritage 2008 *Geophysical Survey in Archaeological Field Evaluation.* English Heritage (London).

Gaffney C, Gater J and Ovenden S 2002 *The use of Geophysical Techniques in Archaeological Evaluations.* IFA Paper No. 6.

IFA 2006 Institute for Archaeologists' *Code of Conduct.*

IFA 2001 Institute for Archaeologists' *Standard & Guidance* documents *(Desk-Based Assessments, Watching Briefs, Evaluations, Excavations, Investigation and Recording of Standing Buildings, Finds).*

Schmidt A. 2003 *Geophysical Data in Archaeology: A Guide to Good Practice*. Archaeology Data Service.

Secondary Sources

BGS *British Geological Survey 1:50,000 Series, Solid & Drift Geology*.

Hunt, L. 2010 An Archaeological Desk-Based Assessment for Land at Lower Grange Farm, London Road, Markfield, Leicestershire. Unpublished ULAS Report No. 2010-059.

Soil Survey 1983 *1:250,000 Soil Map of England and Wales, and accompanying legend* (Harpenden).

6. Acknowledgements

ASC is grateful to *University of Leicester Archaeological Services* for commissioning this project on behalf of *Jelson Ltd*. Particular thanks to Patrick Clay, ULAS, for supply of digital site plans and archaeological background. The report was edited by David Fell MA MIFA.

Fieldwork

A. Hancock BSc PgDip MIFA
M. Cuthbert BA PIFA

Report

A. Hancock

Graphics

A. Hancock

Appendix 1: Magnetic Survey: Technical Information

1. Magnetic Susceptibility and Soil Magnetism

1.1 Iron makes up about 6% of the Earth's crust and is mostly present in soils and rocks as minerals such as maghaemite and haematite. These minerals have a weak, measurable magnetic property termed ***magnetic susceptibility***. Human activities can redistribute these minerals and change (enhance) others into more magnetic forms. These effects are often observable by measuring the magnetic susceptibility of the topsoil, which can enable identification of areas where human occupation or settlement has occurred by virtue of the attendant increase (enhancement) in magnetic susceptibility. If the enhanced material subsequently fills features, such as ditches or pits, localised isolated and linear magnetic anomalies can result and their presence can be detected by a magnetometer (fluxgate gradiometer).

1.2 In general, it is a contrast between the magnetic susceptibility of deposits filling cut features, such as ditches or pits, and the magnetic susceptibility of the surrounding matrix, i.e. topsoils, subsoils and rocks, into which these features have been cut that causes the most recognisable archaeological responses. This is primarily because there is a tendency for magnetic ferrous compounds to become concentrated in the topsoil, thereby making it more magnetic than the subsoil or bedrock. Linear features cut into the subsoil or geology, such as ditches, that have been silted up or have been backfilled with topsoil will therefore usually produce a positive magnetic response relative to the background levels. Discrete feature, such as pits, can also be detected. Less magnetic material such as masonry or plastic service pipes that intrude into the topsoil may give a negative magnetic response relative to the background level.

1.3 An alternative method of enhancement to the magnetic properties of soil or archaeological features is through sustained heating. This can lead to the detection of features such as hearths, kilns or burnt areas through thermoremanent magnetism.

2. Types of Magnetic Anomaly

2.1 In the majority of instances anomalies are termed ***'positive'***. This means that they have a positive magnetic value relative to the magnetic background on any given site. However some features can manifest themselves as ***'negative'*** anomalies that, conversely, exhibit a negative anomaly relative to the mean magnetic background. Such negative anomalies are often very faint and although archaeological structures can cause them they commonly originate with the presence of modern, non-ferrous, features such as plastic water pipes. Natural geomorphological features may appear as negative anomalies on some geologies.

2.2 Where the cause of an anomaly is uncertain a '?' is appended to the interpretative key.

2.3 It should be noted that some anomalies that are interpreted as modern in origin might be caused by ephemeral features that are present in the topsoil or upper layers of the subsoil. Removal of soil to an archaeological or natural layer can therefore remove the origin of the anomaly.

2.4 The types of response mentioned above can be divided into five main categories which are used in the graphical interpretation of the magnetic data:

Isolated dipolar anomalies (iron spikes)

These responses are typically caused by ferrous material either on the surface or in the topsoil. They cause a rapid variation in the magnetic response giving a characteristic 'spiky' trace. Although ferrous archaeological artefacts could produce this type of response, unless there is supporting evidence for an archaeological interpretation, little emphasis is normally given to such anomalies, as modern ferrous objects are common on rural sites, often being present as a consequence of manuring.

Areas of magnetic disturbance

These responses can have several causes often being associated with burnt material, such as slag waste or brick rubble or other strongly magnetised/fired material. Ferrous structures such as pylons, mesh or barbed wire fencing and buried pipes can also cause the same disturbed response. This type of anomaly is characterised by very strong, 'spiky' variations in the magnetic background. A modern origin is usually assumed unless there is other supporting information.

Linear trend

This is usually a weak or broad linear anomaly of unknown cause or date. An agricultural origin, either ploughing or land drains is a common cause.

Areas of magnetic enhancement/positive isolated anomalies

Areas of enhanced response are characterised by a general increase in the magnetic background over a localised area whilst discrete anomalies are manifest by an enhanced response (sometimes only visible on an X–Y trace plot) on two or three successive traverses. In neither instance is there the intense dipolar response characteristic of an area of magnetic disturbance or of an 'iron spike' (see above). These anomalies can be caused by infilled discrete archaeological features such as pits or post holes or by kilns, with the latter often being characterised by a strong, positive double peak response. They can also be caused by pedological variations or by natural infilled features on certain geologies. Deeply buried ferrous material can also give a similar response. It may be difficult to establish an anthropogenic origin without intrusive investigation or other supporting information.

Linear and curvilinear positive anomalies

Such anomalies have a variety of origins. They may be caused by agricultural practice (recent ploughing, earlier ridge and furrow regimes or land drains), natural geomorphological features such as palaeochannels or by infilled archaeological ditches.

3. Methodology

3.1 Gradiometer Survey

There are two main methods of using the fluxgate gradiometer for commercial evaluations. The first of these is referred to as ***scanning*** and requires the operator to visually identify anomalous responses on the instrument display panel whilst covering the site in widely spaced traverses, typically 10-15m apart. The instrument logger is not used and there is therefore no data collection. Once anomalous responses are identified they are marked in the field with bamboo canes and approximately located on a base plan. This method is usually employed as a means of selecting areas for detailed survey when only a percentage sample of the whole site is to be subject to detailed survey. In favourable circumstances scanning may be used to map out the full extent of features located during a detailed survey.

The second method is referred to as ***detailed survey*** and employs the use of a sample trigger to automatically take readings at predetermined points, typically at 0.25m intervals, on zig-zag traverses 1m apart. These readings are stored in the memory of the instrument and are later dumped to computer for processing and interpretation.

A Bartington Grad 601-2 fluxgate gradiometer was used for the detailed gradiometer survey. Readings were taken, on the 0.1nT range, at 0.25m intervals on zig-zag traverses 1m apart within 20m by 20m square grids.

4. Data Processing and Presentation

The detailed gradiometer data has been presented in this report in X-Y trace and greyscale formats. The former option shows the 'raw' data with no processing other than grid biasing whilst in the latter the data has been selectively filtered to remove spurious errors such as striping effects and edge discontinuities caused by instrument drift and inconsistencies in survey technique caused by poor field conditions.

An X-Y plot presents the data logged on each traverse as a single line with each successive traverse incremented on the Y-axis to produce a 'stacked' plot. A hidden line algorithm has been employed to block out lines behind major 'spikes' and the data has been clipped at 5nT. The main advantage of this display option is that the full range of data can be viewed, dependent on the clip, so that the 'shape' of individual anomalies can be discerned and potentially archaeological anomalies differentiated from 'iron spikes'.

ArchaeoSurveyor was used to process the data and produce the greyscale images and XY trace plots. The processing methods are listed in detail in Appendix 4.

© ASC Ltd 2009

Appendix 2: Data Processing and Presentation

Data processing and/or filtering has not been applied to the data sets unless otherwise stated. Data has been interpolated for presentation as greyscale plots unless otherwise stated. The processing steps employed to produce the greyscale plots are listed below.

Block 1

Clip from -4.00 to 4.00 nT
Despike Threshold: 1 Window size: 3x3
DeStripe Mean Traverse: Grids: All Threshold: 4 SDs

Block 2

Despike Threshold: 1.5 Window size: 4x4
DeStripe Mean Traverse: Grids: All Threshold: 2 SDs
High pass Gaussian filter: Window: 21 x 21
Low pass Gaussian filter: Window: 6 x 3
Clip from -3.00 to 2.50 nT

Block 3

Clip from -5.00 to 5.00 nT
Despike Threshold: 1 Window size: 3x3
DeStripe Mean Traverse: Grids: All Threshold: 2.5 SDs
High pass Gaussian filter: Window: 21 x 21
Low pass Gaussian filter: Window: 3 x 3

Block 4

Clip from -3.00 to 3.00 nT
DeStripe Mean Traverse: Grids: All Threshold: 2 SDs

© ASC Ltd 2009

Appendix 3: Survey Location Information

1. The geophysical survey blocks were established using a Pentax R-326EX total station. Survey block points were set out with the total station at 60m intervals and points at 20m intervals were set out as required using 100m tapes.

2. The survey grids were superimposed onto a digital site survey that was co-registered with the National Grid. Overall there was a good correlation between the tie in survey and the digital map base and it is estimated that the average 'best fit' error is better than ±1m. Potential errors in mapping or co-registration must be considered if co-ordinates are measured off for relocation from points other than those listed below or if geophysical anomalies are relocated using GPS technology.

Reference Object	Easting	Northing
A (wooden stake)	448946.77	309614.31
B (wooden stake)	449045.90	309607.05
C (wooden stake)	448964.36	309582.23
D (wooden stake)	449013.03	309558.07
E (wooden stake)	449124.26	309506.90
F (wooden stake)	449034.64	309464.05

ASC Ltd cannot accept responsibility for errors of fact or opinion resulting from data supplied by a third party or for the removal of any of the survey reference points.

Appendix 4: Geophysical Archive

1. The geophysical archive comprises:-

   - an archive disk containing the raw data files, plot meshes, composites and metadata, report text (Word 2000), and graphics files (CorelDraw12 and AutoCAD 2008) files.
   - a full copy of the report

2. At present the archive is held by ASC Ltd although it is anticipated that it may eventually be lodged with the Archaeology Data Service (ADS). Brief details may also be forwarded for inclusion on the English Heritage Geophysical Survey Database after the contents of the report are deemed to be in the public domain (*i.e.* available for consultation in the relevant Sites and Monument Record Office).

Appendix 5: XY Trace Plot of Raw Gradiometer Data



Figure 4: XY trace plot of unprocessed gradiometer data *(scale 1:1000)*

Appendix 6: ASC OASIS Form

PROJECT DETAILS			
Project Name:	Geophysical Survey: Land adjacent to Lower Grange Farm, Markfield, Leicestershire		
Short Description:	*In May 2010 Archaeological Services and Consultancy Ltd undertook geophysical survey (detailed magnetometry) of c.2.7 hectares of arable and pasture land located adjacent to Lower Grange Farm, Markfield in order to inform development proposals. The magnetic background of the survey area is heavily disturbed, suggesting intense late post medieval / modern agricultural activity. A single linear anomaly at the northwest of the survey area could locate an infilled ditch but the anomaly is weakly developed, discontinuous and more probably identifies modern intrusive activity. Three parallel linear magnetic anomalies are also present at the northeast and could locate infilled ditches. However, the alignment of the anomalies and their position at the lowest topographic area could suggest that they are caused by agricultural field drains. Two discrete areas of magnetic enhancement are also present; this type of magnetic anomaly can identify infilled archaeological pits but the level of modern agricultural / intrusive activity observed suggests that a modern origin is perhaps probable. Intensive archaeological activity such as settlement appears absent and results of the geophysical survey support the conclusions of a desk-based assessment, which suggested that the archaeological potential of the survey area was low to moderate.*		
Project Type: (indicate all that apply)	Geophysical Survey: Detailed Magnetometry		
Site status: (eg. none, SAM, Listed)	None	Previous work: (eg. SMR refs)	DBA: ULAS
Current land use:	Arable	Future work: (yes / no / unknown)	unknown
Monument type:	na	Monument period:	na
Significant finds: (artefact type & period)	none		
PROJECT LOCATION			
County:	Leicestershire	OS reference: (to at least 8 figures)	SK 4900 0955
Site address: (with postcode if known)	Land adjacent to Lower Grange Farm, Markfield, Leicestershire		
Study area: (sq. m. or ha)	2.7 ha	Height OD: (metres)	164m - 159m
PROJECT CREATORS			
Organisation:	Archaeological Services & Consultancy Ltd		
Project brief originator:	-	Project design originator:	-
Project Manager:	A Hancock	Director/Supervisor:	A. Hancock
Sponsor / funding body:	University of Leicester Archaeological Services (ULAS)		
PROJECT DATE			
Start date:	19/05/10	End date:	20/05/10
PROJECT ARCHIVES			
	Location (Accession no.)	Content (eg. pottery, animal bone, files/sheets)	
Physical:	None	None	
Paper:	ASC Ltd	Fieldwork report and Project Design	
Digital:	ASC Ltd	Report text, geophysical data, illustrations, basemap	
BIBLIOGRAPHY (Journal/monograph, published or forthcoming, or unpublished client report)			
Title:	Geophysical Survey: Land adjacent to Lower Grange Farm, Markfield, Leicestershire		
Serial title & volume:	ASC Ltd Report ref. 1300/MLG/01		
Author(s):	A Hancock		
Page nos	1 - 17	Date:	28th May 2010