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Land at York Road, Easingwold, **North Yorkshire**

Geophysical Survey

Report No Y030/11

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Land at York Road, Easingwold, North Yorkshire

Geophysical Survey

Report No Y030/11

This document has been prepared in accordance with CFA Archaeology Ltd standard procedures.

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1. Description of the works

1.1 Aims and Objectives

The aim of the geophysical survey was to gather sufficient information to establish the location and extent of archaeological features if present within the survey area and, where possible, to characterise the archaeology identified.

1.2 Summary of results

The magnetic survey showed field boundaries, and features related to services and drainage running across the site. There are no clear 'sites' of archaeological-type anomalies although there are curvilinear features possibly interpreted as ditches and a clustering of discrete anomalies in the central-southern part of the survey area which may be pits.

2. Method

2.1 Survey equipment

The area was surveyed using fluxgate gradiometers. Three different collection strategies were employed and the areas coved by each are shown in Figure.2

Methods used are summarised below. Essentially either differing fluxgate sensors were used or they were deployed in single or dual mode. The coverage $(0.25 \times 1m)$ was the same throughout the survey area.

| Equipment | Sampling Interval | Traverse Interval | Method of collection |
|---------------------------------|-------------------|-------------------|----------------------|
| Bartington Grad601-2 | 0.25m | 1m | Zig Zag |
| Geoscan Research FM256 - Single | 0.25m | 1m | Zig Zag |
| Geoscan Research FM256 - Dual | 0.25m | lm | Zig Zag |

2.2 Data processing

Data was processed using Geoplot Version 3 and destripped using zero mean traverse with a applied threshold of 5nT

Data presented in Figure 4 is interpolated to 0.25 x 0.25m using SinX/SinX.

3. Results

There are a number of linear anomalies that can be identified on Figure 3 that have been characterised as potentially archaeological (Fig. 5). As many of these anomalies are parallel and perpendicular with the modern field boundaries, it is assumed that they are associated with them. It is possible that they represent former ploughing or drainage. There are a number of potentially archaeological curvi-linear anomalies across the site along with areas of magnetic enhancement of 2-3 m across. These have little spatial patterning with respect to each other or other anomalies of potential interest, though may be interpreted as possible ditches and pits.

The geology and environmental past in the area may have had an effect on the magnetic properties of the soil and its ability to be enhanced by human activity on site.

The solid geology in the area is predominately mudstones, the drift geology consists of poorly sorted clays, sands and gravels on the north of the survey area and Devensian sands and gravels in the rest. The differences in the drift geologies in the area may account for the magnetic results in the northern half of the site and they probably match the topographical changes in the area as you approach the northern boundary of the site (Stillington Road).

The line of a former field boundary has been detected (A in Fig. 5), along with a linear area of magnetic disturbance that is likely to be due to the dumping of material along the line of the boundary. This could have occurred either during use or on its removal. This former boundary can be seen on the 1856 Ordnance Survey map of the area. This map also shows another former boundary not evident in the magnetic data, though there are topographic changes at the corresponding location; i.e. the boundary is still extant as a broad shallow ditch.

The large area of magnetic disturbance (B in Fig. 5), between the hedge and the corner of the buildings, relates to a former boundary which can be seen on a 1976 Ordnance Survey map. Areas of disturbed ground and a concrete slab are still evident on site and they have produced significant magnetic responses.

A number of utilities and services run across the site, along with inspection covers and borehole covers. In the data and they have all added significantly to the magnetic noise in certain parts of the survey.

4. Conclusion

The magnetic survey has produced limited evidence for archaeological-type anomalies within the surveyed area. The anomalies form little in the way of coherent archaeological patterns, and though they could be interpreted as possible ditches and pits, they are more likely to be the result of agricultural activity.

Dates of fieldwork: 19 – 21 and 27 October 2011.

5. Statement of Indemnity

The results and subsequent interpretation of geophysical surveys should not be treated as an absolute representation of the underlying features.

6. List of Figures

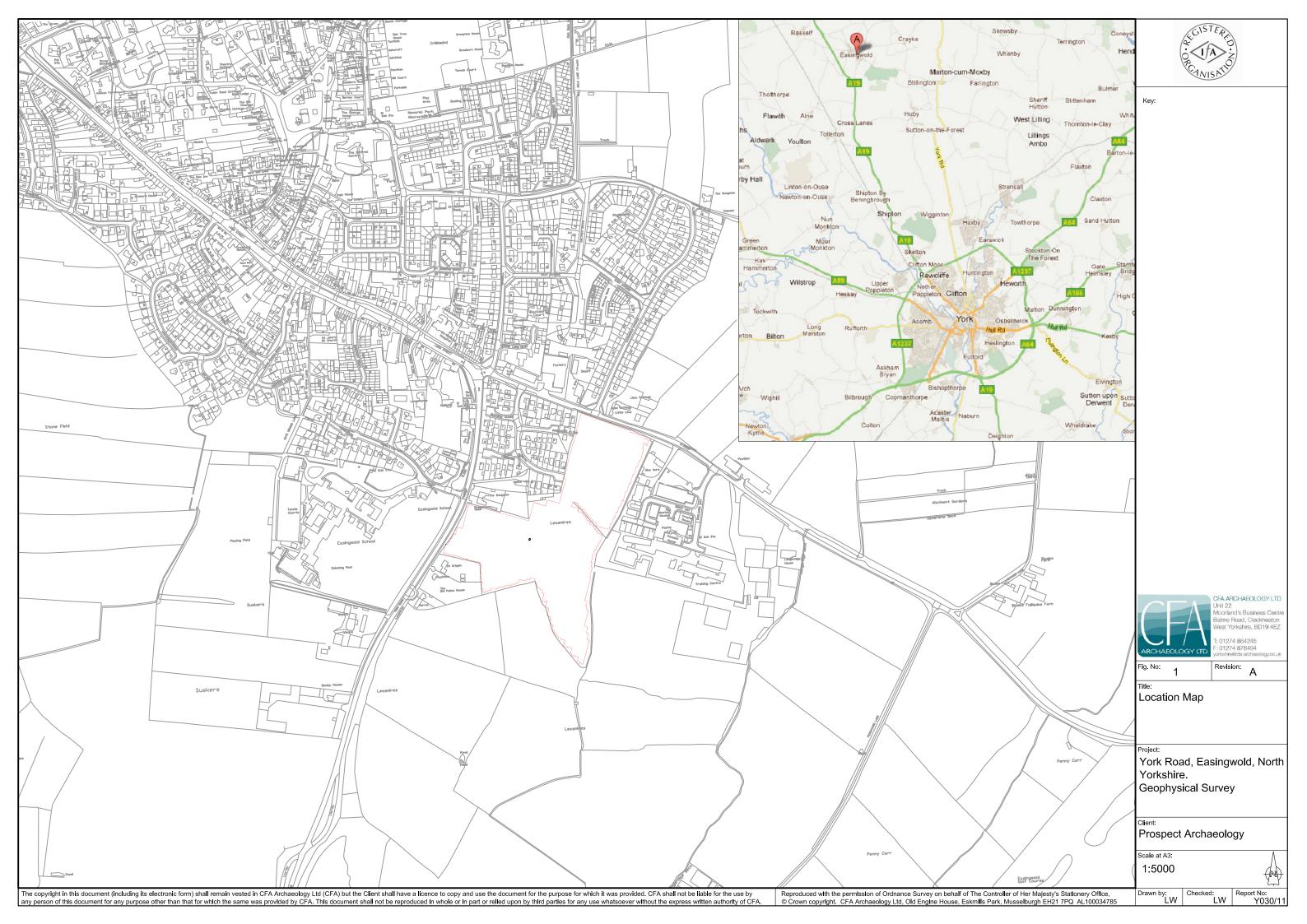
Figure 1: Survey Area and Site Location

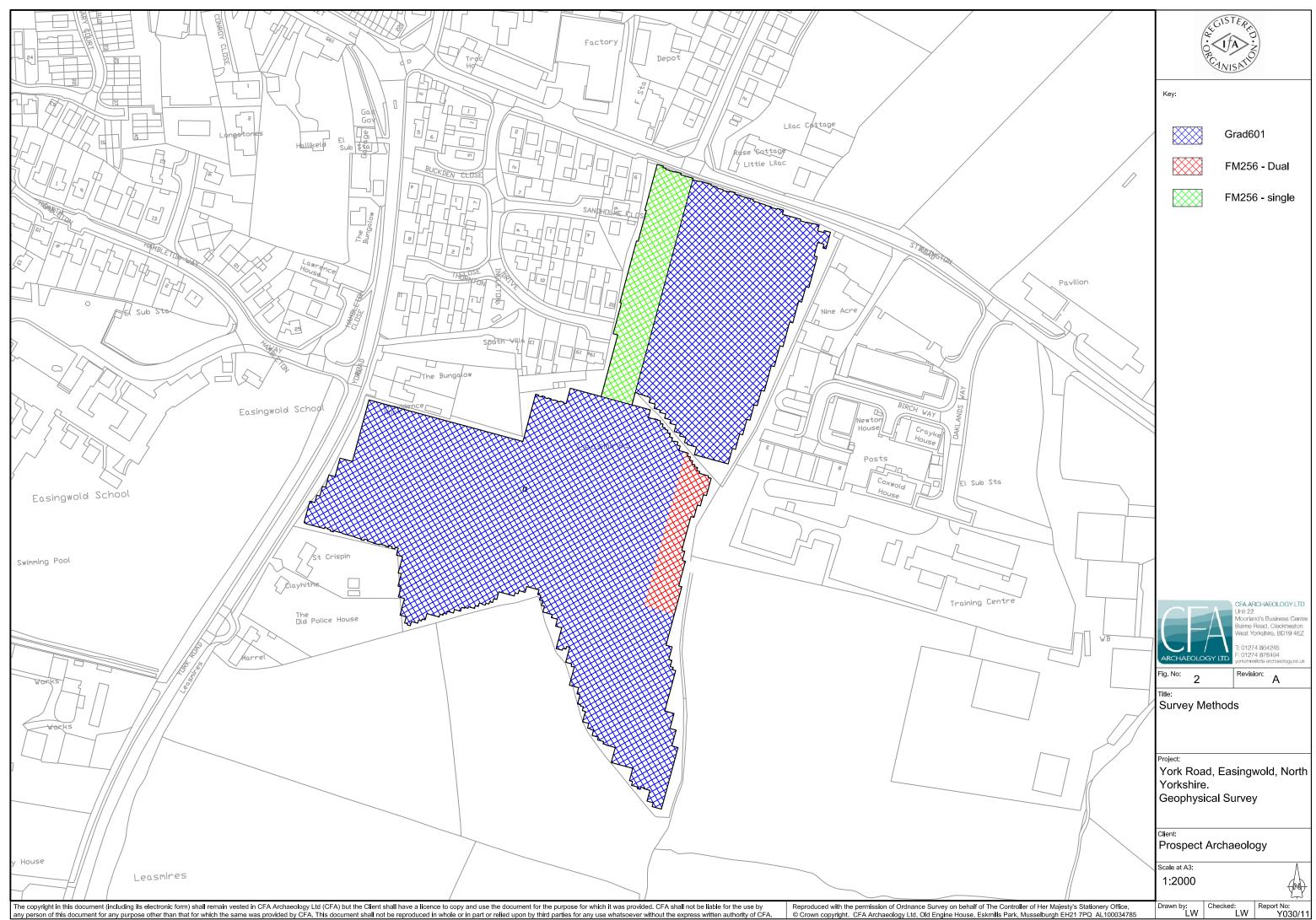
Figure 2: Survey Areas – Methods

Figure 3: Gradiometer Survey – Greyscale plot

Figure 4: Gradiometer Survey – XY Trace plot

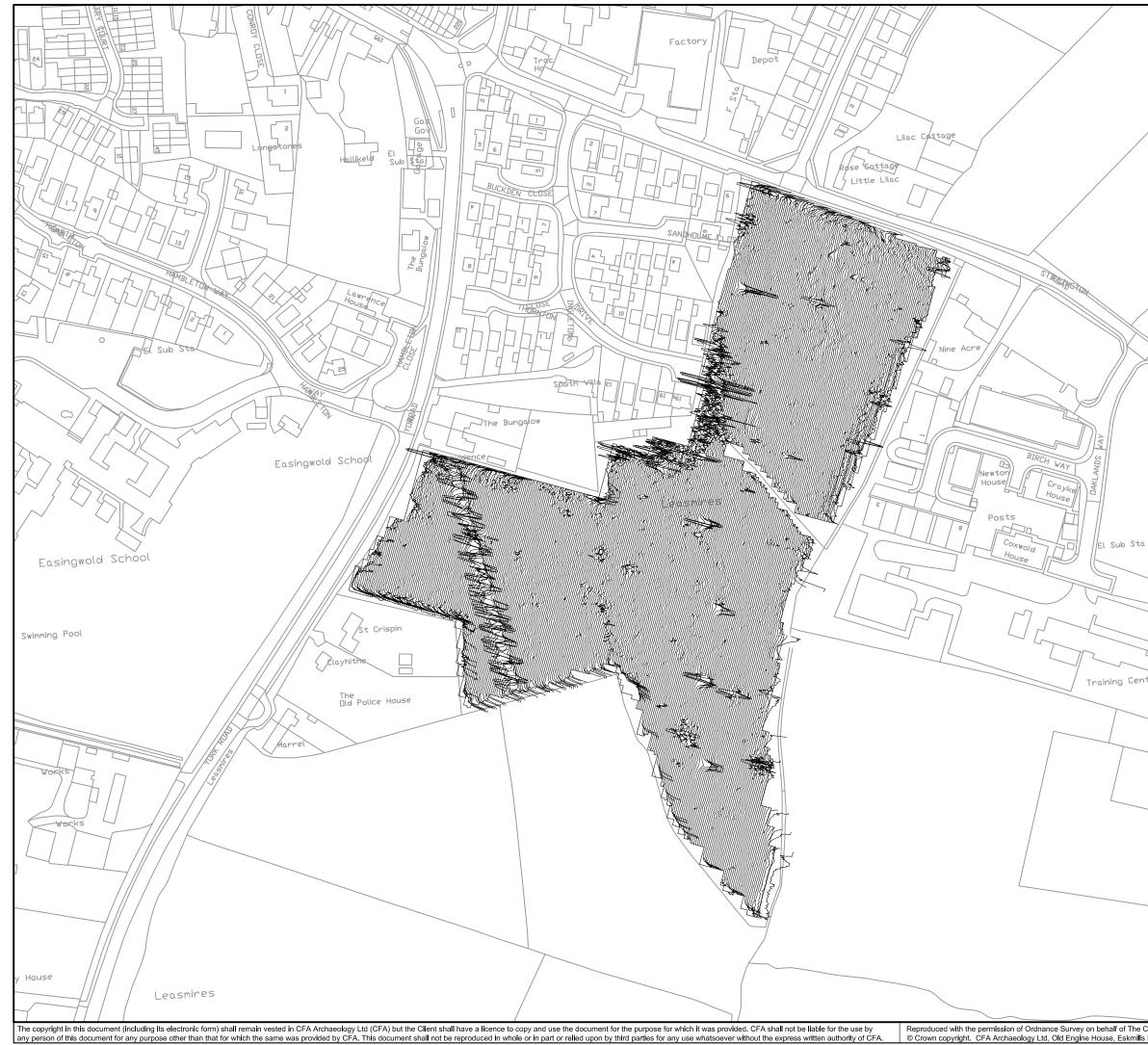
Figure 5: Summary Interpretations







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| | Fig. No: 4 Revision: A Title: Gradiometer Survey - XY Trace plot |
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| | ^{Client:} Prospect Archaeology |
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