

Dates of fieldwork : 28 - 31st. March 1983  
28 - 9th. June 1983

NG Ref. : ST 5026

This report describes the magnetometer survey carried out in two fields (0005 and 0153) to the east of the excavated areas of the Romano-British settlement at Catsgore. Previous surveys (described in A. M. Lab. Report G 36/77) provided evidence of the plan and extent of the settlement to the north and north-west of the excavations, but only some preliminary scanning was done to the east. This indicated the presence of a ditch, probably in square 33 of the present survey, and other features were noted in the trench for the water pipe laid in 1978.

The 30 m. site grid shown on the plan was measured to the concrete posts marking the line of the water pipe, and to the field boundary. The plan also gives the results of the 1983 survey reduced from the initial 1 : 200 field charts and with an interpretation added in red. The results from sqs. 1 - 13 were described in the earlier report and are not included here. The procedure for each survey was similar, with traverses plotted at 1.0 m. intervals using a fluxgate magnetometer and chart recorder.

The findings from the two fields (areas 1 and 2) were as follows:

Area 1 (field 0005):

The plot shows the presence of magnetic anomalies which can be interpreted as a rather incomplete representation of ditches, pits and other features likely to be associated with a settlement of the kind excavated. The excavation to the west of the survey produced several groups of buildings with spaces between, and the detected anomalies may be similarly distributed. There are concentrations at the north-western corner of the survey (square 16), in sqs. 27, 28, 30, 31, and at the south-western corner (sq. 39). Elsewhere the anomalies are weaker, but there are pit-like features and ditches which appear to have been only intermittently detected. The blank areas in the survey were caused by a stone-heap in sq. 36 and a strong disturbance, perhaps representing a recently filled pit in sq. 20. There is interference to about 8 m. from the water pipe.

The magnetic activity in the field is nowhere quite as intense as in sqs. 8 and 9 in the 1978 survey. This is likely to be a genuine effect if the evidence of the soil magnetic susceptibility values is considered. Topsoil samples from field 0005 gave readings of 92 and 81 ( $\times 10^{-8}$  SI Units/Kg.) compared with 27 (SI, or  $21.5 \times 10^{-6}$  emu/gm. as quoted in the report) for field 7470. Susceptibility values are likely to vary widely across the site in response to the underlying archaeology and other factors, but these figures show that at least in parts of field 0005 there is a strongly magnetic soil which should respond well to the magnetometer.

In these conditions stone wall footings might well be detectable. A number of pronounced negative anomalies are visible on the chart, and some are shown in the interpretation by broken lines. These anomalies could indicate substantial limestone wall footings which displace enough soil to create a local decrease in magnetic field strength. It is uncommon for anomalies of this kind to be detectable, and they cannot always be distinguished from superficial furrows. None were seen in sqs. 1 - 13 of the earlier survey, but conditions in field 0005 appear to be suitable. There are some particularly distinct negative anomalies which appear to form rectangular outlines in sq. 16. Others are marked in sqs. 18, 28, 31 and 32 but they are not as clear or coherent.

Other anomalies marked in this field in addition to the ditches could be pits or larger deposits of domestic or building debris. Some of the stronger anomalies especially in sqs. 30 - 31 might be of industrial origin, and there is a very strong anomaly outlined in sq. 30 which could be a kiln.

Area 2 (field 0153):

This field has provided surface finds of prehistoric pottery, and activity here might pre-date that of Area 1. The survey shows strong magnetic activity (shaded) suggesting that the site has been intensively occupied. There are numerous pits and fragments of ditches, at least one of them circular. There are no clear negative anomalies of the kind seen in Area 1, although a stone wall was recorded in the water pipe trench. No limit has been established to the site which could extend well beyond the area surveyed.

Conclusions:

Features associated with the Romano-British settlement appear to extend through much of the area surveyed in field 0005. This area to the east of the road through the settlement has produced evidence of activity and buildings perhaps similar in character and distribution to those excavated on the western side of the road. Only limited evidence for intensive occupation was obtained, and this might have been restricted to only parts of the site. Some industrial activity might also have occurred. Wall footings appear to have been detected, although the response to them in a magnetic survey is unlikely to be everywhere reliable.

In Area 2 the character of the site changes and there is more intensive disturbance with a greater concentration of sub-surface features. Findings of this kind might well indicate earlier activity, as the surface finds suggest.

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24th. October 1983

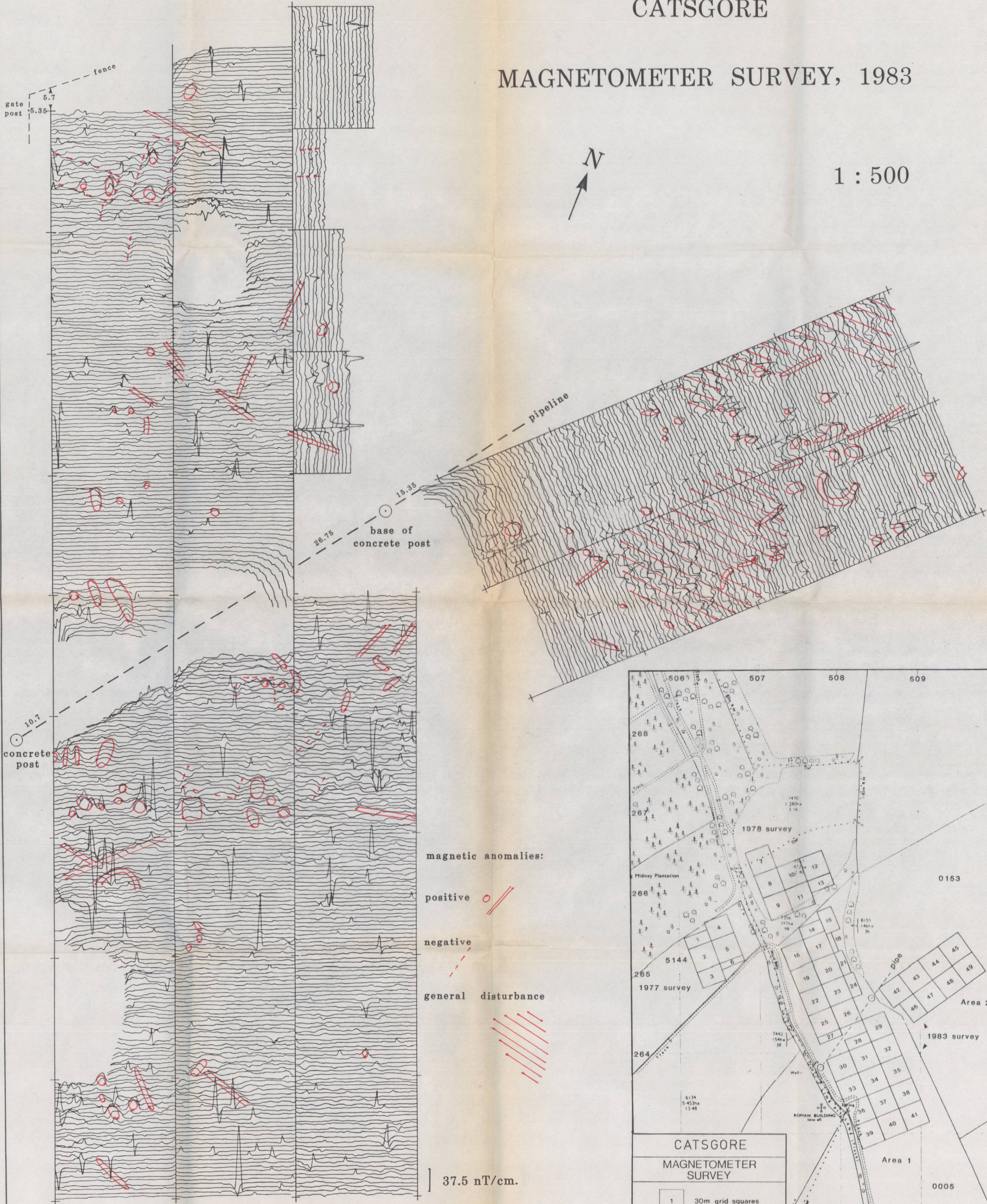
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# CATSGORE

## MAGNETOMETER SURVEY, 1983

1 : 500



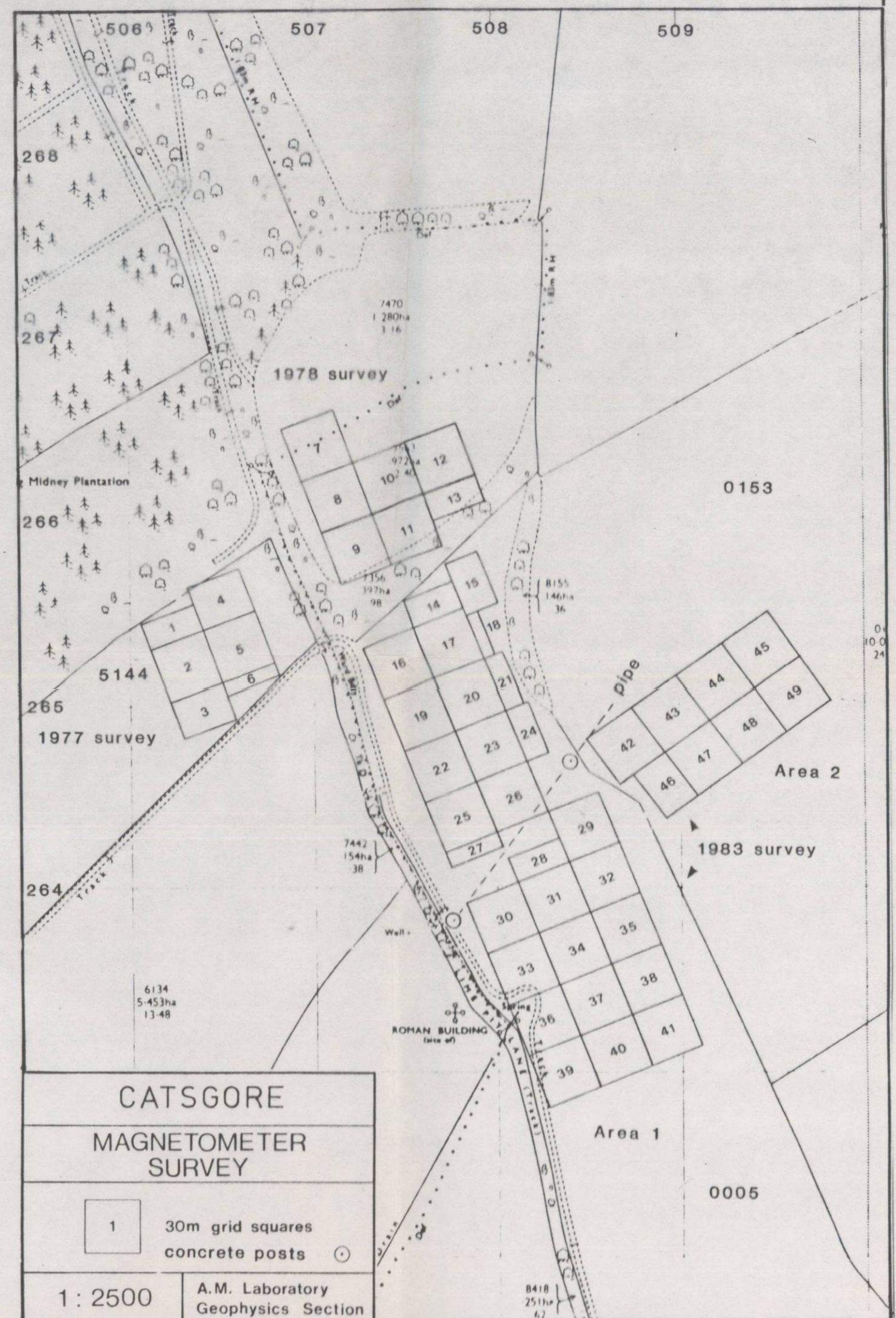
magnetic anomalies:

positive

negative

general disturbance

37.5 nT/cm.



CATSGORE

MAGNETOMETER SURVEY

1 30m grid squares  
concrete posts

1 : 2500

A.M. Laboratory  
Geophysics Section