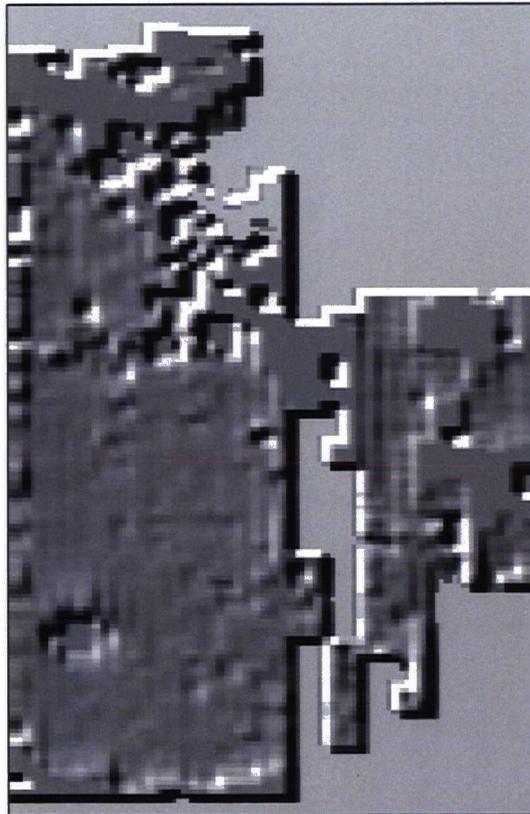


# The Landscape Research Centre

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NYCC HER	
SNY	10910
ENY	3097
CNY	5295
Parish	3106
Rec'd	22/2/06

## Fluxgate Gradiometer Report



LAND REAR OF 34-38 SCARBOROUGH ROAD, RILLINGTON  
Project Name : Rillington Site 197

Date: 17 February 2006

E3097

S10910-

## Summary

The Landscape Research Centre (LRC) carried out a fluxgate gradiometer survey on behalf of MAP Archaeological Consultants at Rillington, North Yorkshire, in what is now a grassed over area and the southern part of a garden. The surveyed area is centred around National Grid Reference SE 85522/74433. The magnetic response of the site was marred by the presence of a number of very strong anomalies, probably related to modern activity, although two very faint linear anomalies may be of archaeological significance

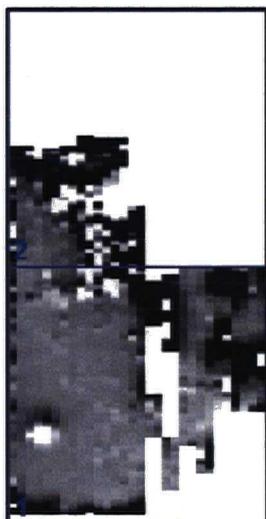
## Methodology

The survey was conducted using a *Bartington Grad 601-2* fluxgate gradiometer. The zigzag traverse method of survey was used. The survey was conducted by taking readings every 25cm along the north-south axis and every metre along the east-west axis (thus 3600 readings for each 30m by 30m grid). The sensitivity of the machine was set to detect magnetic variation in the order of 0.1 nanoTesla. The data has been processed and presented using the programs G-Sys (an in-house developed Geographic Database Management program which can also display, process and present digitised plans and images). This report was produced using Microsoft Word 2000 and Adobe Photoshop 6 for further image manipulation. The background aerial photograph is from the Getmapping.com website.

The survey was carried out on 17<sup>th</sup> February, 2006. The area surveyed was split into two by a hedge line running down the centre., with the eastern part a grassy pasture and the western part a the southern half of a lawn. Obstacles encountered were the hedge down the centre of the area, trees in the southern part of the area and sheds and iron washing line poles in the western half. The surveyors were James Lyall and Chris Fern. The total area surveyed was 0.096 hectares. The south-western corner of the surveyed area was adjacent to the end of a wooden fence, which does not quite reach the southern limit of the area. The NGR for the south-west corner of the surveyed area is SE 8551907/7440858.

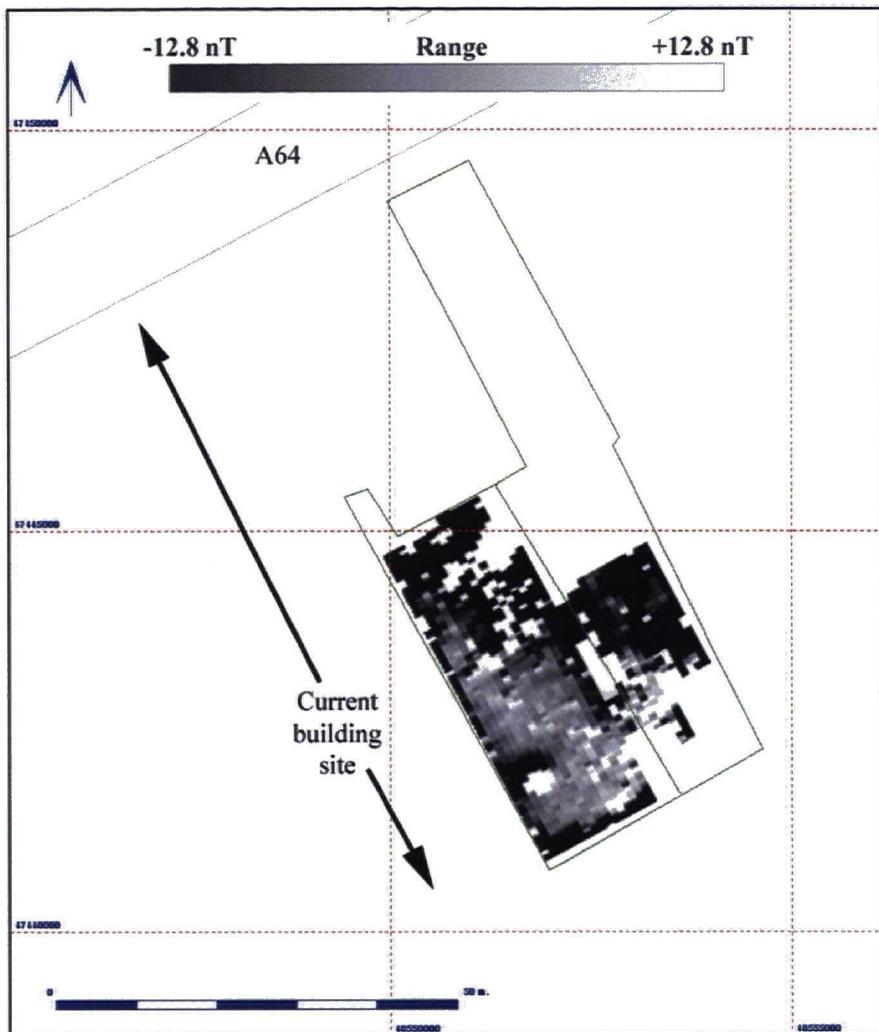
The survey data has been geo-referenced, to allow a correlation of the geophysical anomalies with any archaeological features detected. This was done by tying in the north-east and south-eastern corners of the survey with the nearest field boundaries.

## Gradiometer Results and Interpretation



The survey results will be discussed using anomaly numbers. The results of the survey are displayed in two ways, both as a greyscale image and as an interpretive plan. The greyscale image (Figure 2) indicates both positive and negative magnetic anomalies (lighter and darker areas in the greyscale image). The interpretative plans are displayed both against an aerial photographic background (from Getmapping.com in Figure 3) and as a separate drawing (Figure 4). Also included is an A4 sheet (Figure 5) at a scale of 1:300.

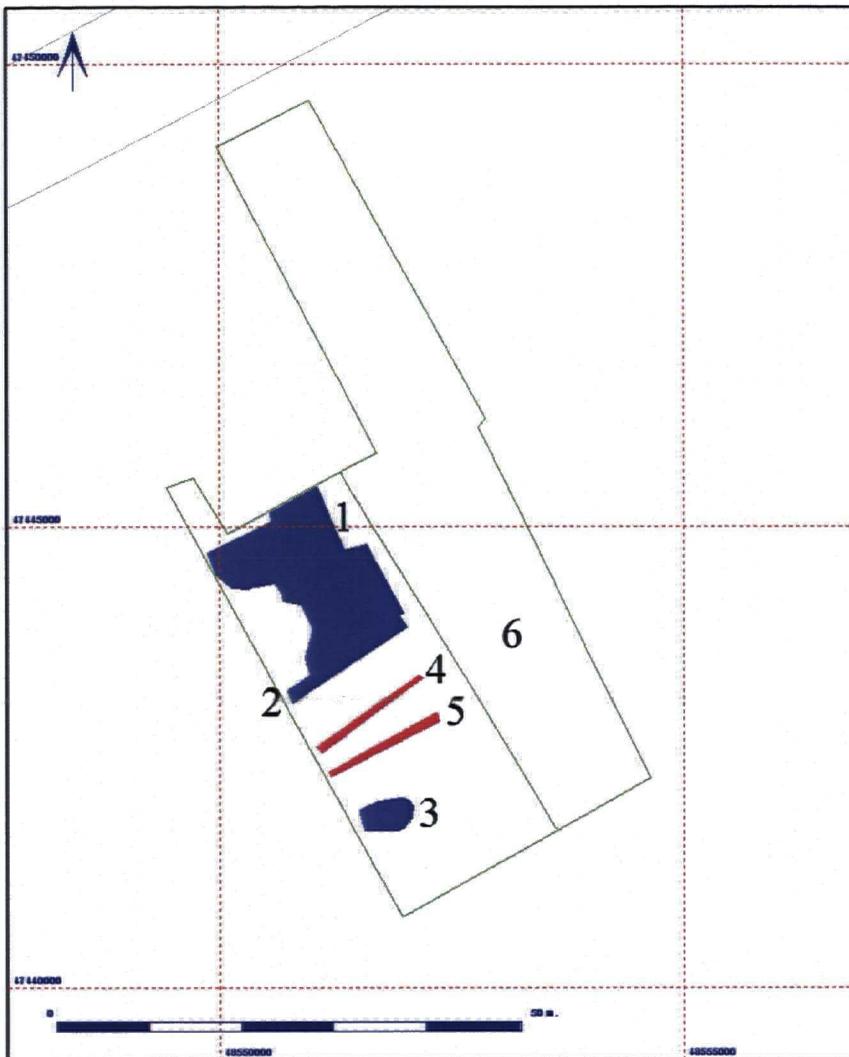
**Figure 1** A greyscale image of the raw magnetic data, with 30 metre grids superimposed.



**Figure 2** A georeferenced greyscale image of the survey data



**Figure 3** Interpretive plan of the survey data, on a Getmapping aerial photographic background



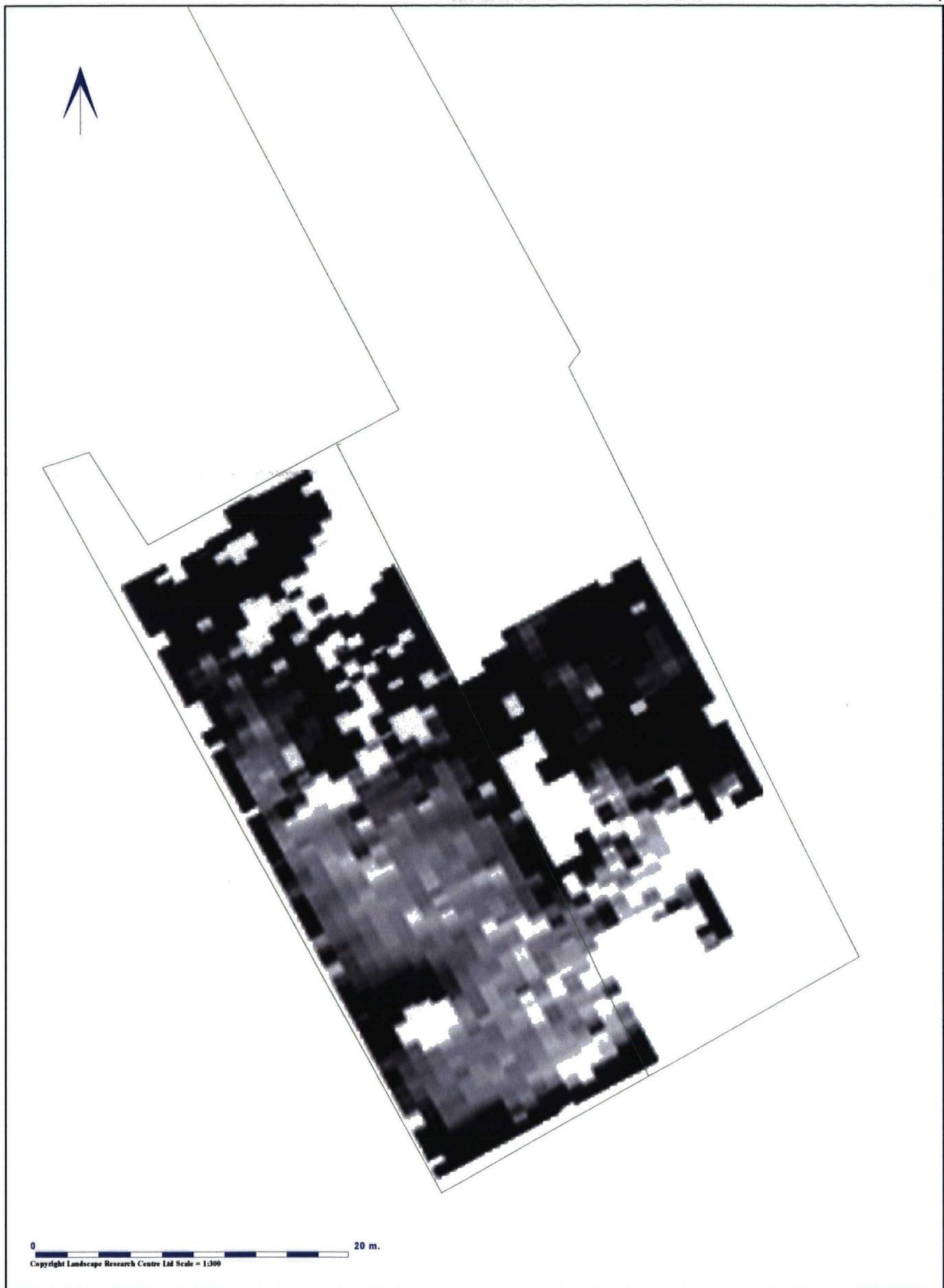
**Figure 4** Interpretative plan of the anomalies

The most obvious features of the survey are the high magnetic readings obtained from a number of areas around the edges of the surveyed area. Marked **1** on Figure 4 is the largest of these. It relates to a slightly raised area on the ground, probably indicating the presence of building rubble at this point. Number **2** is a very strong linear anomaly, which might be a pipeline. Number **3** is a strong localised anomaly, once again almost certainly of relatively modern origin. The entire western part of the surveyed area (number **6**) was a strong negative anomaly, caused by the presence of sheds in the south and a line of concrete and iron washing lines up the centre of the area.

The two linear anomalies numbered **4** and **5** are the only potential archaeological anomalies found within the surveyed area, although this interpretation must remain tentative to say the least, as the strong magnetic signals around these two have the effect of completely drowning out more subtle anomalies.

## Conclusions

In conclusion, it can be stated that although the magnetic susceptibility of the site was reasonable, the strong magnetic signals caused by relatively modern activity tended to swamp the potential discovery of any underlying archaeological features.



**Figure 5** The geophysical survey at a scale of 1:300