Centre for Archaeological Fieldwork

School of Geography, Archaeology and Palaeoecology, QUB

Data Structure Report: No. 087

Investigations within the scheduled enclosure (ANT047:068) at Ballycarry south-west, County Antrim

AE/12/115

5th December 2012

Ballycarry south-west, County Antrim (Areas 1, 2 & 3)

Excavations and geophysical survey carried out on behalf of

Mr Tom Topping and Televisionary Ltd

by

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Contents

List of figures

List of plates

1 Summary

Evaluative excavations were undertaken by the CAF within the scheduled enclosure (ANT 047:068) in the townland of Ballycarry south-west, Co. Antrim over a fortnight in August and September 2012. Hand- and mechanically-excavated trenches were opened in the north-eastern field of the western half of the enclosure (total area 272 square metres). Ten anomalous features cut into the subsoil were uncovered at the northern end of the site but none yielded datable finds. In the south-eastern field two mechanically excavated trenches (45m x 2m) were excavated at the very southern end of the field and no archaeological features were uncovered. In the intervening area, and across the site of the sixteenth-seventeenth century fort (detected in 2008 through a magnetometry survey), a soil resistivity survey was undertaken (60m x 60m square). The survey was partially compromised by poor drainage conditions and the shallow outcropping of the bedrock but possible ditches and other linear anomalies were detected. Some of these can be identified as part of the fort and others, as probable old field boundaries. A couple of the anomalies detected in the survey were then tested with the excavation of three hand-dug trenches (3m x 1m). A shallow gully and a stone-lined French drain were the main features uncovered. The principal finds recovered from across the site were struck flints, along with pottery sherds, pieces of glass and corroded iron, clay tobacco-pipe stems and a lead pistol shot and lead weight. The investigations were joint-funded by the landowner, Mr Tom Topping, and a TV company, Televisionary, and will feature as part of a series 'Ulster Unearthed' to be broadcast by UTV in January 2013.

2 Introduction and historical background

2.1 *Introduction*

This data structure report (DSR) details the results of an archaeological excavation and geophysical survey undertaken by the Centre for Archaeological Fieldwork (CAF) within a scheduled enclosure of uncertain date (ANT 047:068) in the townland of Ballycarry south-west, County Antrim in 2012 (NGR J44809351). The scheduled semi-circular enclosure is located south of the village of Ballycarry and is sub-divided into four fields (Figures 1 and 2). In 2008 the footprint of a probable sixteenth- or seventeenth-century artillery fort or fortified bawn (hereafter 'fort') was first identified at the northern end of the south-eastern field through a geophysical survey undertaken by Dearne Valley Archaeological Services Ltd (DVAS 2008) on behalf of the landowner Mr Tom Topping (Figure 3). An evaluative excavation was subsequently conducted in 2009 by the CAF, on behalf of the NIEA, to test the nature of the archaeological remains of the fort (Murray 2011). In 2010 and 2011 the landowner commissioned

further archaeological investigations of the western two fields of the enclosure (survey and test trenching) and of the bank marking the western boundary of the enclosure (Sloan n.d. and Sloan 2011).

In 2012, additional evaluative excavations were commissioned by the landowner, this time of the eastern two fields of the enclosure. This request coincided with the commissioning of a TV series on the archaeology of seventeenth-century Ulster and to feature sites related to the Ulster Plantation and the Ulster-Scots. Interest was expressed by the production company of the series, Televisionary Ltd, in the fort at Ballycarry and the company commissioned further investigations of this site. It was agreed that these investigations, on behalf of Mr Topping and Televisionary would be conducted concurrently by the CAF. In agreement with the landowner, all of the fieldwork was filmed and will feature in the TV programme on Ballycarry (to be aired in early 2013 on UTV). The results of these joint investigations form the subject of this report.

2.2 *Areas 1, 2 and 3*

Three discrete Areas for investigation were identified by the landowner in the eastern two fields of the scheduled enclosure (Figure 4). Area 1 covers roughly the eastern half of the north-eastern field of the enclosure, opposite Templecorran Church (ANT 047:010). Area 2 covers the footprint and immediate environs of the post-medieval fort at the northern end of the south-eastern field and Area 3 is located at the southern end of the same field. The investigation of Areas 1 and 3 (test trenches) was commissioned by the landowner in advance of a planning application and the investigation of Area 2 (geophysical survey and excavation) was commissioned by Televisionary Ltd.

The fieldwork in all three areas was carried out by the CAF from 27th August to 10th September 2012 inclusive under the one excavation licence, AE/12/115. Scheduled Monument Consent was applied for and granted before excavations began. Summary reports were submitted to the NIEA, Televisionary Ltd and the landowner soon after completion of the fieldwork (October 5th). A summary report was also sent to Isabel Bennett for inclusion in the annual *Excavations Bulletin*.

2.3 *Historical background*

2.3.1 Ballycarry, Templecorran and the granting of lands

The scheduled enclosure (ANT 047:068) and ruinous Templecorran Church (ANT 047:010) are located within the parish of Templecorran also known as Broadisland (of which there are numerous spelling variations in the early documents). This parish formerly constituted part of the lands of Shane McBryan

O'Neill (Seán Mac Briain Ó Néill) of Lower Clandeboye (Day *et al.* 1994, 96). In 1573 John Dalway, a coronet in the army of Walter Devereux, the Earl of Essex, landed at Carrickfergus and in 1581 he married the grand-daughter of Hugh O'Neill, the Earl of Tyrone (Sinéad or Jane Ó Néill) and related, by the mother, to Shane McBryan (*ibid*.; O'Laverty 1884, 88; McSkimin 1909, 474). In consequence of the marriage Dalway received a grant of the 'tough of Braid Island', and other lands at Kilroot from McBryan O'Neill in February 1592 (O'Laverty 1884, 88-9; McSkimin 1909, 474).

In May 1609, John Dalway granted William Edmonstone the lands of "Brayde-Island" in County Antrim. The Edmonstones were from Duntreath, Stirlingshire and first moved to Ulster in 1607 (Hill 1869, 57). In that year, William, the 7th Laird of Duntreath and his younger brother James, obtained a grant of land on the Ards peninsula, County Down, from Sir Hugh Montgomery (*ibid*.). The lands conveyed were at Ballybreen (or Ballybrian) and part of Ballymonestragh both in the Parish of Greyabbey (*ibid*.). The money William invested in Ulster was raised through the mortgage of the Duntreath estate (*ibid*.) and it seems probable that he undertook this step to remove himself from Scotland following his father's involvement in the conspiracy against James VI in the 1580s (*ibid*.). The Edmonstones therefore spent little time in County Down, having acquired lands in Antrim just two years after they arrived in Ulster.

2.3.2 The Edmonstones and Redhall

The Edmonstones' house in Broadisland/Templecorran was at Redhall. The earliest reference to the townland of 'Readhall' is in the 1609 grant from Dalway to Edmonstone with 'Irue' or 'Irewe' possibly being the former name of the townland (Reeves 1847, 57). The name 'Redhall' suggests the possible existence of a house or 'hall' of some form in the townland in the seventeenth century though this is not specifically mentioned in the lease.

The wooded demesne of Redhall adjoins the northern end of the village of Ballycarry (Figure 1) and the house, although much altered over the years, still stands (Brett 1996, 76-7). Surviving early structural remains, including thick walls suggest that a tower house (ANT 047:004) lies at the heart of it (*ibid*.) although the house has never been surveyed so this has yet to be verified. If there is a tower-house buried within the house then this could be the 'hall' of Redhall. Ó Direáin and McHugh (2010, 129) suggest that 'the Ó Néill tower house' in Redhall was included as part of the grant from MacBryan O'Neill to Dalway and presumably then from Dalway to Edmonstone. The primary remodelling of Redhall has been dated to 1609-1649 when it was the residence of William Edmonstone, with further alterations dated to *circa* 1730 (NIEA's Historic Buildings Record: HB06/05/013).

2.3.3 Templecorran Church and the Reverend Brice

The date and origin of the old cruciform-plan church of Templecorran is not known. According to *The Ulster Visitation Book* of 1622 the church (*Temple-i-corran*) had 'the walles newly erected, but not roofed as yet' (O'Laverty 1884, 90). In 1657 it is recorded as being in repair but as being *ruinosa* by 1679 when it appears to have gone out of use (Roulston 2003, 123). The report on the old church in the Ordnance Survey (OS) Memoirs noted variations in the masonry indicating later alterations and rebuilding to the original church (Day *et al.* 1994, 110). The church also has several musket loops, including two readily observable ones in each of the corners of the west gable (Roulston 2003, 124). Firearms are first recorded in Ireland in the late fifteenth century with muskets not invented until the mid-sixteenth century (J. O'Neill pers. comm.) so these building details must be post-medieval and may date to the 1622 rebuilding of the church.

According to the OS Memoirs, in the 1830s the burial ground of the church enclosed a quadrangular area, 176 feet square (equivalent roughly to 54 metres-square). It is, however, suggested that the graveyard was once much larger as human remains and coffins had reportedly been found outside the demarcated burial ground to the south and east (Day *et al.* 1994, 111). The foundations of several extensive buildings in the vicinity of the church were also recorded in the Memoirs. These are described as having 'walls much thicker than those of the present church' and were found in the graveyard and surrounding fields (Day *et al.* 1994, 111). Stone-built graves orientated east-west were also reportedly found to the east of the church (*ibid*. 112). The description of these graves matches that of early Christian 'lintel-graves' (i.e. with side and covering slabs) similar to those excavated at sites such as Kilnasaggart, County Armagh and at Nendrum monastery, County Down (Hamlin 2008, 88-91). The discovery of lintel-graves found in proximity to Templecorran Church in the early nineteenth century or earlier (Day *et al.* 1994, 112) is suggestive of probable early Christian burials of the first millennium AD. The church, however, is not mentioned by Hamlin (2008) in her thesis on the archaeology of early Christianity in the north of Ireland.

The Reverend Edward Brice, or Bryce, moved to Antrim in 1613 and was one of many Scots who, from 1610, began migrating to the north-east of Ireland. These included many Nonconforming clergy who were being persecuted in their homeland (Day *et al.*1994, 86). Brice had formerly been a minister at Drymen north of the Blane Valley and the estate of the Edmonstones of Duntreath in Western Scotland. In 1613 he became the first Presbyterian minister in Ireland and he was in charge of, and preached at, the old church of Templecorran from 1613 until his death in 1636 (Day *et al.* 1994, 85; Ó Direáin and McHugh 2010, 132). He is interred within the church.

2.3.4 The scheduled enclosure

There is no mention made in the OS Memoirs of any sort of enclosure or earthworks at Templecorran. The reported discovery of what have been interpreted as lintel graves and the recurrent location of early churches and monasteries within sub-circular enclosures (Edwards 1996, 106) presents the possibility that the enclosure at Ballycarry may be ecclesiastical and medieval in origin. The off-centre location of the church within the large enclosure is, however, unusual, while the absence of early medieval finds from the multiple excavations in the vicinity would also challenge its early medieval origins. If there was an upstanding boundary of medieval, early or late, date or even of prehistoric date it must have been insubstantial and certainly did not survive as a significant topographical feature in the landscape by the nineteenth century. More recently the possible existence of a smaller enclosure encircling the church, and with the church located centrally within it, has been suggested (see Section 3.1).

3 Archaeological background

3.1 *Aerial photography*

The scheduled sub-circular enclosure is demarcated in its western half by roads and field boundaries and in its eastern half by soil or crop marks which define the north-eastern circumference of the enclosure as identified in an aerial photo taken in 1961 (Figure 5). An earlier photo from 1951 and also the 1834 OS 6`` map both show a hedge demarcating a boundary of one of the fields which, coupled with the 2010 and 2011 evaluative excavations of the bank marking the enclosure's western half (see Section 3.3), would collectively contest its authenticity as a monument.

The 1961 photo does, however, present an outline of an alternative smaller sub-circular enclosure encircling the ruins of Templecorran Church and measuring approximately130m in diameter (Sloan 2011, 75). It is represented to the east by a potential cropmark while to the west, a distinctive 'kink' in the Bentra Road west of the church may respect, or 'fossilize', the western side of the possible enclosure (Figure 5).

Neither of these two aerial photos shows any discernible features in the location of the fort, detected as a distinct geophysical anomaly by DVAS in 2008.

3.2 *Geophysical surveys*

At least five geophysical surveys have been carried out in recent years in the vicinity of Templecorran Church, the enclosure (ANT 047:068) and the fort; in the late 1980s, 2008, 2009, 2011 and most recently 2012 (included in this report).

3.2.1 1980s survey

Barrie Hartwell of QUB carried out a soil resistivity survey across an area of just under 0.2 acres (20m by 40m) to the north-east of Templecorran Church in the 1980s (Figure 5). The purpose of the survey was to see if the sub-circular enclosure (ANT 047:068), apparently fossilised in the present road system to the west of the church, continues around the eastern side of the church as detected in an aerial photograph of 1961. The soil resistivity survey detected a ridge of higher resistivity values which Hartwell argued is consistent with the possibility that this may represent "a bedrock shelf nearing the surface", or alternatively, the remains of a bank (Hartwell 1990, 29).

3.2.2 2008 survey

Almost two decades later, a geophysical survey was carried out by Dearne Valley Archaeological Services Ltd (DVAS) on behalf of the landowner Mr Tom Topping (DVAS 2008). The survey area represents the western half of the enclosure comprising an area of 9.2 acres (approx. 250m north-south by 150m east-west). A magnetometry survey was conducted over these four fields. A number of anomalies and possible archaeological features were detected (Figure 3) including the outline of a square-plan enclosure with two diagonally opposing spear-shaped corner bastions (south-east and north-west corners). A soil resistivity survey was also conducted across the grid squares containing this feature. The results from this second survey confirmed the magnetometry results but they were not included in the report submitted by DVAS.

3.2.3 2009 survey

In December 2009, in conjunction with the CAF's evaluative excavation of the newly-discovered fort, a 30m by 30m grid-square overlying the north-western corner bastion of the fort, as detected in the DVAS survey, was re-surveyed as part of a QUB undergraduate project (Bennett 2010). The aim of the student project was to target known archaeological sub-surface features (in this case the fort ditch) located on different geologies. The results of the magnetometry survey proved to be more successful than the soil resistivity survey, as was also the case with the DVAS survey of 2008, and the results of the two surveys, 2008 and 2009, correlated well.

3.2.4 2011 survey

The 2011 geophysical survey (high resolution electrical resistance) was carried out in the western part of the enclosure. The survey covered an area of approximately 6000m2 (Figure 6) and was conducted across an area where the DVAS magnetometry survey had previously detected a number of irregular anomalies (Figure 3). The overall pattern across the site was of low resistance readings punctuated by areas of significantly higher resistance from the south-east to the centre of the plot, and along the north-west boundary. This was suggestive of a poorly draining soil, with prominent bedrock ridges providing the most extreme high resistance readings. A small number of anomalies of potential archaeological significance were identified, and excavation trenches were set out over the most prominent of these (see Section 3.3.5 below).

3.3 *Previous excavations*

At least six archaeological excavations have been undertaken within the enclosure (ANT 047:068) at Ballycarry. Three were located west of the Bentra Road and within the townland of Forthill, while the other three were conducted on the opposite side of the road within the scheduled area and in the townland of Ballycarry south-west.

3.3.1 1989 and 2005 excavations in Forthill

In 1989, excavations were conducted within the graveyard of St John's Church (Figures 2 and 5) by John McClintock (McClintock 1990). Adjacent to this graveyard, to the south and located towards the centre of the scheduled enclosure, excavations were carried out some sixteen years later in 2005 at the site of a former dairy complex (Figure 2. IHR 0712600000; NGR J44889356). This was undertaken in advance of the construction of the housing development of Dairy Holm (unpublished. See SM7 file, NIEA MBR). No features of archaeological significance were found at either of these two sites.

3.3.2 1993-4 excavation in Churchlands estate

The third excavation in the locale was undertaken by ADS Ltd in 1993 and 1994 in advance of developments in the Churchlands housing estate (Crothers 2000). The development (Figure 2) was located along the approximate projected line of the scheduled enclosure in the south-east quadrant and the excavations uncovered remains dating to the Neolithic, medieval and post-medieval periods. Two parallel shallow ditches on a north-south alignment were exposed, along with traces of a slight bank, and these features have been dated to the late Neolithic based on the associated lithic and pottery assemblages (Crothers 2000, 45). Although a 34m long section of one of the ditches was uncovered, Crothers was

cautious of linking these ditches with the line of that of the scheduled enclosure and suggested that the projected continuation and outline of the Neolithic enclosure was smaller than that preserved in field boundaries and road layouts (Crothers 2000, 45). The excavations also indicated that the prehistoric bank was levelled, over which a drystone wall was built in the medieval period. The absence of Souterrain Ware and presence of pottery dating to the thirteenth century and later, suggest that this activity dates to the high or late rather than early medieval period.

3.3.3 2009 excavation

In December 2009 and January 2010 excavations were carried out by the CAF at the site of the fort, in the south-eastern field west of the Bentra Road (Murray 2011). The outline of the fort was first detected in 2008 by DVAS (Figure 3) and was represented by a square-plan enclosure, approximately 33m-37m across, with two diagonally opposing spear-shaped corner bastions, measuring around 60m-61m from salient point to point. The results of the geophysical surveys (magnetometry and soil resistivity) did not determine whether the fort outline was represented by a positive or negative feature. The two test trenches (Trench 4, 4m x 1.5m; Trench 6, 2.5m x 3m) opened along the northern side of the fort established that it was a rock-cut ditch approximately 1.2m-1.4m in depth and 2.7m wide. No traces of an internal bank/rampart, wall, palisade or other associated structural remains were found and no independent dating evidence was recovered from the fills of the ditch. Four other test trenches were opened but these did not uncover any features or finds of archaeological significance.

The plan of the fort, its regular layout and corner bastions, date it to the sixteenth- or seventeenth century. Unfortunately, the range of finds recovered during the excavation did not help to narrow this date range although the general scarcity of finds suggested short-term use. The absence of mortar and the recovery of just a handful of small brick fragments from the topsoil also suggested that upstanding defences accompanying the ditch were probably of earth and sods. The layout of the fort is one that matches that of both fortified bawns and artillery forts of this period in Ireland and there are a number of possibilities as to who, and when, such a fort or bawn may have been built (see Murray 2011).

3.3.4 2010 excavation

A small scale investigation of the curvilinear boundary, that constitutes the western edge of the scheduled enclosure, was undertaken in September 2010 by the CAF on behalf of the landowner (Sloan n.d.). Two trenches, measuring 11m in length by 2m in width, were excavated across the bank. A relatively simple stratigraphic sequence was present in both trenches, with little of archaeological significance being encountered. Artefacts recovered included flint (predominantly flake debitage), a fragment of a polished

stone axe, pottery sherds (with medieval green glazed and post medieval wares being found in the same context), glass and corroded iron objects. Removal of the lowermost deposit of bank material produced a fragment of clay pipe stem and a sherd of white glazed ceramic of probable nineteenth-century date. The presence of both suggests that the bank is a product of post medieval activity and is not of any antiquity.

3.3.5 2011 excavation

The 2011 investigation was designed to further test the antiquity of the curvilinear bank, as well as investigate the interior of the enclosure to assess the presence and survival of archaeological features and deposits within the scheduled area (Sloan 2011). In all, 20 trenches were excavated to natural subsoil or to the surface of intact archaeological strata (Figure 7). The stratigraphic sequence in each trench was relatively simple, principally consisting of sod and topsoil directly overlying natural subsoil and bedrock with a number of features encountered in six of the trenches (Trenches 11, 14, 15, 18, 19 and 20), suggesting discrete areas of probable prehistoric and medieval activity.

A curvilinear gully was uncovered in Trench 11 which yielded two conjoining sherds of pottery which represent a fragment of the base of a vessel of medieval date. Provisional analysis suggested that they are French in origin, and date to around the thirteenth-fourteenth centuries AD. A linear gully was also encountered at the south-western end of the trench. This appeared to have cut through a spread of tenacious clay which produced a large sherd of carinated pottery, of probable Early Neolithic date.

In Trenches 14, 15 and 20 a rock-cut ditch and a deposit of loose boulders were uncovered which it was suggested represent a burial cairn of a type common in the Bronze Age. During cleaning of the cairn material in Trench 15, it became clear that the cairn was composed of loose boulders and stones as well as outcrops of bedrock. It is possible that the builders of this feature utilised a natural outcrop of bedrock, and quarried-out stones from its northern and eastern side which were then used to augment the shape of the mound. A single flat slab of rock was also observed, which continued into the south-east facing section of the trench, and a void was noted beneath this stone.

In Trenches 18 and 19 features uncovered consisted of a stone and clay layer that appeared to be present in both trenches and the artefact assemblage recovered from this feature comprised wholly of prehistoric material, both flint and pottery. The presence of two hollow scrapers amongst the lithic assemblage would indicate activity dating to the Middle Neolithic, when this tool form was most common.

4 The 2012 geophysical survey *by Sapphire Mussen*

4.1 *Introduction*

A limited geophysical survey (electrical earth resistance) was carried out in Area 2, in the south eastern field of the scheduled enclosure, from the 27th to 29th August 2012. The survey grid (0.36 hectares) was situated over the approximate location of the fort (known from the results of a magnetometry survey carried out in 2008; see Figure 3), with the aim of clarifying the exact positioning of any walls, ditches or other archaeological features and in order to more accurately place excavation trenches for further investigation. The closeness of the basaltic bedrock to the ground surface of the site compromised interpretation of the results by producing a number of readings which could be falsely interpreted as archaeological features. A large part of the survey area was also compromised due to poor drainage conditions – the survey was conducted in inclement, saturating conditions. Despite this, a number of interesting results were revealed, some of which appear consistent with the placement of the fort as found during the 2008 magnetometry survey.

4.2 *Cartographic evidence*

The first and second edition Ordnance Survey (OS) maps show evidence of changes to the site at Ballycarry and its surrounding area. The first edition map of 1835 shows the site as a whole without major divisions (Figure 8a). The only enclosed area of the site is that of the geophysical survey area which is seen to contain a number of structures, possibly animal holdings, outhouses and sheds associated with a cottage, the remains of which still stand just north of the survey grid. It can be seen from the second edition OS map that a number of changes have taken place by 1904 (Figure 8b). By this time, the entire site had been divided into a number of sections by what appear to be planted hedgerows and trees. Changes in the layout of boundaries and buildings are to be noted in the area targeted by the geophysical survey and the layout of the area at this stage seems more formalised. Only one building is depicted along with tree-lined boundaries. No traces of these divisions or buildings now exist within the survey area and no major changes are observed from OS maps post-dating 1957. From this time the site at Ballycarry retains its current form of grazing land subdivided into four fields (Figure 8c-d).

4.3 *The survey site*

The survey area lies approximately 0.1km south of Templecorran Church in the southern half of the scheduled enclosure (ANT 047:068) and on the eastern side of the main Bentra road (Figure 9). The grazing land in this area is divided into four sections by a series of rough tumbled stone walls and hedgerows with no fencing or gateways. The survey grid covered 0.36 hectares and was set up in the

south-eastern section over the location of the sixteenth- or seventeenth-century fort discovered during geophysical investigations in 2008. The land in this area slopes gradually uphill towards the south and at the northernmost end, in the grid location, the land was undulating with rock outcropping in places and sloping off towards the north and east. There were no clearly defined features on the surface. Along the western edge of the site the ground was extremely waterlogged and trampled by livestock which made conditions difficult underfoot.

4.4 *Survey specific information*

Survey type	Electrical Earth Resistance
Instrumentation	Geoscan RM15 resistance meter and MPX15 multiplexer
Probe/sensor configuration	Parallel twin (3-probe)
Probe/sensor spacing	0.5m
Grid size	20m x 20m
Traverse interval	0.5m
Sample interval	0.5m
Traverse pattern	Zig-Zag
Spatial accuracy	Grids set out using a Leica TPS 705 series total station

Table 1 Details of equipment and methodology employed.

4.5 *The survey*

Nine survey grids, each measuring 20m by 20m, were set out over the approximate location of the fort with the aim of clarifying its limits prior to further excavations. An earth resistance survey of this gridded area was carried out using a Geoscan RM15 meter and MPX15 multiplexer. All grids were surveyed using a traverse interval of 0.5m and sampling interval of 0.5m. The results of the resistance survey are graphically presented in Figures 10-11 and an interpretation of these results is given in table format below (Section 4.6), which should be read in conjunction with Figure 12 which gives an interpretative illustration of the resistance survey data. A brief discussion of the survey results is outlined in Section 4.7.

4.6 *Earth resistance survey results*

Code	Description	Interpretation
r1a-d	Linear low resistance anomalies running along a northeast to southwest orientation. Each measures approximately 1.5m in maximum width. r1a is rectilinear in form and encloses an area of approximately 30m by 30m. Its definition is lost at its eastern and western corners. r1b forms a 90˚ angle in the northernmost corner of the survey area. Its runs off the edges of the survey grid to the northwest and northeast - its maximum lengths are approximately 16m northeast to southwest and 10m northwest to southeast. r1c forms a 90˚ angle and appears to run parallel to r1b with a distance of about 5-6m between the two. Its maximum lengths are approximately 13m northeast to southwest and 6m northwest to southeast. r1d is rather ephemeral but appears rectilinear in form and encloses an area measuring approximately 8m by 8m and is based in the eastern corner of anomaly r1a.	The regular linear appearance of these relatively low resistance and uniform anomalies may present evidence of rock cut ditches associated with the 16th/17th-century fort which is believed to have occupied the site. The low resistance being imaged here is suggestive of features of poor drainage such as ditches. The supposition that they may be rock-cut is obtained from the surrounding readings, the nature of which is typical of surface bedrock geology. Basalt outcropping is evident across the surface of the site. No evident explanation for these anomalies can be obtained from examination of OS mapping of the area.
r2a-b	Linear high resistance anomalies orientated northeast-southwest, measuring less than 1m in width and set within the confines of r1a. r2a consists of a series of linear anomalies set at 90˚ angles to each other forming a geometric structure-like pattern. Each section of linear high resistance within this anomaly measures approximately 5m. r2b also forms a 90˚	The regular linear appearance of these anomalies and layout in a semi-geometric pattern lends to the suggestion that they may be imaging the remains of buildings or structures associated with a 16th-17th-century fortification at this site. It is also possible that they are the ephemeral remains of robbed-out stone walls of buildings or boundaries as depicted on first and second edition OS maps of the

	angle and is set along and runs parallel to r2a. A distance of approximately 7m sets r2a and r2b apart.	area. A third possibility may be that they are simply imaging geological responses and that their uniform appearance is purely incidental.
r3	Linear band of extremely high resistance running northwest to southeast through the survey area, approximately 21m from its northeastern edge and measuring no more than 1m in width.	It is almost certain that this anomaly is imaging the presence of underground pipe work. To the south of the survey area and in line with this anomaly can be found a stone and concrete capped opening in the ground fenced off with barbed wire, presumably a well. No spring or well at this location is marked on OS maps of the site.
r4	Semi-curvilinear low resistance anomaly set within the parameters of r1a, measuring approximately 16m by 14m with a width of less than 1m.	The uniformity of this feature makes it of some interest although it is most likely a result of the geological morphology of the site. There is no evidence for any such feature on OS maps of the area.
r5	Northwest-southeast running line marking a distinct change in readings across the site. All readings northeast of this line are imaged more clearly; those to the southwest of it are more homogenous and featureless.	This line divides the survey area into two zones. That to the southwest consists of fairly homogenous readings with no definite features. In the area northeast of this line a number of features can be seen and the bedrock geology of basalt within the ground surface is clearly imaged. Homogenous readings as found southwest of r5 are usual for extremely waterlogged sites and areas where there may be a greater depth of topsoil present. This line of r5 also corresponds well with a line shown on the 1835 first edition OS map representing a field boundary.
r6a-b	Two parallel faint linear mid resistance anomalies extending northeast to southwest from the south-western edge of the survey area. Approximate length of 24m and width of less than	The poor definition of these anomalies within a zone of very few positive resistance readings may indicate that they are simply geological responses or evidence of ploughing activity. Their position

	0.5m.	roughly corresponds with a field boundary shown on the 1904 second edition OS map so there is the possibility that they are imaging the remnants of stone walling or a hedge line associated with this boundary.

4.7 Discussion of survey results

At first glace the survey area can be divided into two zones distinguished by the dividing line **r5** (Figure 12). The area to the northeast of this line provides more results in terms of positive readings and some features of archaeological interest are clearly being imaged amongst the background readings of bedrock geology. In contrast to this, the area to the southwest of this line features homogenous low- to mid-range resistance readings with little or no definition and very little in terms of positive high resistance response. As the line of r5 corresponds with the line of a field boundary depicted on the first edition OS map of 1835 (Figure 8) it is possible this represents traces of this former boundary. It is also possible that the area to the southwest of this division was perhaps more extensively used for cultivation purposes than that to the northeast. Such homogenous low resistance readings as found to the southwest of this line are also typical of areas of poor drainage and areas where there may be a greater depth of topsoil present. As the ground in this area is extremely boggy underfoot it could be assumed that it is poorly drained and regularly waterlogged.

Rock outcropping can be observed in the ground surface to the northeast of the r5 dividing line which may contribute to natural drainage of water from one end of the site to the other. Due to this the results of the survey were compromised given the possibility of misinterpretation of geological responses as positive archaeological features. Despite this, a number of features of obvious regularity could be discerned, mainly within the area northeast of r5, and can be interpreted as features of archaeological interest.

The regular linear appearance of the **r1** and **r2** anomalies provides the most feasible evidence for the sixteenth- or seventeenth-century fort. The width, low resistance readings and regular linear appearance of **r1a-r1c** could be taken to indicate the presence of rock-cut ditches. r1a is roughly square in plan and coincides with the limits of the forts as depicted in the results of the 2008 magnetometry survey (Figure 3). These results show the fort as square in plan with two corner bastions; one in the eastern corner and one in the west. In the eastern corner of r1a, faint traces of a rectilinear feature can be interpreted as the possible remains of one of these bastions (r1d). However, corresponding evidence for a second bastion was not detected in the western corner; here the results of the resistance survey were washed-out with very little definition, probably owing to the waterlogged nature of the site in this area. r1b and r1c form, what appear to be, rock-cut ditches of the same width and running parallel to the anomaly r1a. These may be evidence of an outer ditch and/or entranceway to the fort.

Anomalies **r2a-r2b** provide the only feasible evidence for the remains of upstanding structures within the survey area. Their regular linear and geometric appearance and position within the confines of r1a suggest

that they may be imaging the remains of buildings or structures associated with the sixteenth- or seventeenth-century fort. It must be noted, however, that they do not lie along the exact same alignment as the r1 anomalies and may also be imaging the remains of much later, nineteenth-century structures which occupied the site, as evidenced by OS mapping of the area (Figure 8).

A third possible explanation for these anomalies may simply be that they are imaging responses to the underlying geology of the site and forming incidental linear structure-like patterns within the survey results. The lack of any positive earth resistance readings imaging stone walling or similar remains of once upstanding structures could be taken as an indication that any structures that once stood on the site have been completely robbed of stone for use elsewhere. Anomaly **r4** is also likely to be imaging a response to the geological conditions in the ground surface; its low resistance and curvilinear form are suggestive of a shallow natural channel within the basalt bedrock.

It is almost certain that anomaly **r3** represents the presence of underground pipe work running across the site, likely to be of metal fabrication and for the purposes of transporting water. A shallow groove corresponding to the placement of this anomaly can be seen in the ground surface of the site. Also, to the south of the survey area, in line with this anomaly, a stone and concrete capped opening in the ground fenced off with barbed wire can be found, presumably a well. No spring or well is marked at this location on Ordnance Survey maps of the area.

The poor definition of anomalies **r6a** and **r6b** may be an indication that they represent no more than the remnants of deep ploughing within the field, or trends in the background geology of the site. Their position, however, corresponds with the location of a field boundary as marked on the second edition OS map of 1904 and they may therefore be the remnants of stone-built field boundaries or removed hedgerows.

4.8 Conclusion

Many of the earth resistance readings were overwhelmed by responses to poor drainage conditions and to the background geology of the site and both compromised interpretation of the anomalies present. Aside from a series of anomalies which appear to represent rock-cut ditches there seems to be no further solid evidence for the fort within the survey area.

As extensive surveying has previously been carried out within the scheduled enclosure and anomalies investigated through excavation, it is not recommended that further survey work be undertaken.

5 The 2012 excavation

5.1 *Introduction*

Three separate areas were presented for archaeological investigation in the eastern half of the scheduled enclosure – Areas 1, 2 and 3 (Figure 4). A total of eleven hand dug test-trenches were excavated in Areas 1 and 2 (eight 2m x 1m; three 3m x 1m) and four long machine-dug trenches were excavated in Areas 1 and 3 (Figure 13). The excavations will be considered below by Area (Section 5.4).

5.2 *Methodology*

The context records for the excavation were created using the standard context recording method and for each trench the trench number was incorporated into the register of numbers allocated to contexts (i.e. Context numbers 1001, 1002 for Trench 1; 2001, 2002 for Trench 2, etc.). Features were photographed both prior to, and following, excavation. A section face in each of the trenches was drawn to record the stratigraphic sequence – in Area 1 the west-facing section of each trench was recorded. Plans were drawn where features were encountered. In addition to photography and illustration, the principal site records consist of context sheets and a field notebook. The registers of context numbers are detailed in Appendix 1 and the Harris Matrices are presented in Appendix 2. The field drawings are listed in Appendix 3 and the finds are catalogued in Appendix 4. All the trenches were fenced-off during the course of the excavation and were backfilled, and the site reconsolidated, on completion of the excavation.

5.3 *Archiving*

Copies of this report have been deposited with the NIEA, the landowner and Televisionary Ltd. All site records and finds are temporarily archived within the School of Geography, Archaeology and Palaeoecology, QUB.

5.4 *Account of the 2012 excavation*

AREA 1: Eight hand-dug test trenches, each measuring 2m (north-south) by 1m, were opened in Area 1. The trenches (Trenches 1-8) were divided into two lines of four trenches each, each set 20m apart on the north-south axis. The two rows of four were set 10m apart, east west, with the eastern line of trenches set-out approximately 3m from the hedge-line at its northern end (Figure 13).

The results of the geophysical survey for this area, surveyed in 2008 by DVAS (Figure 3), did not highlight any obvious features. There are a couple of linear and curvilinear anomalies along the eastern

hedge-line that do not represent any clear, tangible features. The distinctive long linear anomaly (highlighted in green in Figure 3) that was investigated at its southern end in 2011 (see Section 3.3.5) also extends into this area. This was shown to be a relatively shallow cut containing some flint and charcoal and of uncertain function.

An account of the excavation of the eight trenches is presented below sequentially (Trenches 1-8). Features were encountered in Trenches 1, 3, 4 and 5.

Trench 1

In Trench 1 the grassy sod (C.1001; 0.04-0.06m) was removed to reveal a mid-brown silty-loam with roots (C.1002; 0.11-0.12m) which produced some sherds of pottery, pieces of struck flint and corroded iron. Below this topsoil horizon was a shallow mid-brown stony silty-loam (C.1003; 0.04-0.06m) which overlay a firm mid-orange brown loam, and probable hillwash deposit (C.1004; 0.1-0.18m). Underlying this was a not dissimilar but more compact orange-brown loam, with occasional charcoal flecks and fairly frequent stones throughout (C.1005; 0.11-0.14m). This lay above the natural subsoil which was cut in the north-western corner of the trench by a rectilinear feature (C.1007). The excavation trench only revealed a corner of this feature (Plates 1 and 2) so its full extent or function could not be determined. The feature measured 0.3m by 0.23m in plan and, on removal of the fill (C.1008), was shown to be 0.1m in depth with straight almost vertical sides and a flat bottom. The fill (C.1008) was a dark brown silty loam with frequent flecks of charcoal and occasional small flecks of calcined bone and/or chalk. The fill was sampled (see Appendix 5) and the feature was photographed and planned (Figures 14 and 16).

Trench 2

No features were found in Trench 2. The sod (C.2001; 0.04-0.08m) was removed which exposed the topsoil and yielded some pieces of flint and slate (C.2002; 0.09-0.14m). Below this was a shallow gravelly loam (C.2003; 0.04-0.06m) with frequent round and sub-angular stones and which produced pieces of flint and sherds of modern glass. On removal of this stony layer a firm light brown clayey-loam (C.2004; 0.21-0.3m) was encountered which yielded more modern glass, flint, corroded iron and sherds of pottery. This layer, C.2004, overlay the subsoil (Figure 14).

Trench 3

A more complex stratigraphic sequence was recorded in Trench 3. The upper layers replicated those found elsewhere in Area 1: the sod layer (C.3001; 0.050.07m), topsoil (C.3002; 0.1-0.12m), stony ploughsoil horizon (C.3003; 0.04-0.08m) and hillwash (C.3004; 0.14-0.2m). A lower horizon of probable

hillwash, firmer in consistence and with an orange-brown hue (C.3005; 0.04-0.08m), lay below C.3004, and above the subsoil/bedrock (Figure 14).

At the base of the southern end of the trench an irregular cut, C.3009 was encountered which was filled with large stones and boulders, C.3006, and a blackish-brown clay deposit, C.3007 (Plate 3). On excavation, however, it became clear that C.3006 constituted part of the bedrock (Plate 4). The irregular cut and fill (C.3009 and C.3007) may therefore represent the void left by a tree root that followed a weakness between the rock and the subsoil. A thin dark grey-brown smear or lens of clay-loam (C.3008; 0.2m x 0.18m) was also identified north of these features which, on excavation, was also shown to overlay the subsoil.

Finds from Trench 3 comprised glass, fragments of brick, corroded pieces of iron including a nail, slag and pottery (from contexts C.3002 and C.3003) and pieces of struck flint (from contexts C.3002, C.3003, C.3004 and C.3007).

Trench 4

The same basic stratigraphic sequence as encountered in Trenches 1-3 was recorded in Trench 4; the sod (C.4001; 0.02-0.03m), topsoil (C.4002; 0.08-0.14m), shallow stony horizon (C.4003; 0.03-0.07m) and loamy hillwash layer (C.4004; 0.08-0.14m) above the subsoil and bedrock (Figure 14). An irregular spread of a blackish-brown clay-loam (C.4005 – Plate 5), with inclusions of charcoal and small fragments of calcined bone, extended across the north-western corner of the trench and covered an area of roughly 0.94m (north-south) by 0.2-0.3m (east west). This was half-sectioned which demonstrated that it was a shallow (0.02-0.08m) lens that in-filled an irregular depression in the bedrock. There was no evidence for a cut. The deposit (C.4005) included two larger pieces of bone, one a possible vertebra fragment, but neither was diagnostic (i.e. human or animal). The deposit was sampled (see Appendix 5) and finds from the trench included pieces of struck flint and sherds of pottery.

Trench 5

Trench 5 was opened at the northern end of the western line of trenches. The sod (C.5001; 0.03-0.05m) was removed to reveal the topsoil (C.5002; 0.05-0.11m) which produced pieces of flint, pottery and glass. Below this was the friable stony ploughsoil horizon (C.5003; 0.06-0.14m) and below that two layers of clayey-loam hillwash (C.5004; 0.1-0.16m) the lower one being much firmer in consistence (C.5005; 0.04-0.11m) and which lay above the subsoil (Figure 15). The subsoil was cut by a linear gully, C.5006, running south-west to north-east at the north-western corner of the trench (Plates 6 and 7). The gully

measured 0.6m wide and 0.09m deep and a length of approximately 1m was exposed (Figure 16). The fill was a light-brown clay-loam and contained flecks of charcoal and burnt bone (Appendix 5).

Trench 6

The sod (C.6001; 0.05-0.1m) was removed to expose the loamy topsoil (C.6002; 0.05-0.09m) which produced some flint and pottery. This overlay the stony friable ploughsoil horizon (C.6003; 0.14-0.18m) below which was a horizon of hillwash (C.6006; 0.05-0.1m) which yielded a flint scraper. This lay above the compact orange-brown clay subsoil though which a small box section was cut as it yielded a possible piece of struck flint 0.12m below the surface (Figure 15).

Trench 7

The sod layer (C.7001; 0.03-0.07m) was excavated to expose the topsoil (C.7002; 0.07-0.11m). Below this was the stony ploughsoil horizon (C.7003; 0.13-0.24m) and below this a considerable depth of hillwash (C.7004; 0.22-0.37m) which lay above the subsoil (Figure 15).

Trench 8

The same basic stratigraphic sequence as encountered in the other trenches in Area 1was recorded in Trench 8; the sod (C.8001; 0.03-0.07m), topsoil (C.8002; 0.09-0.14m), shallow stony loam horizon (C.8003; 0.04-0.08m) and loamy hillwash layer (C.8004; 0.06-0.14m) which lay above the subsoil and bedrock which was relatively shallow at this southern upslope end of the field (Plate 8). The lowest horizon, C.8004, yielded a pistol shot along with pieces of flint.

Trench A

On completion of the hand excavation of Trenches 1-4 the four trenches were joined-up and extended by a mechanical excavator under archaeological supervision. The full extent of Trench A measured 2m in width by 68m in length, north-south (Plate 9). A small number of features were encountered towards the northern end of the trench and contexts were number sequentially A2001, A2002 etc. (Figure 16).

South of Trench 1 a group of irregular features were uncovered cut into the subsoil (Figure 16). An irregular gully (A2004), running roughly west south-west/east north-east, traversed the trench and had been recut by a shallower gully (A2002), on the same alignment. The earlier gully (A2004) had a U-shaped profile along its northern extent with an irregular shallow flat-bottomed extension along its south-western edge (Figure 17). It measured 0.7m in width at its widest point, 1.35m in length and 0.2-0.3m in depth. It had a single homogenous fill (A2003); a mid-orange brown clay-loam with frequent charcoal flecks. The fill was cut by a second shallower linear U-shaped gully (A2002) following the same

alignment as A2004 along its northern edge, and measured 0.58m wide, 1.4m in length and 0.12m deep. It was filled with a mid to dark-grey brown silty loam with frequent charcoal (A2001). Both fills (A2001 and A2003) were sampled (see Appendix 5) and both yielded some undiagnostic struck flints. These features and fills were cut into the subsoil and were stratified below the general sequence of sod, topsoil, stony ploughsoil horizon and hill-wash (Figure 17 and Plate 11).

Immediately north of A2001-A2004 was an irregular spread of large stones and clay (A2006: 1.9m in length by 0.65m in width) exposed by the digger (Plate 12 and Figure 16). To the south of the gullies a narrow linear band of stones (A2005) was uncovered. It measured 1.4m in length, 0.25m wide and 0.05m in depth. Both features were sterile and may represent natural variations and banding in the subsoil. No other features were encountered in Trench A.

Trench B

On completion of the hand excavation of Trenches 5-8 the four trenches were joined-up and extended by a mechanical excavator under archaeological supervision. The full extent of Trench B measured 2m in width by 68m in length, north-south (Plate 10). A narrow curvilinear gully (B3003), cut into the subsoil, was uncovered towards the northern end and measured 0.3m wide and 0.05m deep (Figure 16 and Plate 13). It had a charcoal-flecked fill with some possible burnt bone also present (B3002). North of this a brown-grey clay deposit with charcoal, sub-circular in plan when exposed, was uncovered (B3001) and excavation showed it to be a very thin sterile spread (Plate 14). South of these features an irregular linear gully or depression in the subsoil traversed the trench, aligned approximately east-west (B3008). It measured 2.6m in length, 1.4m in width and 0.05-0.2m in depth. It was filled with a compact mid-brown silty loam with frequent small and medium sized stones present (B3007) and may represent an old field boundary or drain. Between B3003 and B3008 was another linear (east-west) alignment of a sterile stony mid-brown loam (B3004) which excavation demonstration was the fill of a shallow broad U-shaped gully or depression (B3005) in the subsoil (Figures 16 and 17). Bordering this on its southern edge was an irregular ill-defined lens of a brown loam (B3006 – Figures 16 and 17). No other features were uncovered in Trench B.

AREA 2: Area 2 covers the footprint of the post-medieval fort and was subject to both geophysical survey (Section 4) and excavation. Three trenches (Trenches 9, 11 and 12) were excavated in Area 2 and their locations were decided based on the results of survey (Figure 18) and in discussion and agreement with Andrew Gault (NIEA).

Trench 9

Trench 9 (3.5m N/S x 1m) was opened over the possible linear ditch-feature identified through the geophysical survey, aligned parallel to and north of the fort (Figure 18). The sod (C.9001; 0.03m) was removed to expose the ploughsoil (C.9002; 0.13m) which yielded fragments of glass, pottery, flint along with a perforated roof-slate with scratches, possibly scored by a plough or other farm machinery. The ploughsoil horizon increased in depth to the north reflecting the topography of the field. Excavation of C.9002 exposed a coarse, stony gravel horizon with lumps of natural chalk, flint, brick, coal and pottery all present (C.9003; 0.04-0.06m). Below this was a firm silty loam with occasional angular stones including lumps of chalk and degraded pieces of basalt as well as occasional sherds of glass, pottery and flint (C.9004). Excavation of C.9004 exposed the bedrock, at a depth of 0.27m, at the southern end of the trench and it extended north for approximately 0.5m. Excavation down through C.9004 at the northern end of the trench exposed more of the bedrock. A spread of brown silty loam (C.9005), extending for a width of approximately 1.5m, separated the two areas of bedrock and defined the top of the cut, and possible ditch, C.9006 (Plate 15). The fill, C.9005 was the same as C.9004 but was distinguished for stratigraphic control. Excavation down through C.9004/5 demonstrated that the cut or depression, C.9006 was shallow with a relatively flat and uneven base with the bedrock presenting a ragged, and shattered surface (Plate 16). The cut shallowed-out and narrowed. Excavation of C.9004/5 revealed a greyish-brown loam with flecks of charcoal (C.9007) which formed the basal fill of the depression. At the base of the gully at the eastern edge of the trench was an irregular sub-circular posthole (C.9010; 0.3m in diameter and 0.13m deep; Plate 17) filled with a soft greyish-brown charcoal-flecked silty loam (C.9009), similar to the fill of the gully above it (C.9007).

Trench 11

Trench 11 (3m N/S x 1m) was opened south-west of Trench 9 over a linear anomaly detected in the geophysical survey (Figure 18). It was speculated that the anomaly might represent the foundations of a structure, a possible foundation or slot trench, with a stone hearth or threshold immediately south of it.

Trench 11

The sod was cut and removed by hand (C.11001; 0.06-0.08m) which exposed a light- to mid-brown silty loam (C.11002; 0.6m). Below this was a shallow gravelly ploughsoil horizon (C.11003; 0.03m) which, on excavation across the southern two-thirds of the trench, was found to overlie the bedrock (Plate 18). At the southern edge of the trench was an irregular sub-circular depression or cut (possible posthole?) into the bedrock (Plate 19 and Figure 20). The depression/cut (C.11016) measured 0.33m by 0.27m and was filled with a loose mid-brown silty loam, with an orange hue (C.11008) and produced worked flint and sherds of creamware.

The bedrock terminated with a definite linear almost straight edge, aligned east-west. North of this were a number of discrete deposits. A shallow ploughsoil deposit extended southwards for approximately 0.18m from the northern edge of the trench (C.11005; 0.03m). This overlay a compact mid- to light-brown silty loam with stones, 0.1-0.12m in size (C.11004; 0.3m), which formed the primary fill of the cut through the bedrock, C.11011 (Figure 20). Immediately north of the bedrock and edge of the cut, was an irregular linear deposit (C.11006) which filled a linear cut, C.11007 through the fill C.11004. The fill of the cut, C.11006 was half-sectioned and sampled and on excavation, the cut was found to measure 0.2m in width (north-south) by 0.45m in length (east-west) and extended for a depth of 0.28m (Plate 20). It was ill-defined but a V-shaped profile with a narrow flat base was identified. The fill (C.11006) was a mid-brown silty loam with small angular and sub-angular stones, not dissimilar to C.11004. Between the fill and bedrock was a thin loose, crumbly sandy, orange deposit against the face of the rock (C.11009). This was interpreted as the eroded and degraded face of the bedrock.

Excavation down through the upper fill, C.11004 of the cut, revealed a grey-brown firm clay loam with charcoal flecks (C.11010; 0.12-0.23m). Removal of this lower fill exposed the capstones (C.11012; Plates 21 and 22) of a well-built French drain, running east-west. The capstones were supported by a mixture of stones set on edge (C.11013) and the bedrock. The primary cut through the bedrock (C.11011), measured 1.28m width north-south at the top of the cut, and narrowed to 0.8m across, at the surface of the drain and was approximately 0.5m deep (Figure 20 and Plate 23). Below this was a narrower box-shaped linear cut (C.11015) through the bedrock, forming the drain measuring roughly 0.24m wide and 0.29m deep. The base of the drain was not paved or lined. The drain was constructed with side-stones and capped with large flat stones (C.11012) set on the edges of the cut (C.11015) and supporting side stones (C.11013). On removal of two of the capstones (Plate 24) the drain was found to been partially in-filled with a loose, lumpy grey loam (C.11014).

Trench 12

Trench 12 was opened at the southern end of Area 2, adjacent to Trench 11 (see Figure 18), to investigate anomalies detected in the geophysical survey. The sod (C.12001; 0.05m) was removed by hand to expose the topsoil, a light to mid-brown silty loam which produced some pottery, glass and flint (C.12002; 0.1m). Below this was a shallow gravelly-loam horizon (C.12003; 0.05-0.09m). This lay above a mid-brown silty loam (C.12004; 0.08m) with occasional small stones which overlay the subsoil (Figure 21). In the north-eastern corner of the trench was a sub-circular spread of a not dissimilar silty-loam deposit (C.12005; 0.5m x 0.29m) which upon excavation was found to fill an irregular shaped depression in the subsoil, 0.09-0.15m deep, and probable root bole (Plate 25).

AREA 3: Two long machine-dug evaluation trenches were opened in Area 3 (Figure 13). The trenches were aligned roughly east-west and were excavated with a smooth-edged sheugh-bucket under archaeological supervision.

Trench C

Trench C measured approximately 45m in length and 2m wide and was opened just north of the southern boundary of the field. No features of archaeological interest were uncovered. The sod (0.08m) lay above the topsoil/ploughsoil (0.3m) which overlay the subsoil - a reddish-orange clay, with large stones and boulders and outcrops of bedrock. A thin metal water-pipe, running north-south, traversed the width of the trench 6.8m from the eastern end of the trench. This was also picked-up in Trench D and in one of the evaluation trenches excavated in 2009 (Murray 2011). The pipe also aligns with the strong linear anomaly detected in the geophysical survey conducted across the northern end of the field (see Figures 10-12; Plate 26).

Trench D

Trench D measured approximately 48m in length and 2m wide and was opened roughly 14m north of Trench C (Plate 27). The sod (0.05m) was removed to expose the ploughsoil which extended for 0.2m in depth and overlay the subsoil, same as in Trench C. The water-pipe traversed the trench north-south, 13.3m from the eastern end of the trench.

6 The finds

The finds from the excavations in all three areas comprised predominantly struck flints, mostly undiagnostic but also included an arrowhead (broken across the dorsal end but probably leaf-shaped and Neolithic in date – B. Sloan pers. comm.), a hollow-scraper, a convex scraper, a knife and a core. Sherds of pottery were also recovered, along with pieces of glass, clay pipe stem fragments, brick, coal and corroded metalwork. Other finds of interest were a lead pistol shot (12.7mm in diameter; 11.6g /0.41ounces) which was recovered from Trench 8 and a lead weight from monitoring in Trench C. The finds are catalogued in Appendix 4.

7 Discussion: results of the 2012 investigations

Before commencement of work on site in August 2012, it was speculated that a 'lost' Plantation village contemporary with the fort and Templecorran Church might be located between the two, i.e. **Area 1** of the 2012 investigation (Figure 13). The location of a village between the 'lord's' residence and the church is a traditional medieval layout. This is illustrated in the nearby town of Carrickfergus, for example, with the castle sited on the north shore of Belfast Lough and St Nicholas' Church located at the opposite end of Market Place (Ó Baoill 2008). This layout is also illustrated in a number of seventeenth-century Plantation villages in Ulster such as Ballykelly and Macosquin (Curl 1986).
Additionally, burials or enclosure features associated with the adjacent church site, of medieval and/or post-medieval date, might have been expected to be present.

Apart from a few post-medieval finds, recovered in the same contexts as prehistoric flints, no positive evidence for these activities was identified in Area 1. A small number of shallow cut-features were partially uncovered, both in the hand-dug and mechanically excavated trenches, at the northern end of the north-eastern field. None of these features produced diagnostic finds and from the small areas excavated, it was not possible to determine their scale or overall shape. The fills of some of these features contained charcoal and/or burnt bone which, if sampled for radiocarbon dating, could identify the period to which the activity dates to. In the 2011 excavation a trench excavated at the very northern end of the north-eastern field (Trench 11 – Figure 7) uncovered archaeological features; a curvilinear gully and a deposit of clay that yielded sherds of pottery of medieval and Neolithic date respectively. The features uncovered in Trenches 1 and 5 and at the northern ends of Trenches A and B in 2012 may be associated with those uncovered in the 2011 trench. What the 2011 and 2012 excavations suggest is that the north-eastern corner of this field contains evidence of earlier activity and is archaeologically sensitive.

The 2012 resistivity survey results in **Area 2** highlighted the location of the fort as previously identified by the 2008 magnetometry survey conducted by DVAS (Figure 3) though it is not as well defined by the former (Figures 10 and 11). Both the north-western and south-eastern corners of the fort, and locations of the spear-shaped bastions detected in the 2008 survey, returned poor readings. The inside corners for the two bastions are just discernible in the resistivity survey but otherwise the bastions have not been detected. The north-western bastion was also not well defined in Bennett's survey which was conducted across this corner of the site (Bennett 2010). It is probable that these poor readings are associated with poor drainage and possibly also the underlying geology.

The plan of the fort at Ballycarry suggests that it dates to the late sixteenth or seventeenth century and the plan-form is analogous with both artillery forts and fortified bawns of the period - it could therefore be either of these. It may have been built during the Nine Year's War, during the Earl of Essex's campaigns or by the Edmonstones, either at the start of their residence in the area *circa* 1609 (possibly by one of the two brothers, William or James) or sometime later in the seventeenth century. Who built the fort and when has been discussed in detail elsewhere (Murray 2011) and unfortunately the excavations and survey conducted in 2012 have not provided any further clues to these questions. As in the 2009-10 excavation, the dearth of finds dating to the seventeenth-century recovered in the vicinity of the fort supports the supposition that the fort was built and used for a relatively short period. The best way to really establish the full layout of the fort and features within it and to recover better dating evidence, would be to undertake a large-scale open-plan excavation as small test-trenches are very restrictive.

The 2012 survey, however, did pick-up an additional feature not apparently imaged in the 2008 survey; an L-shaped feature and possible ditch, parallel to and north of the fort. The readings were similar to those for the fort which excavations in 2009-2010 had demonstrated was represented by a rock-cut ditch, 2.7m wide and 1.2-1.4m deep. The initial exposure of the bedrock in Trench 9 and apparent edges of a cut (C.9006) and fill (C.9004/5) of a linear feature suggested the presence of a similar feature. Excavation, however, demonstrated this to be a tenuous shallow gully with an irregular posthole and finds were limited to the upper deposits of the trench. It is possible that the linear features imaged in this area of the site, north of the fort, are associated with the late-nineteenth century subdivisions and plots in this part of the field (Figure 8b). Alternatively, given that they distinctly run parallel to and respect the outline of the fort, they may be features associated with it. In order to better determine what these features are, a larger scale excavation in this area of the field would be required.

Within the bounds of the fort, in the southern corner, other possible linear cuts were detected by the survey. As one of the primary objectives of the 2012 project was to investigate the interior of the fort for structural remains it was decided to test a couple of these anomalies. Unfortunately, no positive evidence for contemporary structural remains was uncovered. Instead, a well-built substantial French drain was discovered in Trench 11. If the linear east-west anomaly imaged in the survey, and over which Trench 11 was excavated, represents the totality of the cut through the bedrock for the French drain it would be relatively short. It seems unlikely that such a short length of drain would have been built, or, that it has since been dug-up and removed. Instead, it seems probable that the underlying geology and drainage changes across the field and that much of the rest of the drain (assuming it runs further east and /or west) was cut through and built in subsoil and/or overlying organic cultivation soils rather than bedrock, and/or

runs through areas with poorer drainage, which has meant that the rest of the drain has not been detected by the resistivity survey.

In summary, the 2012 excavations have yielded an interesting assemblage of finds, of prehistoric and post-medieval date, uncovered a previously undetected French drain and have demonstrated that it is unlikely that there was a settlement contemporary with the fort and seventeenth-century church, located in the area between the two. It seems probable that the contemporary Planation village is instead located where the modern village of Ballycarry now sits and which is bounded to the south by Templecorran Church and Redhall demesne to the north. Unfortunately excavations within and adjacent to the fort did not provide any further insight to its date or form although the survey results have provided additional interesting anomalies to add to and augment the 2008 survey results.

8 Recommendations for further work

8.1 *Specialist work*

It is recommended that specialists in flint and pottery are commissioned to examine the retrospective assemblages and write-up reports on the same. It is also recommended that the bulk samples from features excavated in Trenches 1, 4, 5 and 9 are processed (flotation) to recover suitable material for radiocarbon dating (charcoal, bone and/or charred grain). It is recommended that in discussion and agreement with the NIEA inspectorate a selection of these samples is then submitted for radiocarbon dating to identify the date-range for the features identified.

8.2 *Publication*

It is recommended that the findings of the 2012 investigations are incorporated with the results of previous excavations of the fort and enclosure and that they are written-up as paper(s) for submission to a peer-review journal for publication (e.g. *Journal of Conflict Archaeology*, *Journal of Post-Medieval Archaeology* or the *Ulster Journal of Archaeology*).

8.3 *Further research*

The conclusions drawn here are still speculative, in particular with respect to the fort. Between the 2009-10 and the 2012 excavations combined, a total of nine small trenches have been excavated by hand within and around the fort. These have provided some insight into its structure (delineated by a rock-cut ditch) but it is clear that in order to make any real advance on our understanding of the monument that it merits a much larger ‘open plan’ excavation. A larger scale excavation could potentially answer some of the

outstanding questions such as the function and internal layout of the fort (fortified bawn or artillery fort?) and when it was built, which in turn could allow the identification of the potential architect of the monument. It is also clear that Redhall and its environs needs more detailed investigation to better understand the sixteenth and seventeenth century activities at that estate. Below ground geophysical survey within the grounds of the estate and a proper building-survey of the house could both potentially yield some interesting clues and insights into the development of Redhall, Ballycarry and the role of the Edmonstones in the earlier half of the seventeenth century.

9 Credits and acknowledgements

I would like to thank the landowner Mr Tom Topping for permission to excavate and carry out fieldwork at the site and also his land agent Mr Crawford Leitch. I would also like to thank Paul Logue and William Roulston for their interest and advice. The CAF excavation crew were Brian Sloan, Grace McAlister, Dermot Redmond, Stuart Alexander and Sarah Kerr. QUB UG archaeology student, Brian Hillick, also kindly volunteered for the two week excavation. The geophysical survey was conducted by Sapphire Mussen with assistance from Dermot Redmond. The illustrations were prepared by Sapphire Mussen.

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CAF http://www.qub.ac.uk/schools/CentreforArchaeologicalFieldworkCAF/Reports/

NIEA Mapviewer http://maps.ehsni.gov.uk/MapViewer/Default.aspx

PLATES

Plate 1 Trench 1 (facing north) showing cut C.1007 and fill C.1008.

Plate 2 Trench 1: post-excavation photo of C.1007.

Plate 3 Trench 3 showing the subsoil, bedrock and features C.3006, C.3007, C.3008 and C.3009 (facing south).

Plate 4 Post-excavation photo of Trench 3 (facing south).

Plate 5 Trench 4 showing the bedrock, subsoil and deposit C.4005 (facing south).

Plate 6 Trench 5 showing the subsoil and Cut C.5006 and fill C.5007 (facing north).

Plate 7 Trench 5 – post-excavation photo (facing north).

Plate 8 Post-excavation photo of Trench 8 showing the shallowness of the bedrock (facing south).

Plate 9 Trench A: mechanically excavated long-trench joining-up hand-dug Trenches 1-4 (facing south).

Plate 10 Trench B: mechanically excavated long trench joining up hand-dug Trenches 5-8 (facing south and towards higher ground).

Plate 11 Trench A: post-excavation photo of feature A2004 and A2002.

Plate 12 Trench A showing features A2005 (foreground) and A2006.

Plate 13 Trench B: feature B3003 half-sectioned.

Plate 14 Trench B showing feature B3001.

Plate 15 Trench 9: pre-excavation photo of the linear feature (C.9006) and bedrock (facing south).

Plate 16 Trench 9: post-excavation photo (facing north).

Plate 17 Trench 9: posthole C.9010, half-sectioned.

Plate 18 Trench 11 showing the bedrock, on removal of C.11003, and fill (C.11004) of the linear cut (C.11011) in the foreground.

Plate 19 Trench 11; cross-section through C.11016 and fill C.11008.

Plate 20 Linear feature (C.11007) and fill (C.11006) half-sectioned.

Plate 21 First appearance of the capstones of the stone-lined French drain.

Plate 22 Trench 11: stone-built French drain at the base of the cut C.11011 at the northern end of the trench with cut C.11016 at the southern end.

Plate 23 Photo showing the differential edges, ragged and smooth, of cut C.11010 and sequence of fills.

Plate 24 Interior of the drain after the lifting of two of the capstones.

Plate 25 Post-excavation photo of Trench 12 (facing west).

Plate 26 Trench C: mechanically excavated trench in Area 3 (facing west).

Plate 27 Trench D: mechanically excavated trench in Area 3, located approx. 14m north of Trench C (facing East).

FIGURES

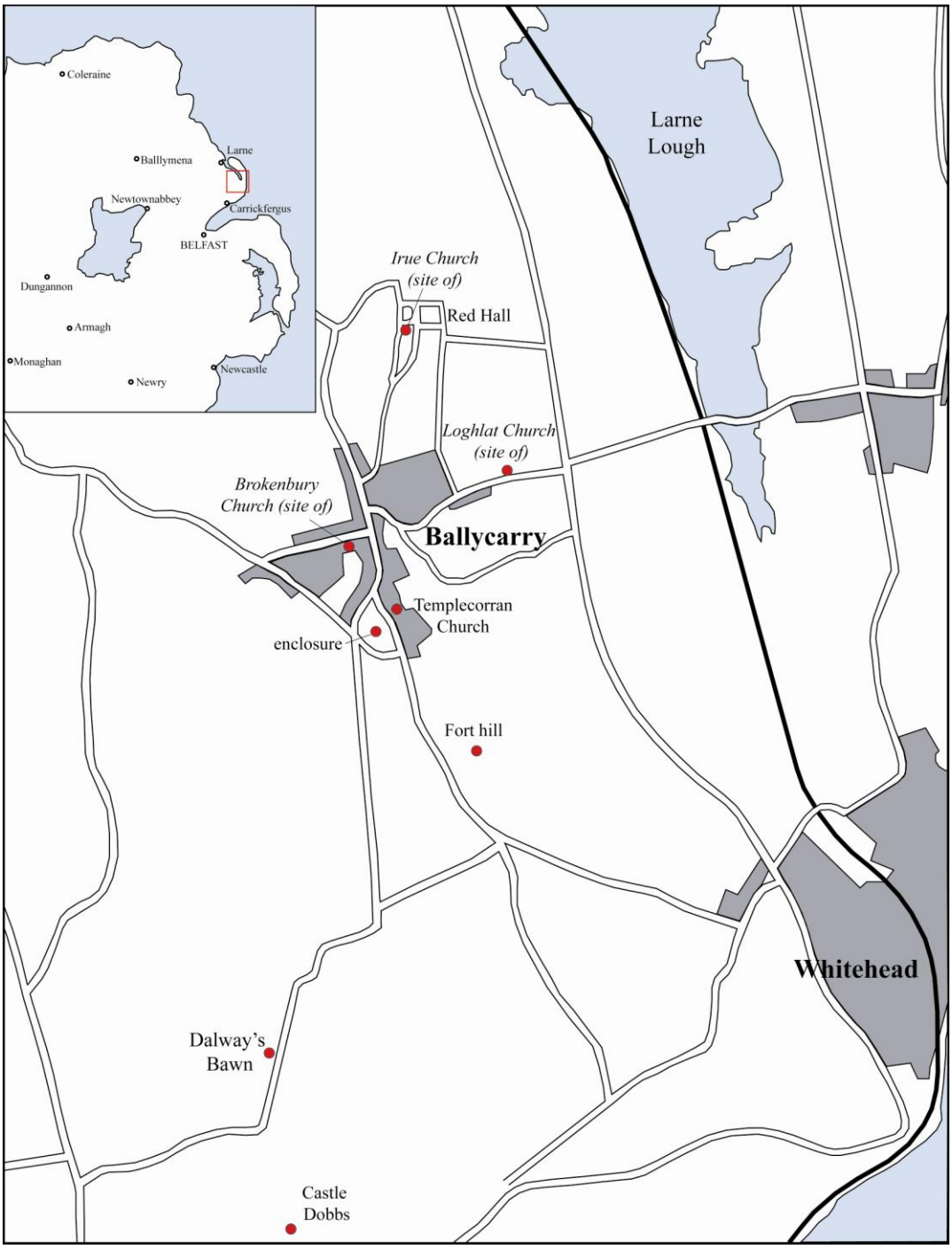


Figure 1 Map showing the location of Ballycarry and archaeological sites in the vicinity of the village including Templecorran church (ANT 047:010) and the scheduled enclosure (ANT 047:068).

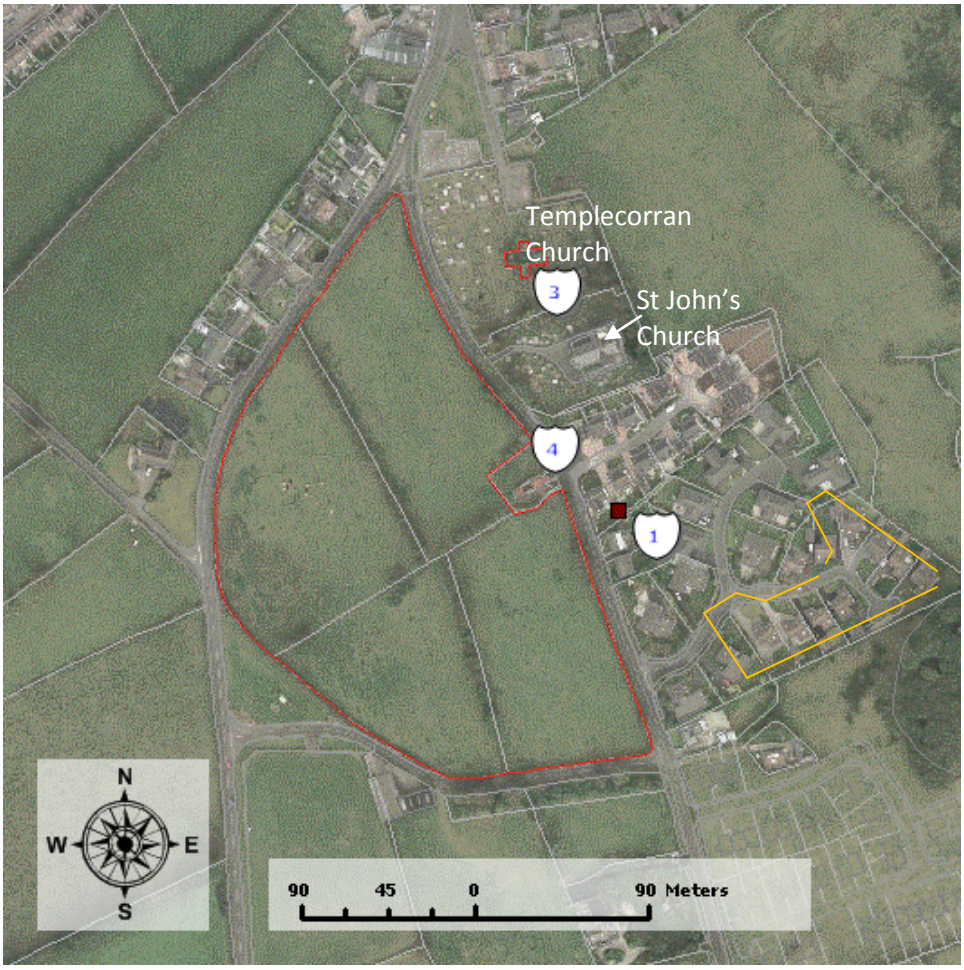


Figure 2 Google Earth aerial photo showing the scheduled enclosure highlighted in red ('4' =ANT 047:068), Templecorran church and graveyard ('3' = ANT 047:010). '1' marks the location of a dairy (IHR = 0712600000) which was investigated in 2005. The yellow line demarcates, the area investigation by Norman Crothers in 1993-4 (Crothers 2000). The image was downloaded from NIEA Mapviewer *http://maps.ehsni.gov.uk/MapViewer/Default.aspx#* (09.08.11).

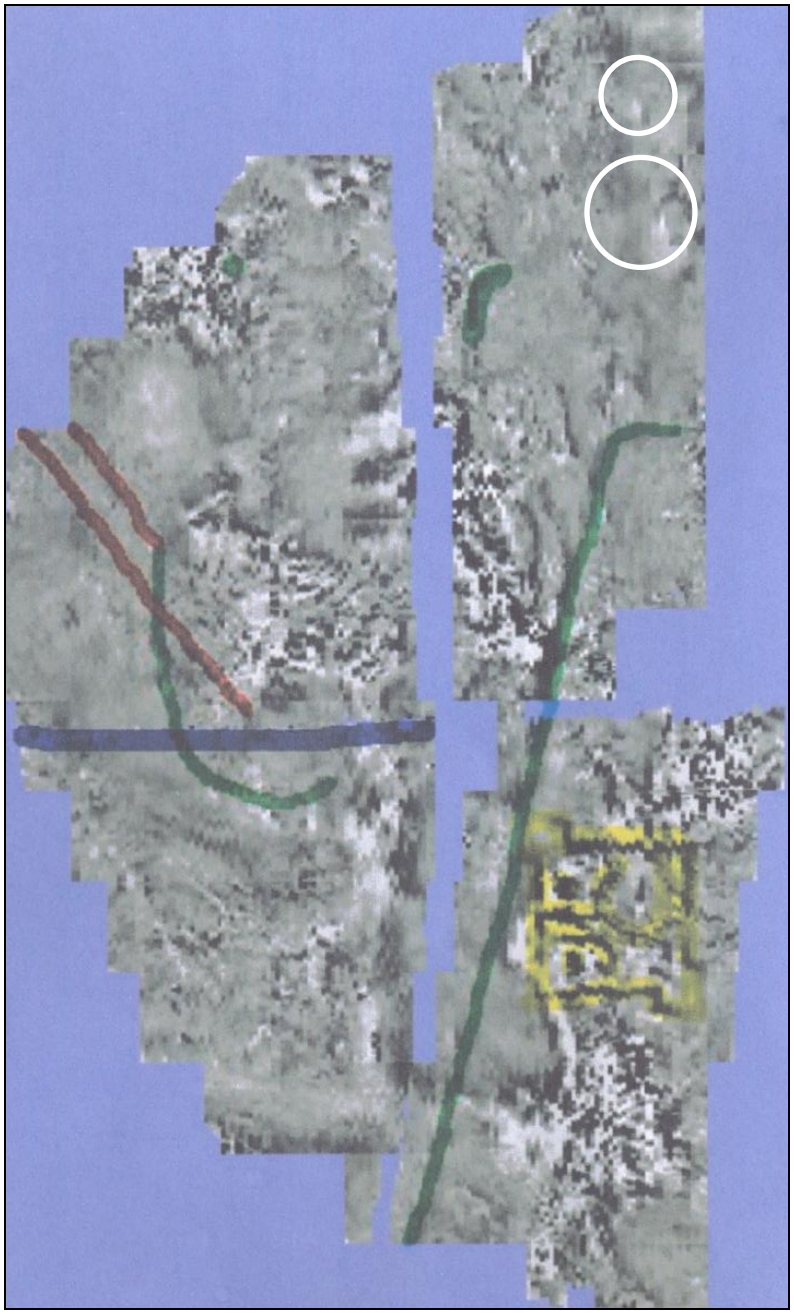


Figure 3 Results of the 2008 magnetometry survey displayed as a grey-scale image with possible archaeological features highlighted in colour (DVAS 2008). The seventeenth-century fort is highlighted in yellow in the bottom-right quadrant. Linear and curvilinear anomalies in Area 1 (see Figure 3) are highlighted by the white circles.

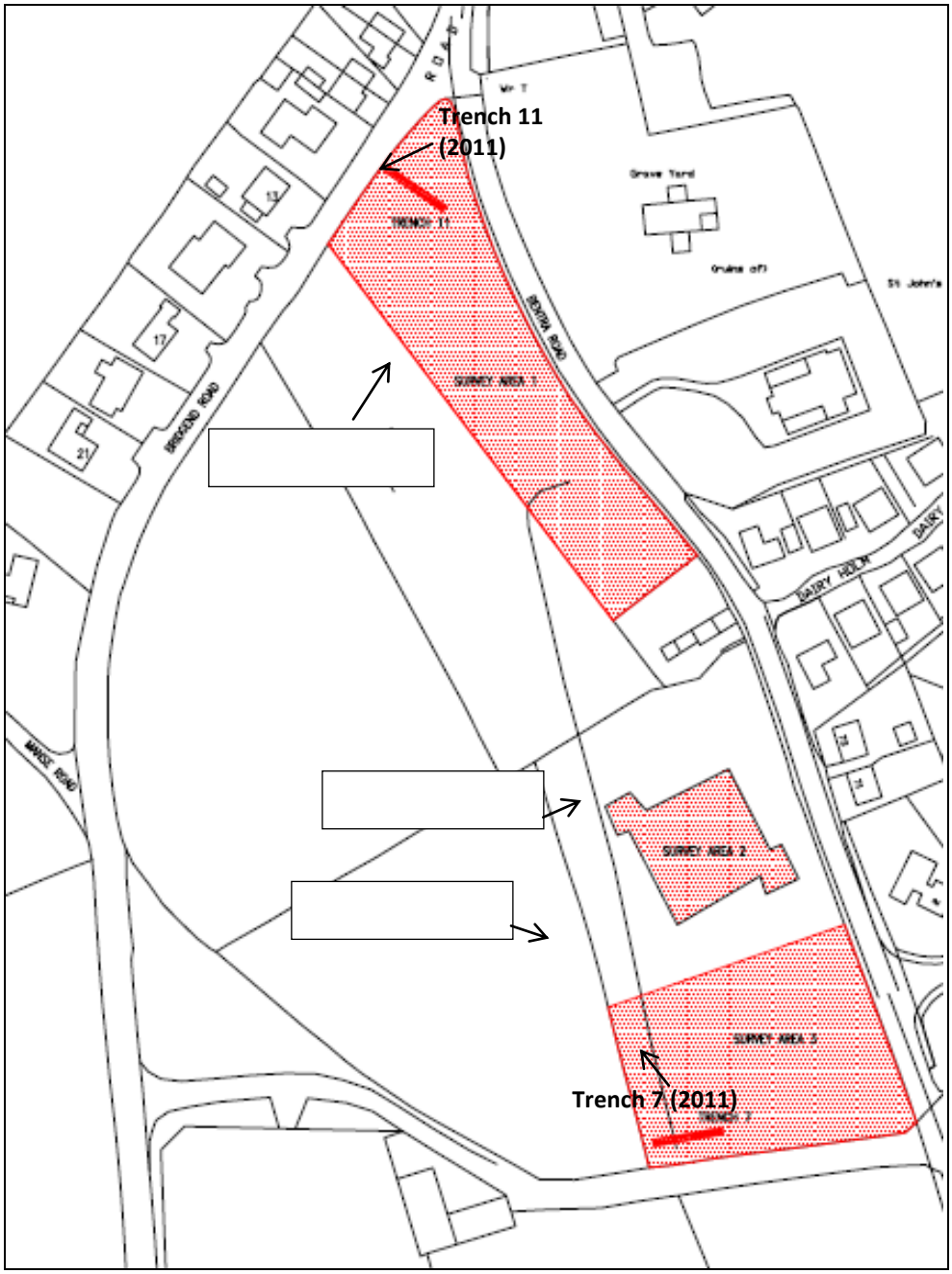


Figure 4 Areas proposed for the 2012 investigation highlighted in red with the 2011 trenches in Areas 1 and 3 also highlighted (plan provided by English & Drummond).

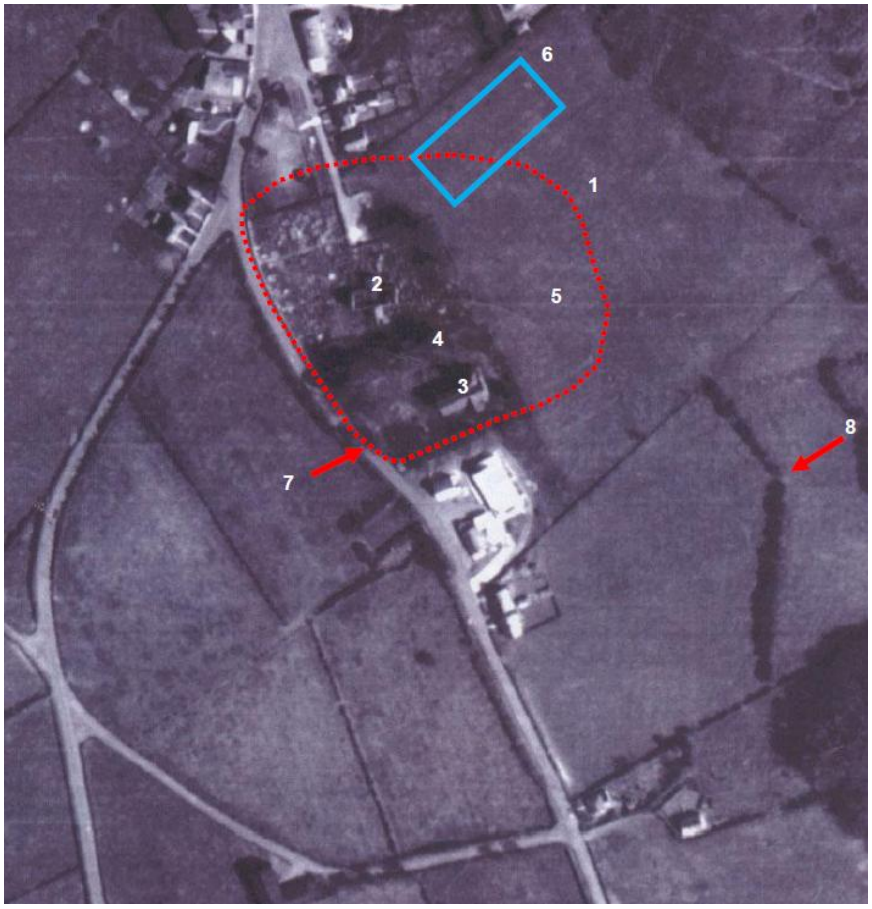


Figure 5 Annotated aerial photo (1961) showing: (1) the suggested outline of the ecclesiastical enclosure; (2) the ruins of the 17th-century church of Templecorran; (3) St. Patrick's Church of Ireland; (4) the approximate location of the discovery of mortared wall foundations (O'Laverty 1884, 91; McClintock 1990, 25); (5) possible structure shown by square-shaped crop mark; (6) location of Hartwell's geophysical survey (1990); (7) the kink in the Bentra Road that possibly respects the western side of the enclosure and (8) extant hedge line/field boundary (Sloan 2011, 77).

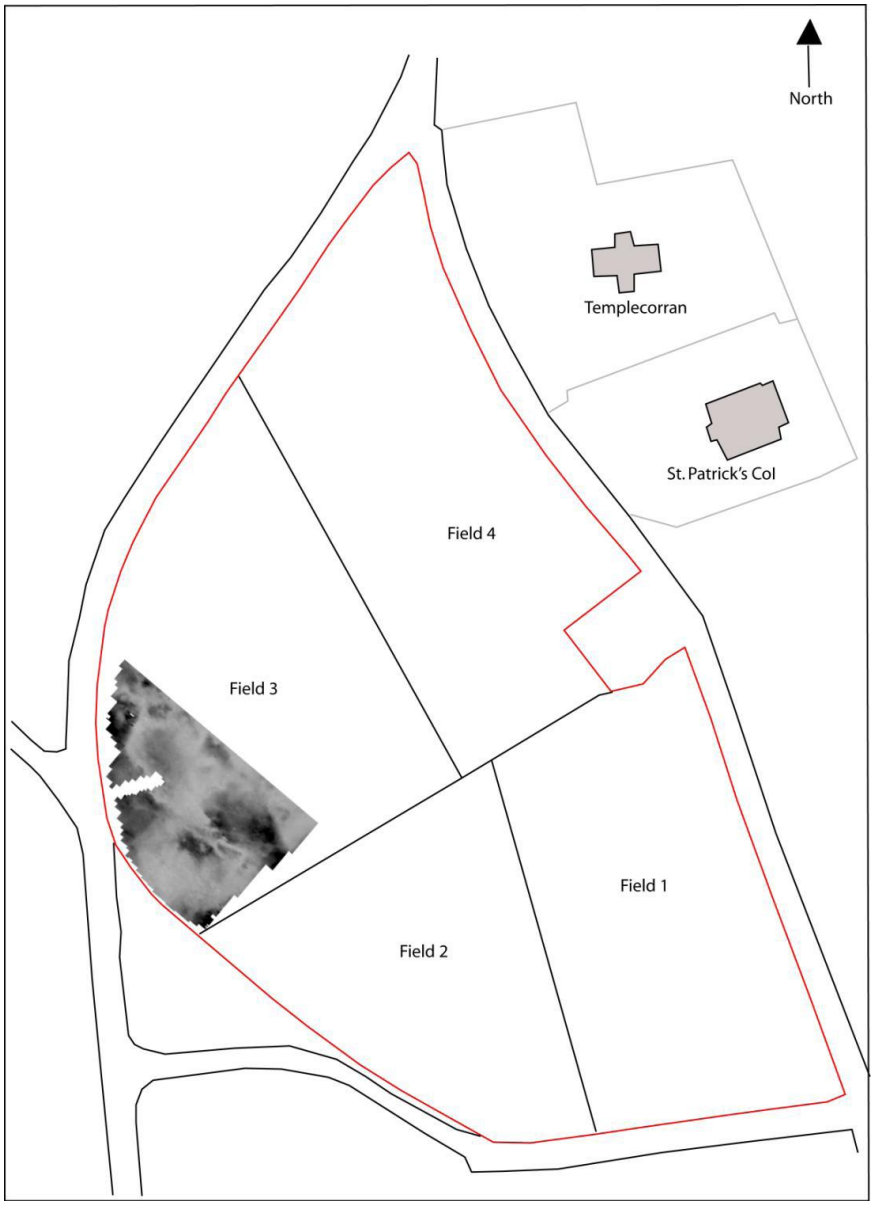


Figure 6 Location of the 2011 geophysical survey area within the scheduled enclosure (from Sloan 2011).

Figure 7 Location of test trenches excavated in 2011 (from Sloan 2011).

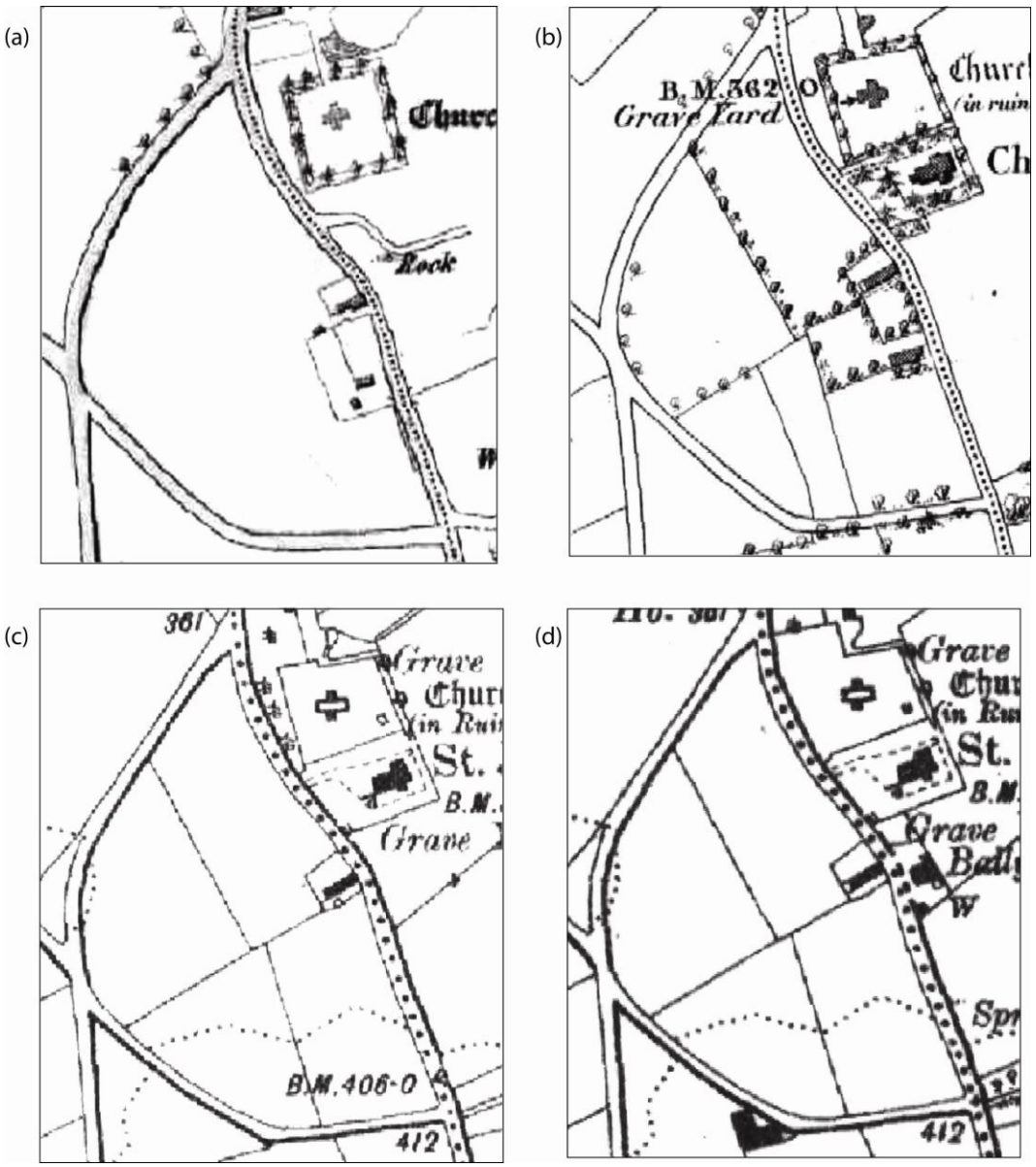


Figure 8 Comparison of cartographic representations of the survey area from 1829 to 1954 (from NIEA Mapviewer)

(a) First edition Ordnance survey 1829-1835
(b) Second edition Ordnance Survey 1831-1904
(c) Fourth edition Ordnance Survey 1901-1957
(d) Seventh edition ordnance Survey 1921-1954

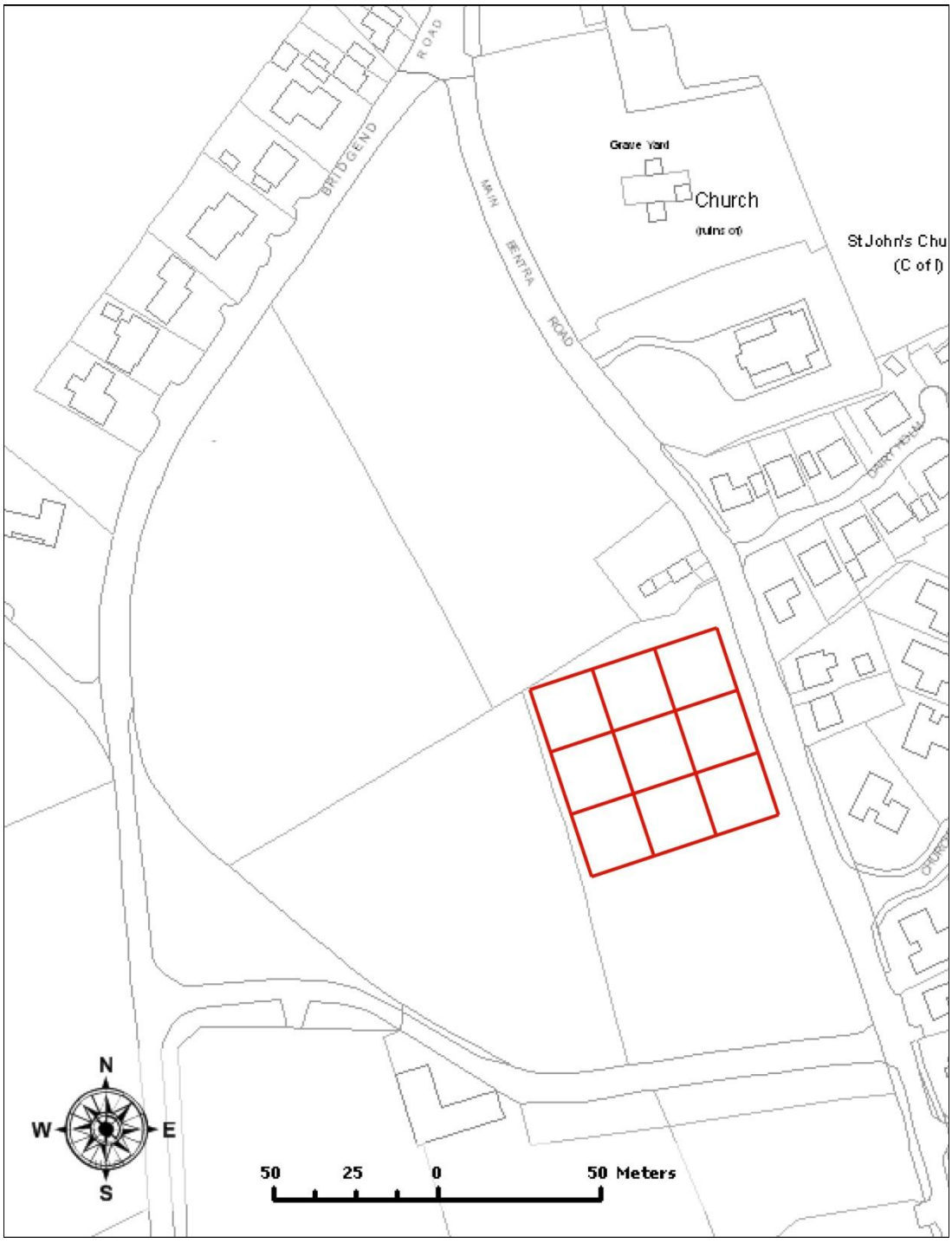


Figure 9 Location and outline of the 2012 survey area. Each grid measures 20m x 20m.

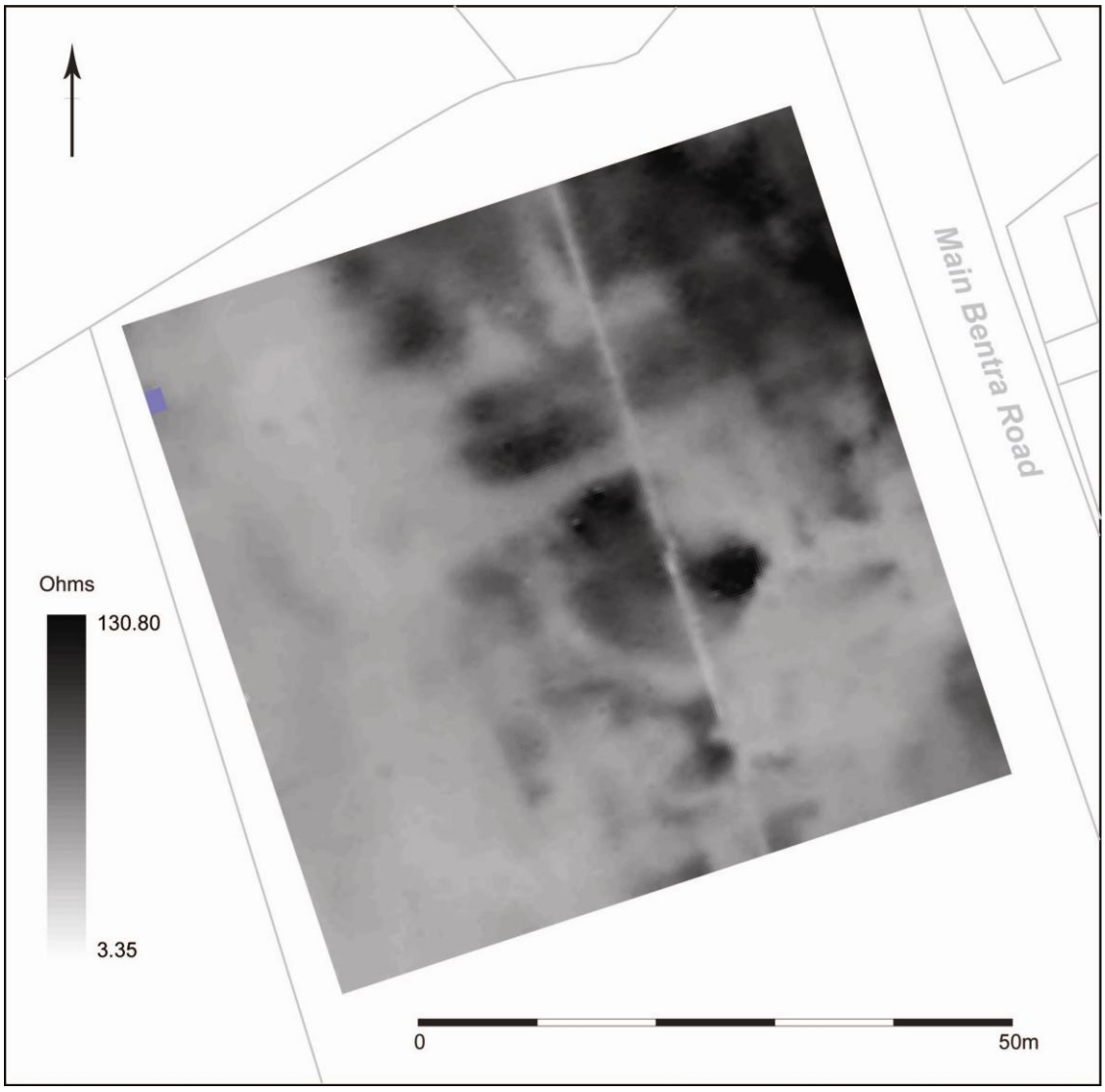


Figure 10 Shade-plot of raw resistance data.

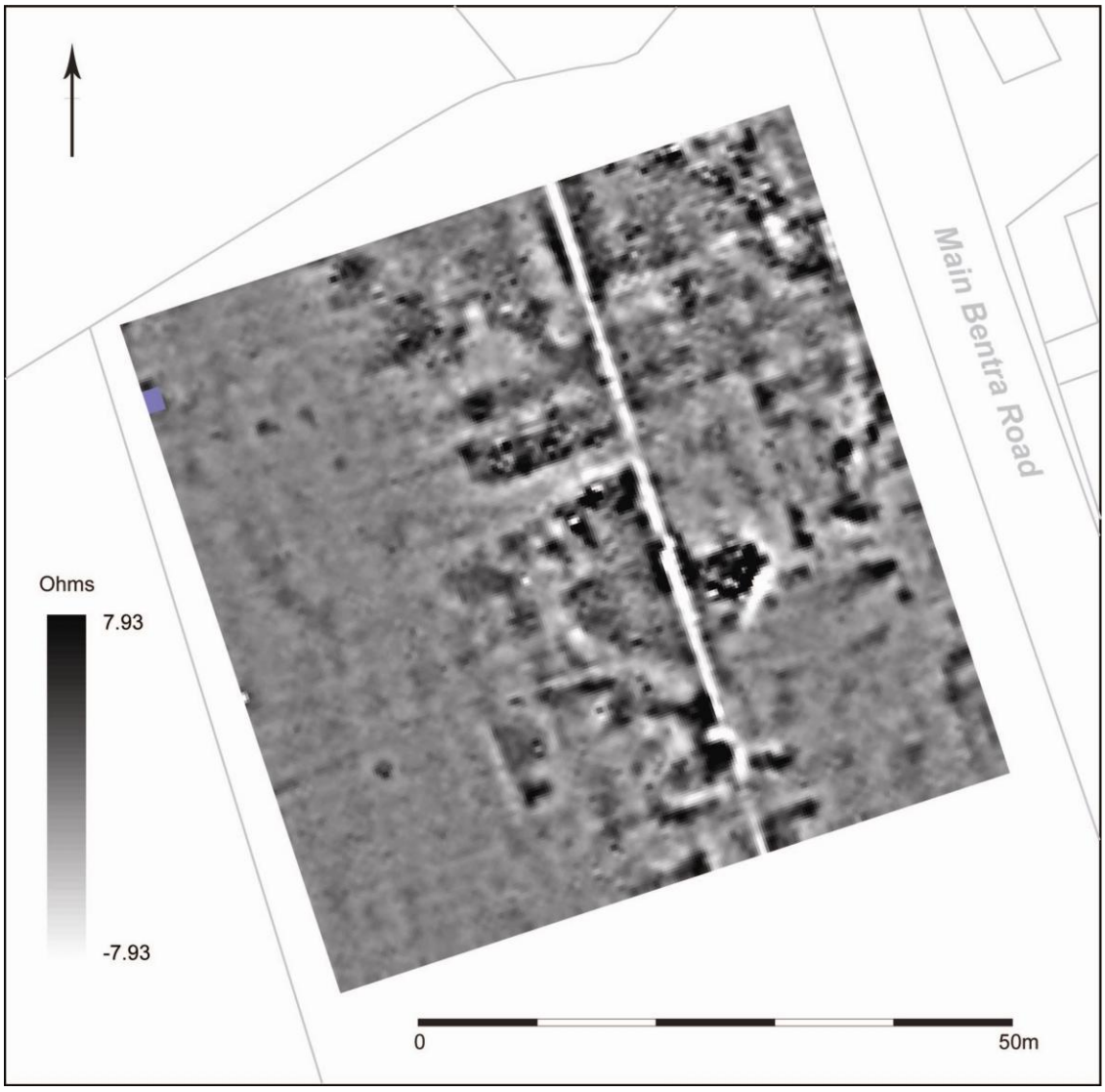


Figure 11 Shade-plot of resistance data following the application of High Pass Filter which has the effect of filtering out broad trends and emphasising the detail of smaller and fainter trends.

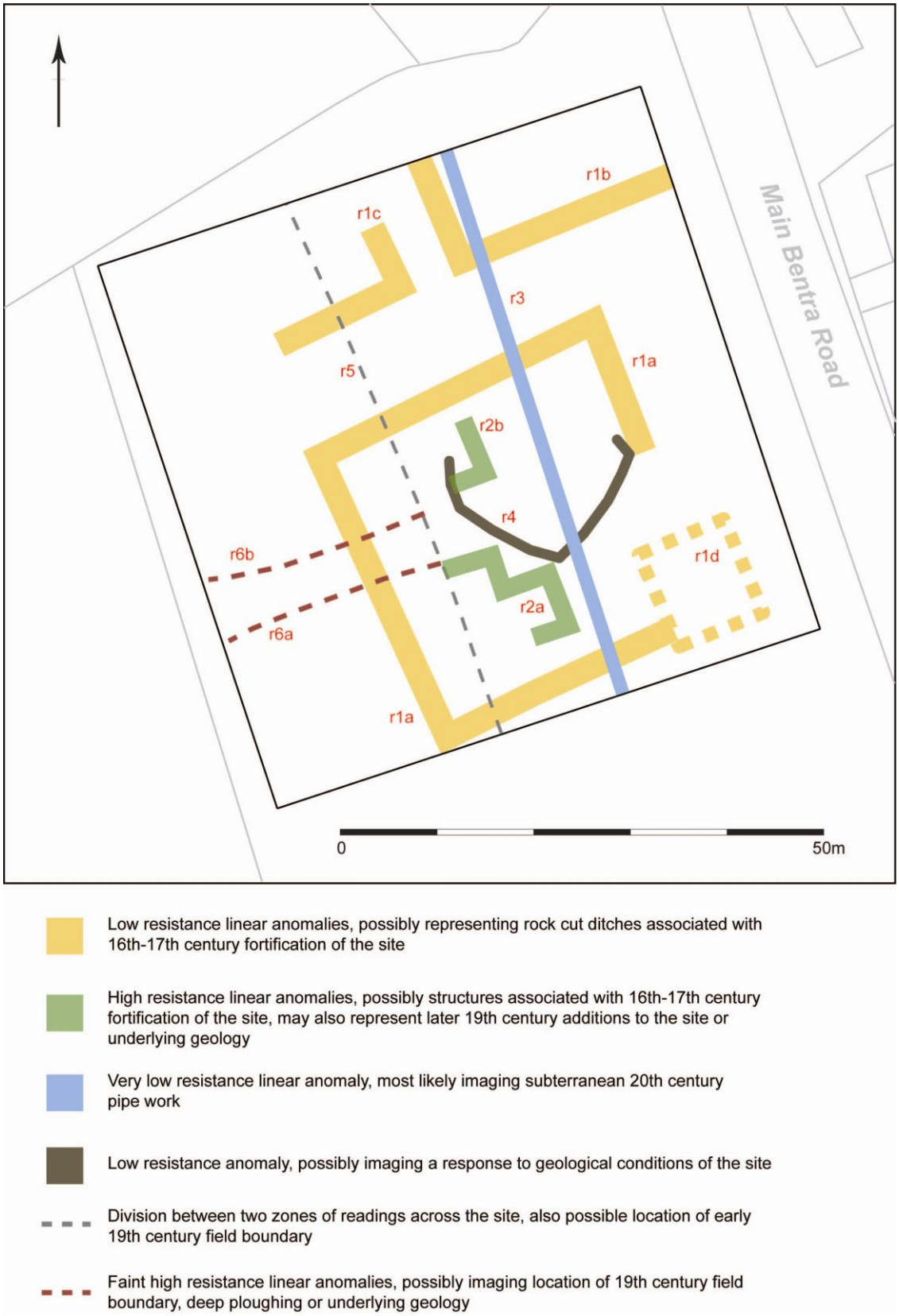


Figure 12 Graphic summary of earth resistance anomalies: to be read in conjunction with the interpretative results given in Section 4.7.

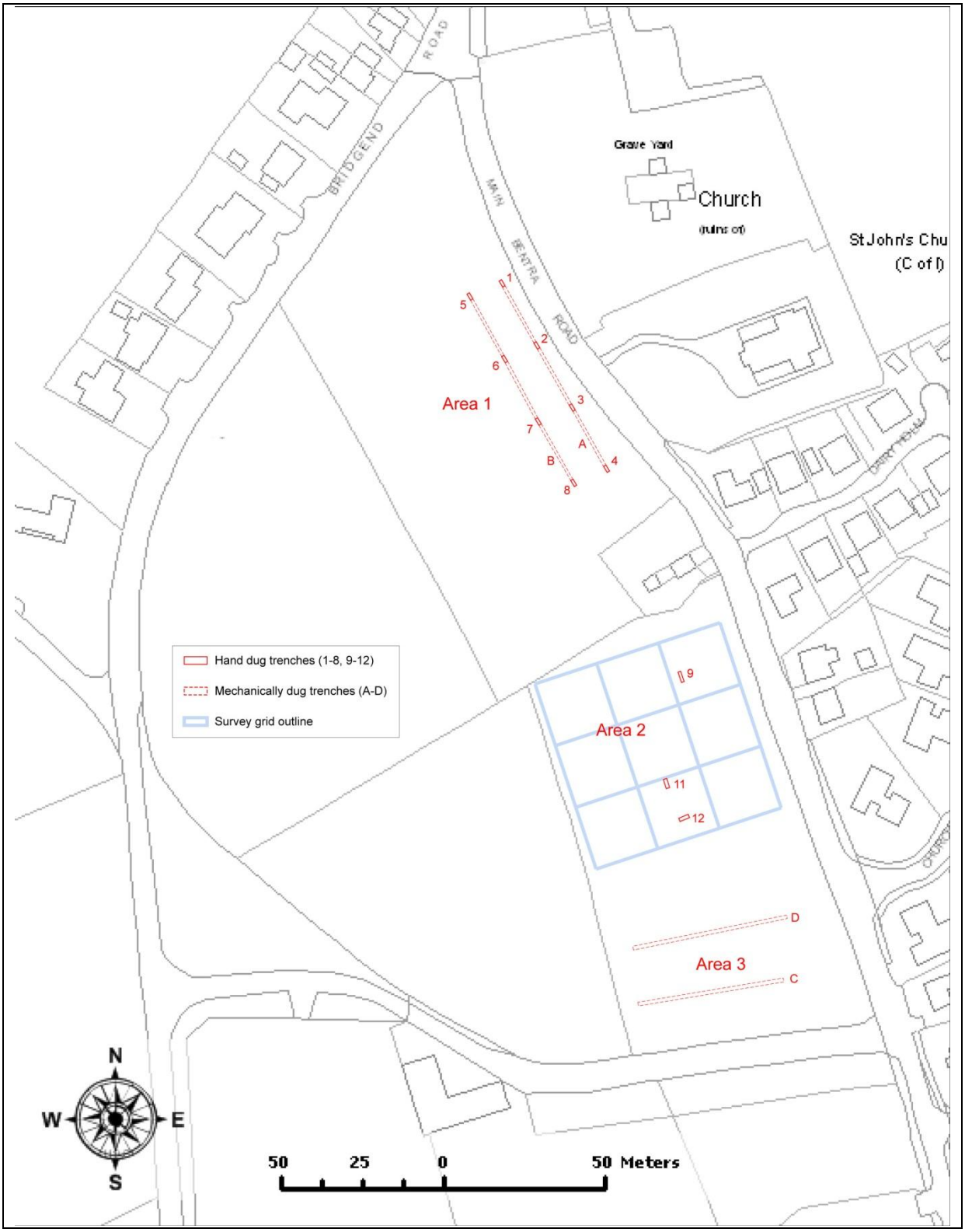


Figure 13 Ballycarry south-west: location of the hand-dug and mechanically excavated trenches excavated in Areas 1, 2 and 3 in 2012. The survey grids in Area 2 are also shown.

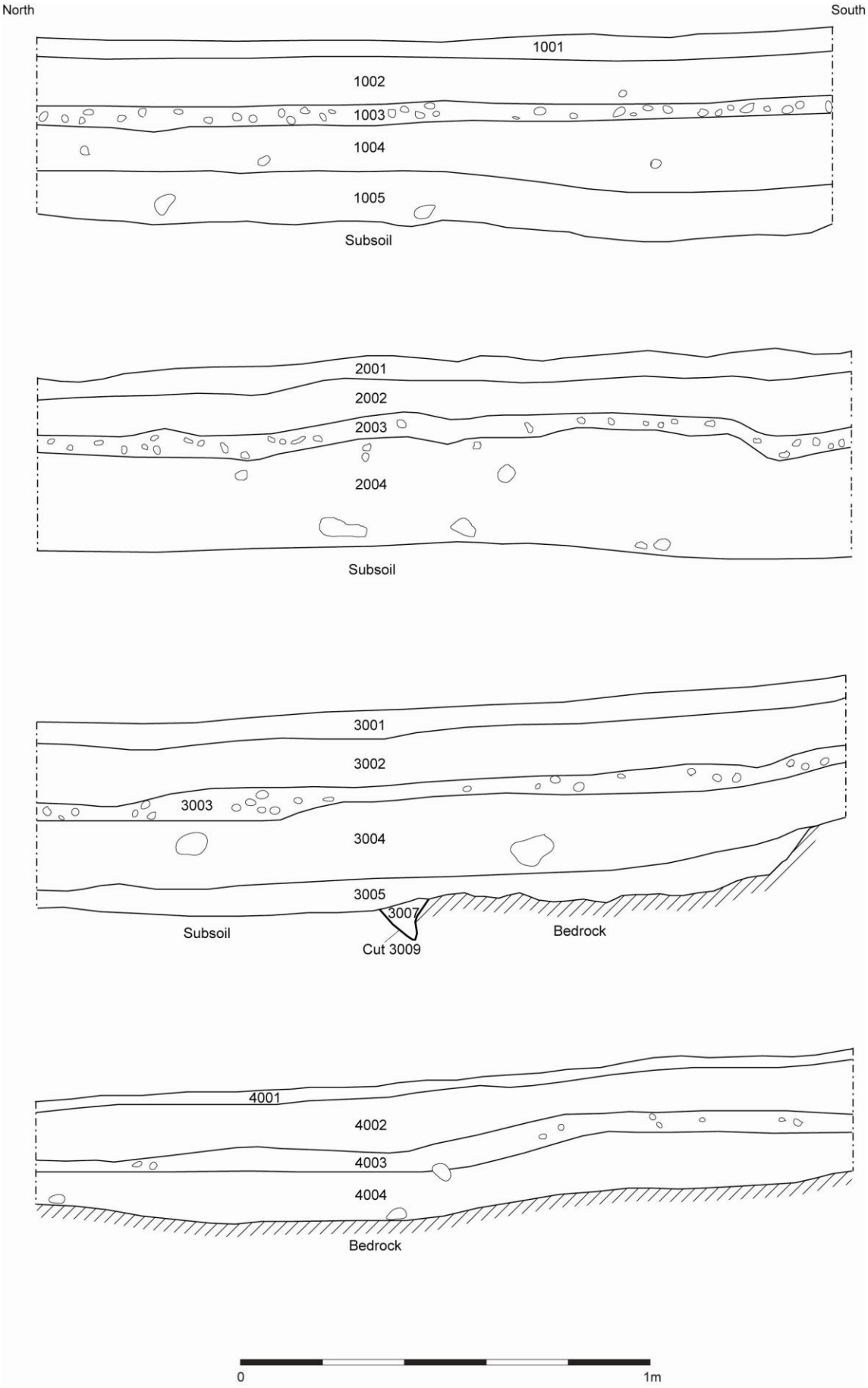


Figure 14 Post-excavation section drawings (west-facing) of Trenches 1-4, Area 1.

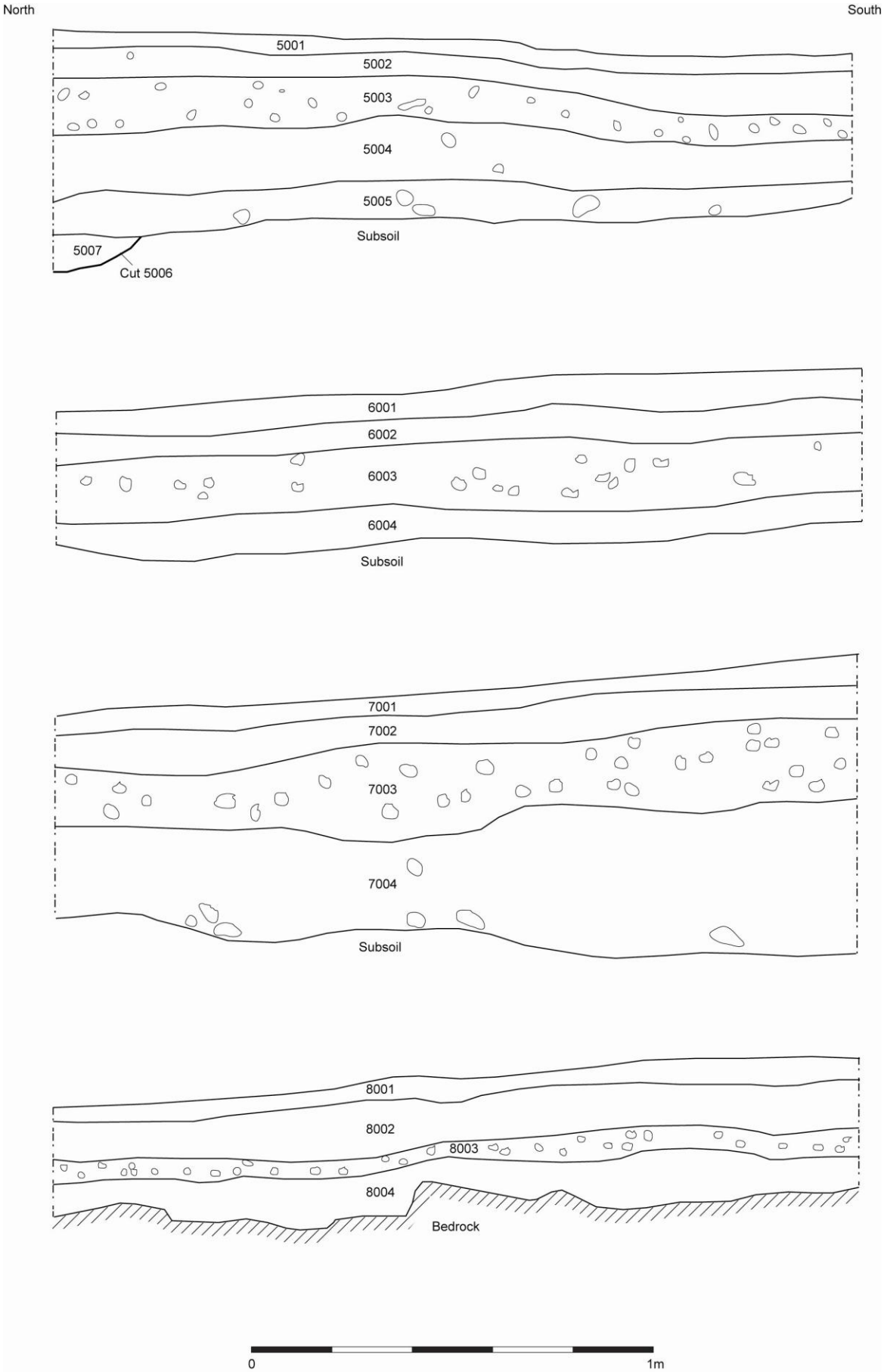


Figure 15 Post-excavation section drawings (west-facing) of Trenches 5-8, Area 1.

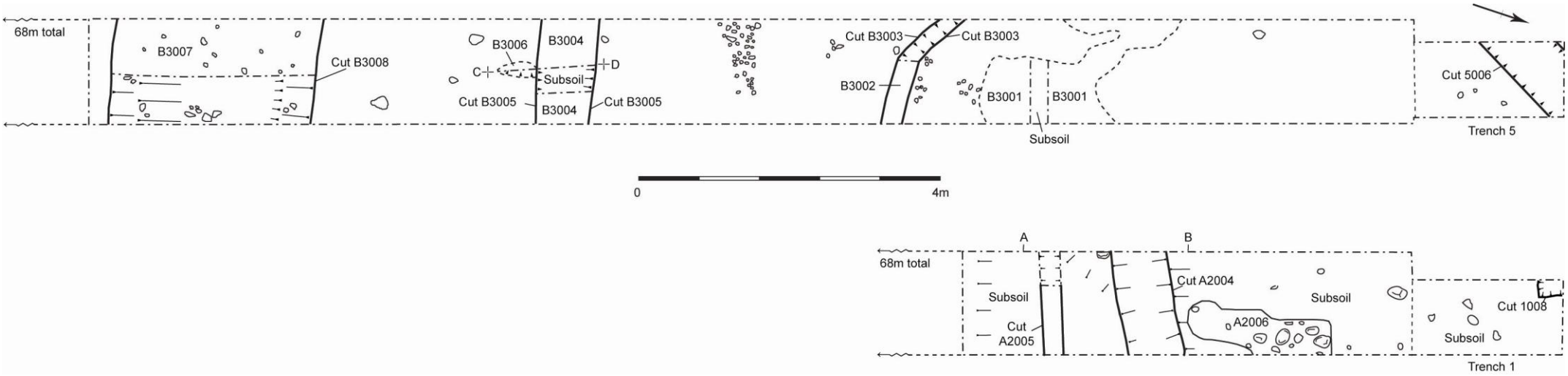


Figure 16 Post-excavation plans of the northern ends of Trench A, including Trench 1, and Trench B, including Trench 5.

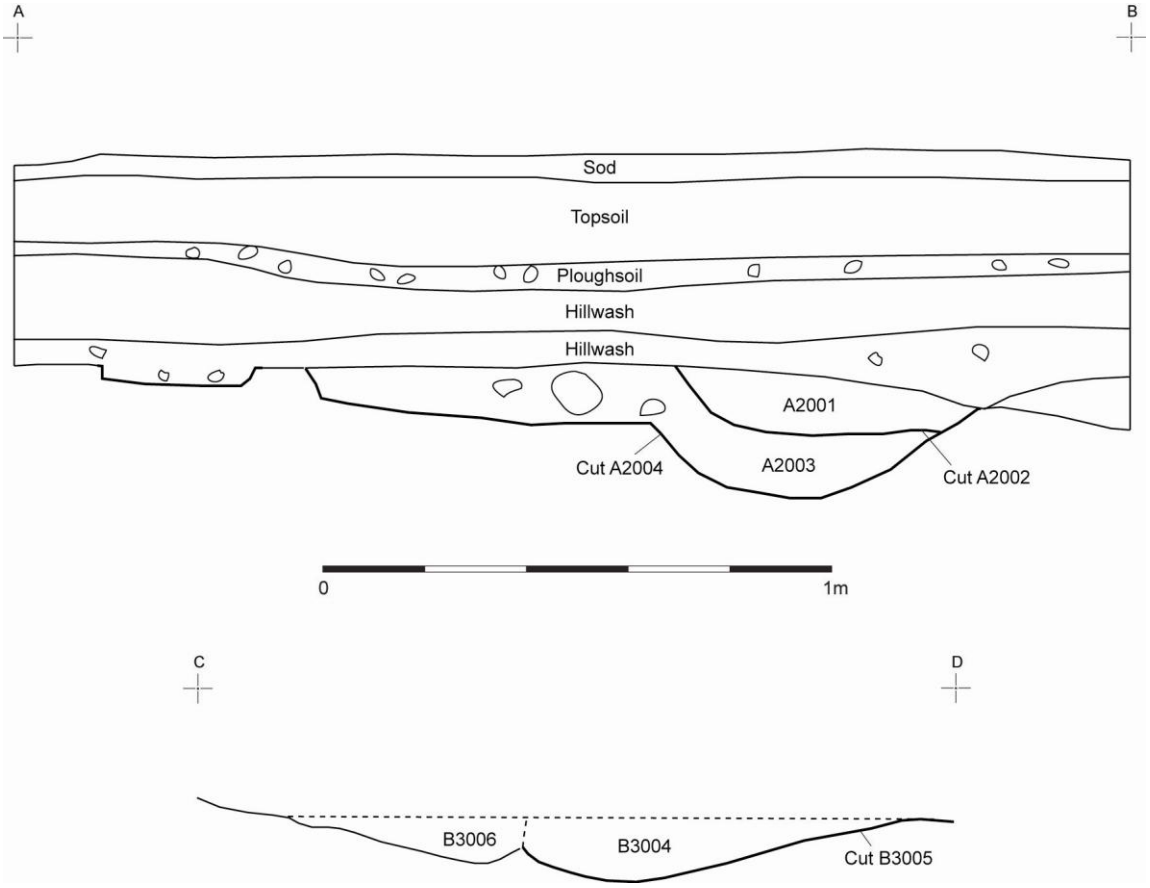


Figure 17 Post-excavation section drawings for Trenches A and B (see Figure 16 for location).

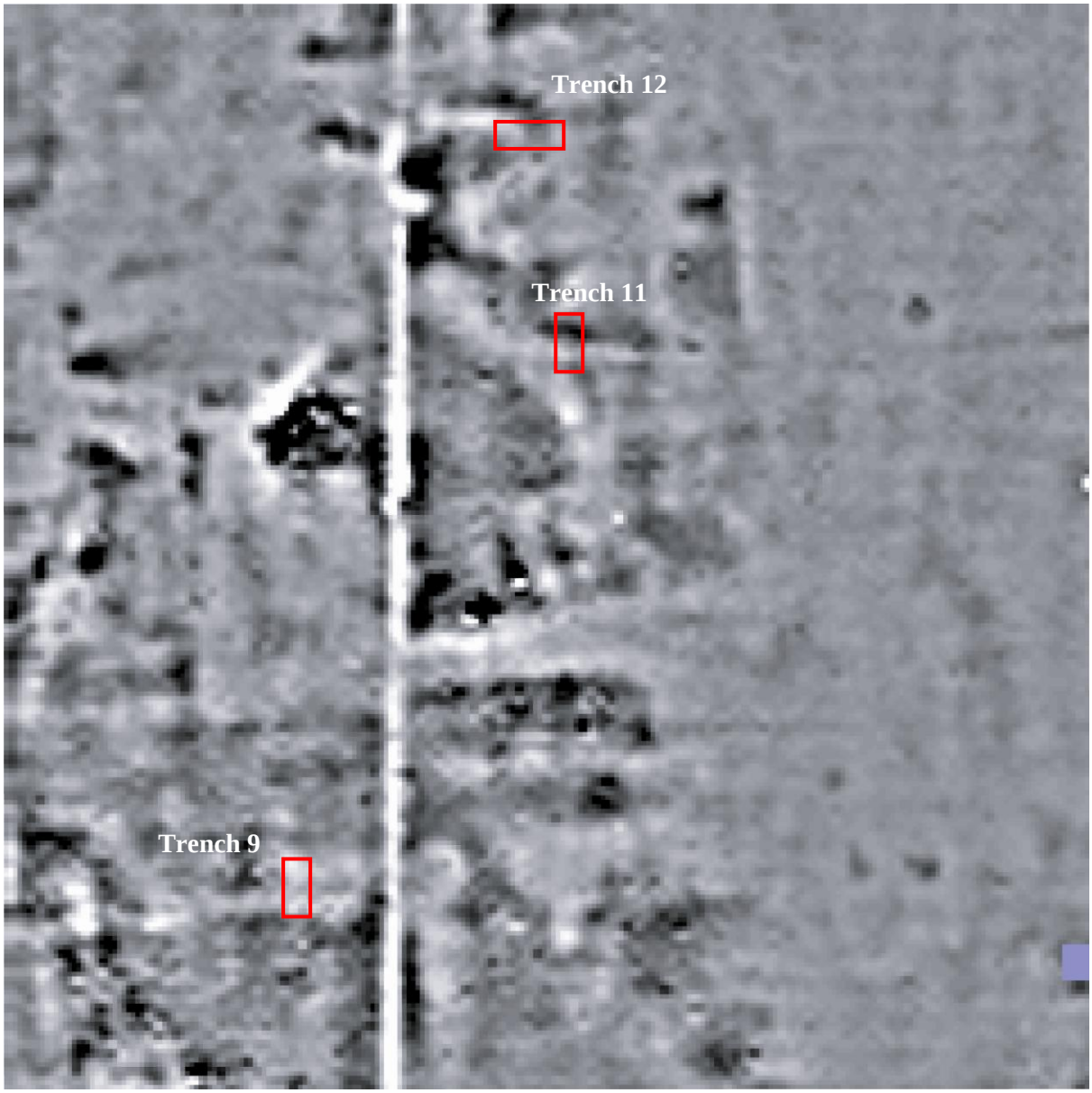


Figure 18 Location of Trenches 9, 11 and 12 in Area 2 relative to the geophysical survey results (2012).

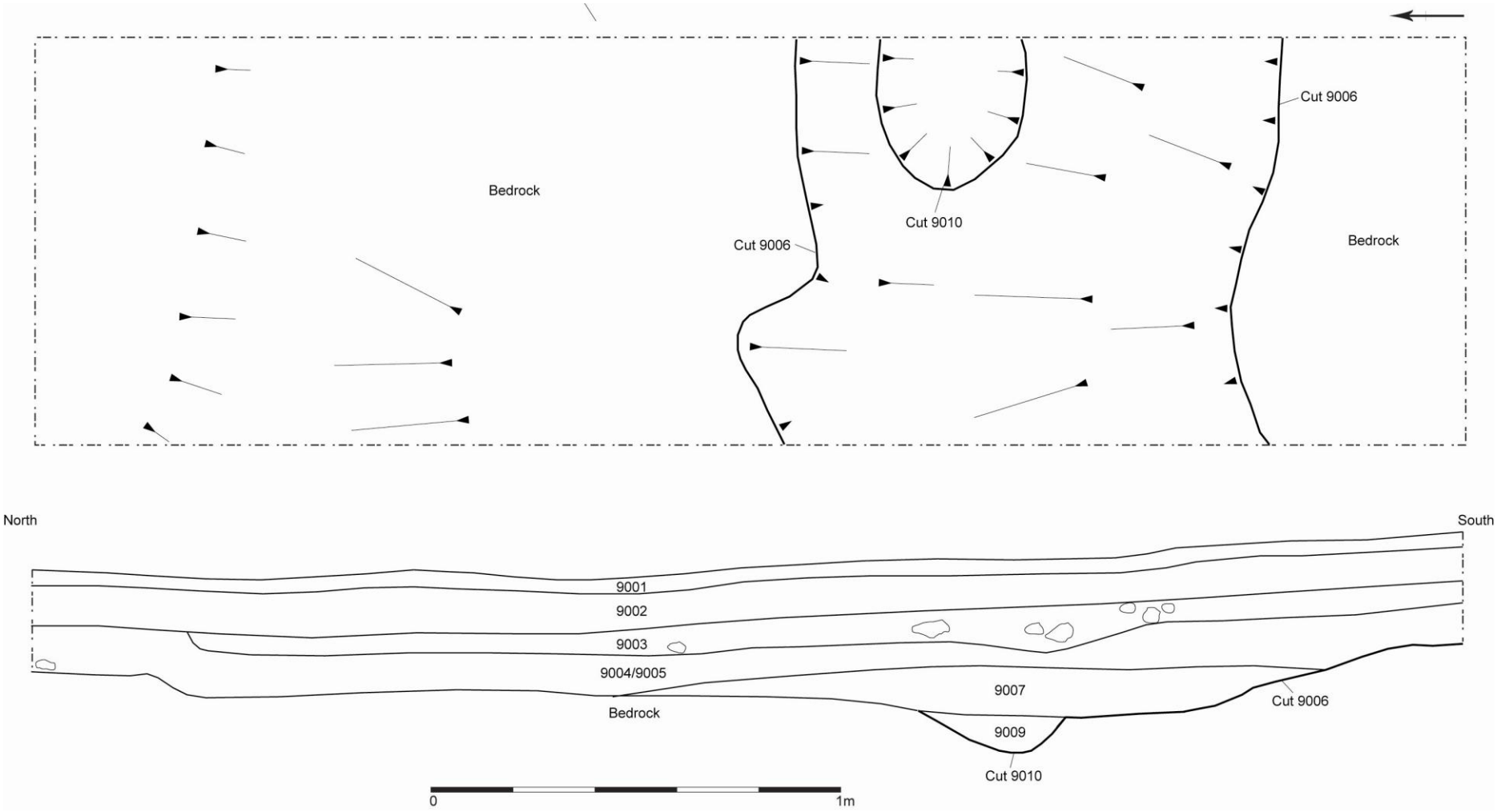


Figure 19 Post-excavation plan and west-facing section drawing of Trench 9, Area 2.

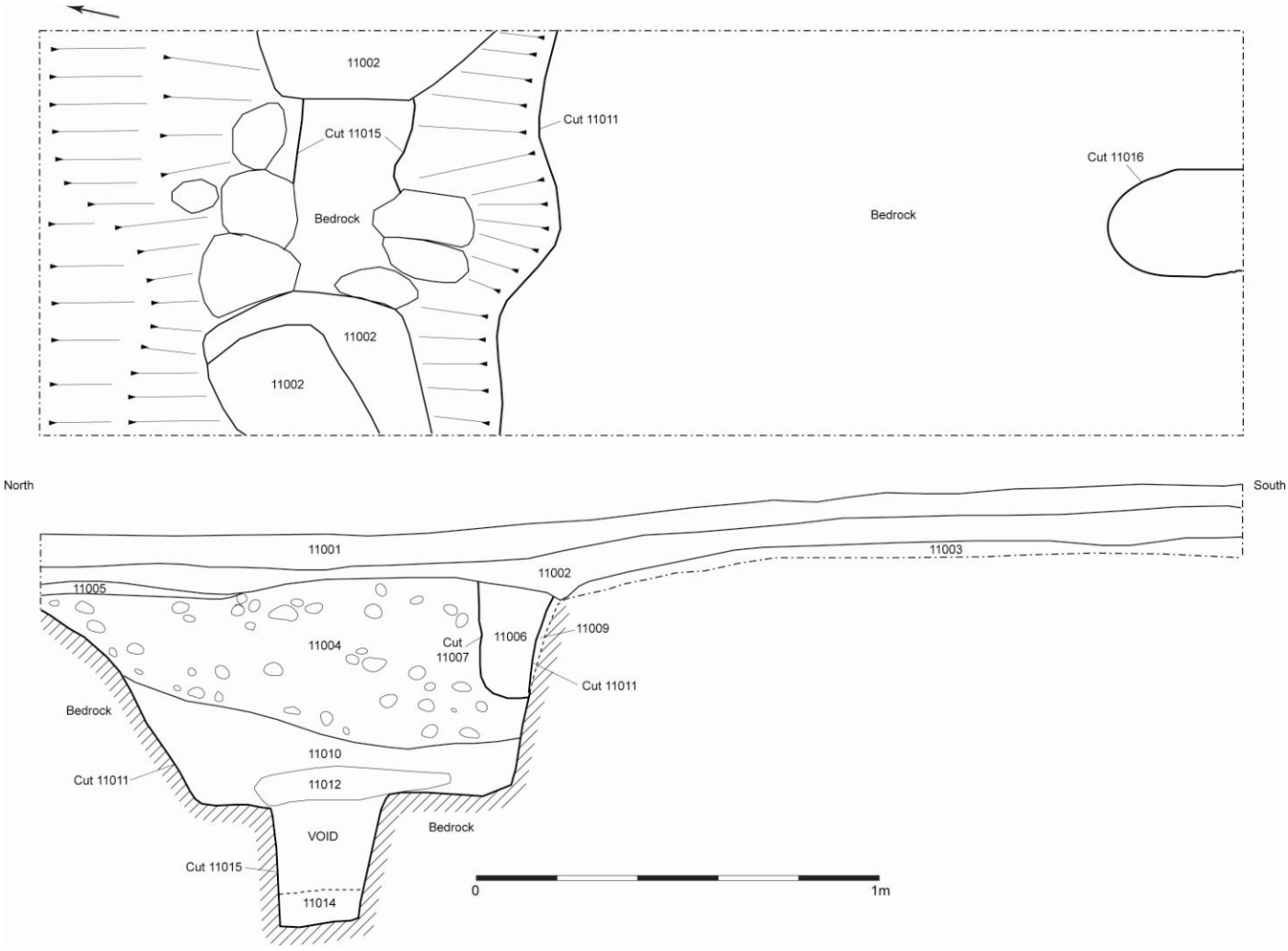


Figure 20 Post excavation plan and section-drawing of Trench 11, Area 2.

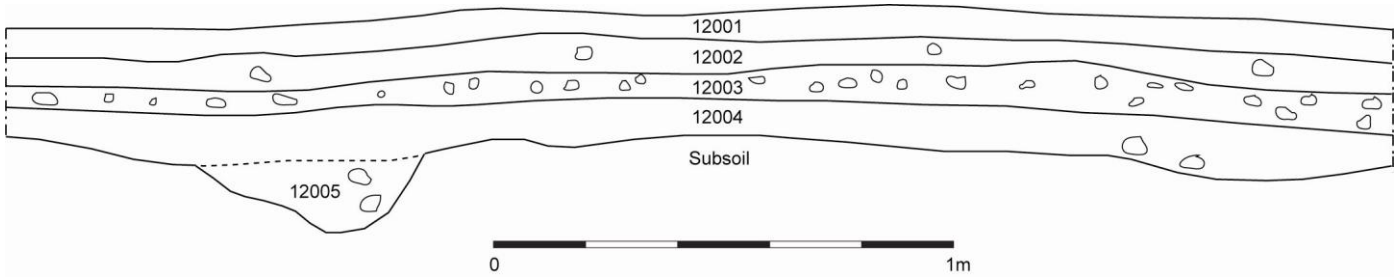


Figure 21 Post-excavation section drawing (south-facing) of Trench 12.

APPENDIX 1: List of contexts

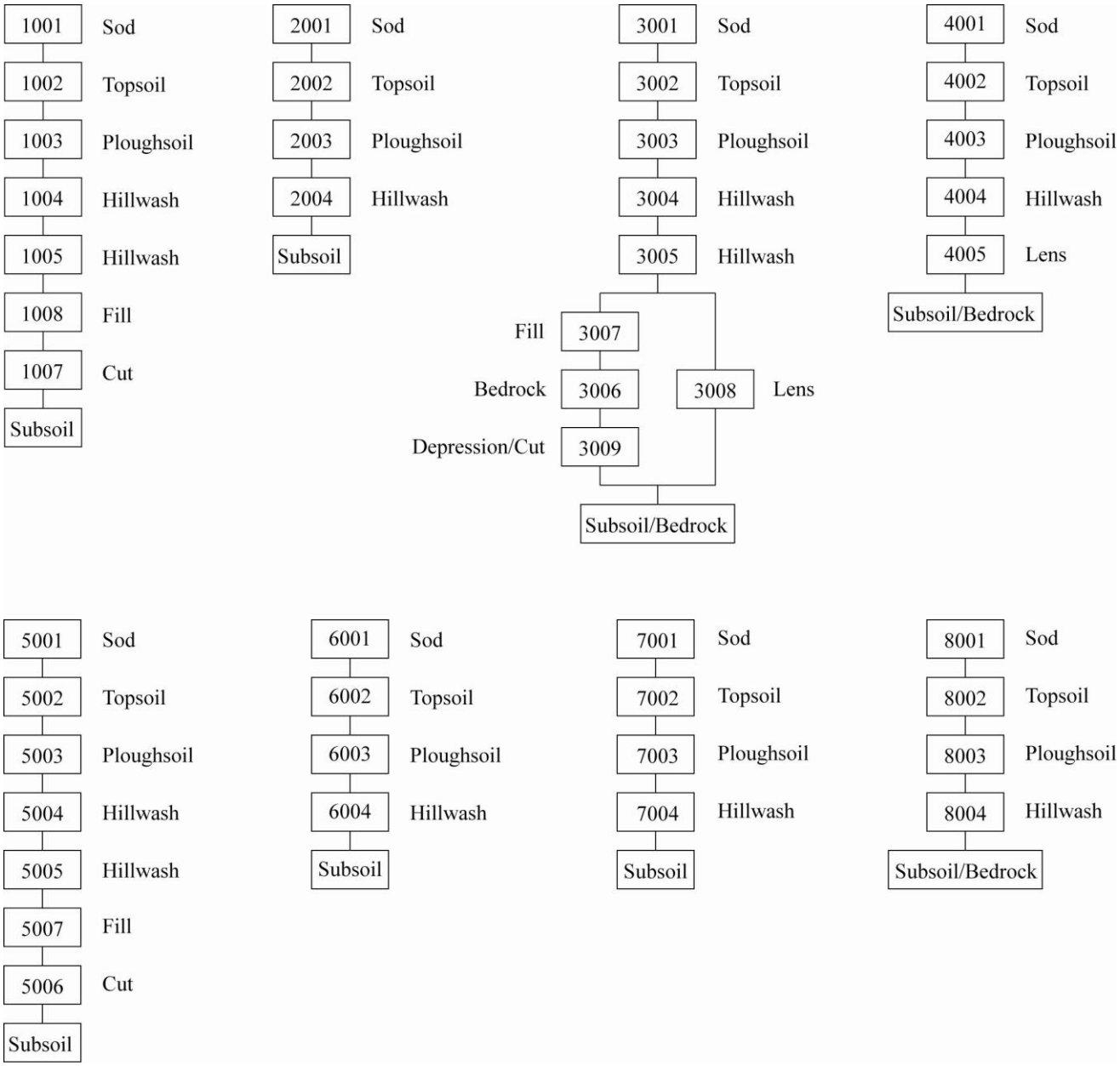
Area	Context	Description
1	1001	grassy sod
1	1002	topsoil - roots
1	1003	stony mid-brown loam - ploughsoil
1	1004	mid-orange brown silty loam - hillwash
1	1005	orange-brown clay loam - hillwash
1	*1006*	*subsoil - discarded*
1	1007	sub-rectangular cut - filled by 1008
1	1008	dark brown silty-loam with charcoal - fill of 1007
1	2001	grassy sod
1	2001	topsoil - silty loam
1	2003	gravelly loam -ploughsoil
1	2004	greyish-brown loam - hillwash
1	3001	grassy sod
1	3002	topsoil
1	3003	gravelly loam - ploughsoil
1	3004	mid-brown loam with roots (from hedge?) - ploughsoil
1	3005	orange-brown clay loam - hillwash?
1	*3006*	*Bedrock - discarded*
1	3007	dark greyish-brown clay loam with occasional charcoal flecks; fill of 3009
1	3008	lens of dark-grey brown clay loam
1	3009	shallow cut/ natural depression possibly due to root action
1	4001	grassy sod
1	4002	brown clay-loam - topsoil
1	4003	stony/gravelly layer - ploughsoil
1	4004	mid-brown clay loam - hillwash
1	4005	dark brown clay loam with charcoal and calcined bone; deposit within natural depression in the bedrock
1	5001	grassy sod
1	5002	topsoil
1	5003	light-brown silty-loam - ploughsoil
1	5004	mid-orange brown silty loam - hillwash
1	5005	mid-orange brown loam - hillwash
1	5006	linear cut - gully

1	5007	light-brown loam, with charcoal; fill of cut 5006
1	6001	grassy sod
1	6002	topsoil
1	6003	silty-brown loam - ploughsoil
1	6004	orange-brown loam - hillwash
1	7001	grassy sod
1	7002	topsoil
1	7003	mid-brown loam - ploughsoil
1	7004	dark mid-brown loam -- hillwash
1	8001	grassy sod
1	8002	topsoil
1	8003	greyish-brown gravelly loam- ploughsoil
1	8004	light grey-brown loam- hillwash
2	9001	grassy sod
2	9002	topsoil
2	9003	coarse stony loam – ploughsoil
2	9004	brown silty loam
2	9005	brown silty loam - upper fill of cut 9006
2	9006	cut of shallow gully filled by 9005 and 9007
2	9007	greyish-brown silty loam with flecks of charcoal; fill of gully 9006
2	*9008*	*discarded*
2	9009	greyish-brown silty loam; fill of posthole/cut 9010
2	9010	sub-circular cut/posthole at base of gully 9006; filled with 9009
2	11001	grassy sod
2	11002	light-brown silty loam; topsoil
2	11003	mid-brown gravelly loam; ploughsoil
2	11004	mid-brown silty-loam with stones; upper fill of cut 11011
2	11005	discrete stony-loam; ploughsoil deposit
2	11006	mid-brown silty loam; fill of cut11007
2	11007	linear cut through 11004; filled by 11006
2	11008	mid-brown loose loam with orange hue; fill of cut/depression 11016
2	11009	sandy orange crumbly deposit; eroded bedrock (natural)
2	11010	grey-brown clay-loam with charcoal flecks; lower fill of cut 11011
2	11011	linear cut of drain through bedrock; filled by 11004 and 11010

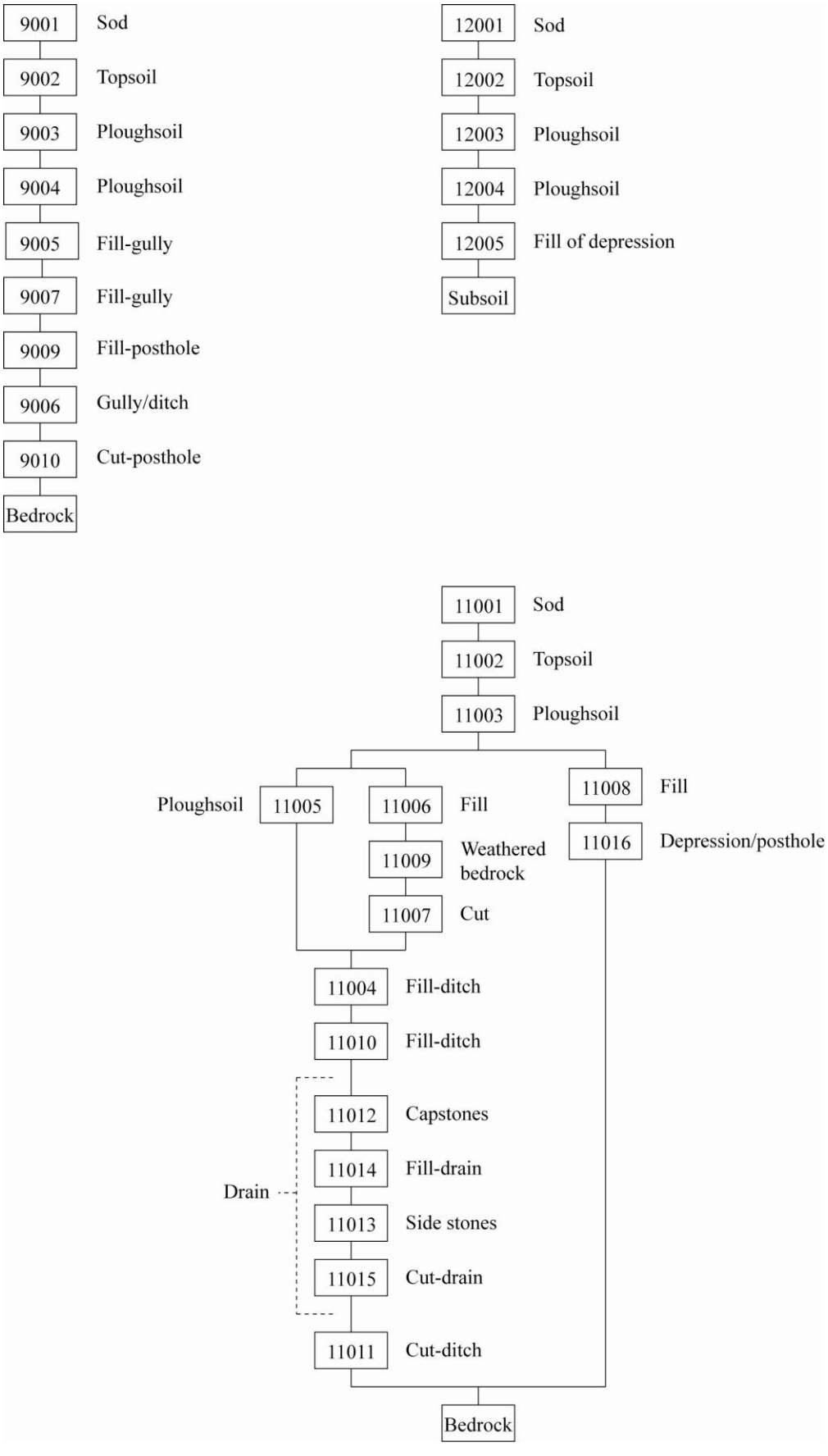
2	11012	flat capstones of drain
2	11013	side-stones of drain supporting capstones, 11012, and set within cut 11015
2	11014	loose grey silty-clay; fill of drain/gully 11015
2	11015	cut for drain at base of cut 11011
2	11016	irregular sub-circular cut/depression
2	12001	grassy sod
2	12002	mid-brown silty loam - topsoil
2	12003	mid-brown gravelly loam - ploughsoil
2	12004	mid-brown silty loam
2	12005	mid-brown silty loam – fill of natural depression (tree bole?)

APPENDIX 2: Harris matrices

AREA 1



AREA 2


9001
Sod
9002
Topsoil
9003
Ploughsoil
9004
Ploughsoil
9005
Fill-gully
9007
Fill-gully
9009
Fill-posthole
9006
Gully/ditch
9010
Cut-posthole
Bedrock
12001
Sod
12002
Topsoil
12003
Ploughsoil
12004
Ploughsoil
12005
Fill of depression
Subsoil
11001
Sod
11002
Topsoil
11003
Ploughsoil
Ploughsoil
11005
11006
Fill
11009
Weathered bedrock
11007
Cut
11008
Fill
11016
Depression/posthole
11004
Fill-ditch
11010
Fill-ditch
11012
Capstones
11014
Fill-drain
Drain
11013
Side stones
11015
Cut-drain
11011
Cut-ditch
Bedrock

APPENDIX 3: List of field drawings

Drawing No.	Trench No.	Type	Details	Sheet No.
1	3	Plan	Mid-ex	1
2	2	Section	West facing	1
3	3	Plan	Mid-ex	2
4	1	Plan	Mid-ex	1
5	1	Plan	Post-ex	3
6	1	Section	East facing	1
7	1	Section	West facing	4
8	4	Plan	Post-ex	4
9	4	Section	East facing	4
10	8	Section	West facing	6
11	4	Section	West facing	4
12	3	Plan	Post-ex	5
13	3	Section	West facing	4
14	6	Section	West facing	6
15	7	Section	West facing	6
16	5	Plan	Post-ex	6
17	5	Plan	Post-ex	7
18	5	Section	East facing	4
19	5	Section	West facing	8
20	12	Plan	Post-ex	9

Drawing No.	Trench No.	Type	Details	Sheet No.
21	12	Section	South facing	9
22	9	Plan	Pre-ex	8
23	9	Plan	Mid-ex	--
24	9	Profile	--	8
25	11	Plan	Pre-ex	8
26	11	Profile	--	8
27	A	Plan	Pre-ex	10
28	A	Section	East facing	10
29	9	Plan	Post-ex	8
30	9	Section	West facing	12
31	A	Plan	Post-ex	11
32	B	Section	East facing	12
33	B	Profile	East facing	12
34	B	Plan	Post-ex	13
35	11	Section	West facing	14
36	11	Plan	Mid-ex	15
37	11	plan	Post-ex	16

APPENDIX 4: Catalogue of finds

FLINT

Trench	Context No.	Weight (kg)	No. of bags
1	1002	0.346	1
1	1003	0.028	1
1	1004	0.314	2
1	1005	1.002	1
2	2002	0.064	1
2	2003	0.160	1
2	2004	0.010	1
3	3002	0.500	2
3	3003	0.248	1
3	3004	1.436	3
3	3007	0.868	1
4	4002	0.012	1
4	4003	0.374	1
4	4004	0.346	1
4	4005	0.046	1
5	5002	0.030	1
5	5004	0.464	1
5	5005	1.642	2
5	5007	0.028	1
6	6002	0.066	1
6	6003	0.448	2
6	6004	0.642	2

6	subsoil	0.004	1
7	7002	0.462	1
7	7003	0.548	1
7	7004	2.102	5
8	8002	0.230	1
8	8003	0.152	2
8	8004	0.242	1
9	9003	0.050	1
9	9004	0.048	1
9	9005	0.076	1
11	11002	0.010	1
11	11003	0.072	2
11	11004	0.024	1
11	11008	0.030	1
11	11010	0.004	1
12	12002	0.248	1
12	12003	0.200	1
12	12004	0.200	1
A	A2003	0.066	1
A	Monitoring	1.134	2
B	Monitoring	3.186	1
C	Monitoring	0.132	2
D	Monitoring	0.784	1

CERAMICS

Trench	Context No.	Weight (kg)	No. of bags
1	1002	0.020	1
1	1003	0.001	1
1	1004	0.006	1
1	1005	0.002	1
2	2003	0.028	2
3	3003	0.018	1
3	3004	0.011	2
4	4003	0.062	1
4	4004	0.018	1
4	--	0.001	1
5	5003	0.018	1
6	6002	0.024	2
6	6003	0.006	1
6	6004	0.001	1
7	7002	0.016	1
7	7003	0.022	2
8	8002	0.026	1
9	9002	0.022	1
9	9003	0.080	2
9	9004	0.001	1
9	9005	0.022	1
11	11002	0.010	1
11	11003	0.017	2
11	11004	0.024	1
11	11006	0.001	1

11	11008	0.002	1
12	12002	0.024	1
12	12003	0.064	3
12	12004	0.016	1
A	Monitoring	0.200	1
B	Monitoring	0.416	1
C	Monitoring	0.056	2
D	Monitoring	0.342	1

GLASS

Trench	**Context No.**	**Weight (kg)**	**No. of bags**
2	2003	0.001	1
2	2004	0.002	1
3	3002	0.006	1
3	3004	0.001	1
5	5002	0.001	1
9	9002	0.016	1
9	9003	0.019	2
9	9004	0.001	1
11	11003	0.042	2
11	11004	0.001	1
11	11010	0.002	1
12	12003	0.002	1
12	12004	0.002	1
C	Monitoring	0.008	1
D	Monitoring	0.002	1

CLAY PIPE

Trench	Context No.	Weight (kg)	Details
8	8003	0.006	2 stem fragments
9	9003	0.018	1 stem fragment
12	12003	0.002	1 stem fragment
A	--	0.004	1 stem fragment
D	Monitoring	0.004	1 stem fragment

METALWORKING/SLAG

Trench	Context No.	Type	Weight (kg)	Details
1	1002	Iron	0.050	Iron nail
2	2004	Iron	0.020	Iron nail
3	3002	Iron	0.004	Iron nail
3	3003	Slag	0.002	1 bag
3	3003	Iron	0.028	Fragments of ironwork
4	4002	Iron	0.010	Iron nail
4	4003	Iron	0.048	Fragments of ironwork
8	8004	Lead	0.012	1 lead musket ball/pistol shot
9	9002	Slag	0.012	1 bag
12	12002	Iron	0.010	Iron nail
12	12003	Iron	0.004	Iron nail
C	Monitoring	Lead	0.026	1 lead weight/seal

BURNT CLAY/BRICK FRAGMENTS

Trench	Context No.	Weight (kg)	No. of bags
1	1004	0.018	1
3	3002	0.094	1
4	4002	0.012	1
8	8002	0.036	1
8	8003	0.048	1
9	9002	0.046	1
9	9003	0.062	1
12	12002	0.140	1
A	Monitoring	0.040	1

SLATE

Trench	Context No.	Weight (kg)	No. of bags
2	2002	0.020	1
2	2003	0.052	1
4	4003	0.004	1
8	8004	0.026	1
9	9002	0.036	1
9	9003	0.086	1
9	9004	0.004	1

OTHER

Trench	Context No.	Type	Weight (kg)	No. of bags
2	2003	Coal	0.030	1
3	3003	Limestone chalk	0.102	1
4	4005	Burnt bone	0.001	1
8	8002	Limestone chalk	0.064	1
8	8002	Coal	0.104	1
11	11003	Coal	0.002	1
C	Monitoring	Coal	0.008	1

APPENDIX 5: List of bulk samples

Sample No.	Trench No.	Context No.	No. of bags
1	1	1008	1
2	4	4005	4
3	3	3007	1
4	5	5007	4
5	11	11006	3
6	9	9007	1
7	9	9007	1
8	11	11010	1
9	A	A2003	1
10	A	A2001	1
11	11	11014	3
12	B	B3002	1
13	11	11008	1
14	12	12005	1