SITE RESULTS SUMMARY

GEOPHYSICAL SURVEY REPORT NO: Rowe 17/01   **NGR**: ST 541 774

SITE NAME: Kingsweston House, Bristol – Resistance Survey Area.

SITE TYPE: Landscaped recreational area.

DESCRIPTION: Grassed area adjacent to Kingsweston House, Bristol.

PERIOD: 16th – 21st Century.

GEOLOGY: Sandstone of the Farrington Member and Barren Red Member (Undifferentiated): overburden to an unknown depth by re-deposited top / sub soil.

LAND USE: Grassed / Open Recreational Area.

SURVEY TYPE: Resistance   **METHOD:**   Zig – Zag

INSTRUMENT: Geoscan RM15   **SURVEY AREA:**   40m x 80m

SAMPLE INT: 1m   **TRAVERSE INT:**   1m

RESULTS SUMMARY:

Two RM15 resistance surveys (A & B) (**Figure 1**), total area 40m x 80m (two x four 20m² grids), was completed March 2017 on behalf of the Forgotten Landscapes Project and Kingsweston House Action Group.

Providing positive geophysical raw data that can potentially assist the archaeological interpretation of the site (**Figure 2**), located north of the survey grid (southwest of Kingsweston House) can be seen an areas of high resistance (**i**) bounded by an area of low resistance (**ii**). Parallel to these can be seen a high resistance anomaly extending northwest to southeast (**iii**), with an intersecting medium resistance anomaly offset at a right angle midway running in a southwest direction (iv). Suggesting sub-surface anomalies potentially consistent with material associated with a possible building, walls, or garden feature; two further areas of high resistance (**iv** & **v**) similarly consistent with subsurface material can be seen located in the southeast corner of the survey grid. With a band of medium to high resistance (**vi**) bounded by two further bands of medium to low resistance (**vii** & **viii**) running southwest to northeast across the survey grids, two bands of medium resistance extending southwest to northeast (**ix** & **x**) interspersed with medium to low resistance anomalies (**xi, xii** & **xiii**) suggest the presence of potential subsurface linear anomalies relating to garden features/paths, ploughing or natural geology (Sandstone) exposed near surface when the area was landscaped during the 19th Century (**Figure 3**).

With positive geophysical data recovered for the site, to establish the exact nature of these features it is recommended that further archaeological investigation is made (evaluation trenches) to substantiate these findings.
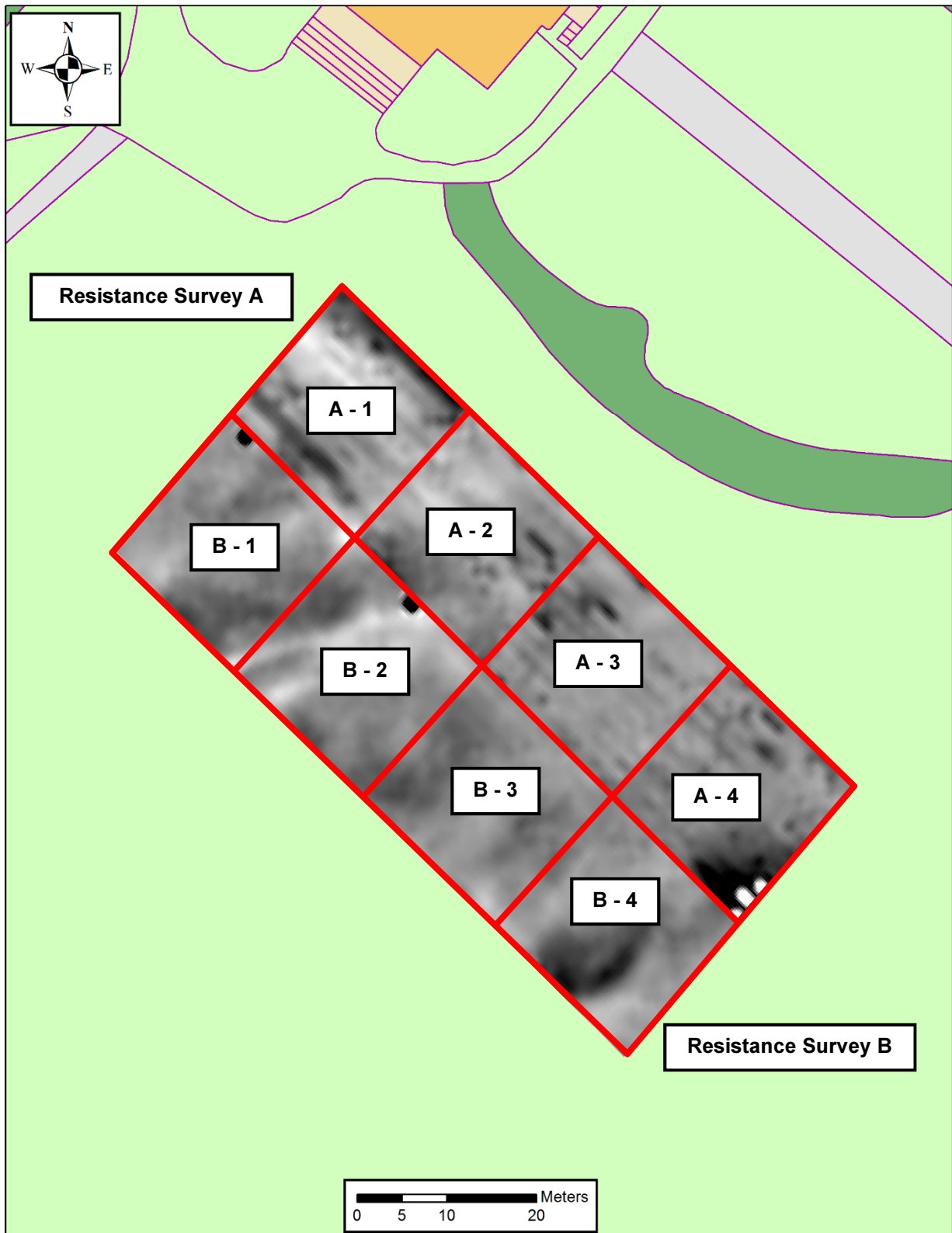

REPORT AUTHOR: Dr Philip R Rowe

Figure 1 – RM15 Resistance Survey's A and B.

Resistance Survey A

Resistance Survey B

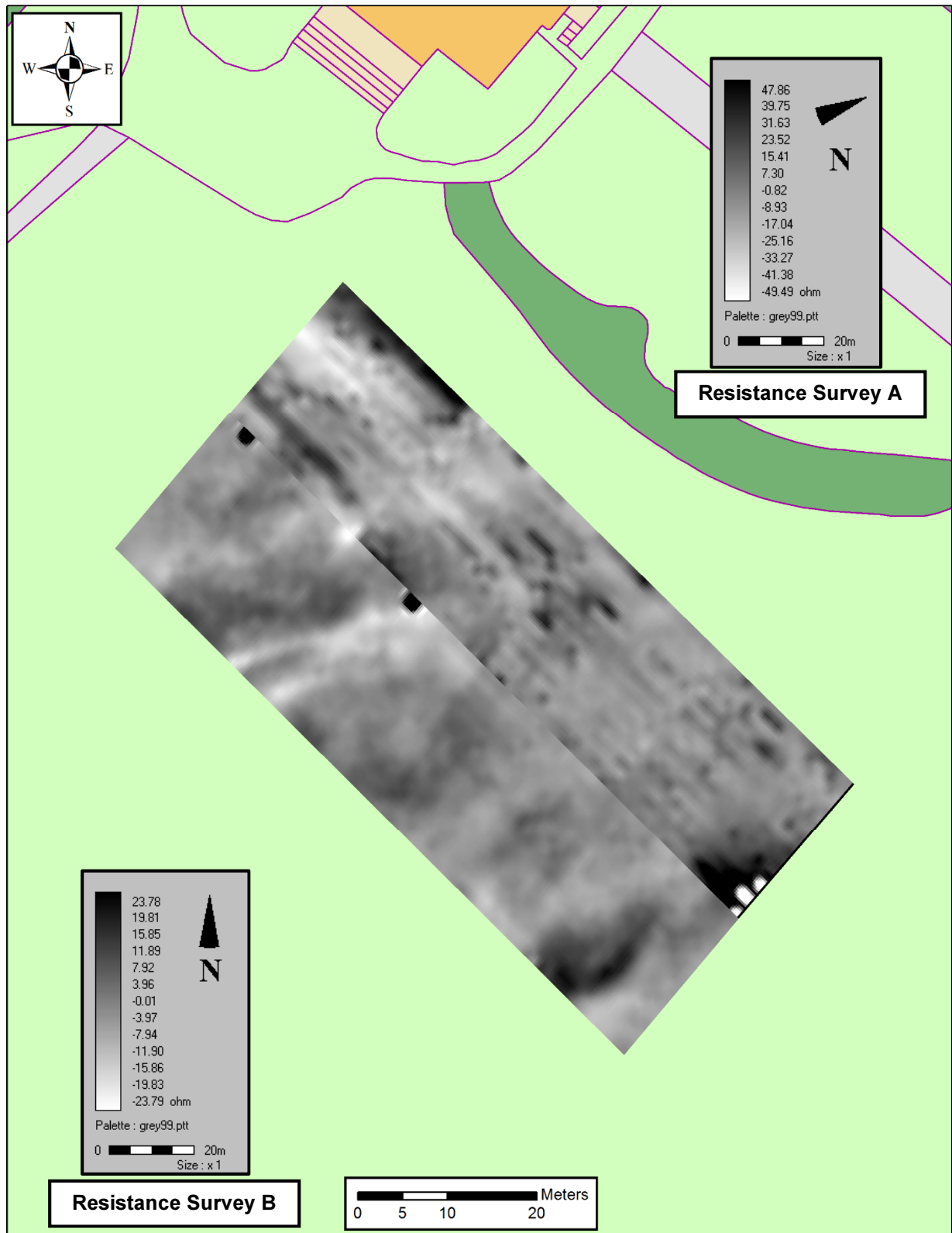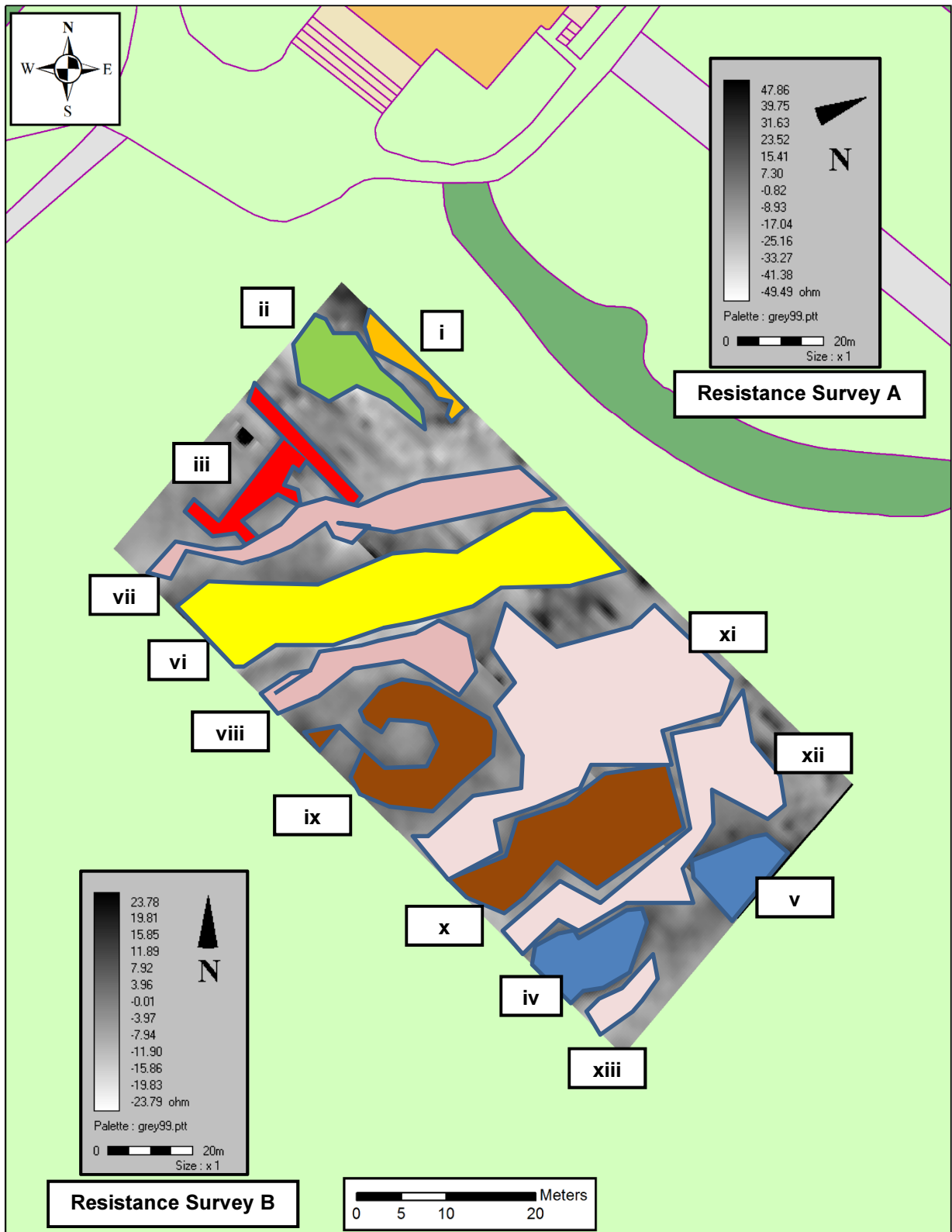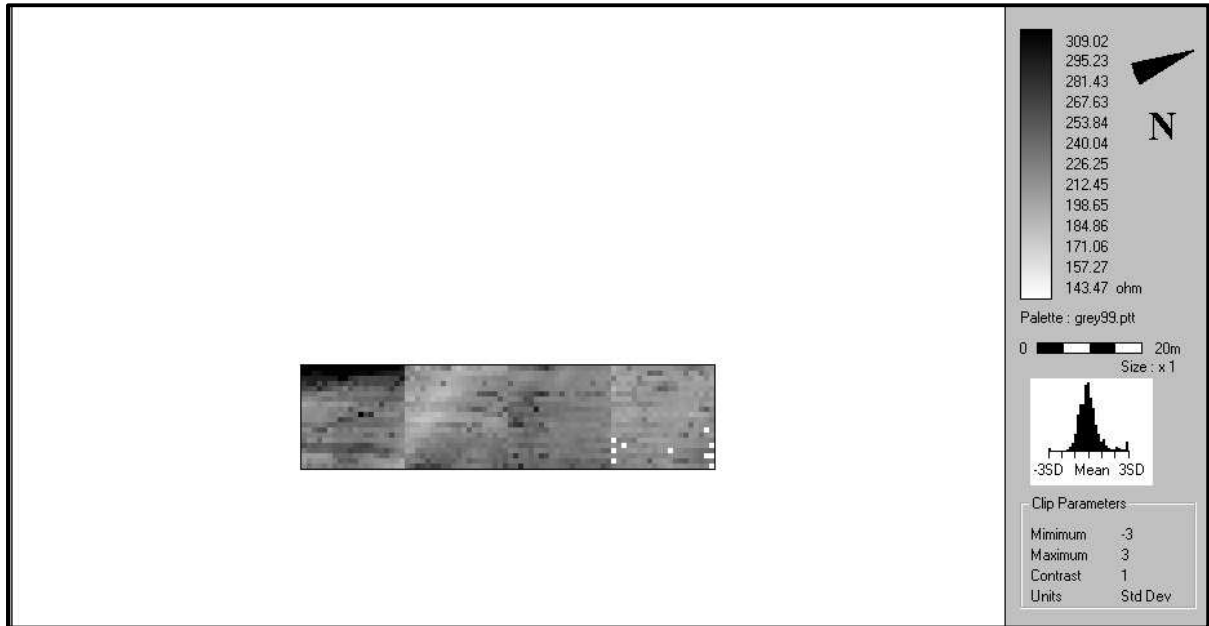|	Meters	
0	5	10	20

Figure 2 – Survey Results (Processed).

Figure 3 – Survey Results (Anomalies Highlighted).

File Data

Raw Data

Survey A

Survey B

Processed Data

Survey A


```
Em1R Em2L Em2R Em3L Em3R Em4L
Despike X=1 Y=1 Thr=3 Repl=Mean
HPF X=10 Y=10 Wt=U
LPF X=1 Y=1 Wt=G
Interpolate Y, Expand - SinX/X, x2
Interpolate X, Expand - SinX/X, x2
Em1R Em2L
Interpolate Y, Expand - Linear, x2
Interpolate X, Expand - Linear, x2
------------------------------------------------------------
```

47.86
39.75
31.63
23.52
15.41
7.30
-0.82
-8.93
-17.04
-25.16
-33.27
-41.38
-49.49 ohm

Palette : grey99.ptt

0   20m
Size : x 1

-3SD   Mean   3SD

Clip Parameters

Mimimum	-3
Maximum	3
Contrast	1
Units	Std Dev

Survey B


```
Despike X=1 Y=1 Thr=3 Repl=Mean
HPF X=10 Y=10 Wt=U
LPF X=1 Y=1 Wt=G
Interpolate Y, Expand - SinX/X, x2
Interpolate X, Expand - SinX/X, x2
Interpolate Y, Expand - Linear, x2
Interpolate X, Expand - Linear, x2
------------------------------------------------------------
```

23.78
19.81
15.85
11.89
7.92
3.96
-0.01
-3.97
-7.94
-11.90
-15.86
-19.83
-23.79 ohm

Palette : grey99.ptt

0   20m
Size : x 1

-3SD   Mean   3SD

Clip Parameters

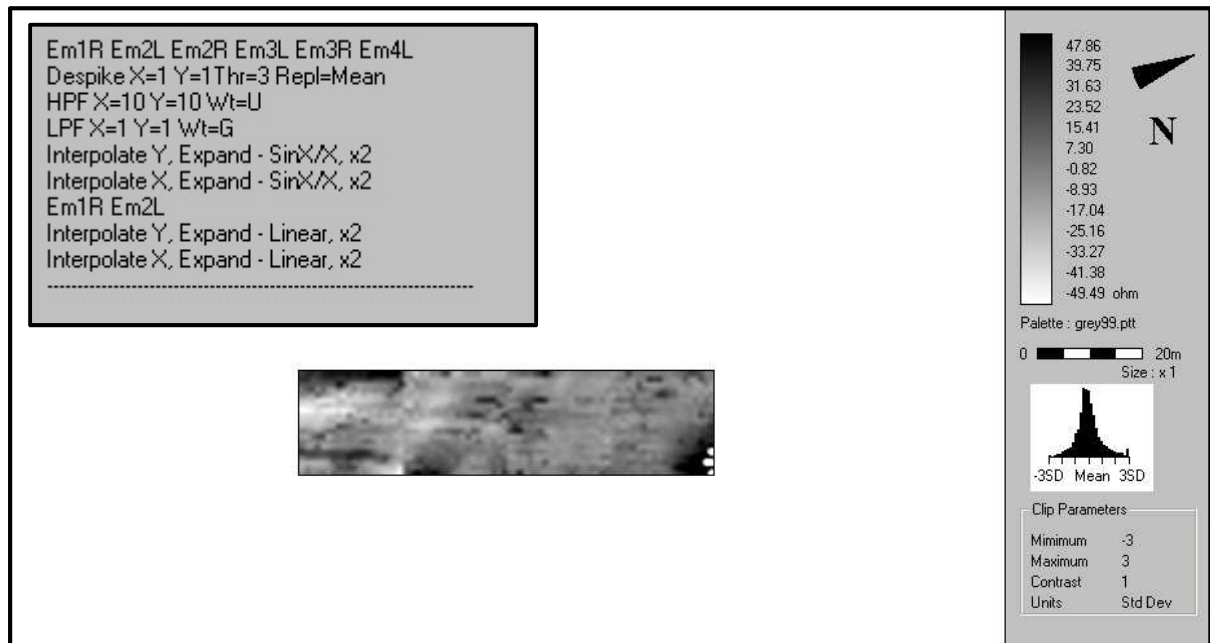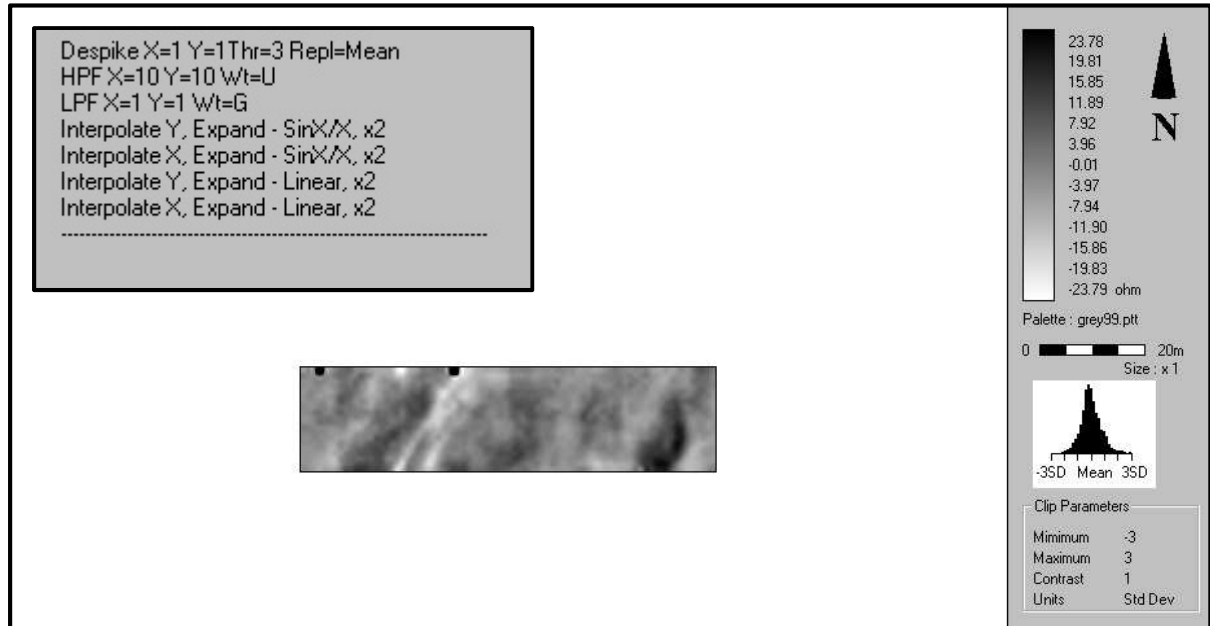| Mimimum | -3 |
Maximum	3
Contrast	1
Units	Std Dev

Summary of Data Processing (from Geoplot Manual © Geoscan Research).

Despike – Used to automatically (a) locate and remove random, spurious readings often present in Resistance.

Edge Match – Removes grid edge discontinuities often present in Twin electrode resistance.

High Pass Filter – Used to remove low frequency, large scale spatial detail, typically the removal of a slowly changing geological "background" response commonly found in resistance surveys.

Low Pass Filter – Removes high frequency, small scale spatial detail, and is useful for smoothing data or for enhancing larger weak features.

Interpolate – Increases / decreases the number of data points in a survey (Increasing the number can be used to create a smoother appearance to the data, whilst Decreasing the number of data points using can be used to investigate the effect of different sampling strategies).