

Ground Penetrating Radar Survey Report: Supplement

**Military Cemetery
Israel**

Private

Data acquired August 9, 2004
Supplement to original October, 2004 report

Compiled 15 April, 2005

**Survey and Report Published by Mnemotrix Systems, Inc.
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Actions Taken

During August, 2004, Mnemotrix Systems, Inc. was asked to assist in a project to determine if Ground Penetrating Radar (GPR) could be useful in resolving certain instances where a lack of clarity remained regarding historic burials in Israel, beginning with a selected burial plot in a historic military cemetery. Mnemotrix agreed to undertake a test survey on one particular plot marking a burial from the late 1940's, where 7 people were known to be buried, and are respectively marked by 7 headstones. There is a question, however, as to whether an 8th person may have been also buried in this plot, at that time.

Figure 1 shows the most complete view of our postulated groupings that were seen in an animation created for analysis, available on the Mnemotrix website at this URL:

http://www.mnemotrix.com/geo/cemetery/cem_anm2.gif.

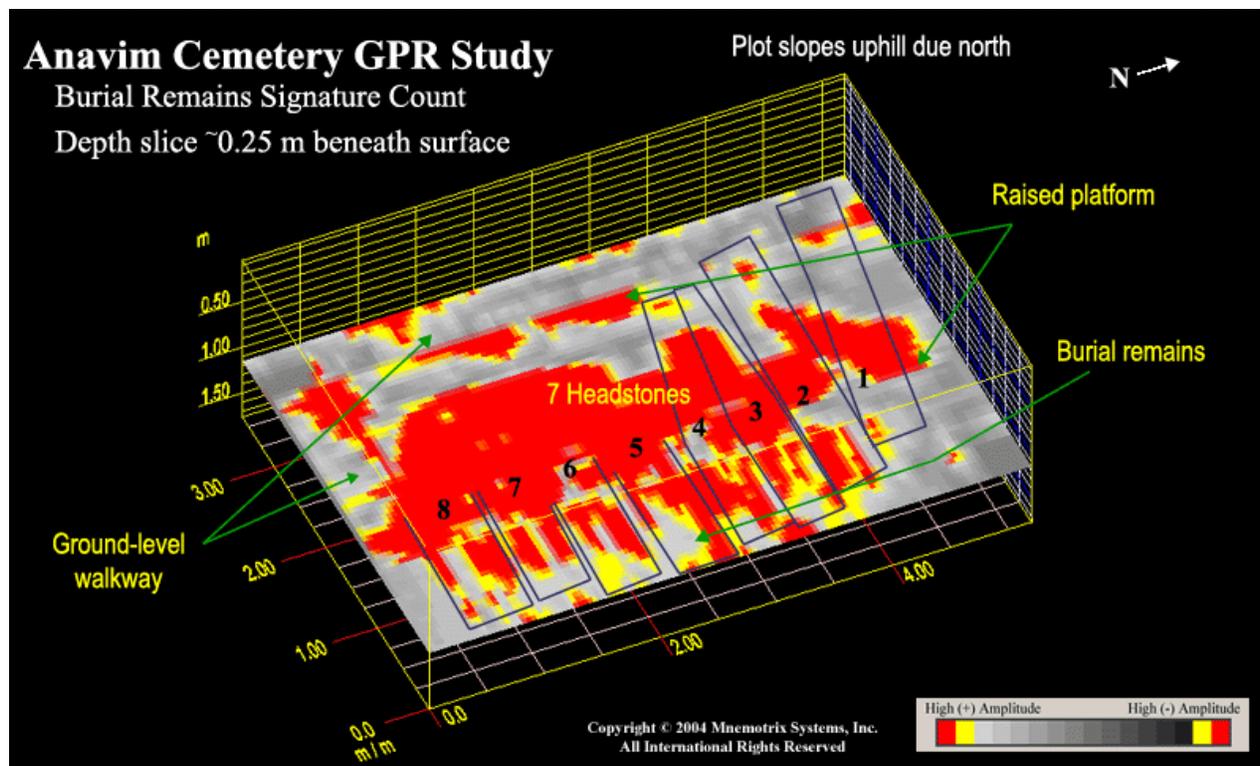


Figure 1: Burial Remains Signature Count at ~0.25 m depth slice.

A significant amount of post-processing and analysis was completed, resulting in the original GPR report submitted in October of 2004. It was decided that further figures would be helpful in the elucidation and understanding of the GPR scans, resulting in this *supplemental* document.

What follows are several Y-slice figures that show the clearest view of the plot (raw data) in the north to south direction moving west of the eastern plot border until we reach the headstone area (please see original report for full figures of area). An interpreted GPR data figure follows its reciprocal raw data profile.

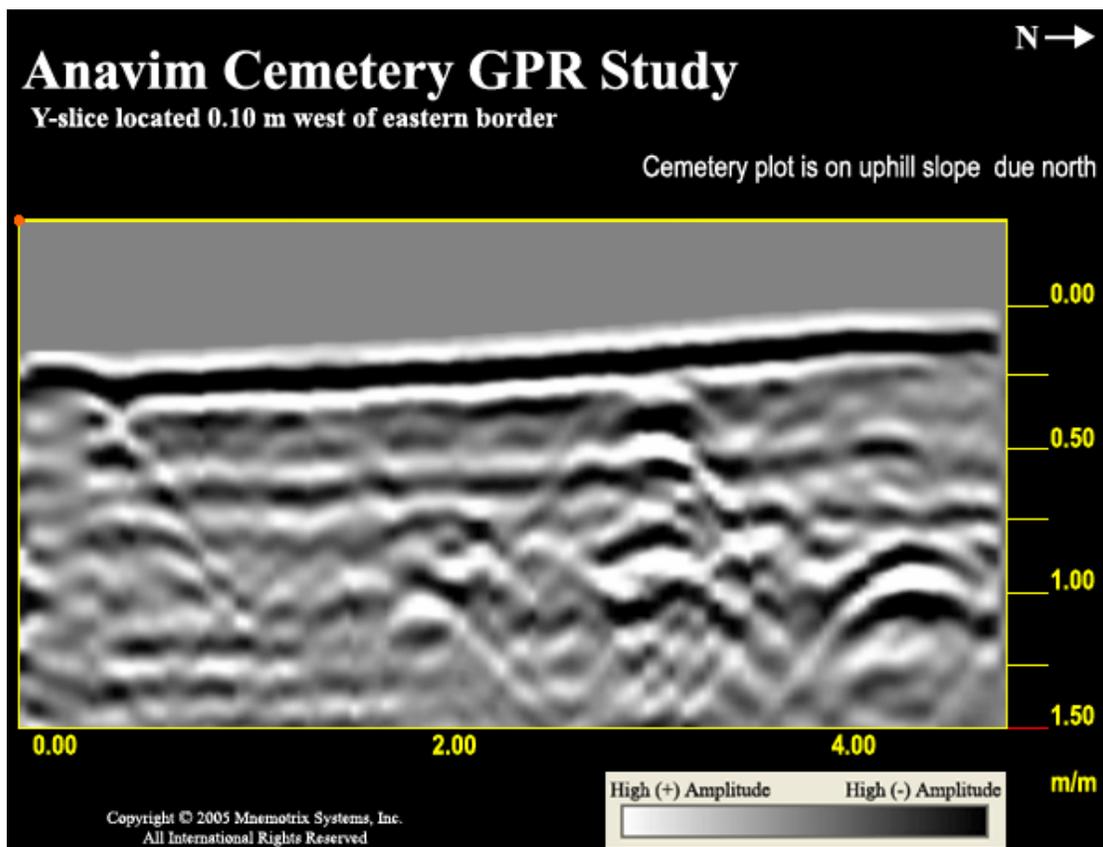


Figure 2: Raw data – Y-slice 0.10 m west of eastern border.

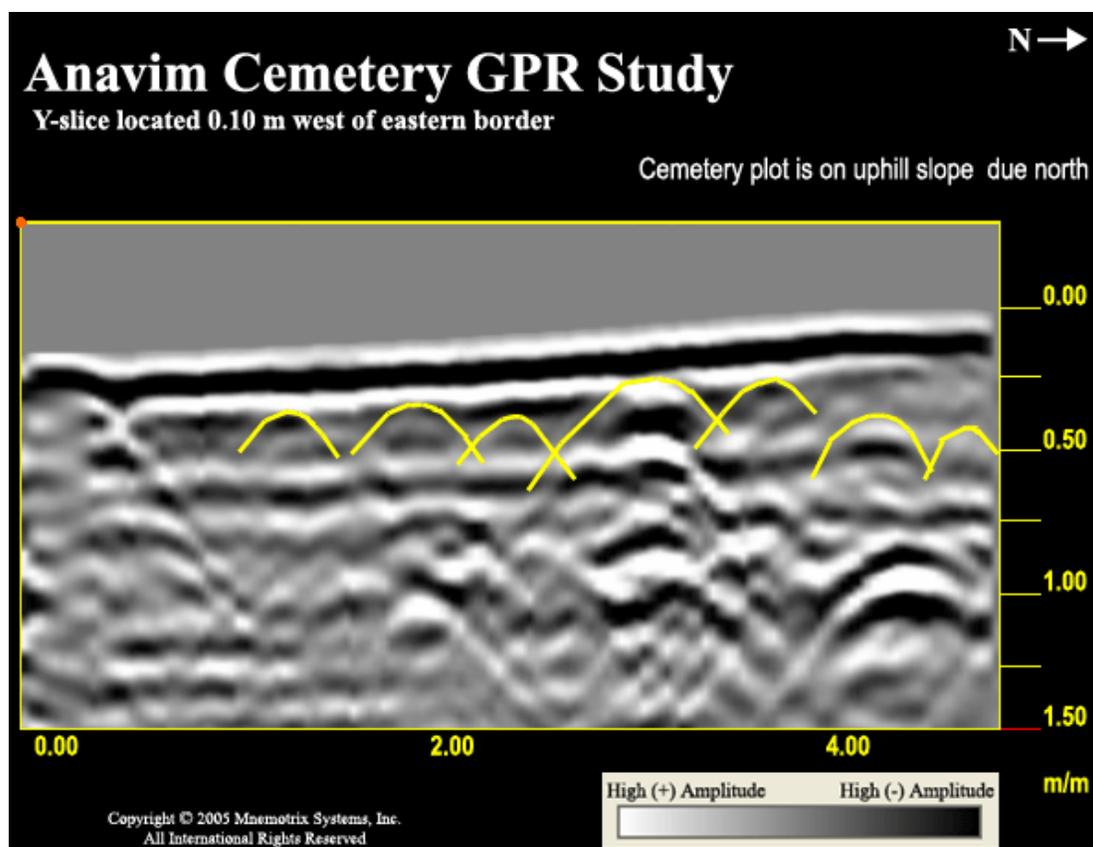


Figure 3: Interpreted data – Y-slice 0.10 m west of eastern border.

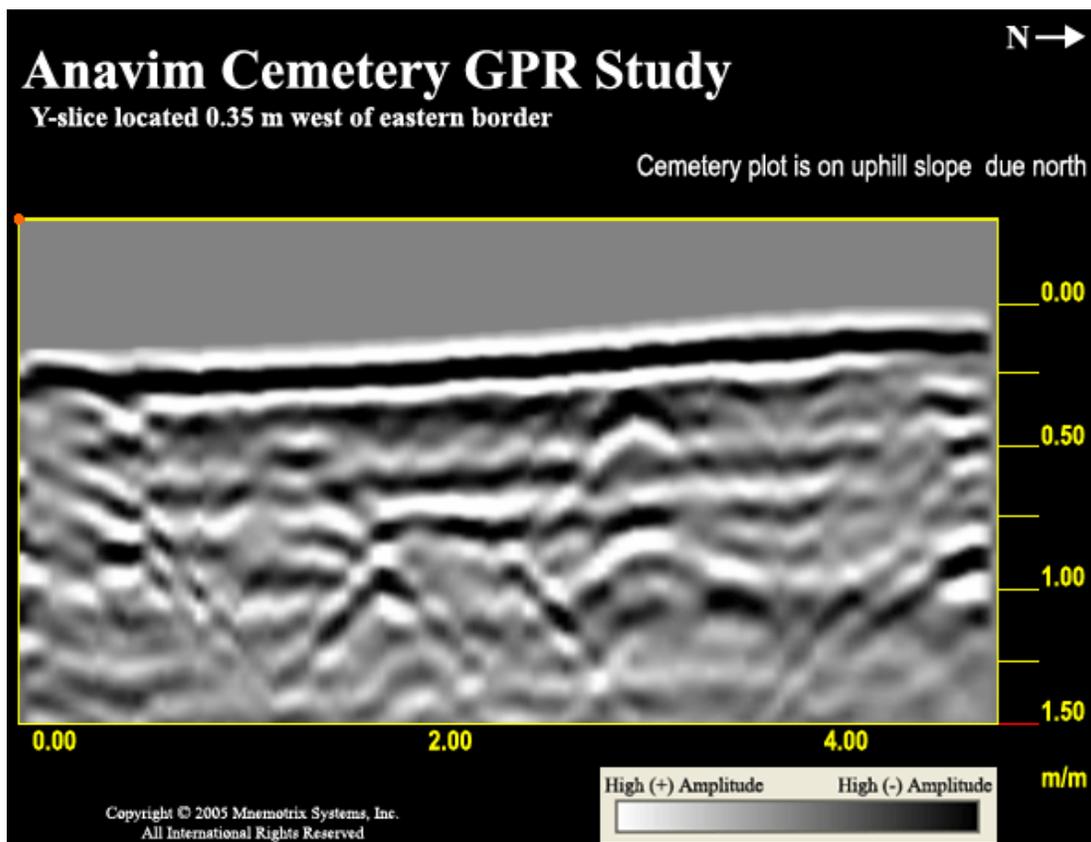


Figure 4: Raw data – Y-slice of 0.35 m west of eastern border.

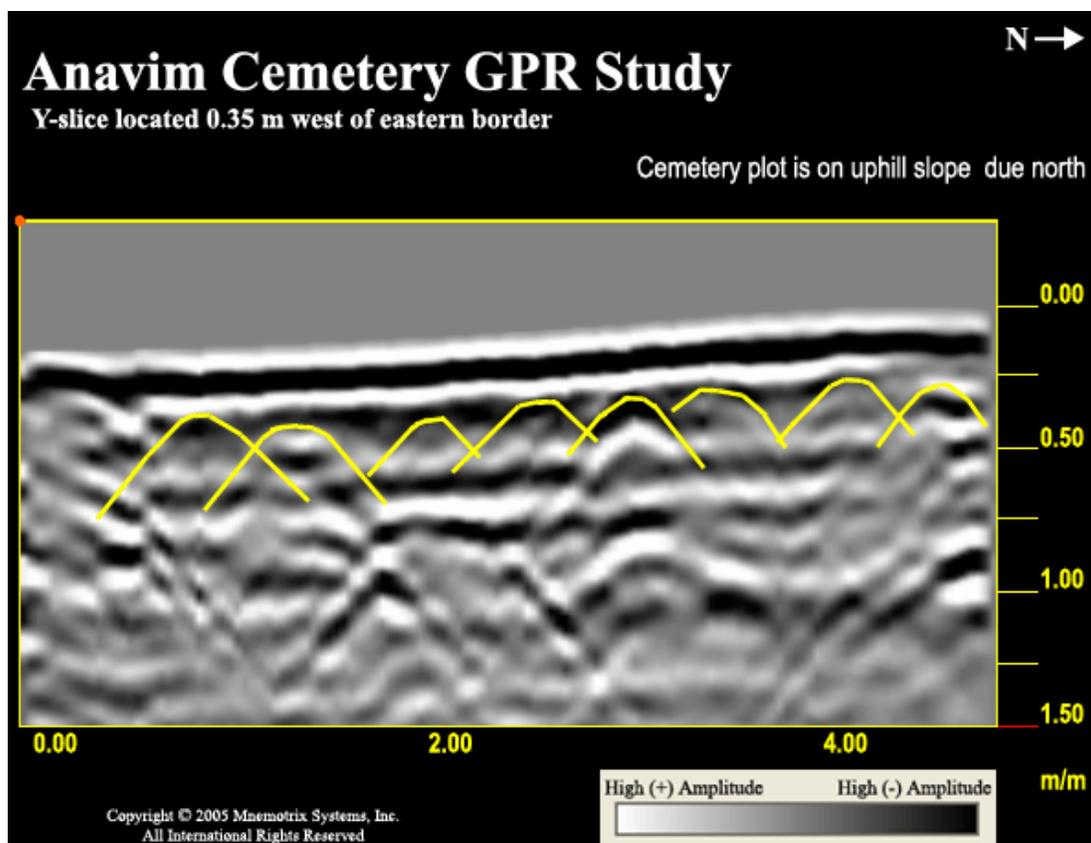


Figure 5: Interpreted data – Y-slice of 0.35 m west of eastern border.

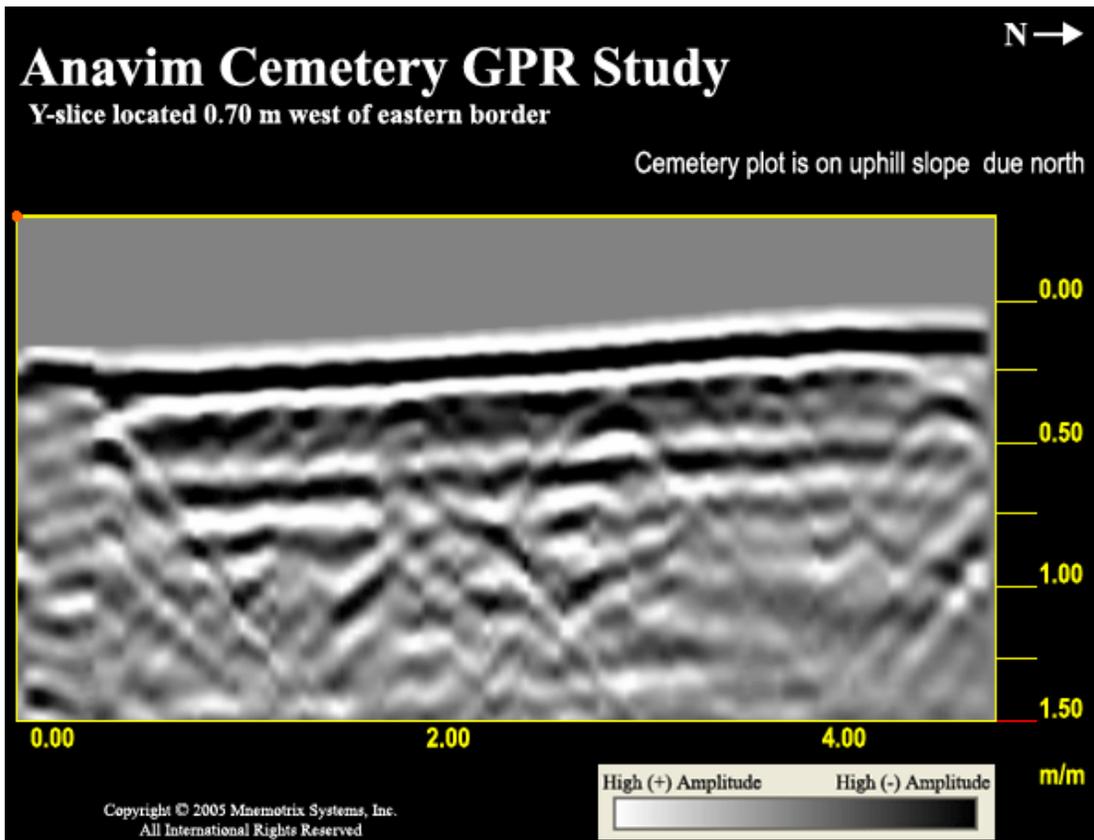


Figure 6: Raw data – Y-slice 0.70 m west of eastern border.

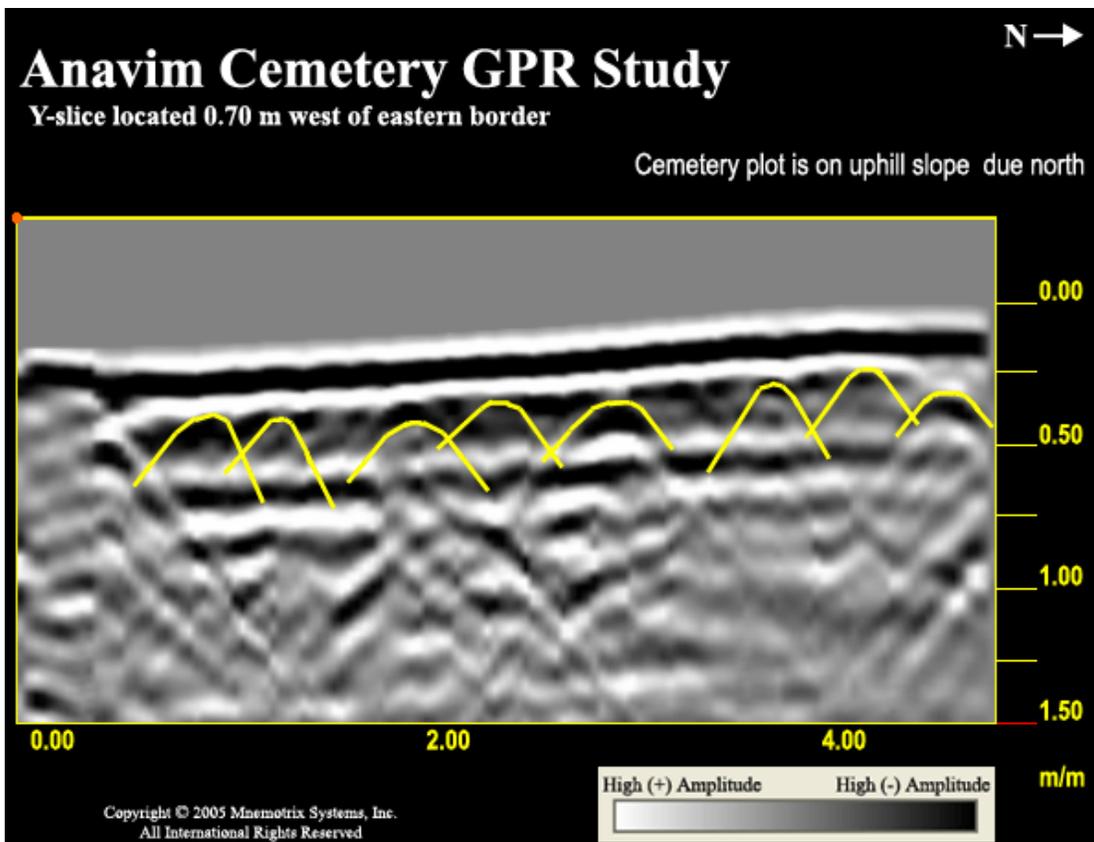


Figure 7: Interpreted data – 0.70 m west of eastern border.

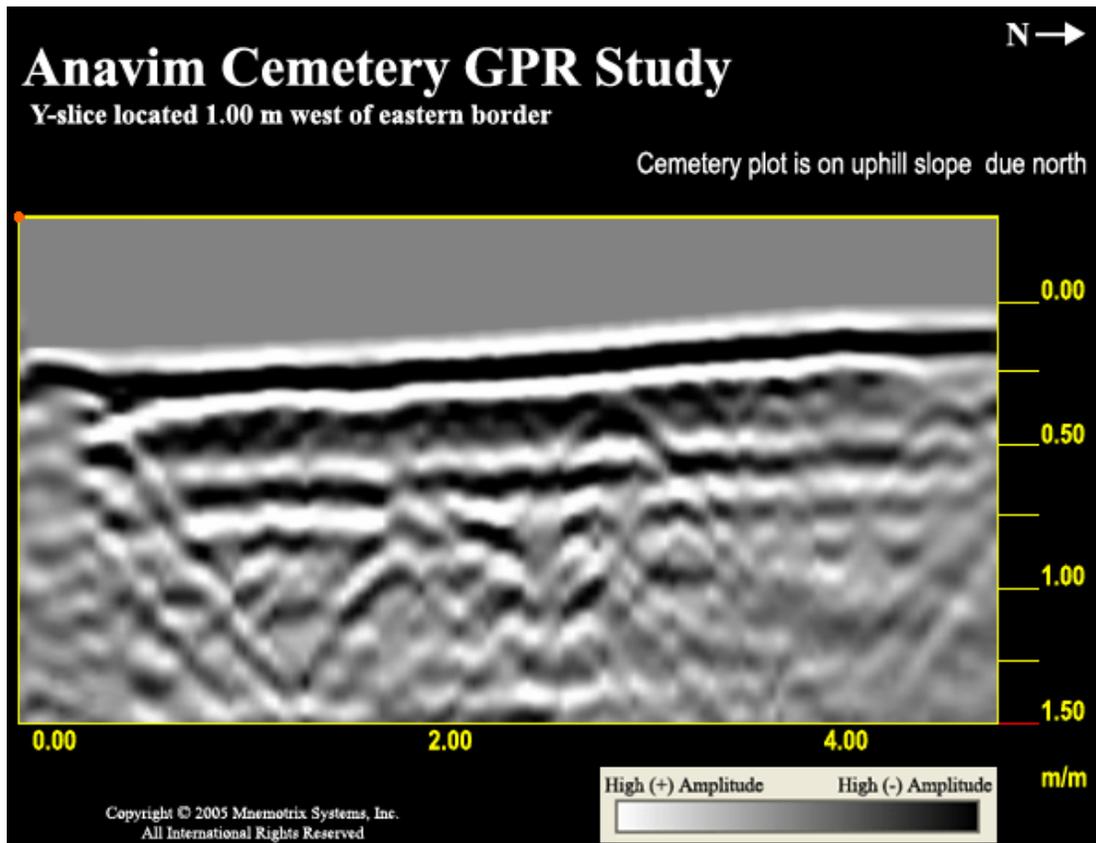


Figure 8: Raw data – 1.00 m west of eastern border.

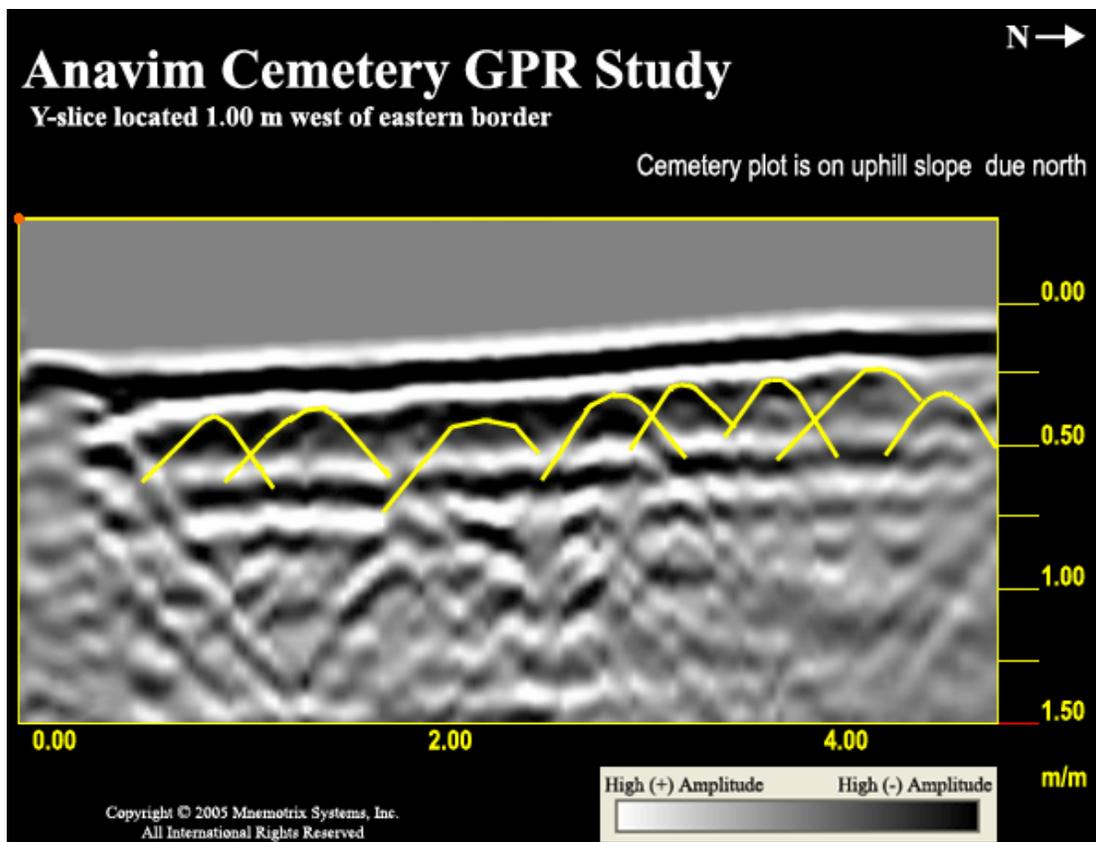


Figure 9: Interpreted data – 1.00 m west of eastern border.

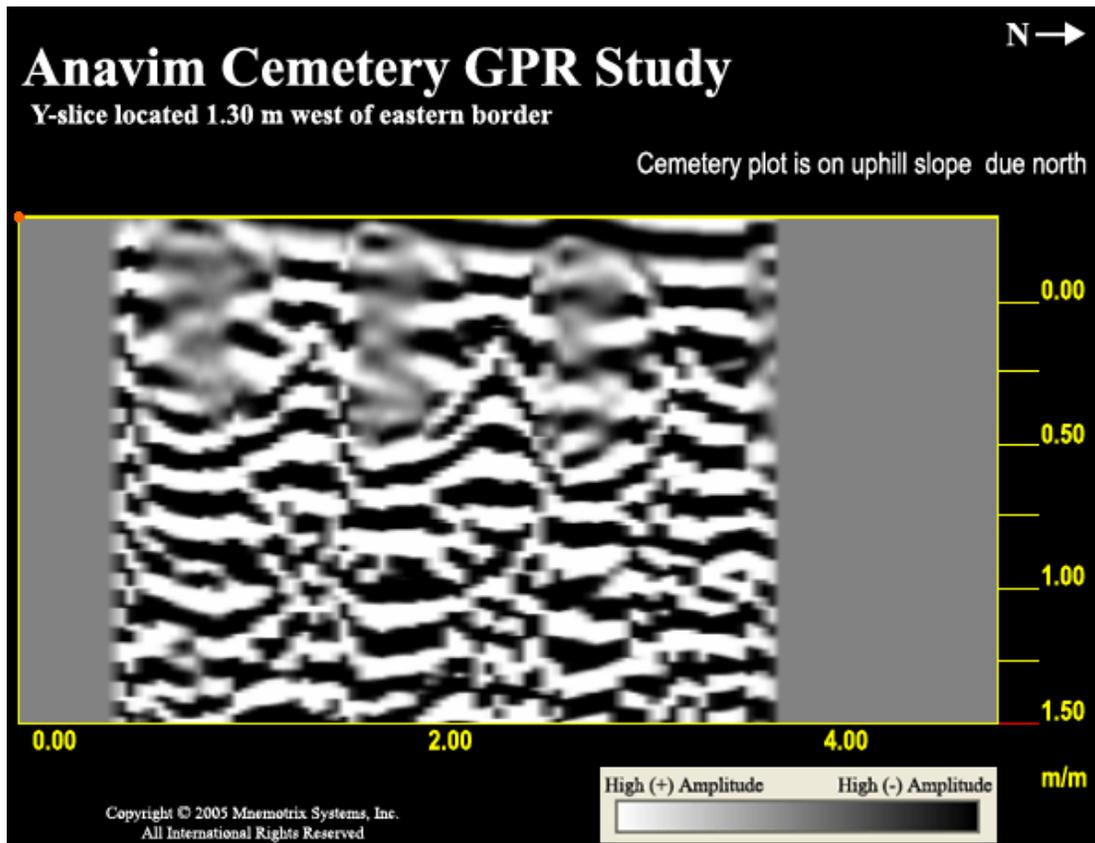


Figure 10: Raw data – 1.30 m west of eastern border. This Y-slice is located on the edge of the headstones, which can be seen here as three distinct “cloudy” areas. Note that because of the distinct change in material from concrete headstone to soil and sub-surface, it becomes difficult to “see” what lies below them. This area was markedly full of high positive amplitudes in the animation which was created for analysis in the original report.

What we can see in the above figures is 8 anomalies that appear to be located in the first meter of the sub-surface. A horizontal reflection is also present at ~0.50 meter depth. Above each reflection/hyperbola the coupling anomalies can be seen that are discussed in the original report. It appears that these anomalies are present in the Z-slice depth profile on either side of the reflection, where the coffin is believed to be seen. This horizontal reflection may also be a stone that is placed on top of the bodies at the time of burial, as pertaining to Jewish custom.

Conclusions

It is clear from the above figures that indeed 8 distinct and consistent anomalies exist in the sub-surface GPR data. Thus having created the above figures to assist in the further understanding of the sub-surface here, our *conclusions remain the same*, that the preponderance of evidence weighs towards the probability that there may indeed be 8 rather than just the 7 documented burials in this plot.

In a purely scientific environment, we would suggest that there is enough evidence of an 8th similar anomaly to warrant a ground-truth study to attempt to determine what it might be. However, given that Jewish law demands a level of respect which dictates leaving things as they are, we can only make our best recommendation based on a non-invasive study. In that sense, we feel we must confirm our conclusion that we are seeing 8 anomalies rather than 7.