

**Geophysical Survey Report
EAGLAIS NA H-AOIDHE
ST COLUMBA'S UI CHURCH
AIGNISH, ISLE OF LEWIS**

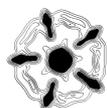


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Executive Summary

A programme of geophysical survey was undertaken within Eaglais na h-Aoidhe and its graveyard as part of wider extensive research into the graveyard and its burials. The main purpose of the survey was to identify possible buried grave slabs and potential earlier buried features in the church and graveyard. Survey was also extended beyond the existing graveyard walls with the aim of identifying potential earlier limits of the graveyard.

The resistance and ground penetrating radar (GPR) surveys have detected a wealth of anomalies which support as well as complement each other.

The resistance survey and limited GPR survey beyond the current graveyard walls have predominately identified agricultural trends, natural variations and rabbit activity. However, to the east of the extant graveyard wall a high resistance anomaly consistent with potential wall footings has been detected which may indicate an original eastern extent of the graveyard.

Within the graveyard the results can be broadly divided into responses from burials, possible earlier limits of the graveyard, potential structural features and natural variations. Generally the resistance survey has not clearly identified burials. However the GPR survey has identified a wealth of burials. The GPR shows a clear distinction between burials in the west and the east of the graveyard with the responses in the western half much more coherent and regular. There are indications of a boundary suggesting the eastern original limit of the graveyard prior to the western extension.

Of possible interest is an apparent lack of burials in the area of the group of family burial plots which lie on an area of high ground in the southeast of the graveyard. It may simply be that the relatively steep slope in this area precluded burials. A resistance anomaly suggestive of a possible structure has also been detected in this area. However, interpretation of a possible structure is extremely tentative. The remnants of two possible mausoleums and / or burial plots have been tentatively identified in the data, although one appears to have been removed. Unfortunately no clearly defined structures have been identified within or adjacent to the church. This is thought to be due to the extensive amount of ground disturbance and tumble within these areas.

Survey:	Eaglais na h-Aoidhe, St Columba's Ui Church, Isle of Lewis
Client:	Urras Eaglais na h-Aoidhe / The Ui Church Trust
Funded by:	Heritage Lottery Fund
Date of Survey:	22 nd August – 1 st September 2017
Survey Personnel:	Dr S M Ovenden and A S Wilson
Report Author:	Dr S M Ovenden
Date of Report:	12 th September 2017

1. Introduction

- 1.1 A programme of geophysical survey was undertaken within Eaglais na h-Aoidhe and its graveyard as part of wider extensive research into the graveyard and its burials. The main purpose of the survey was to identify possible buried grave slabs and potential earlier buried features in the church and graveyard. Survey was also extended beyond the existing graveyard walls with the aim of identifying potential earlier limits of the graveyard.
- 1.2 The main area investigated covers approximately 0.5 Ha and a combination of Resistance and Ground Penetrating Radar (GPR) surveys were undertaken. Resistance survey was also carried out within a 20m buffer zone, where possible, around the existing graveyard. A small additional area of GPR was carried out immediately to the west of the graveyard prior to potential development in this area. The survey areas are displayed in Figure 1 at a scale of 1:500.
- 1.3 To aid interpretation of the data, and to topographically correct the GPR data, a limited conventional survey was also undertaken.
- 1.4 Figures 2 - 8 display data plots and interpretations of the resistance survey data, all produced at a scale of 1:500.
- 1.5 The results from the GPR survey are displayed as a series of depth slices maps, with accompanying interpretations, in Figures 9 – 44 also at a scale of 1:500.

2. Methodology

- 2.1 Prior to data collection a series of 20m grids were established across the site and georeferenced using a Trimble R8 RTK GPS system. Geo-referencing information and CAD maps have been supplied to the client.

Resistance Survey

- 2.2 Resistance survey is ideally suited to locating walls, foundations, rubble spreads and burials. It can also identify ditches and pits.

- 2.3 Earth resistance surveys measure variations in the moisture content of the earth's subsurface by passing a small electrical current through the subsurface. Features such as walls and paths will show as high resistance anomalies, while features such as ditches, robber trenches and planting beds, with their humic fill, will usually result in a low resistance response.
- 2.4 Resistance survey was carried out using a Geoscan RM85 resistance meter. For this survey a standard twin probe configuration was used with a mobile probe separation of 0.5m providing a depth resolution of approximately 0.75m. Data was collected at 0.5m by 0.5m intervals.
- 2.5 The data was processed with Geoscan Research Geoplot 4.00 software, using a standard range of corrections and processing algorithms. Raw, interpolated and high pass filtered data have been included in the report. Interpolating data has the effect of smoothing the data image by interpolating the data in the X and Y direction resulting in the appearance of a 0.25m by 0.25m sample interval. Running a high pass filter on the data effectively removes background trends within the data thereby enhancing more discrete anomalies.
- 2.6 The data have been displayed at a variety of levels, in an attempt to enhance subtler anomalies. In area resistance survey the data values themselves are not significant but rather the changes relative to the background level of response. In some of the figures the data are plotted at absolute values in ohms (Ω) to try to pull out different anomalies. In other plots the statistics of the full data range are used and the data are plotted at plus/minus one or two standard deviations (SD).
- 2.7 In the data plots provided high resistance anomalies, indicative of stone or similar features, are indicated by black / red. Low resistance anomalies, suggestive of ditch type features, are displayed as white / blue.

Ground Penetrating Radar (GPR) Survey

- 2.8 GPR survey is the best technique for providing information of the depth and stratigraphy of a site and is required if archaeological deposits may extend to a depth greater than *circa* 0.75m. It is also the most appropriate technique for identifying burials.
- 2.9 In a GPR survey pulses of electromagnetic energy are directed downwards into the earth. The transmitted wave is affected by variations in the electrical properties of the subsurface, specifically the dielectric constant and the conductivity of the subsurface. Contrasts in these properties cause differential reflection of the energy wave creating an anomaly. The subsurface is mapped by recording the amplitude of this reflected energy and its travel time. The travel times are converted to depth using a calculated velocity.

- 2.10 The data were collected with a Mala X3M GPR system with a 500MHz antenna and processed using the GPRSlice software package. The data were collected as individual traverses at 0.02m intervals along transects 0.25m apart. All the traverses were then assembled into a block of data and processed and displayed as a series of time slice or depth maps. This type of data processing and visualisation can allow more subtle features and relationships between features to be analysed more readily.
- 2.11 In the data plots provided high amplitude reflections, indicative of stone or similar features, are indicated by red. Low amplitude reflections, suggestive of ditch type features, are displayed as blue.

3. General Considerations / Complicating Factors

- 3.1 Geophysical data can be ambiguous and while every effort has been made to ensure that the interpretations contained within this report represent an accurate record of potential surviving archaeological deposits, it is a subjective analysis of the data.
- 3.2 Survey within the area of extant features was limited due to the nature of data collection.

Resistance Survey

- 3.3 The distinction between natural and archaeological responses is based on the nature of the anomalies, their strength and form, and their wider context within the survey data.
- 3.4 The differentiation between 'Possible Wall', 'Possible Natural' and 'High Resistance' anomalies is based on the form of the response. However, it is possible that an anomaly noted as potentially indicating a structure may be natural in origin, and vice versa.

Ground Penetrating Radar Survey

- 3.5 The differentiation between 'Possible Burial', 'High Amplitude Response' and 'Rabbit Activity' anomalies is based on the form of the response. However, it is possible that an anomaly noted as potentially indicating a burial may be natural in origin, and vice versa.
- 3.6 The interpretations are based on the depth slices included in the report, animations (which are included on the accompanying CD) and analysis of the individual radargrams.

- 3.7 Given the nature of the archaeology and tests conducted on site, survey with a 500MHz antenna was deemed most appropriate. Data has been retrieved to a depth of approximately 2m. While survey with a 250MHz would have recorded data to a greater depth this would have been at the expense of near surface and lateral resolution.
- 3.8 GPR is very sensitive to marked variations in surface/near surface material e.g. paths, burial slabs. This may result in 'ringing' of the signal. This can result in near surface anomalies re-appearing in deeper depth slices due to the signal bouncing back and forth between the antenna and the feature.
- 3.9 The velocity value used to convert the recorded two-way travel time to depth has been established using software analysis. While the depths provided should be a reasonable estimation of the depth of features, there may be some variation as a constant value has been applied and the velocity can vary vertically and laterally within the subsurface.

4. Results of Resistance Survey (Figures 2 – 8)

Anomaly letters referred to below are shown on the accompanying interpretation diagram.

- 4.1 The resistance survey has recorded a wide range of values across the site. Most of the highest resistance values have been recorded to the east and south of the graveyard walls.
- 4.2 The amorphous linear anomaly (A) in the east of the area has the appearance of a wall or similar feature. Although it could be due to the path indicated on the 1st Ed OS map of 1849, it seems unlikely given its strength. The 'interrupted' nature of the anomaly is thought to be due to plough damage. Clear ploughing trends (B) are visible within this area which will have damaged any surviving wall footings. What is significant is the change in the level of response either side of anomaly (A). Much lower responses have been recorded to the west, while higher responses are evident to the east. The data suggests comparable responses to the west of anomaly (A) and within the graveyard. This is clear in all the plots, but particularly the shaded relief plot, Figure 6. The resistance data suggests that anomaly (A) may indicate a former eastern limit of the graveyard supporting interpretation of a possible wall rather than simply a later path. It is of potential interest that this would place the location of the extant mausoleum to the north within the graveyard. That is not to say the existing mausoleum was originally built within the graveyard. OS map evidence indicates that the existing graveyard wall was erected between 1849 and 1895, while the mausoleum was built between 1895 and 1960. It is possible that the extension of the postulated wall and western limit of the mausoleum is purely coincidental. However, it is conceivable that the mausoleum perhaps made use of the footings of a pre-existing structure, or the wall footings themselves.

- 4.3 The southern extension of (A) is unclear although response (C) does suggest the postulated wall extends beyond the current limits of the graveyard before potentially turning to the west. However, the broad area of high resistance (D), thought to be due to natural variations in the subsurface, confuses the data in this area.
- 4.4 The results from the southwest of the graveyard show a broad level of variation. The data are dominated by agricultural trends (E) on an east-west alignment. Although the high resistance responses (F) in the west of the area appear coherent, they are not thought to be archaeologically significant. It is most likely that this indicates an area that has not been ploughed but rather cultivated (potato ridges are still evident on the ground) and is subject to intense rabbit activity. Similarly, there is surface evidence to suggest that (G) is also due to rabbit activity, which extends northwards into the graveyard. Indeed, anomalies (H) along the northern limits of the graveyard, are also thought to be due to rabbit activity.
- 4.5 The resistance data within the graveyard is relatively uniform. This is thought to be due to the extremely high number of burials within the area (see GPR results). Several weak trends are visible within the data, e.g. (I), which are thought to indicate lines of burials.
- 4.6 The broad high resistance anomaly (J) is thought to be due to a rubble spread associated with a former wall. This feature is visible on the 1st Edition OS map (1849) and continues as a low earthwork to the south of the graveyard. Parts of the wall are also evident in the burn cutting, effectively culverting the burn at its northern end.
- 4.7 Just to the west of (J) a well-defined low resistance anomaly (K) has been detected. The regular, rectilinear nature of the response suggests it is not natural in origin. The size of the response is consistent with a potential mausoleum, although it could indicate a different structure. However, the low resistance response would suggest that if the anomaly does relate to such a feature it has been completely robbed. That is, all the stone has been removed and all that survives are the foundation trenches. There is some correlation in the GPR data which supports interpretation of a possible structure in this area (see Section 5.19)
- 4.8 A broad high resistance anomaly (L), on an east-west alignment, has been detected in the centre of the survey area. The origin of this is unclear. There is some evidence for it extending westwards. However, a gully is visible on the surface to the east of anomaly (L) raising the possibility that this may be associated with the path shown on the 1st edition OS map. It is unclear if the well-defined anomaly (N) to the south is associated with (L), or simply due to natural variations within the subsoil.

- 4.9 A very well-defined area of high resistance (O) has been detected to the west of the group of family burial plots. As can be seen from the topographic figure, Figure 7, this response occupies a slope and as a result may simply be due to preferential drainage or near surface bedrock. However, within the GPR data the response (5) is very rectilinear in appearance (see section 5.5) and as such an archaeological origin cannot be entirely dismissed. Although it does show some correlation with the earlier path. Response (P) is simply due to a burial plot.

5. Results of Ground Penetrating Radar Survey (Figures 9 – 44)

Anomaly numbers referred to below are shown on the accompanying interpretation diagrams.

- 5.1 Depth slices can be created parallel to the ground surface or on a true horizontal plane; which is most appropriate depends on the nature of the site and the buried archaeology. In this case the topographic changes on site are mostly thought to be natural, and as a result the parallel depth slices appear more informative.
- 5.2 The primary depth slice maps are provided in Figures 9 – 32 and represent 25cm spits through the ground, parallel to the ground surface. In order to better visualise anomalies some of the shallower depth slices overlap. Figures 33 – 44 display selected topographically corrected depth slice maps which represent 50cm spits through the ground on a horizontal plane with the depths provided being relative to OD, and are referenced when appropriate.

0.00m – 0.25m Parallel Depth Slice (Figures 9 & 10)

- 5.3 This surface depth slice is dominated by strong response from the footpath (1) and burial slabs visible on the surface (2). The gravel area within the church is also producing a strong response (3).
- 5.4 Several amorphous areas of high amplitude response (4) have been noted in the west of the survey area. These are believed to be due to rabbit activity which is extensive in many areas across the survey area.
- 5.5 Several more high amplitude responses have also been noted in the east of the survey area within this shallow depth slice. The most coherent of these is anomaly (5) just to the west of the cluster of family burial plots. Although very rectilinear in nature, with the suggestion of a return (6) to the east, its origin is unclear. Given its location on a relatively steep slope it may simply be due to better drained soils rather than a structure, although such an origin cannot be dismissed. It shows some correlation with resistance anomaly (O) and the former path.

- 5.6 The remaining, more discrete anomalies (7), closer to the church, may be significant. However, it seems likely that they are just due to surface changes and / or tumble just beneath the surface.

0.12m – 0.37m Parallel Depth Slice (Figures 11 &12)

- 5.7 Within this overlapping near surface depth slice the strong responses from the footpath (1) and burial slabs (2) are still evident. Similarly, the amorphous high amplitude anomalies (4) thought to be due to rabbit activity are still visible within this depth slice.
- 5.8 Towards the centre of the survey area a well-defined area of increased response (8) has been detected. This is a general area of high amplitude values which, while clearly defined at its limits, is not particularly coherent within. The northern edge of the zone coincides with a slight change in topography and as such this could simply be due to natural variations especially as this is a low lying area that is prone to flooding. This correlation is particularly clear on the animation (supplied on the accompanying CD) showing the parallel depth slices draped over the topography. However, there exists the possibility that this perhaps indicates a possible limit of an earlier graveyard. If this is the case it would suggest that perhaps the paths indicated on the 1849 OS map may follow the earlier limits of the graveyard to some extent. When viewing the topographically corrected depths slices a clear level of low amplitude response (8a) is visible in the 5.81m – 5.30m OD depth slice (Figures 35 – 36). This is consistent with an area prone to flooding and corresponds with the generally low resistance response in this area. Within the slight deeper 5.39m – 4.88m OD depth slices (Figures 37 – 38), a general area of increased response is apparent.
- 5.9 The linear trend (9) coincides with a slight gully visible on the surface and may indicate a drainage feature. The anomalies (5) and (6) adjacent to the family burial plots are still evident within this depth slice.
- 5.10 A general area of increased response (10) is also apparent to the south of the church. This is thought to be due to the presumed high amount of debris in the area as suggested by earlier photographs of the site.
- 5.11 A relatively coherent high amplitude anomaly (11) has been detected immediately to the south and east of the church. While it is tempting to consider the possibility that this may indicate potential structural remains in the area, such an interpretation is extremely cautious. The location of the anomaly is not consistent with a postulated earlier 14th century structure adjoining the church. However, although it could be a further unknown structure there is significant tumble in this area making interpretation cautious.

- 5.12 A coherent high amplitude response (12) has been detected to the north of the church. The nature of the anomaly suggests a potential structure such as a burial plot. There are some suggestions on the ground surface for the remnants of a wall.

0.25m – 0.50m Parallel Depth Slice (Figures 13 &14)

- 5.13 The broad area of increased response (8) in the centre of the survey area is still apparent within this depth slice. The more amorphous area of increased response (13) in the west of the area is thought to be to a combination of burials and rabbit activity.
- 5.14 By this depth, trends (14) and broad responses thought to indicate areas of burials (15) are becoming apparent in the east of the survey area. The responses are not very coherent and it is thought that this is partly due to the sheer number of burials within the eastern half of the graveyard.
- 5.15 Unfortunately within the church only broad changes (16) are evident with the data. This is due partly to the recent works, but primarily due to the limited area available.
- 5.16 Broad changes (17) have been detected in the triangle of land to the west of the graveyard. These support the resistance interpretation of an area disturbed by past cultivation and rabbit activity.

0.37m – 0.62m Parallel Depth Slice (Figures 15 &16)

- 5.17 The linear responses (14) and anomalies (15), associated with burials, in the east of the area are becoming clearer by this depth.
- 5.18 The area of increased response (8) is still visible at this depth although less extensive. A well-defined area of high amplitude response (18) has been detected to the east of (8). Although well-defined, its origin is unclear. The deeper depth slices suggest that this may have natural origin potentially associated with the burn and flooding.
- 5.19 An amorphous area of increased response (19) has been detected just to the west of the burn in the south of the area and shows good correlation with the resistance data supporting the tentative interpretation of a possible structure, e.g. a mausoleum, in this area. The linear anomaly (20) may correspond with part of the wall detected in the resistance survey (J) and thought to indicate the field boundary indicated on the 1849 OS map. However, this interpretation is not confident given the nature of the anomaly.

- 5.20 Elsewhere at this depth several rectilinear anomalies (21) have been noted. However, it seems likely that these are due to aliasing i.e. the effect of burials.

0.50m – 0.75m Parallel Depth Slice (Figures 17 & 18)

- 5.21 Anomalies (19) and (20) are still apparent within this overlapping depth slice.
- 5.22 At this depth trends (21) and anomalies (22) indicative of multiple burials are apparent in the west of the survey area.
- 5.23 The data suggest that this 'phase' of burials appears to extend beyond the existing burn. The well-defined linear anomaly (23) appears to define the limit of these later burials. This, perhaps, suggests that (23) may mark an earlier limit of the graveyard before its western extension. It should be noted that (23) does not appear to correspond with the postulated wall (J) detected in the resistance survey and indicated on early maps, as it is at a different angle. Although anomaly (24) could be viewed as an extension of anomaly (20), its location does not coincide with the presumed wall identified in the resistance survey. Indeed, anomaly (J) runs between anomalies (23) and (24).
- 5.24 Another possibility is that (23) indicates an earlier culvert. This is raised simply because the burn is not indicated on the 1849 OS map. However, whether this is a true reflection or simply a mapping error is unknown.
- 5.25 There is a noticeable zone of low amplitude response (25) immediately to the west of the group of family burial plots. The data suggests a distinct lack of burials within this area. However, there is a relatively steep slope in this area. It is not clear if the lack of burials is due to logistical reasons (i.e. the slope) or if again this indicates a possible earlier limit of the graveyard. The lack of burial in this area would perhaps explain why the family plots are located here in what appears to be a very 'cramped' fashion.
- 5.26 Broad responses (26) have been detected to the west of the graveyard although they are not thought to be archaeologically significant.

0.62m – 0.86m Parallel Depth Slice (Figures 19 & 20)

- 5.27 By this depth the level of response from the eastern half of the graveyard is relatively quiet. The burials are not very clear and it is thought that this is due to their age and slightly more frequent / random emplacement. Only trends and remnants of ringing responses from the surface grave slabs are clearly evident.

- 5.28 At this depth numerous individual and groups of burials (22) and trends (21) are visible in the west of the survey area. The data suggest that the western half of the graveyard has been utilised in a far more systematic fashion than the earlier eastern half. Within this depth slice the suggestion that this phase of the graveyard extended beyond the burn to the postulated former boundary (23) is particularly striking.
- 5.29 The low amplitude response (25) is still clear at this depth, with a zone of increased response (27) to its west.
- 5.30 Coherent high amplitude response (28) and increased response (29) are thought to be due to rabbit activity.

0.75m – 1.00m Parallel Depth Slice (Figures 21 & 22)

- 5.31 The area of low amplitude response (25) and increased response (27) is still evident within this depth slice. By this depth anomaly (23) is a more diffuse anomaly suggesting a possible natural origin.
- 5.32 The individual and groups of burials (22) and trends (21) are still clearly apparent in the west of the survey area.
- 5.33 Amorphous responses (28) in the west of the area beyond the graveyard are still apparent and are most likely the product of natural variations the subsoil and rabbit activity.

0.87m – 1.11 m Parallel Depth Slice (Figures 23 & 24)

- 5.34 By this depth the results are relatively uniform. There all still some traces of the anomalies (21) and (22) from the burials but they are not as well defined.
- 5.35 Anomalies (25) and (27) are still apparent in the data, although they are much weaker.
- 5.36 The response (23) seen in the shallower depth slices has evolved into a stronger but more diffuse response (29) by this depth. The data suggest a possible natural origin.
- 5.37 The coherent response (30) along the southern limits in the west of the graveyard is thought to be the product of rabbit activity. The presumed natural responses (28) to the west of the graveyard are also still evident within this depth slice.

1.00m – 1.25m Parallel Depth Slice (Figures 25 & 26)

- 5.38 Anomaly (29) is very strong within this depths slice. It is possible that this is a natural response, perhaps indicating any earlier course of the burn.
- 5.39 The presumed rabbit activity (30) is still apparent within this depth slice.

1.25m – 1.50m Parallel Depth Slice (Figures 27 & 28)

- 5.40 By this depth anomaly (29) seen in the previous depth slices has changed to a more coherent response (31) further supporting interpretation of a possible earlier course of the burn. The horizontal depth slices, Figures 39 – 44, clearly show the evolution of this anomaly with depth and support a broadly natural origin. However, that does not mean that elements of this broad response e.g. (23) are not manmade.
- 5.41 The presumed natural responses (28) are still apparent within this depth slice.

1.50m – 1.75m & 1.75m – 2.00m Parallel Depth Slices (Figures 29 - 32)

- 5.42 The responses within these depth slices are due to ringing of the signal and natural variations.

6. Discussion & Conclusions

- 6.1 The resistance and ground penetrating radar (GPR) surveys have detected a wealth of anomalies which support as well as complement each other.
- 6.2 The resistance survey and limited GPR survey beyond the current graveyard walls have predominately identified agricultural trends, natural variations and rabbit activity. However, to the east of the extant graveyard wall a high resistance anomaly consistent with potential wall footings has been detected. The change in the nature of the response immediately to the east and west of this postulated wall suggests it may indicate the original eastern extent of the graveyard. Although the southern limit of this feature is not clear, there is some evidence for its southwestern extension. The results also suggest that it is possible that the extant mausoleum, built against and beyond eastern graveyard wall, may overlie an earlier structure that was once within the original graveyard.
- 6.3 Within the graveyard the results can be broadly divided into responses from burials, possible earlier limits of the graveyard, potential structural features and natural variations.

- 6.4 Generally the resistance survey has not clearly identified burials. This is thought to be due to the high volume of burials, their age and their non-systematic emplacement. However the GPR survey has identified a wealth of burials which is to be expected given the nature of the technique. The GPR shows a clear distinction between burials in the west and the east of the graveyard. The responses in the western half are much more coherent and regular, which is to be expected to some degree as this section was in later use. There are indications of a boundary suggesting the original limits of the graveyard prior to the western extension. However, the results are confused by natural responses and presumed wall footings indicated on the 1st edition OS map. The data suggest the graveyard boundary lies just to the east of the later field boundary. What is not clear is if this simply a boundary or rather that the burn was culverted in the past. There are certainly several natural anomalies which are thought to be due to earlier courses of the burn.
- 6.5 Of possible interest is an apparent lack of burials in the area of the group of family burial plots which lie on an area of high ground in the southeast of the graveyard. It may simply be that the relatively steep slope in this area precluded burials. A resistance anomaly suggestive of a possible structure has also been detected in this area. However, interpretation of a possible structure is extremely tentative; the anomaly may simply be due to the lack of burials and better drainage of the soil. However, the possibility that this indicates an early south-eastern limit of the graveyard or the location of an earlier structure that prevented burials cannot be entirely dismissed. This could perhaps explain the rather cramped placement of the family burial plots .i.e. they were erected within an apparent 'blank area' within the later graveyard.
- 6.6 The remnants of two possible mausoleums and / or burial plots have been tentatively identified in the data. The clearest of these lies along the southern limit of the graveyard, adjacent to the burn, and the data suggests that it has been extensively robbed. The second possible structure lies immediately to the north of the church and there is some evidence on the surface for such a feature.
- 6.7 Unfortunately no clearly defined structures have been identified within or adjacent to the church. This is thought to be due to the extensive amount of ground disturbance and tumble within these areas.

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Figure 37	GPR Horizontal Depth Slice: 5.39m – 4.88m OD	1:500
Figure 38	GPR Interpretation: 5.39m – 4.88m OD	1:500
Figure 39	GPR Horizontal Depth Slice: 4.96m – 4.46m OD	1:500
Figure 40	GPR Interpretation: 4.96m – 4.46m OD	1:500
Figure 41	GPR Horizontal Depth Slice: 4.55m – 4.04m OD	1:500
Figure 42	GPR Interpretation: 4.55m – 4.04m OD	1:500
Figure 43	GPR Horizontal Depth Slice: 4.12m – 3.62m OD	1:500
Figure 44	GPR Interpretation: 4.12m – 3.62m OD	1:500