YCCCART 2012/Y 6
North Somerset HER 2012 / 349

Gradiometry & Resistivity Surveys at Iwood Manor

YATTON, CONGRESBURY, CLAVERHAM AND CLEEVE ARCHAEOLOGICAL RESEARCH TEAM (YCCCART)

General Editor: Vince Russett

Brian & David are holding the remote wire and not each other's hands

Abstract

YCCCART is investigating the extent of the Congresbury Romano British pottery kilns and settlement at Iwood.

Gradiometry and resistivity surveys at Iwood Manor have revealed a number of features including possible walls and structures. Hints of a possible Roman road suggested to run through the grounds of the manor were seen.

Acknowledgements

A Heritage Lottery Grant enabled the purchase, by YCCCART, of a Bartington 601 Gradiometer and Geoscan RM15 Resistivity Meter without which this survey could not have been undertaken.

This survey would also not have been carried out without the willing permission of the landowners, Mr & Mrs Lloyd.

The authors are grateful for the hard work by the members of YCCCART in performing the survey and Vince Russett for editing.

Introduction

Yatton, Congresbury, Claverham and Cleeve Archaeological Research Team (YCCCART) is one of a number of Community Archaeology teams across North Somerset, supported by the North Somerset Council Development Management Team.

The objective of the Community Archaeology in North Somerset (CANS) teams is to carry out archaeological fieldwork, for the purpose of recording, and better understanding and management of, the heritage of North Somerset.

Site Location

Fig 1: Site location

The site is in the hamlet of Iwood, in the parish of Congresbury in North Somerset, some 12 miles south of Bristol. (See site report in appendix for GPS readings)

The areas surveyed are privately owned, and there are no public rights of way across the manor.

Land use and geology

The local geology is Mercia Mudstone Group - Mudstone and Halite-Stone.
The sites are laid to lawn.

Historical & archaeological context

The longevity of settlement at Iwood has been suggested by Richard Broomhead (Broomhead, *in prep*) and Gill Bedingfield (Bedingfield 1996) as indicated by Romano British pottery and coins found close to Iwood Manor (See YCCCART report Y16 /2010 under Congresbury reports).

The late Keith Gardner, whilst viewing Google Earth, identified a potential Roman road running from the woods to the north of Iwood Manor through the present manor grounds and down what is now Iwood Lane, before veering off to the right.
There are suggestions of this road in the field south of the manor. The line is then picked up by Iwood Lane south of the river as far as Willing's cross, where it joins the Churchill Road. After a kink at this point, it then forms the straight boundary between Congresbury and Churchill parishes for some miles.

The current road going south past the manor takes has a sharp right bend then goes sharp left over Iwood Bridge. Henry Collins, a local farmer now in his 90s, remembers a ford where the bridge now stands which was replaced by the bridge in the 1920s.

Was there an earlier ford or bridge across the Yeo joining the possible Roman road?

Medieval

In 1996 local historian Gill Bedingfield compiled a history of Iwood (Bedingfield GM, 1996), which is included on this web site. See YCCCART report Y32/2010 in 3 parts under the section Congresbury Reports. This includes details of the history of the mill within the grounds of Iwood Manor.

In her thesis Gill states:"Iwood Manor House is the most likely site for the medieval manorial messuage. Iwood's 14th century accounts show that there was a manor house of sorts, a barn, a substantial cattle shed, a wagon house and a dovecote."

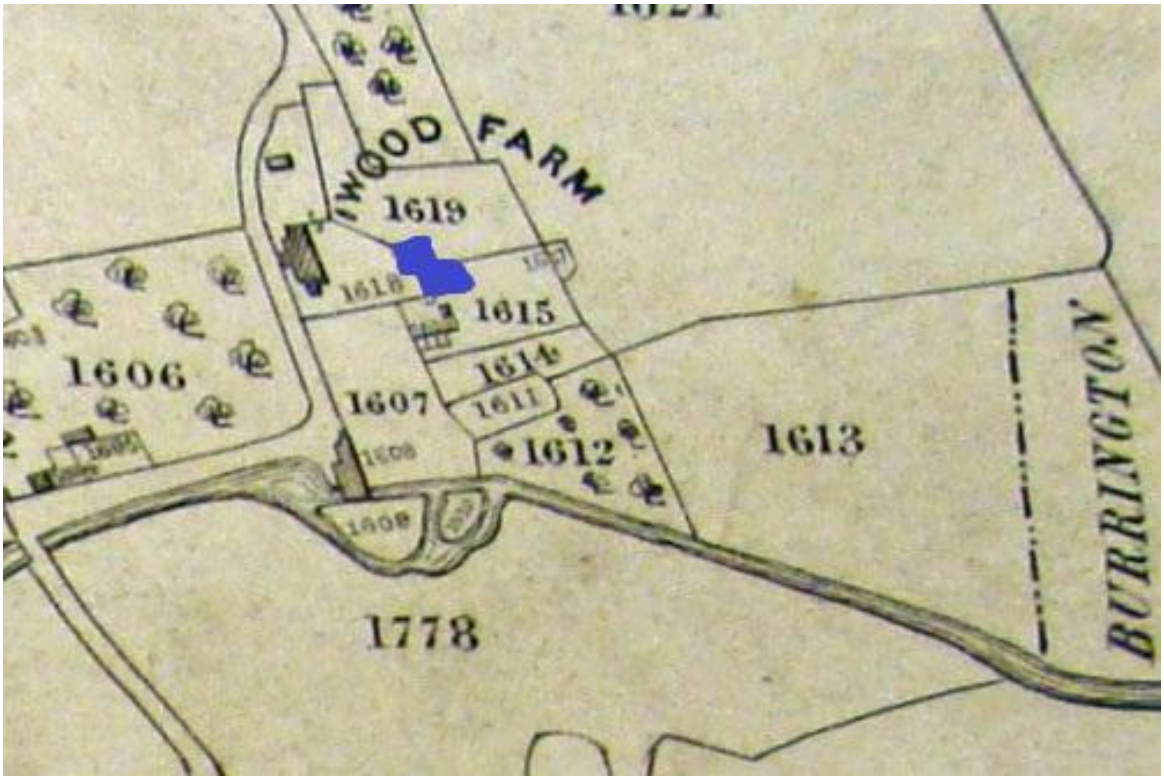


Fig 2 : *1839 Map. Courtesy of Bristol Record Office BRO 37959/9.*

17th and 19th Century

"By 1664 a substantial house may also have stood on the site of the present Iwood Manor. Katherine Wallis was assessed for 20s in the Hearth Tax of 1664 and William Wallis appears as the chief tenant of the Farm and two cottages in a rental of 1647 (SRO. DD/X/FRC 10). There is no indication on the present site of Iwood Manor of any early occupation, although in view of the extensive, pre-nineteenth century landscaping of the area surrounding the house, this is probably not surprising." (Broomhead *in prep*)

The 1840 Tithe apportionment, accompanying the 1839 Tithe map shown in Fig 2 above, records the following:-

The current manor is called Iwood Farm (*In error?)*

Landowner: Trustees of William Henry and Mary Merle.

Occupier: Charles Parsons

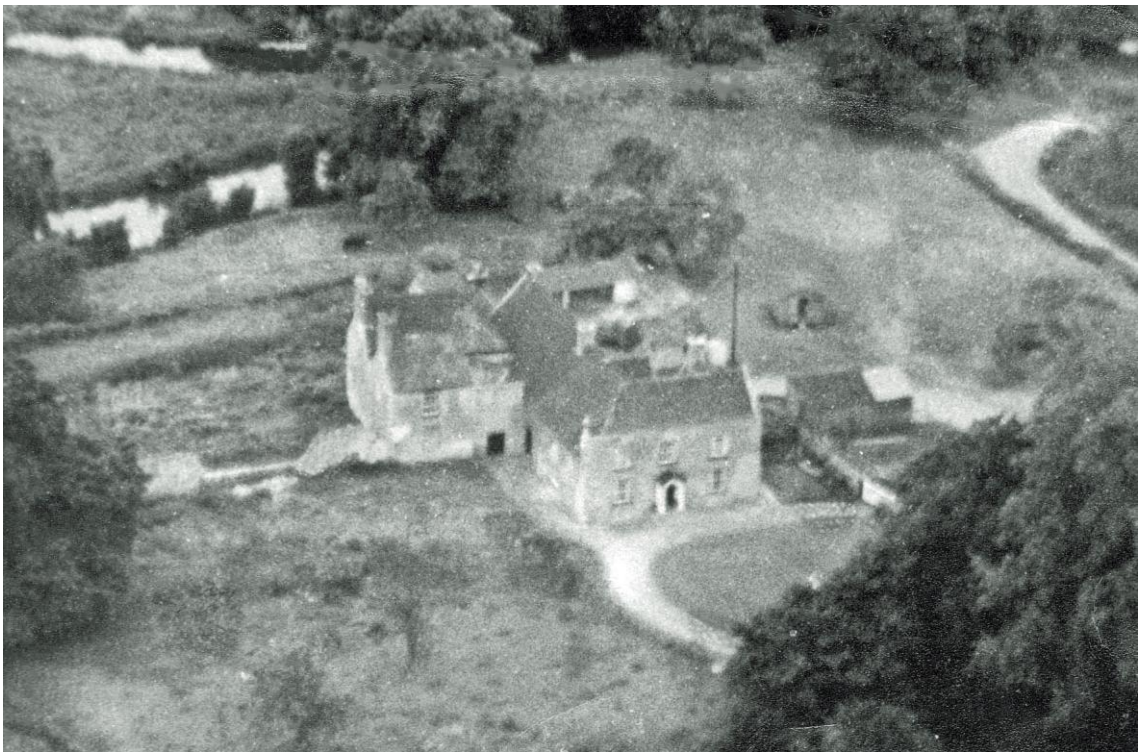
1607. Wood Yard. (Pasture)
1611. Fish pond

1612. Orchard
1614. Orchard
1615. Garden
1616. Dwelling House & Outbuildings
(*Curiously 1616 is not shown on the map but is most likely the area coloured blue in Fig 2)*
1618. Barton & outbuildings
1619. Lawn

Occupier of the mill is John Thomas
1608 –Mill

20th century

The house and gardens have been radically altered since the photographs below were taken



Aerial view of Iwood Manor from the north in the 1960s. Courtesy of Mrs J Lloyd & family.

South elevation circa 1964 showing buildings now demolished. Courtesy of Mrs J Lloyd & family.

West elevation, prior to 1964. Courtesy of Mrs J Lloyd & family.

The view above shows the western side of the house. All the outbuildings to the right as well as the dairy between the chicken shed and tree have been demolished.

Survey objectives

The survey had the following objectives.

1) To continue to investigate the extent of the Congresbury Romano British pottery kilns and settlement at Iwood.
2) To use the survey to further train YCCCART members and members of Community Archaeology in North Somerset (CANS) in the use of the gradiometer and resistivity equipment..

Methodology

The surveys were undertaken during the period April and May 2012 by teams from YCCCART using a Geoscan RM15 resistivity meter and Bartington 601 gradiometer, with settings as per the site record in the Appendix .

The completed survey was downloaded to ArcheoSurveyor and Snuffler programmes

ArcheoSurveyor composites were adjusted using the following filters

1) Colour - Red Blue Green 2
2) Band weight equaliser
3) Grad shade
4) Despiked
5) Destriped (Gradiometer only)
6) Clip SD2

In addition, as indicated below, for certain results the Edge March and High Level filters were utilised.

The report was written in Microsoft Word 2007.

Results

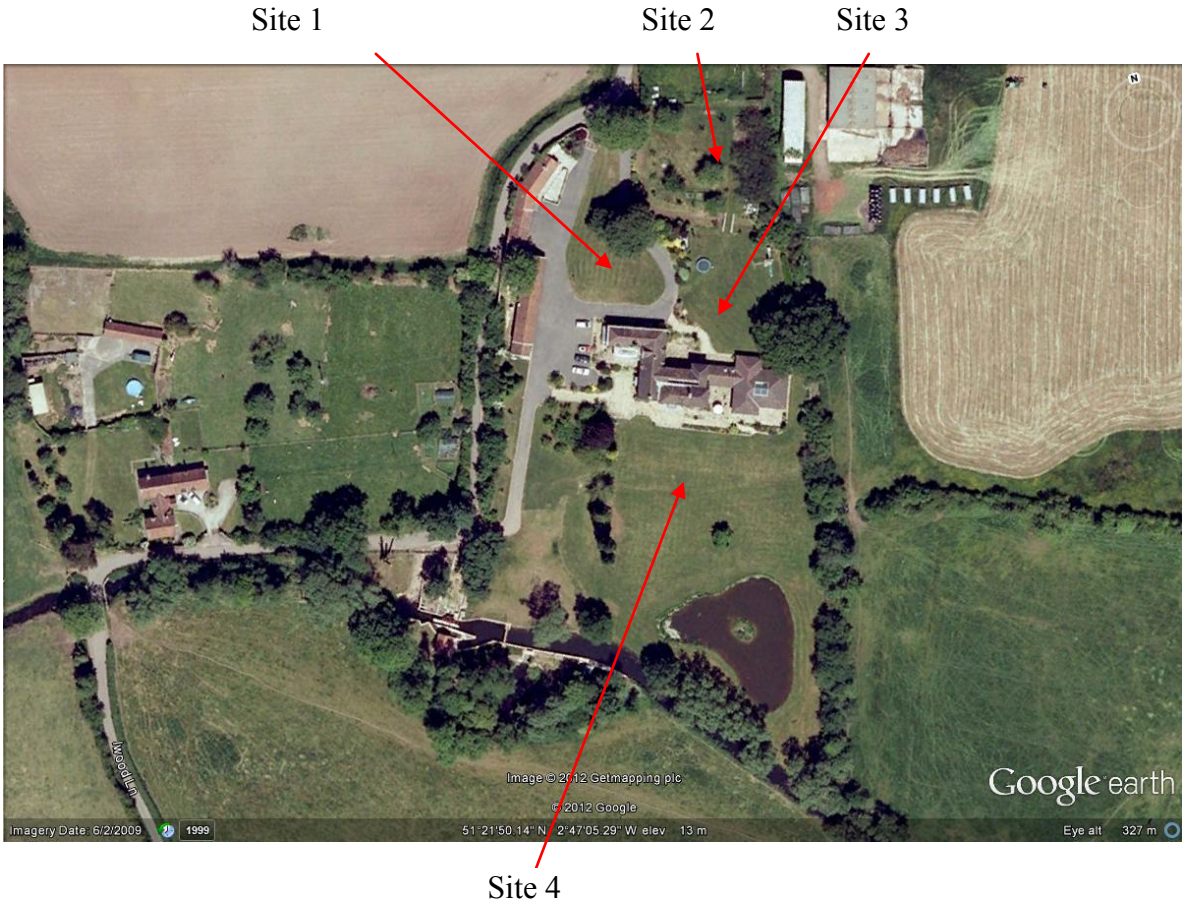


Fig 3: Location of results

The results which follow are split into four sites as shown in Fig 3 above.

Site 1.

Resistivity survey

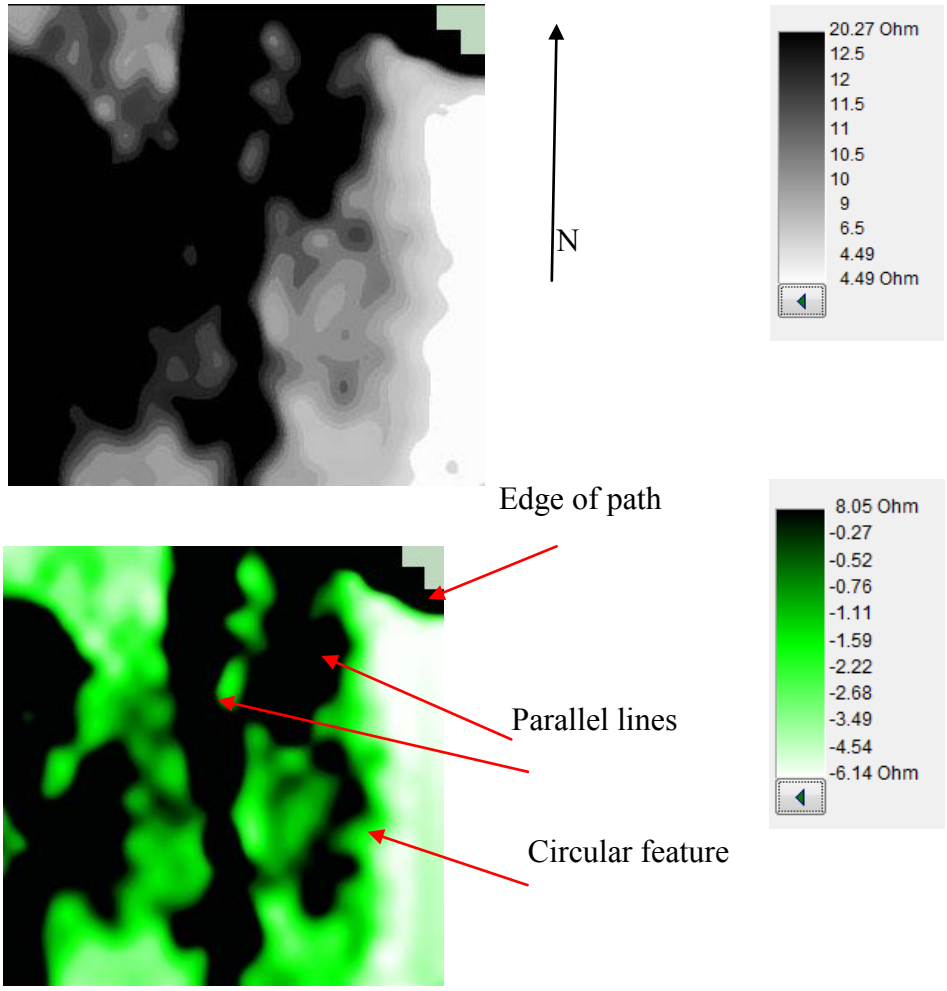


Fig 4: ArcheoSurveyor shade view . High readings are black. A High pass Gaussian filter and Black Green White filter have been used in the lower image.

The results in Fig 4 above show two parallel lines which follow the line of the suggested Roman road if projected (more or less) from that of Iwood Lane to the north.

A circular feature some 10 metres in diameter is also shown. It is tempting to wonder if this is connected in any way to the dovecote mentioned in the 14th century accounts

Another anomaly on the left of the results shown on Fig 4 is difficult to interpret.

Site 2.

Resistivity survey

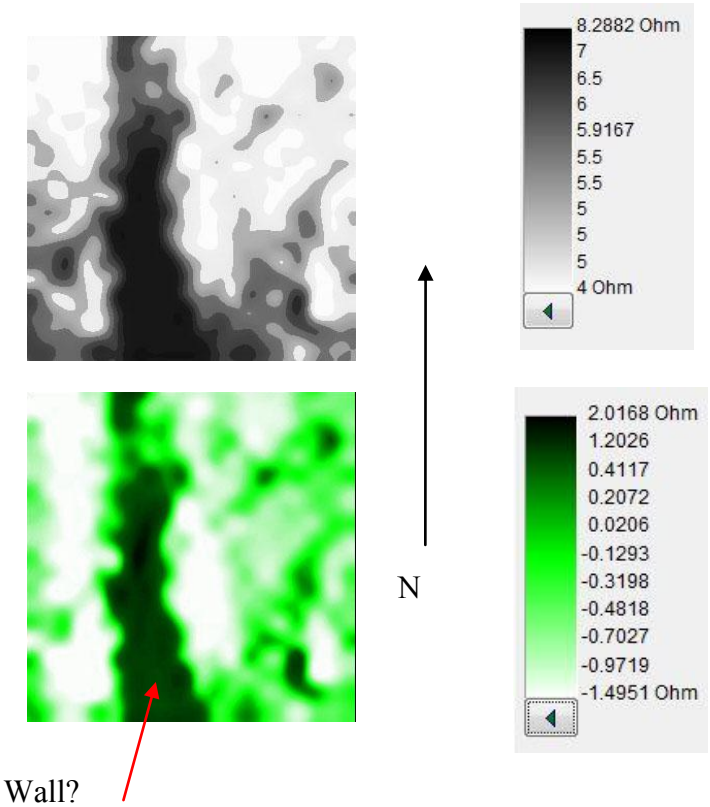


Fig 5: ArcheoSurveyor shade view . High readings are black. A high level filter and Black Green White filter has been used in the lower image.

A strong linear feature running north to south in Fig 5 above could be the remains of a wall (or possibly a path).

Site 3.

Resistivity survey

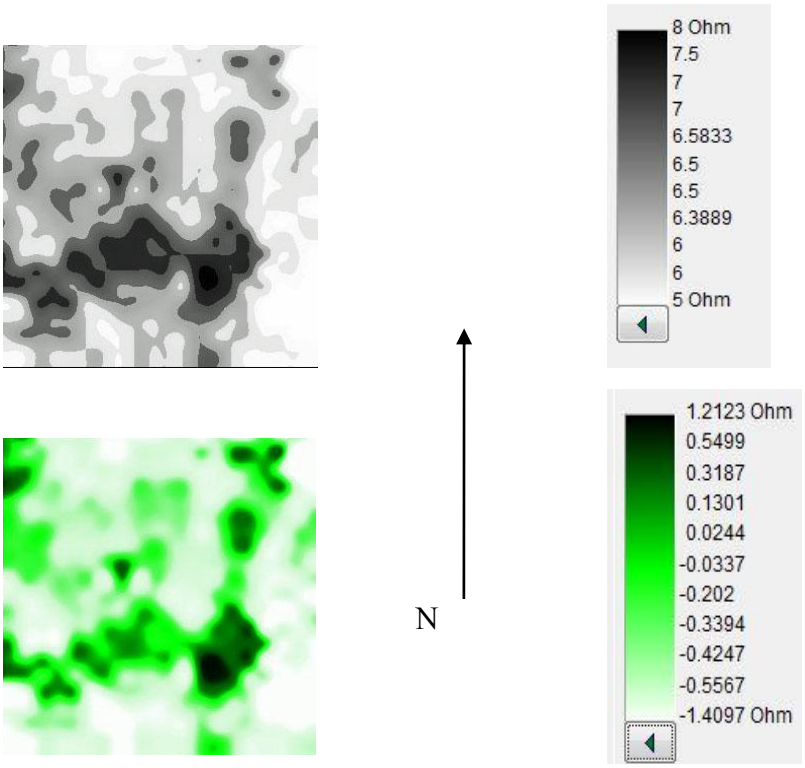
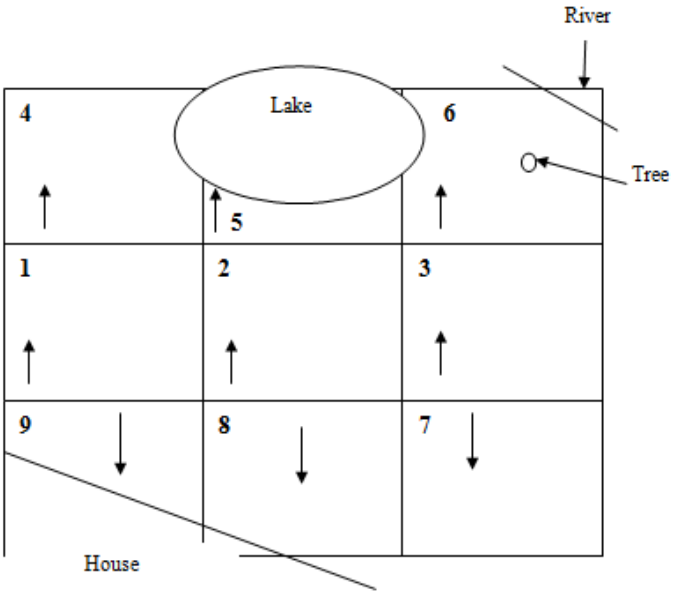


Fig 6: ArcheoSurveyor shade view . High readings are black. A high level filter and Black Green White filter has been used in the lower image.

A feature running horizontally across the bottom of Fig 6 above could possibly relate to building rubble.

Site 4

Gradiometry Survey



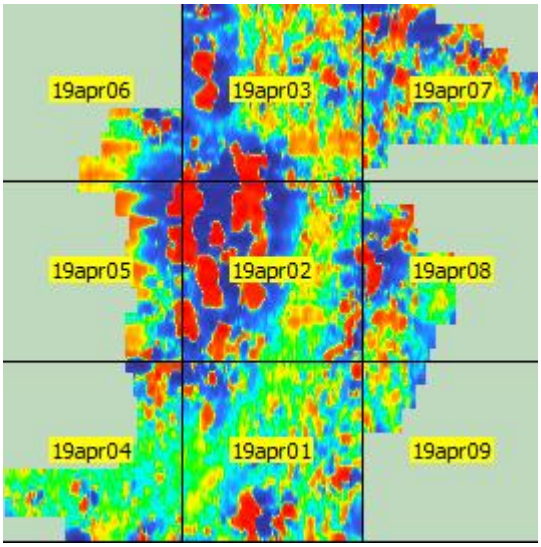


Fig 7: Grid layout and ArcheoSurveyor file names (below)

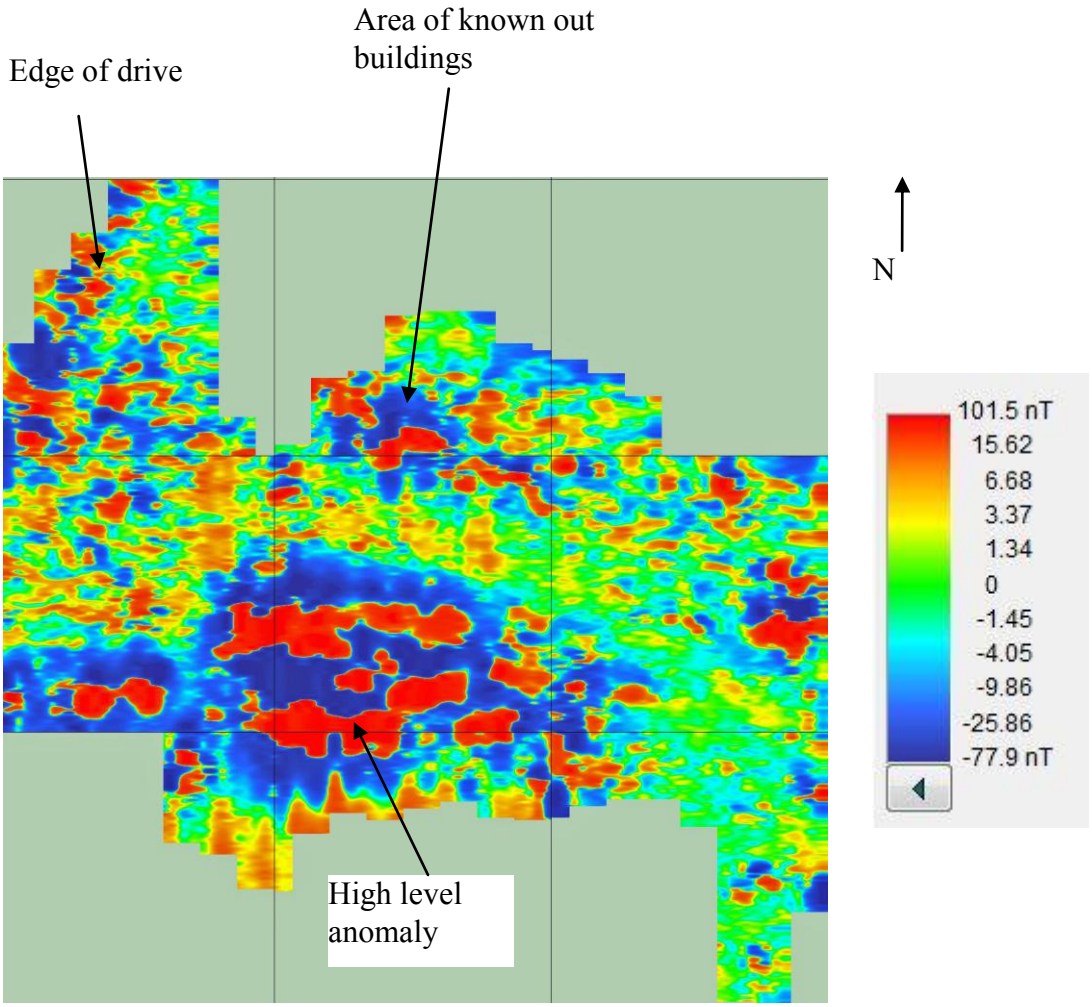


Fig 8: Shade view (ArcheoSurveyor colour image). High readings are red.

The high level anomaly shown in Fig 8 above is most unexpected. Remains from the mill, destroyed by fire in 1892, may have been dumped in this area causing the high magnetic response.

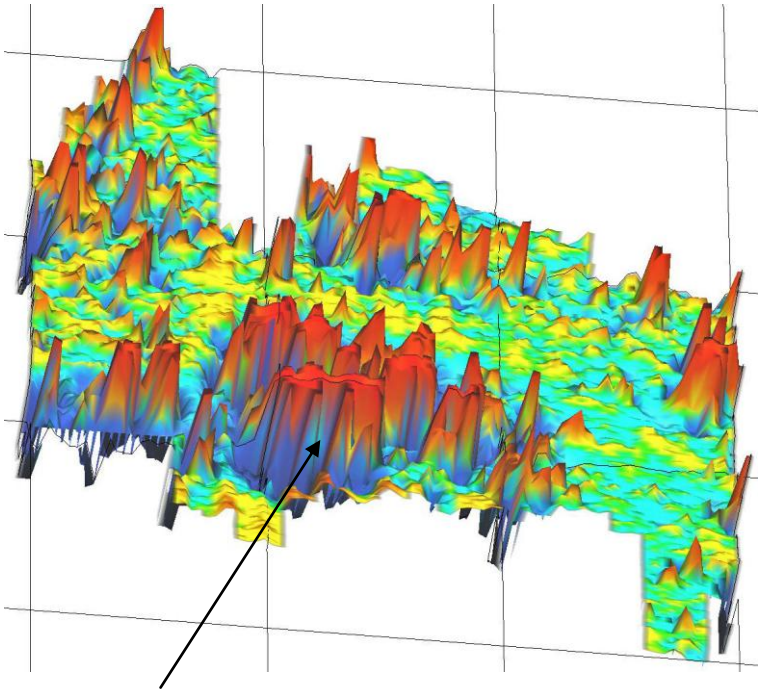
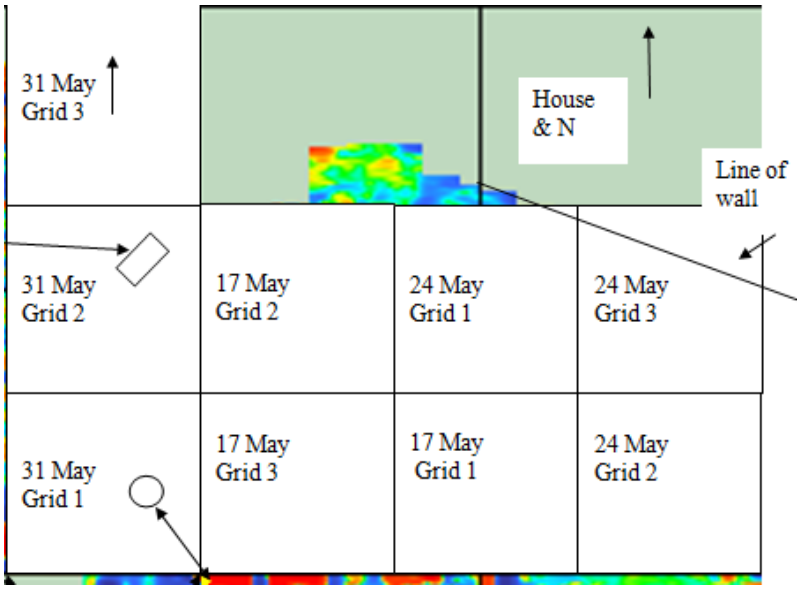


Fig 9: Axonometric view *(ArcheoSurveyor colour image). High readings are red.*

The high level anomaly can clearly be seen in the 3d image, Fig 9 above.

Site 4

Resistivity Survey



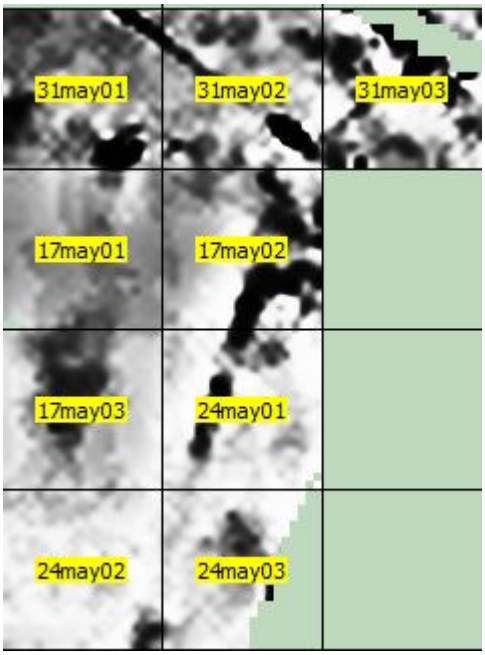


Fig 10: Grid layout and ArcheoSurveyor file names (below)

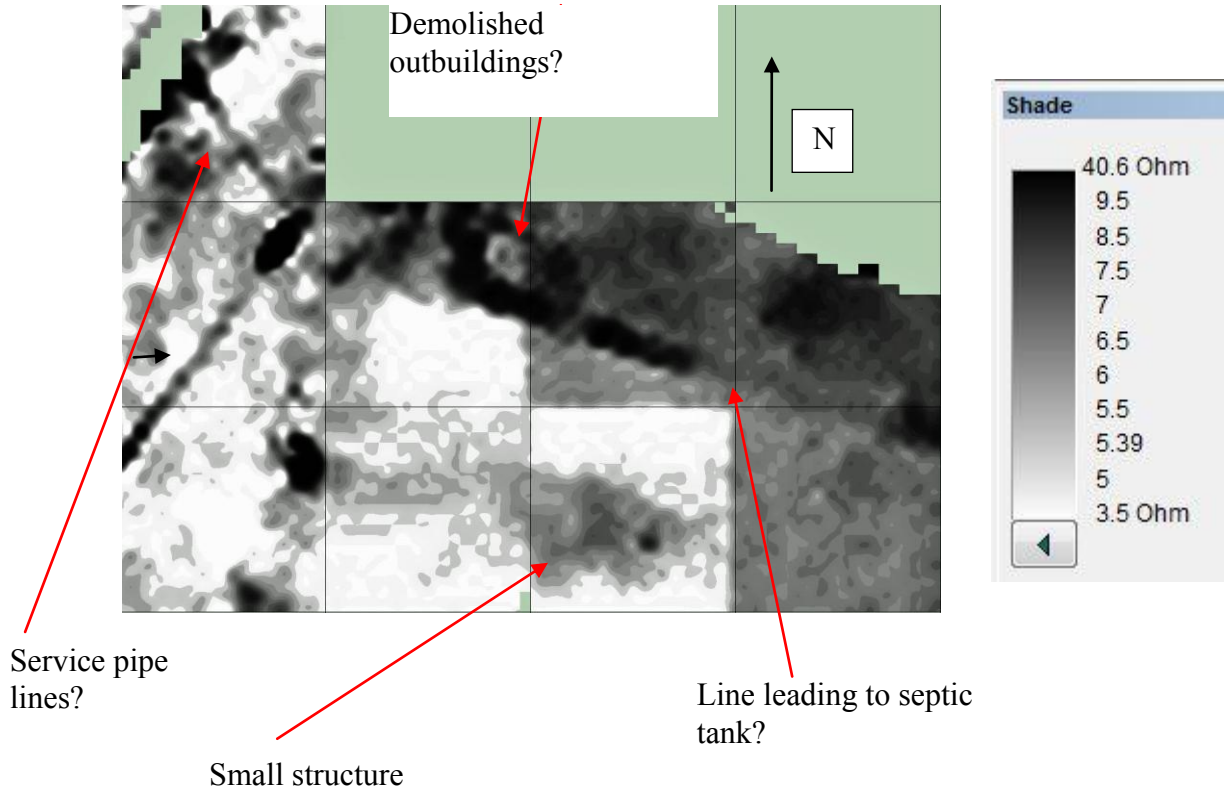


Fig 11: *ArcheoSurveyor shade view. High readings are black.*

Service lines probably cause some features illustrated in Fig 11 above.

The likely remains of the outbuildings shown in the photographs on page 8 are shown towards the centre top.

Also evident, in the lower section of Fig 11, is the possible remains of a small structure. This may be connected in some way with the fish pond recorded on the Tithe Map, still in existence in 1946, but gone by 1991 (air photographs in North Somerset HER).

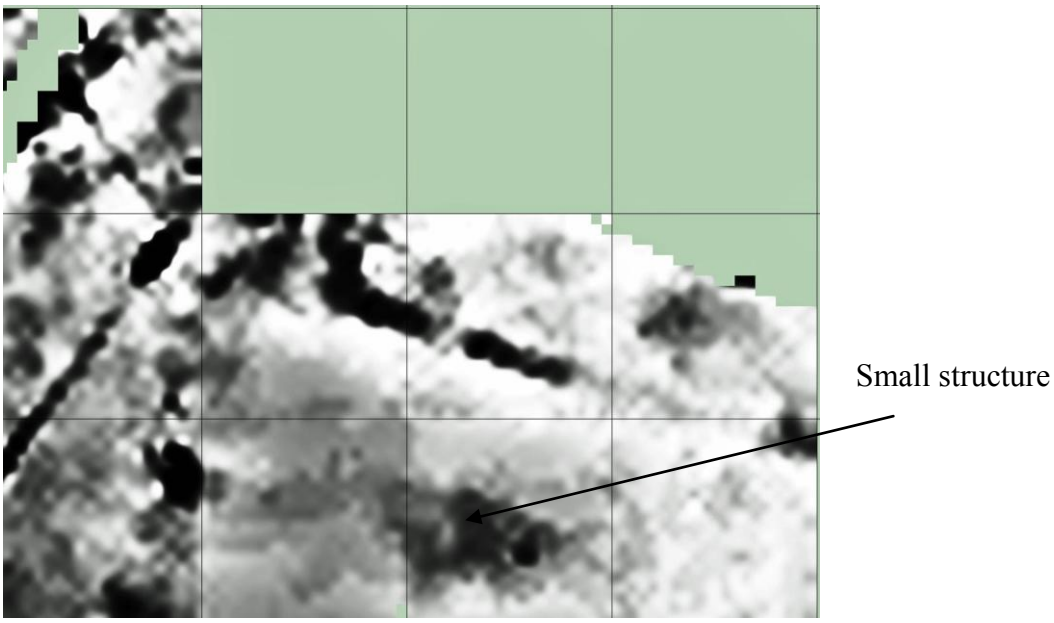


Fig 12: ArcheoSurveyor shade view with High Level filter and Edge Match. High readings are black.

The additional filters used to produce the result in Fig 12 above shows the small structure in greater detail.

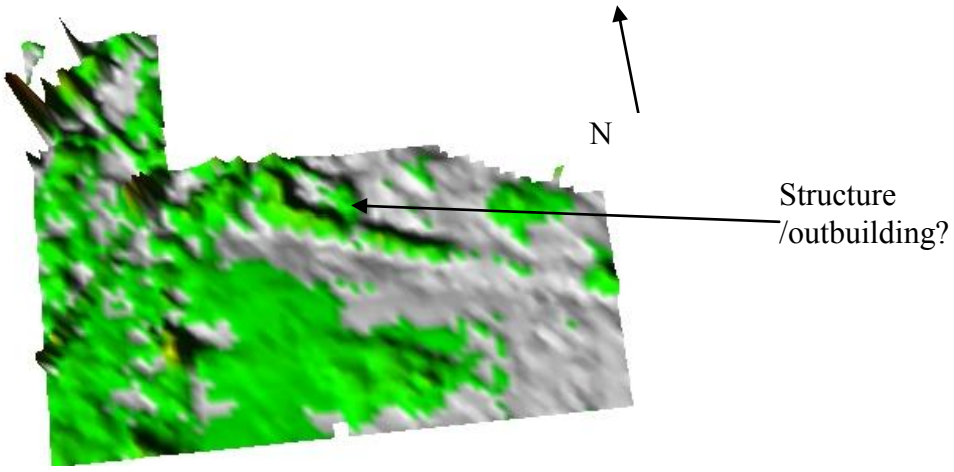


Fig 13: 3d image produced using Surfer software (Exploration colour filter)

The Surfer image above clearly shows a structure in the area of the demolished outbuildings.

Fig 14: Resistivity results sites 1 to 4

Interpretation of results is difficult not least because of the fragmentary nature of the site and small area surveyed. The area of the 'small structure' in Fig 14 was within the farms vegetable garden in 1946 air photographs. The almost north-south high resistance feature is more or less along the projected line of the proposed Roman road, although why such a structure should respond slightly differently in two separate areas is unclear.

Recommendations

The landowners should be asked to notify YCCCART of any building works at Iwood Manor which could throw further light on the results.

References

Bedingfield, G. 1996	I*wood, How long has it existed as a discrete settlement unit and how did this affect its economy*, MA Dissertation. Bristol University 1996).
Broomhead, R.A. (in prep)	*Congresbury, the History of a Landscape* Unpublished manuscript in the YCCCART archive
Congresbury Tithe Map	*BRO 37959/9* (Bristol Record Office)

Authors: YCCCART

Date: July 2012

Appendix

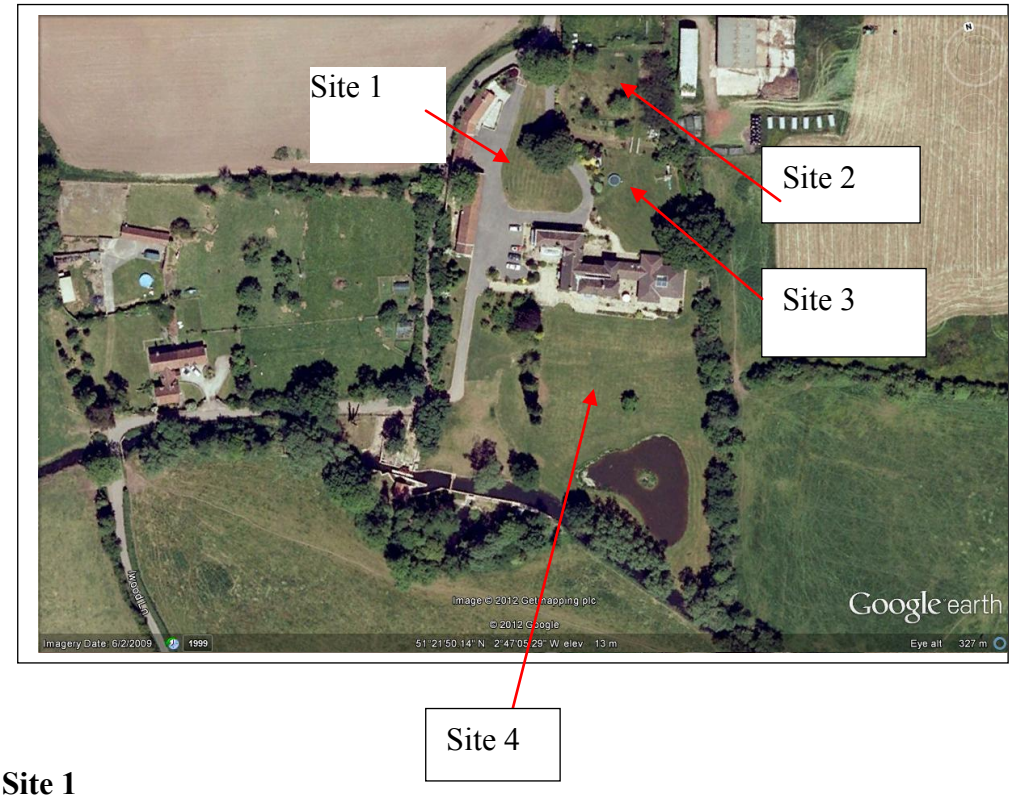
Setting out details

YCCCART Site Survey Project **– Iwood Manor**		
Survey date	19 April to 31 May 2012	
Report date	31 May 2012	
Type /Instrument	**RM15**	
	Gain x1, Current 1mA Frequency 137Hz Probes 'Config 1' (2 probes)	Grid size: 20m x20m Pattern : Zig Zag Sample interval 1m Traverse Interval 1m. Mode Zig-Zag
Weather	19 April: Overcast & damp 10 May: Overcast and very wet under foot 17 May: Overcast but ground dry 24 May: Overcast, dew on lawn 31 May: Overcast but dry	
OS Ref or Lat-Longitude	See below	
Site name	Iwood Manor	
Landowner	Mr & Mrs Lloyd	
HER ref		
Site type	?	
Description		
Period		
Geology	See report	
Land use	Lawn except site 2 = orchard	
Survey team	*19 April: David Long, Chris Short, Brian Wills & John Wilcox.* *10 May: Pete English, Pete Wright, John Wilcox, Mike Fox, Susan Dugas, David Long, John Haynes, Ian Morton & Ferdi* *17 May: Pete Wright, John Wilcox, Mike Fox, Susan Dugas, David Long, John Haynes, Chris Short* *24 May: Janet Dickson, Philippa Cormack, David Long. John Wilcox & Chris Short* *31May: David Long, Pete Wright, John Wilcox & Chris Short*	

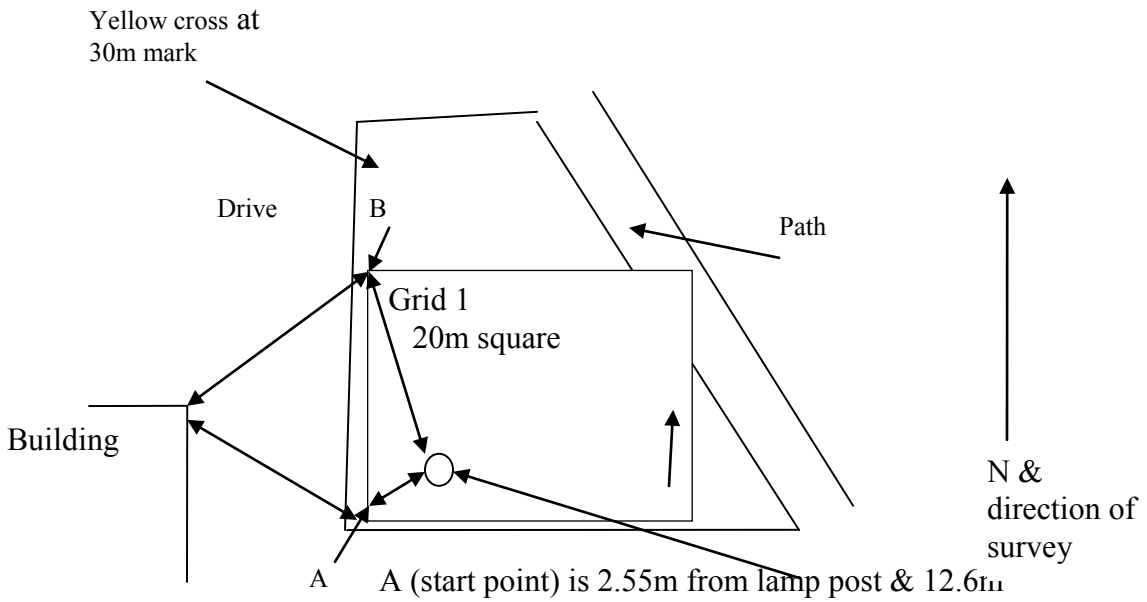
Survey area		Notes		Readings		
		Size	Walk direction			
19 April	Site 1. Grid 1	20m x 20m	N			
10 May	Site 2. Grid 1	20m x 20m	E			
10 May	Site 3. Grid 1	20m x 20m	E			
17 May	Site 4. Grids 1to3	20m x 20m	N			
24 May	Site 4. Grids 1 to 3. Grid 3 truncated at north by wall. Used end line and image line.	20m x 20m	N			
31 May	Site 4. Grids 1 to 3. Grid 3 bisected by drive. Dummy logs utilised plus end of line & image line.	20m x 20m	N			
Summary		Downloaded as: ArcheoSurveyor: *Iwood Manor1 grid 1, Iwood Manor 2 grids 1 & 2, Iwood Manor 3 17 May grids 1-3, 24 May grids 1 to 3, 31May grids 1 - 3.* Snuffler *:*				

Setting out details

Resistivity



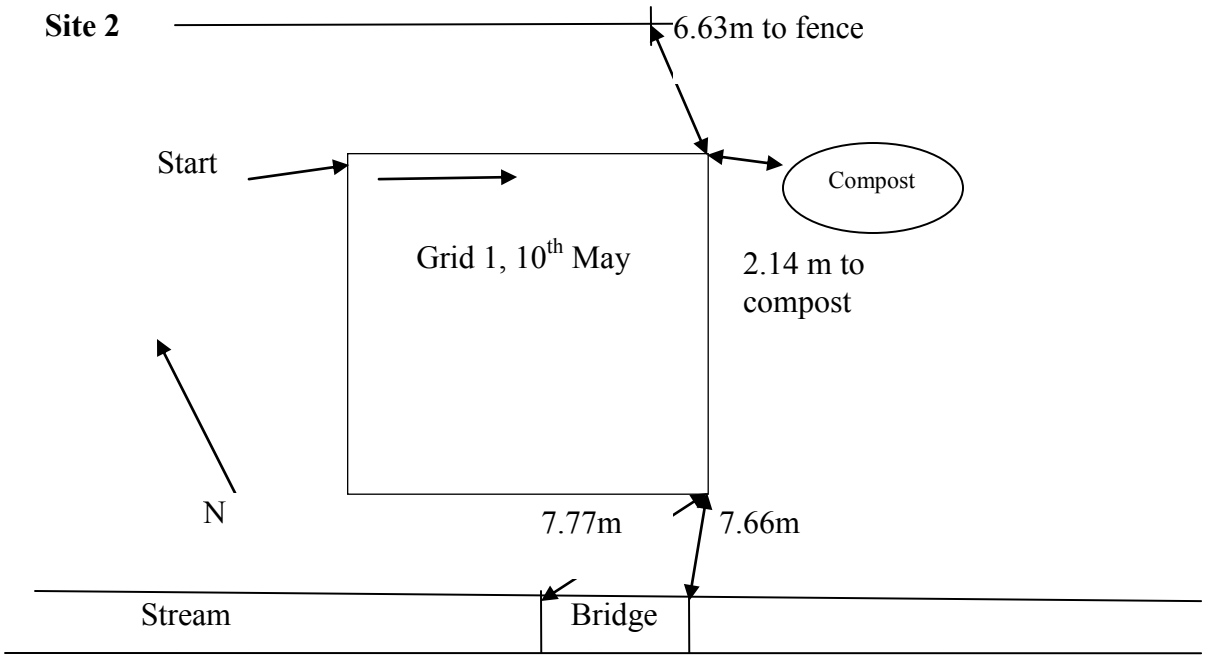
Site 1



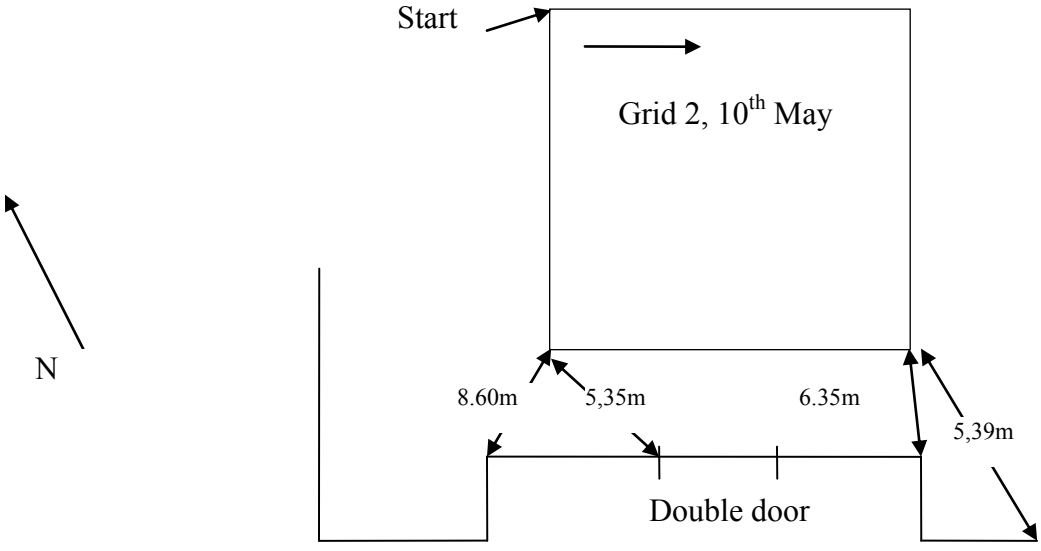
A (start point) is 2.55m from lamp post & 12.6m to corner of building.

B is 17.45m from lamp post & 14.55 m from corner of building

Site 2



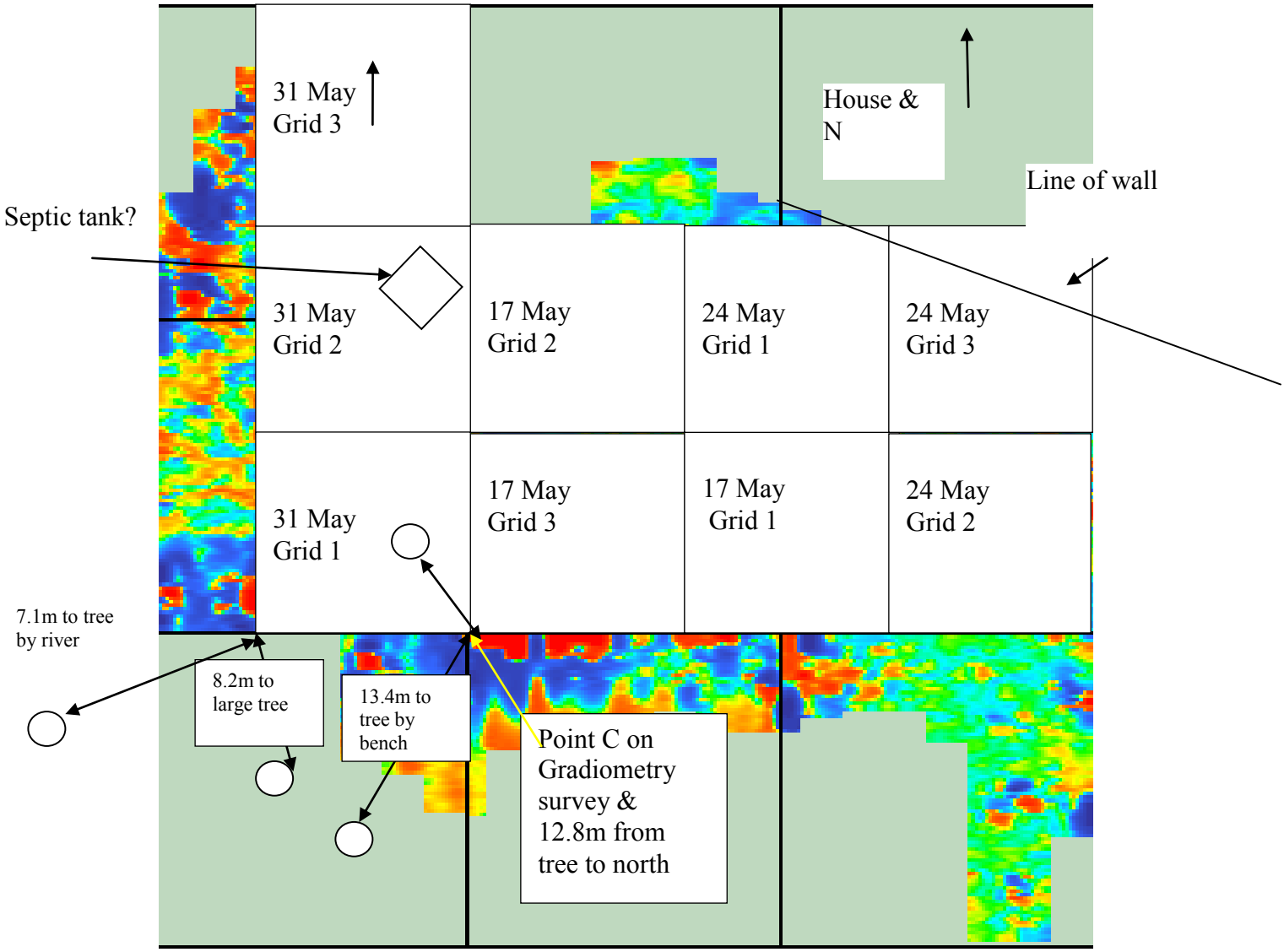
Site 3



House

Not to scale

Site 4



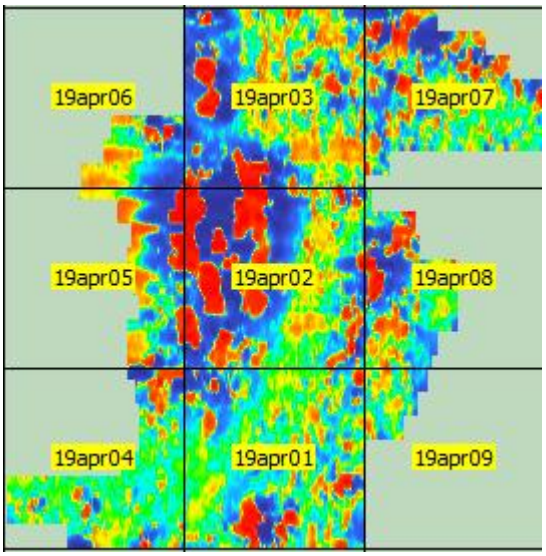
All grids –walked north & start bottom left

Not to scale

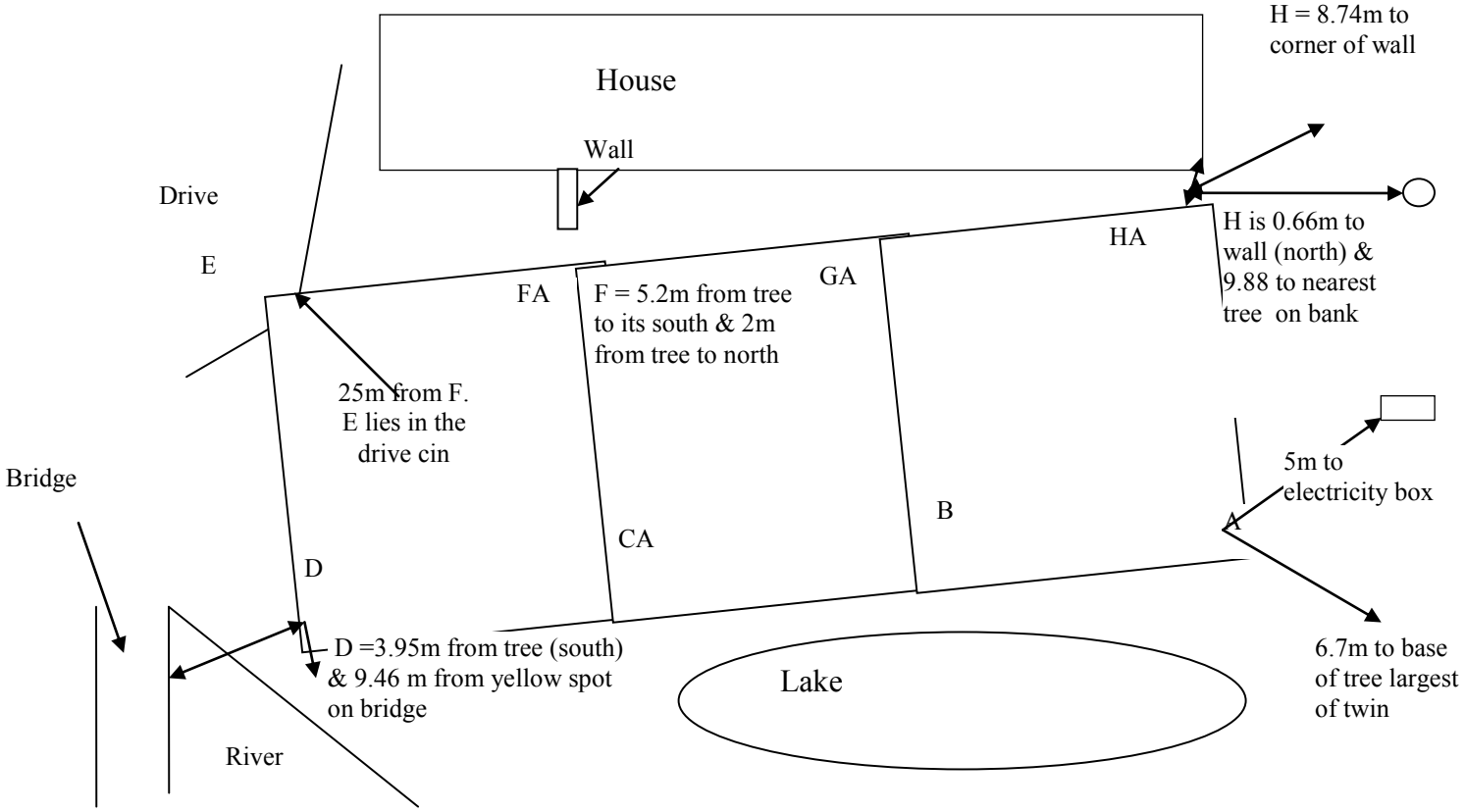
Gradiometry

YCCCART Site Survey Project – **Iwood Manor**			
Survey date		12th -19April 2012	
Report date		19th April 2012	
Type /Instrument		**Grad 601**	
		Pace :1.5m/s Lines/m : 1 Range:100nT Volume: High Sensors:2	Grid size: 30m x30m Pattern : Zig Zag Samples/m:4 Audio: On Threshold:1nT Reject:50 Hz
Location		Iwood Manor	
		See annex A	
Ref			
Site name		Iwood Manor	
Landowner			
Tenant		none	
HER ref		TBC	
Site type		Open land	
Description		Lawn	
Period		Unknown	
Geology			
Land use			
12 April 2012	Team	Peter Wright, Ferdi joined later by Peter English & Chris Short.	
	weather	Sunny	
19 April 2012	Team	Pete Wright, Pete English, Janet Dickson, Judy Sacks & Philippa Cormack, Susan Dugas.	
	weather	19 April: Overcast, light rain	

Survey area			notes		readings		
			size	walk direction	max	min	mean
Grid ref #	19/04/12	1	30x30m	S	+100	-100	-5.1
		2	30x30m	S	+100	-100	-8.3
		3	30x30m	S	+100	-100	-8.7
		4	30x30m Mirror & return	S	+100	-100	-3.2
		5	30x30m Mirror & return	S	+100	-100	-18.6
		6	30x30m Mirror & return	S	+100	-100	-16.5
		7	30x30m Mirror & return	N	+100	-100	-9.9
		8	30x30m Mirror & return	N	+100	-100	-3.6
		9	30x30m Mirror & return	N	+20.4	-41.6	-6.6



L Quiet spot **2012**



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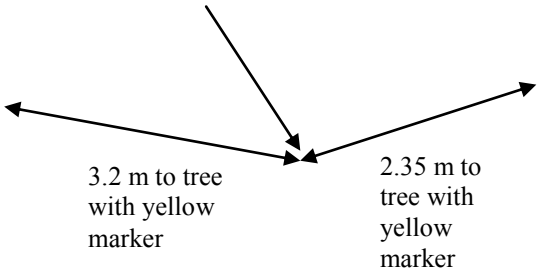
Quiet spot in orchard

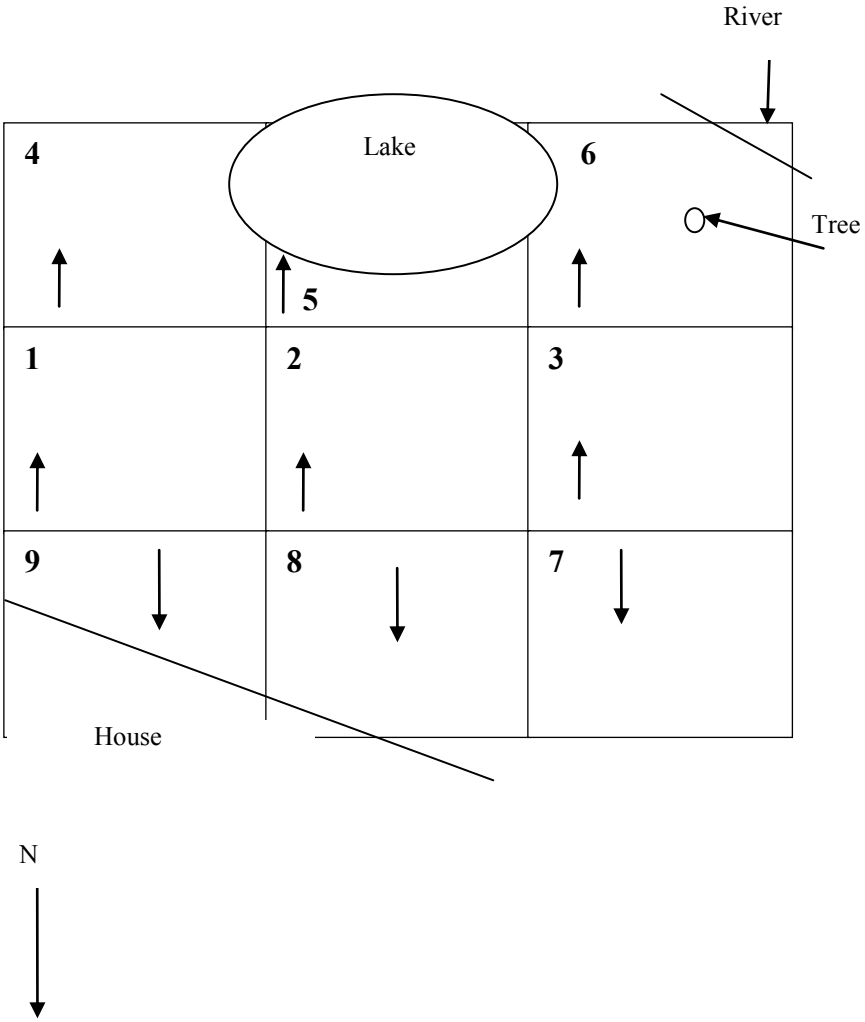


GPS

Quiet spot	**345454.78**	**163068.53**
A	**345515.15**	**163017.2**
B	**345487.06**	**163015.02**
C	**345457.55**	**163013.22**
D	**345427.59**	**16301?.27**
F	**345456.85**	**163043.51**
G	**345484.8**	**163045.66**

`

Grid Set up on 19th April 2012



Grids 1 to 3 relate to the layout on 12th April 2012