5.2 Area A2

5.2.1 Magnetometry Survey Results

The G858 magnetometry survey on the surface of A2 mapped a number of anomalies. Initial review of the data grouped the majority of dipolar anomalies together as one of the possible rings of the 'Woodhenge' feature. With further consideration it was thought that magnetic signature of these anomalies may not be expected as post-pit fill. During post-processing viewing the excavation plan map overlain on the data confirmed the fact that the surface magnetic survey did not conclusively map the 'Woodhenge' feature.

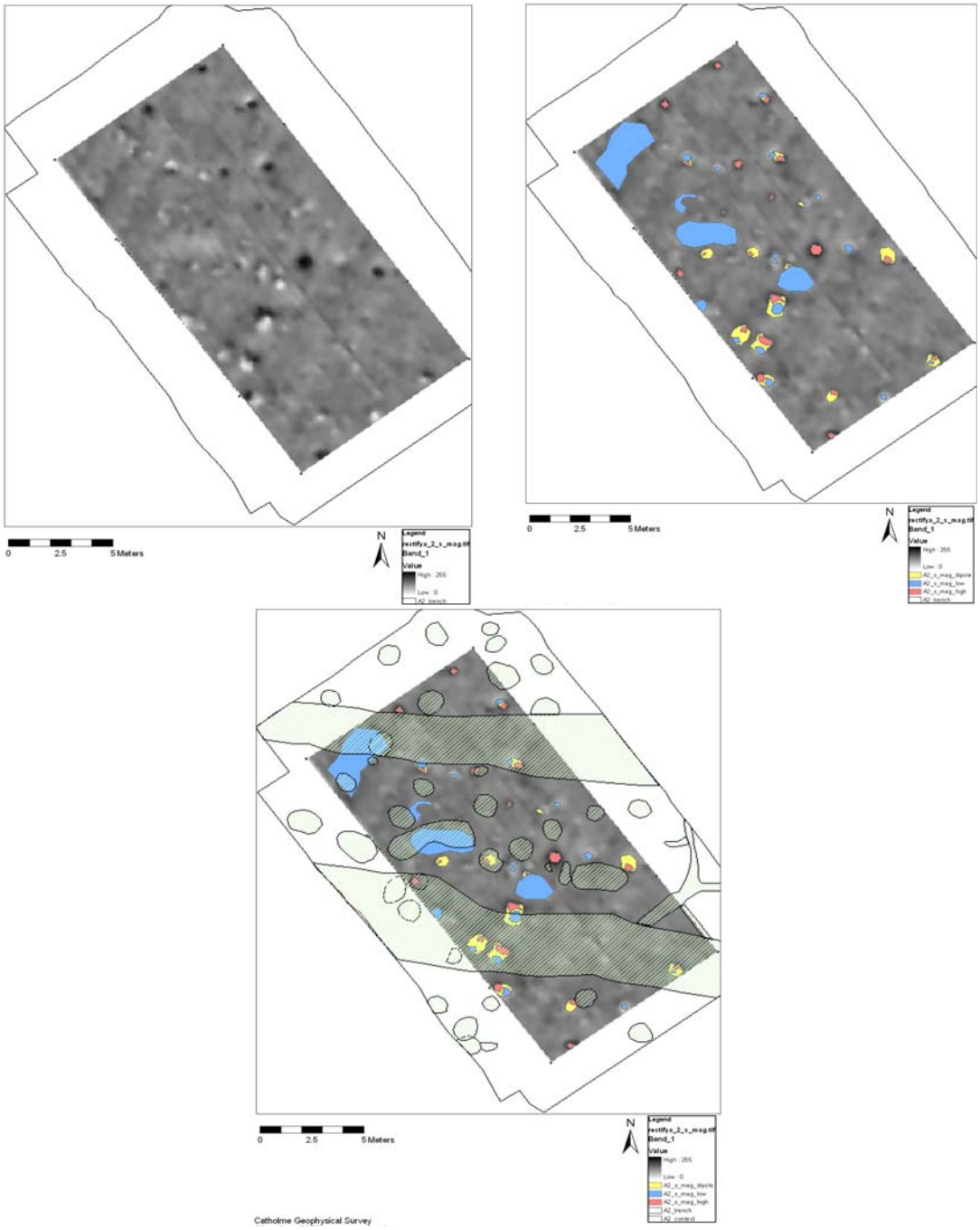

Figure 56. A2 surface magnetometry map (top left) with interpretations (top right) and overlain excavation plan (bottom).

After the removal of the topsoil, further magnetic survey with the G858 thoroughly mapped the archaeological features of the 'Woodhenge'. The images below mapped the pit-posts as medium-high magnetic anomalies with the large pit mapped as a very strong high magnetic anomaly.

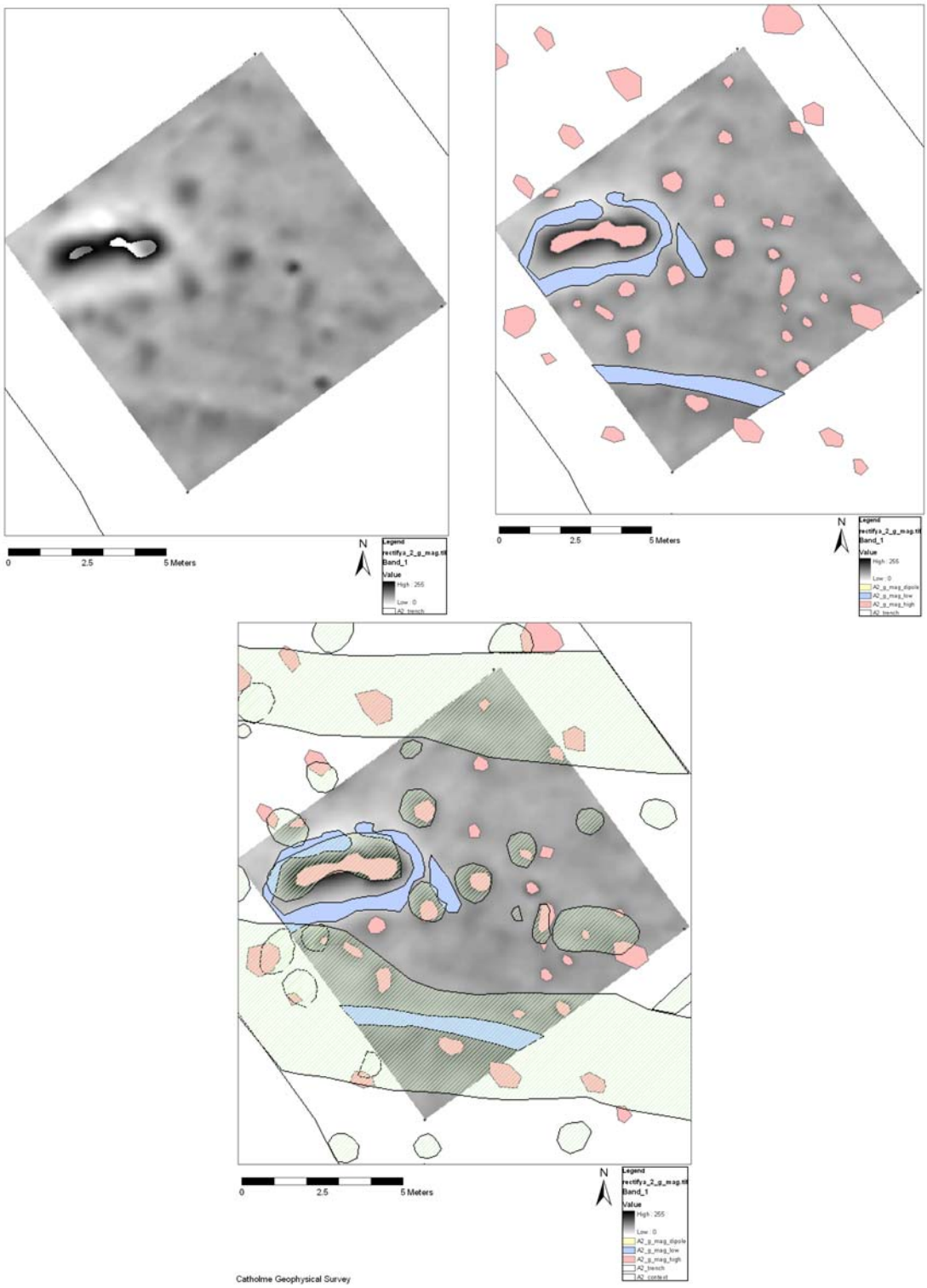

Figure 57. A2 gravel magnetometry map (top left) with interpretations (top right) and overlain excavation plan (bottom).

Because the results of the G858 magnetic survey so effectively mapped the archaeological features on the natural subsoil the FM256 was used to cover the entire area cleared in order to collect additional data for analysis. The FM256 provided a clear map of the archaeological features.

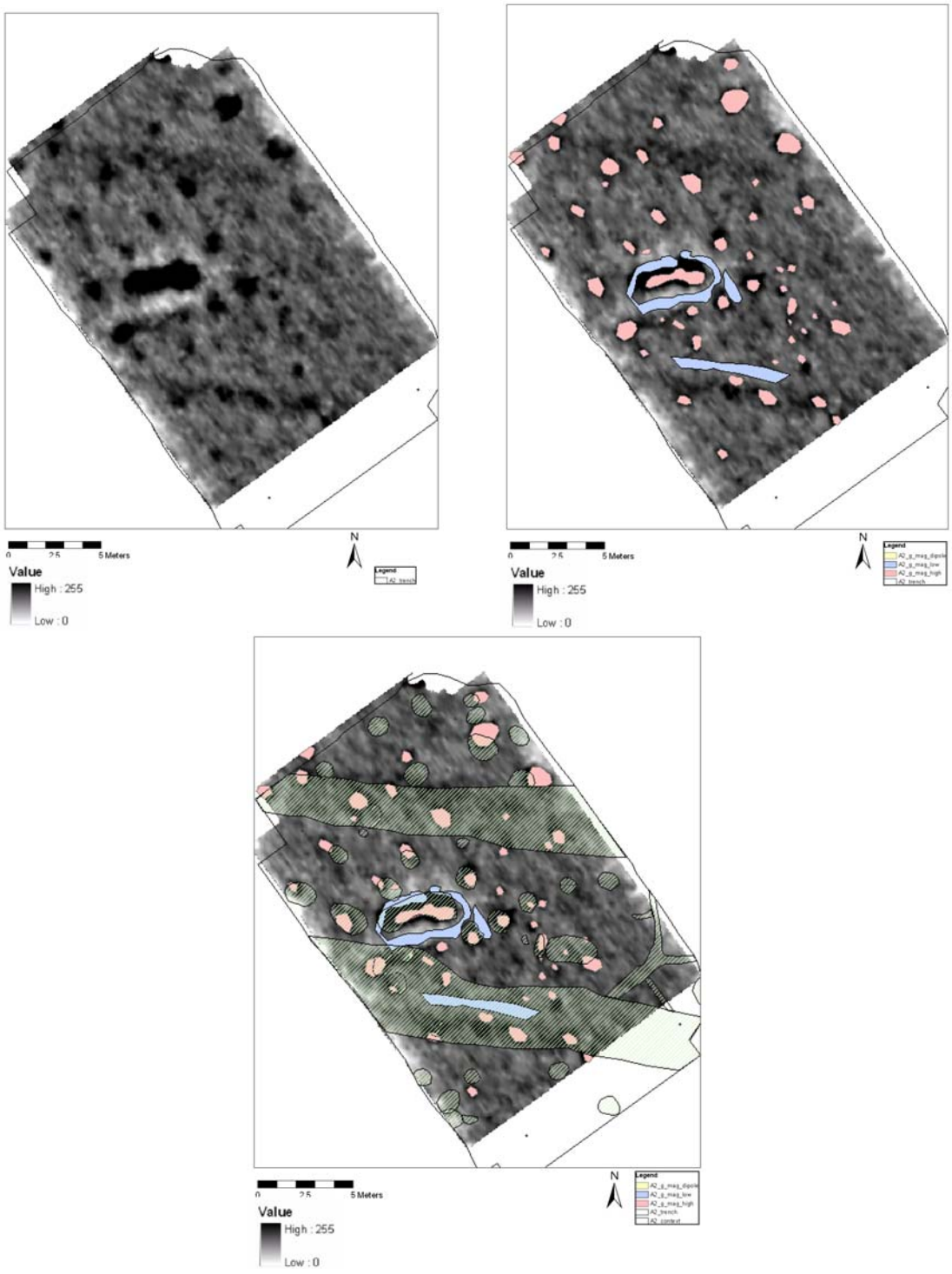

Figure 58. A2 gravel FM256 magnetometry map (top left) with interpretations (top right) and overlain excavation plan (bottom).

In both of the gravel maps the post-pits were mapped with a high magnetic signature in contrast to the background gravels. The large pit that appeared as a high magnetic feature surrounded by a slightly lower magnetic response was excavated and appeared

to be two pits excavated one into the other. The plough furrows crossing through the site were mapped as medium-high anomalies.

5.2.2 Magnetic Susceptibility Results

Results from the surface magnetic susceptibility survey showed the presence of the strong magnetic pit feature in the north eastern section of the survey area. Though a strong magnetic susceptibility anomaly was visible in the data, it does not correspond to the same orientation as the archaeological feature. This could be a result of ploughing in the area, elongating the central concentration of materials along the path of the plough furrows.

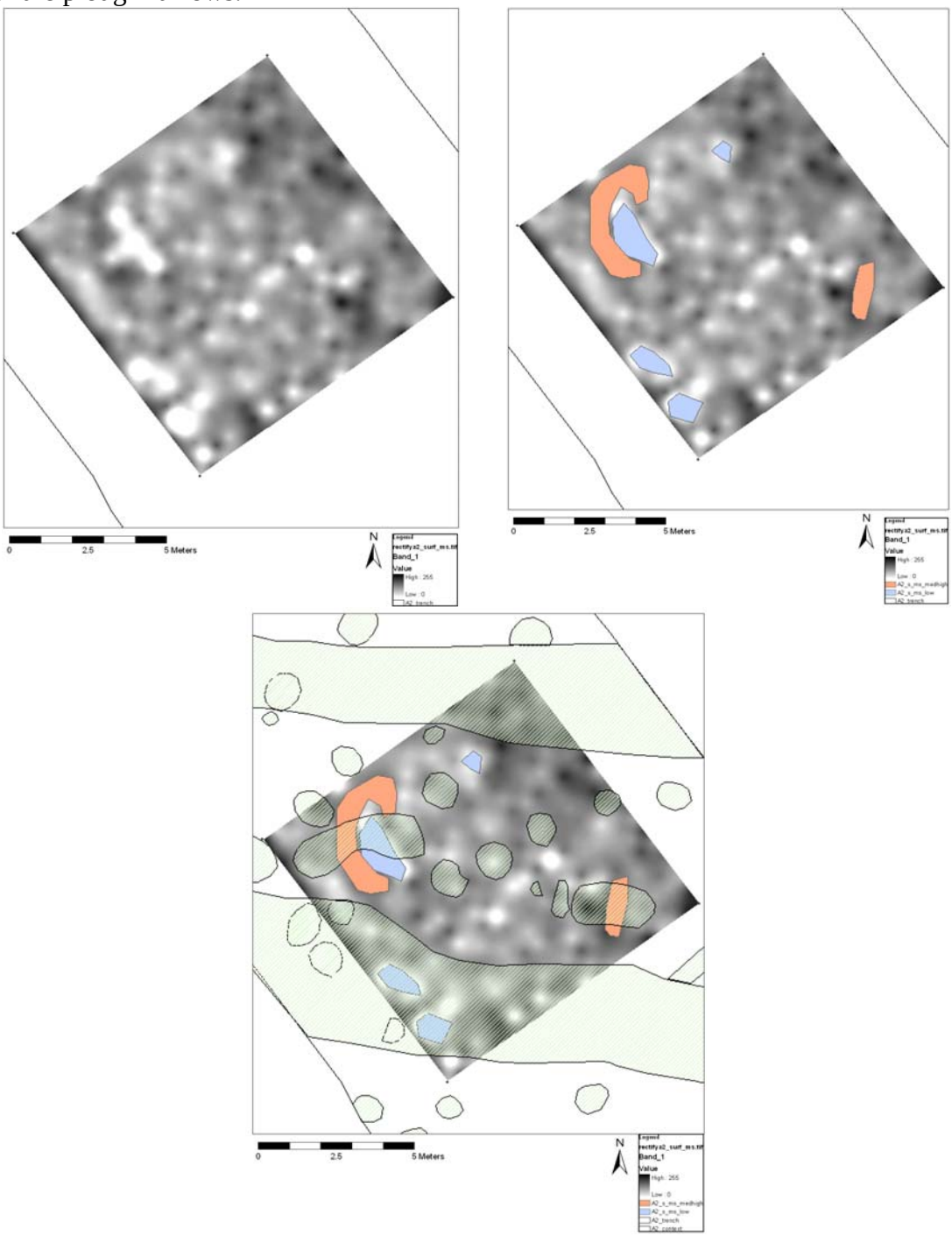

Figure 59. A2 surface magnetic susceptibility results (left) with interpretations (right) and overlain excavation plan (bottom).

5.2.3 Resistivity Survey Results

Area A2 covered the 'Woodhenge' monument where previous survey revealed no archaeological features. A few areas of high and medium-high resistivity appeared in the surface survey data but none provided conclusive evidence of the 'Woodhenge' monument. The example below shows the 0.25m resistivity plan map with highlighted anomalies followed by another image with the excavation plan map.

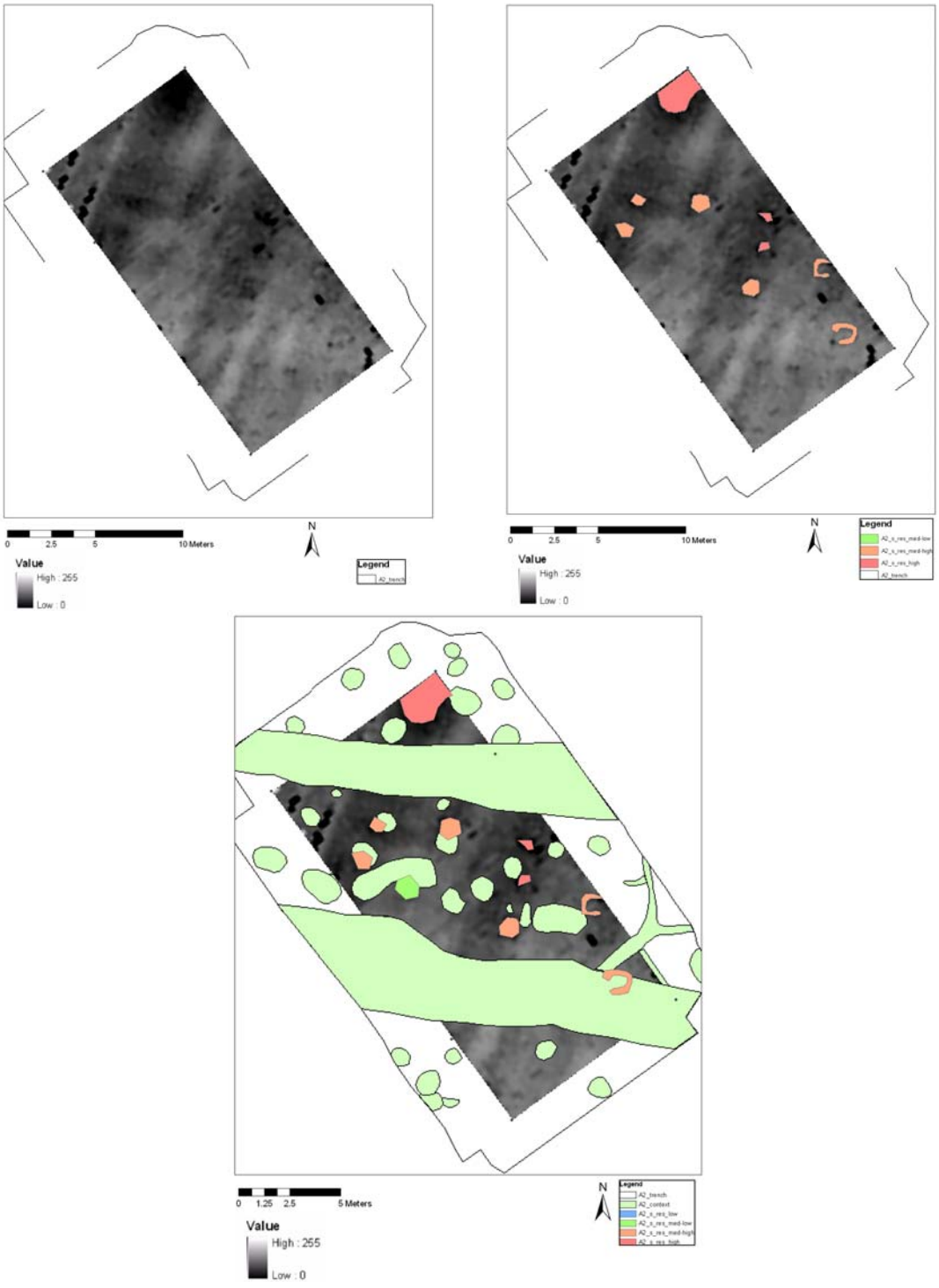

Figure 60. Area A2 resistivity survey map at 0.25m depth (left) with overlain highlighted anomalies (right) and excavation plan (bottom).

Though three anomalies identified in this instance at 0.25m appear to coincide with post-pits, they do not provide enough conclusive evidence for the mapping of the 'Woodhenge'. As in the case with area A1, one or two possible pit features do not constitute an archaeological feature interpretation.

These three anomalies at 0.25m depth in addition to a few other medium-high anomalies interpreted throughout the entire depth of the data do coincide with some of the archaeological post-pit features. Though previously stated that this would not define an archaeological feature such as the 'Woodhenge', these anomalies are important to investigate further. If they do in fact represent the post-pit features in the 'Woodhenge' it should be established why these and not others appear as weak anomalies in the surface survey. Suggested further methods of investigation include inversion and vertical profiling of the data and examination in a 3D format. Additional scrutiny of excavated materials from these post-holes compared to others that did not appear in the resistivity data and information from the soil sampling work would hope to better understand the reasons why some post-pits appear, though weakly, in the surface resistivity data.

Most of the post-pit features appeared as low resistivity anomalies in the gravel survey at the 0.25m depth. The overlain excavation plan showed positive identification of approximately 8 out of 9 or 10 mapped post-pits.

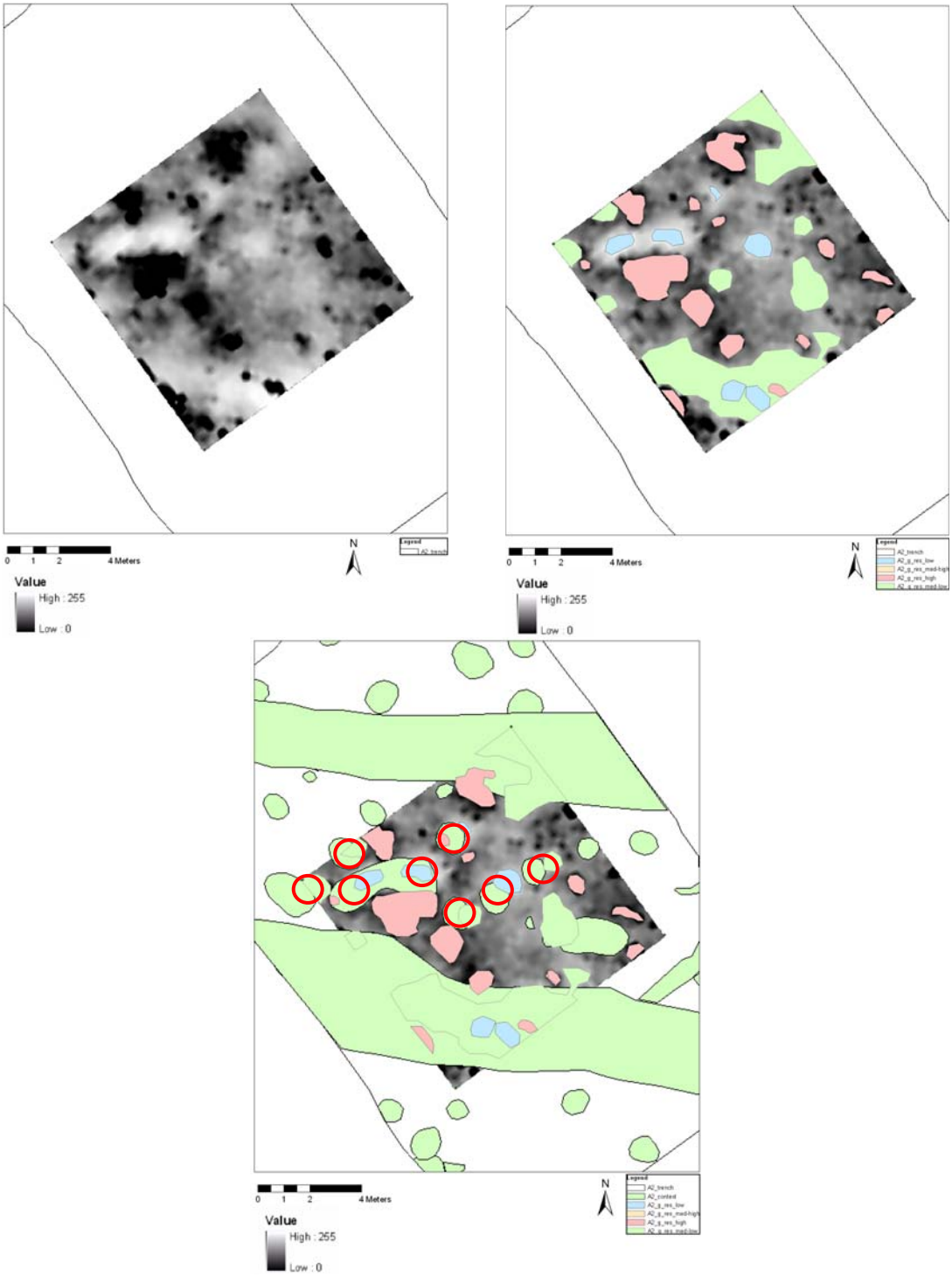

Figure 61. Area A2 resistivity (left) with identifications (right) and overlain excavation plan (bottom). Notice the high percentage of post-pits that have been mapped (circled in red).

Note: due to in-field mapping discrepancies, the archaeological plan map and geophysical maps do not perfectly align, but features overlap sufficiently to be positively identified.

Investigation of subsequent maps at 0.50 and 0.75m levels did not reveal strong anomalies defining the post-pit features. Instead the anomalies in the resistivity data appeared to be more geological and random in nature.

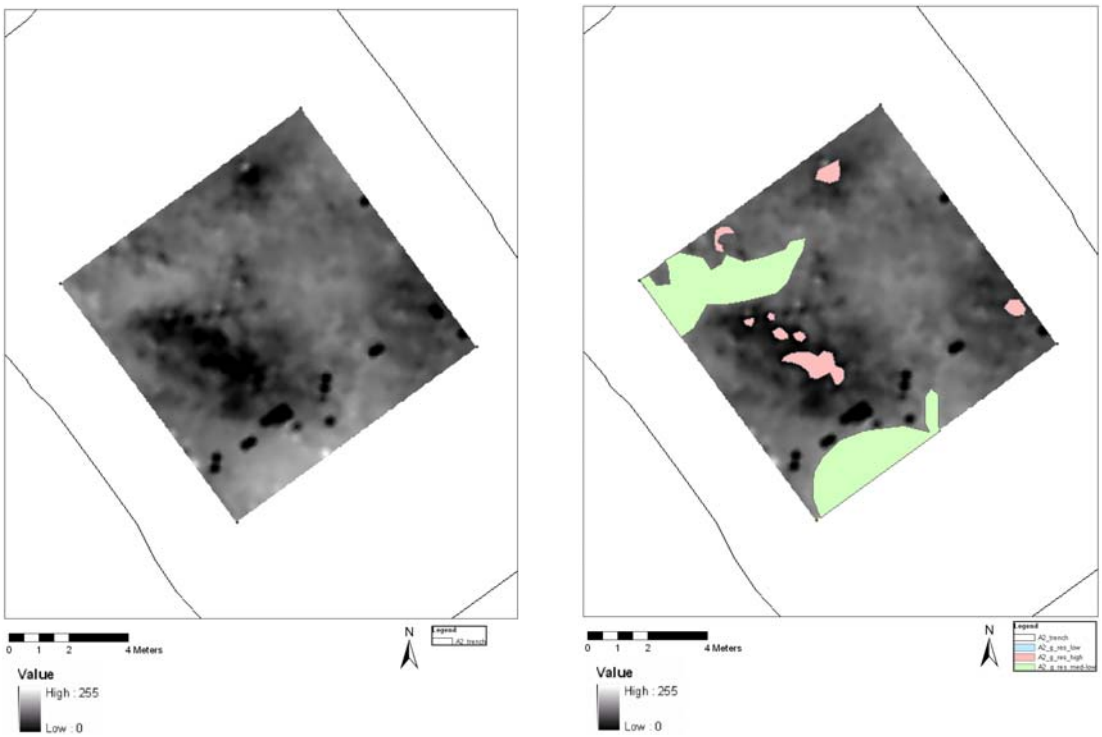

Figure 62. A2 resistivity gravel survey data at 0.50m (left) with interpretations (right). Note the lack of distinct post-pit anomalies.

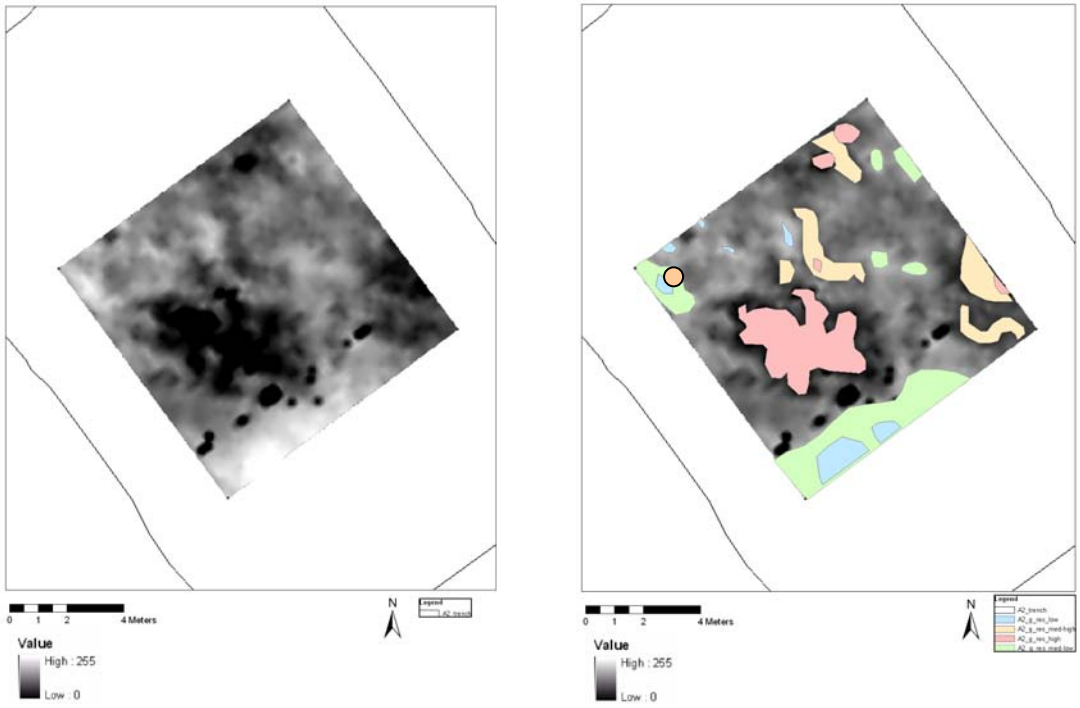

Figure 63. A2 resistivity gravel survey at 0.75m (left) with interpretations (right).

Though not entirely clear, the post-pit anomalies began to appear at 0.75m depth. This feature identification was done both on anomaly recognition and with the help of using excavation plans to look for anomalies that may not have been selected in the first round of data assessment.

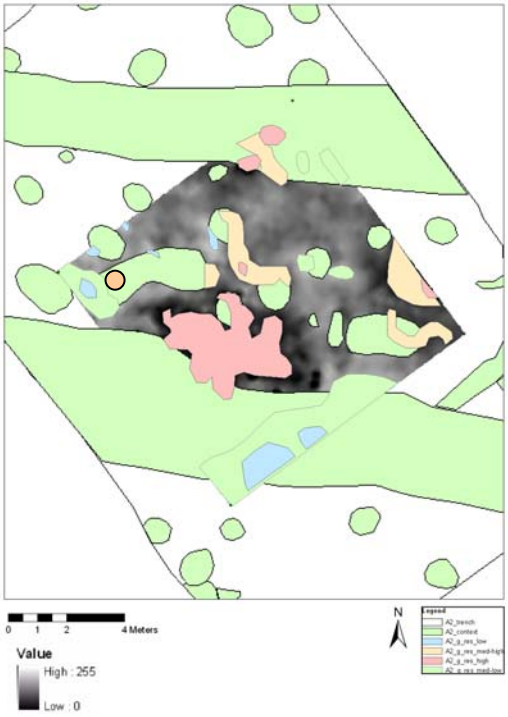

Figure 64. A2 resistivity gravel survey at 0.75m with interpretations and excavation plan.

The archaeological features become slightly more recognisable at 1m depth. This analysis was done however, with the aid of the excavation plan to interpret the anomaly map. The actual post-pit features appeared at this depth as predominantly medium-high to high resistivity anomalies, the opposite from how they were mapped on the surface of the survey area.

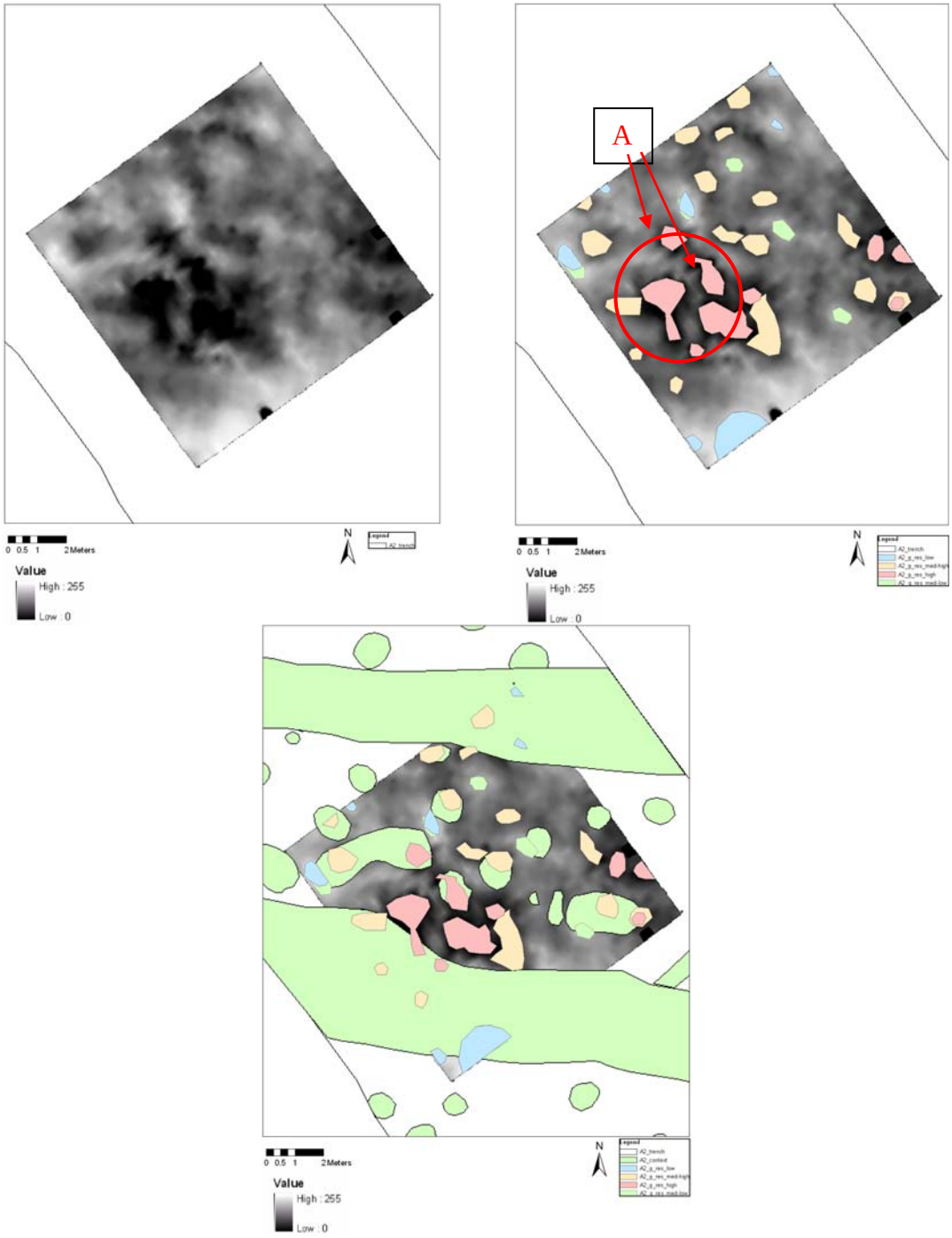

Figure 65. A2 resistivity gravel survey at 1m depth (left) with interpreted anomalies (right) and overlain excavation plan (bottom).

Note the predominant high resistivity anomalies clustered just west of the centre of the area (circled in red). Two of these features are post-pits A, in the figure above. The other, larger high resistance anomalies are a geological feature, most probably a deposit of gravel or other such well-drained material. It is instances like this that makes the interpretation between archaeological and geological anomalies very challenging. Another challenge presented to differentiation between archaeological and non-archaeological features at this point in the data is that the resistivity value of our target has changed from low to high. This prevents an across the board resistivity classification for the post-pit feature.