



## **Orchard Field, Little Shelford Report**

During January and February 2023 Archaeology RheeSearch Group carried out magnetometry and resistivity surveys on this site to determine whether any archaeological features were detectable.

**Members participating:** Brian Bridgland, Pat Davies, Richard Freeman, Liz Livingstone, Ian Sanderson, Gill Shapland, Maureen Storey and Tony Storey.

**Site liaison:** Collette Patterson.

**Site conditions:** Rough grass.

**Equipment:** Bartington 601 gradiometer; TRCIA 50 cm twin probe.

Magnetometry readings: 8/m, 1 m separation.

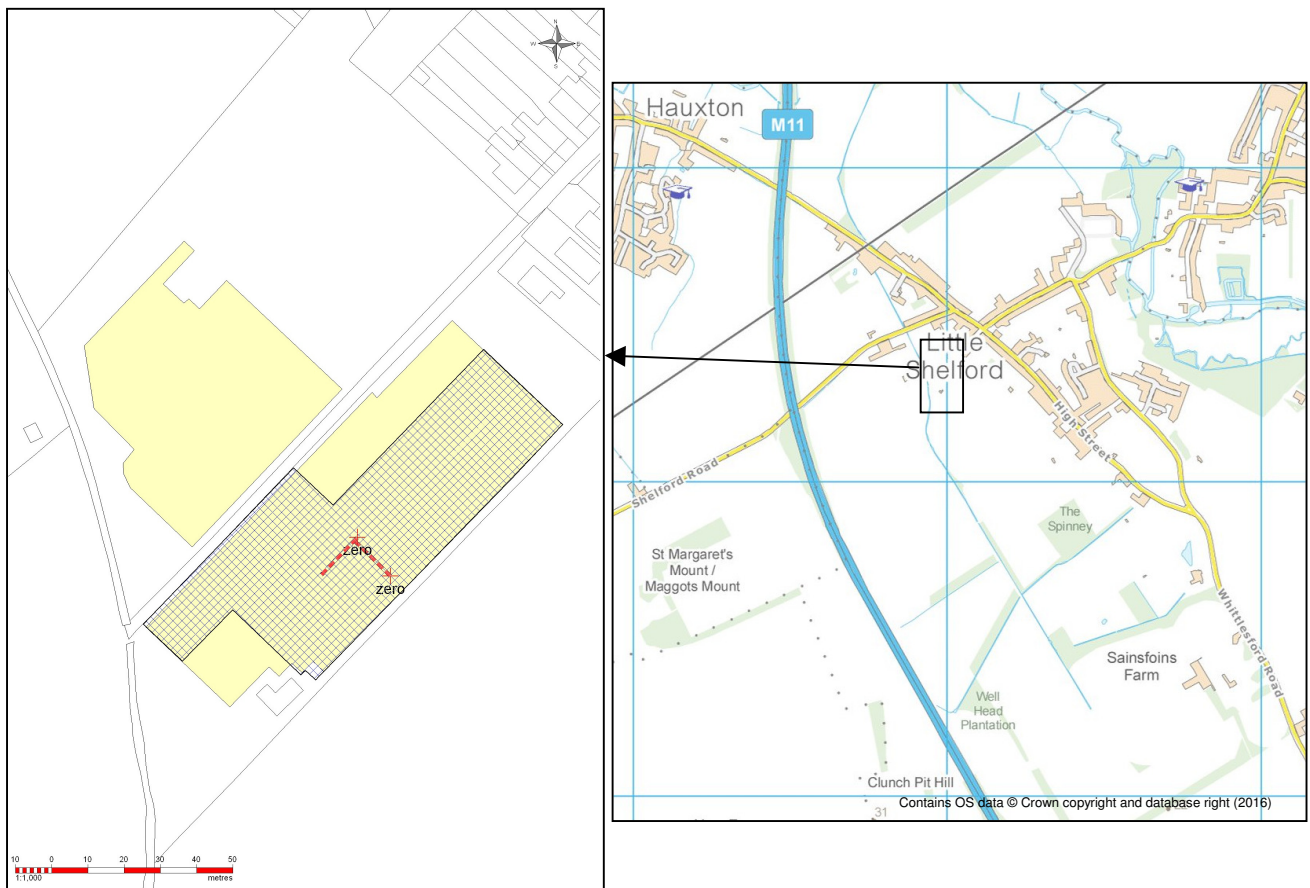
TRCIA 50 cm twin probe.

Resistivity readings: 1 m interval, 1 m separation.

Resistance tomography at 0.5 m intervals using 30 probes.

Raw data available as separate appendices.

**Location:** TL450513, Little Shelford, Cambs.



Location plan: Survey areas

(magnetometry areas solid, resistivity area hatched, tomography lines with zero points)

**Purpose of survey:** The purpose of this survey was to determine if any subsurface archaeological features could be detected prior to tree planting.

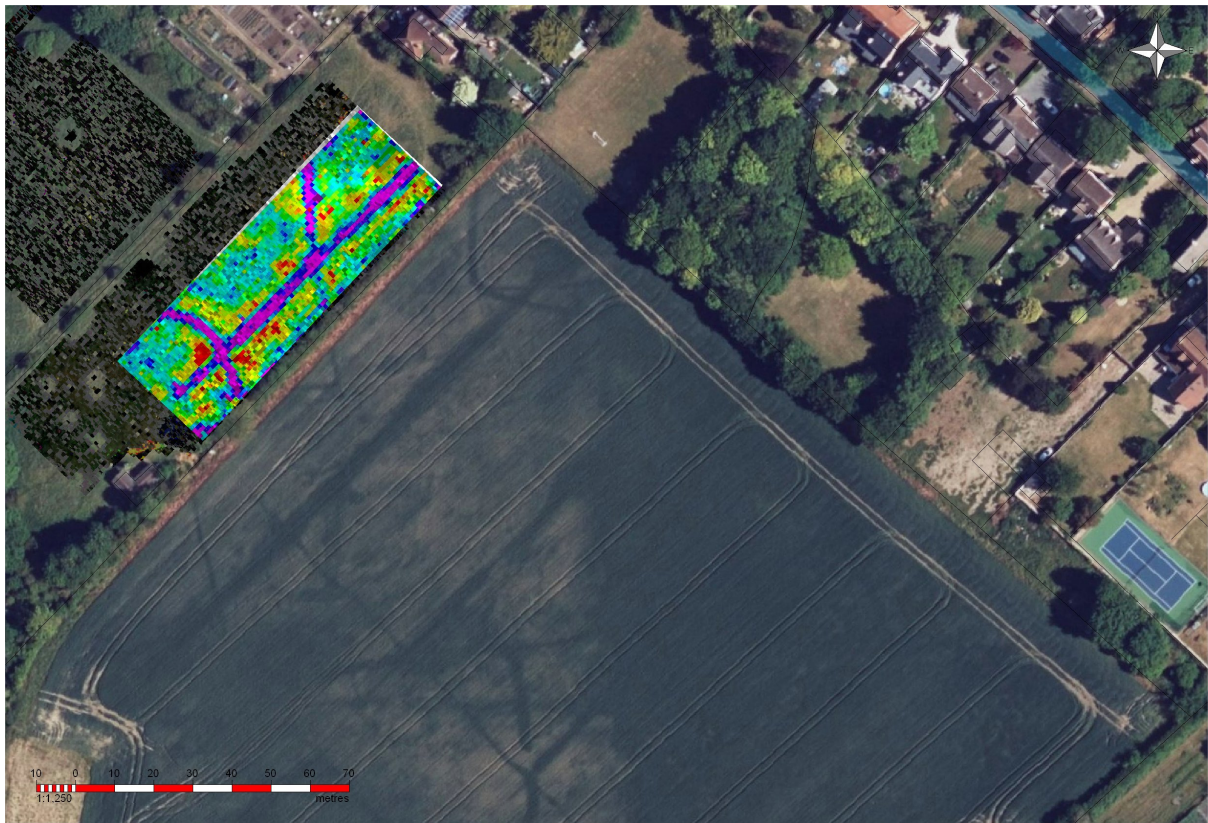
### **Site topography:**

The east field was level bounded with scrub hedging on the east, post and wire fencing with some scrub hedging bordering a footpath on the west. The north side was house fencing about 30 m away from the survey areas. The south side had a small building with a few recently



planted trees and was bounded by a scrub lined stream. The west field was level and bounded on the east by a public footpath with light scrub, on the south by a scrub lined stream. The north side was bounded by a footpath with a small display structure backed by allotments. The west side had numerous mature trees with extensive undergrowth. There was a large patch of shrub and bramble to the north west. The survey area comprised rank grass with several tree whips.

It is worth noting that the arable field to the east of the survey areas had extensive cropmarks.

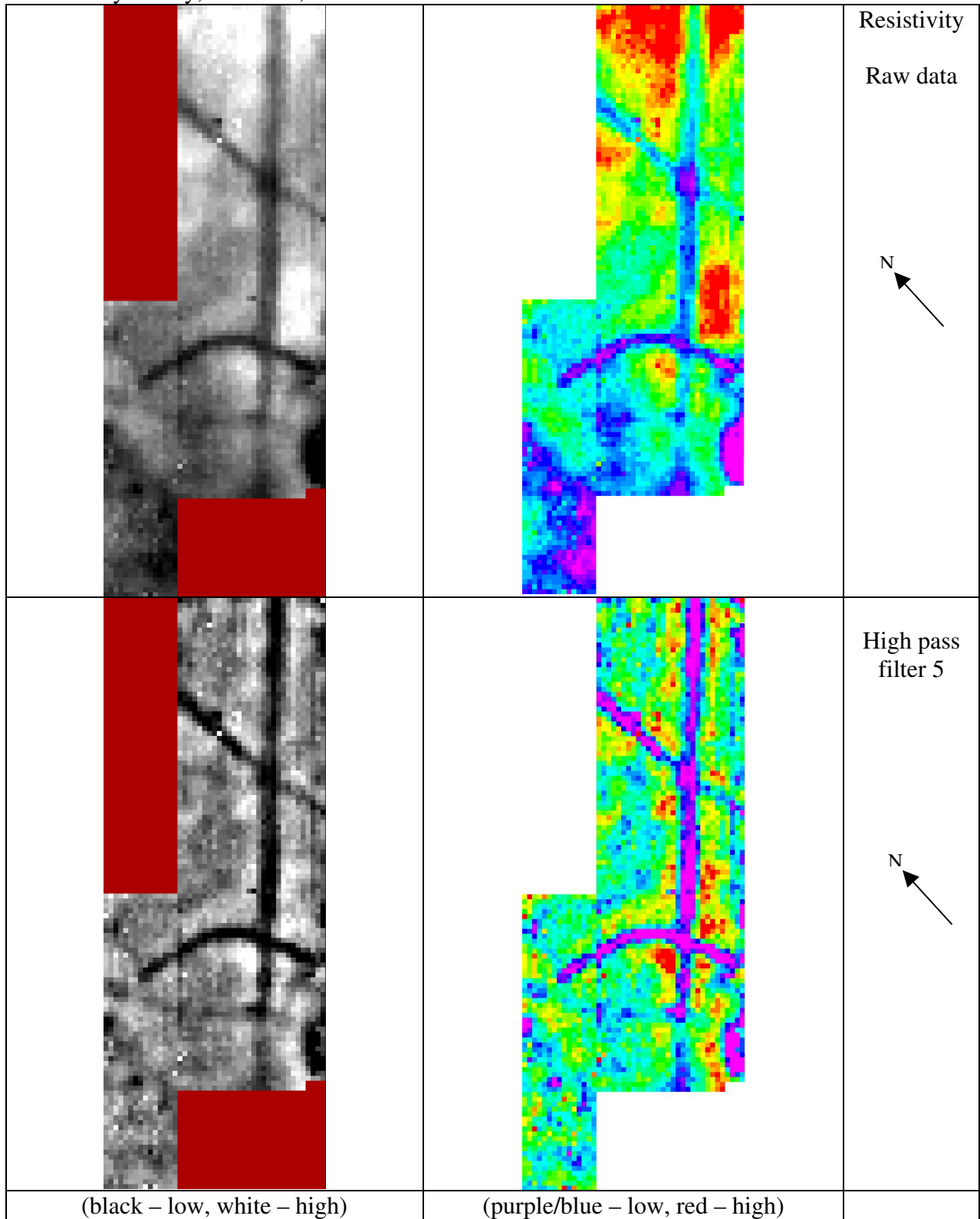


Aerial photograph showing part of the resistivity survey and the cropmarks in the adjacent field

**Results:**

*The images in this section are orientated for presentation. The images are not to a common scale.*

Resistivity survey, east field, 120 m x 45 m

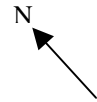
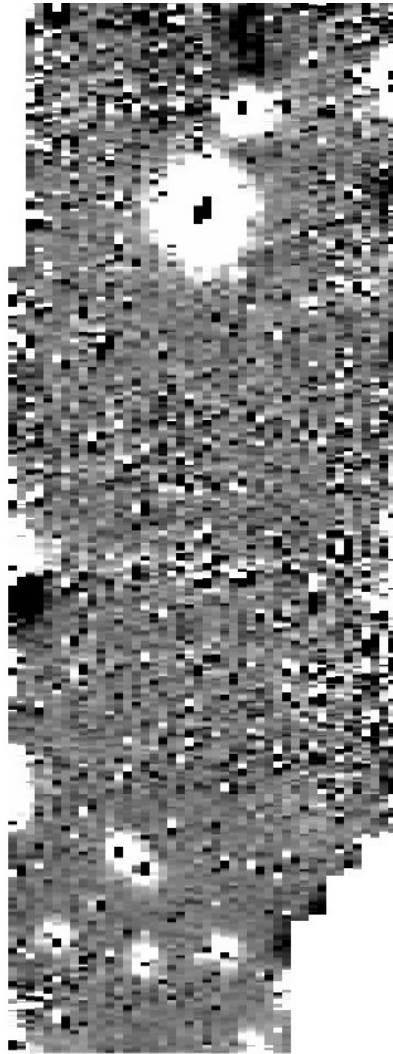




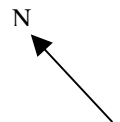
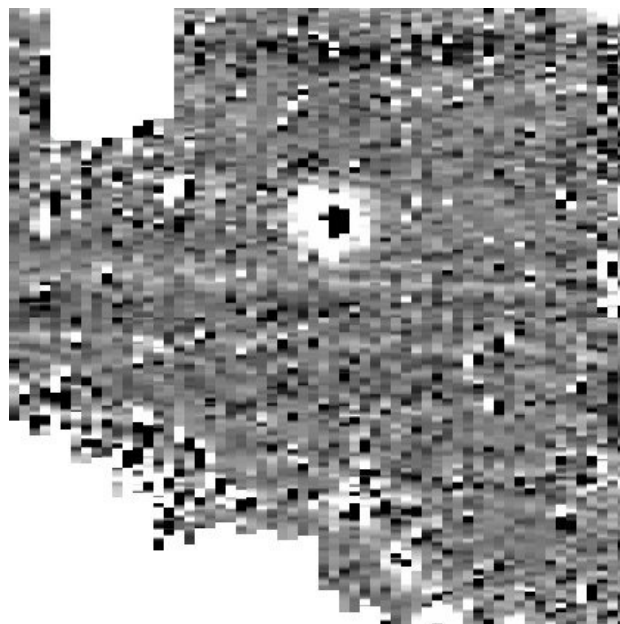




Magnetometry, east field +10 to -11 nT, 44 m x 120 m



Magnetometry, west field +10 to -10 nT, 60 m x 60 m



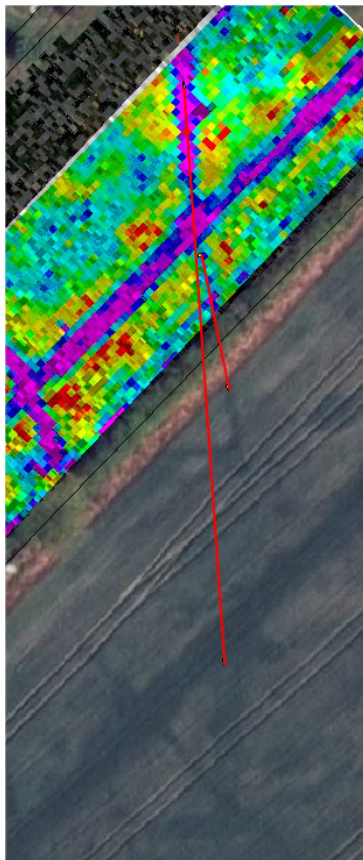
**Discussion:**

The magnetometry results show nothing suggesting archaeological features. The large anomalies probably reflect bonfire sites. The smaller anomalies in the S of the E field reflect new tree planting in that area. There was substantial magnetic noise in both fields possibly due to their use as allotments, this may also have obliterated any underlying magnetic signals.

The resistivity results show three main features, all with low values: a long straight line running NE—SW, a shorter line running N—S and a curved feature. All of these are bracketed by high values indicating that they are ditch lines. The longest line, which is about 3 m wide, was initially thought to be a furrow in a ‘ridge and furrow’ context but looking at the cropmarks in the adjoining field similar parallel lines occur at an interval of about 45 m. The image on the right shows these lines, marked by red stars including the one detected in this survey. The double starred line seems to respect another feature in that field.



The shorter straight line in the resistivity results narrows sharply just before it meets the longer one. This could suggest that the shorter line predates the longer one except that the continuation to the SE is less distinct and on a slightly different alignment.



Those alignments may match cropmarks as shown on the left. The curved line in the resistivity results if it was part of a circle would have a diameter of about 70 m, which might then include the stream along the SW side of the field. The profile of this feature (slice 1 on page 4) was vertically sided, about 2 m wide and about 2 m deep, the vertical sides could suggest a defensive moat. This might be a diversion of the stream as a boundary or, including the stream, as a moated site. It is likely to predate the line running down the field but dating evidence will only be derived by excavation.