

**YCCCART 2013 /Y 1
North Somerset HER 2015/12**

Resistivity Survey at Iwood (Mr Collins Field 2)

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

General Editor: Vince Russett



Surveying on a very cold day.

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Abstract

In 2010 gradiometry and resistivity surveys at Iwood, near Congresbury revealed an occupation site with buildings, enclosures and trackways, which may date from the Roman or early medieval period. A recommendation from the relevant report (YCCCCART 2010 / Y 16) was that consideration should be given to extending the resistivity survey. Further resistivity surveys in 2012 and 2013 have revealed a wealth of features.

Acknowledgements

A Heritage Lottery Grant enabled the purchase, by YCCCCART of a Geoscan RM 15 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 landowner, Mr A Collins.

The authors are grateful for the hard work by the members of YCCCCART in performing the surveys and Vince Russett for editing this report.

Introduction

Yatton, Congresbury, Claverham and Cleeve Archaeological Research Team (YCCCCART) 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 of, the heritage of North Somerset.

Site Location



Fig 1: Site location

The site lies in Iwood a hamlet on the edge of the parish of Congresbury, bordered by the parish of Churchill. GPS co-ordinated are provided in the Site Records included in the appendix.

The field is privately owned but crossed by a public footpath.

Land use and geology

The north end of the field lies on the Keuper Marl, which is overlain in the southern part by the alluvial clays of the Northmarsh. The current course of the Yeo runs along the southern boundary of the field.

The field is used for grazing cattle and sheep

Historical & archaeological context

Please see the YCCART reports 2010/Y16 and 2010/Y32 for the historical & archaeological context.

Survey objectives

The survey was undertaken to establish if there were any more features in the field in addition to those reported in the YCCCART report 2010/Y16.

Methodology

Surveys were undertaken during the period September 2012 to March 2013 by teams from YCCCART

The completed survey was downloaded to ArcheoSurveyor and TerraSurveyor programmes and the resultant composite adjusted using the following filters

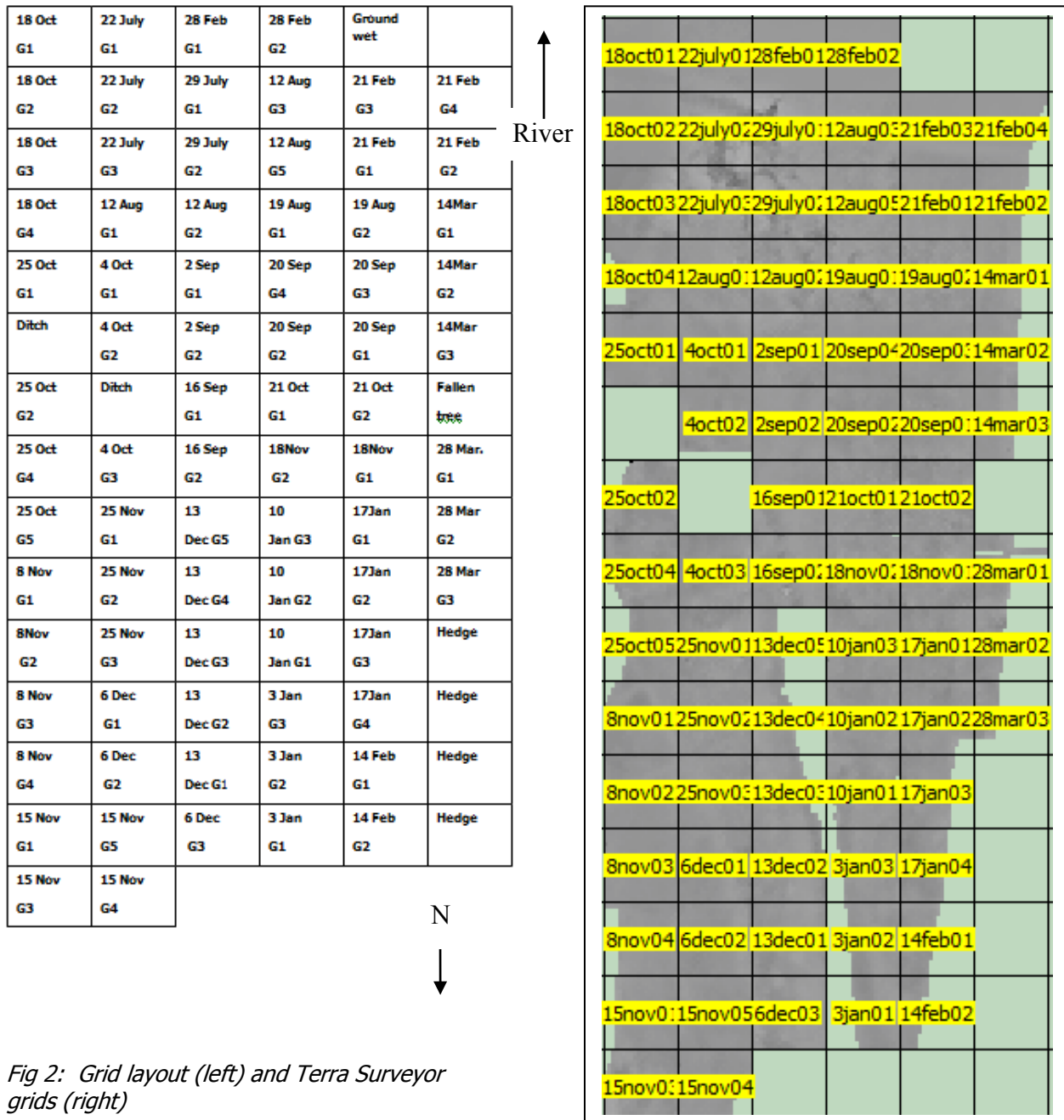
- Band weight equaliser
- Grad shade
- Despiked
- Clip SD2
- High pass Gaussian filter
- Periphery Match

Completed surveys were also downloaded to a Snuffler programme

The report was written in Microsoft Word 2003.

Photographs were taken by members of YCCCART, and remain the copyright of YCCCART.

Results



Whole field

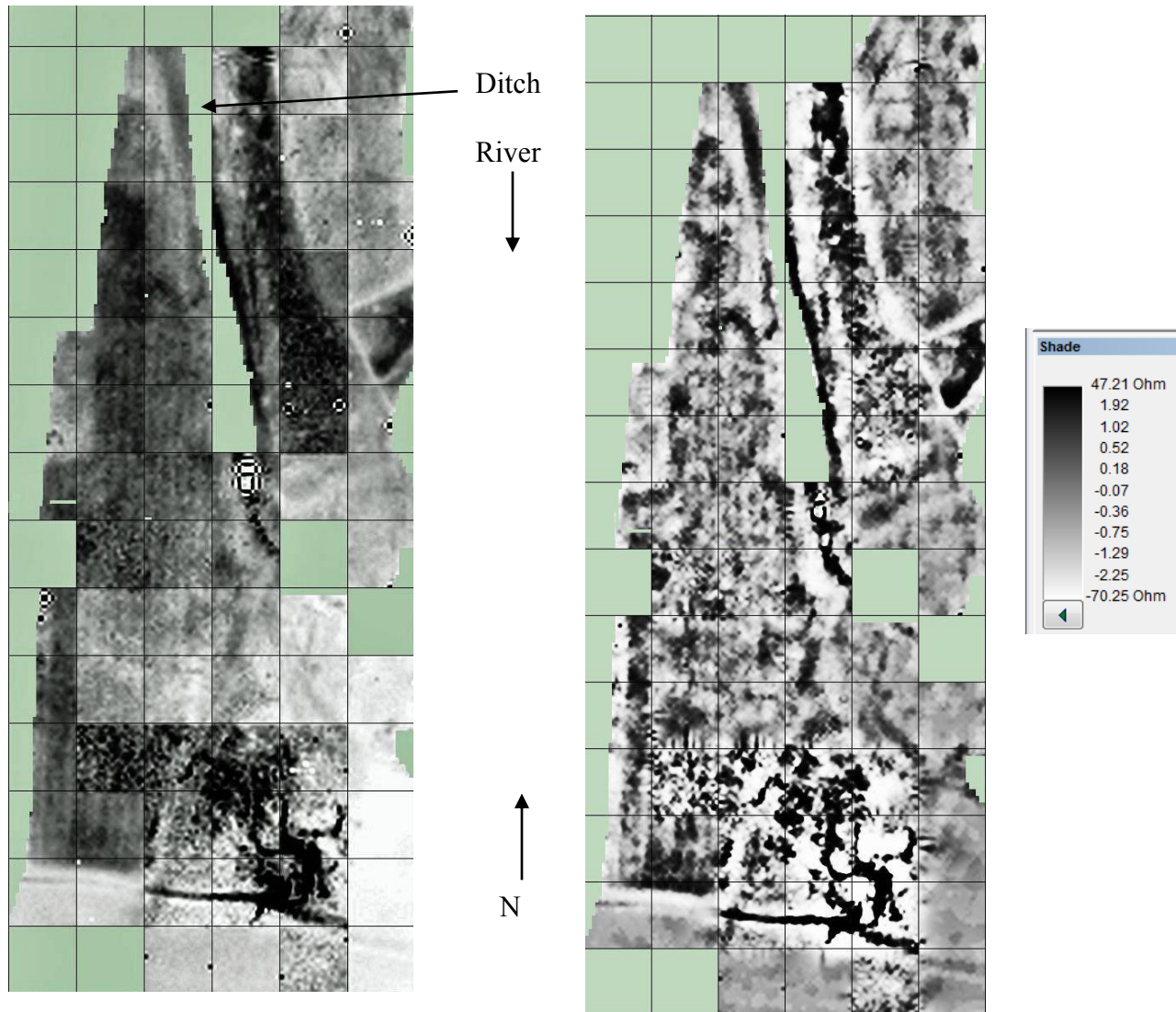
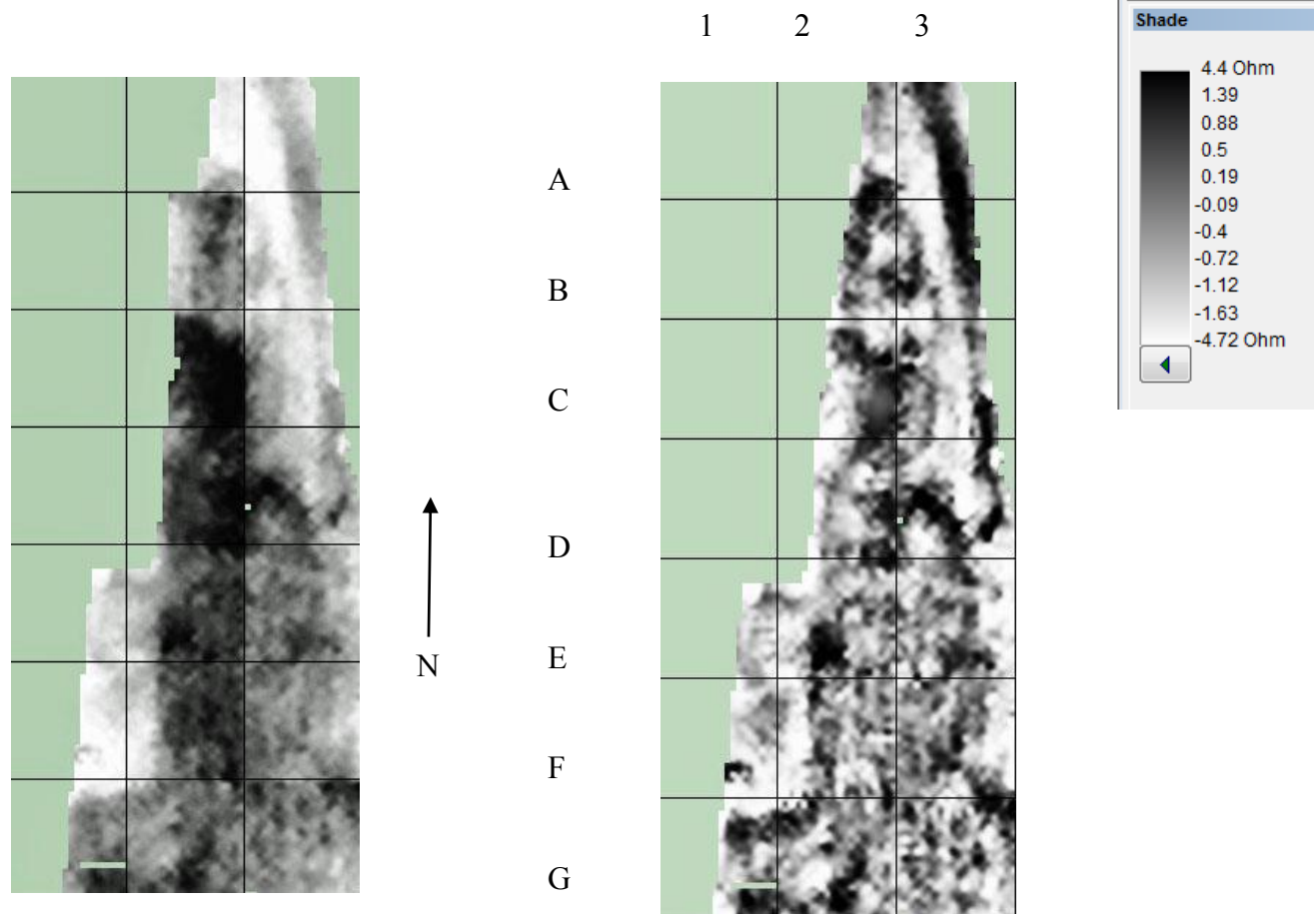


Fig 3: Terra Surveyor images. Shade view.
Left - Base image (Band Weight & Grad shade filters only)
Right - All filters including High / Low pass & Periphery Match filters.
High readings are black.

The surveys have revealed a large number of additional features to those revealed in 2010. In order to examine these in detail it has been necessary to split the field as below into:

- 1) Top Left (Left of ditch).
- 2) Top right (Right of ditch).
- 3) Bottom.

Top Left of field



*Fig 4: Terra Surveyor images of top left of field. High readings are black.
Left - Prior to addition of High /Low pass & Periphery Match filters.
Right - Including High /Low pass & Periphery Match filters*

The results shown in Fig 4 above reveal some interesting features including:

- 1) The black vertical line top left (A3 to D3) follows the edge of the ditch which therefore appears to have a stone edge.
- 2) D3 & E3 shows a feature in the form of a half crescent bisected by a horizontal line.
- 3) A strong thick vertical line in E2 & F2 turns into G1.
- 4) The bottom of E3 contains a circular feature.

Top right of field

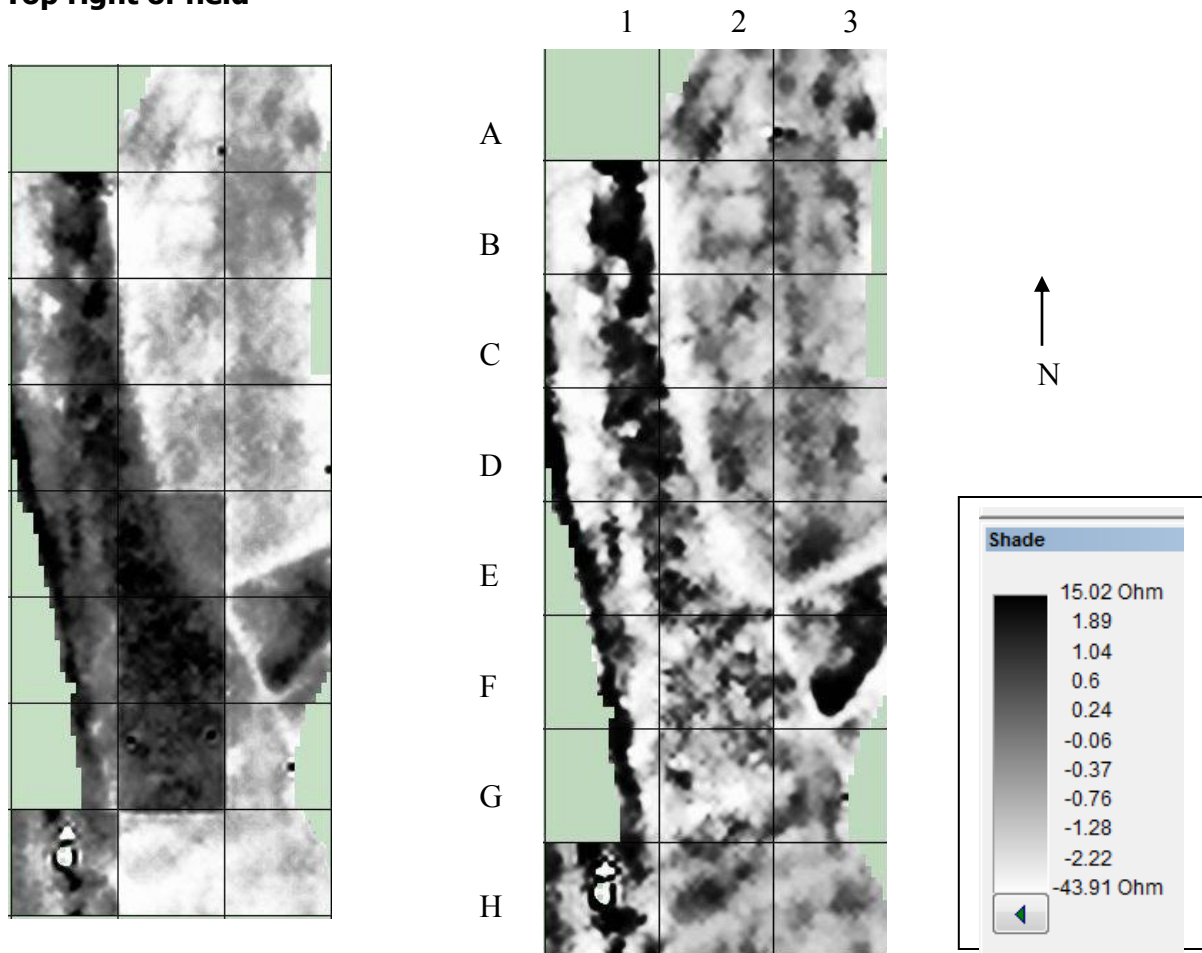
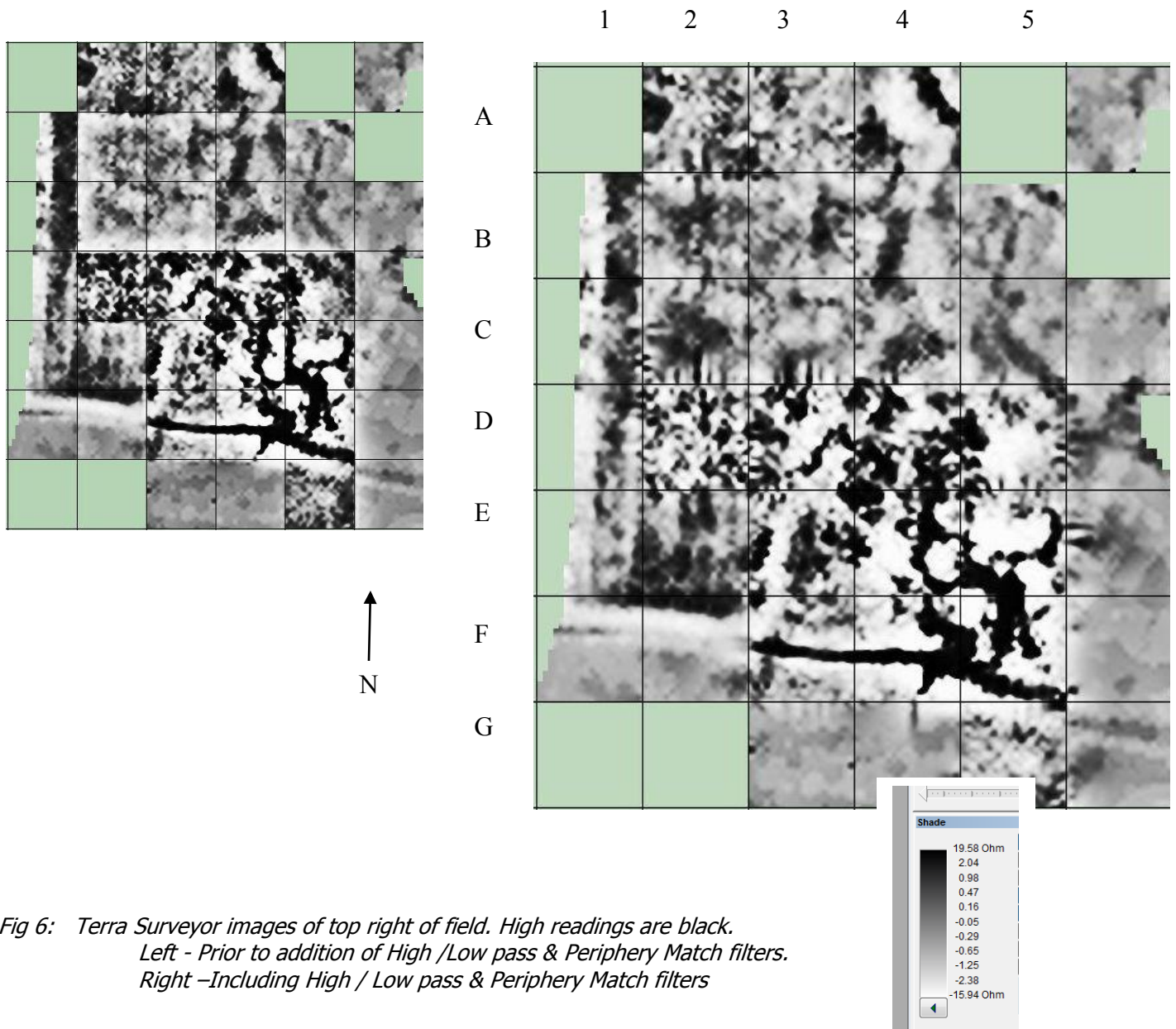


Fig 5: Terra Surveyor images of top right of field. High readings are black.
 Left - prior to addition of High /Low pass & Periphery Match filters.
 Right - including High /Low pass & Range match filters

The results in Fig 5 above includes the following features:

1. The black vertical line from C1 to G1 line follows the edge of the ditch and mirrors that to the left of the ditch.
2. A white vertical line from B1/2 to G3 has been recorded in the YCCART manual survey report 2012 /Y13, as "a lynchet, running from north to south and also curving eastwards at its lower end, with a drop of up to 0.5m, towards the east. It was suggested that these features indicated arable use of the upper part of the field at some time in the past."
3. White lines across E3 and F3 could indicate the remains of a grubbed out hedge row.
4. Parallel lines in the centre of A2 running west suggest possible drains or a track way lined with stones.

Bottom of field



*Fig 6: Terra Surveyor images of top right of field. High readings are black.
Left - Prior to addition of High /Low pass & Periphery Match filters.
Right -Including High / Low pass & Periphery Match filters*

The results in Fig 6 above show features reported in 2012/Y13, such as the ditch which is now shown to extend across F1 to F5. The possible stone lining to the ditch seems to have been grubbed out in F2.

Other features are evident including:

1. B3, B4 and the top of C4 contain a possible structure with wide walls.
2. C3 to F3 shows a vertical white line crossing the horizontal ditch in F3. This corresponds to the vertical ditch, highlighted by the red arrow in Fig 7 below, and recorded in the manual survey report YCCCART 2012 /Y13.

3. C5 show possible parallel black lines - ditch or trackway?
4. The grids D 3, D4, D5, E3, E4, E5 and F4 and F5, in Fig 6, show a series of potential structures including those reported in YCCCART 2012 /Y13.

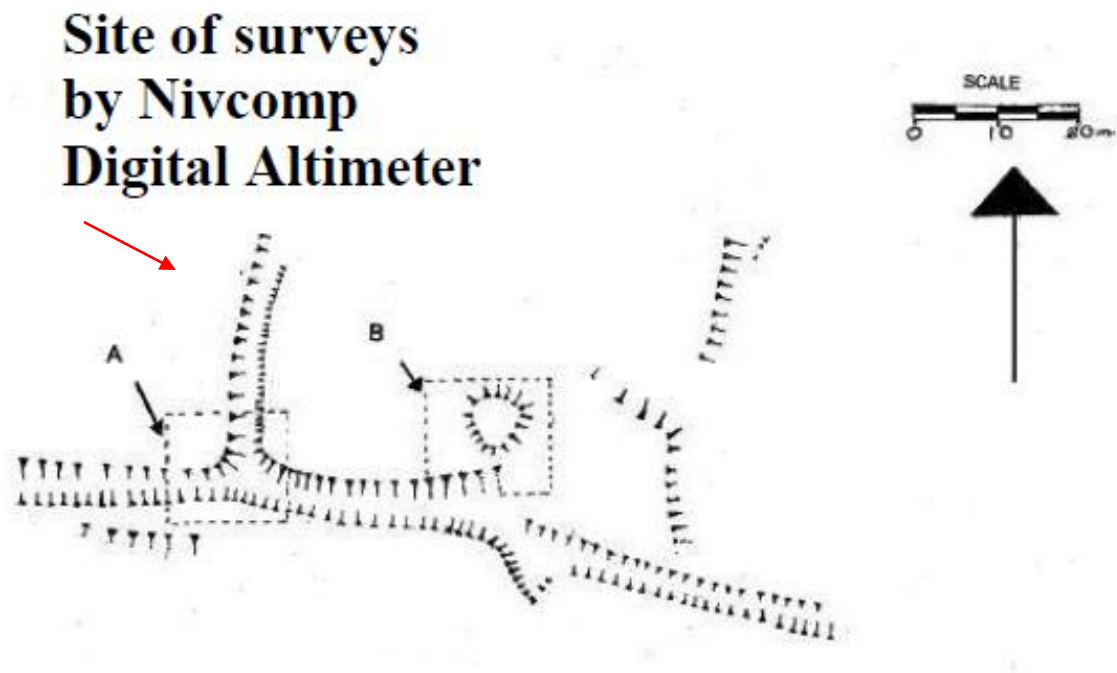


Fig 7: Manual survey of lower section of the field (Fig 2 in manual report)

Comparison between latest resistivity results and previous gradiometry results

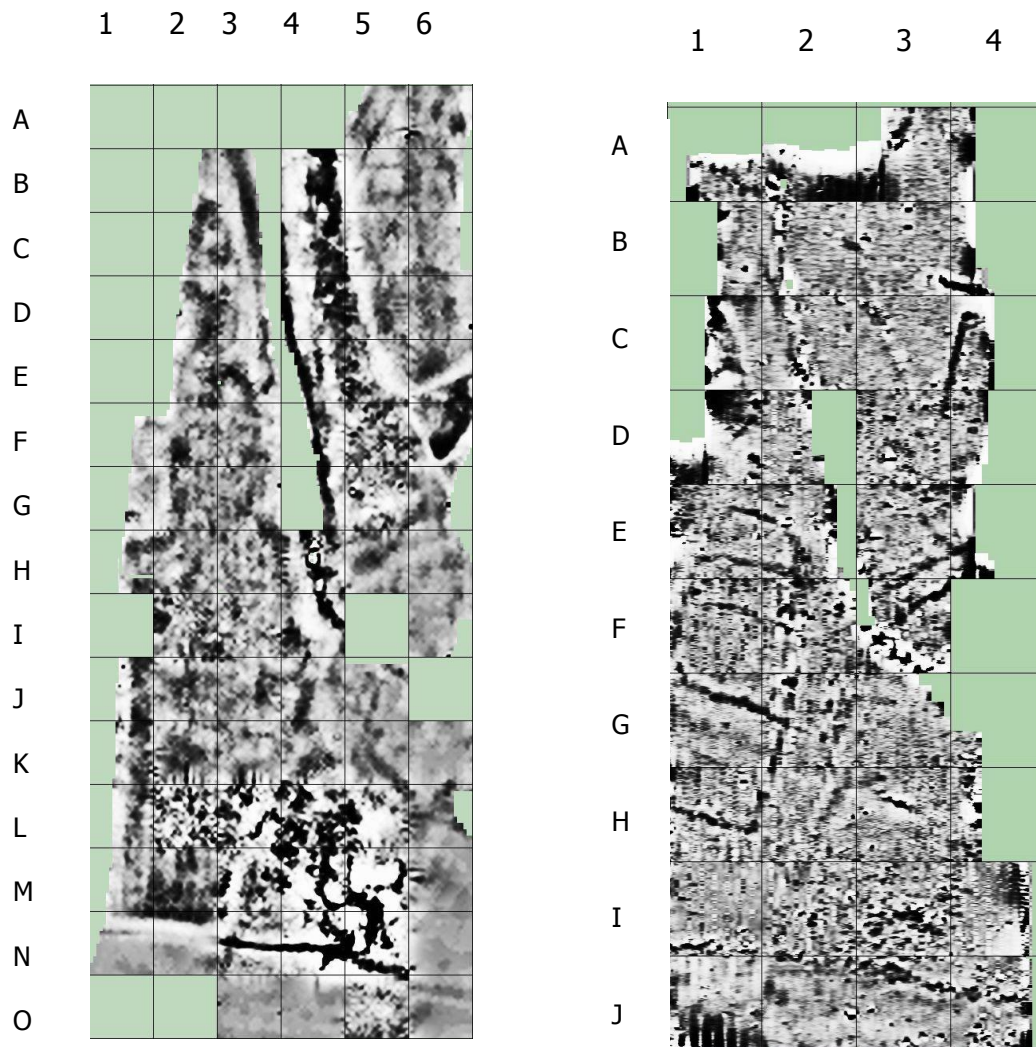
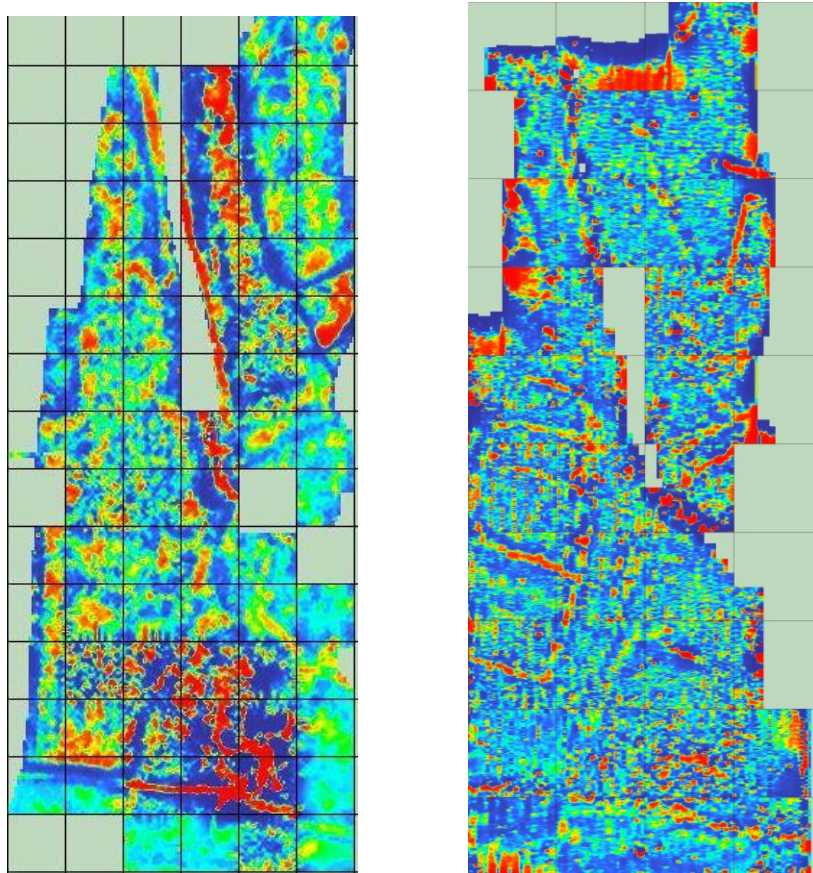


Fig 8: Left –resistivity result. Right – gradiometry result.

1. Resistivity survey grids H5 & H6 in Fig 8 contain a black line ending on a circular feature in H5. Above it is a parallel line. These features seem to relate to the parallel line in the gradiometry survey E3/4 and F3.
2. A black line in the resistivity survey at A5 is also shown in grid A3 on the gradiometry survey.
3. The ditch / leat showing horizontally across the resistivity survey N1 to N5 and O6 is also present in the gradiometry results grids I1, I2, J3 & J4.
4. The possible vertical trackway shown in the gradiometry survey grids G3, H2, I2 & J2 is also evident in the resistivity grids J4, K4, M3 & N3.



*Fig 8: TerraSurveyor abd ArchaeoSurveyor colour shade view.
Left –resistivity result. Right – gradiometry result.*

The colour images in Fig 8 above mirror the results outlined above.

Recommendations

Consideration should be given to undertaking a small excavation of one of the possible buildings to establish dating evidence.

References

Bedingfield, G. 1996	<i>Iwood, How long has it existed as a discrete settlement unit and how did this affect its economy</i> , MA Dissertation. Bristol University 1996).
Broomhead, R.A. (in prep)	<i>Congresbury, the History of a Landscape</i> Unpublished manuscript in the YCCCART archive

Author. Chris Short

Date. March 2013

Appendix 1

YCCCART Site Survey		
Project – Collins 2 (2012)		
Survey date	20 September 2012 – 28 March 2013	
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	20 Sept. Cloudy & dry 4 Oct. Clear, grass wet 18 Oct. Showers, grass very wet 25 Oct . Cloudy, grass very wet 8 Nov. Cloudy, grass very wet 15 Nov. Cloudy./ sunny, grass very wet 3 Jan. Overcast, damp- ground very wet in places. 10 Jan. Overcast, ground very wet in places. 17 Jan: Overcast, ground wet / icy in places. 14 Feb: Sunny, ground very wet. 21 Feb: Sunny very cold, ground frosty 28 Feb: Overcast, ground mainly dry 14 March: Sunny and dry 28 March: Sunny, dry, cold.	
OS Ref or Lat-Longitude	See below	
Site name	Collins 2	
Landowner		
Tenant		
HER ref		
Site type	?	
Description		
Period		
Geology	See report	
Land use	Grazing	
Survey team	20 Sept: David Long, Chris Short, John Wilcox, John Haynes, Pete Wright, Colin Campbell, Unsal Hussan, Phillips Cormack, Judy Sacks, Maggie Rosevink & Brian Wills. 4 Oct: David Long, John Wilcox, John Haynes, Pete Wright, Pete English. 18 Oct: David Long, John Haynes, Pete Wright, Pete	

		<p><i>English, Vince Russett, Chris Short, Janet Dickson, Geoff P25 Oct: David Long, John Wilcox , Pete Wright, Pete English, Vince Russett, Chris Short, Brian Wills, Mike Fox & Ferdi.</i></p> <p><i>8 Nov: David Long, John Wilcox , Pete Wright, Pete English, Vince Russett, Chris Short, Susan Farrell.</i></p> <p><i>15 Nov: David Long, John Wilcox , Pete Wright, Chris Short, Susan Farrell.</i></p> <p><i>6 Dec: David Long, Pete Wright, Pete English, Vince Russett, Chris Short, Ferdi.</i></p> <p><i>3 Jan: David Long, Brian Wills, John Haynes (part of time), Chris Short, Geoff Pearson (part of time) & John Wilcox.</i></p> <p><i>10 Jan: David Long, John Haynes, Chris Short, John Wilcox & Pete English.</i></p> <p><i>17 Jan: David Long, John Haynes, Chris Short, John Wilcox, Pete English, Brian Wills.</i></p> <p><i>14Feb: David Long, John Haynes, Chris Short, Brian Wills, Maggie Rosevink.</i></p> <p><i>21 Feb: David Long, Chris Short, Pete English, Pete Wright & Vince Russett.</i></p> <p><i>28 Feb: David Long, Chris Short, Pete English, Pete Wright & John Haynes.</i></p> <p><i>14 March: Pete Wright, Chris Short, Colin Campbell & Vince Russett.</i></p> <p><i>28 March: David Long, Chris Short, Vince Russett, Geoff Pearson & Unsal Hassan.</i></p>				
Survey area		Notes		Readings		
		Size	Walk direction			
20 Sept	Grids 1 to 4	20x20m	W			
4 Oct	Grids 1 to 3 <i>2 lines missing -ditch</i>	20x20m	W			
18 Oct	Grid 1 to 3 Grid 4 (Part grid)	20x20m 20x20m	W E			
25 Oct	Grid 1 Grid 2 Includes shed – hence	20x20m 20x20m	W E			

	part grid <i>Grid 3 Abortive</i> Grid 4 (Part grid – hedge) Grid 5 (Part grid hedge)	20x20m 20x20m	E E			
8 Nov	Grid 1 Grid 2 Grid 3 Grid 4	20x20m except G1 truncated by hedge and G4 by stream.	E W W E			
15 Nov	Grid 1 Grid 2 Grid 3 Grid 4 Grid 5	20x20m Abortive 20x20m 20x20m 20x20m Grid 5 only whole grid – rest cut into by hedge	E E W W			
6 Dec	Grid 1 Grid 2 Grid 3	20x20m 20x20m 20x20m	W W W			
3 Jan	Grids 1-3 All grids terminated by ditch full of water at about the 13m mark.	20x20m	E			
10 Jan	Grids 1-2 Grid 3 Grid 3 only whole grid. Grid 2 almost complete	20x20 20x20	E W			

17 Jan	Grids 1-4 Grid 1 complete, grid 2 almost complete, grids 3 & 4 terminated by hedge about the 14m mark.	20x20	W			
14Feb	Grid 1 Grid 2 Both grids truncated on west by hedge Area to north too wet to survey.	20x20 20x20	W W			
21 Feb	Grids 1 to 4 Grids 2 & 4 truncated by hedge	20x20	W			
28 Feb	Grids 1 & 2	20x20	W			
14 March	Grids 1 to 3 All grids truncated by hedge	20x20	W			
28 March	Grids 1 -3 All grids truncated by hedge	20x20	W			
Summary		Downloaded as: ArcheoSurveyor: <i>Resistivity / Collins 2 2012/Iwood to 280313</i> Snuffler : <i>snuffcollins2012 to 280313</i>				

Grid layout

18 Oct G1	22 July G1	28 Feb G1	28 Feb G2	Ground wet	
18 Oct G2	22 July G2	29 July G1	12 Aug G3	21 Feb G3	21 Feb G4
18 Oct G3	22 July G3	29 July G2	12 Aug G5	21 Feb G1	21 Feb G2
18 Oct G4	12 Aug G1	12 Aug G2	19 Aug G1	19 Aug G2	14 Mar G1
25 Oct G1	4 Oct G1	2 Sep G1	20 Sep G4	20 Sep G3	14 Mar G2
Ditch	4 Oct G2	2 Sep G2	20 Sep G2	20 Sep G1	14 Mar G3
25 Oct G2	Ditch	16 Sep G1	21 Oct G1	21 Oct G2	Fallen tree
25 Oct G4	4 Oct G3	16 Sep G2	18 Nov G2	18 Nov G1	28 Mar G1
25 Oct G5	25 Nov G1	13 Dec G5	10 Jan G3	17 Jan G1	28 Mar G2
8 Nov G1	25 Nov G2	13 Dec G4	10 Jan G2	17 Jan G2	28 Mar G3
8 Nov G2	25 Nov G3	13 Dec G3	10 Jan G1	17 Jan G3	Hedge
8 Nov G3	6 Dec G1	13 Dec G2	3 Jan G3	17 Jan G4	Hedge
8 Nov G4	6 Dec G2	13 Dec G1	3 Jan G2	14 Feb G1	Hedge
15 Nov G1	15 Nov G5	6 Dec G3	3 Jan G1	14 Feb G2	Hedge
15 Nov G3	15 Nov G4				

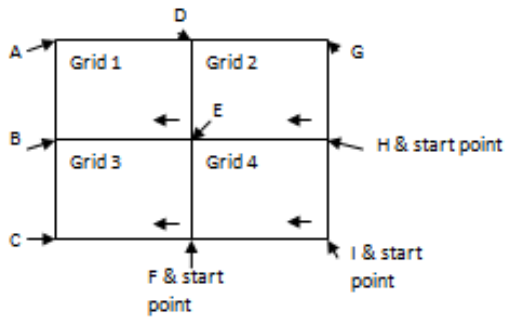
↑
N

River
↓

Red grids walked east. Rest west

GPS

Grids 20 September 2012

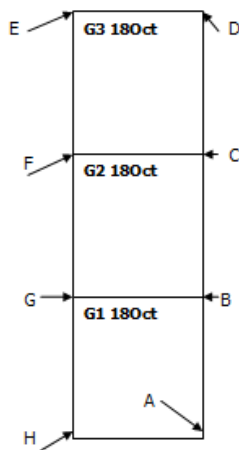


GPS

All grids walked WEST

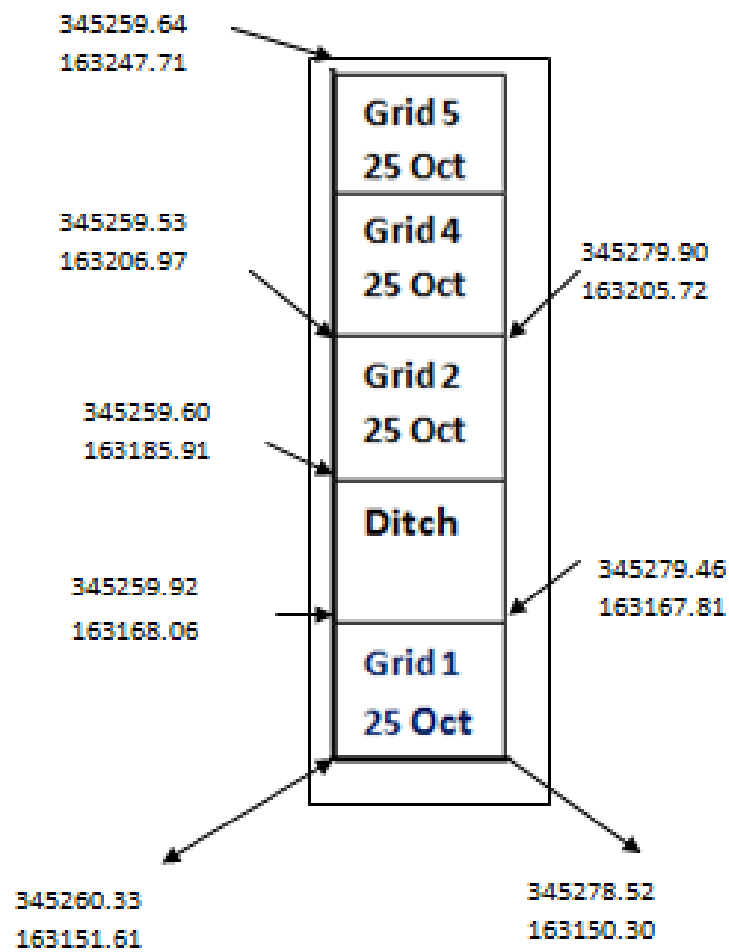
A	345179.23	163189.63
B	345178.81	163169.73
C	345178.30	163151.12
D	345199.34	163190.27
E	345198.96	163169.96
F	345197.31	163146.78
G	345218.98	163189.82
H	345219.14	163170.04
I	345218.49	163149.85

Grids 18 October 2012

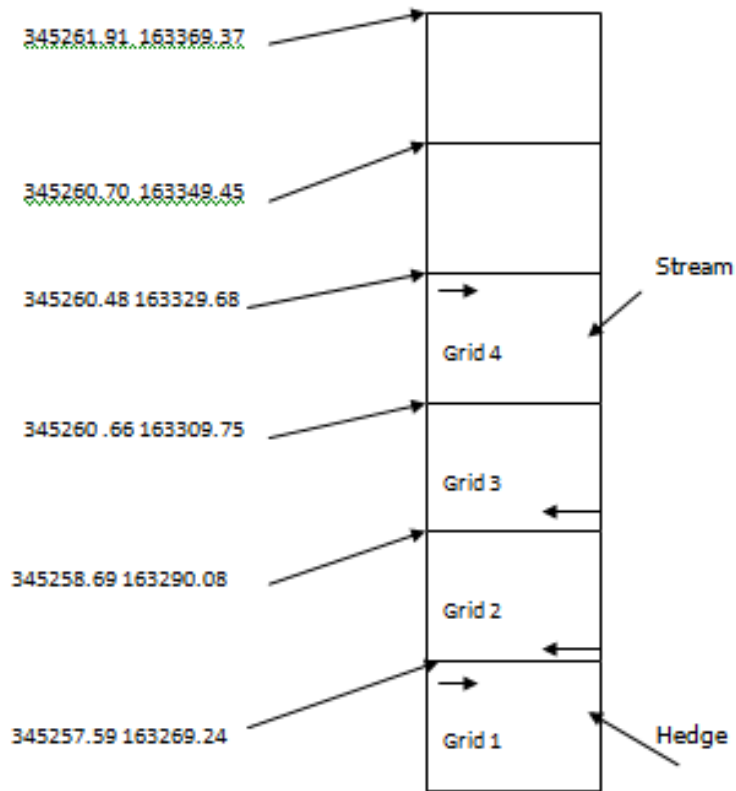


A	345277.30	163067.27
B	345277.490	163086.60
C	345277.32	163106.74
D	345277.02	163126.70
E	345257.80	163123.69
F	345257.90	163103.65
G	345257.70	163083.86
H	345257.43	163063.86

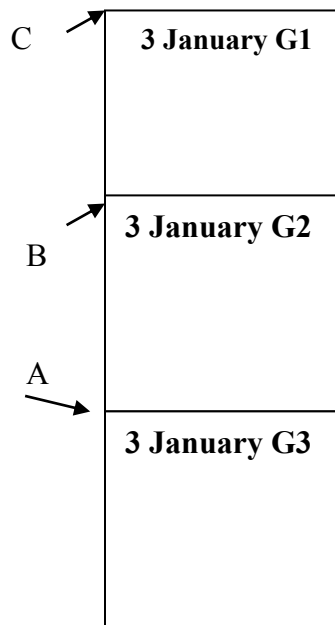
GPS 25 October 2012



GPS 8 November



3 January 2013



A: 345200.20 163290.60

B: 345200.50 163310.40

C: 345201.70 163329.65

21 Feb 2013

