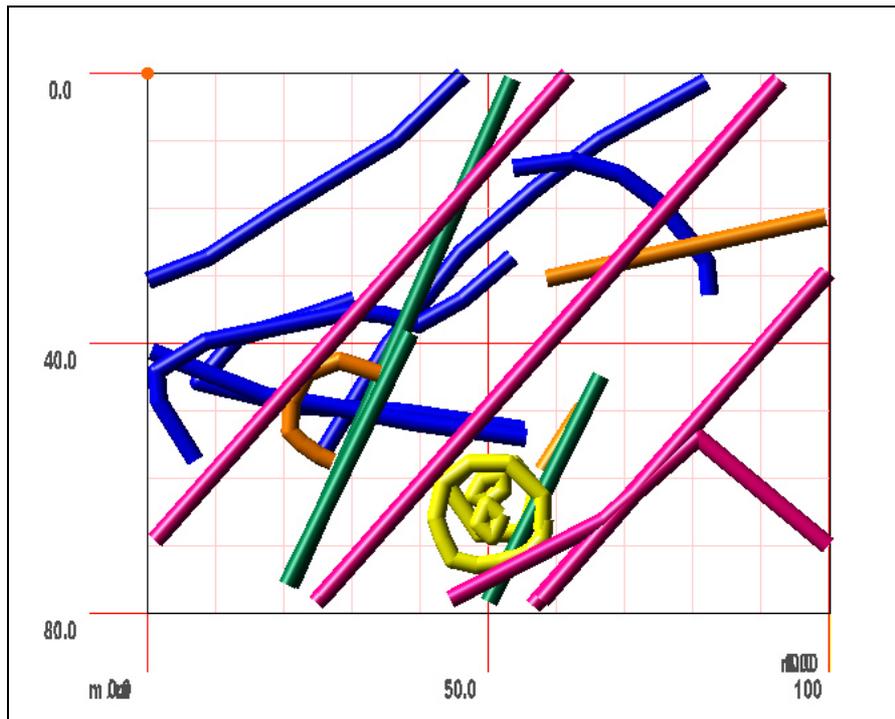


The image above shows the 3D data cube for part of field B. Three axes are displayed, x (east to west), y (north to south) and z (horizontal). The crop mark can be seen with the y-axis intersecting the eastern edge of the feature. Possible ridge and furrow features can also be seen as diagonal lines oriented north east to southwest. The black and white banding at the top of the x and y-axes is the 'dead-zone' or ground-coupling zone for the radar data.

The location of the circular crop mark to the ground surface necessitates a closer investigation.

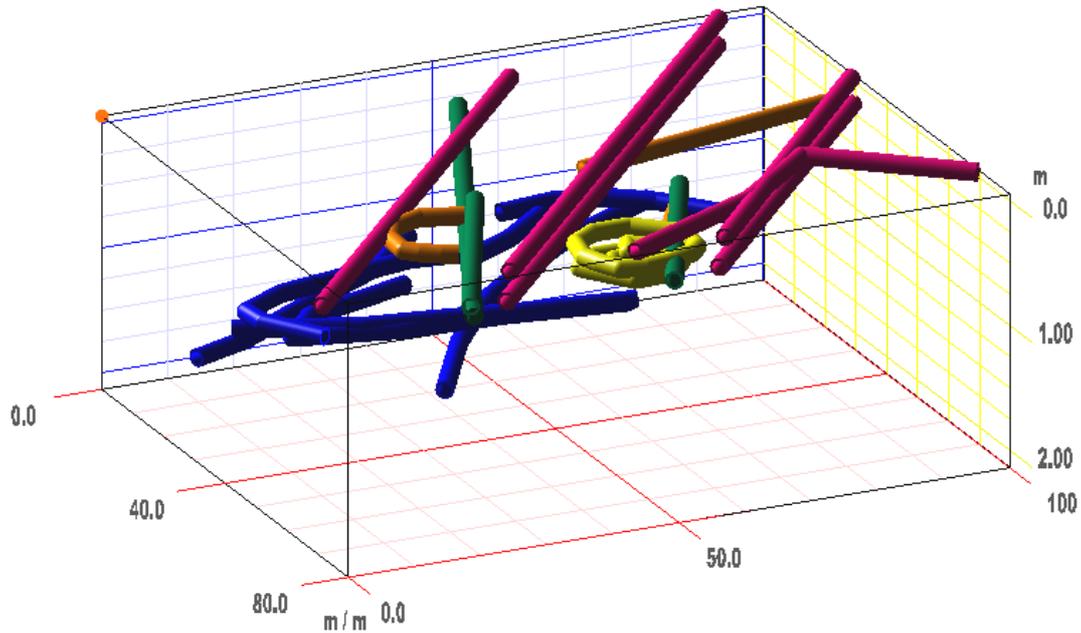


**Figure 29 Field B GPR 3D interpretation, plan view.**

A simple on-screen digitisation function in RADAN enables 3D visualization of features selected.

- Red – modern plough furrows and an irrigation hose
- Green – ridge and furrow
- Yellow – crop mark feature with interior circular feature
- Orange – possible archaeological anomalies
- Blue – traces of past fluvial activity

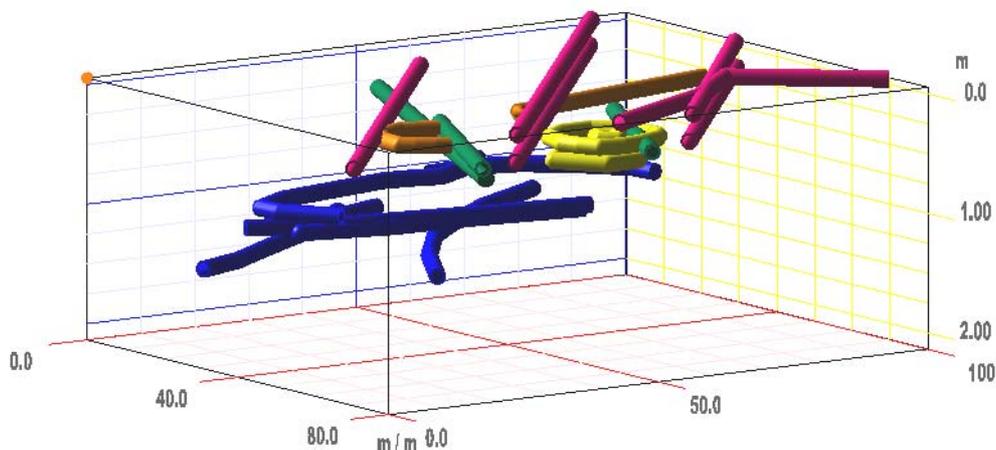
Please note in these images, not all interpreted features are displayed, only a selected few that demonstrate the 3D aspect of GPR data and the impact of modern activities on the historic landscape.



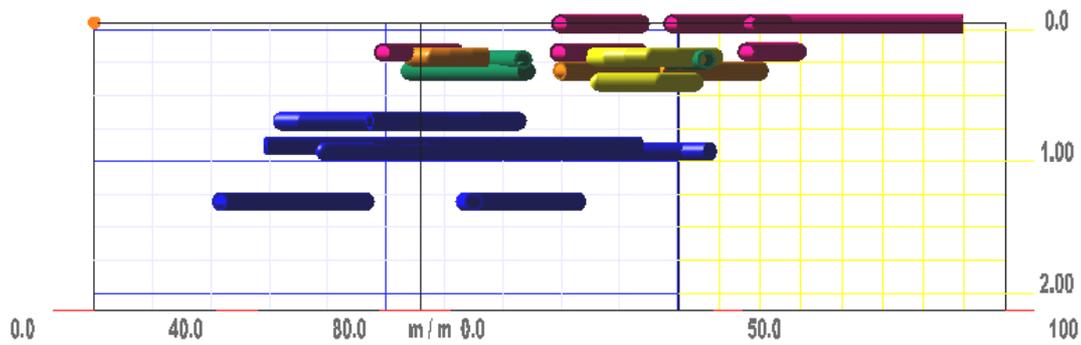
**Figure 30 Field B 3D cube of GPR features.**

By rotating the cube, the position of individual features comes to light and a better understanding of the order of information provided by this data is achieved. Note the crop mark feature in yellow has two layers. The top layer marks the location and depth of the feature as it first appears in the GPR data. The bottom layer marks the final position of the feature before it disappears. This provides information on the shape and volume of the feature. The modern ploughing features have two layers depicting their first appearance in the data (ground surface, 0 ns) and the depths to which they extend.

Further rotation of the cube brings the features into a more vertical alignment (Figure 31), and a final adjustment presents the features on an accurate vertical scale (Figure 32).

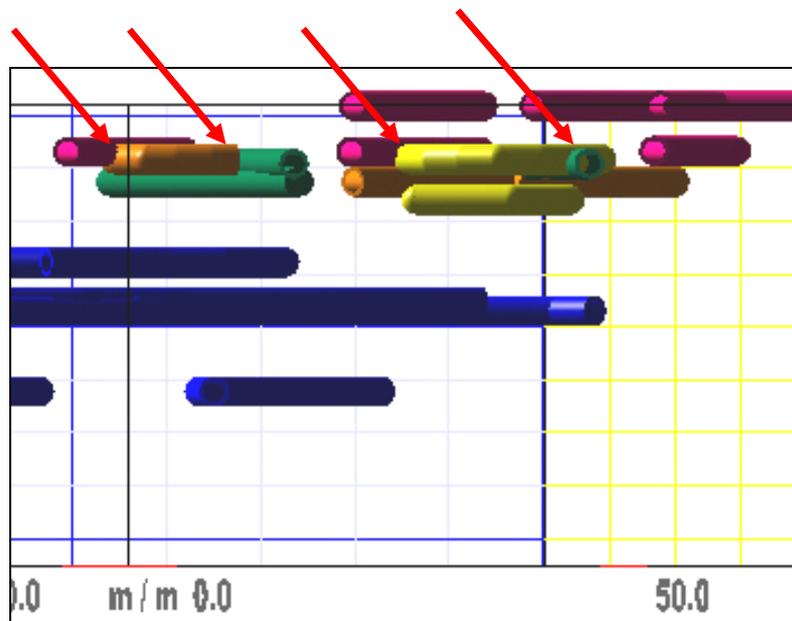


**Figure 31 Field B 3D GPR feature cube 2.**



**Figure 32 Field B 3D GPR feature cube 3.**

Note the alignment of features and the actual overlapping, or intersection of the modern plough furrows and ridge and furrow on the archaeological and possible archaeological features.



**Figure 33 Field B evidence of modern activities impacting archaeological features.**

The radar data provides clear evidence that the modern farming practices are impacting the ‘sunburst’ SAM in Field B.

*Field F*

A grid of approximately 220 x 150 m was collected in Field B. This grid was established over the third prominent mapped crop mark of a circle with two extending linear features.

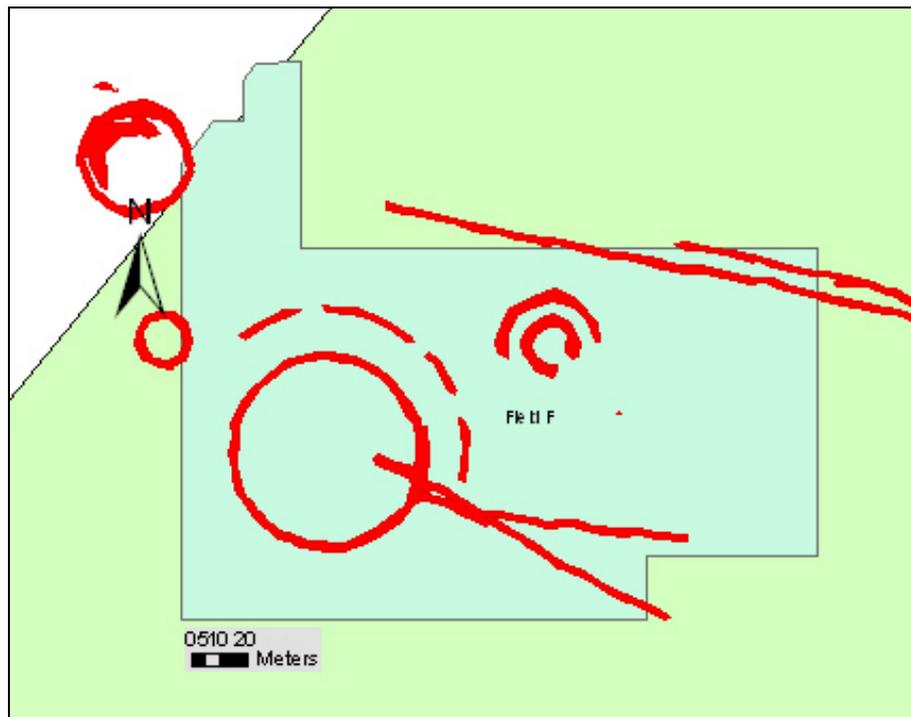


Figure 34 Field F GPR grid.

The GPR data has successfully mapped parts of the existing crop marks and possible additional archaeological information. The large circle in the crop mark appears in the radar data and can be measured to approximately 60-63 m in diameter. Traces of the two tracks extending to the east of the crop mark also appear in the GPR data as well. The circular anomaly, though thought to be the enclosure on the crop mark image, could reflect the ring that surrounds the circular feature.

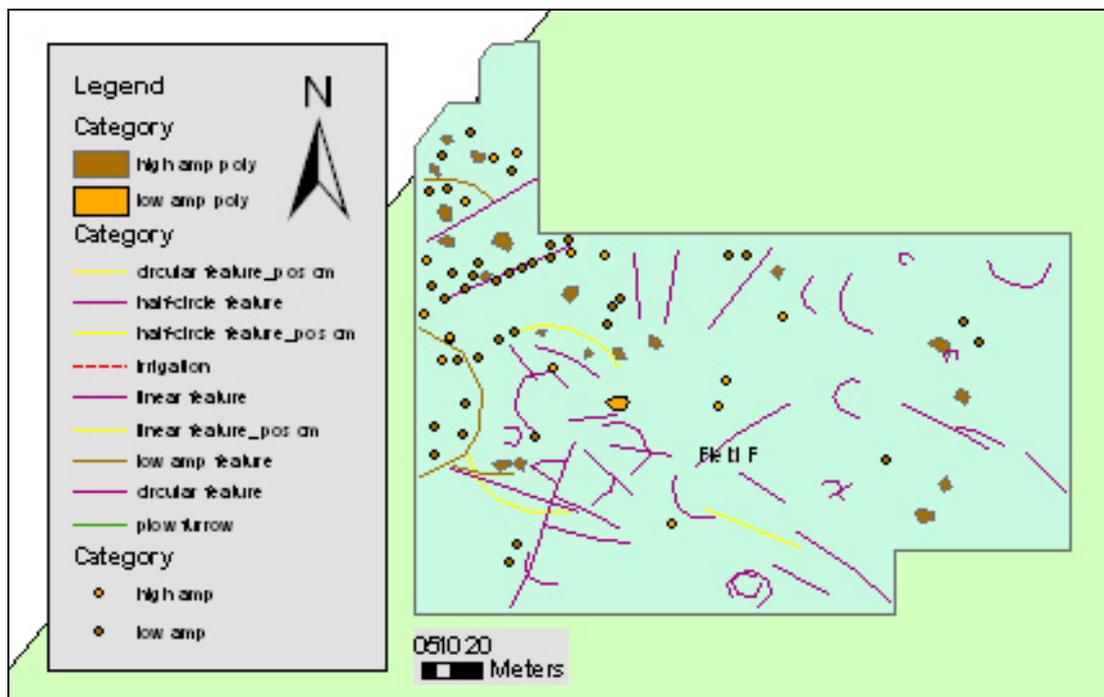
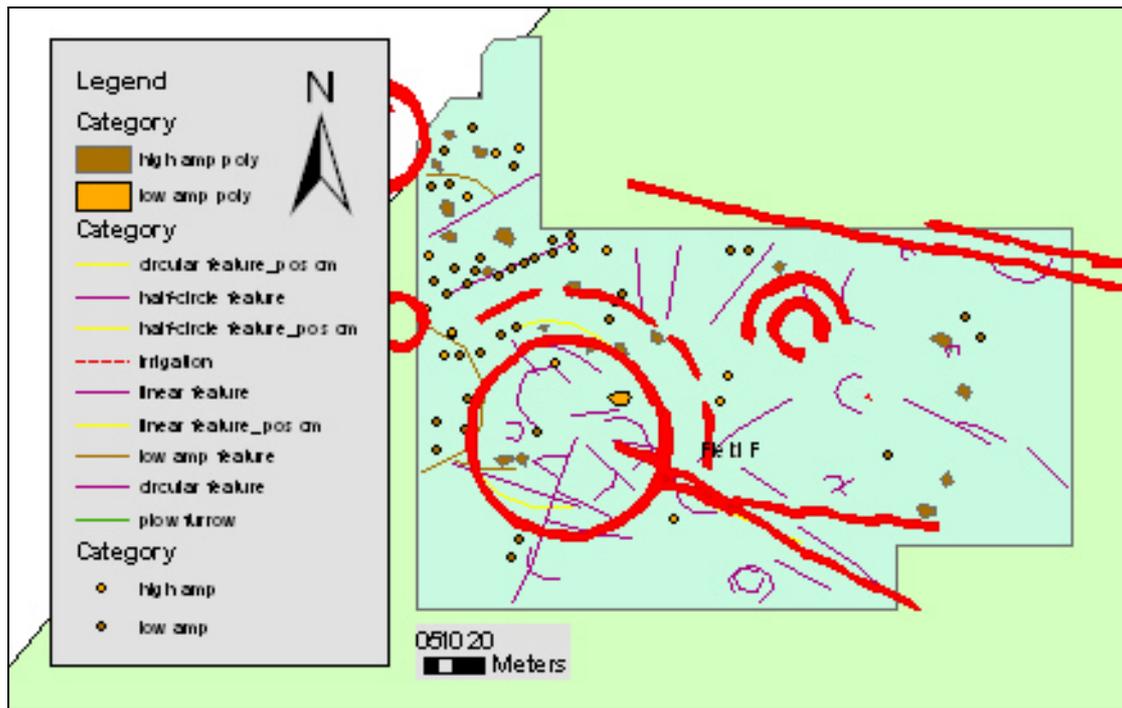


Figure 35 Field F GPR interpretations.

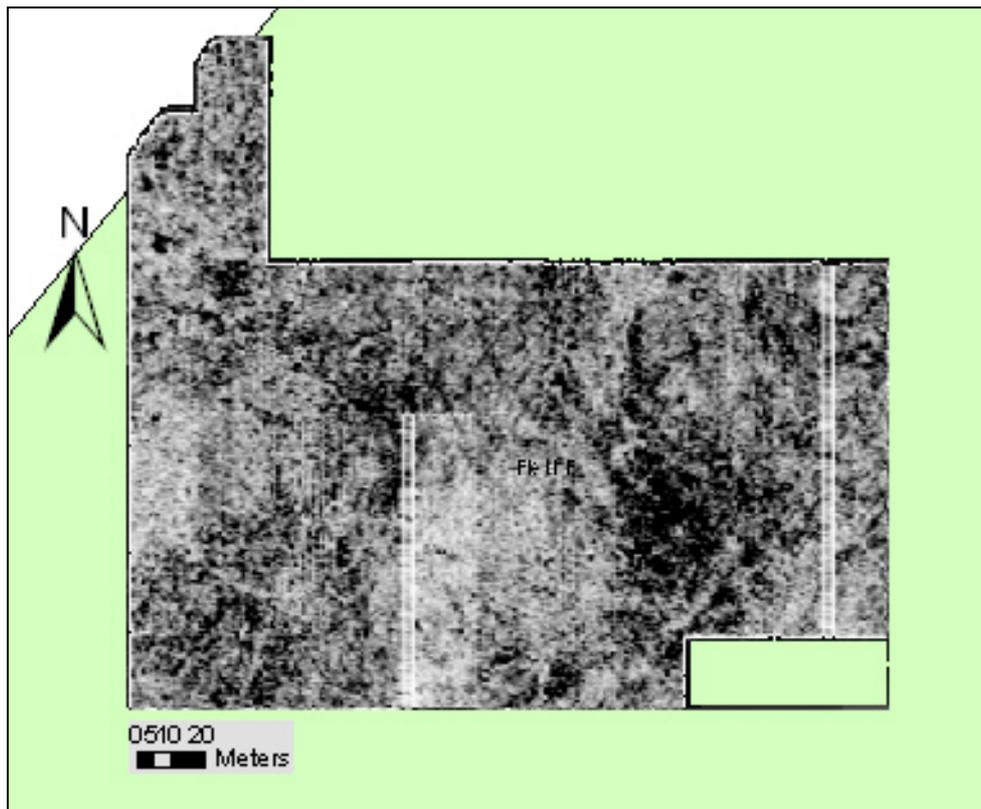


**Figure 36 Field F GPR interpretations with mapped crop marks.**

Other anomalies appear in the GPR data that have been mapped in this analysis include (See Appendix for more detailed images):

- Circular anomaly approximately 60-65m that can be identified as the mapped crop mark;
- Circular and semi-circular anomalies that may be archaeological in nature or perhaps created as a result of ploughing or fluvial activity;
- Linear anomalies that may be related to ploughing or archaeological activities;
- High and low amplitude point reflectors that may be associated with pit alignments, or remnants of ploughing;
- Areas of high and low amplitude reflectors.

The GPR data (and more so the resistance data) reveal some anomalies in the interior of the large circular anomaly. These interior anomalies may relate to the archaeological nature of the site.



**Figure 37 Field F GPR data.**

Note on the Field F GPR data image (Figure 37), the inconsistency of the data in some areas. During the process of data collection, one or two transects were either lost, or not collected, thus leading to the few black vertical lines. These spaces were left blank to represent no data at that location. Contrasting gain values can also be seen in a 20 x 90 m grid in the centre of the image.

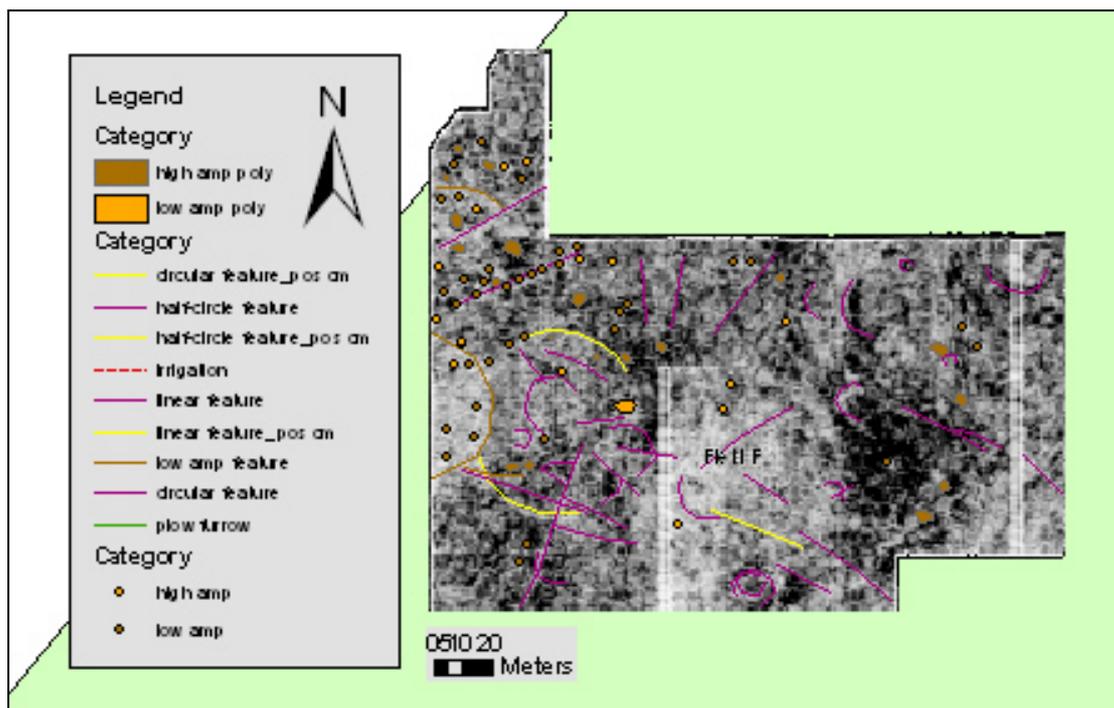


Figure 38 Field F GPR data with interpretations.

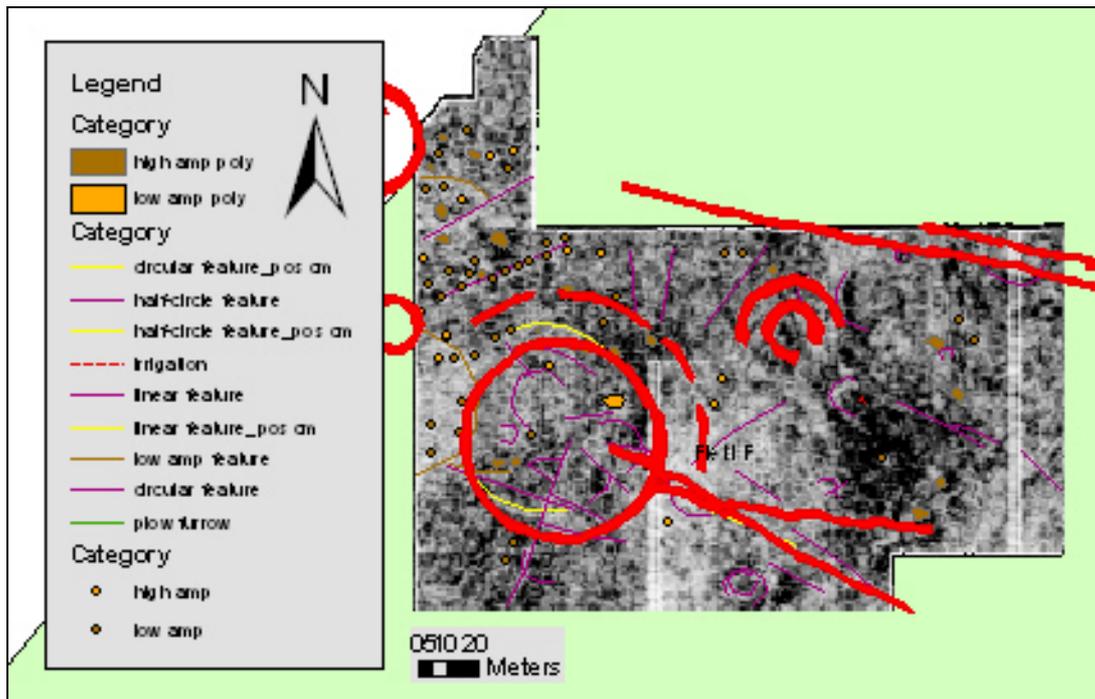


Figure 39 Field F GPR data with interpretations and mapped crop marks.

Investigation of the vertical axis of the GPR data reveals that the modern ploughing and ridge and furrow are not immediately impacting the circular crop mark anomaly. Though visible in this particular instance, other crop mark features have not been mapped by the GPR thus may be impacted.

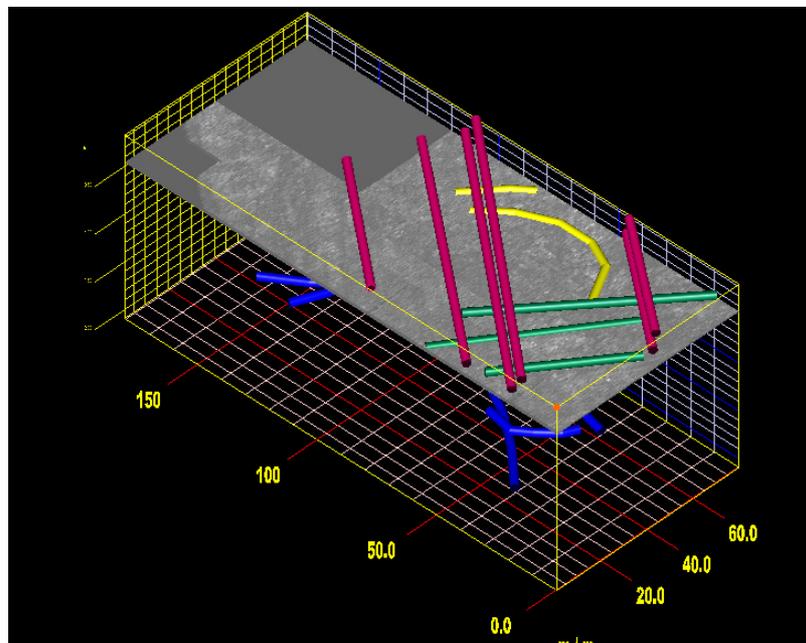


Figure 40 Field F 3D feature cube with z-slice.

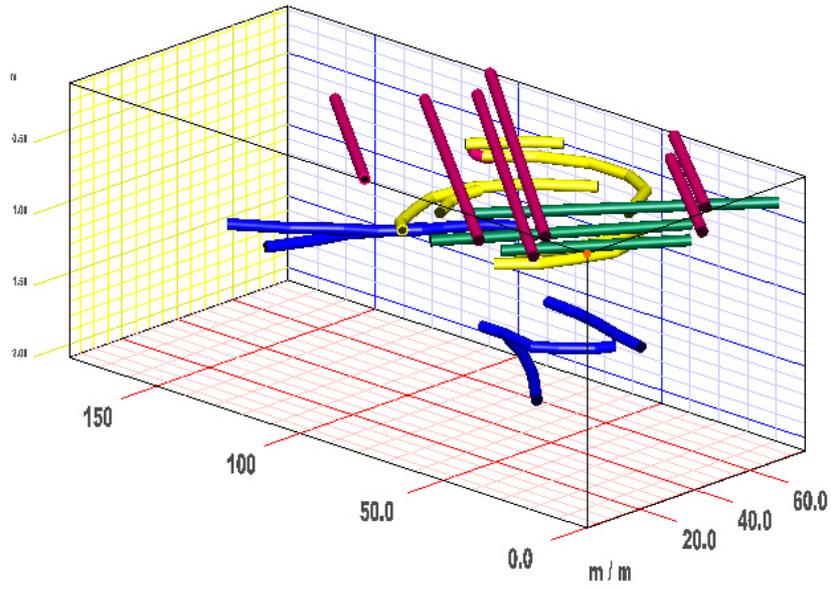


Figure 41 Field F 3D feature cube.

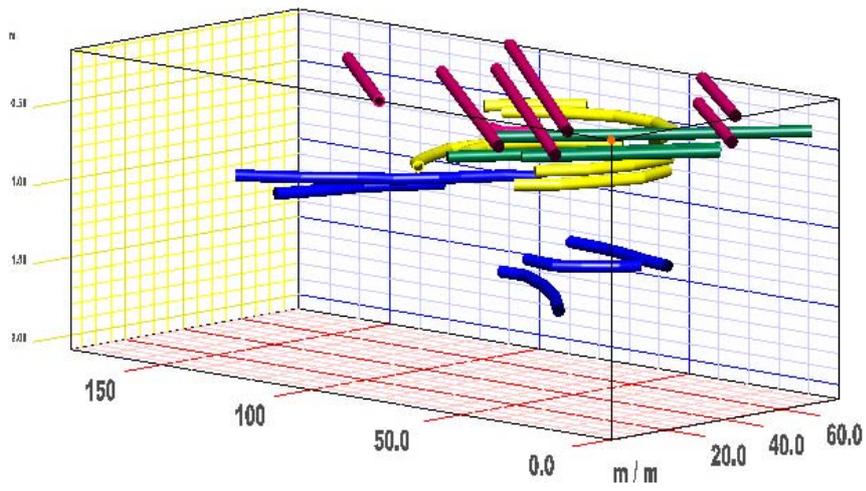


Figure 42 Field F 3D feature cube, 2.

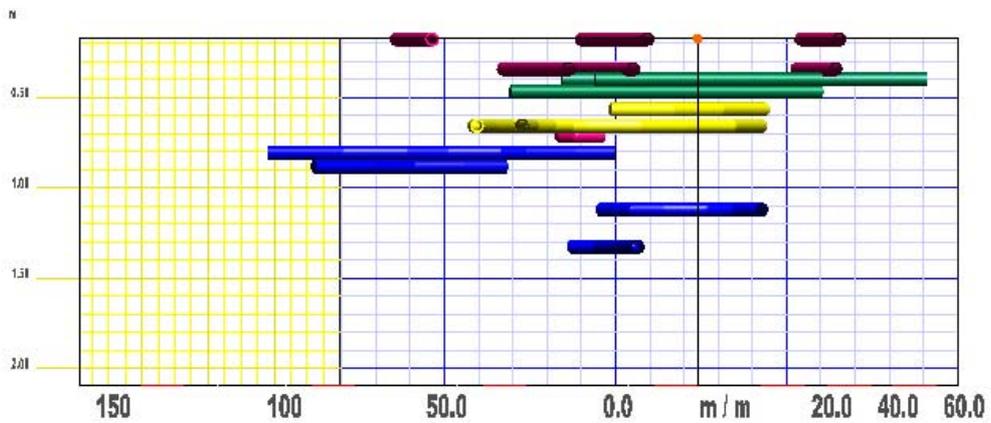


Figure 43 Field F 3D feature cube, 3.

The red and green features (modern ploughing and ridge and furrow) do not appear to be intruding on the archaeological feature in this instance.