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SNY	19180
ENY	6409
CNY	
Parish	4034
ON'd	1993

**Landscape Research Centre**

**Magnetometer Survey**

**Carr Hill Lane, Sleights, North Yorkshire**

**8 April 1993**

**Summary :**

A magnetometer survey was carried out by the Landscape Research Centre for Alison Clarke prior to development work by the owners of the site. The survey was not able to establish the absence or presence of any archaeological activity due to a number of adverse factors (discussed in detail below).

**Report :**

The subject of this report is the discussion of the results of a magnetometer survey carried out on behalf of Alison Clarke. The site in question is a plot of land just off Carr Hill Lane, Sleights, North Yorkshire. The survey was conducted using a *Geoscan Research* fluxgate gradiometer (model FM18), hereafter referred to as a magnetometer. 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. The magnetometer was set to take readings at 0.1 nanoTesla. A Commodore laptop computer was used for dumping the data. The data has been processed and presented using the programs GeoImage (a program dealing with the processing of geophysical data) and Geosys (a program which can display, process and present digitised plans and images). Figure 1 is a presentation of the magnetometer data at a scale of 1 : 500. Figure 2 is the interpretation of the magnetometer data at a scale of 1 : 500. Two further printouts on A4 sheets have also been provided giving the plan of the site at a scale of 1 : 1250.

The survey was carried out on 8th April 1993. The personnel involved were James Lyall and Heather Clemence. The survey area was bounded on the north, west and south by fences and on the east by an area which had a large amount of scrap metal lying on the surface, thus rendering it unlikely to yield sensible magnetometer results. There was scrap iron found at various points around the site, and although we tried to remove most of this, more scrap iron was buried just under the soil. An electric power pylon was situated to the south west of the first grid, and we were told by the owner that power cables from this pylon also ran under the site. Piles of bricks were also visible, and it proved impractical to try to move these by hand, and fragments of bricks were scattered around the site.

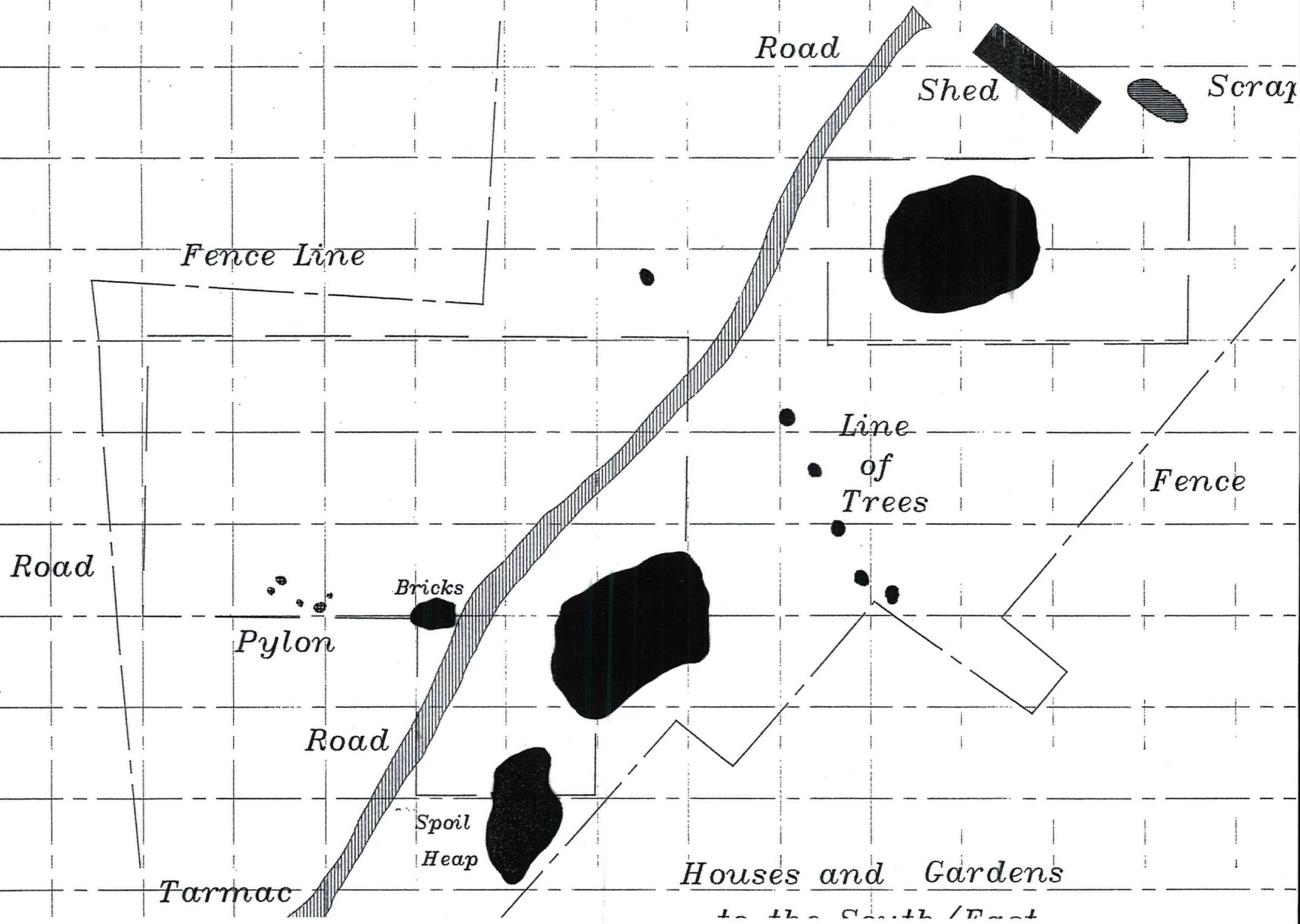
When starting the survey an arbitrary reference point of *easting* 5000 cm / *northing* 5000 cm was assigned to the westernmost point of the grid. The grid itself consisted of two 30m squares and three 20m squares. The survey was carried out using two separate grids enforced by the topography of the area. The total area covered by the survey was 3000 sq. metres or 0.3 hectares.

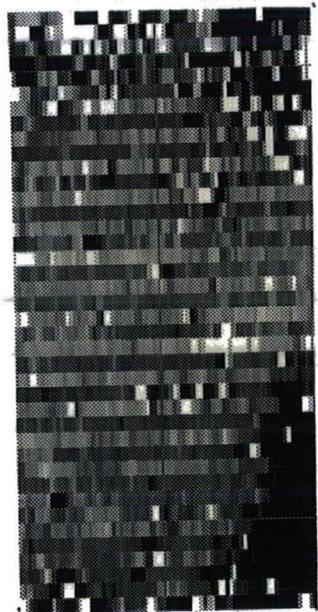
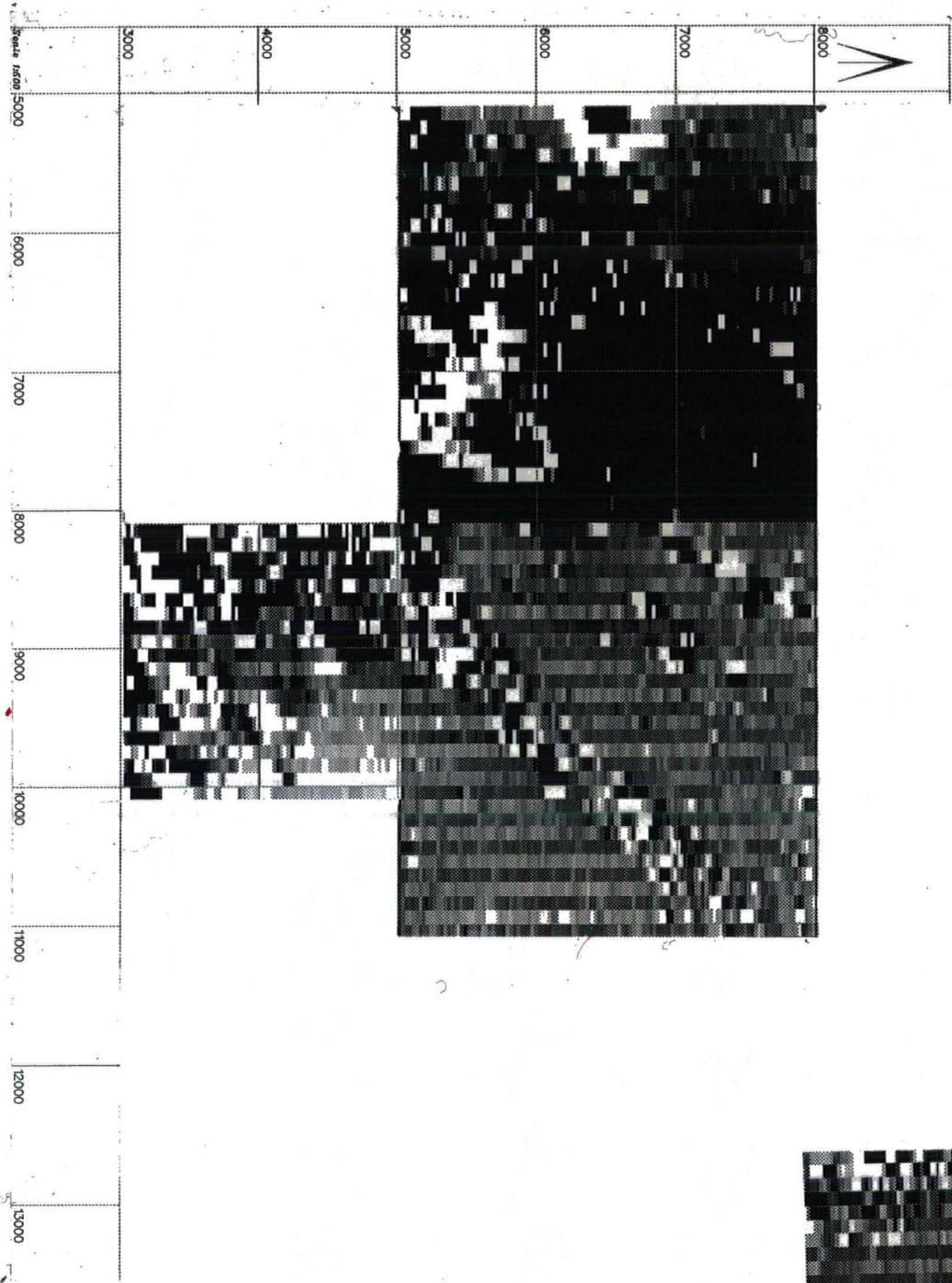
**The magnetometer data: (Figure 1)**

This is a plan at a scale of 1 : 500 which gives the actual magnetometer data displayed as an image using a bandwidth of 255 and a grey scale with 255 greys. The data has been augmented in order to show up any anomalies. This was done in order to try to counteract the effects of various strong signals caused by scrap iron, pylons and underground power cables and piles of bricks, all of which have an extremely detrimental effect on magnetometer surveys.

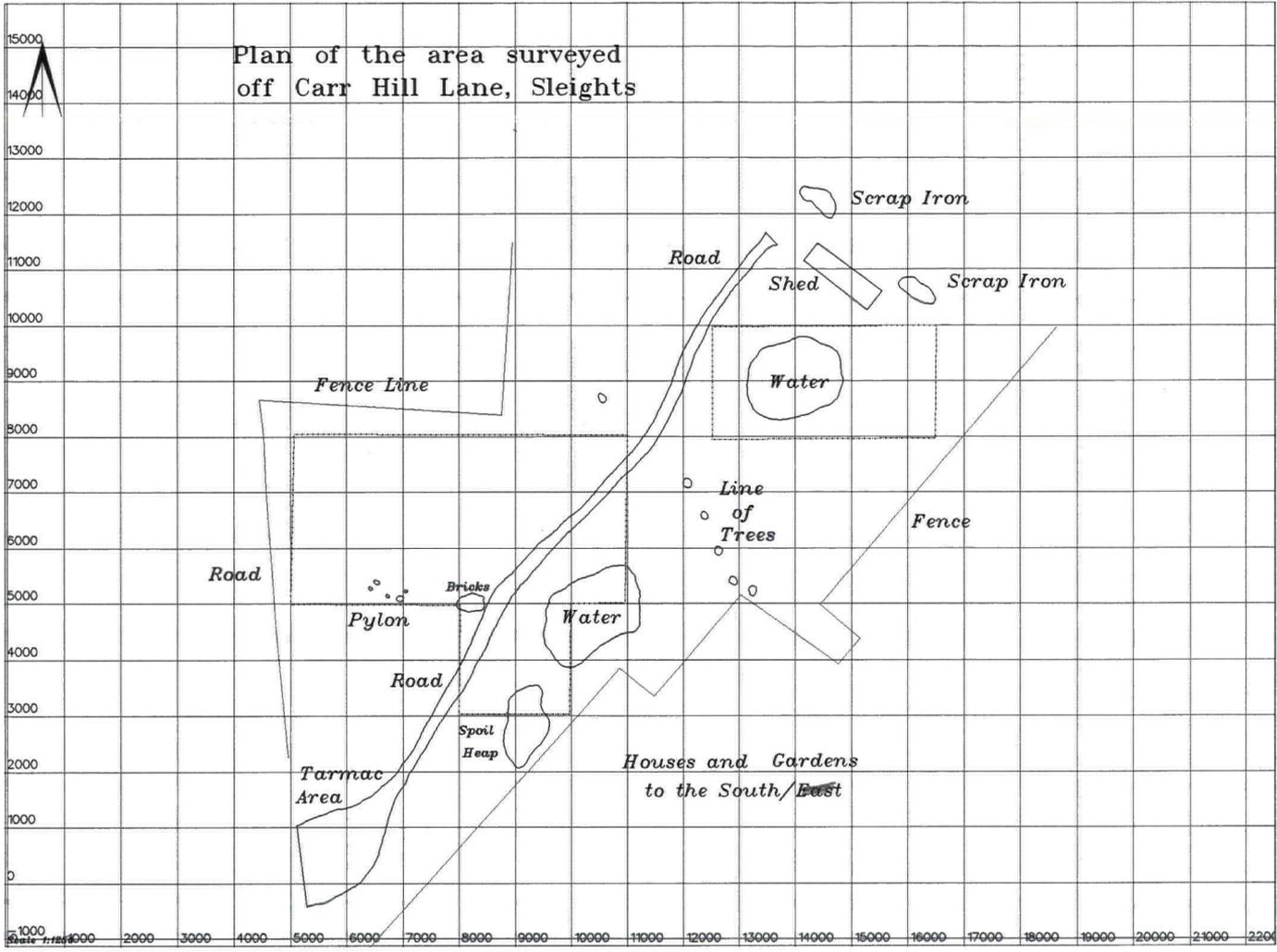
**The digitised plan: (Figure 2)**

The digitised plan consists of digitised features of the surveyed area. The digitised plan is also at a scale of 1 : 500. While normally the plan would also have the interpretation of archaeological features as digitised entities, it was felt on this occasion that as all the anomalies visible on the magnetometer survey could be explained by the presence of modern features, it would be sufficient to detail these on the plan.





Plan of the area surveyed  
off Carr Hill Lane, Sleights



**Interpretation:**

The most obvious feature on the magnetometer survey is the line running in a north-easterly direction. This is a tarmac road leading from Carr Hill Lane to the shed marked on the digitised plan. To the left of the road the small dark anomaly is a pile of bricks. In the westernmost quadrant of the grid the white area to the south is explained by the presence of an electric power pylon, while the very high readings (black) can be explained by the underground power cables. The small anomaly in the west of this grid is almost certainly due to the presence of a large metal lump. In the eastern section of the grid the two dark areas can be explained by the proximity of the road to the west and the pile of scrap iron to the east. The smaller anomalies are due to the presence of lumps of scrap metal and fragments of bricks. Although water should not affect the results of a magnetometer survey, I have marked in the positions of two areas of standing water (due to recent heavy rain) on the plan. If any further work was to be carried out it would be interesting to compare the results in these areas.

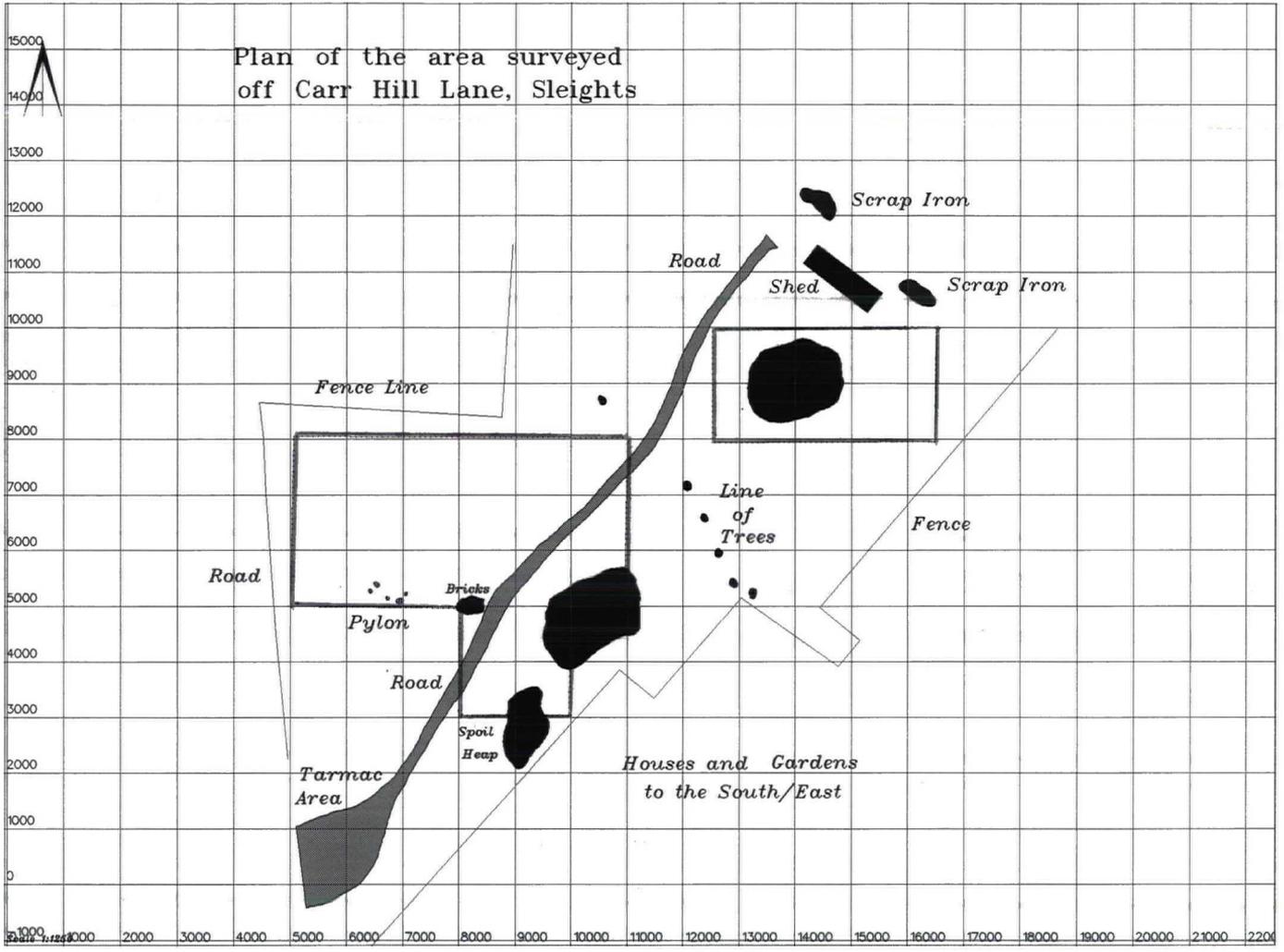
**Conclusion:**

In conclusion it should be stated that although all the magnetic anomalies could be explained by recent action or construction, this does not preclude the possibility of archaeological activity. The strength of the modern activity was such that any archaeology would be "drowned out" by the modern features and the scrap iron and electricity cables. However, further magnetometer surveys could not elucidate this if the site remains in its present condition, and I would suggest that only excavation in some form (trial trenching or test pitting) could establish the lack of archaeology beyond any reasonable doubt.

Report by James Lyall

Landscape Research Centre Ltd.

Plan of the area surveyed  
off Carr Hill Lane, Sleights



SNY19180

Geophysical survey with overlay not scanned

Please see Parish File for originals