RUBICON HERITAGE

AB HERITAGE
ARCHAEOLOGICAL CONSULTANCY

Archaeological Report for Ysgol Bro Dinefwr
Love Lodge Farm, Ffairfach, Carmarthenshire
Volume 1

Cyngor Sir Gâr Carmarthenshire County Council

Archaeological Report for Ysgol Bro Dinefwr, Love Lodge Farm, Ffairfach, Carmarthenshire Volume 1

Client: Carmarthenshire County Council
Date: November 2015
Site Type: Multi-period site with emphasis on Prehistoric funerary activity
NGR SN: 40162 19070
Archaeological Contractor: AB Heritage Limited & Rubicon Heritage Services Limited
Project Officers: Stuart Farrell and Patricia Long
Report Authors: Stephen Hourihan, Patricia Long and Hannah Simpson

CONTENTS - Volume 1 **Page**

FIGURES

PLATES

APPENDICES (Volume 2)

1. EXECUTIVE SUMMARY

1.1.1 This report presents the final results of an archaeological excavation undertaken at Ysgol Bro Dinefwr, Love Lodge Farm, Ffairfach, Carmarthenshire. The works were undertaken prior to the commencement of construction of the new Ysgol Bro Dinefwr School. It lies some 800 m to the southwest of Llandeilo and directly to the west of the village of Ffairfach and is located on the northern side of the A476 leading west from Ffairfach towards Cross Hands.

1.1.2 In 2012 Dyfed Archaeological Trust (DAT) carried out archaeological evaluation that comprised geophysical survey of the site supplemented by targeted trial trenching (Meek 2013). Based on the results of the evaluation and the requirement of the planning condition a Written Scheme of Investigation (AB Heritage 2013a) and a Detailed Archaeological Specification (AB Heritage 2013b) for further work on the site were compiled and agreed with Dyfed Archaeological Trust Heritage Management (DAT-HM). It was recommended that full archaeological excavation and recording be undertaken at the sites prior to any construction work.

1.1.3 AB Heritage Ltd appointed Rubicon Heritage Services Ltd to undertake the main block of fieldwork associated with the project, assisting with this on-site work as appropriate and delivering field-walking in Area 3. Overall, full archaeological excavation was undertaken at Ysgol Bro Dinefwr between January and May 2014.

1.1.4 The findings of the excavation suggest that the earliest phase of activity at the site dates to the Mesolithic period with ongoing activity through until the post-medieval period. The excavation area was divided into five main areas numbered 1 to 5 (described below, see Figure 10).

1.1.5 During the excavation a high density of prehistoric archaeological features were identified in Area 1 with the focus being on prehistoric burial practice in the form of two Bronze Age flat cemeteries, a possible Early Neolithic ring-ditch and four Iron Age ring-ditches. An Iron Age house and a number of Bronze Age and Iron Age pit and stake-hole clusters were also identified. An early medieval/medieval cereal drying kiln was also identified in Area 1.

1.1.6 Area 2 was dominated by two large rectangular enclosures and part of a third, as well as numerous other drainage ditches and plough furrows. A number of other pits including a number of features related to early medieval cereal processing/drying and two large modern sand/gravel extraction pits were also identified.

1.1.7 No cut features were identified in Area 3 but a total of 277 lithic artefacts were collected from the ploughsoil, constituting a lithic scatter of Neolithic and Mesolithic date.

1.1.8 Area 4 was dominated by the remains of a Roman road with a post-medieval phase associated with the road. Much of the original Roman road was gone with only traces of the

foundation layers remaining. The post-medieval layers were also heavily truncated by modern agricultural activity.

1.1.9 Trial trenching was carried out in the Area 5.1, 5.2 and 5.3 to ascertain whether or not any archaeological features were present. An isolated medieval charcoal production pit was identified in Area 5.1, a possible field boundary was identified in Area 5.2 and two post-medieval gravel extraction pits were identified in Area 5.3.

1.1.10 Following the completion of the excavation, a post-excavation research design was compiled by Rubicon Heritage and AB Heritage (AB Heritage 2014) and agreed with the client and local planning archaeologist by AB Heritage.

1.1.11 A preliminary report on the results of the excavation was submitted in October 2014 (Hourihan *et al* 2014).

2. INTRODUCTION

2.1.1 A programme of archaeological fieldwork work was carried out by AB Heritage Limited and their elected archaeological contractor Rubicon Heritage Services Limited at the site of Ysgol Bro Dinefwr, Love Lodge Farms, Ffairfach, Carmarthenshire, between January and May 2014. The work was carried out in line with a condition of planning permission for the development of the Ysgol Bro Dinefwr School. This report presents the final results of those archaeological excavations.

2.1.2 The site had been the subject of previous archaeological geophysical survey and evaluation by Dyfed Archaeological Trust (DAT). This confirmed the presence of Prehistoric, Roman and possible Early Medieval archaeology within the site. The site, which is approximately 10.65 Ha, had previously been divided into 6 principal areas, with Area 5 subdivided into 3 subsets – 5.1, 5.2 and 5.3. Following these preliminary investigations by DAT, Areas 1-4 were deemed of high archaeological potential, while Area 5 was deemed of low archaeological potential (Figure 10).

2.1.3 Based on the above a Written Scheme of Investigation (AB Heritage 2013a) and a Detailed Archaeological Specification (AB Heritage 2013b) for further work on the site were compiled and agreed with the Dyfed Archaeological Trust Heritage Management archaeologists, Charles Hill and Mike Ings, in December 2013.

2.1.4 AB Heritage Ltd appointed Rubicon Heritage Services Ltd to undertake the fieldwork associated with the project.

2.1.5 During the course of fieldwork in 2014, Area 1, 2, and 4 were subject to full open archaeological excavation. Area 3 was subject to field walking and hand dug test pitting / sieving by AB Heritage, along with machine dug trial trenches, while Area 5 was subject to intensive trial trenching.

2.1.6 Phase 1 of the post-excavation work involved the completion and agreement of a post-excavation research design which set out the research aims of the projects and outlined the proposed work in detail.

2.1.7 Phase 2 of the post-excavation work involved the assessment of all recovered material and the production of the post-excavation assessment report which was submitted in November 2014.

2.1.8 Phase 3 of the post-excavation work involved the analysis of recovered materials and the production of this final report.

3. SITE BACKGROUND AND LOCATION

3.1 Site Location and Topography

3.1.1 The proposed development site is centred on NGR SN 6230 2150 and encompasses an area of around 10.8ha. It lies some 800 m to the southwest of Llandeilo and directly to the west of the village of Ffairfach and is located on the northern side of the A476 leading west from Ffairfach towards Cross Hands (Figures 1 and 2).

3.1.2 Prior to the current development the land was used as agricultural land. It was divided into three fields by post and wire fencing. Immediately prior to project commencement the fields were used for tillage (Figures 2 and 3).

3.1.3 Topographically the site lies on a gravel terrace on the southern side of the River Tywi (Figure 2). The central field was relatively level, as was the northern field, excluding a natural mound towards the central part of the boundary between the two fields, mostly located in the northern field (referred to hereafter as the 'natural mound'). The southern field was relatively level on its eastern side, with a rising slope heading into the south-western corner.

3.1.4 At the time of excavation the site was bounded by a post and wire field boundary to the northwest; mature hedgerows to the northeast; a post and wire fence and tarmac track to the southeast; a mature hedgerow and the A476 to the south; mature hedgerows to the southwest (with Love Lodge wood beyond); mature hedgerows to the west, with Love Lodge Farm and Fir Trees house beyond (Figure 3).

3.1.5 The underlying geology of the site comprises alluvial clay, silts and sands. The lower bedrock comprises Ordovician sedimentary rock.

3.2 Previous Archaeological work

3.2.1 An archaeological desk-based assessment of the site was undertaken by Atkins in 2010 (Atkins 2010). This report was prepared at an early stage in the development proposals, being one of 16 possible locations assessed for feasibility of the new school site. The report outlined the readily available archaeological information within the immediate vicinity.

3.2.2 The desk-based assessment work was assessed in more detail in the Archaeology and Historic Environment chapter of the Environmental Impact Statement (EIA). This included a wider search of the known archaeological and historical sites, assessment of setting issues with surrounding Scheduled Ancient Monuments, Listed Buildings, Historic Parks and Gardens and Historic Landscape Character Areas.

3.2.3 In 2012 Dyfed Archaeological Trust (DAT) carried out an evaluation which comprised geophysical survey of the site supplemented by targeted trial trenching (Meek 2013) (see Figures 8 and 9). This confirmed the presence of Prehistoric, Roman and possible Early Medieval archaeology within the site. The site, was at this time divided into 5 principal areas

for ease of presentation of the results, with Area 5 subdivided into 3 subsets – 5.1, 5.2 and 5.3 (see Figure 10).Following these preliminary investigations by DAT, Areas 1-4 were deemed of high archaeological potential, while Area 5 was deemed of low archaeological potential.

3.2.4 Planning permission for the development was subsequently granted subject to a number of conditions including Condition 10 which states the following:

'No development shall take place until the applicant, or their agents or successors in title, has secured the implementation of a programme of archaeological works in accordance with a Written Scheme of Investigation which has been submitted by the applicant and approved in writing by the Local Planning Authority'

Reason: To protect the Historic Environment interests whilst enabling development'

3.2.5 The developer is Carmarthenshire County Council (CCC) and the planning reference is E/27510. CCC is also the Local Planning Authority (LPA).

3.2.6 Based on the results of the evaluation and the requirement of the planning condition a Written Scheme of Investigation (AB Heritage 2013a) and a Detailed Archaeological Specification (AB Heritage 2013b) for further work on the site were compiled and agreed with the Dyfed Archaeological Trust Heritage Management (DAT-HM) archaeologists, Charles Hill and Mike Ings, in December 2013.

3.2.7 Following completion of the excavation a post-excavation research design (AB Heritage 2014) was compiled and agreed with the client and Mike Ings of DAT-HM.

4. ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

4.1 Known monuments in the vicinity

4.1.1 There are 118 sites listed in the Historic Environmental Record within 1 km of the development site. The previous archaeological reports (listed in Section 3.2 above) have outlined and discussed the known archaeological and historical features within the vicinity of the site which can be summarised as follows:

4.1.2 There were no Scheduled Ancient Monuments within the boundaries of the site, the nearest being a standing stone 180 m to the east (SAM CM325). Historic maps however did depict a possible standing stone within the site close to the eastern boundary of the middle field. During fieldwork it was observed that a large stone currently resting on the field boundary may be this standing stone having been cleared from its original position within the field.

4.1.3 The site of Old Dinefwr Castle (SAM CM029) lies on higher ground on the north side of the Tywi Valley some 880 m to the northwest of the development boundary. There was a commanding view of the site from this medieval castle which was established in the 12th century.

4.1.4 The roman forts within Dinefwr Park (SAM CM367) also lie on this high ground to the north of the valley, around 600 m from the development boundary. These forts are thought to date to the first and second centuries AD.

4.1.5 There are no listed buildings in the immediate vicinity of the development site though there are several in the general area, including Dinefwr Castle and other buildings in Dinefwr Park including Newton House as well as Llandeilo Bridge and numerous Grade II listed buildings in the southern part of Llandeilo itself.

4.1.6 The site does not lie within a registered Historic Park and Garden, although it lies 555 m to the south of Plas Dinefwr (ref PGW (Dy) 12 (CAM)).

4.1.7 The site is also outside the Llandeilo conservation area which is situated directly to the north of the River Tywi.

4.1.8 The site lies within the registered landscape of Ystrad Tywi (ref. CRMRTHL40214/HLC No 182). This can be summarised as an area of low-lying ground on the banks of the Tywi, the majority of which is infrequently flooded and has been used as arable land since at least the late medieval period. The field layout of the area dates from enclosures in the later 18th and 19th centuries comprising regular laid out field boundaries. Within this landscape are three Bronze Age Barrows (one of which is a Scheduled Ancient Monument; CM228) at the western end near Whitemill as well as the above mentioned standing stone at Ffairfach.

4.2 Historic development and general archaeological context

4.2.1 The historic development and general archaeological context of the site has been described in the previous reports mentioned above.

4.2.2 Following the excavation on site further work has been conducted on the evidence recovered to enable the archaeological record to be put into context.

4.2.3 The following section provides an archaeological and historical context for the site, looking at each prehistoric and historic era from a National, Regional and Local perspective.

Palaeolithic and Mesolithic

4.2.4 The Palaeolithic and Mesolithic periods in Wales span almost 250,000 years from the first Neanderthals to the emergence of farming communities 6,000 years ago, yet the destructive effects of the last ice sheet mean that only sporadic evidence survives. Throughout this period human presence was influenced by environmental change (RFAW).

4.2.5 The first available evidence we have for early humans in modern-day Wales dates from the later Lower Palaeolithic, at cave sites such as Pontnewydd Cave in Denbighshire, occupied around 230,000 years ago. Across Carmarthen Bay from Coygan Cave is the more well-known Paviland Cave. Early investigations by antiquarians in 1823 recovered the remains of an adult male skeleton covered in red ochre (the 'Red Lady'), with ivory and sea shell grave goods. The artefacts recovered during excavation dated human activity at this site to 50,000 years ago, while the human skeletal remains (Homo Sapien) were some of the earliest in Britain, dating to 26,000BP (RCAHMW NPRN 300251).

4.2.6 There is currently no evidence for Palaeolithic activity within the environs of Llandeilo. The closest known evidence is at Coygan Cave c. 40km to the south west of Ysgol Bro Dinefwr.

4.2.7 During the Mesolithic period, the warmer climate and ensuing changes in vegetation during the allowed hunter-gatherers to exploit land and marine resources, with settlement perhaps focussed in coastal areas and river valleys.

4.2.8 Although the Mesolithic is considered to be the most under-represented archaeological period across England and Wales, however there are a reasonable number of known sites in Wales. The distribution is slightly more coastal than inland. A large proportion of these sites are in the form of unstratified lithic scatters and only a few are located in Carmarthenshire (Bell 2007, 3; 14).

4.2.9 A small number of Mesolithic sites are known in the vicinity of the development site. A former lake site featuring scatters of both Early and Later Mesolithic artefacts was uncovered at WauenFignenFelen in the Brecon Beacons, less than 30km east of Ysgol Bro Dinefwr (www.coflein.gov.uk). Recent excavations in advance of the South Wales Gas Pipeline project in lands west of Cwmifor, Manordeilo and Salem identified residual Mesolithic material on a Neolithic site (Barber et. al. 2015). There is also Mesolithic activity known There are other

isolated lithic find spots of this date across the Brecon Beacons, including Llyn-Y-Fan-Fach, around 13km to the east of the Ysgol Bro Dinefwr site. However, evidence of more substantial Mesolithic activity has been found at Burry Holms Island, which is situated just off the Gower Peninsula c. 37km south-south-west of Ffairfach (Dyfed Archaeology ND). Around 50km to the west of the site lithic scatters were recorded at Marros Sands, Eglwyscummin, associated with a submerged forest (www.coflein.gov.uk).

4.2.10 The Mesolithic activity identified during the Ysgol Bro Dinefwr excavation is therefore the first Mesolithic evidence to be identified within the environs of Llandeilo and this is further discussed below.

Neolithic and Early Bronze Age

4.2.11 The introduction of farming around 4000 BC fundamentally changed the environment and the ways in which people lived and interacted, but we understand little about this transition. Wales has much evidence of funerary and ritual activities, but little of settlement (RFAW). Wales has a rich legacy of field monuments dating to this period; however most are associated with funerary and ritual activities. Few Neolithic or Early Bronze Age settlements have been found in Wales although the evidence for farming is to be found in the changing vegetation, where a decline in tree species and a rise in grassland and cereals can be detected in the pollen record.

4.2.12 People of this period generally lived in isolated farms or small settlements, not many houses have survived but excavations have found both rectangular and round houses. Evidence of Neolithic buildings has been found at Gwernvale near Crickhowell, Trelystan on the Long Mountain in Montgomeryshire and on the site of the later hillfort at Moel y Gear in Clwyd.

4.2.13 An Early Neolithic Settlement on lands west of Cwmifor, Manordeilo and Salem in Carmarthenshire was found during excavations in advance of the South Wales Gas Pipeline. The site consisted of a possible square or rectangular building and associated features, some of which contained Carinated Bowl pottery (Barber et. al. 2015). There was evidence for Later Neolithic and Bronze Age activity at the same location.

4.2.14 Within Carmarthenshire, evidence for Late Neolithic and Early Bronze Age activity is represented by a number of sites, including two funerary monuments in the west, at Twlc-y-Filiast burial chamber near Carmarthen (RCAHMW NPRN 304144), and the Gwal-y-Filiast chambered tomb close to the Pembrokeshire border near Crymych (RCAHMW NPRN 304270). In more recent years, evidence for Neolithic activity within Carmarthenshire has been identified on the gravel terraces of the Tywi Valley (Meek 2013); and at Llandysul.

4.2.15 A Neolithic Stone axe was found in an allotment in Llandeilo in 1917 although few other details are known. The original record states that it possibly came from a disturbed tumulus (more typically Bronze Age in Date) and so the provenance of this item is questionable (Meek 2012).

4.2.16 There is also evidence of an Early Bronze Age settlement at Stackpole Warren in Pembrokeshire, which shows a degree of longevity in its occupation. Here there is evidence for two phases of an Early Bronze Age roundhouse (Benson et al 1990, 189) which suggests settlement continuity at a specific location; and similar sites could be present elsewhere within the wider region.

4.2.17 With respect to funerary monuments of the period within the area surrounding Llandeilo, the closest examples of excavated Late Neolithic/ Early Bronze Age ring-ditches are near Llandysul, around 30km to the west of Ysgol Bro Dinefwr. This site comprised three ring-ditches in close proximity to one another; and notably no evidence of associated burials or artefacts were recorded (Murphy & Evans, 2003).

4.2.18 As mentioned above there is a Standing Stone of possible Bronze Age date located close to the development site at Ffairfach. There are also records of a standing stone at Bridge Farm to the east of the development site but this is no longer extant.

4.2.19 Unpublished archaeological investigations undertaken as part of the LNG pipeline through south Wales identified Bronze Age activity on gravel terraces in the Tywi Valley (Meek 2012).

4.2.20 Unpublished archaeological investigations undertaken as part of the A477 improvement works between St Clears and Red Roses identified a significant Bronze age cremation cemetery at Pentrehowell Farm (Emberton 2012).

Later Bronze Age and Iron Age

4.2.21 There is reasonable knowledge of Later Bronze Age and Iron Age settlement patterns through the survival of earthwork enclosures and hillforts. However, our knowledge of land use and how resources were exploited is limited and evidence for funerary or ritual activity is almost entirely absent (RFAW).

4.2.22 In 2003, Cadw commissioned Gwynedd Archaeological Trust to undertake a scoping study of prehistoric defended enclosures in Wales. Dyfed Archaeological Trust built on this initial study by carrying out a desktop assessment of these types of site in southwest Wales, again grant-aided by Cadw. In 2005-06 Dyfed Archaeological Trust, with the benefit of Cadw grant-aid, surveyed sites in Ceredigion, visiting all known non-scheduled sites and to 1 in 10 of the scheduled sites. In 2006-07 a similar survey was undertaken of sites in Pembrokeshire, and in 2007-08 this survey was extended to cover Carmarthenshire (Murphy et al 2008).

4.2.23 There are 214 defended enclosures and related sites in Carmarthenshire broken down into the following site types: Hillfort 15, Promontory Fort 32, possible Promontory Fort 1, Defended Enclosure 116, possible Defended Enclosure 36, Enclosure 4, possible Enclosure 10. Of these, 46 are Scheduled Ancient Monuments. During the course of the survey it was discovered that most of the larger earthwork monuments, such as hillforts and promontory forts are in a good

and stable condition. However, some of the smaller earthwork sites have degraded over the past 30 - 40 years (*ibid*).

4.2.24 Just to the north of Llandeilo is Garn Goch, and Iron Age hillfort which also has evidence for Neolithic/ Early Bronze Age funerary and possible settlement remains (Sambrook & Hall, 2004).

Roman

4.2.25 Roman activity is well known, and well documented throughout Wales; and Carmarthenshire has a wealth of evidence.

4.2.26 Maridunum was the civitas capital of the Demetae tribe in an area which is now modern Carmarthen. A substantial town and fort was located where Carmarthen now stands, and this would have imposed significant authority upon the surrounding area. There is further evidence of Roman military presence in the eastern Brecon Beacons area where there are a number of marching camps, with excellent examples at Y Pigwn and Waun-Ddu (BBNP ND).

4.2.27 There are many Roman find spots in the surrounding area of the development site, including coin hoards and pottery, but more permanent evidence of Roman occupation was found within Dinefwr Park, c.1km to the north-west of Ffairfach in the form of two Roman forts. It had long been suspected that there would have been a fort at Llandelio given its location mid-way along the presumed road between the forts at Carmarthen and Llandovery (Burnham and Davies 2010, 251).

4.2.28 Small scale excavation confirmed that the larger of the two forts was the earlier. There is clear evidence of a road heading north from the smaller, later fort and this appears to branch into two 60 m from the northern gate (Burnham and Davies 2010, 252). The activity on either side of this road is indicative of an external civilian settlement or vicus ad pottery recovered from this dates to between 17 and 135 AD (*ibid*.).

4.2.29 During the 1980s, aerial survey and fieldwork identified clear stretches of the Roman road running between Llandovery and Carmarthen (James and James, 1984). One stretch was identified to the northeast of Cwmifor in the area of Down Farm. It was thought that this stretch of road then continued in a south-westerly direction and may underlie the course of the A40 as it approaches Rhosmaen. Stretches of the road have also been identified to the west of Llandeilo between Broadoak and Llanegwad.

4.2.30 The above evidence indicates that Llandeilo would have been the focus of significant activity during the Roman period given its location as a day's march between Carmarthen and Llandovery; and onward to Y Gaer (at Brecon) and connecting to the larger road network of Britain.

Early Medieval

4.2.31 The early medieval period, from the end of Roman rule to the coming of the Normans, saw fundamental social, political and economic changes that formed the roots of the distinctiveness of Wales in language, landscapes, culture and belief. Documentary sources are scant and there has been archaeological investigation of only a handful of settlement and cemetery sites (RFAW)

4.2.32 Within Llandeilo there is tentative evidence of settlement dating to this period in the form of three monuments which relate to the Church of St Telio. These include the 5th/6th century early Christian Curcagnus stone, and two 9th century cross fragments which are located within the church and suggest early origins. However, as yet no settlement evidence for the early medieval period has been found in Llandeilo (Meek 2013).

Medieval

4.2.33 Despite the number of documents and standing buildings from this period in Wales, there is still much to be understood from archaeology about settlement and land use, territory, communications and the relative impact of economic and climatic factors (RFAW).

4.2.34 The four and a half centuries between the start of the Anglo-Norman conquest of Wales in 1070 and the union of Wales with England in 1536 have left a legacy of buildings and archaeological sites that help us to visualise the lives of medieval people more clearly than is possible for earlier ages.

4.2.35 Medieval Wales comprised a complex of rural and the beginnings of urban settlement, with communities developing in the uplands, in the valleys and on the coast – these comprise native and migrant communities, some rich and others very poor (RCAHMW).

4.2.36 Llandeilo was given its borough charter by Edward I in 1280, with the right to hold annual fairs and weekly markets. By the 14th century Llandeilo would have been a busy market town, albeit a small one. It is thought likely that the settlement was close to the parish church and churchyard, about 1km to the north of the development site.

4.2.37 The existing structure of St. Teilo's church is of medieval origin although altered and added to in the post-medieval period. A holy well is located within the retaining wall around the churchyard likely to be of at least medieval date.

4.2.38 Outside of the main settlement centres were two mills both documented as being in existence in the medieval period (Rees 1932), a water mill at Tregib and a fulling mill at Llandeilo.

4.2.39 A possible medieval enclosure is recorded by the RCAHMW that may represent a former farmstead, which is located to the south of the development site and the A476 on the north of the valley slope.

4.2.40 It is likely that the area around Ffairfach was used for small-scale subsistence farming during the medieval period, with clear links to Llandeilo as a market town.

Post-medieval

4.2.41 The post-medieval period was one of radical change in Wales. The suppression of the monasteries completed in 1539 produced wholesale reorganisation of the economy, the foundation or expansion of great secular estates and the beginnings of diverse building traditions. The Act of Union with England in 1536 prompted the growth of county towns (RFAW).

4.2.42 The expansion of Llandeilo, and the start of the settlement at Ffairfach occurred in this period. There was an increase in agricultural and industrial activity in the area; with a number of farms being established on the gravel terraces of the Tywi, including Bridge Farm and Love Lodge (or LletyCariad) Farm. The field system evident within the site originated from this period.

4.2.43 The cartographic sources (Figures 4-7) indicate that the development site was in use as agricultural land since at least the late 18th century. Of note on the cartographic sources are 'old walls' indicated near the centre of the site on the 1793 estate map of Golden Grove Estate (Figure 4). To the west of this a pond is also depicted. The Love Lodge estate maps of 1810 (Figure 5) no longer has the walls present and there have been changes to the boundaries but the fields are indicated by the names Cae- and Ynys- Skybor (which is an English corruption of the work Ysgubor meaning barn). This 1810 map also clearly shows the location of a standing stone within the eastern edge of the central field. The later Tithe map of 1841 (Figure 6) and 1884 1st Edition Ordnance Survey map (Figure 7) do not include the old walls or the standing stone and there are continuing developments to the field boundaries. By 1884 the railway line crossing the centre of the site had been constructed. The line for the Roman road appears as a land division boundary and pathway on the historic maps.

Industrial and Modern period

4.2.44 During the Industrial Revolution, the coal, metals, slate and transport industries of Wales were of international significance. The 1851 census showed more workers in industrial than agricultural employment, making Wales the world's first industrial nation (RFAW).

4.2.45 Llandeilo and its environs expanded as it developed as a market town throughout this period. The area surrounding the town developed, with previously small farmsteads becoming the focus of the settlements we see today, such as at Ffairfach. The area has remained predominantly agricultural, and has not been subject to the significant changes in south and north-east Wales brought about by the Industrial Revolution (Norman, TD).

4.2.46 Within the site there is documentary evidence for its use during the First World War as a muster site, where militia, the Territorials and the Yeomanry Cavalry would gather. Photographic records show the site being covered in rows of tents and it is thought that the site may have been used for a number of years as a training ground (Norman, TD).

5. OBJECTIVES AND AIMS

5.1 Objectives

5.1.1 A series of archaeological aims and objectives were identified at an early stage in the project in the Detailed Archaeological Specification (AB Heritage 2013a). The overall objective of archaeological works was to preserve by record all known archaeology from within the site boundaries. It was also intended to identify any previously unidentified archaeology by means of a strip, map and sample programme in the areas identified as being of low archaeological potential.

5.1.2 In addition it was intended to encourage community involvement at appropriate opportunities in the project, specifically in Area 3. This was achieved both directly on site and indirectly through a social media campaign.

5.2 Pre-excavation research aims

5.2.1 Pre-excavation evidence from Area 3 appeared to indicate the presence of lithics dating from both the Mesolithic and Neolithic. One of the stated research opportunities in the Research Framework for Wales is to identify evidence for archaeology of Mesolithic and Neolithic date and the results of works were hoped to assist in providing information that would assist in determining the nature of transition from hunter-gathering communities to farming in this area.

5.2.2 The potential complex of ring-ditches identified by DAT was also highlighted as providing a potential opportunity to explore interrelationships between individual monuments, in order to determine whether the spatial arrangement of the barrows has significance. A subsequent programme of radiocarbon dating would allow the chronological development of the complex to be mapped. This would contribute to an understanding on the longevity of the community the features served and the nature of local belief and ritual in later prehistory.

5.2.3 The excavation would, it was hoped, provide opportunities to both date the construction of the Roman road and also to determine whether any road side settlement was present. Works would help by adding to the detailed record of the Roman road system in the locality.

5.2.4 Two rectangular enclosures recorded during early works were identified as possible Roman ‘practice camps’, with investigation of these structures aimed to clarify their date and function.

5.3 Post-excavation research aims (from the Post-excavation Assessment Report)

5.3.1 The aims and objectives for the project were updated (based on the materials identified on site and including steering based on the Welsh Research Framework) following completion of

the excavation in the Post-excavation Research Design (AB Heritage 2014). The research aims at the outset of Phase 3 were therefore as follows:

5.3.2 Further assessment of the samples and artefacts, and the results of radiocarbon dating, may alter or augment these provisional ideas but the overall aim of the post-excavation work will be to:

5.3.3 Date the activity that occurred on the site and to establish enough information from the excavation results to determine how many phases of activity there were and what each phase entailed.

5.3.4 Initial questions to be addressed may include:

- Examining the development of the site itself through the ages and the possible inter-relationships or awareness between different phases;
- Understanding how the natural landscape may have influenced the siting of archaeology;
- Reviewing whether the site can be considered a particularly important centre of human activity or whether it simply reflects the range of sub-surface archaeology that exists on other such sites in this part of the country.

5.3.5 It was hoped the post-excavation works would allow detailed comment on the people who lived and died on the site, including the technology and material culture at each phase, their means of subsistence, their building techniques and settlement patterns and their religious beliefs in particular in relation to the treatment of the dead.

Mesolithic

5.3.6 The site yielded evidence from the Mesolithic period. Following further analysis, it may be possible to contribute to the themes of 'settlement patterns' and 'settlement histories and social organisation, action and belief systems' identified in the Research Framework for the Palaeolithic and Mesolithic in Southwest Wales.

5.3.7 This data may also contribute to the study of Later Mesolithic–Earlier Neolithic transitions identified in the Research Framework for the Neolithic and Early Bronze Age in Southwest Wales (Hughes 2003).

Early Prehistoric

5.3.8 Possible Neolithic pottery has been identified amongst the more numerous Bronze Age material in various areas including but not limited to the vicinity of the Bronze Age cremation cemeteries.

5.3.9 While there are over 700 barrow sites on the Record of Monuments and Places in southwest Wales the ring-ditches discovered on this site were not previously known. It will be informative to compare the characteristics of this site with the upstanding barrows that have

been recorded in the surrounding area to determine if, for example, there is a bias in the preservation in upland areas.

5.3.10 The Welsh Archaeological Framework (Hughes 2003) highlights that relatively few Bronze Age funerary sites have been subject to full scientific excavation and that there has been very little examination of the area around barrows or standing stones. The examination of quite a large area around the Bronze Age monuments at Ysgol Bro Dinefwr therefore provides an opportunity to examine how these monuments interacted with the peripheral area and compare this to the few other sites where this has been studied (e.g. Stackpole Warren, Plas Gogerddan, Glandy Cross and Llanilar).

5.3.11 Overall the Neolithic and Early Bronze Age settlement evidence in Wales is poor. There is in fact no evidence for Neolithic or Early Bronze Age settlement in the Tywi Valley (Hughes 2003). Therefore the discovery of a prehistoric house on the site at Ysgol Bro Dinefwr is significant, and dating it will be an important aim of the post-excavation process.

5.3.12 The following research opportunities, pertinent to Research Framework for the Neolithic and Early Bronze Age in Southwest Wales (Hughes 2003), are presented by the type of evidence that was recovered from the Ysgol Bro Dinefwr site:

- The presence of both Mesolithic and potential Neolithic material on the site may allow examination of the Mesolithic- Early Neolithic transition in the area.
- A large volume of environmental samples were taken at the site and so there is potential for evidence on the development of agriculture and how this developed during the Early Prehistoric period.
- It may be possible to examine the development, role and use of ceremonial and funerary monuments and their environs.
- Where possible the distribution and context of prehistoric material culture deposition may be examined.

Roman

5.3.13 The Archaeological Research Framework for Southwest Wales outlines how aerial photography work has greatly enhanced our understanding of the road layout but the complete network remains to be discovered (Plunkett Dillon 2003).

5.3.14 The Roman Road on the Ysgol Bro Dinefwr site was known prior to the current development but the excavation of it has allowed examination as to how the road was formed. Unfortunately preservation levels were poor but the reuse of the road throughout history is an interesting avenue of research and will inform the above research query.

Medieval- Modern

5.3.15 The rectangular enclosures identified on site in Area 2(which are likely to be Medieval or later), along with a number of associated linear features, are somewhat enigmatic and will require further study before the interpretation of what they represent can be refined and a research agenda outlined.

5.3.16 Similarly various field boundaries, plough scars and post-medieval features will need to be worked through and phased before the later development of the site (which includes use as a WW1 Mustering camp and a ground for agricultural shows) can be fully examined.

6. METHODOLOGY

6.1 Site areas

6.1.1 The details supplied by the client at the commencement of the project divided the site into six areas (Areas 1-6) with Area 5 subdivided into a further three areas (Areas 5.1, 5.2 and 5.3), with Area 5.1 further split into Area 5.1a and b. These area extents were based on the results of the evaluation of the site and the levels of archaeological potential, with Area 6 being highlighted as a priority area for the construction programme. During the course of excavation Area 6 was not treated separately and instead was excavated as part of Area 1. Therefore the results in this report are presented in terms of Areas 1-5 as per Figure 10.

6.1.2 During the course of fieldwork in 2014, Areas 1, 2, 4 were subject to full open archaeological excavation. Area 3 was subject to field walking, hand dug test pitting, sieving and machine dug trial trenches, while Area 5 was subject to intensive trial trenching.

6.1.3 Areas 1 and 2 were 1.25 ha and 1.34 ha in size respectively. Both areas were identified as being of high archaeological potential during the archaeological evaluation. In these areas full removal of topsoil and alluvial subsoil was carried out by mechanical excavators under constant archaeological supervision, with subsequent excavation (100% of all discrete features and 20% of linear features) of all identified archaeology. The eastern side of Area 1 was a Tree Preservation zone around two oak trees of ecological value. No topsoil removal was carried out in this area and it is presumed that archaeological features are preserved *in situ* underneath.

6.1.4 Area 3 covered approximately 1.35 ha (Figure 13). This area had been identified as of high archaeological potential due to the presence of a surface scatter of worked flint of prehistoric date. It also corresponded with the position of a cropmark site visible from aerial photography. Initial work in this area consisted of a systematic surface collection survey. This required the area to be ploughed in advance of survey and allowed to weather for a number of weeks to optimise conditions for the survey. The surface collection survey also allowed an opportunity for community involvement in the project.

6.1.5 Following the surface collection survey in Area 3 a series of hand excavated trial pits was excavated across the area and the soil from each was sieved on site. In addition two machine excavated trial trenches were excavated to test for the remains of the possible cropmark (this was in addition to the trial trenching that was carried out in Area 3 during the main site evaluation (Meek 2013)).

6.1.6 Area 4 covered approximately 0.6 ha (Figure 14). This corresponded with the line of a Roman road which traversed the proposed development area. In this area full removal of topsoil was carried out by mechanical excavators under constant archaeological supervision. Three sections were then excavated across the road, one measuring 10 m and two measuring 5 m in

length by the full width of the road and its flanking ditches. These were positioned on site based on what appeared to be the best preserved parts of the road following topsoil removal.

6.1.7 Area 5 was subdivided into 3 parts; parts 5.1, 5.2 and 5.3, with Area 5.1 being further sub-divided into 5.1a and 5.1b. Area 5 was deemed to be of lower archaeological potential following the site evaluation. It was initially intended that topsoil stripping would be carried out across the whole of Area 5 under archaeological supervision in a strip, map and sample exercise. This was carried out on the in Area 5.1a. However, due to the depts of subsoil and the very wet ground conditions that were present during the archaeological work it was agreed with DAT-HM that a series of trial trenches constituting 10% of the overall area be excavated in Areas 5.1b, 5.2 and 5.3 (Figure 9). During the course of this trial trenching the largely non-archaeological nature of Area 5 was confirmed but three features of archaeological potential were identified. Agreed areas around each of these features were stripped of topsoil and alluvial subsoil and identified features were subject to excavation.

6.2 General excavation methodology

6.2.1 Topsoil was removed under direct archaeological supervision with 13-20 ton mechanical excavators equipped with a wide grading (flat bladed) bucket. The monitoring archaeologists defined archaeology on the ground with canes and hi-visibility tape in order to remove risk of accidental transit across sensitive areas. Topsoil was stored in areas pre-agreed with the client in sealed mounds in order to avoid soil contamination. No machinery was permitted to traverse the stripped areas in advance of hand excavation.

6.2.2 Across much of the site a layer of alluvial subsoil was present beneath the topsoil, and it was found to be sealing archaeological features. This layer was also removed mechanically under archaeological supervision.

6.2.3 Once stripped of topsoil and subsoil the areas identified as containing archaeology were hand cleaned and pre-excavation photographs were taken of all features including general shots showing the wider context of the archaeological features / sites. A pre-excavation site plan was produced using GPS. Subsequently hand excavation of archaeological features commenced.

6.2.4 All information identified in the course of the site works was recorded stratigraphically, with sufficient pictorial record to identify and illustrate individual features. The excavation strategy was agreed with DAT-HM archaeologists on site.

6.2.5 Ring-ditches were 100% excavated except in the case of one where Health and Safety concerns regarding the depth of the ditch meant that only 20% of the basal fill was excavated. The excavation was undertaken as a series of 1 m wide sections. After the resulting sections were recorded the remainder of the fills were fully excavated and sampled appropriately for environmental remains. The interior of the ring-ditches were carefully trowelled in order to

identify any surviving archaeology. All features identified within the enclosed area were fully excavated and sampled.

6.2.6 Enclosure ditches were sample excavated to 20% of volume. All excavated sections were sampled appropriately for environmental remains. The interior of the enclosures were carefully cleaned in order to identify any surviving related archaeology. All features identified within the enclosed area were excavated and sampled.

6.2.7 All other features including pits, slot trenches, and post-holes were 100% excavated and samples appropriately.

6.2.8 Cremation burials were 100% excavated and 100% sampled in accordance with the recommendations of Rubicon's Osteoarchaeologist Carmelita Troy. Any feature suspected of being a cremation burial was excavated in 10 cm deep spits rather than being half sectioned. Treatment of human remains is as per IfA Professional Practice Paper No 7 Guidelines to the Standards for Recording Human Remains (Megan Brickley and Jacqueline I McKinley eds., 2004).

6.2.9 Once stripped of topsoil a GPS survey of the surface of the Roman road was undertaken which was developed into a digital terrain model (Figure 14a). Two sections were excavated across the road. The road and flanking ditches were excavated stratigraphically with a full record made in plan and photographed after each level was removed. Once all archaeology was removed detailed drawings were produced for each of the trench sections.

6.2.10 All recording was by Rubicon Heritage Services Ltd standard method and was undertaken on pro forma record sheets. All contexts, small finds and environmental samples were given unique numbers. Any bone or metallurgical samples taken were also given unique numbers. Detailed site drawings were undertaken at appropriate archaeological recording scales (1:20 plan and 1:10 section). Photographic recording was also carried out and was comprised of digital photographs.

6.2.11 In order to establish the date, nature and significance of sites where appropriate deposits are present, palaeoenvironmental samples were obtained to aid in the identification and interpretation of the archaeological site. Archaeological deposits were sampled systematically in accordance with Rubicon Heritage Services Ltd standard environmental sampling practice.

6.2.12 Where required samples were processed to retrieve dating, artefactual or environmental information.

Any artefacts, materials and each category of data recovered during the excavation were treated in accordance with the requirements and standards set by the following:

- Excavation Standards Manual EHS - HMU
- Management of Archaeological Projects (2nd Ed.) (MAP 2) English Heritage

- Standard and Guidance for Archaeological Field Evaluations IFA

6.2.13 All finds recovered were individually numbered per context during the excavation for ease of quantification.

6.3 Post-excavation methodology

6.3.1 The methodology for post-excavation work has been outlined in detail in the Post-excavation Research Design (AB Heritage 2014). The compilation of the Post-excavation Research Design constituted Phase 1 of the post-excavation work. Phase 2 works included the processing and assessment of all materials recovered on site including environmental samples, human and faunal remains, metallurgical residues and artefacts. The results of assessments by specialists were included in the preliminary assessment report as appendices. A dissemination plan was also compiled separately as part of Phase 2 works.

6.3.2 Phase 3 of the post-excavation work was the full analysis of recovered materials and compilation of this full and final excavation report as well as the publication/ dissemination of the results.

7. THE RESULTS

7.1 Summary

7.1.1 The archaeological features identified at the site were mainly concentrated in Areas 1, 2 and 4. (Figure 10). Isolated cut features were also identified in Areas 5.1b, 5.2 and 5.3. No cut features were identified in Area 3 but a substantial number of lithic artefacts were recovered from the ploughsoil.

7.1.2 During the excavation of Area 1 a total of 307 individual features were identified (Figure 11; Plate 1), consisting of a high density of prehistoric archaeological features with the focus being on prehistoric burial practice in the form of two Bronze Age flat cemeteries, an Early Neolithic ring-ditch and four Iron Age ring-ditches. A Bronze Age structure, an Iron Age house and a number of Bronze Age and Iron Age pit and stake-hole clusters were also identified. A medieval cereal drying kiln was also identified in Area 1.

7.1.3 Area 2 was dominated by two large rectangular enclosures and part of a third, as well as numerous other drainage ditches and plough furrows (Figure 12). The dating of the enclosures is difficult as a prehistoric C14 date and post-medieval glass were recovered from the ditches. In light of the fact that the artefacts seemed to be from a secure context, and the fact that it is unlikely that shallow prehistoric ditches would have remained open for so long, the probability is that they are post-medieval or early modern. A number of other pits including a number of features related to early medieval cereal processing/drying and two large modern sand/gravel extraction pits were also identified.

7.1.4 No cut features were identified in Area 3 but a total of 277 lithic artefacts were collected from the ploughsoil, constituting a lithic scatter of Mesolithic and Neolithic date (Figure 13).

7.1.5 Area 4 was dominated by the remains of a Roman road and a later post-medieval phase associated with the road (Figures 14 and 14a). Much of the original Roman road was truncated with only traces of the foundation layers remaining. The post-medieval layers were also heavily truncated by modern agricultural activity.

7.1.6 Trial trenching was carried out in the Area 5.1b (Figure 9) to ascertain whether or not any archaeological features were present. An isolated medieval charcoal production pit was identified toward the centre of the area (Figures 10 and 15).

7.1.7 Trial trenching was carried out in the Area 5.2 to ascertain whether or not any archaeological features were present (Figure 9). In these seventeen trenches only one archaeological feature was identified; a linear boundary ditch in Trenches 5.2.16 and 5.2.17 (Figures 10 and 16)

7.1.8 Area 5.3 was located at the far east of the site. Trial trenching was carried out in the area to ascertain whether or not any archaeological features were present (Figure 9). A number of

possible features were identified and investigated but only two were deemed archaeological in nature both of which were post-medieval gravel extraction pits (Figures 10 and 17).

7.2 Area 1

7.2.1 The topsoil consisted of a mid brown silty clay and a had a depth of between 0.20 m and 0.30 m. Below this was a subsoil layer (1001/1214) which consisted of red-orange brown sandy silt with small to fine rounded stones. It had a depth of between 0.21 m and 0.30 m. It contained a number of finds including eleven pieces of worked flint, one piece of worked chert, three sherds of medieval/post-medieval pottery and one sherd of Roman pottery (Figure 46) (YBD13:1001:001 to 009, YBD13:1001B:001 to 006 and YBD13:1214:001) (Appendix 10). The natural in the area consisted of a mix of reddish brown gravelly sand and yellowish brown silty sand.

Early Neolithic

7.2.2 An Early Neolithic ring-ditch [1291] was identified toward the centre of Area 1 (Figure 19; Plate 3). It was circular in plan, with a gradual break of slope at the top and moderate concave sides leading to a gradual break of slope at a rounded base. It measured 25 m in circumference, had an internal diameter of between 6 m and 6.65 m and an external diameter of between 8.84 m and 9.30 m. The ditch varied between 0.86 m and 1.84 m in width and had a depth of 0.47 m (Figure 33).

7.2.3 The ditch contained three main fills and two small localised fills. The basal fill (1294) consisted of orangey brown sandy silt with moderate to frequent stones and pebble inclusions and three pieces of prehistoric worked flint (YBD13:1294:001-003). It had a depth of between 0.10 m and 0.40 m. The middle fill (1293) consisted of brownish grey sandy silt with gravel and frequent small stones and measured between 0.06 m and 0.12 m in depth. The main upper fill of the ditch (1292) consisted of soft to moderately compacted brownish grey sandy silt with moderate to frequent small pebbles/stones. It contained one piece of worked flint and a flint flake (YBD13:1292:001-002) both possibly Early Neolithic in date (Appendix 9). It measured between 0.10 m and 0.30 m in depth. Only limited environmental materials were recovered from the ditch with charcoal fragments (oak and non-oak) and charred hazel nutshell both obtained in small quantities from upper fill (1292) (Appendix 6). Radiocarbon dating of hazel nutshell from the upper fill returned an Early Neolithic date of 3769 – 3644 BC (UBA 27748). A second radiocarbon date (oak charcoal) from the same fill also returned an Early Neolithic date of 3903–3666 BC (UBA29108). Two localised deposits (1319 and 1320) were identified in the northern section of the ring-ditch and consisted of brownish grey sandy silt.

7.2.4 Three features were identified in the interior of the ring-ditch, a central post-hole [1335], a second post-hole [1295] which cuts the upper fill of the ring-ditch in the northwest section

and an Early/Middle Bronze Age cremation pit [1280] which also cuts the upper fill of the ring-ditch in the southeast section, indicating that the ditch had been filled prior to the insertion of the cremation.

7.2.5 The central post-hole [1335] was circular in plan with sharp breaks of slope at the top, sloping concave sides and a concave base. It contained three fills of which the main fill (1336) consisted of moderately compacted mid-greyish brown sandy silt with occasional flecks of charcoal. There were also the remains of substantial stone packing material (1348) which lined the cut of the post-hole (Plate 10).

7.2.6 The other two features are later than the ring-ditch – both most likely being of Early/Middle Bronze Age in date – and are discussed further in the following section.

Early Bronze Age

Cluster of stake-holes, post-holes and roasting pits adjacent to natural depression

7.2.7 Located in the southwest corner of Area 1 was a large natural depression (prone to intermittent flooding) into which a number of layers of natural silting had settled (1461/2/3/4). A number of finds were identified from deposit (1462) which included six pieces of worked flint (YBD13:1462:001 to 006) and one piece of early prehistoric pottery (YBD13:1462:007). A layer of hillwash (1552) was identified to the west and south of the natural depression from which nine pieces of flint debitage were recovered (YBD13:1552:001 to 009).

7.2.8 Cut into the main silt deposit (1464) in the depression, the hillwash (1552), and directly adjacent to the west, were a large number of cut features; they totalled 120 stake-holes, six post-holes and nine pits (Figure 26).

7.2.9 A total of 69 stake-holes ([1572] to [1640]) were identified cutting into silt deposit (1462). These most likely formed a number of light structures but due to the number of stake-holes and the possibility of a series of structures being erected over different periods of time it is impossible to ascertain any particular pattern or layout. The majority of these were circular or oval in plan and measured between 0.05 m and 0.10 m in diameter and between 0.06 m and 0.22 m in depth. These were all filled by soft brownish grey clayey sand (1693) which most likely formed due to natural siltation.

7.2.10 Located approximately between 2 m and 5 m to the west was another smaller group of nine stake-holes ([1641] to [1649]) and four post-holes ([1565], [1570], [1710] and [1712]) cut into the hillwash (1552). As with the other groups of stake-holes no discernible pattern could be identified.

7.2.11 The stake-holes were circular in plan and measured between 0.05 m and 0.08 m in diameter and between 0.05 m and 0.17 m in depth. These were also filled by deposit (1693).

7.2.12 The first of the post-holes [1570] was circular in plan with sharp breaks of slope, vertical sides and had a flat base. It measured 0.13 m in diameter and had a depth of 0.10 m. Its fill (1571) consisted of loosely compacted light greyish brown silt.

7.2.13 Located 0.50 m to the south was the second post-hole [1710] which was circular in plan with sharp breaks of slope, near vertical sides and had a rounded base. It measured 0.16 m in diameter and 0.26 m deep. Its fill (1711) consisted of loosely compacted orangey brown silty clay with moderate charcoal inclusions.

7.2.14 The third post-hole in the cluster [1712], located another 0.50 m to the south, was circular in plan with sharp breaks of slope, near vertical sides and had a rounded base. It measured 0.14 m in diameter and 0.16 m deep. Its fill (1713) consisted of firmly compacted orangey brown silty clay.

7.2.15 The fourth post-hole [1565] was located 4 m to the northwest and was circular in plan with sharp breaks of slope, near vertical sides and had a flat base. It measured 0.31 m in diameter and had a depth of 0.26 m. The basal fill (1566) consisted of firmly compacted light to mid-orangey brown silt. Above this and located up the side of the cut was a packing deposit (1567) consisting of loosely compacted orangey brown silt. The main fill (1568) which represented the remains of the post-pipe consisted of loosely compacted light brown silty clay. The upper fill (1569) consisted of loosely compacted greyish brown clayey silt with very occasional charcoal inclusions.

7.2.16 Located approximately 10 m to the southwest of the aforementioned cluster were two intercutting pits ([1696] and [1714]). The earlier of the two pits [1714] was oval in plan with gradual breaks of slope, sloping sides and had a rounded base. It measured 2.75 m in length, 2.45 m in width and had a depth of 0.35 m. Its basal fill (1707) consisted of soft charcoal-rich silty sand with inclusions of heat-affected stone. Above this basal layer were four other sandy silt deposits ((1709), (1708), (1706) and (1705)) from which three pieces of worked flint were recovered (YBD13:1706:001, YBD13:1706:002 and YBD13:1705:001).

7.2.17 Truncating pit [1714] on the north-western side was pit [1696]. It was D-shaped in plan with gradual breaks of slope, concave sides and a rounded base. It measured 2.5 m in length, 1.85 m in width and had a depth of 0.55 m. It contained eight fills ((1697) to (1704)) consisting of silty deposits towards the base of the cut, more charcoal rich deposits with heat affected stone in the middle and again more silty deposits at the top. Two pieces of worked flint were recovered from the pit, one from a middle fill (YBD13:1700:001) and the other from the upper fill (YBD13:1697:001; Figure 49).

7.2.18 A pit [1553] was located approximately 2 m west of the two intercutting pits. It was oval in plan with gradual breaks of slope, steeply sloping sides and had a flat base. There was evidence of oxidisation at the base of the pit indicating that it may have been utilised as a roasting pit or pot-boiler (Figure 38; Plate 12). It measured 1.15 m in length, 1.10 m in width

and had a depth of 0.40 m. The basal fill (1556) consisted of soft blackish grey charcoal-rich coarse sand. The charcoal assemblage consisted predominantly of hazel with a smaller number of oak fragments. Radiocarbon dating of hazel charcoal from this basal fill returned an Early Bronze Age date of 2288 – 2038 BC. Above this was moderately compacted greyish brown sandy silt (1557) with occasional charcoal and heat affected stone. The largest fill (1555) in the pit was next and consisted of moderately compacted dark grey sandy silt with inclusions of heat-affected stone. Above this was soft grey silty sand (1559) with occasional charcoal inclusions. The uppermost fill (1554) consisted of soft greyish brown sandy silt with occasional charcoal and stone inclusions.

7.2.19 A total of 40 stake-holes ([1650] to [1663] and [1666] to [1692]) and two post-holes ([1563] and [1560]) were identified surrounding the roasting pit/pot-boiler as well as three other stake-holes ([1561], [1664] and [1665]) which were cut into the base of the pit. These are most likely evidence of the use of spits/supports and wind-breaks associated with the roasting pit/pot-boiler.

7.2.20 The stake-holes were generally circular and sub-circular in plan and measured between 0.05 m and 0.20 m in diameter and between 0.04 m and 0.23 m in depth. They were filled by dark greyish brown silty sand with occasional inclusions of charcoal ((1694) and (1695)).

7.2.21 The first of two post-holes [1560] associated with the pit was oval in plan with gradual breaks of slope, vertical sides and had a concave base. It measured 0.22 m long, 0.20 m wide and 0.18 m deep. Its fill (1558) consisted of soft grey sandy silt with occasional charcoal inclusions. The second post-hole [1563] was oval in plan with sharp breaks of slope, steeply sloping sides and had a flat base. It measured 0.23 m long, 0.15 m wide and 0.17 m deep. Its fill (1564) consisted of moderately compacted greyish brown sandy silt with occasional charcoal inclusions.

7.2.22 The other six pits in this general area were located to the west of the roasting pit/pot-boiler. The nearest [2180] (5 m to the southwest) was sub-circular in plan with sharp breaks of slope, vertical sides and had a rounded base. It measured 1 m in length, 0.91 m in width and had a depth of 0.33 m. Its fill (2181) consisted of loosely compacted greyish brown clayey silt with moderate charcoal inclusions and heat affected stone.

7.2.23 Located 2.80 m to the north-northwest was another pit [2185] which was oval in plan with sharp breaks of slope, steep sides and had a rounded base. It measured 0.60 m in length, 0.41 m in width and had a depth of 0.14 m. Its fill (2187) consisted of firmly compacted greyish brown silty clay.

7.2.24 The third of the pits [2186] was located 1.13 m to the west and was sub-oval in plan with gradual breaks of slope, moderately sloping sides and had a concave base. It measured 1.12 m in length, 1.05 m in width and had a depth of 0.20 m. Its basal fill (2191) consisted of soft brownish grey silty sand with moderate charcoal inclusions. The upper fill (2190) consisted of soft blackish grey silty sand with occasional charcoal inclusions.

7.2.25 Located approximately 5 m to the northwest were the last three pits ([2182], [2183] and [2184]). These were aligned west-northwest – east-southeast and were generally oval in plan with sharp breaks of slope, steep sides and had rounded bases. They measured between 0.90 m and 0.96 m in diameter and all had a depth of 0.40 m. Their fills consisted of soft light greyish brown silty sand with very occasional charcoal inclusions.

Early/Middle Bronze Age Structure

7.2.26 A sub-circular structure was identified at the far eastern extent of Area 1 (Figure 25; Plate 8). It consisted of nine of post-holes ([1033], [1037], [1035], [1060], [1087], [1095], [1055], [1113] and [1115]) arranged in a roughly circular pattern probably constituting the external walls, as well as a central post-hole [1049] and numerous stake-holes in the interior. The structure measured approximately 2.7 m (north-south) by 1.88 m (east-west). The post-holes making up the main wall of the structure and the central post-hole were generally oval in plan, with sharp to gradual breaks of slope, steeply sloping sides and had rounded and flat bases. They ranged from 0.18 m to 0.55 m in diameter and 0.07 m to 0.26 m in depth. They were filled with dark brownish grey/black sandy silt with charcoal and pebble inclusions. Radiocarbon dating of oak charcoal from one of the post-holes [1087] returned an Early/Middle Bronze Age date of 1608 – 1434 BC (UBA 27745). Eleven sherds of coarse burnt pottery, Early Bronze Age in origin (Appendix 10), were recovered from one of the post-holes [1037] (YBD13:1036:001-012) as well as two sherds of early prehistoric pottery and two pieces of early prehistoric flint debitage (YBD13:1048:001 to 004) from the central post-hole [1049]. One body sherd from context 1036 appears to display the remnants of a decorative scheme involving incised lines and impressed dots (Figure 43). The only other material recovered from these features was a significant quantity of charcoal fragments of both oak and non-oak species (Appendix 6).

7.2.27 Twenty-five stake-holes were identified within the structure but no definite pattern to them could be identified. A number of these stakeholes seems to encircle the central feature [1049]. They are likely to represent some sort of temporary internal divisions or supports. They were generally oval and circular in plan with steeply sloping and vertical sides and had rounded and pointed bases. The measured between 0.06 m and 0.15 m in diameter and had a depth of between 0.05 m and 0.15 m. They were filled with greyish brown silty sand with occasional flecks of charcoal.

Early/Middle Bronze Age Cremation and post-hole truncating ring-ditch 1291

7.2.28 An Early/Middle Bronze Age cremation pit [1280] truncated ring-ditch 1291 and was located 3 m southeast of the central post-hole [1335] (Plate 19). It was circular in the plan, with a sharp break of slope at the top, moderate to vertical concave sides apart from the south side which is undercut, which lead into a gradual break of slope at a rounded base. It measured 0.36 m in diameter and had a depth of 0.20 m. The fill (1281) consisted of soft mid-blackish brown silty

clay with frequent cremated human bone (291.8 g) and charcoal. Radiocarbon dating of the cremated bone returned an Early/Middle Bronze Age date of 1526 – 1419 BC (UBA 27697).

7.2.29 A post-hole [1295] partially also truncated the ring-ditch [1291]. It was circular in plan, with a sharp break of slope at the top, steep sloping sides leading into a sharp break of slope at a concave base. It measured 0.59 m in length, 0.55 m in width and had a depth of 0.33 m. It contained a single fill (1296) of soft but well compacted greyish yellow sandy silt with very occasional pebbles. Although no date was recovered from the post hole is thought to be associated with the Early/Middle Bronze Age cremation due to its proximity and the fact that they both truncate the earlier ring-ditch.

Middle Bronze Age

7.2.30 Two flat cemeteries were identified in Area 1, both radiocarbon dated to the Middle Bronze Age.

Flat Cemetery 1

7.2.31 The first cemetery (Flat Cemetery 1) was located at the far eastern side of the site and consisting of four cremation pits (Figure 24). The charcoal assemblage from the cremation deposits consisted exclusively of non-oak species and included roundwood fragments (Appendix 6).

7.2.32 Cremation [1155] was oval in plan, with a gradual break of slope at the top, concave moderately sloping sides, leading into a gradual break of slope at a rounded base. It measured 0.60 m in length, 0.47 m in width and had a depth of 0.24 m. It was filled by soft black silt (1119) with moderate inclusions of cremated human bone (47.5 g), frequent flecks of charcoal and medium pebbles. The charcoal assemblage was all dominated by alder with a single fragment of apple-type recorded. A fragment of Z twist textile consisting of five strands was recovered from this fill during sample processing. The fibre used is confirmed to be vegetable bast fibre (Appendix 14).

7.2.33 Located 1 m to the north was probable cremation pit [1111] which was oval in plan, with sharp breaks of slope at the top, vertical sides leading into a gradual break of slope at a flat base. It contained a single fill (1110) of dark greyish brown clayey silt with occasional unidentifiable burnt bone. The charcoal assemblage was comprised solely of alder.

7.2.34 Probable cremation [1108] was located 2.89 m to the east of [1111] and was sub-rectangular in plan with sharp breaks of slope at the top, concave sides and a gradual break of slope leading to a flat base. It measured 0.48 m in length, 0.32 m in width and had depth of 0.14 m. It contained a single fill (1093) of greyish brown clayey silt with occasional charcoal, small stones and unidentifiable burnt bone throughout. The charcoal assemblage was dominated by alder along with a single fragment of hazel. The presence of charred hazel nutshell in the

assemblage may relate to food tokens deliberately placed within the cremation pyre as part of the ceremony.

7.2.35 The last cremation pit in this area [1109] was located 1.12 m to northeast and was sub-rectangular in plan, with gradual breaks of slope at the top, moderately sloping sides leading into a gradual break of slope at concave base. It measured 0.70 m on length, 0.65 m in width and had a depth of 0.24 m. It contained as single fill (1067) of soft mid-brown clayey silt with frequent inclusions of cremated human bone (787 g) along with moderate flecks of charcoal and medium sized pebbles. Radiocarbon dating of the cremated bone returned a Middle Bronze Age date of 1419 – 1262 BC (UBA 27696).

Features associated with Flat Cemetery 1

7.2.36 Five other features were identified in close proximity to the cremations which consisted of four pits and a possible post-hole.

7.2.37 Pit [1090] was located 1.55 m northwest of cremation pit [1109]. It was oval in plan, with sharp breaks of slope at the top, concaved sides and gradual break to slope at base with a rounded base. It measured 0.49 m in length, 0.31 m in width and had a depth of 0.18 m. The basal fill (1089) consisted of loose grey sandy gravel with lots of pebbles throughout the context and had a depth of 0.08 m. The upper fill (1088) consisted of soft dark greyish brown clayey silt with moderate charcoal inclusions throughout and had a depth of 0.10 m.

7.2.38 Pit [1053] was located 2.22 m to the southwest and was sub-oval in plan, with sharp breaks of slope at the top, concave sides which lead to a gradual break of slope at a rounded base. It measured 0.30 m in length, 0.23 m in width and had a depth of 0.09 m. It contained a single fill (1052) of brownish grey silty clay with large pieces and occasional small pieces of charcoal along with occasional small stones throughout.

7.2.39 Pit [1029] was located 6.24 m to the west of pit [1053]. It was oval in plan, with sharp breaks of the top, concave sides and a gradual break of slope leading to a concave base. It measured 0.66 m in length, 0.44 m in width and had a depth of 0.24 m. The basal fill (1028) consisted of firm greyish orange silty clay with inclusions of occasional charcoal flecks and had a depth of 0.10 m. The upper fill (1017) consisted of soft mottled greyish black with orange clayey silt with frequent charcoal found throughout. It measured 0.14 m in depth.

7.2.40 Pit [1030] was sub-circular in plan with gradual breaks of slope at the top, irregularly sloping sides and a concave base. It measured 0.56 m in length, 0.54 m in width and had a depth of 0.14 m. The fill (1018) consisted of firm greyish black clayey silt with flecks of non-oak charcoal.

7.2.41 The post-hole [1064] was located 1.95 m southeast of cremation pit [1155] and was sub-oval in plan, with a sharp to gradual break of slope at the top, sloping sides leading to a gradual break of slope at a rounded base. It measured 0.40 m in length, 0.24 m in width and had a

depth of 0.14 m. It contained a single fill (1063) of soft brownish grey silty clay with moderate inclusions of charcoal.

7.2.42 Two isolated features (a possible post-hole and a post-medieval pit) were identified in the area between the flat cemetery and two ring-ditches to the west, both described further on in this report.

Flat Cemetery 2

7.2.43 The second flat cemetery was located approximately 110 m to the west-southwest of Flat Cemetery 1 and consisted of four cremation pits as well as a pit, thirteen post-holes and five stake-holes (Figure 23; Plate 11). The features were tightly clustered together except for two out-lying pits to the west. The presence of small quantities of grain in the cremations (although some may relate to caryopsis of false oat) together with arable weeds and grasses suggests their use as tinder in lighting the pyre fuel. Charcoal fragments were recovered from each of the cremation deposits showing a mix of oak and non-oak species (Appendix 6).

7.2.44 The most westerly of the cremations [1484] was circular in plan with gradual breaks of slope, gradually sloping sides and a concave base. It measured 0.61 m in length, 0.58 m in width and had a depth of 0.13 m. The fill (1485) consisted of soft charcoal rich silt with inclusions of cremated human bone (6 g).

7.2.45 Cremation [1482] was located 3.92 m to the east and was sub-circular in plan with sharp breaks of slope, sloping concave sides and a flat base. It measured 0.44 m in length, 0.42 m in width and had depth of 0.17 m. Its fill (1483) consisted of firmly compacted light grey silty clay, charcoal rich with very occasional inclusions of cremated human bone (1 g). The charcoal assemblage shows a homogenous composition of apple-type charcoal.

7.2.46 Located 0.38 m to the east was cremation [1501]. It was circular in plan with sharp breaks of slope, vertical sides and a flat base, and it measured 0.37 m in diameter with a depth of 0.15 m (Figure 36; Plate 18). Its fill (1502) consisted of soft blackish brown clayey silt with frequent charcoal and cremated human bone (43.3 g) inclusions. The charcoal assemblage consisted mainly of oak charcoal with a small number of apple-type charcoal fragments also identified. Radiocarbon dating of the cremated bone returned a Middle Bronze Age date of 1367 – 1045 BC (UBA 27696).

7.2.47 The fourth cremation [1531] identified in the flat cemetery was located 0.72 m to the north and was D-shaped in plan with sharp breaks of slope, vertical sides and a U-shaped base. It measured 0.48 m in length, 0.37 m in width and 0.22 m in depth. The basal fill (1539) consisted of moderately compacted charcoal-rich deposit with cremated human bone (11.6 g) inclusions and nine sherds of Early/Middle Bronze Age pottery (YBD13:1539:001 – 009; Figure 44; Appendix 10). The charcoal assemblage was dominated by alder with a small number of hazel fragments. The upper fill (1538) consisted of firmly compacted light brown sandy clay with occasional charcoal and cremated human bone (2.6 g) inclusions.

Features associated with Flat Cemetery 2

7.2.48 The pit [1471] was located 2.10 m southwest of the main cluster of features. It was circular in plan with sharp breaks of slope, sloping sides and a U-shaped base and measured 0.66 m in diameter and 0.08 m in depth. It was filled by a single fill (1472) of firmly compacted grey sandy clay.

7.2.49 The post-holes and stake-holes in the main cluster may have formed a structure or may have acted grave markers but no discernible pattern could be identified. The post-holes ([1449], [1453], [1481], [1492], [1503], [1505], [1509], [1511], [1515], [1523], [1525], [1527] and [1536]) were generally circular and sub-circular in shape and with the largest measuring 0.38 m in diameter and the smallest measuring 0.19 m in diameter. Their fills consisted of a mix of charcoal rich silty clays with two ([1515] and [1536]) containing occasional unidentifiable burnt bone inclusions (Appendix 13). The fill of post-hole [1481] did contain two grams of cremated human bone which is thought to derive from one of the surrounding cremations due to its small quantity. The base of a cordoned Early Bronze Age pot (YBD13:1510:001), with a cross motif applied to the internal face, was recovered from one of the post-holes [1509] where it was being utilised as packing material (Figure 42).

7.2.50 The five stake-holes ([1542], [1544], [1546], [1548] and [1550]) were generally circular in plan and had diameters of between 0.07 m and 0.10 m and depths of up to 0.10 m. Their fills consisted of soft grey silt with occasional charcoal inclusions.

Iron Age

7.2.51 Four Iron Age ring-ditches ([1010], [1159], [1191] and [1285] were identified in Area 1 dating from the Early Iron Age through to the Late Iron Age.

Early Iron Age Ring-ditch [1010]

7.2.52 The earliest of these ring-ditches [1010] – dated to the Early Iron Age – was located approximately 33 m from the eastern edge of the site (Figure 18; Plate 2). It was circular in plan with sharp breaks of slope at the top, steeply sloping sides, and a sharp break of slope at the base which tapered to a narrow rounded base. Overall the profile was a rounded V-shape (Figure 30; Plate 7). It measured 50.10 m in circumference, had an internal diameter of between 9.40 m and 10.20 m and an external diameter of between 15.70 m and 15.90 m. The ditch varied between 2.25 m and 3.48 m in width and 0.95 m and 1.25 m in depth. Parts of the basal fill could not be excavated due to health and safety concerns about depth.

7.2.53 The basal fills of the ring-ditch generally consisted of a gravelly silty sand with occasional inclusions of charcoal. They varied from between 0.18 m and 0.50 m in depth.

7.2.54 The consistency of the lower fills ranged between greyish brown sandy clay to dark reddish brown coarse sand with frequent pebble and occasional charcoal inclusions. They varied from

between 0.12 m and 0.95 m in depth. Radiocarbon dating of hazel charcoal from basal fill 1027 returned an Early Iron Age date of 768 – 432 BC (UBA 27757).

7.2.55 The middle fills of the ring-ditch ranged from soft whitish grey silty clay with moderate to frequent charcoal inclusions to reddish brown sandy silt with frequent inclusions of medium to large pebbles. Burnt bone was identified in only one of the middle deposits (1179). A number of finds were recovered from the middle fills, these included nine fragments of 2nd century Roman pottery (YBD13:1013:001 to 009; Figure 47) one fragment of Middle Iron Age pottery (YBD13:1041:001) and four pieces of worked flint (YBD13:1013:010 to 012 and YBD13:1041:002). These middle fills varied from between 0.08 m and 1.15 m in depth. The Roman pottery would indicate that the ditch remained only partially infilled to this level at this time.

7.2.56 The upper fills of the ring-ditch ranged between orangey brown sandy clay and light brown clayey sand with inclusions of moderate amounts of gravel and occasional charcoal. A number of finds were recovered from the upper fills of the ditch including four pieces of worked chert (YBD13:1002:001 to 004), three sherds of pottery dating from the Middle Iron Age (Appendix 10), three Roman sherds from the 2nd Century (YBD13:1038:001), two sherds from the 16th Century (YBD13:1003:001 to 005) (Figures 45, 46 and 48) (Appendix 11) and one whetstone (YBD13:1002:006). The date range for the pottery in these fills indicates the ditch is likely to have been open for a long period of time and also mixing may have occurred during the final episodes of backfilling/ levelling of the feature.

7.2.57 Two post-holes were located in the interior of ring-ditch [1010]. The first [1249] was sub-circular in plan, with a sharp break of slope at the top, with moderate sloping sides apart from the north which was vertical, leading into a gradual break of slope at the base, which was concave. It measured 0.73 m in length, 0.40 m in width and had a depth of 0.35 m. It was filled by soft mid-greyish brown silty clay (1250) with inclusions of pebbles, occasional charcoal and packing-stones (1260).

7.2.58 The second post-hole [1251] was circular in plan, with a sharp break of slope at the top, sides that were vertical on the west side and moderately sloped on the east side, a gradual break of slope at the base which was concave. It was filled by soft reddish brown silty clay (1252) with occasional charcoal and packing-stones (1255).

Middle/Late Iron Age Ring-ditch [1191]

7.2.59 The second Iron Age ring-ditch [1191] – dated to the Middle/Late Iron Age – was located in the northwest corner of Area 1 (Figure 20; Plate 4). It was circular in plan, with a gradual break of slope at the top, with vertical - sloping sides leading to a gradual break of slope at a rounded base. An entrance was identified at the western side of the ditch with the causeway between the termini measuring 2.14 m. The ditch measured 46 m in length, had an internal diameter of between 13.20 m and 13.65 m and external diameter of between 15.33 m and 15.45

m. The ditch had a width of between 0.75 m and 1.33 m and a depth of between 0.40 m and 0.84 m (Figure 32).

7.2.60 The lower fills of the ring-ditch varied between light brown clay and soft brownish grey, mottled silty sand with inclusions of frequent pebbles and small stones and occasional to moderate amounts of charcoal. They varied from between 0.10 m and 0.55 m in depth. Seven finds were recovered from the lower fills consisting of copper alloy fragments (which were too small to analyse) (YBD13:1242:001), four pieces of worked flint (YBD13:1242:002, YBD13:1204:001, YBD13:1190:001 and 003) and one piece of worked chert (YBD13:1190:002).

7.2.61 The middle fills varied between loose yellowish grey gravelly sandy clay with frequent medium/small stones and pebbles and soft mottled brownish yellowish grey silty clay with occasional charcoal. They varied from between 0.20 m and 0.32 m in depth. Ferrous metal-working debris was recovered from deposit (1241) (Appendix 8).

7.2.62 The upper fills of the ditch varied between soft mid grey silty clay with occasional flecks of charcoal and compact dark grey clayey sand with frequent charcoal. They varied between 0.14 m and 0.48 m in depth. Burnt animal bone was identified in two of the upper fills (1210) and (1193). A rare abundance of indeterminate cereal grain was obtained from fill 1210, while potential collection of wild foodstuffs is also evidenced from the recovery of a rare abundance of hazel nutshell fragments from fill 1193. The charcoal assemblage from fill 1210 was oak dominated, with smaller amounts of hazel, willow, wild cherry and apple type (Appendix 6). No suitable material was recovered from the lower fills of the ditch for radiocarbon dating. Radiocarbon dating of oak charcoal from fill 1210 returned a Middle/Late Iron Age date of 201 – 52 BC (UBA 27756). One piece of flint debitage (YBD13:1228:001) and one piece of worked flint (YBD13:1237:001) were also recovered from the upper fills. A layer of hillwash (1215) was identified overlying the southeast corner of the ring-ditch which contained one piece of worked flint, one piece of flint debitage and one piece of worked chert (YBD13:1215:001 to 003).

7.2.63 Three post-holes were identified in the interior of the ring-ditch [1191]; two were located at the eastern side while the third was located just inside the entrance in the west. The first of the two post-holes in the east [1267] was sub-circular in plan, with a sharp break of slope at the top, vertical sides leading into a sharp break of slope at a flat base. It measured 0.68 m in length, 0.66 m in width and had a depth of 0.40 m. The main fill (1268) consisting of brownish-grey sandy silt with occasional to moderate charcoal represented the post-pipe. The secondary fill (1269) was identified surrounding the post-pipe and was interpreted as packing material.

7.2.64 The second post-hole [1220], located 1 m to the west, was sub-circular in plan, with a sharp break of slope at the top and vertical sides leading into a sharp break of slope at a flat base. It measured 0.68 m in length, 0.60 m in width and had a depth of 0.30 m. The basal fill (1223) consisted of mottled grey - reddish orange sandy clay with moderate charcoal pieces,

unidentifiable burnt bone (Appendix 13) and one piece of flint debitage (YBD13:1223:001). The upper fill (1222) consisted of light grey silty clay with frequent flecks and pieces of charcoal, and occasional small stones.

7.2.65 The third post-hole [1248] was located 10.70 m to the west-northwest of the second post-hole just inside the entrance to the ring-ditch. It was oval in plan, orientating N-S, with a sharp break of slope at the top and slightly sloping sides leading into a gradual break of slope at a flat base. It measured 0.50 m in length, 0.34 m in width and had a depth of 0.11 m. It contained a single fill (1247) of mid-greyish brown silty sand with frequent pebbles and sub-rounded and flat stones.

Middle/Late Iron Age Pit and post-hole cluster possibly associated with Ring-ditch [1191]

7.2.66 A cluster of two pits and eight post-holes was located directly east of ring-ditch [1191], no clear pattern was identifiable in their distribution (Figure 20). The first pit [1225] was located 0.76 m east of the ring-ditch and was oval in plan, with sharp breaks of slope near vertical sides and a flat base. It measured 1.03 m in length, 0.67 m in width and 0.25 m in depth. The basal fill (1226) consisted of dark brownish grey clayey silt with occasional small charcoal flakes and had a depth of 0.15 m. The upper fill (1227) consisted of mid-brownish grey clayey silt with a few charcoal flakes and had a depth of 0.13 m.

7.2.67 The second pit [1243], located 1.53 m to the north. It was sub-circular in plan with sharp breaks of slope at the top and steep sides leading into a gradual break of slope at a concave base. It measured 0.80 m in length, 0.70 m in width and had a depth of 0.16 m. Its fill (1244) consisted of dark brownish grey clayey silt with occasional small pebbles and very occasional charcoal flecks and unidentifiable burnt bone (Appendix 13).

7.2.68 The first of the eight post-holes [1185] was located 2.10 m west of pit [1243] and was sub-circular in plan, with a sharp break of slope at the top and irregular vertical sides which led into a gradual break of slope at an irregular base. It measured 0.70 m in length, 0.60 m in width and had a depth of 0.30 m. The basal fill (1186) consisted of soft mid-brown sandy silt with frequent small pebbles/gravel. The middle fill (1187) consisted of soft mid-orangey brown sandy silt with occasional small pebbles and charcoal flakes. The upper fill (1188) consisted of firm mid-grey clayey silt with frequent small pebbles, one piece of worked flint (YBD13:1188:001), some charcoal flakes and a light grey clay lens.

7.2.69 Located a further 1.76 m to the west was another post-hole [1275] which was sub-circular in plan with sharp breaks of slope and near vertical sides leading to flat base. It measured 0.50 m in diameter and had a depth of 0.30 m. Its fill (1274) consisted of soft greyish to mid-dark brown sandy silt with occasional/rare charcoal flecks and some angular packing stones.

7.2.70 A third post-hole [1256] was located 2 m to the southeast and was sub-circular in plan, with sharp breaks of slope and near vertical sides leading to a concave base. It was 0.39 m in

length, 0.38 m in width and had a depth of 0.16 m. Its fill (1257) consisted of moderately compacted greyish brown silty sand with occasional to moderate small stones and pebbles.

7.2.71 The fourth post-hole [1259] in the cluster was circular in plan, with sharp to gradual breaks of slope, steeply sloped sides and a rounded base (Figure 41). It was 0.50 m in diameter and had a depth of 0.21 m. Its fill (1258) consisted of soft dark brown silty sand with frequent angular stones and occasional charcoal flecks. Radiocarbon dating of hazel charcoal returned a Middle/Late Iron Age date of 359 – 58 BC (UBA 27750).

7.2.72 Located 1.17 m to the west was another post-hole [1262] which was circular in plan, with sharp breaks of slope at the top, near vertical sides and flat base. It measured 0.52 m in diameter and had a depth of 0.22 m. Its fill (1261) consisted of light greyish to moderate brown silty sand with occasional flecks of charcoal, frequent medium and small stones and a few large stones.

7.2.73 Another post-hole in the cluster [1254], located 1.45 m to the south, was oval in plan, with a gradual break of slope and slightly concave sides with an imperceptible break of slope at a concave base. It measured 0.48 m in length, 0.45 m in width and had a depth of 0.17 m. Its fill (1253) consisted of mid-brownish/brown silty clay with occasional flecks of charcoal and medium - small stones.

7.2.74 The seventh post-hole [1404], located 1.15 m to the east, was oval in plan with sharp breaks of slope, near vertical sides and a U-shaped base. It measured 0.74 m in length, 0.68 m in width and had a depth of 0.32 m. Its fill (1405) consisted of moderately compacted brown silty sand.

7.2.75 The eighth, and last, post-hole of the cluster [1434] was circular in plan with sharp breaks of slope, vertical sides and a U-shaped base. It measured 0.56 m in length, 0.51 m in width and had a depth of 0.21 m. Its fill (1435) consisted of firmly compacted light brown clay with stone packing material (1438).

Middle/Late Iron Age Ring-ditch [1285]

7.2.76 Another Middle/Late Iron Age ring-ditch [1285] was located 4 m south-southwest of ring-ditch [1191] (Figure 21; Plate 4). It was circular in plan, with a sharp break of slope at the top and vertical sloping sides leading to a gradual break of slope at a rounded base. An entrance was identified at the eastern side of the ditch with the causeway between the termini measuring 3.61 m. The ditch measured 42 m in length, had an internal diameter of between 13.60 m and 14.20 m and external diameter of between 15.50 m and 16 m. The ditch had a width of between 0.63 m and 1.19 m and a depth of between 0.50 m and 0.86 m (Figure 35).

7.2.77 The lower fills of the ring-ditch varied between soft yellowish brown sand and soft greyish brown silty sand with very occasional charcoal inclusions. They varied from between 0.07 m and 0.48 m in depth. The middle fills varied between yellowish brown and dark grey silty sand with occasional charcoal inclusions. They varied from between 0.10 m and 0.34 m in

depth. One piece of worked chert (YBD13:1287:001) and one piece of worked flint (YBD13:1287:002) were recovered from one of the middle deposits. The upper fills varied between yellowish brown silty sand and dark greyish brown silty sand with occasional inclusions of charcoal. They varied from between 0.24 m and 0.51 m in depth. A total of four pieces of flint debitage (YBD13:1466:001 to 004), one piece of worked flint (YBD13:1447:001) and one piece of worked chert (YBD13:1451:001) were recovered from the upper fills of the ditch. Three localised deposits were identified at the termini of the ditch; two at the eastern terminus ((1456) and (1458)) and one at the western terminus (1444). All three contained concentrated occurrences of burnt animal bone (five fragments identified as caprovine, but remaining material could not be identified (Appendix 13)) and charcoal which may indicate a deliberate deposition. A single piece of worked flint (YBD13:1458:001) was recovered from deposit (1458). A small assemblage of cereal grain was retrieved from a fill 1444. The fill has a fairly mixed assemblage with a good representation of barley grains, which make up 32.4% of the grain assemblage, together with wheat grains which contribute 24.3% of the assemblage and oat grains making up 10.8%. Only a small number of wild taxa were recorded from this assemblage consisting of redshank, pale persicaria and sheep's sorrel all of which are likely to represent arable weeds (Appendix 6). Radiocarbon dating of hazel charcoal from fill 1448 returned a Middle/Late Iron Age date of 354 – 5 BC (UBA 27751).

Pits possibly associated with Ring-ditch [1285]

7.2.78 One pit [1496] was identified within the interior of the ring-ditch. It was irregular in plan with sharp breaks of slope, concave sides and a flat base. It measured 1.55 m in length, 0.96 m in width and had a depth of 0.25 m. It contained a single fill (1497) of moderately compacted brown silty clay with occasional charcoal inclusions and one piece of flint debitage (YBD13:1497:001).

7.2.79 Two other pits were identified outside the ring-ditch to the southwest. The first pit [1486], located 0.21 m from the ring-ditch, was circular in plan with sharp breaks of slope, gradually sloping sides and a concave base. It measured 0.95 m in length, 0.92 m in width and had a depth of 0.36 m. The basal fill (1488) consisted of soft brown silty sand with occasional charcoal inclusions and the upper fill (1487) consisted of soft blackish brown sandy silt with frequent charcoal inclusions.

7.2.80 The second pit [1498] was substantially larger measuring 2.98 m in length, 1.93 m in width and 0.47 m in depth. It was sub-oval in plan with sharp breaks of slope, steeply sloping sides and had an irregular base. The basal fill (1500) consisted of soft brown silty sand with occasional charcoal inclusions. The upper fill (1499) consisted of soft blackish brown sandy silt with frequent charcoal inclusions.

Late Iron Age Ring-ditch [1159]

7.2.81 The latest ring-ditch [1159] – dated to the Late Iron Age – was located directly adjacent (no more than 0.30 m to the west-northwest) to ring-ditch [1010] (Figure 18; Plate 2). It was circular in plan with a gradual break of slope at the top, irregular sides leading to a gradual break of slope at the base which was flat. It measured 45.9 m in circumference, had an internal diameter of between 12.30 m and 12.60 m and an external diameter of between 14.10 m and 14.30 m. The ditch varied between 0.92 m and 1.08 m in width and had an average depth of 0.41 m (Figure 31).

7.2.82 The basal and lower fills of the ring-ditch varied from light brown to grey clayey silt to greyish white clay with inclusions of occasional charcoal and moderate amounts of pebbles. They varied from between 0.09 m to 0.22 m in depth. One piece of ferrous metal-working debris (Appendix 8) was recovered from deposit (1166).

7.2.83 The upper fills varied from firm grey silty clay to dark brownish black clayey sand with medium amount of stones with flecks of charcoal. They varied from between 0.07 m and 0.41 m in depth. Burnt animal bone (a small amount from a large mammal and the rest was unidentifiable (Appendix 11)) was identified in two of the upper fills (1171) and (1175) as well as charred spelt wheat grains in rare abundances (Appendix 6). Charcoal was recovered in abundance from both of these upper fills and consisted of both oak and non-oak. The charcoal assemblage for fill 1171 is dominated by oak, with smaller amounts of alder, hazel and blackthorn (Appendix 6). A rare abundance of indeterminate cereal grain was also retrieved from fill (1171), together with sedge and spike rush nutlets (Appendix 6). Radiocarbon dating of hazel charcoal from fill 1171 returned a Late Iron Age date of 108 BC – AD 65 (UBA 27745). A single find of worked chert (YBD13:1165:001) was recovered from an upper fill.

7.2.84 Five post-holes were located in the interior of ring-ditch [1159], three of which were clustered together. The first of the cluster [1206] was circular in plan, with a sharp break of slope at the top with steep/smooth sides leading into a gradual break of slope to a concave base. It measured 0.51 m in length, 0.45 m in width and 0.17 m in depth. It contained a single fill (1207) of mid-greyish brown silty clay with inclusions of stones and occasional charcoal.

7.2.85 Located 0.38 m to the west was the second of the cluster [1216] which was circular in plan, with sharp break of slope at the top, moderate concave sides on the south and steep smooth sides on the north. These lead to a gradual break of slope at the base, which was concave. It measured 0.46 m in diameter and had a depth of 0.19 m. It contained a single fill (1217) of soft mid-greyish brown silty clay with frequent stones, occasional small flecks of charcoal and unidentifiable burnt bone.

7.2.86 The third post-hole [1218] in the cluster was located 0.54 m to the southwest and was circular in plan, with a sharp break of slope at the top and smooth stepped sides leading into a gradual break of slope at a concave base. It measured 0.50 m in diameter and had a depth of

0.26 m. It also contained a single fill (1219), which consisted of soft mid-greyish brown silty clay with stones and occasional charcoal and unidentifiable burnt bone (Appendix 13).

7.2.87 The other two post-holes were located to the north and northwest of the cluster. The nearest of the post-holes [1208] was located 1.56 m to the north. It was circular in plan, with a sharp break of slope at the top, steep smooth sides leading into a gradual break of slope at a concave base. It measured 0.51 m in length, 0.46 m in width and 0.22 m in depth. It was filled by mid-greyish brown silty sandy clay (1209) with moderate small stones and occasional flecks of charcoal and unidentifiable burnt bone (Appendix 13).

7.2.88 The last of the post-holes [1245] located in the interior of the ring-ditch was circular in plan, with a sharp break of slope at the top and moderate concave sides leading into a gradual break of slope at a concave base. It was situated 3.72 m to the west of post-hole [1208] and measured 0.35 m in diameter and had a depth of 0.11 m. It was filled by soft mid-greyish brown silty sandy clay (1246) with moderate small stones and occasional small flecks of charcoal.

Middle Iron Age Structure and associated features

7.2.89 Located in the east of Area 1, 13 m west of ring-ditch [1285], was a Middle Iron Age D-shaped structure with a number of associated pits, post- and stake-holes and a large cobbled surface (Figure 22; Plates 5 and 6). The structure and ring-ditches [1281] and [1191] were positioned on the higher ground overlooking the natural depression in the topography and this seemed to be deliberate. There does not appear to have been a freshwater feed into this area but a pond would have formed at least in the winter months as a result of flooding. While this would not have been a drinkable water-source it may have held some other practical or symbolic attraction for those who built the structure or ring-ditches.

7.2.90 The structure was defined by a foundation trench [1382] which was D-shaped in plan with mainly sharp breaks of slope at the top, sloping sides and a mainly flat base. It consisted of a slot-trench which enclosed an area of between 6 m and 7.20 m wide. The slot-trench cut had a width of between 0.45 m and 0.85 m and a depth of between 0.21 m and 0.45 m. The cut contained five distinct fills (1374), (1375), (1381), (1384), (1385) and (1386) (Figure 34).

7.2.91 The primary basal fill (1384) of the slot-trench consisted of soft greyish brown silty sand with occasional charcoal inclusions, a chert core (YBD13:1384:001) was also found in the deposit. Two localised basal deposits were also identified; one in the southeast (1386) consisting of soft brown silty sand with occasional charcoal inclusions and another (1385) in the north-northwest consisting of soft light yellowish brown silty sand with occasional charcoal inclusions. Above these was another localised deposit (1381) which only identified on the external edge of the southwest section of the cut. It consisted of moderately compacted greyish brown silty sand with occasional charcoal inclusions. The main fill (1375) which was identified throughout the cut consisted of soft mid-brownish grey silty sand with moderate

charcoal inclusions and four pieces of flint debitage and a glass bead (YBD13:1375:001 to 005). It also contained a single grain of hulled barley (Appendix 6). Radiocarbon dating of dating of hazel charcoal from this fill returned a Middle Iron Age date of 384-197 BC (UBA 27749). The upper fill (1374) consisted of moderately compacted mid-greyish brown silty sand with moderate sub-angular and sub-rounded stones and occasional charcoal inclusions.

7.2.92 A total of 24 stake-holes were identified cut into the base of the slot trench (eleven on the eastern side, seven on the northern side and six on the eastern side) and may have been a support for a wattle panel or other upstanding part of the structure (Table 1).

Context no.	Filled by:	Length (m)	Width (m)	Depth (m)	Description of cut	Description of fill
1362	1363	0.05	0.05	0.09	Circular in plan with a sharp break of slope at the top, vertical sides and a rounded base	Soft mid-grey silty sand with occasional charcoal inclusions
1364	1365	0.06	0.06	0.14	Circular in plan with a sharp break of slope at the top, vertical sides and a rounded base	Soft mid-grey silty sand with occasional charcoal inclusions
1366	1367	0.06	0.06	0.07	Circular in plan with a sharp break of slope at the top, vertical sides and a rounded base	Soft mid-grey silty sand with occasional charcoal inclusions
1368	1369	0.08	0.08	0.17	Circular in plan with a sharp break of slope at the top, vertical sides and a rounded base	Soft mid-grey silty sand with occasional charcoal inclusions
1370	1371	0.06	0.06	0.14	Circular in plan with a sharp break of slope at the top, steeply sloping sides and a rounded base	Soft mid-grey silty sand with occasional charcoal inclusions
1372	1373	0.08	0.07	0.11	Circular in plan with a sharp break of slope at the top, steeply sloping sides and a rounded base	Soft mid-grey silty sand with occasional charcoal inclusions
1387	1388	0.06	0.06	0.06	Circular in plan with sharp breaks of slope at the top, vertical sides and a rounded base	Soft light grey silty sand

Context no.	Filled by:	Length (m)	Width (m)	Depth (m)	Description of cut	Description of fill
1389	1390	0.07	0.07	0.08	Circular in plan with sharp breaks of slope at the top, vertical sides and a rounded base	Soft light grey silty sand
1391	1392	0.08	0.06	0.11	Circular in plan with sharp breaks of slope at the top, vertical sides and a rounded base	Soft light grey silty sand
1398	1399	0.06	0.06	0.1	Circular in plan with sharp breaks of slope at the top, vertical sides and a rounded base	Soft light grey silty sand
1400	1401	0.07	0.07	0.15	Circular in plan with sharp breaks of slope at the top, vertical sides and a rounded base	Soft light grey silty sand
1402	1403	0.05	0.05	0.06	Circular in plan with sharp breaks of slope at the top, vertical sides and a rounded base	Soft light grey silty sand
1407	1406	0.1	0.08	0.06	Oval in plan with sharp breaks of slope, vertical sides and a rounded base	Moderately compacted light greyish brown silty sand
1409	1408	0.08	0.07	0.04	Circular in plan with sharp breaks of slope, vertical sides and a pointed base	Moderately compacted light greyish brown silty sand
1411	1410	0.15	0.08	0.09	Oval in plan with sharp breaks of slope, vertical sides and a rounded base	Moderately compacted light greyish brown silty sand
1413	1412	0.1	0.07	0.09	Oval in plan with sharp breaks of slope, vertical sides and a rounded base	Moderately compacted light greyish brown silty sand
1415	1414	0.1	0.06	0.13	Oval in plan with sharp breaks of slope, vertical sides and a rounded base	Moderately compacted light greyish brown silty sand

Context no.	Filled by:	Length (m)	Width (m)	Depth (m)	Description of cut	Description of fill
1417	1416	0.07	0.05	0.07	Oval in plan with sharp breaks of slope, vertical sides and a rounded base	Moderately compacted light greyish brown silty sand
1419	1418	0.07	0.06	0.07	Circular in plan with sharp breaks of slope, vertical sides and a rounded base	Moderately compacted light greyish brown silty sand
1421	1420	0.06	0.05	0.03	Circular in plan with sharp breaks of slope, vertical sides and a rounded base	Moderately compacted light greyish brown silty sand
1423	1422	0.07	0.06	0.08	Circular in plan with sharp breaks of slope, vertical sides and a rounded base	Moderately compacted light greyish brown silty sand
1425	1424	0.06	0.04	0.06	Oval in plan with sharp breaks of slope, vertical sides and a rounded base	Moderately compacted light greyish brown silty sand
1427	1426	0.09	0.06	0.07	Oval in plan with sharp breaks of slope, vertical sides and a rounded base	Moderately compacted light greyish brown silty sand
1429	1428	0.08	0.07	0.1	Oval in plan with sharp breaks of slope, vertical sides and a rounded base	Moderately compacted light greyish brown silty sand

Table 1 – List of 24 stake-holes cut into base of structure [1382]

7.2.93 Two post-holes were also found to be cut into the base of the slot-trench and are also thought to be contemporary with the structure and probably functioned to support the upstanding element.

7.2.94 The first post-hole [1360] was located in the southwest section of the structure and was oval in plan with gradual breaks of slope, vertical sides and a concave base. It measured 0.90 m in length, 0.72 m in width and had a depth of 0.40 m. It contained five distinct fills (1376 to 1380) which varied from light greyish brown silty sand to light brown sandy silt, and all had occasional inclusions of charcoal.

7.2.95 The second post-hole [1397] was located in the eastern section of the structure and was oval in plan with sharp breaks of slope, near vertical sides and a concave base. It measured 0.86 m in length, 0.68 m in width and had a depth of 0.55 m. Its fill (1396) consisted of firmly compacted light brown clayey sand with occasional charcoal inclusions.

7.2.96 A number of occupation layers and cobbled surfaces were identified within the structure and immediately to the south (Figure 22). The largest and earliest layer (1489) occupied nearly all the interior of the structure and an area outside to the south. This layer seemed to overly the upper fills of the slot trench in the south. It measured approximately 11 m by 8 m with a depth of approximately 0.05 m and consisted of firmly compacted light orangey brown clayey silt. A total of 18 flints recovered from this deposit (YBD13:1489:001 to 018) all of which are thought to be residual as they date to the Mesolithic/Neolithic period. Above this a cobbled surface (1431) was identified outside the structure to the south, and partially covering the southern part of the slot-trench. It measured approximately 9 m by 6 m in size and consisted of sub-angular and sub-rectangular stones. Located above this was a second occupation layer (1430) consisting of greyish brown sandy silt with occasional charcoal inclusions. A total of 41 lithics were recovered from this deposit (YBD13:1430:001 to 041) all of which are thought to be residual as they date to the Mesolithic/Neolithic period (Figure 49). This layer was only identified outside the structure and measured 5 m by 4 m and had a depth of between 0.05 m and 0.10 m. The final deposit identified in this area was another cobbled surface [1383], also only located outside the structure to the south. It measured 5 m by 3.8 m and had a depth of 0.20 m.

7.2.97 Rare to abundant oak and non-oak charcoal fragments were recovered from all samples taken from the structure (Appendix 6).

7.2.98 The slot-trench defining the structure was continuous with no obvious entrance. However given the location of the deposits and cobbled surfaces to the south of the structure and the positioning of the two post-holes within the slot-trench it's possible that the south-facing side of the building was open. The slot-trench itself may have fulfilled a drainage function, there is no evidence it was lintelled but it could have easily been stepped over.

7.2.99 The interior of the structure contained a number of features including eight post-holes, two pits and one stake-hole. These features could have been elements of internal divisions within the structure and may have also been part of a roof support especially the central post-hole [1393].

7.2.100 The central post-hole [1393] was sub-circular in plan with sharp breaks of slope at the top, vertical sides and had a relatively flat base. It measured 0.60 m in length, 0.58 m in width and had a depth of 0.29 m. The basal fill (1395) consisted of firmly compacted grey clay with occasional charcoal flecking while the upper fill (1394) consisted of firmly compacted brown silty clay with occasional charcoal and stone inclusions.

7.2.101 Two post-holes were located 1 m to the north-northeast of the central post-hole. The first [1532] was oval in plan with sharp breaks of slope, near vertical sides and had a concave base. It measured 0.28 m in length, 0.20 m in width and had a depth of 0.18 m. The second post-hole [1540] was oval in plan with sharp breaks of slope, stepped sides and had a U-shaped base. It measured 0.44 m in length, 0.24 m in width and had a depth of 0.18 m. Both were

filled with soft brownish grey silty sand with very occasional charcoal inclusions ((1533) and (1541)).

7.2.102 Located 1.20 m to the south-southeast of the central post-hole was another post-hole [1529]. It was oval in plan with gradual breaks of slope, moderately sloping sides and had a concave base. It measured 0.28 m in length, 0.22 m in width and had a depth of 0.10 m. Its fill (1530) consisted of soft dark brownish grey silty sand with occasional charcoal inclusions.

7.2.103 Another post-hole [1507] was located 2.15 m to the west, it was oval in plan with gradual breaks of slope, near vertical sides and a concave base. It measured 0.35 m in length, 0.25 m in width and had a depth of 0.22 m. Its fill (1508) consisted of soft light greyish brown sandy silt with occasional charcoal inclusions.

7.2.104 Two post-holes [1432] and [1436] were identified 0.36 m further west, with post-hole [1436] being truncated by post-hole [1432]. The first post-hole [1436] was sub-circular in plan (truncated to the northwest) with sharp breaks of slope, sloping sides and a flat base. It measured 0.28 m in width and had a depth of 0.09 m. Its fill (1437) consisted of firmly compacted mottled orangey brown silty clay. Post-hole [1432] was oval in plan with sharp breaks of slope, steeply sloping sides and had a flat base. It measured 0.46 m long by 0.45 m wide and was 0.20 m deep. Its fill (1433) consisted of mid-brownish grey silty clay with very occasional charcoal flecks.

7.2.105 The final post-hole [1519] identified within the interior of the structure was located 1.33 m to the south of the truncated post-hole. This post-hole was also truncated to the north by a shallow pit [1521]. It was oval in plan with sharp breaks of slope, steeply sloping sides and had a flat base. It measured 0.37 m long by 0.30 m wide and was 0.14 m deep. Its fill (1520) consisted of mid-greyish brown silty sand with inclusions of very rare amounts of unidentifiable burnt bone.

7.2.106 The first pit [1521], which truncated post-hole [1519], was irregular in plan with sharp breaks of slope, concave sides and had a flat base. It measured 0.80 m in length, 0.53 m in width and had a depth of 0.12 m. Its fill (1522) consisted of moderately compacted dark brown silty sand with occasional charcoal inclusions and contained two pieces of worked flint (YBD13:1522:001 and YBD13:1522:002).

7.2.107 The second pit [1517] identified within the interior of the structure was located 1.60 m to the east. It was oval in plan with sharp breaks of slope, steeply sloping sides and had a flat base. It measured 0.78 m in length, 0.50 m in width and had a depth of 0.20 m. Its fill (1518) consisted of soft dark brownish grey silty sand with occasional charcoal inclusions and one piece of flint debitage (YBD13:1518:001).

7.2.108 The last internal feature identified within the structure was a stake-hole [1513]. It was circular in plan with gradual breaks of slope, steeply sloping sides and had a pointed base. It

measured 0.11 m in diameter and had a depth of 0.18 m. Its fill (1514) consisted of soft light greyish brown silty sand with occasional charcoal inclusions.

7.2.109 One external feature, a post-hole [1534], was identified under the lowest occupation layer (1489) 2.80 m south of the structure [1382]. It was sub-circular in plan with sharp breaks of slope, steeply sloping sides and had a concave base. It measured 0.43 m long by 0.38 m wide and was 0.14 m deep. Its fill (1535) consisted of firmly compacted light brown sandy silt with some charcoal flecks and packing stones.

Loose cluster of pits and post-holes dating to the Middle/Late Iron Age

7.2.110 A loose cluster of features was identified to the west of ring-ditch [1291] consisting of nine pits and four post-holes, one isolated pit was also noted approximately 20 m from the main cluster. They appeared to be in a generally oval arrangement but no definite patters could be confirmed. One of the pits [1324] was dated to the Middle/Late Iron Age

7.2.111 Pit 1324 was oval in plan with sharp breaks of slope at the top, vertical sides leading to a gradual break of slope at a rounded base (Figure 40). It measured 0.97 m in length, 0.95 m in width and 0.36 m in depth. Its fill (1325) consisted of firmly compacted brown silty clay with charcoal inclusions. Radiocarbon dating of alder charcoal returned a Middle/Late Iron Age date of 349 – 42 BC (UBA27758).

7.2.112 Located 3.44 m to the west of pit 1324 was a larger pit [1355] which was oval in plan with sharp breaks of slope at the top vertical sides and a U-shaped base. It measured 2.96 m in length, 1.44 mm in width and had a depth of 0.71 m. It contained four fills ((1356) to (1359)) which consisted of light greyish brown and light brownish grey silts.

7.2.113 Pit [1349] was sub-circular in plan with sharp breaks of slope at the top, near vertical sides and a flat base. It measured 1.57 m in length, 0.70 m in width and had depth of 0.40 m. It contained a single fill (1350) of loosely compacted greyish brown silty sand with very frequent small pebbles.

7.2.114 Located 4.20 m to the west of pit 1349 was a fourth pit [1347] which was sub-oval in plan with sharp breaks of slope at the top, sloping concave sides and had an irregular base. It measured 1.80 m in length, 0.72 m in width and had a depth of 0.36 m. It was filled by firmly compacted yellowish brown sandy clay with very occasional charcoal and frequent pebbles (1346).

7.2.115 Pit [1345] was identified 4.88 m north and was oval in plan with imperceptible breaks of slope, gently sloping sides and a concave base. It measured 1.55 m in length, 1 m in width and had a depth of 0.24 m. The basal fill (1344) consisted of grey silty sand, while the upper fill (1343) was greyish brown coarse sand, both contained frequent fine and medium sized pebbles.

7.2.116 Pit [1352] was located 8.30 m to the southwest of pit [1345]. It was shallow, oval in plan with sharp breaks of slope at the top, sloping sides and had a flat base. It measured 0.47 m in

length, 0.30 m in width and 0.10 m in depth. Its fill (1351) consisted of soft dark greyish brown silt sand with frequent stones.

7.2.117 Located 9.20 m to the southeast of pit 1352 was another pit [1326] which was sub-rectangular in plan with gradual breaks of slope, sloping sides and an undulating base. It measured 1.32 m in length, 0.60 m in width and had a depth of 0.16 m. Its fill (1327) was firmly compacted mid-brown silty clay with frequent pebbles, rare inclusions of charcoal and unidentifiable burnt bone.

7.2.118 Located 2.50 m further to the southeast was another pit [1330] which was sub-circular in plan with sharp breaks of slope, vertical sides and a flat base. It measured 0.87 m in length, 0.58 m in width and had a depth of 0.16 m. Its fill (1331) consisted of firmly compacted mid-brownish grey silty clay with moderate amounts of charcoal and frequent small to medium sized stones.

7.2.119 Directly adjacent was the final pit in the cluster [1332] which was sub-circular in plan with sharp breaks of slope at the top sloping down to a gradual break of slope at a flat base. It measured 0.74 m in length, 0.72 m in width and had a depth of 0.14 m. Its fill (1333) consisted of firmly compacted mid-brown silty clay with frequent charcoal inclusions and also contained one piece of worked flint (YBD13:1333:001).

7.2.120 The first of the four post-holes [1338] was located 4.50 m to south-southeast of pit [1332]. It was sub-circular in plan with sharp breaks of slope at the top, near vertical sides and had a flat base. It measured 0.35 m in length, 0.30 m in width and had a depth of 0.24 m. It contained three fills ((1339) to (1341)) varying between brownish grey sandy silt and reddish brown silty sand.

7.2.121 The next post-hole [1322] was located 12 m to the north and was sub-circular in plan with gradual breaks of slope, concave sides and a flat base. It measured 0.25 m in length, 0.24 m in width and had a depth of 0.05 m. Its fill (1323) consisted of firmly compacted dark brownish grey silty clay with frequent charcoal and infrequent burnt bone inclusions.

7.2.122 Located 6.44 m to the northwest was another post-hole [1328]. It was oval in plan with gradual breaks of slope, sloping sides and a rounded base. It measured 0.46 m in length, 0.40 m in width and had a depth of 0.20 m. Its fill (1329) consisted of soft grey silty sand with occasional charcoal inclusions.

7.2.123 The final post-hole in the cluster [1318], located 1.87 m to the north, was circular in plan, with a sharp break of slope at the top, sloping sides leading into an imperceptible break of slope at a rounded base. It measured 0.30 m in diameter and had a depth of 0.37 m. Its fill (1317) consisted of soft mid-grey silty sand with frequent flecks of charcoal and fine pebbles.

Roman

7.2.124 The only definite Roman feature in Area 1 was a hearth [1184] with evidence of *in situ* burning identified cut into one of the lower fills (1047) of ring-ditch 1010. It was sub-oval in plan with sharp breaks of slope at the top, sloping sides leading into a gradual break of slope at a flat base. It measured 1.88 long, 0.70 m wide and 0.15 m deep. The basal fill (1183) consisted of moderately compacted dark greyish brown silty sand with stones, frequent burnt animal bone and charcoal. The charcoal assemblage consisted of eight different taxa. Oak makes up the majority of the assemblage followed by hazel and willow. Smaller amounts of alder, wild cherry, blackthorn, bird cherry and whitebeam. This fill was found to contain an assemblage of charred cereal grain dominated by wheat grains, with the majority of the wheat grain identified as spelt wheat. A single bread-club wheat grain and two possible bread-club wheat grains were also recorded. A small number of wild taxa were also present within the basal assemblage and consisted of corn-spurry, redshank, rush sp. and possible sedge nutlets. Above this was light greyish brown sandy clay with occasional sub-angular heat-affected stones (1182). One of the upper fills of the hearth (1164) consisted of soft dark charcoal-rich brownish black clayey sand, with frequent burnt animal bone, moderate amount of sub-angular stones, fine pebbles, one 2nd Century Roman rim sherd (YBD13:1164:002; Figure 47) (Appendix 11) and numerous fragments of clay (YBD13:1164:001). The upper fill of the hearth again has an assemblage comprising of mainly oak and hazel. This fill contained a wide variety of cereal grains within its assemblage, which consisted of wheat, oats and barley. Only two wild taxa were recorded within this upper fill of the hearth; a single violet fruit and sedge nutlet. The uppermost fill (1173) consisted of light brownish/reddish grey clay with flecks of charcoal. The presence of Roman pottery in this feature suggests that the partially silted up ring-ditch may have been utilised for shelter for the hearth during the Roman period.

Medieval

Medieval cereal drying kiln

7.2.125 Located 28 m to the northwest of the Flat Cemetery 1 was a medieval cereal-drying kiln [1265] (Figures 11 and 39: Plate 9). It was irregularly oval shaped in plan, with an imperceptible break of slope at the top, changeable sides; almost flat on the north side to sloping and steeped on the southwest. The break of slope at the base was gradual and the base was an irregular flattish shape. It measured 4 m in length, 2.40 m in width and had a depth of 0.35 m.

7.2.126 The remains of a stone lining or super-structure (1300) was identified on the south-western side of the kiln consisting of flat and irregular shaped stones ranging in size from 0.02 m by 0.05 m to 0.10 m by 0.15 m. Filling the north end of the kiln was soft dark grey silty sand (1266) with frequent charcoal pieces, occasional animal bone, two pieces of prehistoric pottery (YBD13:1266:001) which are thought to be residual in nature. The charcoal assemblage from 1266 consisted mainly of oak, together with birch, alder, apple-type and hazel. At the southern end, where the stone lining was identified, the basal fill (1278) consisted of soft

blackish/brownish grey silty sand with frequent charcoal inclusions. A number of other deposits were identified above this basal deposit and varied from dark blackish brown silty clay to reddish brown clay silts. Radiocarbon dating of oak charcoal from one of these fills (1290) returned a medieval date of AD 1024 – 1181 (UBA27747). A large fuel ash slag deposit (1282) was also identified at the southern end of the kiln formed over time due to repeated firing events (Appendix 8). Three pieces of prehistoric pottery (YBD13:1273:001), most likely residual in nature, were also recovered from the kiln along with a small amount of animal bone from deposits (1273) and (1298). Charred cereal grains were recovered in rare abundances with an overall assemblage of oat species and bread-club wheat. Charcoal fragments were common to abundant in the deposits with an assemblage containing both oak and non-oak charcoal fragments (Appendix 6).

7.2.127 Truncating the northern end of the feature were eight stake-holes ([1302], [1304], [1306], [1308], [1310], [1312], [1314] and [1316]) which may have formed a wind-break, although no distinct pattern could be identified. All were circular in plan and varied in size from between 0.05 m and 0.11 m in diameter and 0.07 m and 0.12 m in depth.

Post-Medieval/Modern features

7.2.128 A number of possible post-medieval/modern linear features were identified truncating the earlier prehistoric features across Area 1 (Figures 11 and 20).

7.2.129 Located at the far eastern side of Area 1 were three linear features ([1068], [1065] and [1062]). The largest of these ditches [1068], a possible field boundary, truncated three of the post-holes ([1055], [1087] and [1095]) that made up part of the Early Bronze Age structure. It was linear in plan orientating north-south with gradual breaks of slope, sloping sides, and a flat base. It measured 2.50 m in width and had a depth of 0.90 m. The visible length of the ditch was 25 m from the edge of the site to the terminus at the southern end. A continuation of the ditch was identified in Area 5.2 and continued into Area 4 where it terminated at the edge of the Roman road. The lower fills of the ditch were generally brownish grey coarse silty sand with gravel and pebble inclusions. They varied between 0.12 m and 0.60 m in depth. The middle fills consisted of mid-brownish grey silty sand with occasional gravel, pebbles and stones inclusions. The upper fills consisted of dark brownish grey silty sand fill with occasional gravel and small stone inclusions. One fragment of lead (YBD13:1069:001) was recovered from the upper fill of the ditch.

7.2.130 The other two linear features ([1062] and [1065]), located to the east of the field boundary, were possible drainage ditches associated with the field boundary, though they were on a slightly different alignment. They were linear in plan orientated north-south with sharp breaks of slope, vertical sides, and had flat bases. Again their total extent could not be found as they both extended beyond the site limits.

7.2.131 Two other possible field boundary ditches ([1201] and [1232]) were identified cutting ring-ditch [1191]. They were orientated southeast-northwest, running parallel with each other, and truncated the south-eastern edge of the ring-ditch. A copper wire (YBD13:1284:001) was recovered from ditch [1201]. Another ditch [1277] was identified to the east of the ring-ditch and is most likely a continuation of ditch [1201].

7.2.132 One final linear feature [1465] was identified to the southeast of the other ditches and also ran parallel. This was in the line of the modern field boundary which divided the northern and middle fields of the development site, which also appears on the historic maps.

7.2.133 An isolated post-medieval pit [1056], located 13 m west-southwest of Flat Cemetery 1, was sub-circular in plan, with a gradual break of slope at the top, moderate to smooth sides leading to a gradual break of slope at a concave base. It contained two fills (1057 and 1058) from which a clay pipe stem (TBD13:1058:001), a glass fragment (YBD13:1058:002) and a sherd of post-medieval pottery (YBD13:1058:003) were recovered. The presence of post-medieval material in the pit would suggest it was not related to the cemetery activity but was in fact much later.

Undated Features

7.2.134 A number of features identified in Area 1 could not be related to any specific phase and are described below.

7.2.135 A possible post-hole [1264] was located 13.82 m west-northwest of the post-medieval pit [1056]. It was circular in plan, with sharp breaks of slope at the top, slightly sloping sides leading into a gradual break of slope at a flat base. It measured 0.25 m in diameter and had a depth of 0.18 m. It contained a single fill (1263) of dark greyish brown silty sand with frequent fine pebbles, moderately small rounded stones and pieces of charcoal.

7.2.136 A single isolated pit [1116] was identified 22 m southeast of structure [1382] which was circular in plan with gradual breaks of slope, gently sloping sides and a concave base. It measured 0.75 m in diameter and had a depth of 0.20 m. The basal fill (1117) consisted of loose orangey brown silty clay with moderate charcoal flecks. The upper fill (1118) consisted of loose dull greyish brown clayey silt with frequent charcoal and small pebbles throughout.

7.2.137 Another isolated pit [1156] was located approximately 15 m to the west-southwest of ring-ditch 1159. It was oval shaped in plan, with sharp breaks of slope, near vertical sides and a flat base. It measured 0.72 m in length, 0.60 m in width and had a depth of 0.30 m. The basal fill (1158) consisted of loose mottled orange-brown-light grey sandy silt with frequent pebble inclusions. The upper fill (1157) consisted of loose mid-grey sandy clay with occasional to moderate charcoal inclusions, occasional small pieces of unidentifiable burnt bone, frequent small pebbles and moderate to frequent small and medium stones.

7.2.138 A large pit [1490] cut the upper fill of the ring-ditch 1285 in the western section, it was oval in plan with sharp breaks of slope at the top, steeply sloping sides and had a rounded base. It measured 2.07 m in length, 1.96 m in width and had a depth of 1.06 m. The basal fill (1495) consisted of moderately compacted yellowish grey silty sand which had a depth of 0.10 m. The middle fill (1494) consisted of loosely compacted yellowish grey sandy clay with frequent small and medium sized stone inclusions and had a depth of 0.30 m. The upper fill (1491) consisted of moderately compacted brown silty sand with occasional charcoal inclusions and had a depth of 0.97 m. No specific date could be attributed to this pit other than it post-dates the Middle/Late Iron Age ring-ditch.

7.3 Area 2

7.3.1 Area 2 was dominated by two large post-medieval/modern rectangular enclosures and part of a third, as well as numerous other drainage ditches, plough furrows and two large modern sand extraction pits. A number of other pits including features related to early medieval cereal processing were also identified (Figure 12). The topsoil in this area (2000) consisted of mid-brown silty clay and measured 0.30 m in depth, shallowing towards the summit of the natural hillock on the south of the area. Four pieces of worked flint and one piece of worked chert (YBD13:2000:001 to 005) were recovered from the topsoil. A subsoil layer (2198) consisting of light brown silty clay was identified below the topsoil. It varied in depth from 0.10 m to 0.35 m and was not present on the top of the natural hillock. The natural subsoil consisted of light orangey brown silty sand and gravel.

Prehistoric features

7.3.2 There are three pits of possible prehistoric origin located in Area 2, the prehistoric date being assigned due to the recovery of worked flint and chert from their fills. Though it must be acknowledged that these finds may be residual.

7.3.3 Pit 2093 was located in the western section of Area 2. It was circular in plan with sharp breaks of slope, vertical sides and had a U-shaped base. It measured 0.79 m in length, 0.75 m in width and had a depth of 0.12 m. The basal fill (2095) consisted of firmly compacted blackish grey charcoal-rich sand. The upper fill (2094) consisted of moderately compacted brown sand and contained one piece of worked flint (YBD13:2094:001).

7.3.4 The second pit [2091] was located 11.6 m to the north and was sub-circular in plan with sharp breaks of slope, gradually sloping sides and had an irregular base. It measured 1.49 m in length, 1 m in width and had a depth of 0.27 m. Its fill (2092) consisted of very firmly compacted light orangey yellow sandy clay with rare occurrences of charcoal and one flint flake (YBD13:2092:001).

7.3.5 The third pit [2134] was located toward the centre of Area 2 between two of the rectangular enclosures. It was oval in plan with gradual breaks of slope, moderately sloping sides and

had an irregular base. It measured 2.36 m in length, 1.33 m in width and had a depth of 0.37 m. Its fill (2135) consisted of moderately compacted orangey brown silty clay with occasional charcoal inclusions and contained one piece of worked chert (YBD13:2135:001).

Early Medieval Industrial Activity

7.3.6 An area of early medieval industrial activity was identified in the north-eastern area of Area 2, consisting of two features possibly related to cereal processing and three associated pits (Figure 28a).

7.3.7 Feature [2004] was oval in plan with sharp breaks of slope, gently sloping sides and had a flat base that was partially oxidised. It measured 2.52 m in length, 1.02 m in width and had a depth of 0.22 m (Plate 14). The basal fill (2006) consisted of mottled reddish brown clayey silt with frequent oak and non-oak species charcoal inclusions, unidentifiable burnt bone and one piece of chert (YBD13:2006:001). It was found to contain abundant quantities of charred cereal grain with assemblages dominated by oat species together with smaller quantities of hulled barley and club/bread wheat. A significant amount of wild taxa were recovered alongside the grain with an assemblage dominated by nipplewort, with smaller numbers of sedges and spike-rushes. The charcoal assemblage is dominated by hazel and alder with smaller amounts of oak also present. Single fragments of birch willow and apple-type were also present (Appendix 6). Radiocarbon dating of charred oat from 2006 returned an early medieval date of AD 668 – 770. Stratigraphically above this, but also located at the base of the cut was a fill (2007) consisting of brownish yellow silty clay with moderate charcoal inclusions. The upper fill (2005) consisted of moderately compacted yellowish brown silty clay with frequent charcoal inclusions. The abundance of charred cereal in this feature suggests it was related to cereal processing, possible cereal drying.

7.3.8 Truncating the base and the side of the pit were 36 stake-holes, another eleven were identified cut into the natural surrounding the pit ((2034) to (2081)). They ranged from between 0.05 m and 0.10 m in diameter. They were all generally circular in plan with a mix of pointed and rounded bases. They were filled with a mix of dark grey silty clay with occasional charcoal inclusions and mottled reddish brown clayey silt with frequent charcoal inclusions. These stakeholes may have supported a rack which was used to spread cereal over a fire for drying. It is not the typical form of a cereal drying kiln but may have been used for small scale cereal processing.

7.3.9 Located 12.5 m to the west-northwest was a possible cereal-drying kiln [2008] which was oval in plan with sharp breaks of slope, gently sloping sides and had a flat base (Plate 13). It measured 1.70 m in length, 0.50 m in width and had a depth of 0.24 m. The remains of a small rectangular stone chamber (2019) were identified at the base of the feature. It measured 0.78 m in length, 0.30 m in width and 0.20 m in height. The basal fill (2017) consisted of dark brownish grey sandy clay with occasional charcoal inclusions. Above this was a deposit of soft black sandy silt (2018) rich in oak charcoal and occasional ceramic material thought to be

a burnt clay lining. Above the two basal fills was a layer of soft yellowish/whitish grey sandy silt with very frequent ash inclusions. The upper fill (2016) consisted of moderately compacted brown silty sand. The dominance of oak charcoal and the lack of cereal grain from the sample taken from fill (2018) is suggestive of some sort of furnace rather than a cereal drying kiln (Appendix 6) however no metallurgical waste material was found in the vicinity to support this theory. It is possible that this was a cereal-drying kiln that was completely cleaned out after use (the waste material possible being dumped into nearby feature 2004).

7.3.10 Three pits were located in close proximity to these features but contained little evidence of function. They are presumed to be contemporary and associated due to proximity. Pit 2024 was located 3.40 m to the east-northeast of the furnace. It was irregular in shape with gradual breaks of slope and had an irregular base. It measured 1.17 m long, 0.71 m wide and 0.12 m deep. Its fill (2025) consisted of firmly compacted brown clay. The second pit [2098] was located 2.20 m south and was oval in plan with sharp breaks of slope, moderately sloping sides and had a flat base. It measured 2.73 m long by 1.54 m wide and 0.32 m deep. Its fill (2099) consisted of moderately compacted yellowish brown sandy clay. The third pit [2100], located 0.75 m to the west, was irregular in shape with gradual breaks of slope and had an irregular base. It measured 2.94 m in length, 1.30 m in width and had a depth of 0.36 m. Its fill (2101) consisted of firmly compacted light reddish brown sandy silt with occasional charcoal flecks.

Post-medieval/Modern Enclosures

7.3.11 Area 2 was dominated by two large rectangular enclosures and part of a third. They consisted of a number of linear ditches that are possibly post-medieval in date. The entire area seemed to have been truncated by ploughing/ modern agricultural activity. The simplest interpretation would be that they represent a series of field boundaries with double ditch arrangements being used to corral livestock. Another possibility is that they may have been associated with a World War I base/summer training camp, as during the First World War the proposed development area was used for mustering the militia, the territorial's, and the Yeomanry Cavalry. Due to the cavalry being present the enclosures may have been used to picket the horses.

Enclosure 1

7.3.12 The first enclosure (Enclosure 1), the most southerly, was made up of a double ditch on the northeast side ([2141] and [2159]) and single ditches on the northwest, southwest and southeast sides ([2120] and [2139]). The enclosure measured approximately 44.3 m in length (northeast-southwest) and 36.6 m in width and enclosed an area of approximately 1580 m^2 (Figure 27). An entrance way was identified in the middle of the north-western boundary which measured 3 m in width. The ditches measured between 0.85 m and 1.81 in width and between 0.30 m and 0.90 m in depth (Figure 37; Plate 16)). Their fills were generally greyish

brown sandy clay with frequent stone inclusions. A number of finds were recovered from the ditches; these included two pieces of late medieval pottery, ten pieces of flint debitage, one possible whetstone, one piece of worked chert, one piece of chert debitage and two fragments of post-medieval/modern glass (YBD13:2142:001 to 012 and YBD13:2160:001 to 005). The fragments of glass were in what appeared to be a secure context and so provide a *terminus post quem* for the ditches. Therefore the other finds which appear to be prehistoric and medieval are thought to be residual in nature. A single oat species grain was recovered from fill (2160). Charcoal fragments were present in rare and occasional occurrences with an assemblage consisting of mainly non-oak species Radiocarbon dating of hazel charcoal from fill 2160 returned an Early Bronze Age date of 2283 – 2036 BC (UBA 27753), this again is thought to be residual in nature due to the presence of the post-medieval/modern glass in the ditch.

7.3.13 Pit [2155] truncated the ditch on the south-western side; it was rectangular in plan with sharp breaks of slope, steep sides and had a flat base. It measured 3.80 m in length, 3.40 m in width and had depth of 0.72 m. Its fill (2156) consisted of dark greyish brown sandy silt.

7.3.14 Truncating the northern and eastern corner of the enclosure were two large modern sand extraction pits ([2143] and [2197]). The pit [2143] located at the northern corner was irregular in plan with sharp breaks of slope, steep sides and had an irregular base. It measured 11.4 m in length, 6.80 m in width and had a depth of 1.20 m. A total of seven pieces of flint debitage and one whetstone were recovered from the pit (YBD13:2145:001 to 004 and YBD13:2147:001 to 004) and are thought to be residual in nature. The pit [2197] located at the western corner was irregular in plan with sharp breaks of slope, steep sides and had an irregular/flat base. It measured 7 m in length, 5 m width and had a depth of 0.30 m. A piece of modern plastic was recovered from its fill (2196).

Enclosure 2

7.3.15 The second enclosure (Enclosure 2) was located approximately 9.60 m northwest of Enclosure 1. As with Enclosure 1 it consisted of a double ditch on the northeast side ([2009] and [2011]) and single ditches on the northwest, southwest and southeast sides ([2148], [2087] and [2003]). The northwest ditch (2003) also formed the southeast side of adjoining Enclosure 3. Enclosure 2 measured approximately 43 m in length (northeast-southwest) and 36 m in width and enclosed an area of approximately 1530 m^2 (Figure 28). The ditches measured between 0.69 m and 1.91 in width and between 0.20 m and 0.42 m in depth. Their fills were firmly compacted brown sandy clay (Plate 15). A number of finds were recovered from the ditches; four pieces of worked chert and three pieces of worked flint (YBD13:2010:001 to 006, YBD13:2088:001 and YBD13:2012:001) and are thought to be residual in nature, if Enclosure 2 is presumed to be contemporary with Enclosure 1. A possible entrance way was identified in the western corner which measured 1.6 m in width, with short ditch (2087) seemingly placed to narrow this

entrance. The entrance/exit seemed to lead to a possible coral or track which led to the entrance to Enclosure 3 on the right and into another possible droveway on the left. At the entrance to Enclosure 2, located at both sides, were a five of post-holes ([2013], [2014], [2015], [2089] and [2090]) which may have held a gate and fence to block the entrance. A single shallow linear ditch [2085] was also noted inside the enclosure on the northwest side and may have been part of an earlier boundary or some sort of drainage ditch.

Enclosure 3

7.3.16 The third enclosure abutted directly against Enclosure 2 and used the same boundary ditch [2003] on the south-eastern side (Figure 28). Only part of the enclosure was located within the site extent and this consisted of three ditches which enclosed the north-eastern side [2031], the south-eastern side [2003] and the south-western side [2104]. The ditches measured between 0.52 m and 1.50 in width and between 0.35 m and 0.60 m in depth. A single piece of worked flint (YBD13:2032:001) was recovered from ditch [2031]. The enclosure measured 38 m in length and a visible width of 24 m. An entrance was identified on the south-western side and measured 3 m in width. As mentioned above the entrance/exit was connected to Enclosure 2 via a possible coral or track that was bounded on the southwest side by another ditch [2026]. A second entrance was identified in the east corner of the enclosure where four circular post-holes cut the base of ditch [2003] and may have supported a gate and fence.

Linear features possibly related to the enclosures

7.3.17 There are four ditches in Area 2 that may be related to the rectangular enclosures. The first of these [2102] was located running parallel to the south-western boundary of Enclosure 3. It extended beyond the limit of excavation and its visible length measured 23 m. It was 1.01 m wide and 0.39 m deep and may have defined the western side of a droveway leading to the north from the entrances to Enclosures 2 and 3.

7.3.18 The other three were located to the northeast of Enclosures 1 and 2. Two of these ([2122] and [2124]) ran parallel to the north-eastern boundaries of Enclosures 1 and 2 while the third ditch [2150] ran perpendicular to them. It is possible that these may have formed another coral or droveway on the north-eastern side of the enclosures.

Undated features in Area 2

7.3.19 A total of ten pits and one possible hearth were located throughout Area 2 but due to the lack of diagnostic material they are of uncertain date and function.

7.3.20 Two of the pits were located in the western section of Area 2. The first pit [2112] was irregular in plan with sharp breaks of slope, vertical sides and had an irregular base. It measured 3.18 m in length, 0.87 m in width and had a depth of 0.35 m. Its fill (2113) consisted of firmly compacted brown sandy clay with very occasional charcoal inclusions. The second pit (2096) was located 17 m to the southeast and was sub-circular in plan with sharp breaks of slope,

gradually sloping sides and had an irregular base. It measured 2.8 m in length, 1 m in with and 0.28 m in depth. Its fill (2097) consisted of firmly compacted orangey yellow sandy clay.

7.3.21 Located toward the centre of Area 2 was a third pit [2136] which was oval in plan with sharp breaks of slope, gently sloping sides and had a rounded base. It measured 1.68 m in length, 1.40 m in width and had a depth of 0.42 m. Its basal fill (2138) consisted of moderately compacted yellow clayey sand. The upper fill (2137) consisted of firmly compacted orange sandy clay. The fourth pit [2152] was located 10 m to the west-northwest and was oval in plan with gradual breaks of slope, moderately sloping sides and had a concave base. It measured 1.50 m in length, 1.15 m in width and had a depth of 0.35 m. Its fill (2153) consisted of soft light greyish brown fine sand.

7.3.22 A cluster of two pits and one hearth was located 22 m to the southeast. These features seem to represent an area of domestic food preparation or consumption. The first pit [2188] was circular in plan with sharp breaks of slope, steep sides and had a slightly rounded base. It measured 0.60 m in diameter and had a depth of 0.18 m. Its fill (2189) consisted of light greyish brown clayey sand with very occasional charcoal inclusions. A rare abundance of probable collected wild foodstuff evidence in the form of charred hazel nutshell was retrieved from the pit (Appendix 6).

7.3.23 The possible hearth [2158] was located 1.30 m to the south and was oval in plan with sharp breaks of slope, sloping sides and had a rounded base. There was evidence of oxidisation on the base and sides of the cut. It measured 1.24 m in length, 1.08 m in width and had a depth of 0.27 m. The basal fill (2161) consisted of soft dark grey fine sand with moderate charcoal inclusions. It contained a significant quantity of charred cereal grain with an assemblage comprising mainly naked barley, together with oat species and hulled barley. A small quantity of arable weeds was also recovered from the hearth with violets, fumitories and knotgrass present. The charcoal assemblage was dominated by apple-type charcoal, with smaller amounts of oak, hazel and willow (Appendix 6). The remainder of the fills ((2162) to (2166)) ranged from light grey to yellowish orange silty sand with occasional charcoal inclusions.

7.3.24 The second pit [2178], located 0.35 m further south, was oval in plan with gradual breaks of slope, gently sloping sides and had a flat base. It measured 1.51 m in length, 1 m in width and 0.18 m in depth. Its fill (2179) consisted of moderately compacted brown clayey sand.

7.3.25 Located 9 m to the west-southwest was a large shallow pit [2192], it was irregular in plan with gradual breaks of slope, gently sloping sides and had an irregular base. It measured 3.49 m in length, 2.20 m in width and had a depth of 0.20 m. Its fill (2193) consisted of firmly compacted reddish brown silty clay.

7.3.26 Another large pit [2157] was located 26 m to the southwest; it was oval in plan with gradual breaks of slope, irregularly sloping sides and had a concave base. There was some evidence of

in situ burning and it is possible that it was utilised as a large hearth/cooking area. The fills ((2169) to (2174)) ranged from loosely compacted brownish grey silty sand with frequent gravel to firmly compacted dark brown clayey silt. Animal bone was recovered from one of the middle fills (2172) which consisted of charcoal-rich, dark blackish brown sandy silt with inclusions of unidentifiable burnt bone. It was found to contain abundant quantities of charred cereal grain with assemblages dominated by oat species together with smaller quantities of hulled barley and club/bread wheat. The wild taxa assemblage was dominated by nipplewort, with spike-rushes, small-grained grasses and goosefoots present, accompanied by violets and pale persicaria.

7.3.27 An isolated pit [2118] was identified in the southern section of Area 2; it was oval in plan with sharp breaks of slope, moderately sloping sides and had a flat base. It measured 2.47 m in length, 1.10 m in width and had a depth of 0.37 m. Its fill (2119) consisted of moderately compacted yellowish brown clayey sand.

7.3.28 Another isolated shallow pit [2126] and two associated stake-holes ([2128] and [2130]) were identified toward the western edge of Area 2. The pit was circular in plan with sharp breaks of slope, moderately sloping sides and had a rounded base. It measured 0.60 m in diameter and had a depth of 0.09 m. Its fill (2127) consisted of firmly compacted orangey brown sandy clay. The two stake-holes were located directly adjacent to the pit and were circular in plan with sharp breaks of slope, vertical sides and had pointed bases.

Non-archaeological features

7.3.29 Four plough furrows were identified to the northeast of the enclosures. They were all shallow, with three ([2114], [2132] and [2167]) running north – south and one [2110] running east – west.

7.3.30 Finally a modern pit [2194] was identified to the northeast of Enclosure 1. It measured 5.60 m in length, 3.60 m in width and had a depth of 0.35 m. Its (2195) fill consisted of soft dark blackish grey silty sand and contained modern glass and pottery (YBD13:2195:001/002).

7.4 Area 3

7.4.1 Area 3 was identified as an area of high archaeological potential due to the presence of a surface scatter of worked flint of prehistoric date which was identified during the geophysical survey of the site (Meek 2013). It also corresponded with the position of a possible cropmark site visible from aerial photography (*ibid*.). Initial work in this area consisted of a systematic surface collection survey. This required the area to be ploughed in advance of survey and was allowed to weather for a number of weeks to optimise conditions for the survey.

7.4.2 Following the surface collection exercise the collected lithics were assessed by specialist Jackie Sommerville and it was decided that due to the presence of a notable quantity of Mesolithic

material that a series of hand excavated trial pits would be dug across the area and that all spoil excavated would be sieved on site.

7.4.3 On Saturday the 15th of March a community field walk was undertaken. It had been anticipated that only a handful of flint pieces may be found scattered across the site during the works; however, over 200 pieces of flint were recovered during the day. The community participants were lined up c. 1 m apart and the field was walked in transects changing orientation following the completion of a transect. Markers were lefts along with the bagged flint and these markers were then recovered and plotted using a GPS.

7.4.4 On Thursday the 10th of April work began on the test pitting. These works had a more targeted number of volunteers than the field walking but were still important, with test pits being hand dug and sieved over the course of 4 days.

7.4.5 The pits were laid out using a GPS and measured 2 m by 1 m. The test pits were dug by hand by the volunteers and the top soil and sub soil up cast was wet sieved separately to recover the maximum amount of information.

7.4.6 A total of 277 worked lithics, and five pieces of burnt, unworked flint were recovered from Area 3 (the latter solely from fieldwalking). Of the worked lithics, 206 were recovered from fieldwalking and 71 from test pitting (Figures 13, 49 and 50). The latter were retrieved by sieving through a 3.5 mm mesh. Twenty-seven of the worked lithics (10%) were also burnt. A number of the worked flints were dated to the Mesolithic and Neolithic period.

7.4.7 Flint was the most common raw material in Area 3, however, a higher proportion of chert items was recovered from here, at 36%, compared to the excavated areas, at 13%. Of the 55 definitive Mesolithic items (31 bladelets, 21 bladelet cores and three bladelet tools), 25 (45%) were made using chert and for the cores alone the figure is 71%. Clearly, chert was either preferred or more readily available during the Mesolithic period in this area.

7.4.8 The area of the possible crop mark was trial trenched during the initial evaluation (Meek 2013) but no trace of it was identified. Three further trenches were placed in this area during the main phase of archaeological work but these confirmed that no cut features which could be linked to the cropmark were present (Appendix 17; Figure 9).

7.4.9 The potential for cut features in Area 3 was deemed to be low as no cut features were identified in the trial trenches and Area 2 was expanded to the east to ensure an adequate buffer zone around archaeological features. Therefore Area 3 was not subject to a Strip, Map and Sample exercise.

7.5 Area 4

7.5.1 Area 4 was dominated by the remains of a Roman road and a later post-medieval phase associated with the road (Figure 14). Much of the original Roman Road had been eroded/

removed over time and only some of the foundation layers remained. The post-medieval layers were also heavily truncated by modern agricultural activity

7.5.2 Prior to excavation the remains of the road was visible in the landscape as a linear mound orientated south-southwest to north-northeast toward the town of Llandeilo. This raised agger was best preserved in the southernmost field of the proposed development site but could also be seen in the central field and in a field beyond the development site to the northeast (Figure 2). A number of mature oak trees were present along the line of the agger. On the northeast and southwest of the visible portion of the road it merged with upstanding field boundaries which probably follow the original line of the Roman road towards the river, where there was likely to have been a fording point to the west of the existing bridge.

7.5.3 On the historic maps of the area (Figures 4- 7) the line of the Roman road appears as a field boundary/ track crossing the development site and it seems that the road was in use as a right of way up until the post-medieval times.

7.5.4 Geophysical survey of the area confirmed the presence of the road (Meek 2013; Figure 8) and seemed to suggest there were two linear ditches flanking the line of the road.

7.5.5 As described in Section 6 above Area 4 was stripped of topsoil and three locations on the road were selected for further investigation. A 5 m wide section on the southwest side, a 10 m section towards the middle and a 5 m wide section on the northeast site.

7.5.6 Following topsoil removal it was apparent that very little of the road survived in the central field of the development site, with only a slightly raised area being visible. However towards the southwest the agger was more pronounced and a considerable build of hillwash had accumulated against the southeast facing side of the road. This hillwash is likely to have come from the southern slopes on the valley edge (located across the existing A476 road) and become blocked by the presence of the road.

7.5.7 Section 1, which was excavated across the full width of the road, was therefore very deep and due to health and safety concerns and flooding could not be excavated fully. The northwest-facing section indicated that layers of hillwash (e.g. (143)) had accumulated against and over the lower levels of the road. There was evidence for post-roman activity on the northwest side of the agger. A northeast-southwest orientated linear ditch [080], measuring 0.5 m wide and 0.16 m deep was identified along with a parallel linear metalled stone surface (081). Both these features were also identified in Section 2. The fill of the ditch (079) contained 16th century pottery sherds while a deposit overlying both the metalled surface and the ditch (078) was found to contain mid-17th century pottery sherds as well as glass and clay pipe fragments.

7.5.8 Section 2 was excavated across the highest and best preserved part of the agger. While the depth of hillwash and water management were also a problem in this section it was possible to excavate it down to natural levels and record the surviving stratigraphy of the road (Figure

29). In order to manage the water the 10 m wide section was divided into Section 2a and 2b; the southwest facing section of Section 2a was the most complete stratigraphic record and this the only one described in detail here.

7.5.9 Natural layers identified at the base of Section 2 consisted of red natural gravel (118), purple clay (117) and orange brown natural subsoil which was found to lie across the entire site (116). A layer of probable hillwash (124) was noted on the southeast side of the road.

7.5.10 A series of layers overlying natural subsoil were identified which have been interpreted as the original foundation layers of the roman road. The earliest of these (109) was a heavy grey/ brown clay layer with iron panning at the base. This material seems to have been an imported foundation deposit. Similar material (110) with less iron panning accumulated was overlying the northwest side of (109). Overlying both of these heavy clay deposits was a deposit of greyish brown course sand (108) which was in turn overlain by a thin lens of gravel (106). This sand and gravel may have been imported from the nearby river or could have been extracted from the natural deposits on the site as was seen in Area 2 during excavation. Gravel layer (106) could conceivably be the remains of an actual surface as opposed to continuing build-up of the agger, as it consisted of relatively well sorted pebbles however if this was the case it was only temporary as it was sealed in further imported deposits.

7.5.11 A layer of silting (105) and (107) containing few inclusions seems to have been a natural accumulation over the gravel surface (106), possibly indicating a period of abandonment or a break in the road construction. Overlying this silting was a thick layer of light grey sand (104) with frequent accumulations of iron panning and occasional water-rolled pebbles. This has been interpreted as a substantial imported road construction layer. It is also the latest Roman level surviving.

7.5.12 Two parallel flanking ditches were identified on either side of the road foundation deposits, which appeared to be stratigraphically later than the latest recorded foundation layer (104). There was also evidence that these ditches had been recut over time.

7.5.13 On the northwest side ditch [111] had a concave profile and an irregular base. It measured 1 m wide and survived to 0.13 m deep and was filled with sandy gravel (112) and grey brown compact silt (113). A recut along the same line [114] did not cut the lower level of ditch [111] but it was slightly wider (1.8 m) than the earlier ditch. It was generally U-shaped in profile and filled with compact grey silt (115) with occasional charcoal and iron panning at the base. This ditch survived to a depth of 0.45 m.

7.5.14 On the southwest side ditch [119] was identified. It was 1.95 m wide and survived to a depth of 1.06 m. It contained compact yellowish-grey silty clay (123). This ditch was also recut by ditch (121) which was up to 3 m wide, however it was difficult to distinguish the fills from the hillwash on the southeast side. This recut contained yellow silt (120) and soft grey silt (122).

7.5.15 No artefacts, roman or otherwise were recovered from the foundation levels or the ditch fills.

7.5.16 On the northwest side of the agger, post-roman activity was also identified in the form of a charcoal spread and hearth (144) / (145) which contained 16th century pottery. Following a period of natural siltation/ hillwash accumulation (082) / (088) a northeast-southwest orientated ditch was cut, measuring 2 m wide and 0.34 m deep. This was in turn truncated by a ditch with the same orientation [145], which contained 19th century pottery sherds. The most recent activity was represented by two phases of post-medieval metalling (081) and (083) which seems to have been maintenance of the path along the top of surviving agger. The earlier of these surfaces (086) was accompanied by a linear ditch (091) on its eastern side which is likely to be a drainage ditch preventing water flowing down off the agger. A fill within this ditch (092) contained 19th century pottery. This ditch is thought to correspond to ditch (080) in Section 1. Overlying this ditch fill, metalled surface (083) was found to be truncated by a linear ditch [089]. Ditch [091] is thought to correspond to ditch [080] identified in Section 1.

7.5.17 To the west of the road a small number of features of probable post-medieval period were identified. A large charcoal-rich deposit [004] was identified to the northwest of the road. It was oval in plan and consisted of soft dark greyish black silty clay with inclusions of charcoal (minimum 80% of fill) and occasional small pebbles. It measured 2.55 m in length, 1.06 m in width and had a depth of 0.06 m.

7.5.18 A large number of stake-holes were identified beneath and adjacent to the spread. These included a curving alignment of five stake-holes ([042], [044], [046], [048] and [050]) and a linear alignment of four stake-holes ([034], [036], [038] and [040]) to the north of the spread that were possibly part of some light wind-break. Due to the number of stake-holes, 34 in total, it was difficult to ascertain any other definite individual structures. They stake-holes were generally oval and sub-circular in plan and measured between 0.07 m and 0.18 m in diameter and 0.06 m and 0.17 m in depth. The stake-holes were filled with grey silty clay with inclusions of occasional charcoal and small stones.

7.5.19 Following removal of topsoil it became clear that very little of the road survived in the central field of the development site. Section 3 excavated in this area identified the base of a linear ditch (073) which contained a sterile fill (072). This ditch is of uncertain date, it may be related to the original roman road but it is more likely to be related to the post-medieval metalled surfaces which were added to the line of the road. In Section 3 metalled surface (075) was found to be similar in composition to deposits (083) and (086) which were identified in Section 2.

7.6 Area 5.1

7.6.1 Area 5.1a was stripped under archaeological supervision in advance of the construction compound being set up. No archaeological features were identified in this area, where topsoil

and subsoil combined were found to be up to 0.6 m deep along the southeastern side but got shallower towards the north.

Medieval charcoal production pit

7.6.2 Trial trenching was carried out in the Area 5.1b to ascertain whether or not any archaeological features were present (Appendix 17; Figure 9). An isolated charcoal production pit [093] was identified toward the centre of the area. It was circular in plan, with gradual breaks of slope, gently sloping sides and had a flat base which had evidence of oxidisation. It measured 1.46 m in length, 1.27 m in width and had a depth of 0.13 m. Its fill (094) consisted of soft mid-greyish black silty clay with frequent charcoal and occasional small stones (Figure 15; Plate 17). Radiocarbon dating of oak charcoal returned a medieval date of AD 1050 – 1254 (UBA2755).

7.6.3 Truncating the base and the area around the pit were 21 stake-holes ([096] to [101] and [127] to [141]). The stake-holes were generally circular in plan with rounded bases and measured between 0.06 m and 0.10 m in diameter and between 0.08 m and 0.12 m in depth. They were filled by a similar fill (095) consisting of soft mid-brown silty clay with moderate flecks of charcoal.

7.7 Area 5.2

7.7.1 A total of seventeen trenches measuring a total of 857.2 linear meters were excavated in this area (Appendix 17; Figure 9). In these seventeen trenches only one archaeological feature was identified; a linear boundary ditch [5002] in Trenches 5.2.16 and 5.2.17.

7.7.2 Trench 5.2.16 was located in the eastern area of Area 5.2 was orientated northeast-southwest. The trench measured 62.3 m by 2 m and was aligned northeast-southwest. The geology consisted of reddish brown gravelly clay with pinkish clay mottling. The topsoil (5000) was mid-brown silty clay and had a depth of 0.29 m. Below this was a subsoil (5001) of mid-orangey brown silty sand which had a depth of 0.32 m. Trench 5.2.17 was located at the northeast end of Trench 5.2.16 orientated northwest-southeast and measured 16 m by 2 m.

7.7.3 A long linear ditch [5002] was identified in both trenches orientated north-south (Figure 16). It is most likely related to a ditch [1068] identified in Area 1, though following topsoil removal a causeway measuring approximately 3 m was identified between the two. The topsoil (5000) consisted of dark brown silty clay and measured 0.25 m in depth. One sherd of unidentifiable pottery, two pieces of flint and a ground-stone were recovered from the topsoil (YBD13:5000:001 to 004). A layer of subsoil (5001) located below the topsoil consisted of light brown silty clay and measured 0.30 m in depth. One piece of worked chert (YBD13:5001:001) was recovered from the sub-soil.

7.7.4 The ditch [5002] was linear in plan with sharp breaks of slope, steeply sloping sides and a relatively flat base. It measured approximately 87 m in length, between 0.95 m and 2 m in

width and had a depth of between 0.40 m and 0.56 m. The basal fill (5005) consisted of loose grey silt with large stone inclusions. The middle fill (5004) consisted of firm orange-grey silty clay with moderate medium and small pebbles. The upper fill (5003) consisted of firm mid-brown silty clay with moderate amounts of small pebbles. The ditch terminated in Area 4 just before reaching the line of the roman road suggesting it was later than the Roman road.

7.8 Area 5.3

7.8.1 Area 5.3 was located at the far east of the site. Trial trenching was carried out in the area to ascertain whether or not any archaeological features were present (Appendix 17; Figure 9). A number of possible features were identified and investigated but only two were deemed archaeological in nature. An area of 970 m² was stripped around the two pits (Figure 17). The topsoil (5300) consisted of dark brown silty clay and measured 0.25 m in depth. A layer of subsoil (5301) located below the topsoil consisted of orangey brown stony clay and measured 0.40 m in depth.

7.8.2 The two large pits when excavated turned out to be post-medieval gravel extraction pits. The first pit [5303] was sub-rectangular in plan with sharp breaks of slope, steep sides and had a flat base. It measured 3.29 m in length, 1.70 m in width and had a depth of 0.78 m. Its fill (5305) was mid-brown clayey silt containing a post-medieval/modern glass bottle at the base (YBD13:5305:001).

7.8.3 The second pit [5304] directly abuts the first to the south. It was also sub-rectangular in plan with sharp breaks of slope, steep sides and had a flat base. It measured 3.80 m in length, 2.40 m in width and 0.78 m in depth. Its fill (5306) consisted of mid-brown clayey silt.

7.9 The finds and samples

7.9.1 A total of 293 finds and 182 samples (175 soil samples (including ten which were taken as samples of cremation burials), four animal bone samples and three metallurgical waste samples) were retrieved during the excavation of Areas 1, 2, 4 and 5. A further 277 lithics were recovered from Area 3 during the field walking and test pitting.

7.9.2 A total of nine of the soil samples produced cremated human bones during soil sample processing and these have been osteologically analysed (Appendix 13).

Prehistoric pottery assemblage

7.9.3 A total of 32 sherds (1168 g) of pottery were recovered from seven features during the excavation. The assemblage comprises valuable and interesting features, such as a tooled, expanded Iron Age rim, found from the upper fills of ring ditch 1010 and a Bronze Age refitting base decorated with cordons, forming an encircled cross motif, found deposited in a post-hole associated with Flat Cemetery 2. The early Bronze Age pottery comprised base fragments from three vessels, recovered from cremation pit 1531 and posthole 1037, and the posthole containing the decorated base, as mentioned above. The Middle Iron Age rim and body sherds were recovered from two contexts within a ring ditch. The remainder of the assemblage comprised small, untempered and undecorated body sherds of an early prehistoric date (Appendix 10).

Historic pottery assemblage

7.9.4 The historic pottery assemblage comprised 99 sherds with a total weight of 1708g. It consisted of a mixture of Roman (15 sherds), medieval and post-medieval wares.

Lithic assemblage

7.9.5 A total of 453 struck lithics, weighing 2.495kg were recovered from the site. Of these: 177 were recovered from excavation of Areas 1, 2 and 5 (ten of these from bulk soil sampling of nine deposits); 206 from fieldwalking of Area 3; and 70 from test pitting of Area 3.

7.9.6 The primary raw material was flint (327 items/72%), but chert (124 items/27%), and other stone (two items/1%) were also used. The lithic assemblage at Ysgol Bro Dinefwr includes items from the Mesolithic period onwards, mostly as redeposited finds. It has produced a substantial number of clear Mesolithic items (83 or 18%). Most, if not all, of the Mesolithic lithics are unstratified or residual in later deposits (Appendix 9).

Miscellaneous small finds

7.9.7 The small finds are generally representative of domestic activities associated with drinking (glass bottles), smoking (clay tobacco pipes), and industrial activities in the form of

sharpening of blades, whether domestic or agricultural (whetstones) (Appendix 12). A small fragment of Z twist textile consisting of five strands was recovered from a cremation within the flat cemetery. The fibre used is confirmed to be vegetable bast fibre. This type of fibre is extracted from the inner bark surrounding the stem of certain plants and thus needs to be separated from the woody core of the plant (and sometimes the epidermis) by a process of rotting or retting usually achieved by leaving the stems to rot and separate in a stagnant pool. The fibre is then beaten and combed to extract the useful fibres. (Appendix 14).

The samples

7.9.8 A total of four burnt bone (animal) samples, three metallurgical waste samples and 175 soil samples were retained from the excavation as well as 37 samples of possible human bone.

7.9.9 All of the animal bone samples have been processed and the entire assemblage was submitted for specialist assessment. The aim of this analysis was to obtain information on the diet, economy and animal husbandry practices carried out by the communities that previously used the site. The animal bone material from the site comprises general domestic waste from both prehistoric and historic activity, as it includes both burnt remains and evidence of butchery with remains of meat cuts. A predominance of burnt bone material may reflect the bone preserving qualities of the soil on the site; burnt bone generally survives better than unburnt bone in archaeological deposits although these remains often tend to be quite fragmented as was case of the deposits from the site. Only caprovine remains were represented in prehistoric deposits, and cattle and pig in Roman contexts. A large proportion of the material was burnt and fragmented, and could not be identified to more specific species other than as belonging to large and medium sized mammals – these are most likely cattle and caprovine. (Appendix 7).

7.9.10 The site produced two pieces of dense slag from ring-ditches together with a cake of in-situ non-metallurgical fuel ash slag from a cereal-drying kiln. The dense slags are probably from iron-working and not diagnostic of age, except as Iron Age or younger. The fuel ash slag cake is a rare example of preservation of fuel ash slags in-situ and is thus a significant find. The fuel ash slags from Ysgol Bro Dinefwr developed in the firebox of a cereal kiln. The slags show a strong enrichment in magnesium, compared with calcium, which suggests that the combustion probably involved at least some cereal itself, rather than just the straw that may have been the main fuel. (Appendix 8).

7.9.11 A total of 175 soil samples were taken during the course of the excavation and 109 were processed to date for specialist assessment. The sample assessment has revealed that there is a rich assemblage of charcoal and charred plant remains in Areas 1 and 2 with little material recovered from Areas 4 and 5. Charcoal information from the Early Bronze Age period suggests that woodland management practices were in operation with an attempt at

sustainable woodland exploitation through the collection mainly of branch wood rather than whole trees for wood fuel.

7.9.12 Oak was the main timber used to construct the sub-circular structure dated to the Early/Middle Bronze Age. Fungal hyphae present within the charcoal suggests that the structure suffered from significant rot.

7.9.13 Three distinct cremation charcoal assemblages were recorded from the two flat cemeteries with alder, oak and apple-type dominant assemblages present. The charcoal suggests deliberate selection of these tree types while ring curvature also indicates the deliberate use of mainly branch wood.

7.9.14 Charcoal from the Middle to Late Iron Age reveals an open and diverse woodland present with the presence of light demanding trees such as cherry species; for which this is the site record of their presence in the landscape. Charred cereal grain from the Middle to Late Iron Age period suggests that spelt wheat was the main cultivar.

7.9.15 There appears to be an increased demand for oak during the Latest Iron Age period with the recording of a higher number of trunk wood fragments compared to the previous phase of activity.

7.9.16 Common oat was the main cultivar during the early medieval period and represents a switch away from the cultivation of barley and wheat. Charcoal from the early medieval period suggests woodland management was practiced with mainly branch wood utilised.

7.9.17 Charcoal from the medieval period reflects increased industrial activity with the felling of oak for fuel and all elements of the tree utilised (Appendix 6).

7.9.18 A total of 37 samples of bone were osteologically assessed in order to identify them to source, either human or animal; quantify the material and determine the potential for further analysis. Only nine of the samples were identified as human and these underwent full analysis (Appendix 13). The total weight of cremated human bone was 1192.8 g – ranging from 1 to 787 g. Only cremation burials (1067) and (1281) could be determined as adults (>18 years) but of indeterminate sex. The cremation process was highly efficient, with evidence of temperatures of over 800°C, allowing for the full oxidisation of 97.4% of the bone present in the sample. No clear pattern could be identified with regard to the horizontal distribution of the different skeletal elements. No concentrations of specific elements or elements from the same region of the body were found in any particular spit. This indicates that the human remains were well mixed following removal from the funerary pyre and before deposition within the pits and posthole.

7.9.19 A total of nineteen samples were submitted for radiocarbon dating; sample selection was based on the stratigraphic analysis of the results of the excavation, along with the identification of key features present at the site. The aim of radiocarbon dating was to place

the activities at the site within a secure chronological framework. The radiocarbon dates show activity on the site ranging from the Early Neolithic to the medieval period but with the majority of the dates coming from the Iron Age (Appendix 15).

8. DISCUSSION

8.1.1 The excavation at Ysgol Bro Dinefwr has revealed a significant multi-period archaeological site. The evidence has indicated that this gravel terrace on the southern flood plain of the River Tywi has attracted human settlement since at least the Mesolithic period and that the area was in almost continual use up to the present day. The land was utilised in various ways over this long period but the most significant being its use as a burial ground in the Neolithic, Bronze Age and Iron Age in the form of unenclosed flat cemeteries and ring ditches/ barrows.

8.1.2 The area was also the site of settlement and domestic activity during the prehistoric period as evidenced by the Mesolithic/Neolithic lithic scatter in Area 3 and the Early Bronze Age and Middle Iron Age structures, as well as scattered cut features and lithic artefacts.

8.1.3 The foundations of a Roman road and the presence of a Roman period hearth and Roman pottery in the upper fills of some earlier features confirms that a Roman route way traversed the southeast corner of the site and that there was some adjacent activity.

8.1.4 Three areas showed evidence of medieval industrial activity in the form of cereal-drying and charcoal production.

8.1.5 Post-medieval layers were identified overlaying the Roman deposits and these were heavily truncated by modern agricultural activity. Post-medieval pottery was recovered from these later layers, and topsoil from across the site.

8.1.6 Most of the rest of the features on the site are likely to be late or post-medieval in date. The enigmatic rectangular enclosures in Area 2, a possible field boundary in Areas 1 and 5.2 and gravel/sand extraction pits in Areas 2 and 5.3 all point to ongoing activity in the area.

8.2 Phasing and Chronology

8.2.1 Analysis of the radiocarbon dates, stratigraphy and artefactual evidence from the site indicates at least ten phases of activity spread across all the areas (Areas 1-5); though not all phases are represented in all areas:

1. Mesolithic
2. Early Neolithic
3. Early Bronze Age
4. Middle Bronze Age
5. Early Iron Age
6. Middle Iron Age
7. Late Iron Age
8. Early Medieval
9. Medieval
10. Post-medieval/ Modern

8.2.2 When analysing a site as large and as intensively occupied as Ysgol Bro Dinefwr, the issues of residuality is an important consideration. Evidence from particularly problematic features is discussed below.

1. The Early Neolithic date obtained from the central ring ditch [1291] at the site was surprising, given that ring-ditches of this date are not known to this study, in Wales. This makes the feature unique. In order to test the validity of the date, a second radiocarbon date was obtained from the same context (as all others from this feature proved to be sterile). This date was also Early Neolithic. These dates combined with lithics from the ditch fills makes it reasonable to interpret the feature as Early Neolithic in date.
2. It was initially thought that the lithic artefacts found amongst the cobbles on the south side of the D-shaped structure [1382] would be contemporary with it. However the lithics have been identified as early prehistoric (including some Mesolithic material- See Appendix 9) while the structure itself, has returned an Iron Age date. The radiocarbon date sample was from a secure context and so there is no reason to think it might be intrusive. The lithics are therefore presumed to be residual, despite their high number and marked concentration in this area.
3. The rectangular enclosures in Area 2 continue to be enigmatic. A Bronze Age radiocarbon date and a small number of lithic artefacts were recovered from the ditches, but post-medieval glass along with the lithic artefacts were also found in the fill of one the ditches. There was no evidence for disturbance to indicate that the glass was a later intrusion and so it has been taken as a *terminus post quem* for the ditches and the earlier material is presumed to be residual.

8.3 Mesolithic activity

8.3.1 The identification of an assemblage of lithic bladelets and possible mircolithics recovered from the investigation suggests the earliest activity on the site dates to the Mesolithic period. No cut features were dated to this period. The majority of the Mesolithic lithics were discovered in Area 3 but a number of residual lithics were also recovered from an occupation layer associated with an Iron Age structure in Area 1.

8.3.2 The lithics have been analysed by Jacky Somerville who has concluded that they are probably all that remains of a domestic site with stone tools present that may have been used for processing meat and hides and other tools that may have been used for hunting.

8.3.3 The fact that no subsurface features relating to this activity survived is not surprising. The nature of this early settlement is likely to have been transient and the resulting archaeology quite delicate. Millennia of ploughing and other later activity would no doubt have completely destroyed the physical archaeology and integrated the lithics assemblage into the resulting ploughsoil.

8.3.4 A large proportion of the Mesolithic sites known in Wales are in the form of un-stratified lithic scatters, and only a few are located in Carmarthenshire such as the lithics scatters at Marros Sands, Eglwyscummin approximately 50 km to the west (www.coflein.gov.uk).

8.4 Early Neolithic Activity

8.4.1 The earliest cut feature on the site was an Early Neolithic ring-ditch, the earliest radiocarbon dated in Wales (3710 – 3644 BC) and one of the earliest known in the UK. This is a particularly early date for a ring-ditch, as they are normally regarded as having developed in the Later Neolithic/Early Bronze Age period. Two radiocarbon dates were strengthened by the presence of two lithic artefacts within the ditch fill which were typical of that period. This could signal the beginning of a very long lived use of the site, for ritual activity related to the veneration of the dead.

8.4.2 While no other Early Neolithic ring-ditch sites could be found in Wales there are a number of sites in the England that may be of a similar date. One example can be found at Brightlingsea, Essex where two Early Neolithic concentric ring-ditches were excavated along with a Middle Bronze Age cemetery comprising thirty-one ring-ditches and forty-eight burials (Clarke and Lavender 2008). While no radiocarbon date was obtained from the Early Neolithic ring-ditch, it was dated through numerous flint artefacts and pottery sherds (*ibid*). Another possible Early Neolithic ring-ditch, although not radiocarbon dated, was identified at the south-western end of the Aston upon Trent cursus, with the cursus truncating the earlier ring-ditch (Gibson and Loveday 1989). Although there was no radiocarbon date the cursus can be expected to date to 3600-3300 BC and with the ring-ditch pre-dating it (*ibid*).

8.4.3 Mortuary practices in Britain dating to this period have long been dominated by monuments, whether earthen long barrows, megalithic chambered tombs of various forms, or, to a certain extent, causewayed enclosures (Malone 2001). While monument types such as these are the most common, other burial practices such as pit burials and internments within caves are also known from this period.

8.4.4 No other excavated features within the site provided definite evidence for contemporanity with the ring-ditch at Love Lodge Farm, though some lithics recovered from the lithic scatter in Area 3 and from a number of other features in Area 1 may be Early Neolithic in date, these include blades, blade tools and blade cores. The presence of lithic artefacts shows us, that in part, there was some possible Early Neolithic domestic activity taking place in the area surrounding the ring-ditch.

8.5 Bronze Age Activity

8.5.1 Three areas of Early or Early/Middle Bronze Age activity were identified in Area 1. The west of Area 1, adjacent to a natural depression in the topography, contained features related to cooking activity in the form of a number of roasting pits and light structures with one of the pits dated to 2288-2036 BC. In the far east of the site a sub-circular/oval structure was dated to 1608-1434 BC. The third area of Early/Middle Bronze Age activity was a cremation burial which truncated the infilled ring-ditch at the centre of the site.

8.5.2 The presence of the burial gives an interesting picture of how the burial monument was still held in high regard and also means the barrow was probably upstanding, if only partially, in the landscape. The domestic activity, located 78 m to the east is very separate from the burial and may indicate deliberate organisation/ segregation of the landscape. The activity to the west pre-dated the burial by at least 500 years, and so may not have been evident when the burial was inserted.

8.5.3 Generally the quantity of settlement evidence from the Bronze Age in Southwest Wales remains poor. Such sites are unlikely to survive as earthworks and they are unlikely to be visible on aerial photographs. As a consequence, much of the available settlement evidence appears to have been incidental discoveries during the course of salvage excavation or while investigating later settlement sites and structures. There is no evidence at all for early Bronze Age settlement in some areas of the region including the Tywi valley (prior to the current excavation) (RFAW).

8.5.4 During the Early Bronze Age, the communal mortuary monuments of the Neolithic were replaced by traditions of individual burial. Both inhumation and cremation were widely practised, although the latter appears to have become the norm towards the end of the period (Brück 2004).

Early Bronze Age Roasting pits

8.5.5 An area of activity dating to the Early Bronze Age was located in the southwest corner of Area 1, adjacent to a natural depression which had been infilled with silt. A number of finds were recovered from the silt which included 15 pieces of worked flint and one piece of prehistoric pottery. Due to the recovery of lithics and prehistoric pottery the activity in this area was generally prehistoric in origin.

8.5.6 The cut features in this area consisted of 120 stake-holes, six post-holes and nine pits. The focus of the activity seems to have been a pit which had 40 stake-holes and two post-holes surrounding it. The base of the pit was heavily oxidized and the fill consisted of heat-shattered stone in a matrix of charcoal stained silty clay. This is typical of pyrolithic activity and the pit is consistent with a roasting pit or pot-boiler. The surrounding stakeholes probably represent the use of spits and wind-breaks. Radiocarbon dating of this pit returned an Early Bonze Age date of 2288-2036 BC, which would be a typical date for this type of feature.

8.5.7 Roasting pits are a common enough feature in the Bronze Age landscape. A large pit is excavated suitable for taking large pieces of meat or sometimes entire animals. The pit has to be of a sufficient size to hold both the meat and a large quantity of charcoal, which would be burned to generate a high temperature. In a Bronze Age context stones would be added to the charcoal-rich fire and when the fire had generated sufficient hot coals (or hot stones) they are levelled off and a thin layer of soil is laid over the top. Next a layer of vegetation, possibly

large leaves, grass, or straw would have been laid down where upon the meat would have been added. A further layer of vegetation would then have been added to seal the food, with a final layer of earth placed over the pit. Finally a second fire is lit on the surface so that heat is generated down as well as up. This has the effect of creating a rudimentary oven.

8.5.8 The charcoal information showed an assemblage that was dominated by hazel with a small quantity of oak also present. The ring curvature information from this sample shows that hazel branches were the main timbers collected for fuel and suggests the possibility that woodland was being managed in a sustainable way with through the exploitation of branches rather than the felling of complete trees. Pollen information for this region Wales indicates that during this period hazel, along with oak would have been a readily available resource in the landscape for the collection of wood fuel (Appendix 6).

8.5.9 Examples of these rudimentary ovens have been found in association with burnt mound activity at Parc Bryn Cegin, Llandygai, near Bangor, North Wales (Kenny 2008). In continental Europe these rudimentary ovens are a relatively common find. They are best known from Switzerland but are also found in France, Germany and elsewhere. The typical earth ovens are large rectangular pits filled with burnt stones, but in France circular earth ovens are sometimes found, measuring on average 1.7m in diameter. The classic earth ovens date from the Mid Bronze Age to the Mid Iron Age but some in France have been dated as early as the Neolithic (Ramseyer 1991). Similar technology is still used for cooking in Polynesia and Australia (Hurl 1990, Wright 2000).

8.5.10 The pits, post-holes and stakeholes in the vicinity of the roasting pit are an indication of further domestic activity, though it is unlikely that there would have been any actual house structure located in this wet hollow given the well-drained ground all around.

8.5.11 The siting of the cooking pits in the wet area would point towards another form of cooking which involves using heated stones to boil water. However there was no feature which could have acted as a trough for such activity. The oxidized base of the roasting pit indicated that it contained dry heat and was not used for boiling water.

Early/Middle Bronze Age Roundhouse

8.5.12 The small house at Love Lodge Farm consisted of eight post-holes arranged in a roughly sub-circular/oval pattern making up the main part of the outer structure as well as a central post-hole and twenty five stake-holes in the interior. No internal hearth was identified with in the structure. The outline of the structure was not a regular well-defined shape and overall the structure was small, measuring less than 3 m by 2 m. Although no internal hearth was evident within the structure evidence of domestic activity in the form of pottery was found in one of the post-holes.

8.5.13 This type of house seems to be consistent with house types from this Early Bronze Age period, although there cannot be said to be a 'typical' Bronze Age architecture with many different types of roundhouse evident throughout Wales (Ghey 2007).

8.5.14 Towards the end of the Neolithic, architectural technology appears to have changed with the decline of the rectilinear structures, and to have become much less substantial. Whilst people continued to live in unenclosed farmsteads, houses increasingly became circular in plan; these are commonly termed roundhouses or hut circles. Whether built in stone or wood this was to remain the dominant house form for the rest of the prehistoric period (*ibid*).

8.5.15 The structural remains from *c* 3600 BC become very ephemeral until the Middle Bronze Age, at which stage; domestic architecture regains a strongly recognisable character with a durable footprint. Thus, it can be stated that Early Bronze Age structures are much more flimsy looking and less recognisable than their Middle & Late Bronze Age counterparts (Guilbert 1982, 67). The main construction material used in for the structure was identified as oak. Ring curvature indicated that the majority of fragments related to trunk wood, which would also be consistent with the main parts of the tree used for the production of wood for panels to construct the structure. Of particular interest was the observation that a number of the oak fragments contained fungal hyphae. The high number of fungal hyphae in the large-sized timbers suggests that the structure may have been suffering from rot prior to its destruction (Appendix 6).

8.5.16 The reconstructed roundhouses at Castell Henllys near Crymych in Pembrokeshire give a clear idea of how these structures would have looked and have been built on their original foundations within the Iron Age hillfort. One of the best-documented and dated examples of a domestic settlement of the Early Bronze Age is Stackpole Warren on the south coast of Pembrokeshire. Here, the roundhouses were constructed of wood, the best example some 4 metres in diameter, with a 1.6 metre-long porch and central fireplace (RCHAMW).

8.5.17 There is a relative lack of the scattered and single hut types in south-west Wales (Ghey et al 2008). While the house at Love Lodge Farm would seem to be an isolated roundhouse it is possible that further occupation evidence may be located outside the site boundary to the east and it may have been part of a larger settlement.

Middle Bonze Age Flat Cemeteries

8.5.18 The Middle Bronze Age sees ongoing use of the site for burial purposes but the character of the activity has changed. Prior to this period the ring-ditch/ barrow at the centre of the site was the focus of burial activity but now we see a move towards flat cemeteries which has no surviving form of enclosure to delimit their extents. There may of course have been some form of demarcation which has left no trace in the archaeological record. The features in Flat Cemetery 2 are very condensed into a small space, whereas Flat Cemetery 1 is more dispersed

and is in fact likely to extend to the east beyond the excavated area. There is however no obvious reason for this difference in layout.

8.5.19 The C14 dates obtained from both cemeteries overlap and it is possible they were contemporary, or at least the later created within living memory of the earlier. The overlap in the dates occurs in the late 14th / early 13th centuries BC.

8.5.20 The two flat cemeteries each consisted of a number of cremations with associated pits and post-holes which may have supported grave markers or structures associated with mortuary practices. While only nine features (in both cemeteries combined) were confirmed as containing cremated human bone, there were a further 18 deposits containing burnt bone that was not identifiable to element (Appendix 13), and it is likely at least some of these deposits are also representative of human cremation remains.

8.5.21 It is likely that a pyre would have been constructed in the locality although no evidence was found for such a structure in the excavations. It is clear that the pyre technology at Love Lodge Farm was well understood, as the vast majority of the bone was completely oxidised (Appendix 13). This was achieved by supplying the fire with an adequate amount and type of fuel; and ensuring that an ample amount of time and sufficient amount of oxygen reached the pyre.

8.5.22 The charcoal analysis revealed three distinct types of cremation pyre assemblages across the two cemeteries. The first of the cremation samples had alder dominated assemblages that also contained small amounts of other arboreal species, namely hazel and apple-type. The dominance of alder in cremation samples is unusual in that it is not commonly found within these types of assemblages. The use of alder for these cremations reflects deliberate selection of this tree type suggesting it held significance to the community or individual undertaking or being cremated. Alternatively it may have been deliberate use of the most abundant tree resource or a combination of both (Appendix 6).

8.5.23 The other two cremation samples are different again. One contained an assemblage of only apple-type wood being used as the pyre construction and wood fuel and again is thought to represent the deliberate selection of this tree type for such funerary rites. And the last sample contained an assemblage of oak, which is a more common tree type used for cremations (Appendix 6).

8.5.24 Little is really known of methods used to recover cremated bone from a pyre site for burial other than rarely, if ever, was all the bone included. Ethnographic sources record how bone may be 'scraped' together into a pit or covered by a mound (McKinley 1994).

8.5.25 Unfortunately due to the fragmentary nature of the bone, cremation burials could not be assigned a more accurate age category than 'adult'. The sex of the cremated individuals however could not be ascertained (Appendix 13). This makes a discussion of the demographics of the people buried in the cemeteries impossible.

8.5.26 Unenclosed cremation cemeteries often occur during the Bronze Age, particularly during the Middle Bronze Age (English Heritage 2011, 3). As the term suggests, these comprise clusters of urned or unurned cremations that, although occupying a discrete area, lack evidence for any kind of enclosing ditch or fence. It is not unusual for these to develop alongside an existing round barrow or ring ditch, a good example being Handley Hill 24 on Cranborne Chase, Dorset, where a low circular mound was surrounded by a ditch just 7 metres in diameter. More than 50 cremation deposits, plus some deposits of pottery without cremated bone, were all interred in pits outside the ring ditch (ibid.). At Bromfield, Shropshire, the cremations, both urned and unurned, were arranged around one side of a circular area which may either have been maintained as an open space or, possibly, marked the site of a destroyed enclosure or round barrow. Such clusters of cremations are far from unusual in the Bronze Age, and generally comprise between 5 and 20 individuals (ibid.).

8.5.27 At Love Lodge Farm the flat cemeteries were placed on either side of, and in view of, the pre-existing Early Neolithic ring-ditch. This probably represents further deliberate reuse of the area for burial, as had been seen with the placement of the Early/Middle Bronze Age cremation within the limits of the ring-ditch. It's probable that a barrow at this location may still have been upstanding and venerated. Even if this was just through a folk memory of the sacred nature of the site which had been conferred at the creation of the ring-ditch in the Early Neolithic period and reaffirmed by the insertion of the Early/Middle Bronze Age cremation.

8.5.28 The presence of a number of post-holes within the flat cemeteries would indicate that there were above ground grave markers. It is also possible a standing stone would have been located immediately to the east of Flat Cemetery 1, and also acted as a grave marker. The stone which appears on the historic mapping (see section 4.1.2) and is likely to be the stone which is currently resting on the field boundary. Standing stones are defined as single, or occasionally paired, upright stones, generally assumed to belong to the Bronze Age. Their very nature, however, inevitably means that they can easily be confused with later features such as boundary markers, gateposts and rubbing posts, and it is of course possible for them to have been reused as such (Jones 2004). Although there is nothing to directly link the possible standing stone to the burial activity it is still likely to have been part of the burial landscape.

8.5.29 The presence of Early/Middle Bronze Age pottery in Flat Cemetery 2 is interesting. A full pot base was used as packing material in one of the postholes. The pot base was unusual in that it included applied cordoned decoration (Appendix 10). This could either have been an incidental inclusion as stones were gathered for packing the posthole or it could have been a deliberate act. The latter seems more likely given that fragments from two other vessels were also recovered from this cemetery, with some sherds being present in a cremation burial. There was no indication that the pottery represented the remains of full pots which have been

destroyed post-deposition but instead seems to have been deposits of already broken Urn fragments in sepulchral contexts.

8.6 Iron Age Activity

8.6.1 Prior to the current excavation the Iron Age was not represented in the archaeological record for Llandeilo, although the view northwards from the town is dominated by the impressive Iron Age hillfort of Garn Goch, positive proof of the presence of a well-settled Iron Age population in the district. There is an abundance of Iron Age settlement sites in the form of Iron Age hillforts/defended enclosures in Southwest Wales, with over 600 such sites listed on the regional Sites and Monuments Record, dominating our knowledge of this period, but as yet no Iron Age unenclosed settlements are known (RFAW).

8.6.2 Iron Age burials are also rare, with just a handful of sites known – Plas Gogerddan, Castell Buckett, Stackpole Warren, Drim Camp and Castell Henllys - and no burial tradition identified (RFAW).

8.6.3 The discovery of both Iron Age burials and an unenclosed Iron Age house at Love Lodge Farm is therefore a significant contribution to the archaeological record for the area.

Ring-ditches/barrows

8.6.4 The Iron Age activity at the site is dominated by the presence of four ring-ditches with dates ranging from the Early to Late Iron Age. While the date range overall is wide and there are varying degrees of overlap, it is tentatively suggested that the monuments were added over time at fairly regular intervals, rather than several being constructed at once. The earliest of the Iron Age ring-ditches [1010] has a date range of 768-432 BC. There is a clear gap of at least 100 years before another ring-ditch was constructed. The other three ring-ditch dates overlap with each other in the 1st century BC, but going by the earliest limits of the date ranges they are staggered from the 4th century BC to the 1st century BC. While the dating evidence is far from conclusive it is tempting to think of the monuments being added by a number of successive generations, every 100 years or so.

8.6.5 The location and sequence of the monuments is also interesting. The Early Iron Age ring-ditch [1010] is located toward the east of the site, approx. 30 m from the pre-existing Early Neolithic ring-ditch. The two Middle to Late Iron Age ring-ditches were placed on the eastern slope of a low hillock on the west side of Area 1. These monuments seemed to have some associated pits and post-holes, while a possible house structure dated to this period indicated domestic activity in parallel with the burials. The Late Iron Age ring-ditch is placed remarkably close to the Early Iron Age monument, in fact the east side of the ditch seems to have been 'flattened' so as to fit up against the pre-existing ditch. There is no obvious obstacle to the west of ring-ditch [1159] and so the reason for the tight fit is unclear.

8.6.6 Ring-ditches or ring barrows were predominantly used as places of burial and spanned a long and impressive date range: the first examples were constructed in the Middle to Late Neolithic but it was during the Bronze Age that they were most prevalent. During the Early Bronze Age, the communal mortuary monuments of the Neolithic were replaced by traditions of individual burial. Both inhumation and cremation were widely practised, although the latter appears to have become the norm towards the end of the period. Cremation burials were deposited either directly into the grave or placed in a container of some sort, for example a pottery vessel or leather bag. Individual grave pits were often marked by the construction of an earthen or stone mound, usually circular in shape; such barrows or cairns can be up to c. 40 m in diameter. Once constructed, these monuments acted as a focus for later interments and continued to be built and re-used throughout the Iron Age (Brück 2004).

8.6.7 Round barrows are mainly located in and around the fringes of upland areas with very few barrows identified in the cultivated lowland. A study carried out in West Gwynedd and Anglesey showed 35 out of 54 were in the upland (over 240m OD). Of those in the lowland, several are monuments only discovered or confirmed in recent years during the Llŷn Crop Marks project (Ward and Smith 2001). This served to show that there must be many more barrows surviving as sub-soil features. In the upland many of the barrows are on summits and most are scheduled ancient monuments. The poor survival is to be expected in a well-used agricultural landscape and there may other barrows remaining as ring ditches (Smith 2003).

8.6.8 It is generally perceived that ring-ditches were associated with burial activity and therefore had a sepulchral role. The basic form of a ring-ditch is a circular ditch, which enclosed an average area of 8 m and an entrance most commonly found to the east. The ring-ditches at Love Lodge Farm do not generally conform to this standard with only two of the five having entrances. Also the placement of the entrances varies with one being on the west and the other being on the east. In fact no two of the ring-ditches are morphologically the same, which might be a further indication that there were gaps between their constructions.

8.6.9 Considerable variation can exist in the diameter of ring ditches/barrows. A survey of prehistoric funerary and ritual monuments in Radnorshire showed considerable size difference ranging between 7.5 m and 48 m, but the majority of the ring-ditches were between 10 m and 20 m (Jones 2004). The ring-ditches at Love Lodge Farm vary in size from between 9 m and 15 m; the four Iron Age ring-ditches all measure approximately 15 m in diameter (externally) while the earlier Neolithic ring-ditch only measures 9 m in diameter. While all the external diameters of the Iron Age ring-ditches are similar the rest of their morphology varies greatly with the depth of the ditches varying between 0.41 m and 1.25 m and the widths varying between 0.63 m and 3.48 m at the top.

8.6.10 Quite often they were encircled by an external bank and possibly a low internal mound, built up with the upcast from the ditch. All evidence of any bank or mound associated with the

four ring-ditches had disappeared over time due to a mix of natural erosion and agricultural activity in the area. It must be considered that by the end of the Iron Age that there would have been an impressive collection of mounds on the site, which possibly included the Early Neolithic mound at the centre. It is also possible that some form of demarcation of the Middle Bronze Age Flat cemeteries was apparent, given that none of the Iron Age activity encroaches upon them.

8.6.11 Human remains are often found in the centre of these monuments. Cremations seem to have been the exclusive rite and individual mounds were used over a period of time, perhaps as family or tribal burial place. No central burials were identified within any of the four ring-ditches; this again could be due to natural erosion or agricultural activity. Burnt bone was recovered from some of the ring-ditch fills but the only identifiable fragments have been animal bone (Appendix 13). There are however two samples of burnt bone from the ring-ditches that cannot be identified to either human or animal. Animal remains often accompanied the bodies of humans into the grave (Brück 2004).

Iron Age Roundhouse

8.6.12 A Middle Iron Age roundhouse was also identified in Area 1. The structure itself consisted of a D-shaped slot trench with numerous stake-holes and two post-holes truncating the base of the trench. Within the interior of the structure were a number of post-holes and pits which may have formed part of an internal division and/or support.

8.6.13 Located directly adjacent to the structure was a cobbled area from which a number of Late Mesolithic lithics were recovered. It is unlikely that lithics relate to the occupation of the structure and are more likely to be residual in nature as radiocarbon dating of the slot trench indicated a Middle Iron Age date of 384-197 BC.

8.6.14 The house is unusual in that there is no obvious doorway or entrance. It is postulated that the two large postholes in the slot-trench are actually the ends of the walls, even though they are 6.55 m apart. This would have meant that the south side of the building was open, and the slot-trench itself either left open for drainage purposes and gradually infilled, or deliberately infilled. This would tie in with the presence of a cobbled area and anthropogenic layers on the south side of the building. It would be reasonable to assume that this area was a working surface used during the habitation of the structure, however the presence of so many early prehistoric lithics in these layers makes interpretation problematic. The radiocarbon date was from a secure context and so it must be presumed that the lithics of early prehistoric date (as identified by J. Sommerville Appendix 10) are residual. The concentration of the lithics would suggest that this spot was the location of early prehistoric flint knapping which was churned up during the Iron Age construction. Alternatively the stone imported to create the cobbled surface may have been taken from the site of earlier activity and the lithics were accidentally included.

8.6.15 Some of the earliest circular structures recorded in Wales were of Neolithic to Early Bronze Age but the roundhouse was a long-lasting architectural form in Wales and they continued to be constructed until the later first millennium AD (Ghey 2007).

8.6.16 The majority of Iron Age houses are timber-built structures. However, stone roundhouses do occur in the Iron Age, notably in the north-west region. Overall, the most common outer wall form found in Wales consisted of a wall gully/ slot-trench, which would usually have contained upright posts or split timbers. Examples of similar roundhouses have been excavated at Erw-wen and Moel y Gerddi (Chambers and Price 1988). Stone walls and clay walls seem to be favoured in the north, whereas post-built houses are more common in the south, and there is also a preference towards constructional forms represented by a slot-trench in the south-west as is the case with the house at Love Lodge Farm (*ibid*).

8.6.17 Roundhouses are rarely surveyed or excavated as isolated features. They are usually found in groups of two or more buildings or associated with other structures such as enclosures, field boundaries and, occasionally, ceremonial monuments (ibid). The roundhouse at this site was not associated with other houses but was most likely contemporary with two nearby Iron Age ring-ditches and a number of other pits and post-holes, thereby adhering to the association with ceremonial monuments observed by Ghey (2007).

8.6.18 The proximity of the house to the ceremonial monuments is noteworthy. The building is possibly contemporary with the two Middle to Late Iron Age ring-ditches located slightly up slope to the west. While there is a space between the house and the nearby monuments they would definitely have been intervisible. If the house was domestically inhabited it indicates a close juxtaposition between the living and the dead.

8.6.19 This roundhouse, if it is a domestic house, is the first example of unenclosed Iron Age settlement to be discovered in the wider area. As noted above, there are large numbers of hillforts in Southwest Wales which by their nature are located in upland or hilltop locations. They have therefore avoided destruction due to intense agricultural activity and their distribution is at least in part reflective of a bias in preservation rather than the actual settlement pattern of the Iron Age. Similar to the ring-barrows of the Iron Age and earlier periods there are very few known in intensively farmed lowland areas. That makes this discovery important as it gives a glimpse of what undefended lowland Iron Age settlement might have looked like, and hints at the possibility of much more undiscovered evidence beneath the surface.

8.7 Roman Activity

8.7.1 The most significant Roman remains evident on the site were the remains of a Roman road. Much of the original Roman road was truncated with only the foundation layers intact. Later medieval and post-medieval layers were identified overlaying the Roman deposits and these

were heavily truncated by modern agricultural activity. The road is most likely related to two Roman forts within Dinefwr Park (SAM CM367) 600 m to the north of the site.

8.7.2 From what little remains of the Roman road we can see that it was a typical construction. A standard trunk road in Britain would typically be 5–8 m in width, with a gauge of 7 m being the most common (Grinsell 1958). In the centre a carriageway was built on a raised agger after stripping off soft topsoil, using the best local materials, often sand or sandy gravel which would have been readily available from the gravel terrace along the River Twyi.

8.7.3 During the 1980s, aerial survey and fieldwork identified clear stretches of the Roman road running between Llandovery and Carmarthen (James and James, 1984). One stretch was identified to the northeast of Cwmifor in the area of Down Farm. It was thought that this stretch of road then continued in a south-westerly direction and may underlie the course of the A40 as it approaches Rhosmaen. Stretches of the road have also been identified to the west of Llandeilo between Broadoak and Llanegwad.

8.7.4 The above evidence indicates that Llandeilo would have been the focus of significant activity during the Roman period given its location as a day's march between Carmarthen and Llandovery; and onward to Y Gaer (at Brecon) and connecting to the larger road network of Britain.

8.7.5 The Road identified on the Ysgol Bro Dinefwr site is heading southwest from Llandeilo and a short stretch of it had previously been identified (e.g. Burnham and Davies 2010, Figure 4.3). However it is not clear exactly where the road leads. It possibly goes in the direction of the fort at Loughor where a short stretch of road is known to extend northeast form the fort, which is linked to Carmarthen and Stafford Common via another road.

8.7.6 Minor roads linking with the main road network are not a prominent feature of the of the Roman landscape in Wales (ibid, 96). The road leading southwest form Llandeilo may fall into this category.

8.7.7 The hilly and broken terrain in Wales makes tracing the line of many Roman Roads difficult, and it has been noted that as a consequence of the terrain roads in Wales tended to have slighter ditches and narrower terrace ways than their English Lowland counterparts (ibid, 95). The Roman Road excavated at the Ysgol Bro Dinefwr site would tie in with the general scale of known roads in Wales.

8.7.8 The only definitive evidence of Roman activity in Area 1 is the presence of 2nd Century Roman pottery found in the lower/middle fills of the most easterly ring-ditch [1010]. Roman pottery was also found in a possible hearth/fire pit cut into these fills.

8.7.9 With this evidence we can see that at least one of the ring ditches was still evident in the landscape during Roman times. It is most likely that the ditch was utilised as a sheltered area

to make a fire for cooking and/or warmth. The temporary camp is most likely directly related to traffic along the route of the Roman road to the south.

8.8 Early medieval/medieval activity

8.8.1 Three areas of activity have been identified as being of early medieval or medieval in date. The earliest of these dating to the early medieval period (AD 668-770) was located in Area 2 and consisted of a possible cereal-drying kiln and grain storage area. Another cereal-drying kiln of a later medieval date of AD 1024-1181 was identified in Area 1. One residual sherd of 13th century Dyfed Gravel-tempered Ware pottery was also recovered from Enclosure 1 in Area 2.

Cereal-drying kilns

8.8.2 Cereal-drying kilns typically consist of a sunken pit, which may be keyhole or figure-of-eight shaped in plan. This was then covered in a superstructure that could be made out of a variety of materials such as earthen sods, wood, stone and straw. In nearly all archaeological excavations, all that survives of the kilns is the sunken pit that would have held the fire source and over which the grain was dried. Both kilns at Love Lodge Farm were roughly key-hole-shaped and did contain the remains of the superstructure.

8.8.3 These structures played an important role in cereal production, especially in damp climates such as Britain and Ireland where they were used to remove moisture prior to storage as well as to harden cereals to facilitate threshing and milling. They were used right up until the 19th century and would have been a significant part of the local agrarian economy.

8.8.4 It is in the early medieval and medieval periods that the cereal-drying kiln becomes most prevalent and the kilns at the current site fall into this time period.

8.8.5 The growing number of early medieval cereal-dryers excavated in Wales can throw valuable light on the crops grown (RFAW). South Hook (Herbranston) is a particularly important site since several cereal-dryers were excavated together with rotary quern-stones and a significant assemblage of charred grain samples. Two types of oats (bristle oats and common oats) as well as hulled six-row barley grains were the main crops grown (Carruthers forthcoming). In contrast at the slightly later site of Maenclochog the sample from a hearth produced mainly oats and rye (Carruthers forthcoming), but a very similar picture is presented by the evidence from Newton (Llanstadwell), where two cereal-dryers were excavated together with the upper stone of a rotary quern. Carbonised grain from the base of one dryer provided a radiocarbon date of cal AD 720–960. Analysis of the charred grain has indicated that barley was being grown probably alongside oats and in all likelihood wheat was also being cultivated (Crane 2004, 11–18) (RFAW). The charred cereal grain assemblage from Love Lodge Farm contained large quantities of oat grains, with over 1000 grains identified. The identification of common oat from the presence of grains with surviving lemma bases

suggests that this was the main crop being cultivated. Smaller numbers of hulled barley were also recovered suggesting this was being grown as a second crop to oat and thus may represent a winter cereal (Appendix 6).

8.8.6 A fuel ash slag cake was recovered from the firebox of the kiln in Area 1 and is a rare example of preservation of fuel ash slags in-situ and is thus a significant find (Young, Appendix 8). The slags show a strong enrichment in magnesium, compared with calcium, which suggests that the combustion probably involved at least some cereal itself, rather than just the straw that may have been the main fuel. Due to its physical and chemical make-up it can be stated that the slag cake had evolved over time, rather than being the product of one firing event. The chemistry, mineralogy and microstructure of the residues from Ffairfach are remarkably similar to those previously recorded from residues associated with a 7th-9th century cereal kiln 80km away at South Hook, Pembrokeshire (Young 2010) (Appendix 8).

Charcoal production

8.8.7 The third feature of medieval date (AD 1050-1254) was identified toward the centre of Area 5.1b; an isolated charcoal production pit. Truncating the base and the area around the pit were 21 stake-holes.

8.8.8 Charcoal production pits tend to consist of simple earth-cut charcoal filled pit features. They can be rectangular, oval or circular (as was the case with the present pit) in shape and tend to vary in size. The base and sides of pits tend to exhibit evidence for *in situ* burning which occurred during the charcoal production process as is the case with the pit at Love Lodge Farm. Stake-holes are often found associated with charcoal production pits and represent the remains of possible supports for the wood.

8.8.9 It is most likely that charcoal production pits were not used during wetter months or during rainy periods as the intrusion of water into the pit would have spoiled the charcoal and carbonisation process. Charcoal production then may have been a more seasonal enterprise rather than a year round activity (Kenny 2010). The position of the charcoal production pit in Are 5.1 b on a steep north-facing slope would have ensured that the surrounding area was well drained in the event of wet weather during the firing.

8.8.10 The charcoal production process was very labour intensive. It involved many physically enduring and laborious activities such as tree felling/ wood procuring, wood processing and pit construction. Furthermore, the control and maintenance of the pits / mounds after they were initially fired (during carbonisation) took up many man hours and involved constant attention for several days and sometimes even a week or more at a time (Aaron 1980).

8.8.11 We know that charcoal was a very important commodity and was highly valued for use in:

- Iron working
- Non-ferrous metal working

- Glass and enamel working
- And as a domestic fuel. It would have been a highly efficient relatively smokeless fuel.

8.8.12 Other advantages of charcoal as a fuel are that it was lightweight and more easily transported than wood itself, it was more economic and it could produce much higher temperatures. Many woods were used in charcoal production but oak is by far the most dominant as it yields the very high temperature suitable for metalworking.

8.8.13 There was no evidence on the current site as to how the charcoal was being utilised, and it is likely that the location of the pit was influenced by the presence of raw materials.

8.9 Post-medieval/Modern Activity

8.9.1 Area 2 was dominated by two large rectangular enclosures and part of a third. It has been mentioned above that the interpretation of the date and function of these features has been problematic. Morphologically these features are not diagnostic. No exact parallels could be found in the literature during research for this report. It was clear that the features extended to the north beyond the limit of the site and so may have been part of a larger arrangement. This partial visibility contributes to the difficulty in interpreting the function of the features.

8.9.2 The artefacts recovered from the ditch fills are not indicative of their use. The small number of lithic artefacts could easily have been incorporated into the ditches during their construction, given the density of lithic artefacts across the site. The post-medieval/modern glass found in one of the ditches is considered a *terminus post quem* but this small quantity of glass given no clue towards the function of the ditches. The ditches were small and located on and at the base of a north-facing-slope (prone to hill wash) so it is not thought likely that they could have been open since the Bronze Age for the glass to have been incorporated into the natural infilling of the ditch. It has therefore been tentatively concluded that the enclosures are post-medieval or modern in date.

8.9.3 During initial investigations as the site it was considered that these enclosures may have been Roman, however this has been ruled out due the presence of post-medieval/modern artefacts within the ditches.

8.9.4 The small, shallow nature of the ditches would rule out any kind of defensive function and the lack of internal features precludes any kind of enclosed settlement or burial site.

8.9.5 The layout of the ditches points to some form of animal management. The overlapping and double ditch arrangements could have been utilised for droving cattle/ sheep while the enclosed areas would have functioned as fields/ corrals. The general lack of features within the enclosures is consistent with this interpretation. However this is not a typical post-medieval field system and it does not appear on any of the historic mapping. This could mean that the features were short-lived and perhaps created for a specific event.

8.9.6 Another possible explanation for these features is that they may be related to a World War I base/summer training camp. During the First World War the proposed development area was used for mustering the militia, the territorial's, and the Yeomanry Cavalry. Due to the cavalry being present the enclosures and associated ditches may have been used to picket and coral the horses.

8.9.7 Another area of post-medieval activity was the later repairs to the Roman road in Area 4. The presence of 16th to 19th century pottery and two phases of post-medieval metalling, which seem to have been maintenance of the path along the top of surviving agger, confirm the post-medieval use of the road.

8.9.8 On the historic maps of the area (Figures 4- 7) the line of the Roman road appears as a field boundary/ track crossing the development site and it seems that the road was in use as a right of way up until the post-medieval times.

8.9.9 Two large post-medieval gravel extraction pits were identified in Area 5.3. These would have been excavated to retrieve building material, possibly for a nearby house or farm.

8.10 Environmental evidence for the development of the landscape

8.10.1 The analysis of the environmental remains from the site gives us a view of the landscape and how it was utilised from the Neolithic to the medieval period (Appendix 6).

Neolithic period

8.10.2 The environmental remains which could be dated to the Neolithic period were relatively meagre. They consisted of the charred hazel nutshell and oak and non-oak charcoal from the early Neolithic ring-ditch. The small quantity of the remains limits the level of discussion. The inclusion of both oak and non-oak species in the charcoal may indicate that there was no preference for a particular species and that readily available wood was used for firing. The inclusion of hazel nutshell is of more interest as it could be an indication that even though agriculture was established by this time that subsistence was being supplemented by foraging. There is also the possibility that hazelnut was accidentally included through the use of hazel for firing.

Bronze Age

8.10.3 The charcoal remains from the Early Bronze Age showed an assemblage that was dominated by hazel with a small quantity of oak also present. The ring curvature information from this sample shows that hazel branches were the main timbers collected for fuel and suggests the possibility that woodland was being managed in a sustainable way through the exploitation of branches rather than the felling of complete trees. The two samples from post-holes associated with the Early/Middle Bronze Age structure produced homogenous assemblages of oak. Pollen information for this region of Wales indicates that during this period hazel,

along with oak, would have been a readily available resource in the landscape for the collection of wood fuel.

8.10.4 The overall charcoal assemblage from the Middle Bronze Age provides an opportunity to gain some information on the probable local woodland that existed during this period. The charcoal suggests that oak and alder were locally plentiful, together with apple-type species. While hazel appears to have been hardly used in comparison to the previous phase of activity. The charcoal would also suggest there has been an increase in the amount of alder present in the local landscape. The ring curvature information is of interest at it indicates that for the alder and apple-type species used in the pyre constructions of the cremations that small and medium-sized timbers such as small and large branch wood were the main construction elements. This again may indicate some attempt not to over-exploit this woodland resource.

Iron Age/Roman

8.10.5 The charcoal assemblage from the Iron Age ring-ditches was dominated by oak with smaller amounts of hazel and apple-type species together with the first recorded use of willow and wild cherry as fuel wood. The recording of these latter two taxa is of interest as pollen records for willow in this area indicate that it was not a major woodland constituent, while there is no recording of any of the cherry trees at all. Therefore the charcoal gives the best representation for the presence of these two taxa within the woodland and significantly increases current knowledge on woodland composition during the Iron Age for this period. The ring curvature for this assemblage also suggests that the majority of the wood fuel was collected from branches rather than trunk wood and again may imply attempts to have been managing the woodland resource.

8.10.6 In the Late Iron Age we see a strong representation of large-sized oak timbers suggesting an increase in the felling of oak trees in the landscape. This is striking given that it was mainly branch wood of oak that was used during the Early and Middle Iron Age, and appears to demonstrate a wholesale change in the attitude to resourcing oak. However, only branch wood was found to be used for alder, hazel and blackthorn suggesting some management of these tree types. The increased felling of oak during this period is likely to reflect an increased demand for this resource, which may relate to fuel wood for more industrial purposes (e.g. iron working) or a greater need for construction materials.

8.10.7 The assemblage from the Roman hearth cut onto the Iron Age ring-ditch consisted mainly of branch wood and are oak dominated with significant amounts of hazel. The basal fill contains a good representation of cherry tree types with wild cherry, bird cherry, blackthorn and whitebeam all present and are the first recorded instances of these taxa being exploited for wood fuel. These taxa are absent from pollen studies and provide new and useful information on the variety of taxa present in the woodlands of the Iron Age and Roman period. The upper fill of the hearth also provides the first instance of the use of Ash for fuel and its presence in

the landscape. Ash has been recorded in pollen studies for this area as increasing during this period. The presence of a number of light demanding trees such as the cherry species indicates that woodland during this period is fairly open with a wide variety of tree types. The charcoal also indicates that a mosaic of different woodland was present and exploited for fuel, with trees such ash, alder and willow likely to have been growing in wetter locations than trees such as wild cherry, whitebeam and apple-type.

8.10.8 The hearth also contained small quantities of charred cereal grain. The assemblage from the hearth suggests that spelt wheat was the main cultivar during this period. Smaller numbers of club-bread wheat, hulled barley and oats were also recovered suggesting lesser quantities of these crops were also cultivated. The wild taxa reveal corn-spurry to have been one of the main arable weeds during this phase, whilst the presence of sedges and rushes indicates that fields were prone to periods of water-logging. The occurrence of violets could also indicate these fields were surrounded by scrub woodland.

Early Medieval

8.10.9 The charred cereal grain assemblage analysed from the early medieval feature in Area 2 contained large quantities of oat grains. The identification of common oat from the presence of grains with surviving lemma bases suggests that this was the main crop being cultivated. Smaller numbers of hulled barley were also recovered suggesting this was being grown as a second crop to oat and thus may represent a winter cereal.

8.10.10 The charcoal analysis of samples from this period reveals an assemblage dominated by alder and hazel of which most of the charcoal can be seen from ring curvature to be representative of branch wood, although there is some evidence for the use of trunk wood of these taxa. It is noteworthy that oak is hardly used for fuel wood during this period as compared to the Iron Age/Roman period and may represent a reduction and potential scarcity of oak in the landscape; although such a decline is not recorded in the undated pollen diagrams for this area.

Medieval

8.10.11 The charcoal analysis from the medieval cereal-drying kiln in Area 1 reflected the industrial nature of the feature and contained an assemblage dominated by large-sized oak fragments. The assemblage then again suggests a shift in practices, similar to that for the Latest Iron Age period with the deliberate felling of oak trees to provide fuel for the kiln activity. The ring curvature information indicates that all elements of the oak trees were used to fuel with the kiln with evidence for twigs through to trunks, suggesting little was wasted. The oak fuel also appears to have been topped up with the use of birch, alder, apple-type and hazel.

9. CONCLUSIONS

9.1.1 The site at Love Lodge Farm has proven that activity in the area dates back at least 6000 years to the Mesolithic period and the site has been in use at some stage in nearly every period since up to the modern era.

9.1.2 The prehistoric environments and settlement patterns of the Tywi Valley are among 'the least known' in Wales (Cadw/ICOMOS 1998, 28), but evidence from this site suggests that the interface between the floodplain and higher ground would have attracted early human communities in the region, providing easy access to the resources of the river and its associated wetlands whilst providing a dry occupation site on the well-drained gravel terraces. The fact that there is evidence of human activity spanning at least 6000 years on the site supports this theory and it is reasonable to presume that other similar locations within the valley may be rich in sub-surface archaeological remains.

9.1.3 Unfortunately given the relatively scant evidence of Mesolithic activity, the level of discussion on the stated research aims (Section 5.3.6-7) is limited. What we can say is that there was Mesolithic settlement in the Tywi Valley, which is an important contribution to our knowledge of Mesolithic settlement distribution and extends human history in the valley by several thousand years. The river valley location of the site is fairly typical of known Mesolithic settlement patterns. While the majority of Welsh Mesolithic sites are coastal there are also indications that people were navigating inland along major rivers. In a heavily forested landscape rivers, like the Tywi, would have been the logical channels of movement. The number of lithics recovered is sufficient to suggest that there was occupation for a more substantial period of weeks (at least) rather than days. However there is no further evidence to tell us the longevity of this settlement or whether it could have been seasonally revisited. Neither is there evidence of house types, subsistence or religious beliefs which would allow comparison with what we see for later period on the site.

9.1.4 There is also limitations on the information we can glean from the Neolithic evidence on the site. While the Early Neolithic ring-ditch is a significant find, and indicates that this monument type was present in Wales at the very beginning of its use period, the fills were relatively sterile. Therefore we have no evidence for the transition to agriculture in the valley. The presence of a monument such as this does however point to a more sedentary community which took the time and resources to create a permanent fixture in the landscape. This may suggest that people were developing a sense of ownership or connection with the land and that the burial of the dead was beginning to form an important component of how they imprinted themselves upon it.

9.1.5 The development of the mortuary monuments on the site gives a clear indication that the site was held in high regard through the generations and that folk memory of the sacred nature of the site endured. From the Neolithic Ring ditch we see the addition of Bronze Age cremation

burials and later the construction of an Iron Age Barrow cemetery. Cremation continued to be the only identifiable burial rite throughout all this time but the fragmentary nature of the remains allows no further discussion about the demographics or status of the people who lived and died in this landscape. Pottery sherds found in Flat Cemetery 2 may have been deliberately broken and placed in the burials and adjacent features but no other grave goods were recovered.

9.1.6 It is rare that such a large area around these type of burial monuments can be examined in such detail. The close proximity of domestic houses to burials in the Bronze Age and again in the Iron Age is notable. While these features are in view of the burial monuments they do not encroach upon them and this seems to indicate some level of organisation and deliberate planning in the layout of the site. While the majority of the prehistoric features on this site seemed to be focused on the east slope of the natural hillock (Area 1) there is a hint that the activity may extend beyond the limits of the excavation to the east, where the standing stone appeared on the historic mapping.

9.1.7 The Roman period heralded the end of the use of the site for burial. This is not surprising as the Romans brought with them a new way of life and native ideas and folk memory of the site as the resting place of ancestors would have been lost. Other than a single hearth within a ring-ditch the site offers little information about what was happening on either side of the Roman road during this time. Only the foundation levels of the road survive but it seems likely that the Romans were making use of the riverine gravel in the area to create a base for construction.

9.1.8 Activity obviously continued at the site throughout the medieval, post-medieval and modern periods but it was scattered and generally agricultural in nature. The fertile valley floor would have been ideal farmland and as such it was intensively used. Small scale industrial activity is indicated by the presence of cereal-dryers, a charcoal production pit and gravel extraction pits. This would be consistent with needs of a single farmstead (or group of farms) who would have been focusing on supplying the developing town of Llandeilo.

9.1.9 Overall the excavated site is interesting and significant in a local, regional and in the case of the very early date for a ring-ditch, national level. This concentration and duration of activity in such a small area surely indicates a site which developed a special significance for the local inhabitants in the Neolithic period which continued up until the Iron Age.

9.1.10 While the excavated site seems to have been a 'special' location it also probable that the dearth of known prehistoric activity in the Tywi valley is actually a result of modern agricultural activity obscuring/ destroying the remains rather than an absence of people during that time. Should the opportunity for further sub-surface investigations and/or field-walking arise in the valley it may one day redress this balance and shed more light on the people who chose this particular gravel terrace to live out and end their days.

10. DISSEMINATION OF RESULTS

10.1.1 Following completion of the final excavation report (where all the specialist reports will be collated and integrated) it is proposed to publish the results in two formats:

- Pier reviewed journal article – at least one detailed, illustrated academic paper (max 5000 words) on the results of the excavation will be compiled and submitted to a suitable Welsh journal for publication; and
- E-Book - an illustrated e-publication targeted at the general public (including the age group of the pupils that will attend Ysgol Bro Dinefwr) will be produced that can be uploaded onto websites, viewed on e-readers and also viewed as a PDF.

10.1.2 A more detailed dissemination plan outlining a wider strategy to dissemination in addition to the above two main dissemination routes is contained in Appendix 18.

11. ARCHIVING

11.1.1 A site archive has been compiled and will be stored with the appropriate archive, Carmarthenshire Museum, under a designated accession code.

12. REFERENCES

Aaron, J.R. 1980 *The production of Wood Charcoal in Great Britain*, London. Her Majesty's Stationery Office.

AB Heritage 2013a *Ysgol Bro Dinefwr Written Scheme of Investigation for Archaeological Excavation*. Unpublished document.

AB Heritage 2013b *Ysgol Bro Dinefwr Detailed Specification for Archaeological Works.* Unpublished document.

AB Heritage 2014 *Ysgol Bro Dinefwr Post-excavation Research Design.* Unpublished document.

Barber et al. 2015 *South Wales Gas Pipeline Project, Site 26.05, Land West of Cwmifor Manordeilo and Salem Carmarthenshire*. Draft report by Cotswold Archaeology for Rhead Group on behalf of National Grid.

Bradley, R 2007 *The prehistory of Britain and Ireland.* Cambridge University Press.

Brickley, M & McKinley, J 2004 *Guidelines to the Standards for Recording Human Remains.* (IfA Professional Practice Paper 7) IFA.

Brück, J 2004 *Material metaphors: The relational construction of identity in Early Bronze Age burials in Ireland and Britain.* Journal of Social Archaeology October 2004: p307-333.

Burnham, B and Davies J 2010 *Roman Frontiers in Wales and the Marches.* Royal Commissioners Ceredigion.

CADW, 1998 *Register of Landscapes of Historic Interest in Wales, Part 2 of the Register of Landscapes, Parks and Gardens of Outstanding Historic Interest in Wales. Part 2.1 Landscapes of Outstanding Historic Interest.* ICOMOS UK

Carruthers, W. (forthcoming), '*The charred plant remains*', in Crane and Murphy.

Clarke, CP and Lavender, NJ 2008 *An Early Neolithic Ring-ditch and Middle Bronze Age Cemetery: excavation and survey at Brightlingsea*. East Anglia Archaeology No. 126.

Crane, P. 2004 '*Excavations at Newton, Llanstadwell, Pembrokeshire*', Archaeol. Wales, 44, 3–31.

Ellis, C. 2013 'A Bronze Age corn-drying kiln from Argyll' in the *The Past, The Newsletter of the Prehistoric Society, No. 75, October*, pp. 3-4.

Emberton, R. 2012 *A477 St Clears to Red Roses Improvement. Archaeology - Pentrehowell Farm Bronze Age Cemetery Statement of Significance*. Submitted to Cadw.

English Heritage 2011 *Introduction to Heritage Assets; Pre-Christian Cemeteries*.

English Heritage 2013 PPN 6- Writing Standards and Guidance

Ghey, E. 2007 *The Welsh Roundhouse Project* (online database) Archaeology Data Service

Ghey E, Edwards, N & Johnston, R 2008 *Categorizing Roundhouse Settlements in Wales: A Critical Perspective.* Internet Archaeology.

Gibson, A.M. and Loveday, R. 1989 'Excavations at the Cursus Monument on Aston-upon-Trent, Derbyshire,' in A.M. Gibson's *Midlands Prehistory*, BAR 204: Oxford 1989

Gibson, A. 1999 *The Walton Basin Project: Excavation and Survey in a Prehistoric Landscape 1993-7*. York: Council for British Archaeology (Res Report 118).

Grinsell, L.V. 1958 *The Archaeology of Wessex*, 255

Guilbert, G 1982 Post-Ring Symmetry in Roundhouses at Moel Y Gaer and Some Other Sites, in Prehistoric Britain in P J Drury (ed), *Structural Reconstruction. Approaches to the interpretation of the excavated remains of buildings*. B.A.R 110, 67-87.

http://www.english-heritage.org.uk/publications/morphe-project-planning-note-6

Hackett, L 2010 '*the earliest cereal-drying kiln in Ireland?'* in M Stanley et al (eds.) Seanda, NRA Archaeology Magazine, Issue 5. NRA, Dublin

Hourihan, S., Long, P., and Simpson, H. 2014 *Post-excavation Assessment Report for Ysgol Bro Dinefwr, Love Lodge Farm, Ffairfach, Carmarthenshire.* Unpublished report by Rubicon Heritage Services UK Ltd.

Hughes G 2003 *A Research Framework for the Archaeology of Wales Southwest Wales – Early Prehistoric* http:// www.archaeoleg.org.uk/intro.html

Hurl, D., 1990 '*An anthropologist's tale'*, in Buckley (ed.) 1990, 154-155

Jones, N. 2004 *Prehistoric funerary and ritual monuments in Radnorshire*. Radnorshire Society transactions Vol. 74, 151-168

Jones, N. 2005 'Prehistoric funerary and ritual monuments in Brecknock'. *Archaeology in Wales* 45

Kenny, J 2008 *Recent Excavations at Parc Bryn Cegin, Llandygai, near Bangor, North Wales*, Report No .764 Gwynedd Archaeological Trust.

Kenny, N. 2010 'Charcoal production in medieval Ireland', in M. Stanley, E. Danaher and J. Eogan (Eds.) *Creative Minds: production, manufacturing and invention in ancient Ireland. Proceedings of a public seminar on archaeological discoveries on national road schemes, August 2009*. National Roads Authority, Dublin.

Long, T., Simpson, H. 2014. Ysgol Bro Dinefwr, Llandeilo, Carmarthenshire: Archaeological Post-Excavation research Design. Unpublished Document.

Malone, C. 2001 *Neolithic Britain and Ireland*. Tempus Publishing, Stroud

McKinley, J. I. 1994 'Bone fragment size in British cremation burials and its implications for pyre technology and ritual', *Journal of Archaeological Science*, 21, 339–42.

McQuade, M., Molloy, B. & Moriarty C., 2009 *In the Shadow of the Galtees; Archaeological excavations along the N8 Cashel to Mitchelstown Road Scheme*, The National Roads Authority

Meek, J. 2013 *Love Lodge Farms Fields, Ffairfach, Carmarthenshire. Archaeological Evaluation*. Unpublished report by Dyfed Archaeological Trust for Leadbitter/ Carmarthenshire County Council.

Murphy, F., Ramsey, R., Page, M. and Murphy, K. 2008 *A Survey Of Defended Enclosures In Carmarthenshire, 2007-08*. Dyfed Archaeological Trust. Report No. 2007/27, Project Record No. 62767.

Page, N. 2002 *A477(T) Sageston-Redberth Bypass. Excavation of a Neolithic Occupation Site 2001*. Unpublished report. Cambria Archaeology.

Plunkett Dillon E 2003 *A Research Framework for the Archaeology of Wales Southwest Wales – Roman* http:// www.archaeoleg.org.uk/intro.html

Smith, G 2003 *Prehistoric Funerary and Ritual Monument Survey: West Gwynedd and Anglesey, 2002-2003.* Gwynedd Archaeological Trust, Report No. 478. Prepared for Cadw: Welsh Historic Monuments.

Sommerville, J 2014 *Ysgol Bro Dinefwr Area 3 Lithics- Statement of potential*. Unpublished document.

Ramseyer, D., 1991. '*Bronze and Iron Age cooking ovens in Switzerland'*, in Hodder and Barfield (eds) 1991, 71-92.

Ward, M. and Smith, G. 2001 *The Llŷn Crop Marks Project*. Studia Celtica XXXV, 1-87.

Wright, W. 2000. 'Aboriginal Cooking Techniques', http://www.mfcd.net/paddymelon/downloads/Indigcooktech.pdf, Australian National Botanic Gardens Education Service

Young, T.P. 2010. Fuel ash slags from corn-drying kilns, South Hook LNG Terminal. GeoArch Report 2010/04, 24 pp.

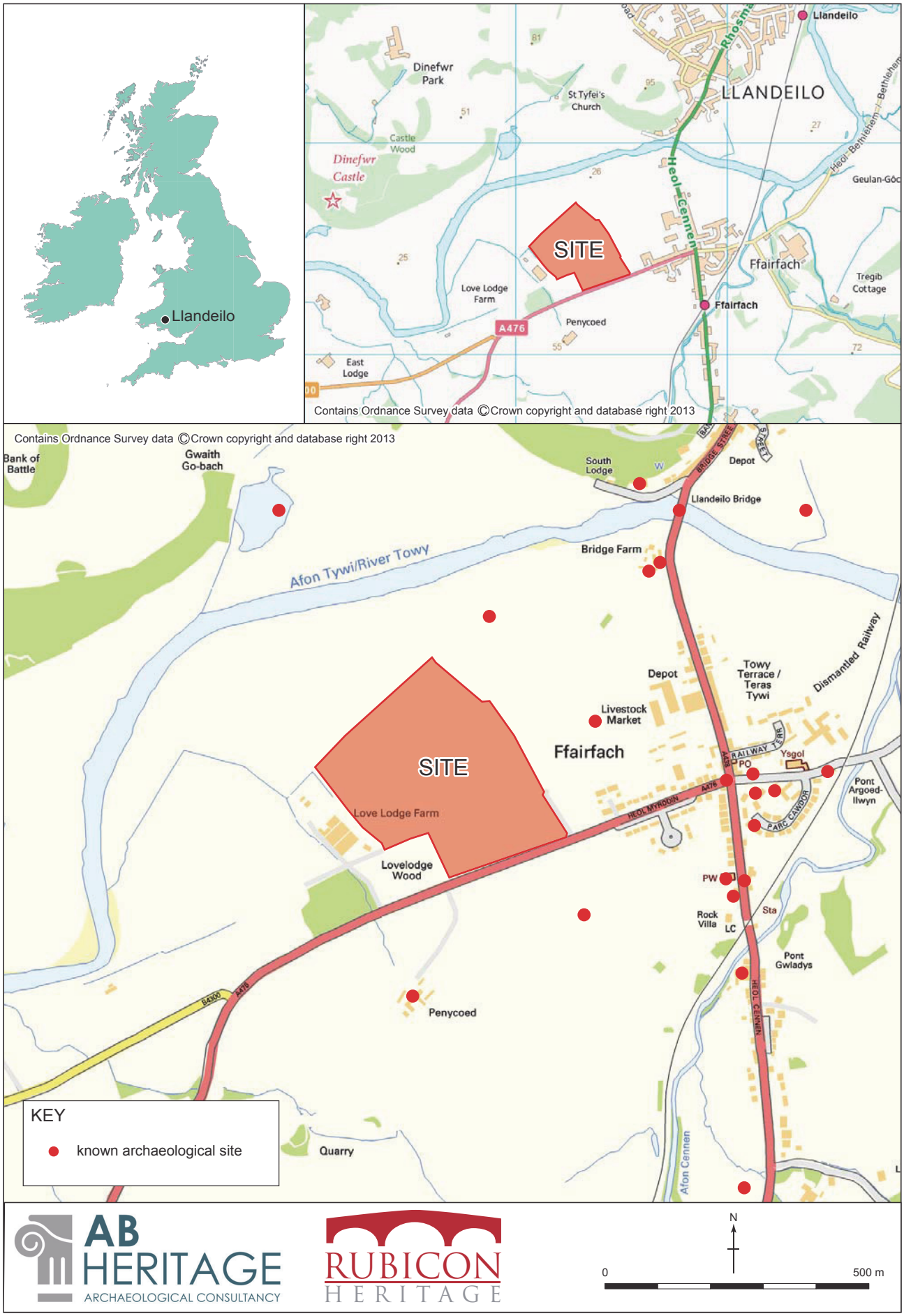


Figure 1 - Site location and Historic Environment Record (HER) data.

Figure 2 - Aerial view of site showing surrounding landscape.

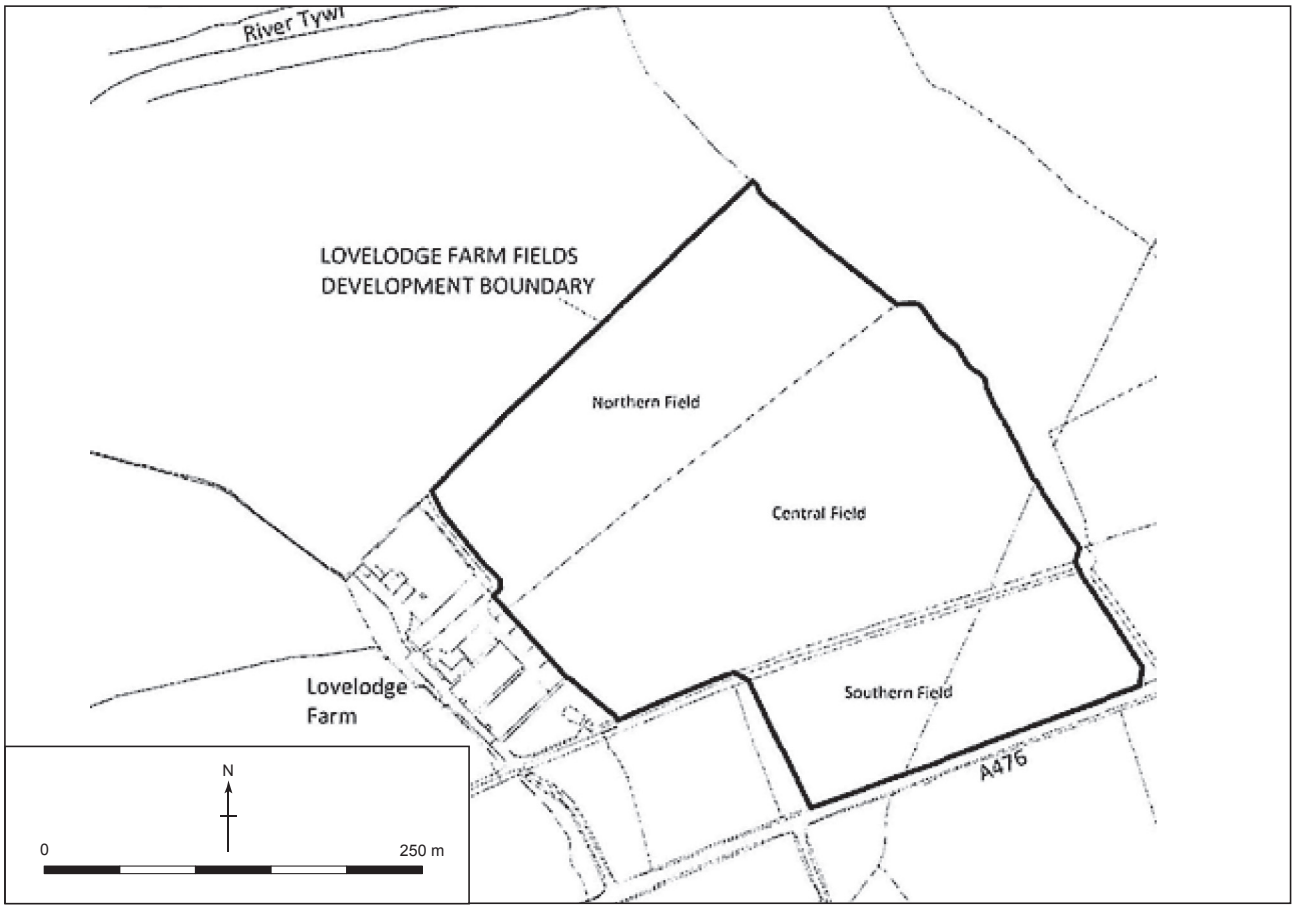


Figure 3 - Proposed development site boundaries.

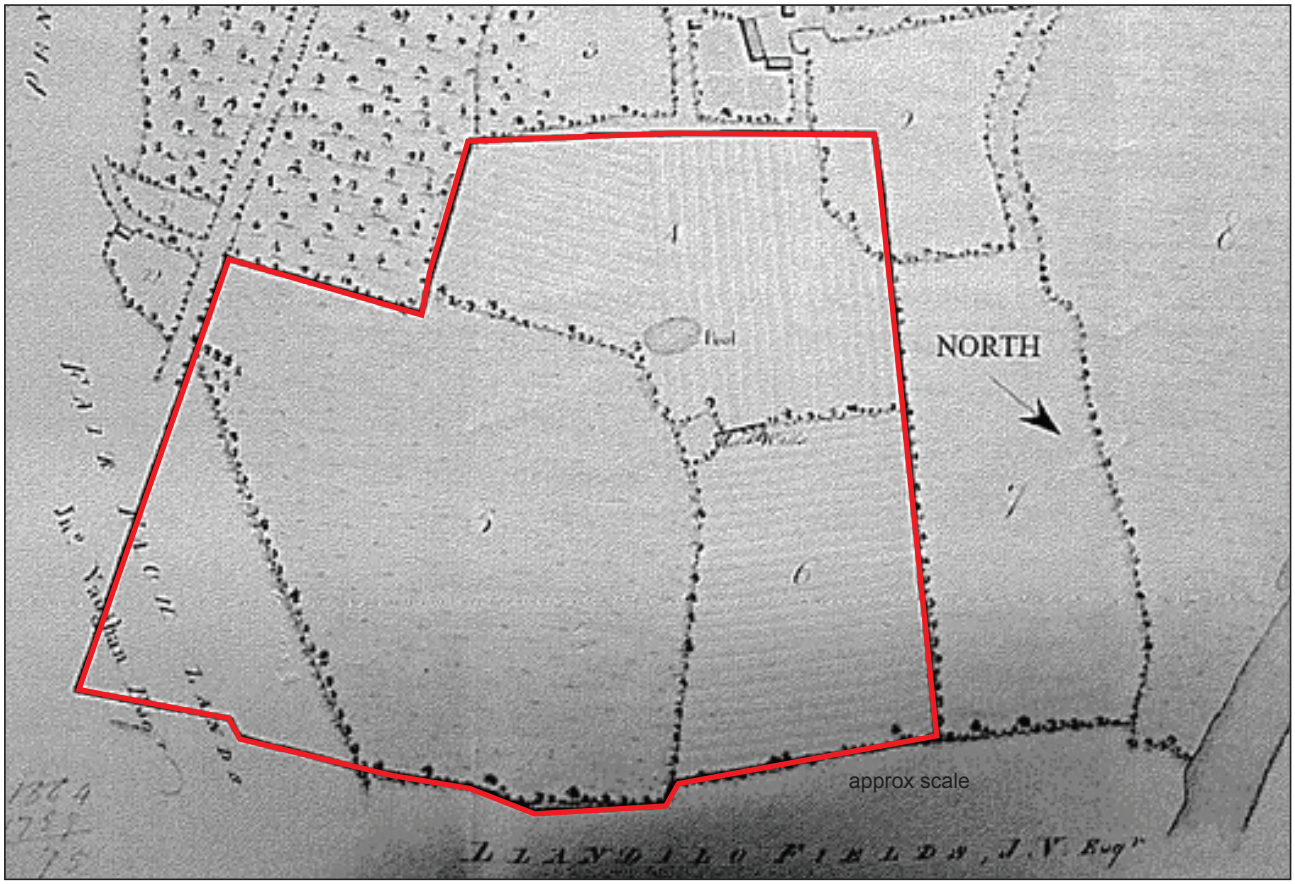


Figure 4 - Extract from the 1793 Golden Grove Estate Map.

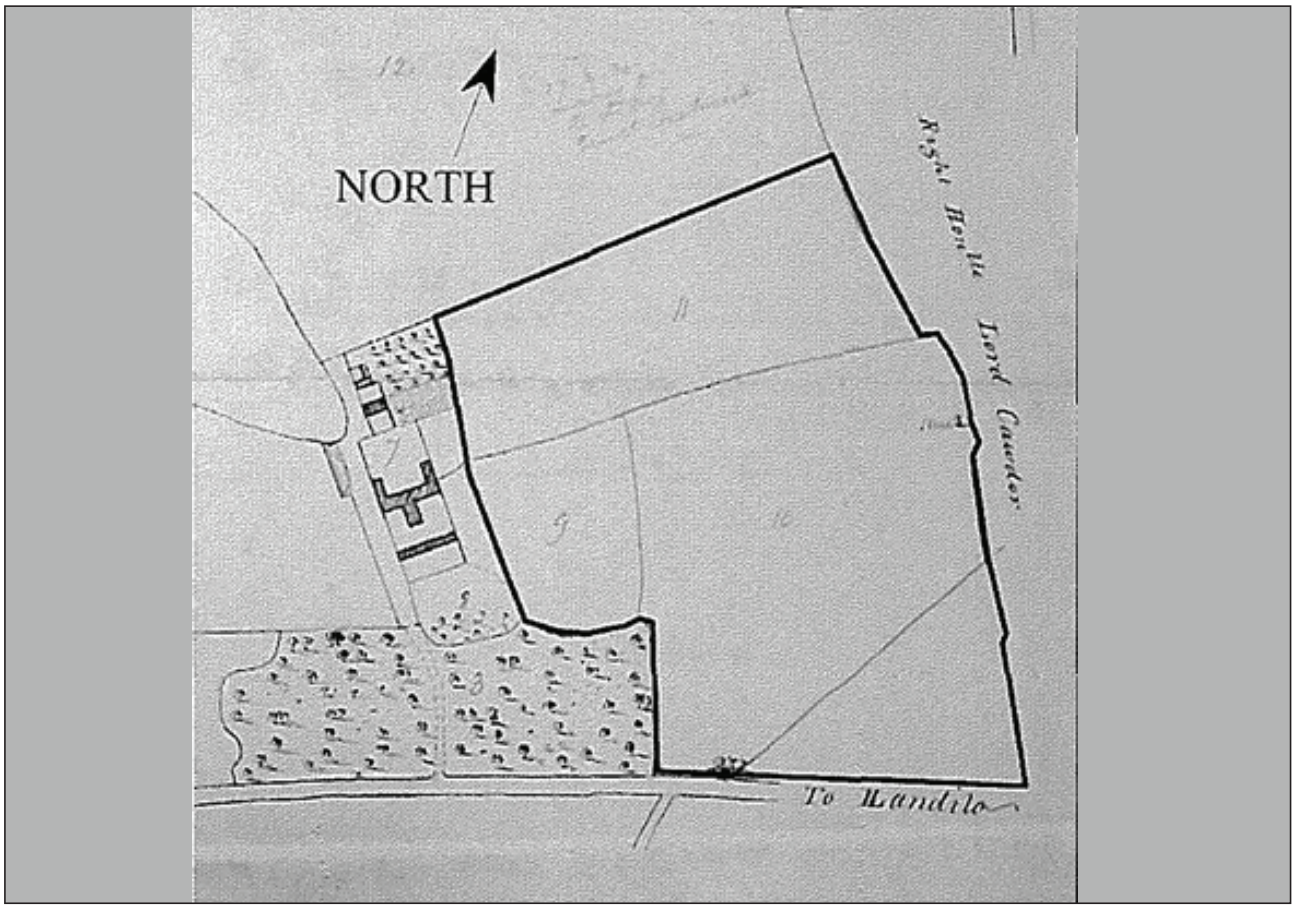


Figure 5 - Extract of Estate Map of Love Lodge 1810.

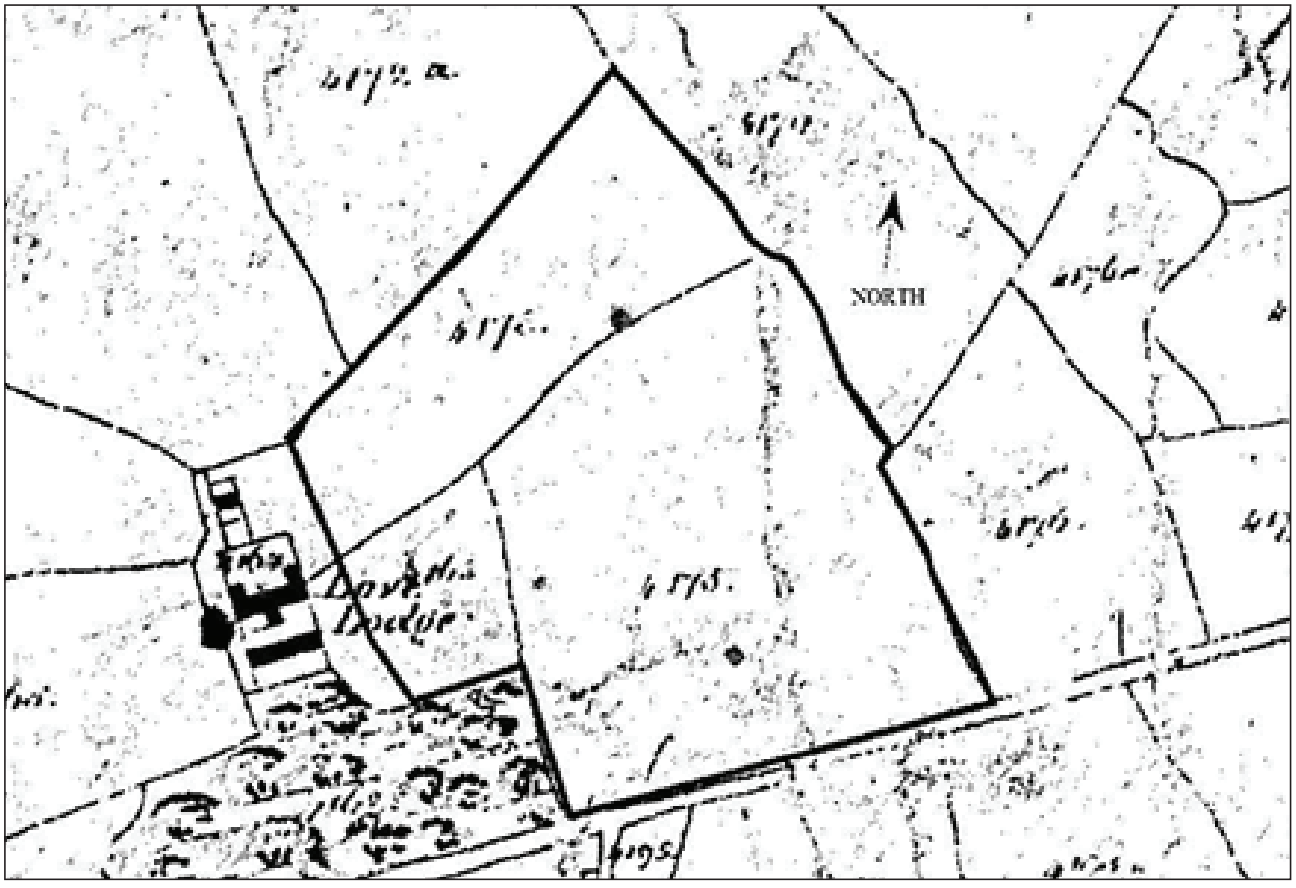


Figure 6 - Extract of 1841 Tithe Map.

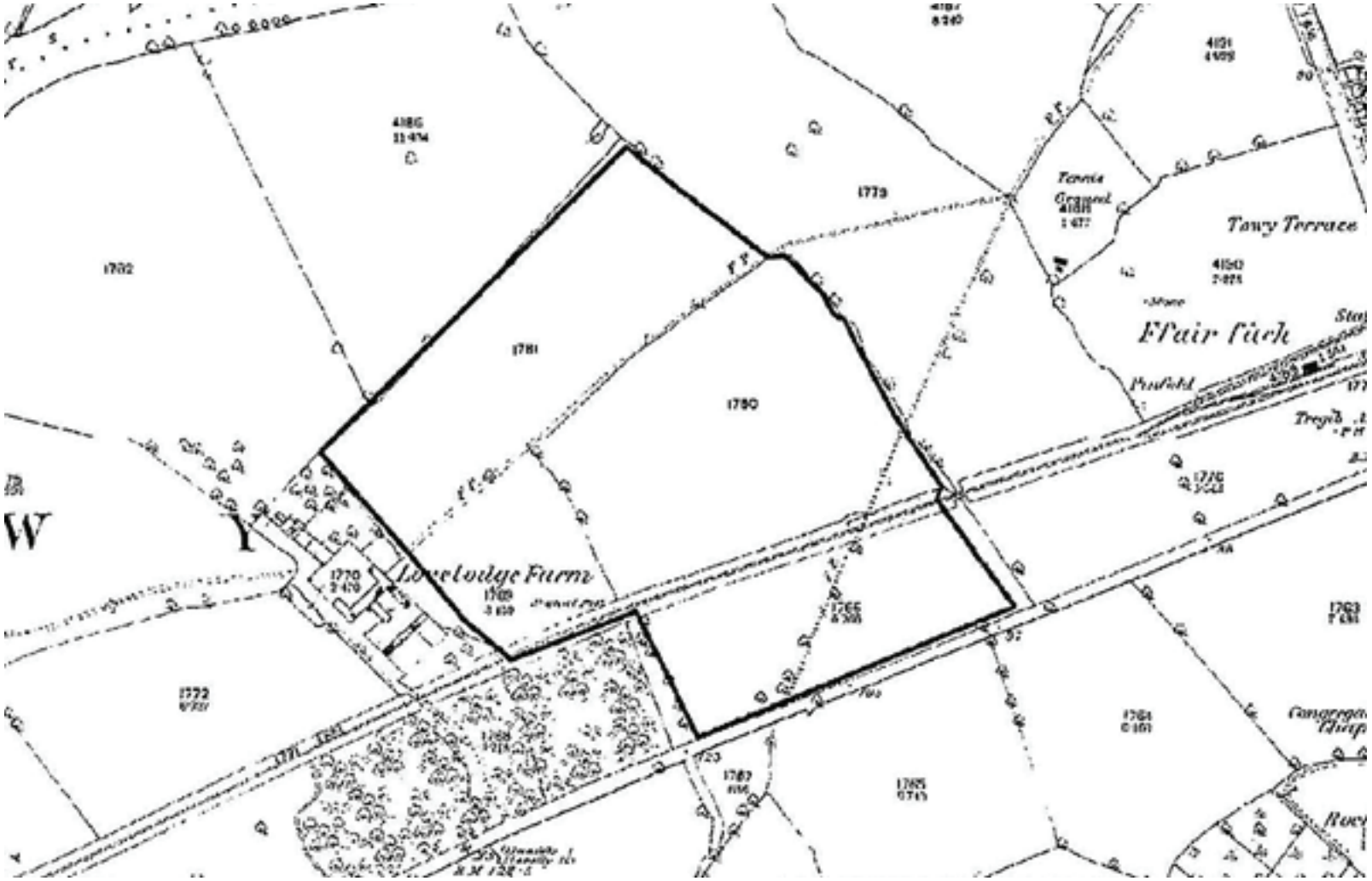


Figure 7 - Extract from the 1884 First Edition Ordnance Survey map.

Figure 8 - Geophysical survey results, presented as a grey-scale plot, and original trenches, positioned to target identified geophysical anomalies.

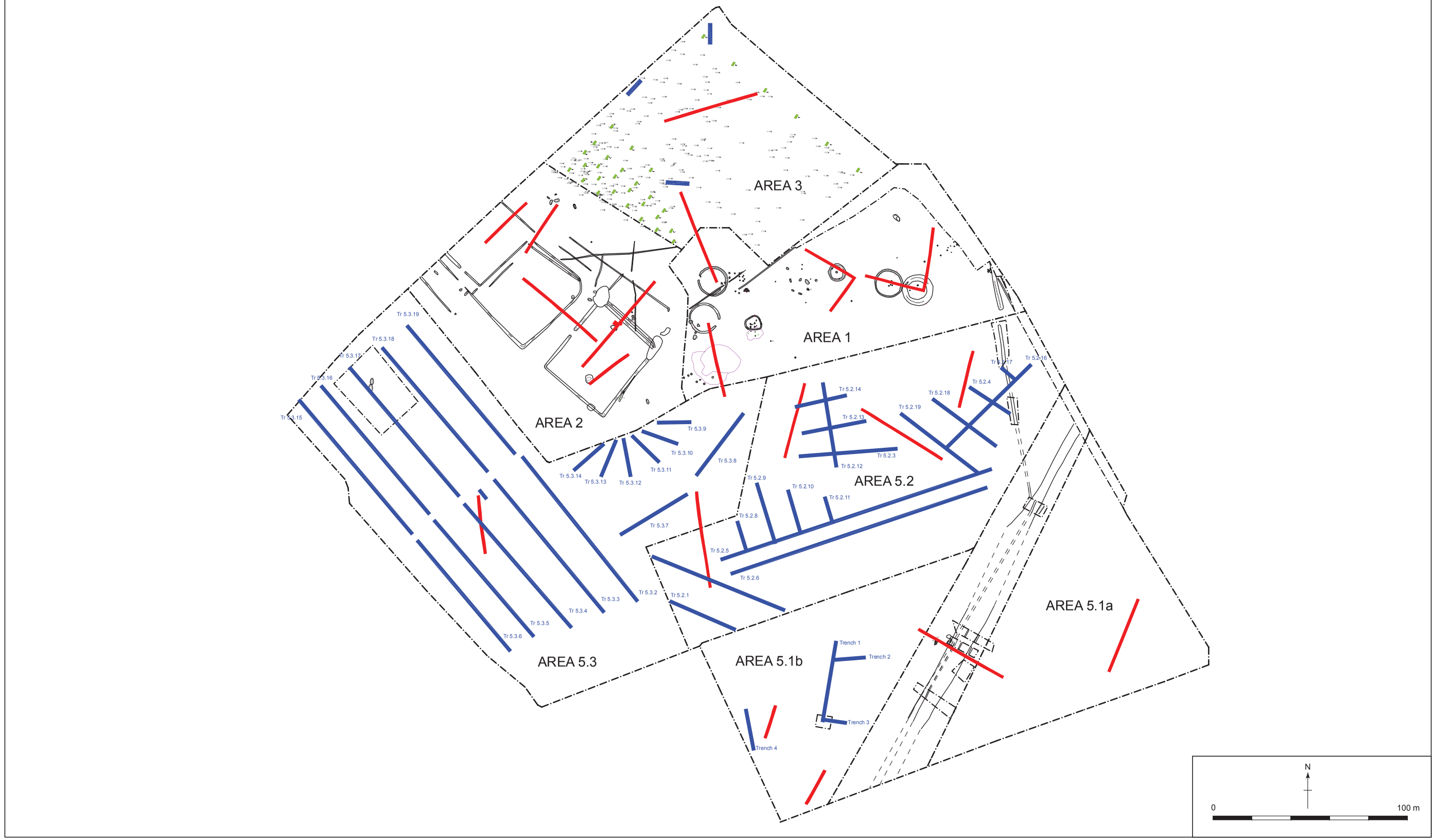


Figure 9 - Original trenching (red), additional trial trenching (blue) and Test Pits (green).

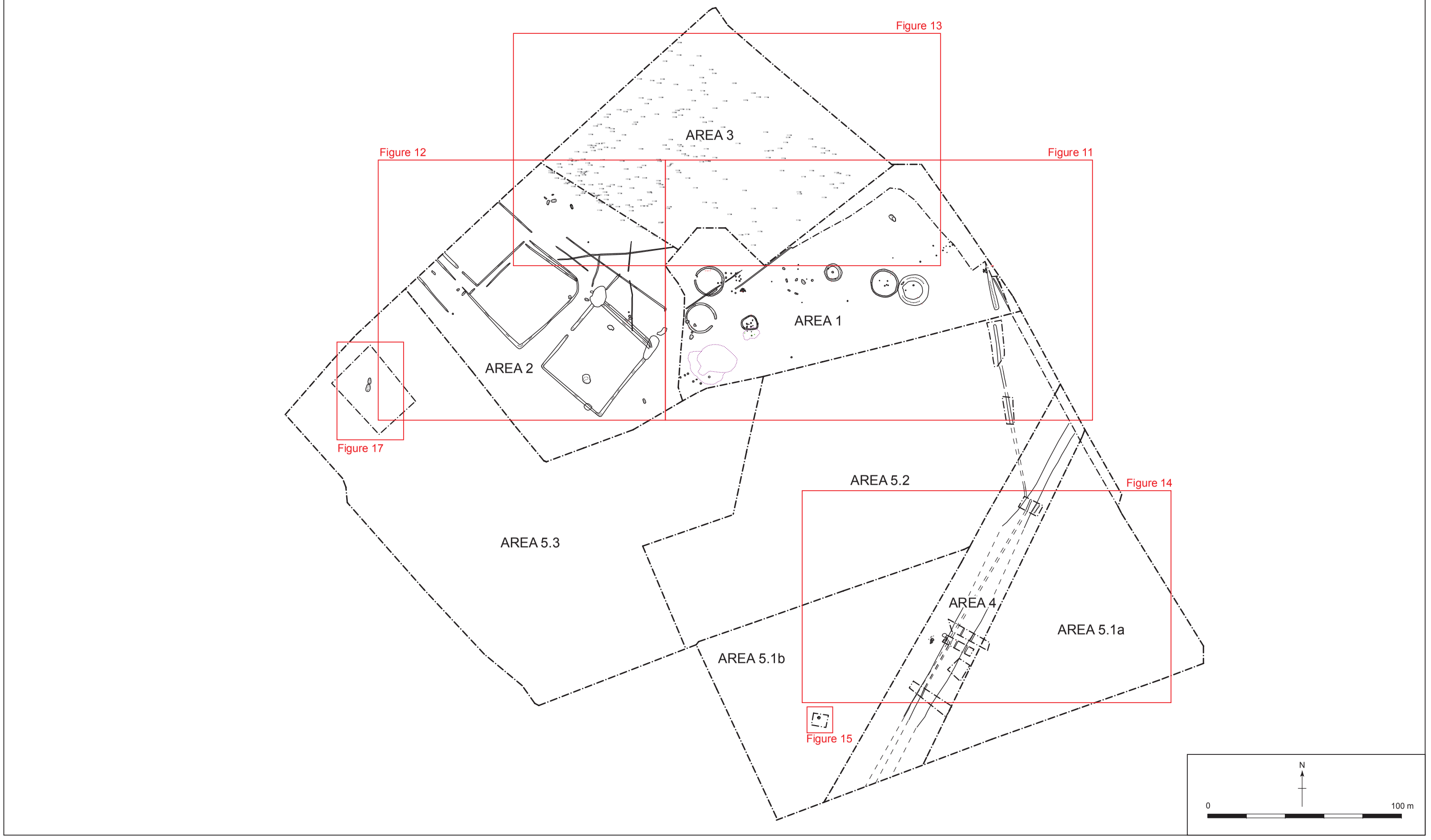


Figure 10 - Overall site excavation map.

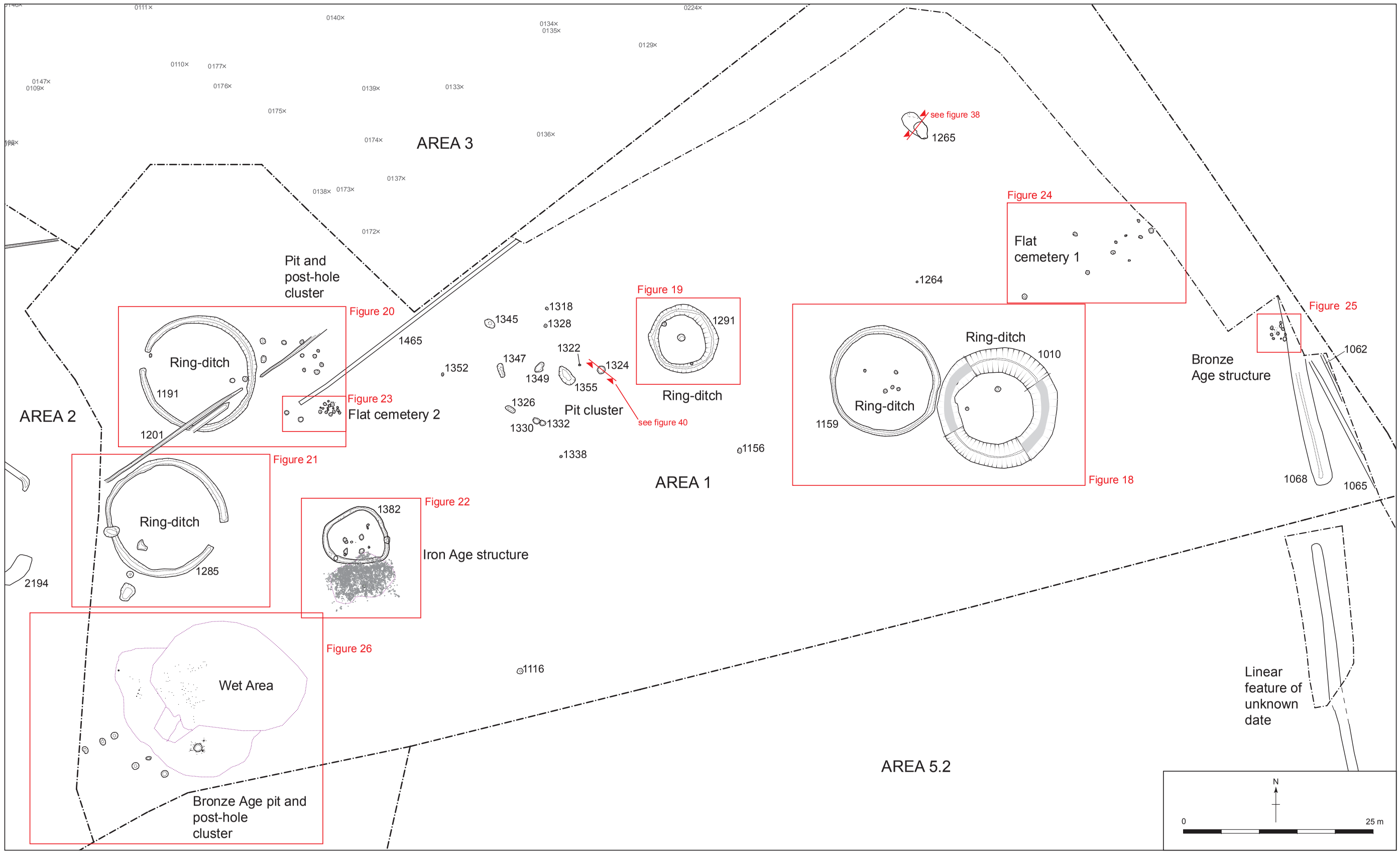


Figure 11 - Layout of Area 1.

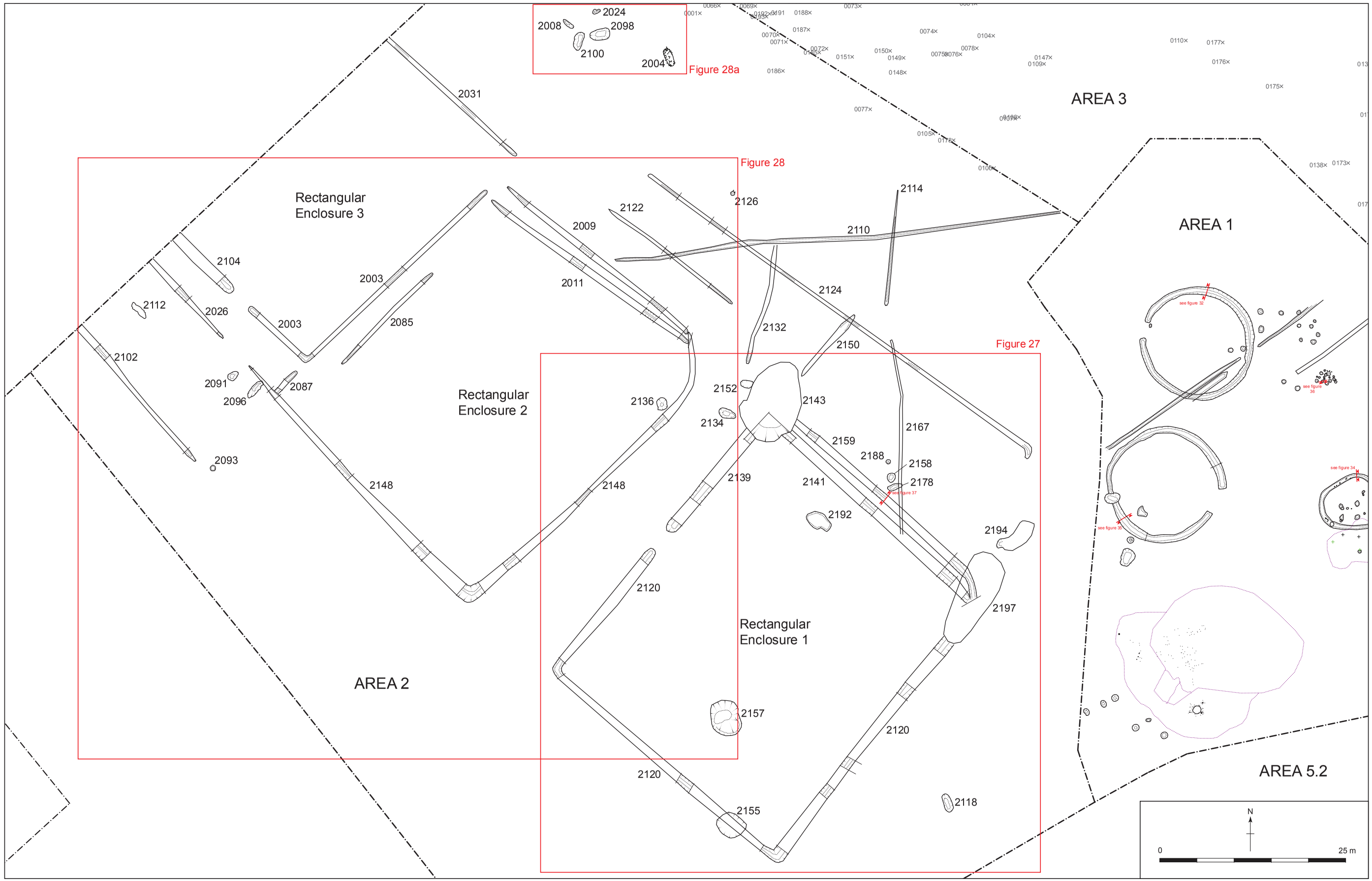


Figure 12 - Layout of Area 2.

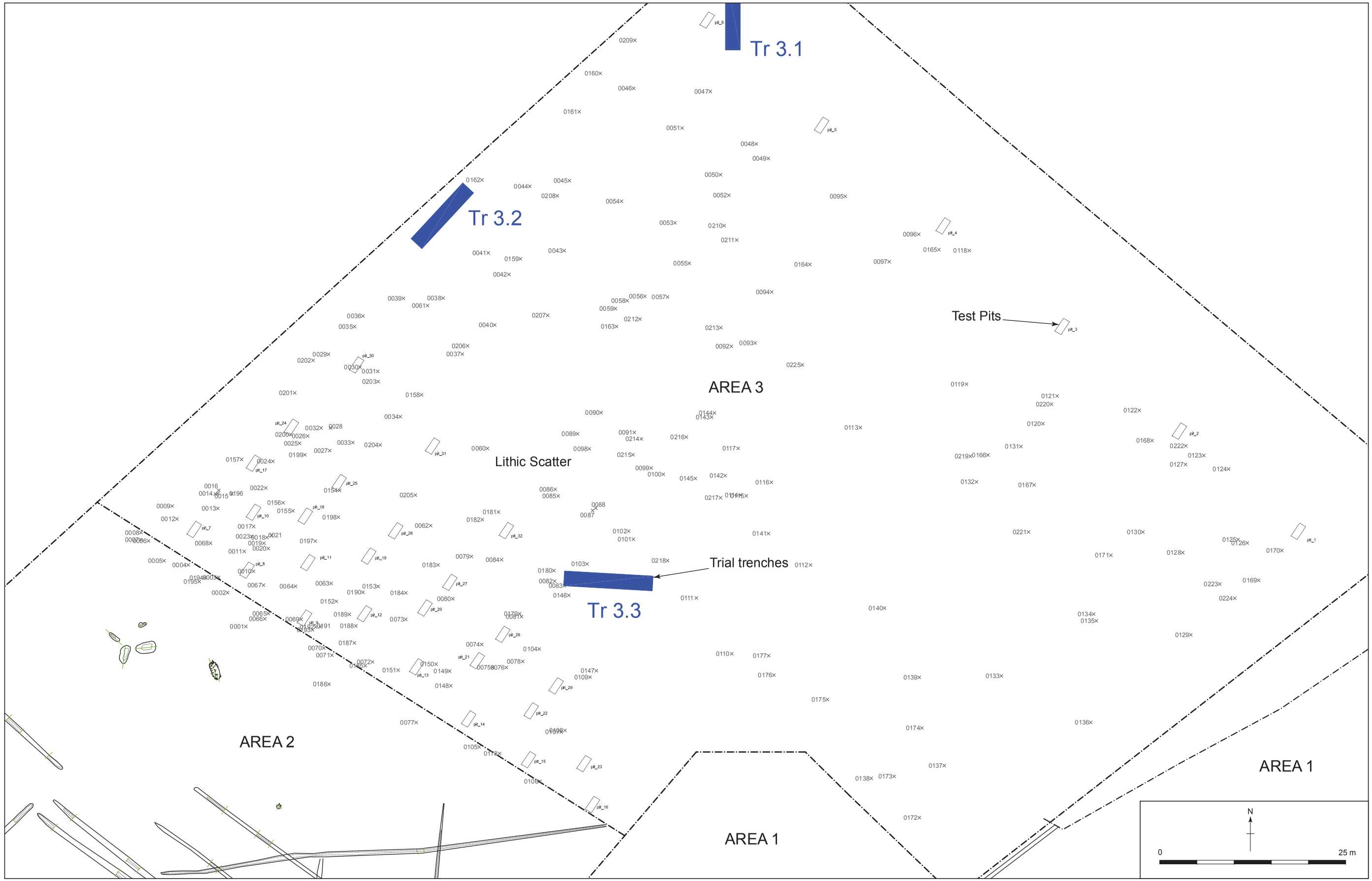


Figure 13 - Lithics scatter in Area 3.

Figure 14 - Layout of Area 4.

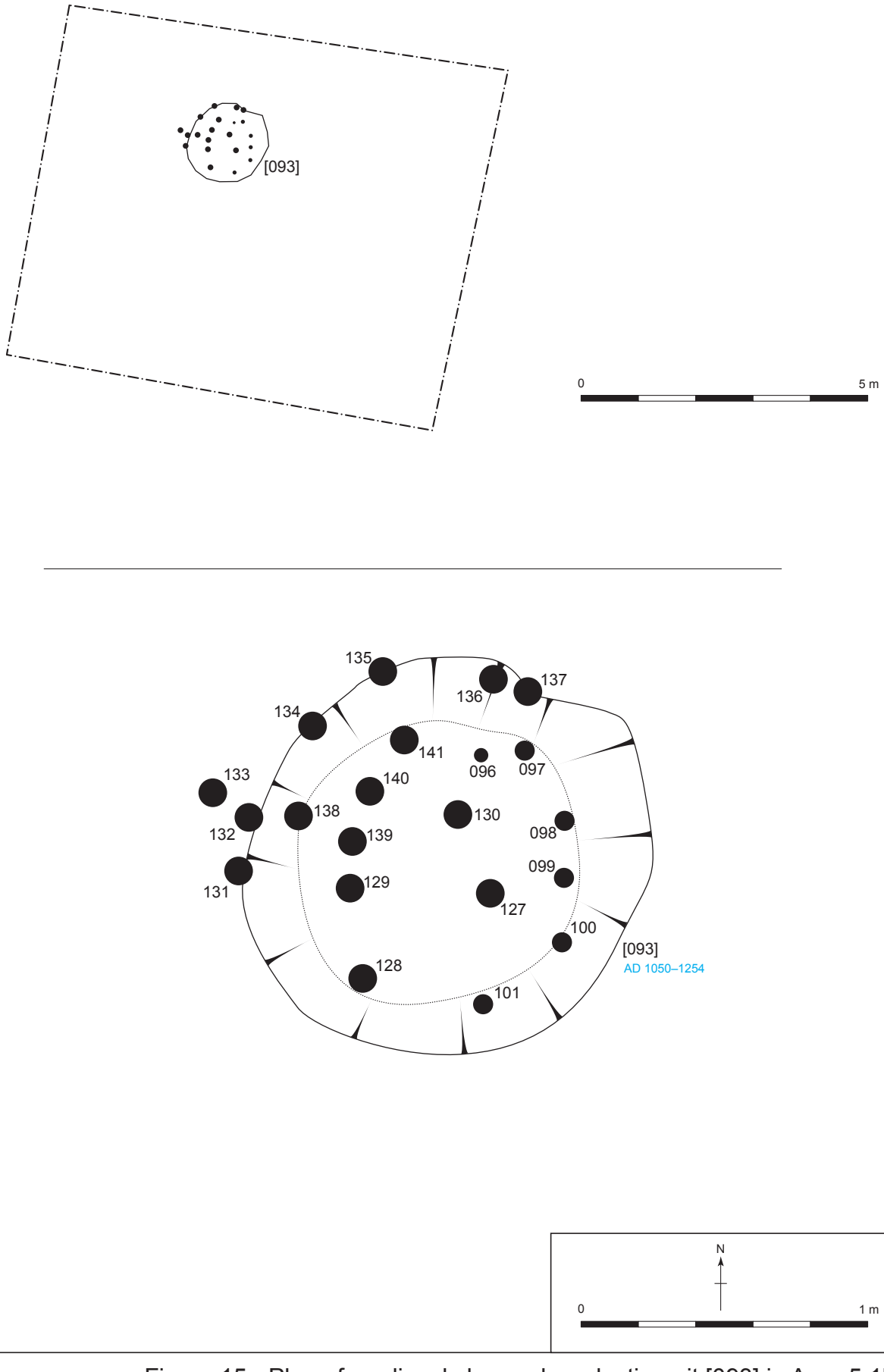


Figure 15 - Plan of medieval charcoal production pit [093] in Area 5.1b.

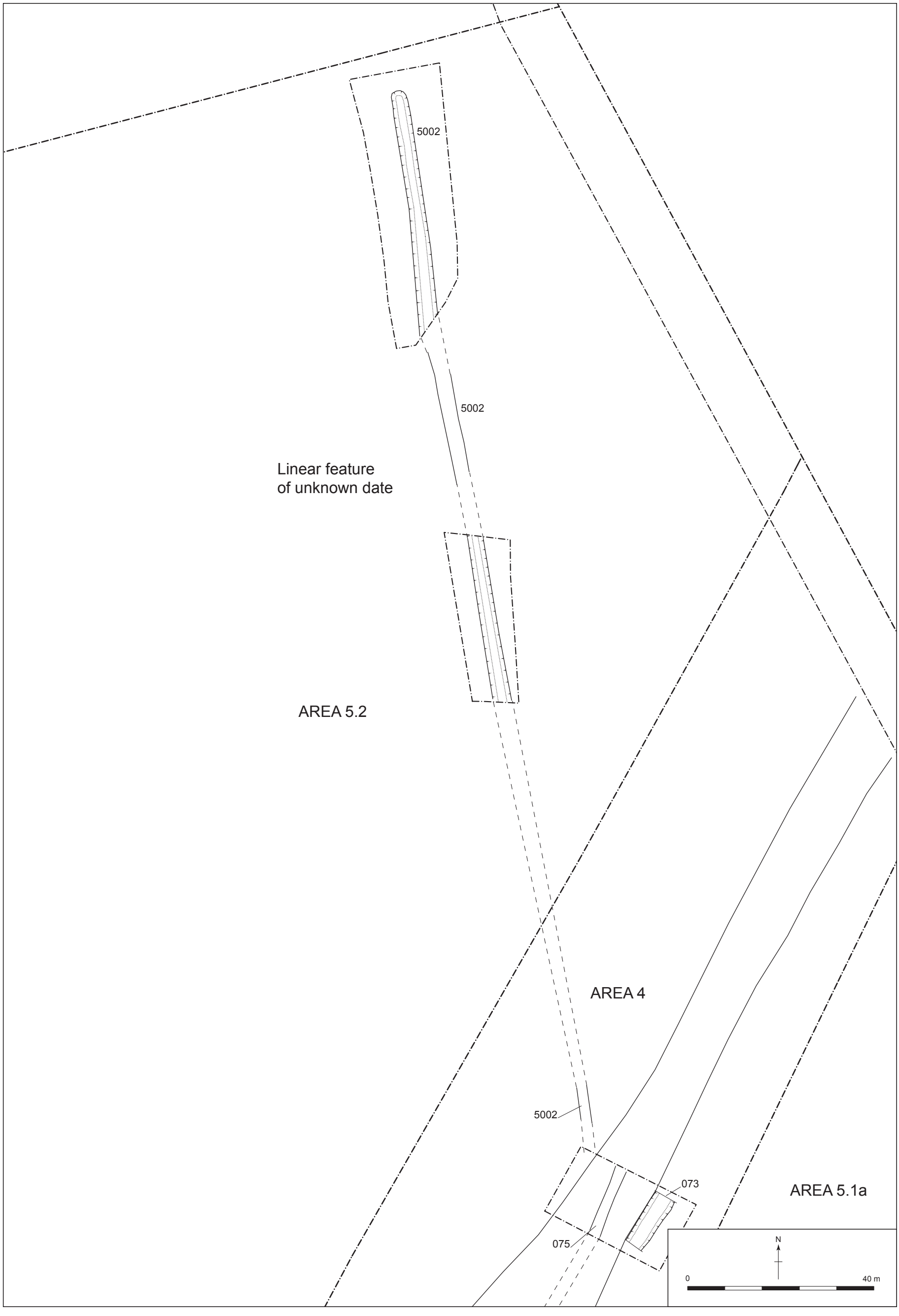
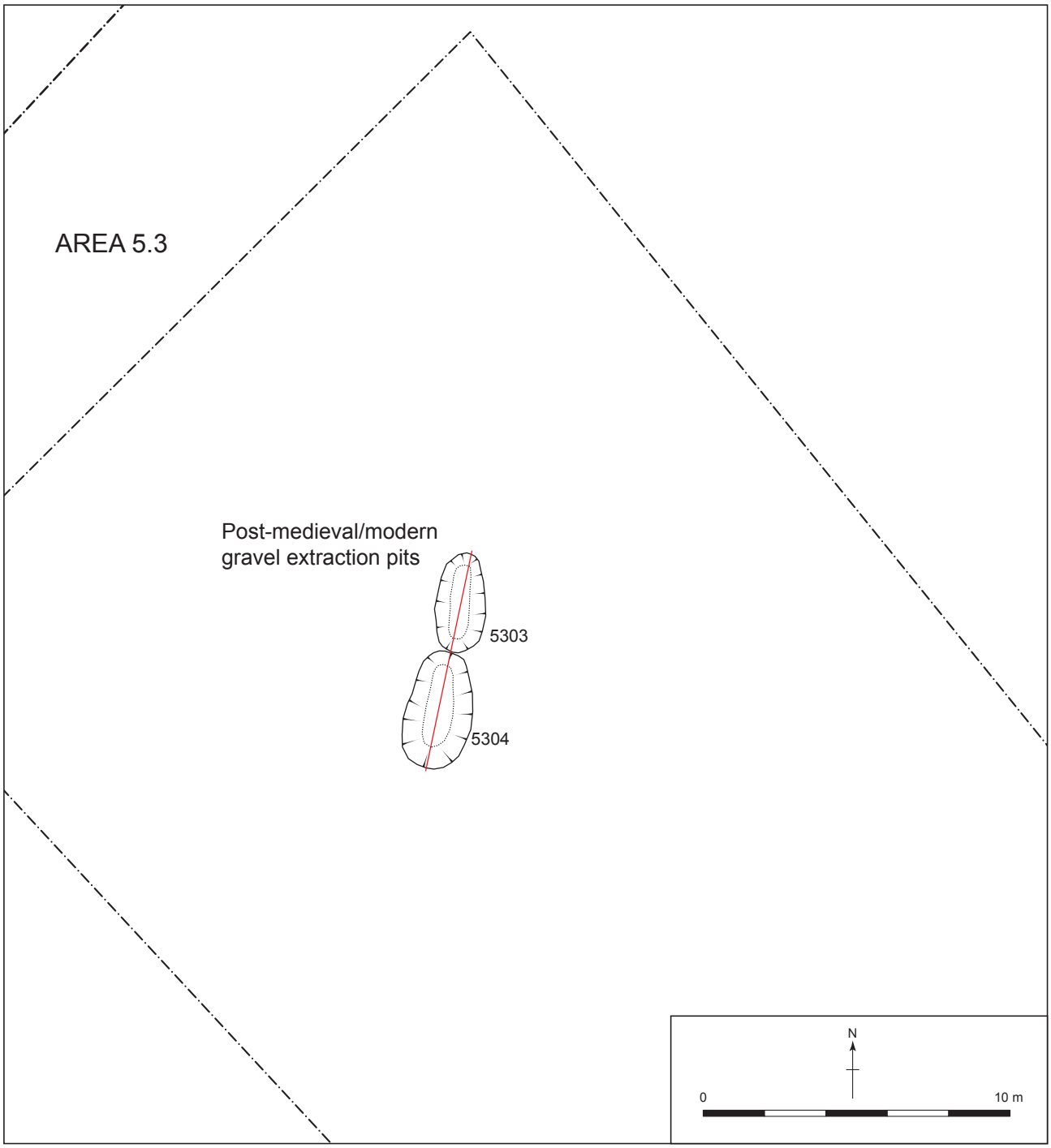


Figure 16 - Boundary ditch in Area 5.2.



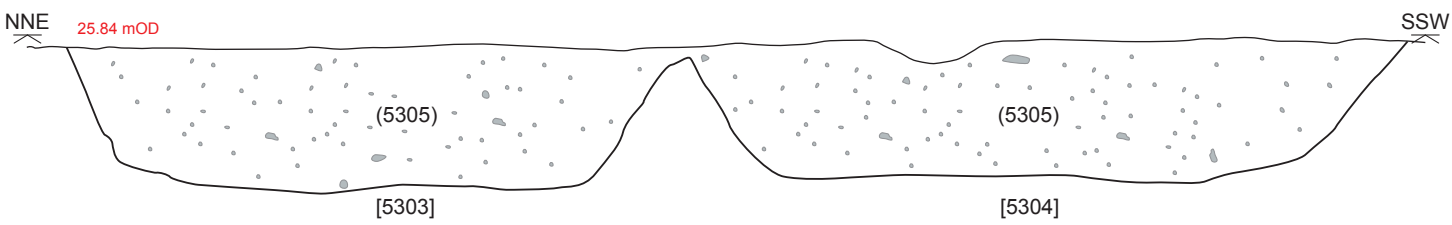


Figure 17 - Post-medieval/modern gravel extraction pits in area 5.3, with section through [5303] and [5304].

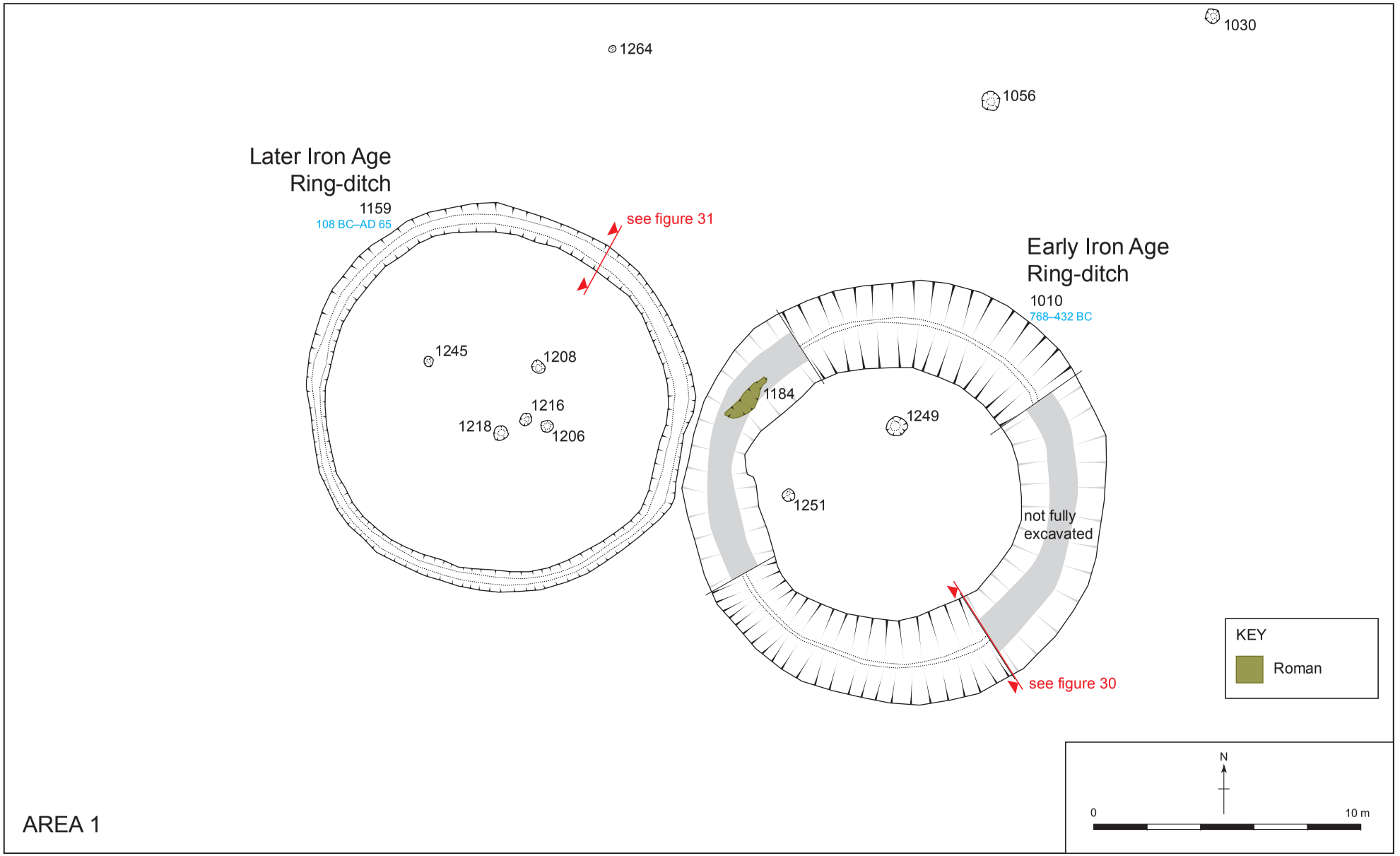
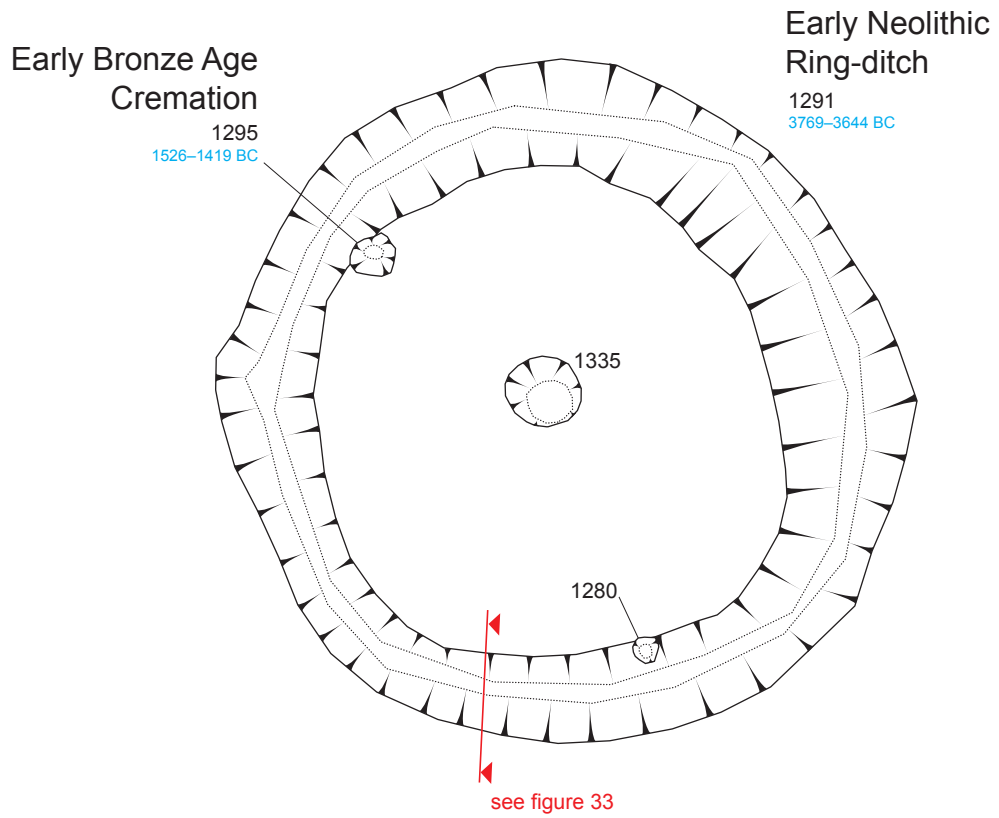


Figure 18 - Plan of ring-ditches [1010] and [1159], Area 1.



AREA 1

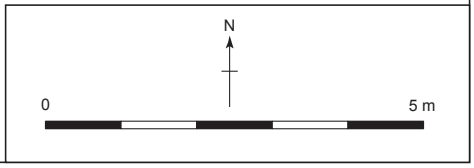


Figure 19 - Plan of ring-ditch [1291], Area 1.

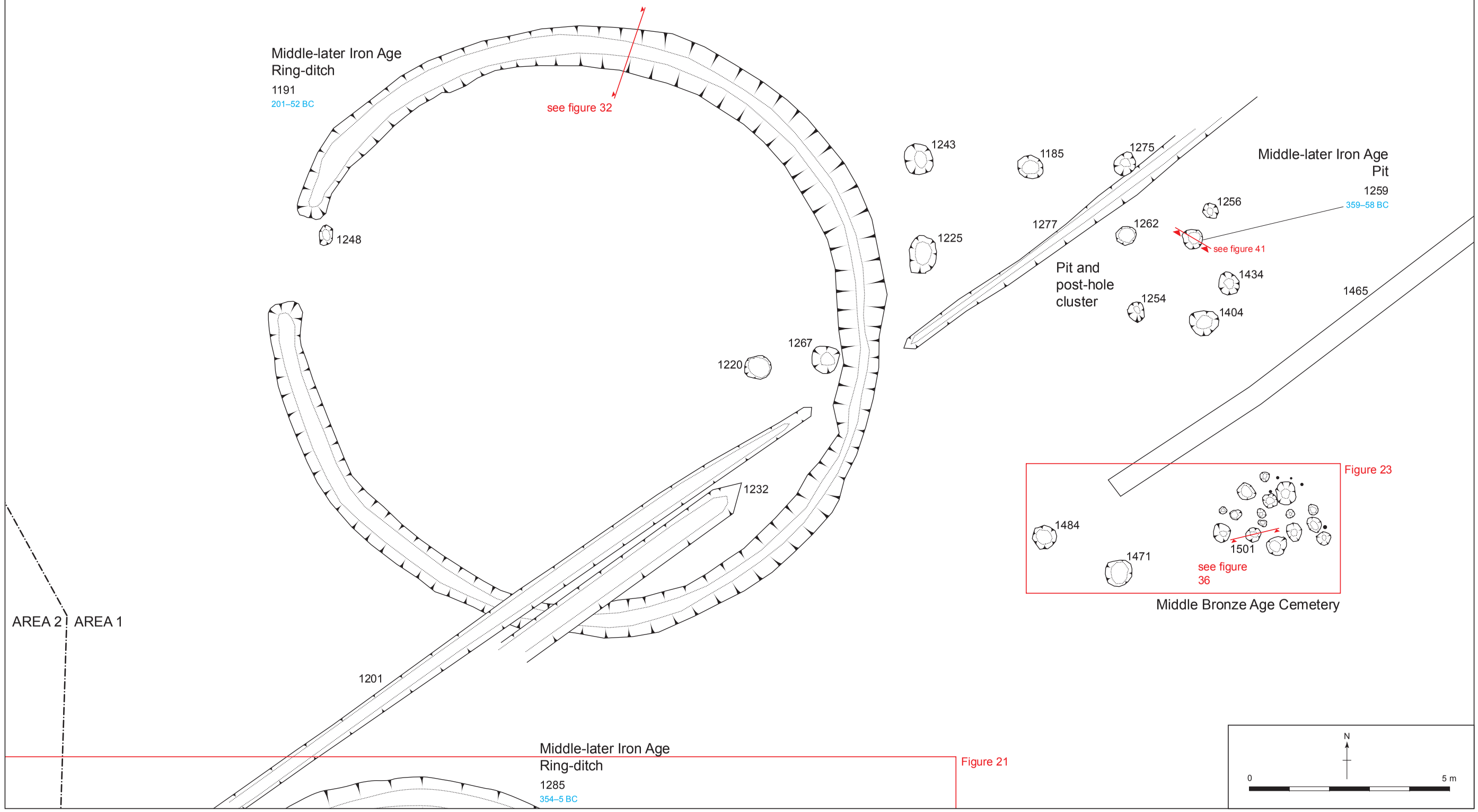


Figure 20 - Plan of ring-ditch [1191] and nearby post-holes, Area 1.

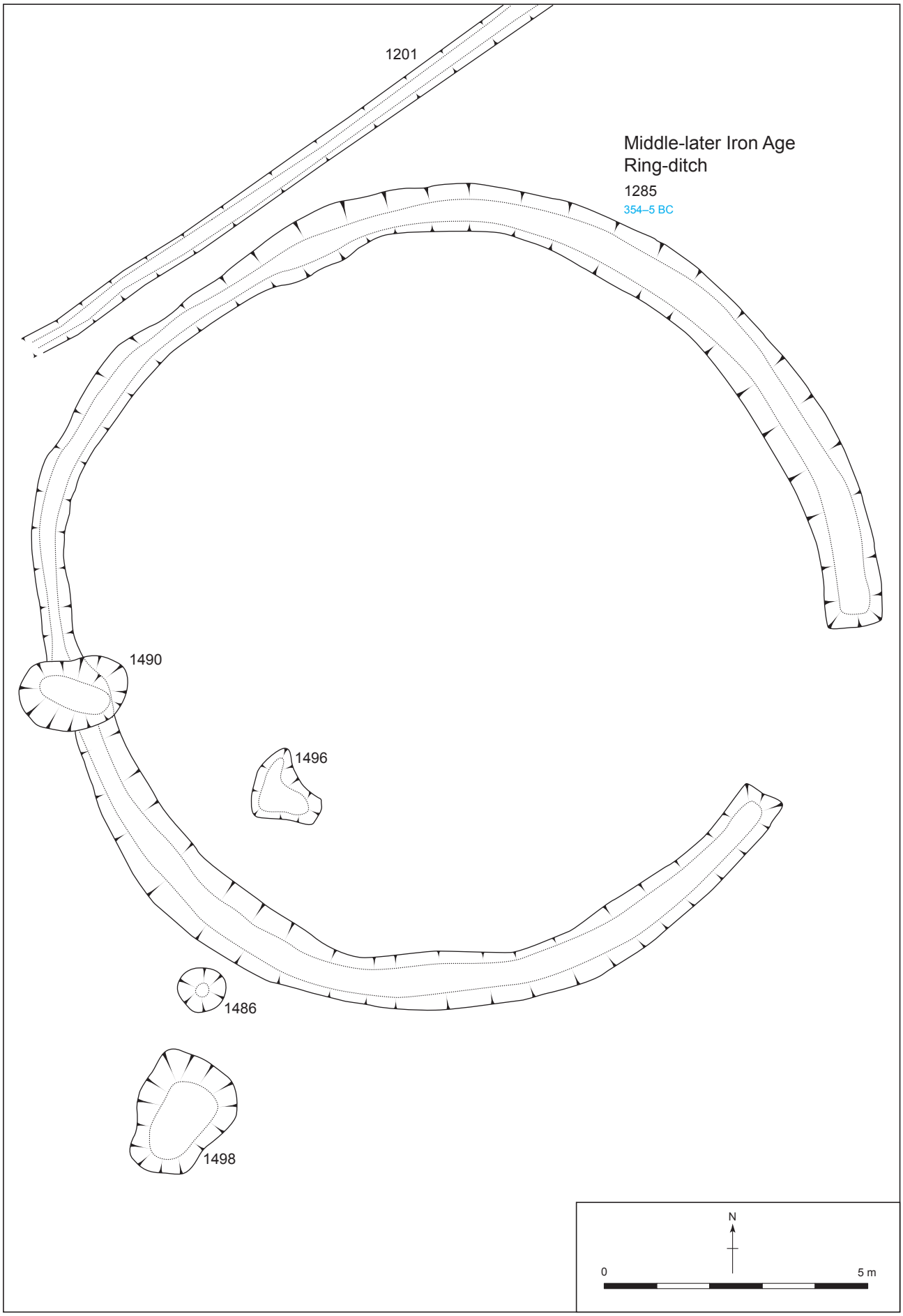


Figure 21 - Plan of ring-ditch [1285], Area 1.

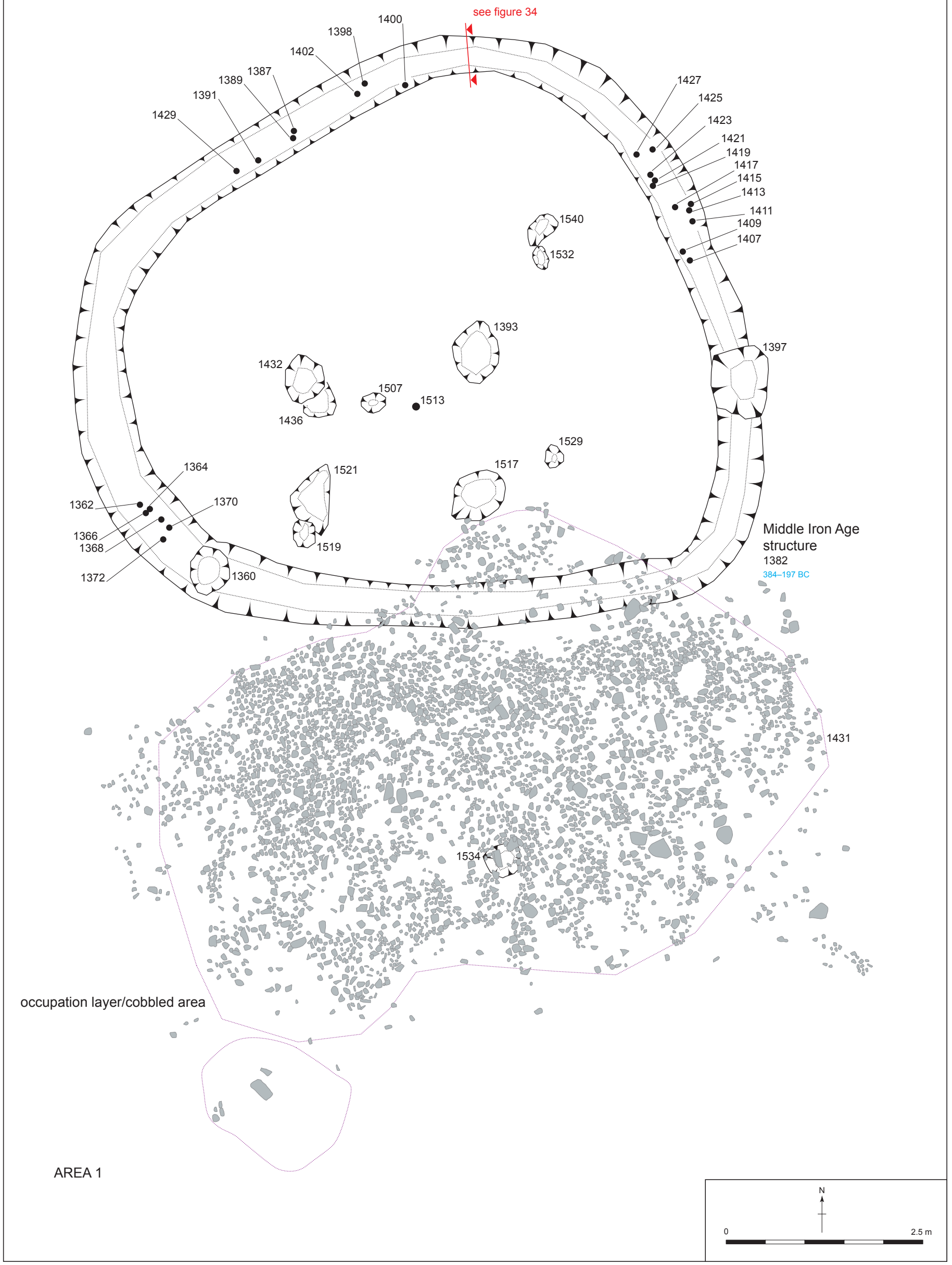


Figure 22 - Plan of Iron Age structure [1382], Area 1.

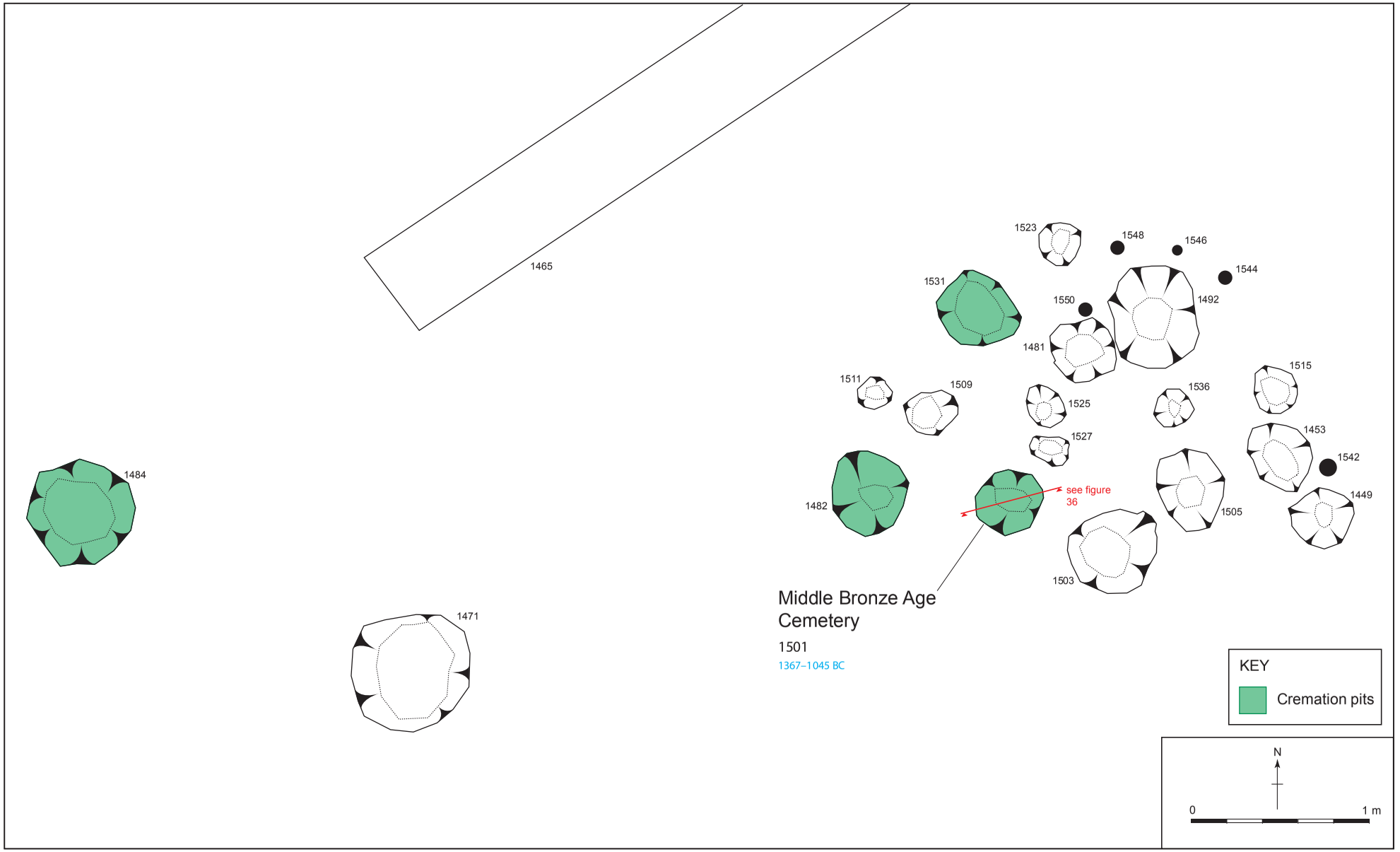


Figure 23 - Plan of Flat Cemetery 2 near ring-ditch [1191], Area 1.

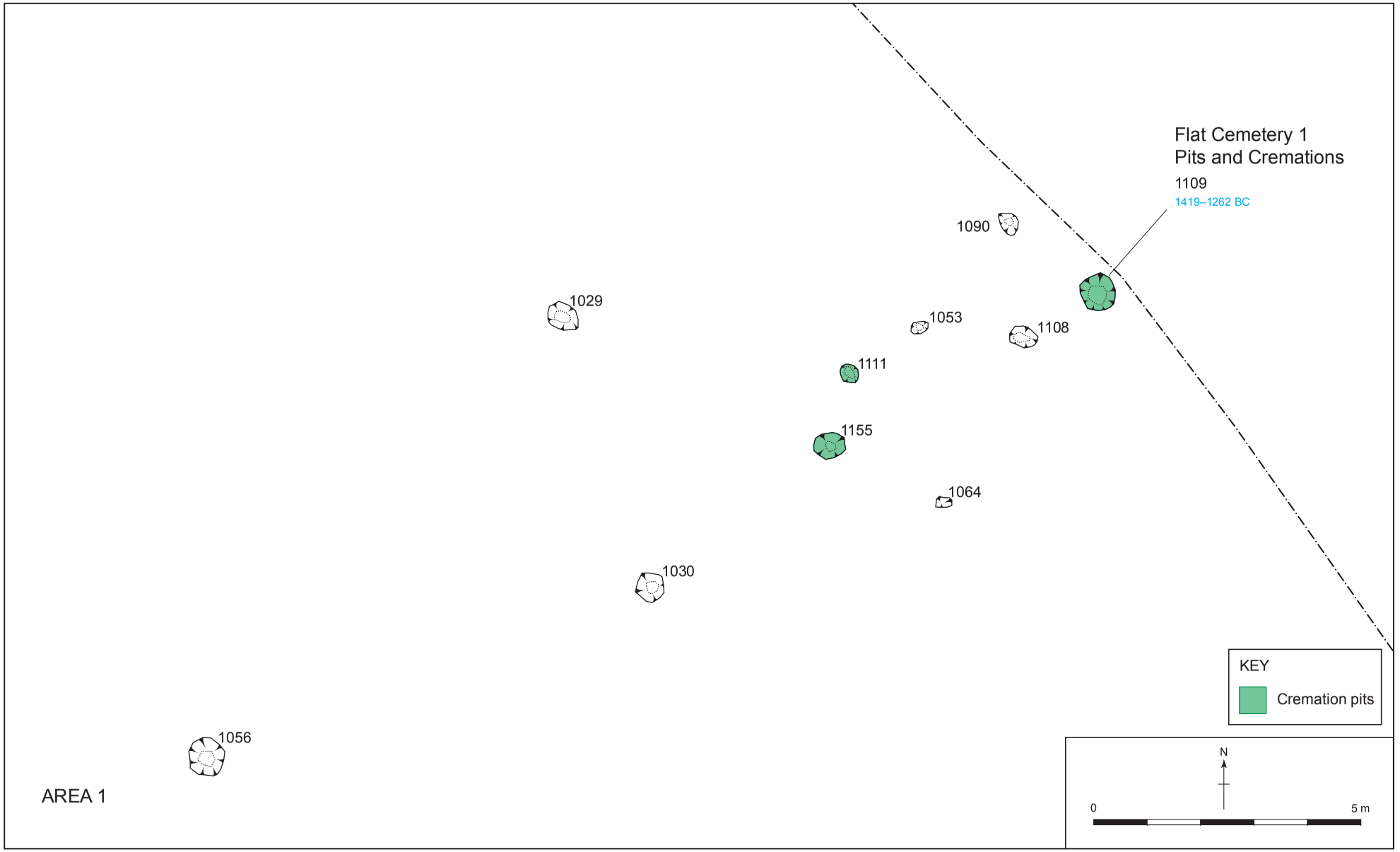


Figure 24 - Plan of Flat Cemetery 1 in the east of site, Area 1.

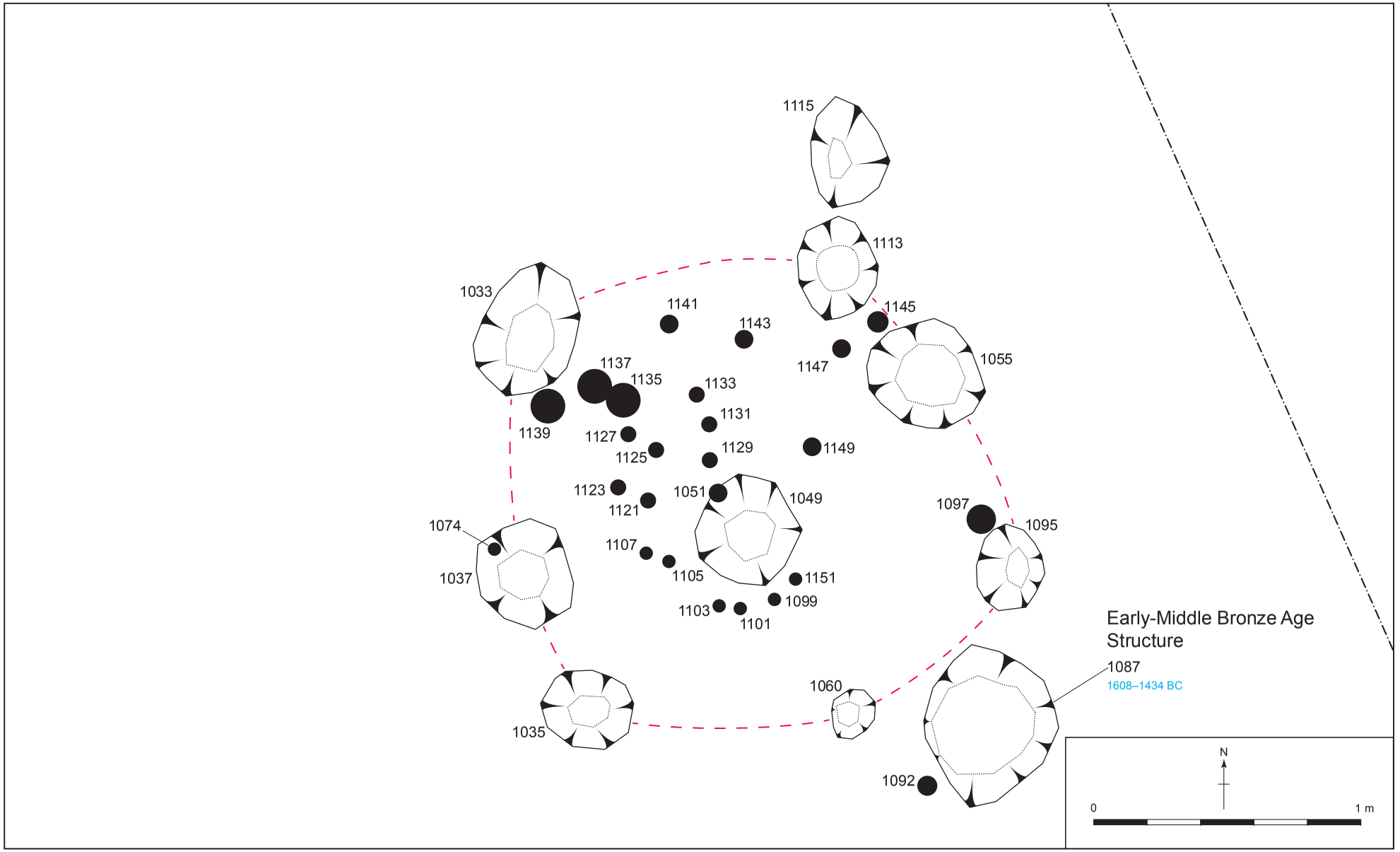


Figure 25 - Plan of Early-Middle Bronze Age structure.

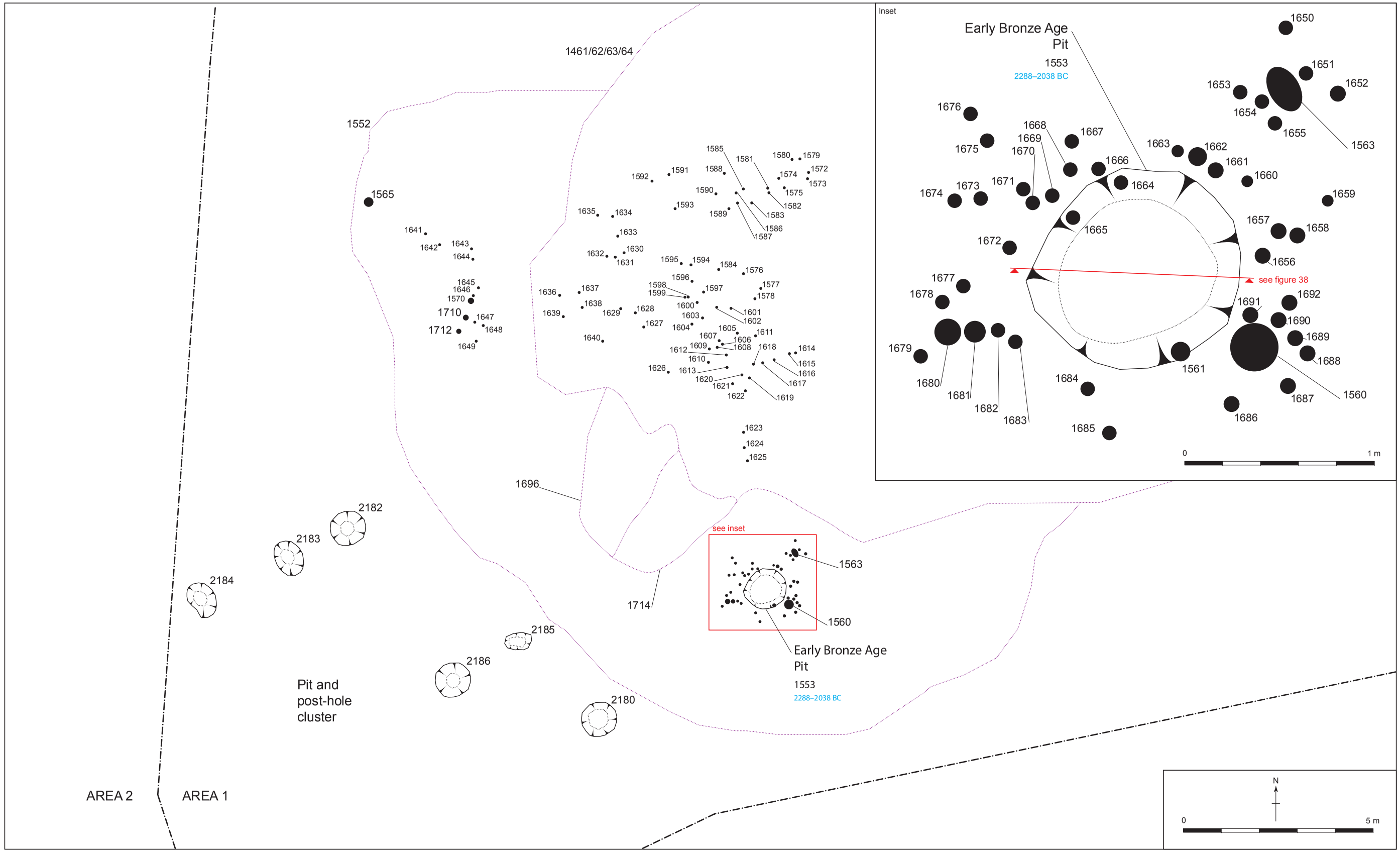


Figure 26 - Plan of stake-hole and pit cluster in Area 1.

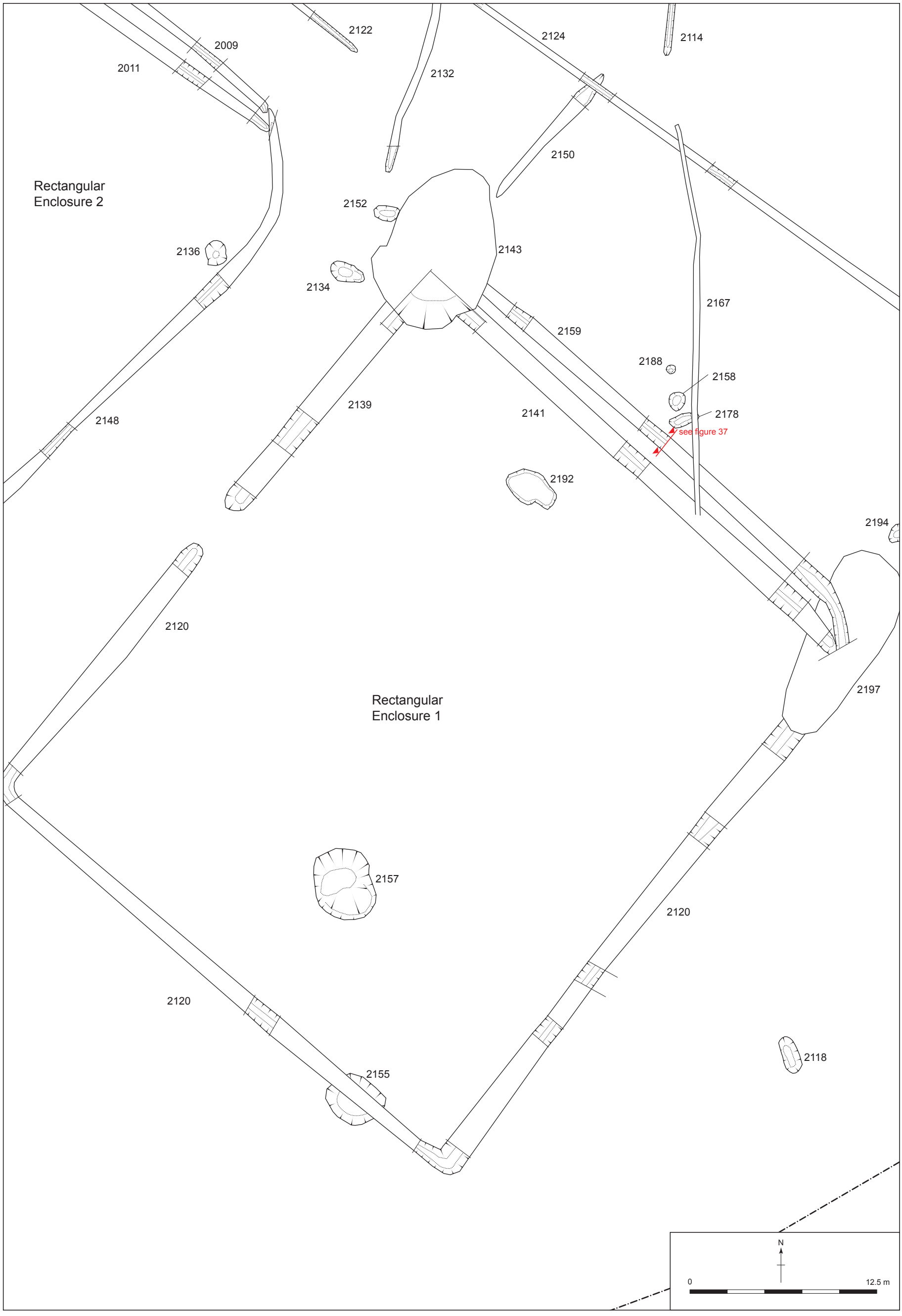


Figure 27 - Plan of Rectangular Enclosure 1, in Area2.

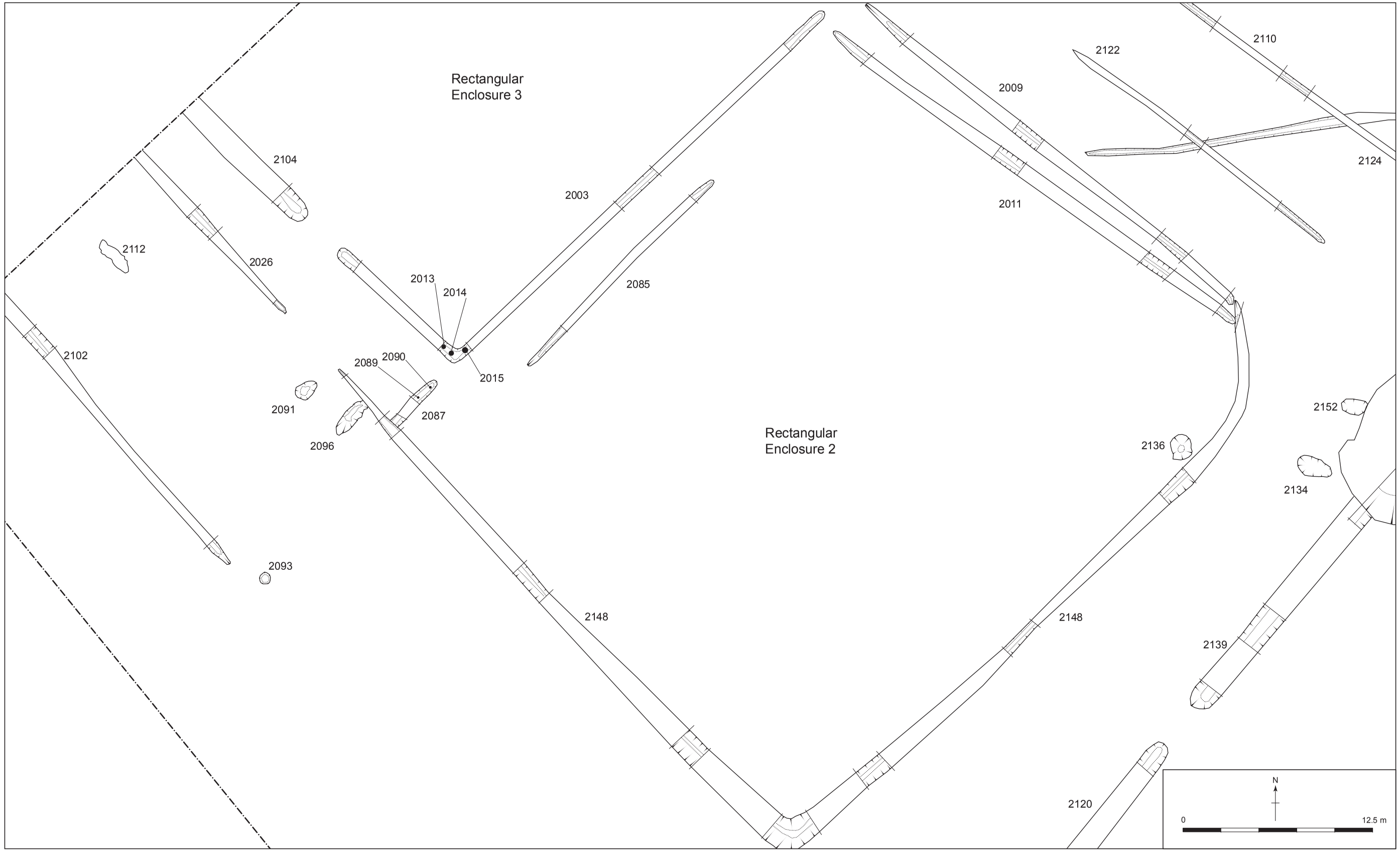
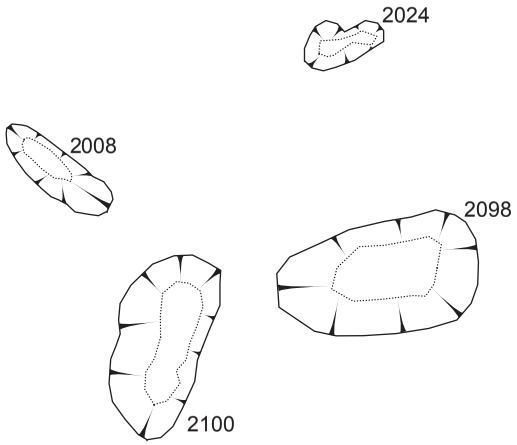
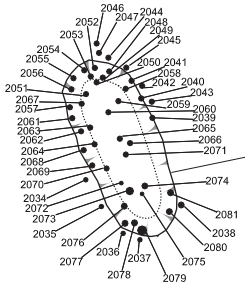


Figure 28 - Plan of Rectangular Enclosures 2 and 3 in Area 2.





Early medieval
Pit
2004
AD 668–770

AREA 2

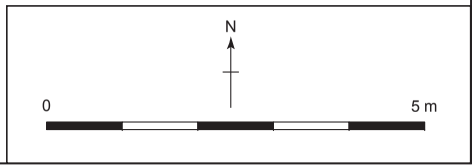


Figure 28a - Area of early medieval activity.

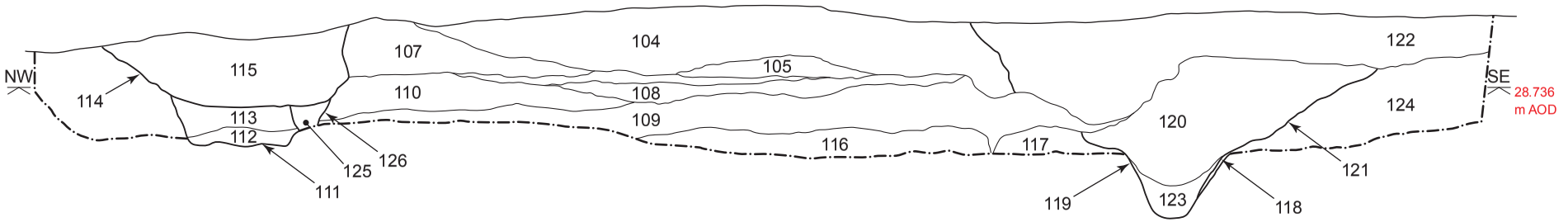


Figure 29 - SW-facing section of Roman road and later repairs.

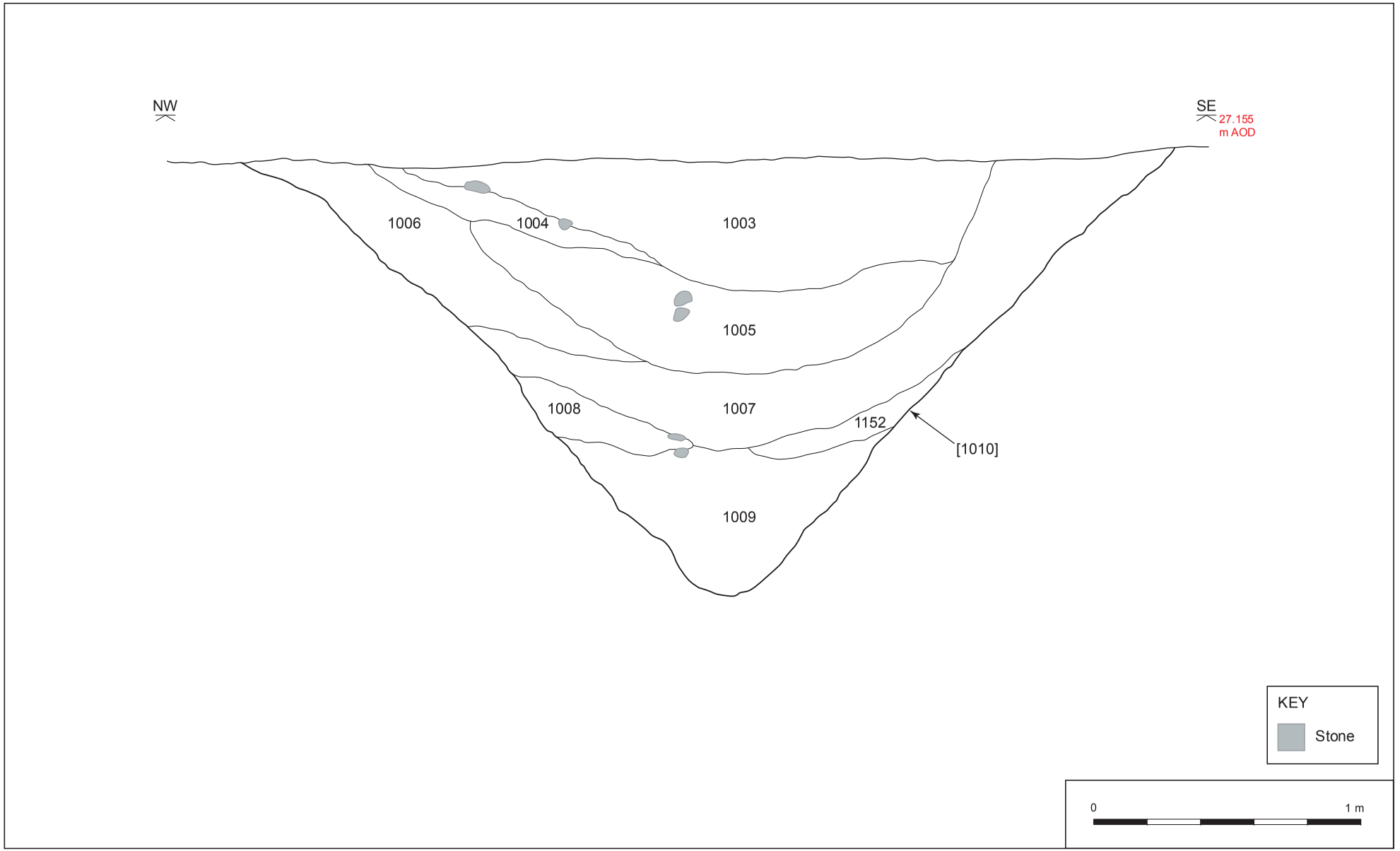
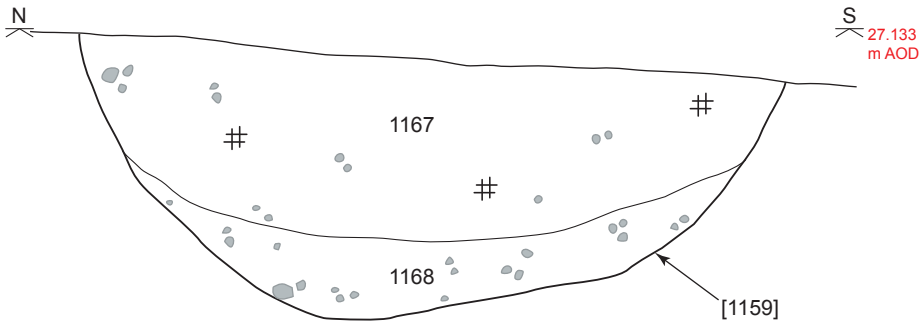


Figure 30 - SW-facing section of ring-ditch [1010].



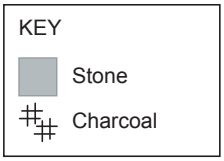


Figure 31 - West-facing section of ring-ditch [1159].

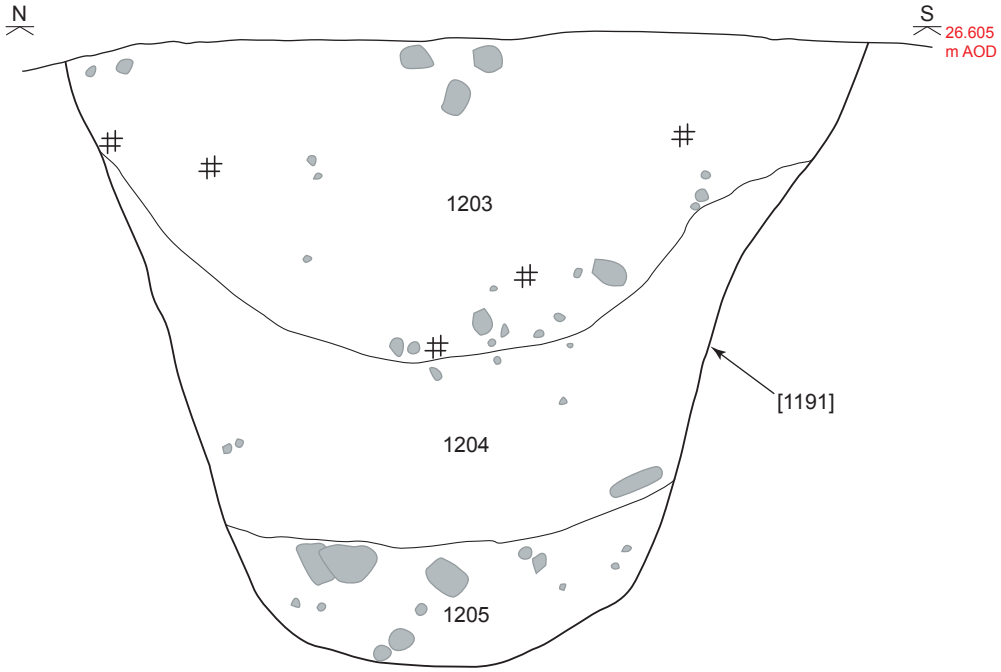


Figure 32 - SW-facing section of ring-ditch [1191].

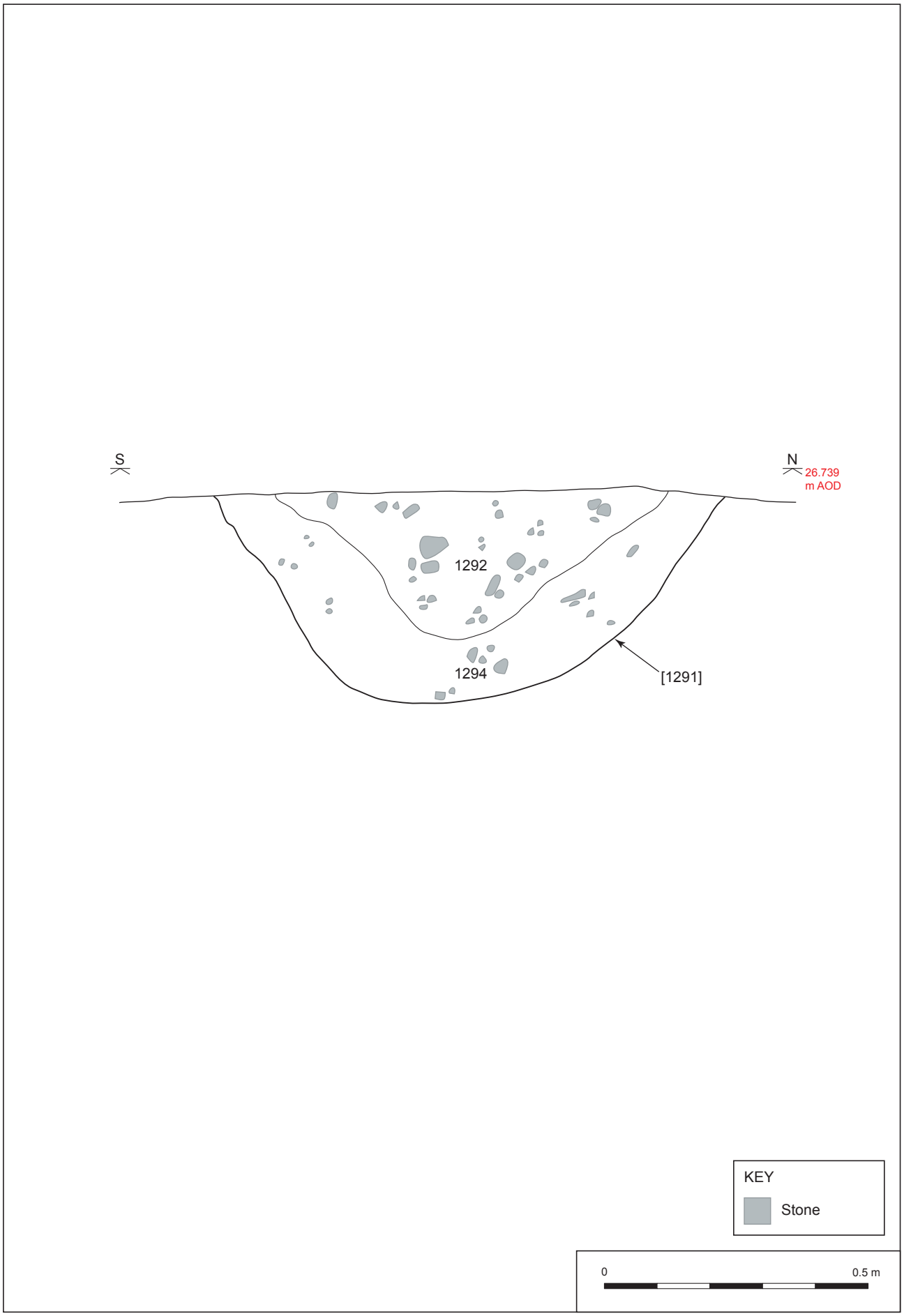


Figure 33 - East-facing section of ring-ditch [1291].

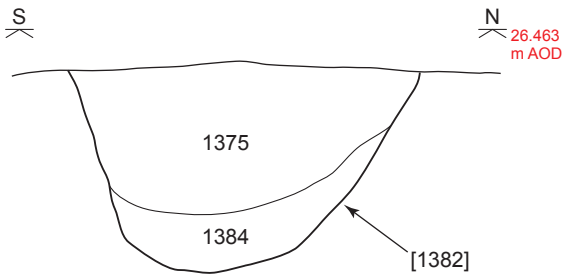


Figure 34 - East-facing section of slot trench [1382], part of prehistoric structure in Area 1.

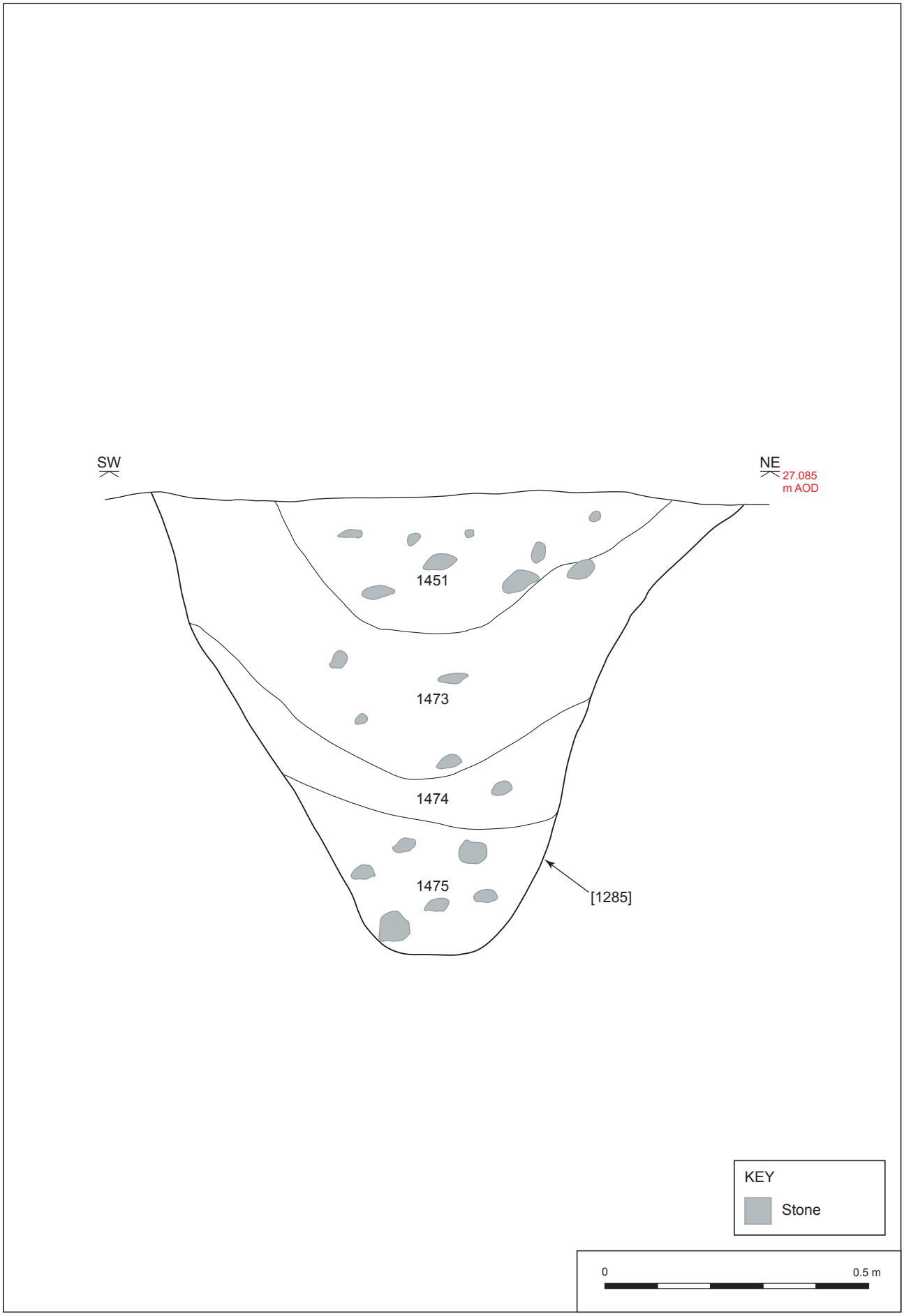


Figure 35 - SE-facing section of ring-ditch [1285].

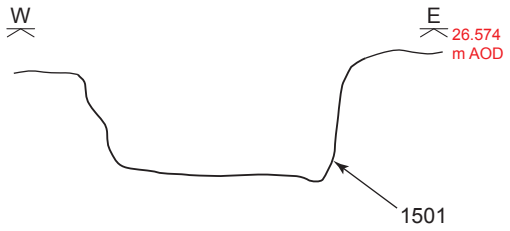


Figure 36 - South-facing profile of cremation [1501].

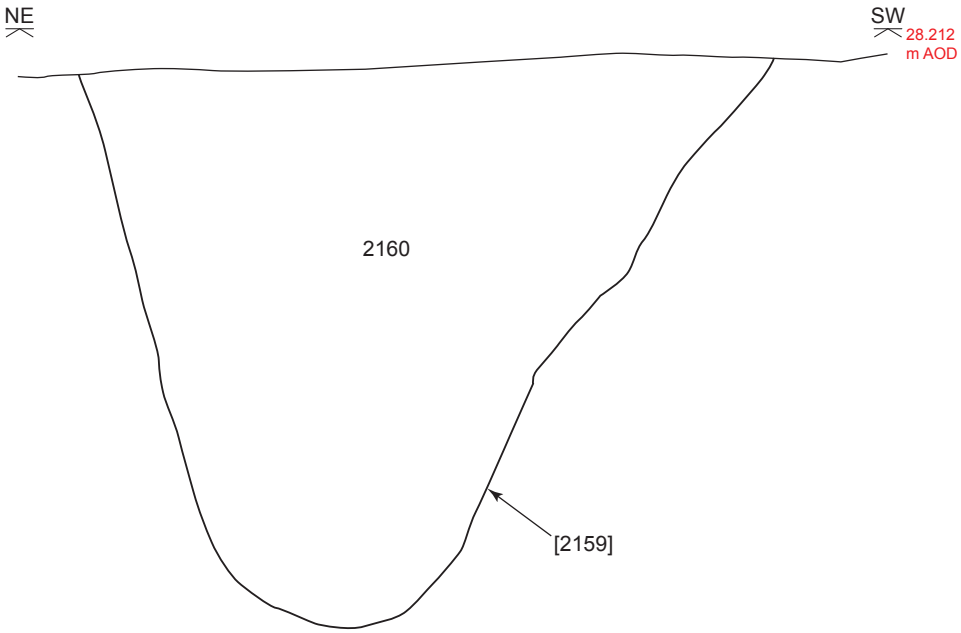


Figure 37 - NW-facing section of ditch [2159].

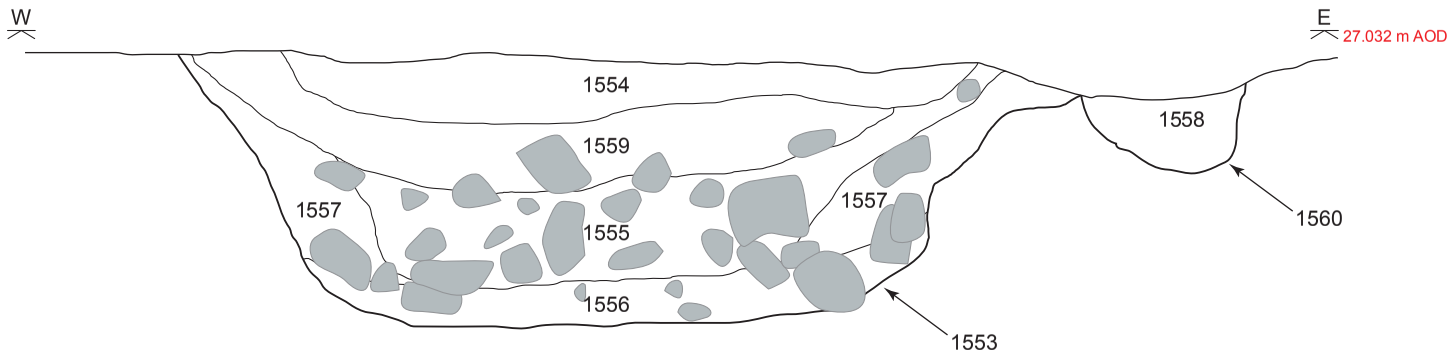


Figure 38 - South facing section of roasting pit 1553.

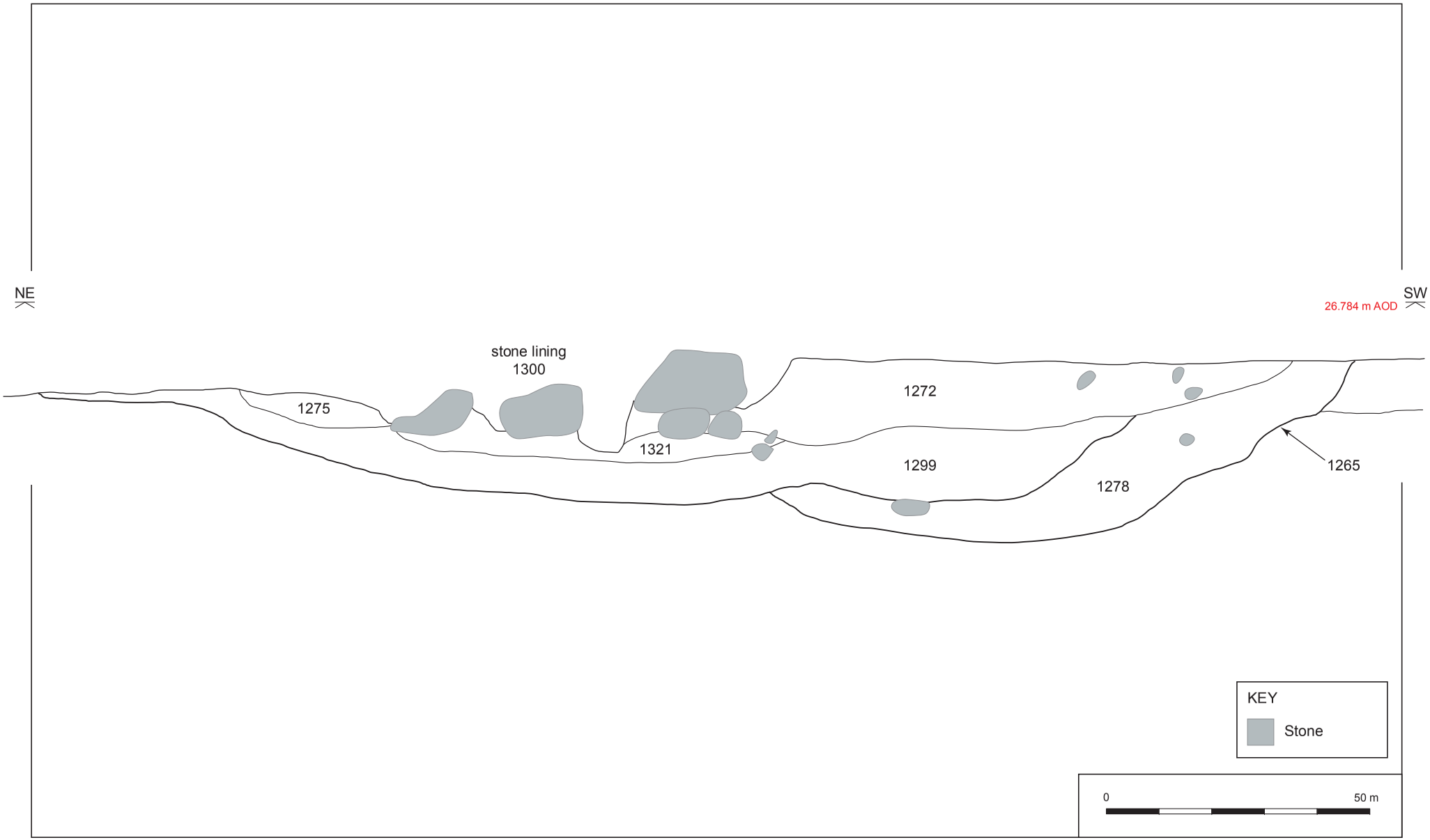
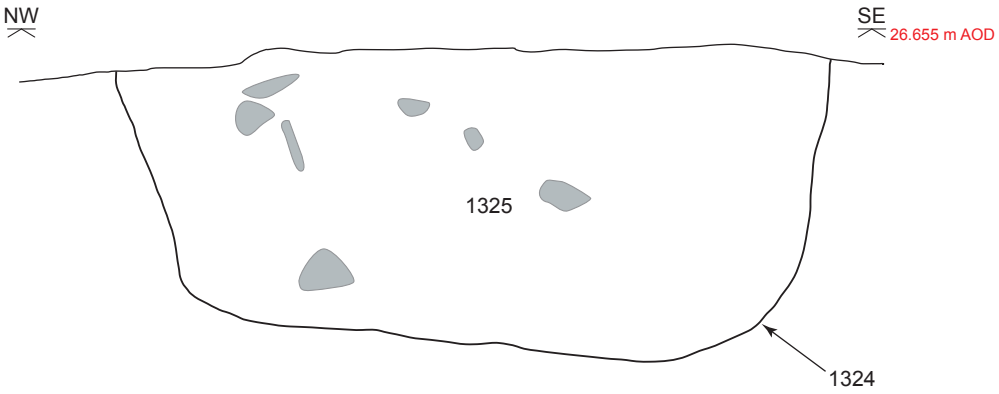


Figure 39 - NW-facing section of cereal-drying kiln 1265.



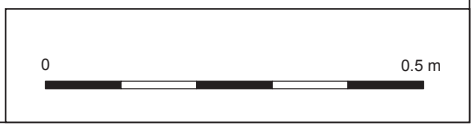
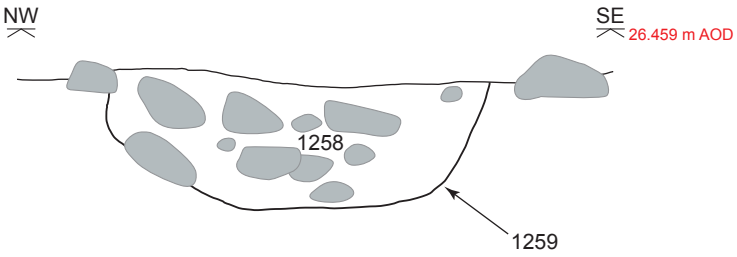


Figure 40 - SW-facing section of pit 1324.

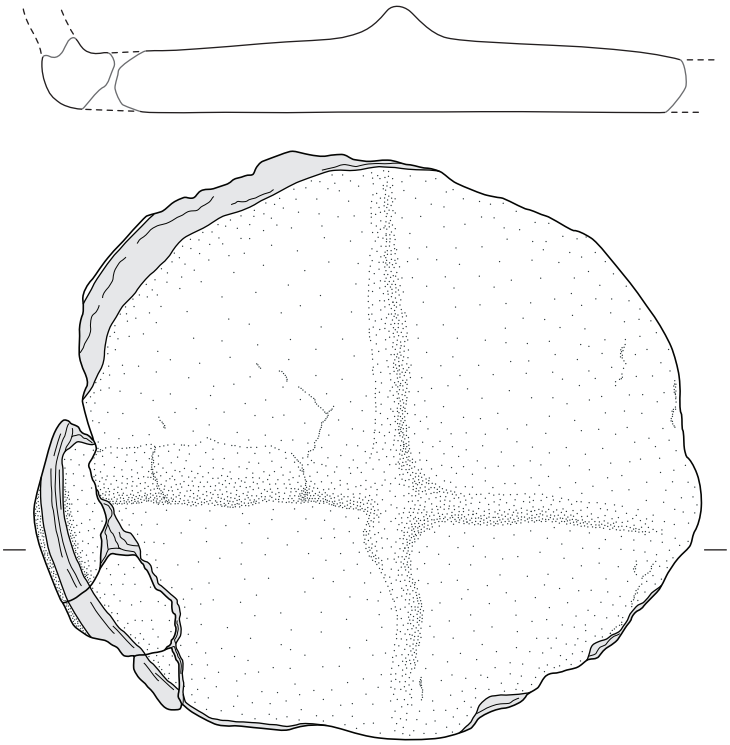


KEY

Stone

0 0.5 m

Figure 41 - SW-facing section of pit 1324.



YBD13: 1510:001
Base with internal decoration

Drawn by: Hannah Sims

0 10 cm

Figure 42 - Illustration of cordoned Bronze Age pottery base YBD13:1510:001.

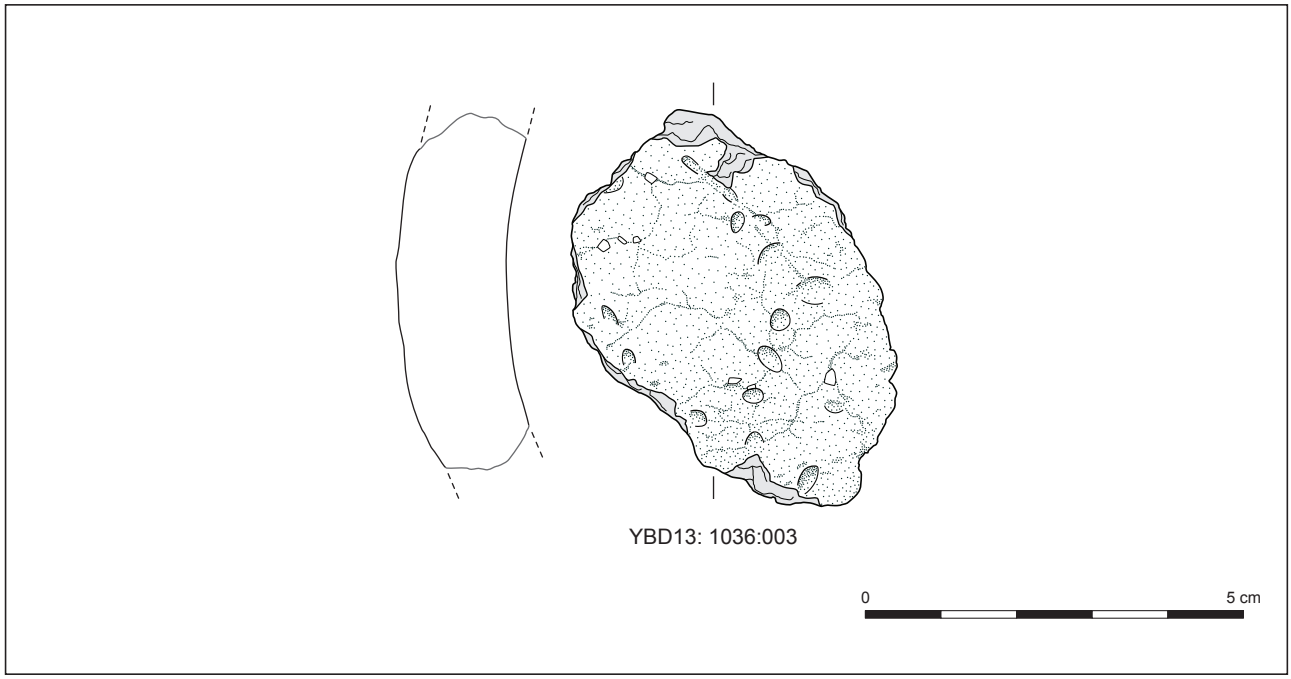


Figure 43 - Illustration of decorated Bronze Age pottery sherd YBD13:1036:003.

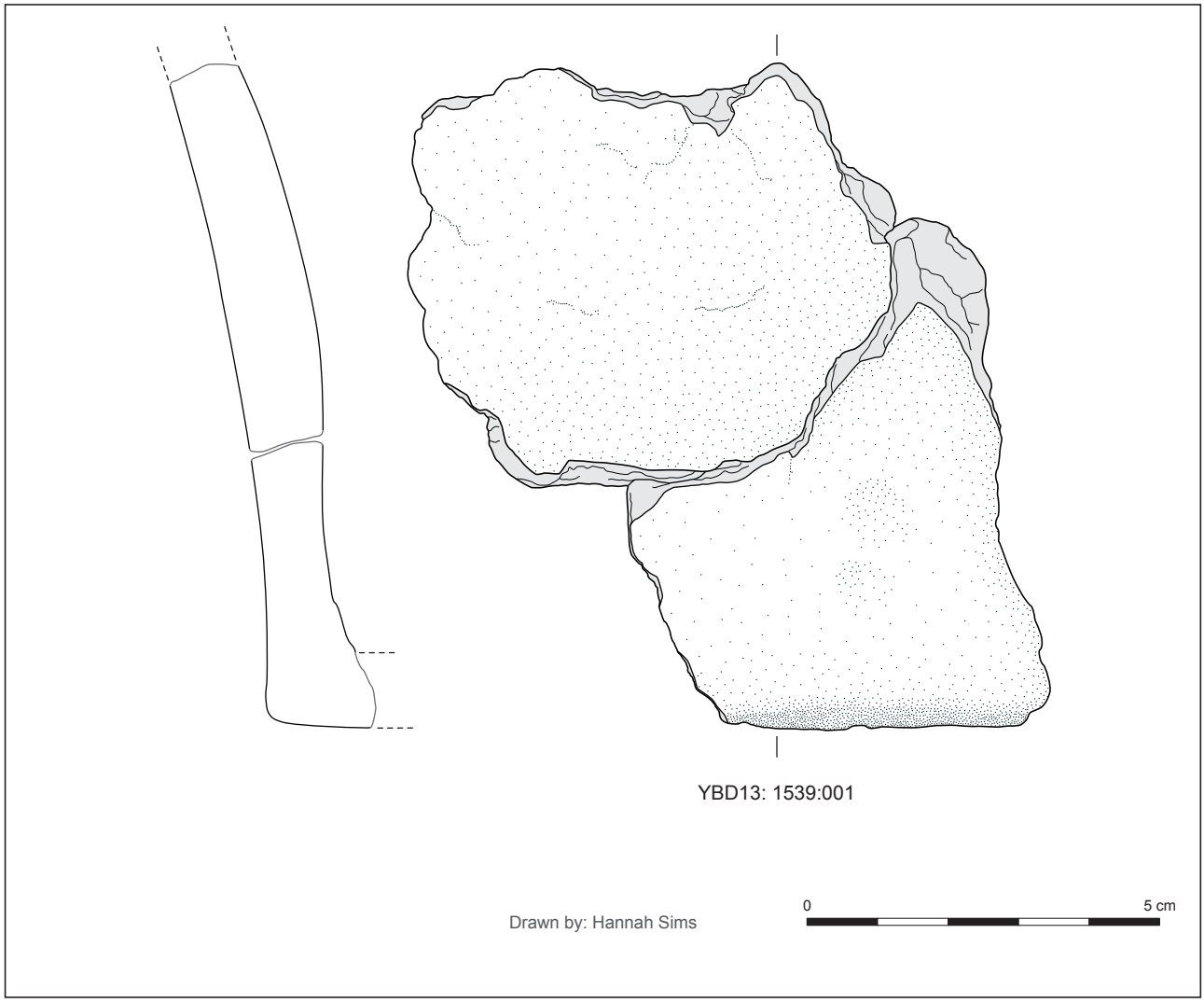
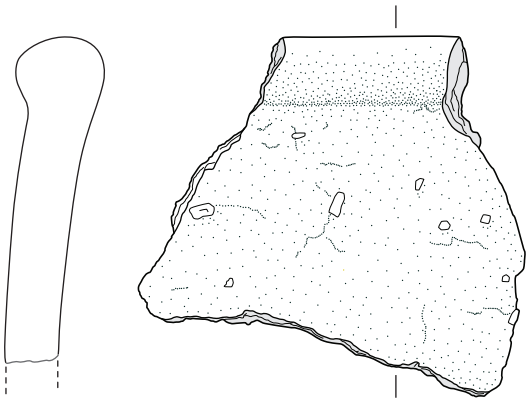


Figure 44 - Illustration of Bronze age pottery YBD13:1539:001.

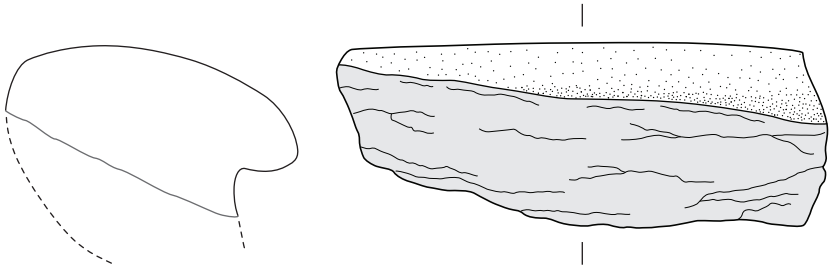


YBD13: 1003:005

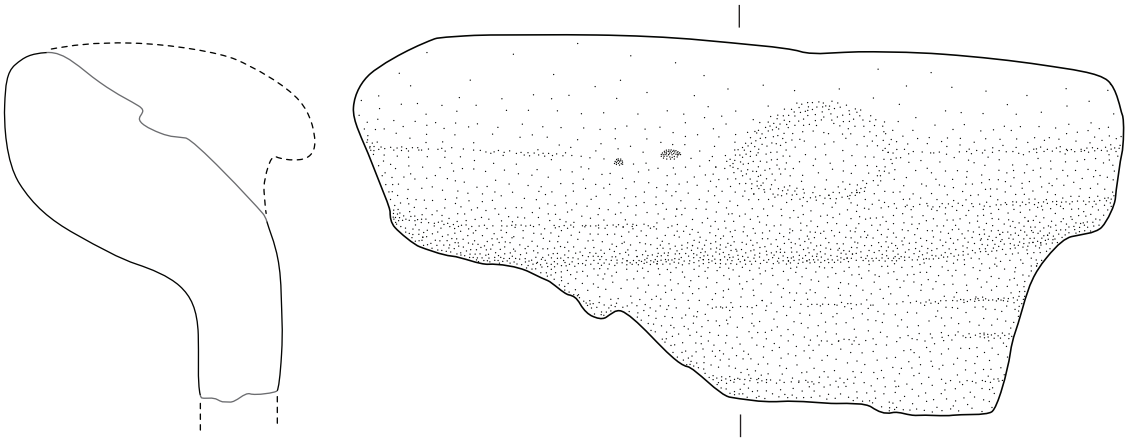
Drawn by: Hannah Sims

0 5 cm

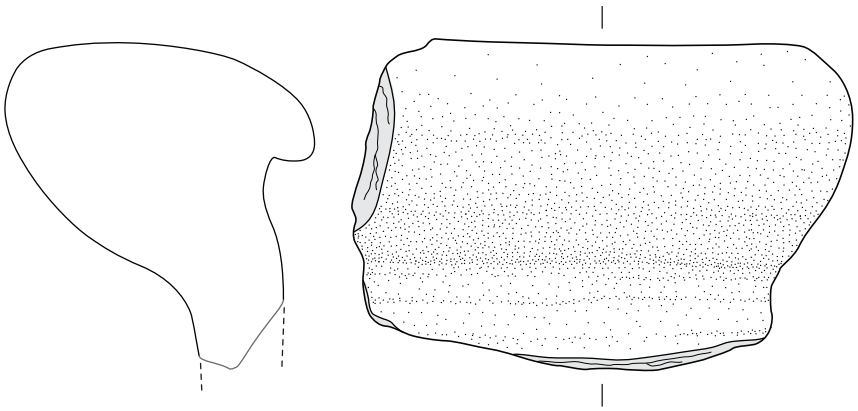
Figure 45 - Illustration of Middle Iron Age pottery rim sherd YBD13:1003:005.



YBD13: 1001:002
Amphora Vessel 1 (Rim)



YBD13: 1003:002
Amphora Vessel 1 (Rim)

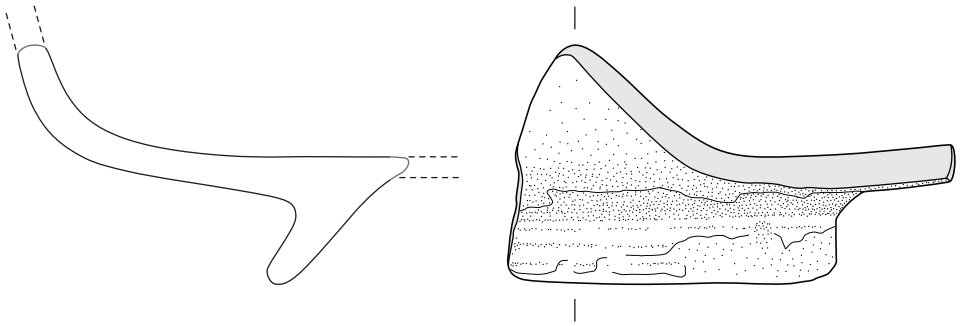


YBD13: 1003:003
Amphora Vessel 1 (Rim)

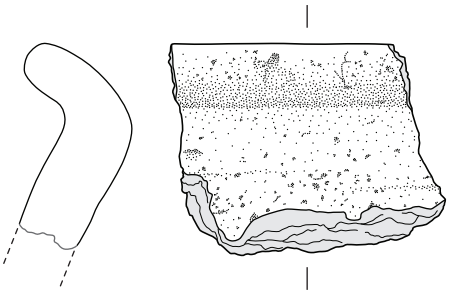
Drawn by: Hannah Sims

0 5 cm

Figure 46 - Illustration of Roman pottery recovered from the site.



YBD13: 1013:001
Central Gaulish Terra Sigillata
(Bowl Base)

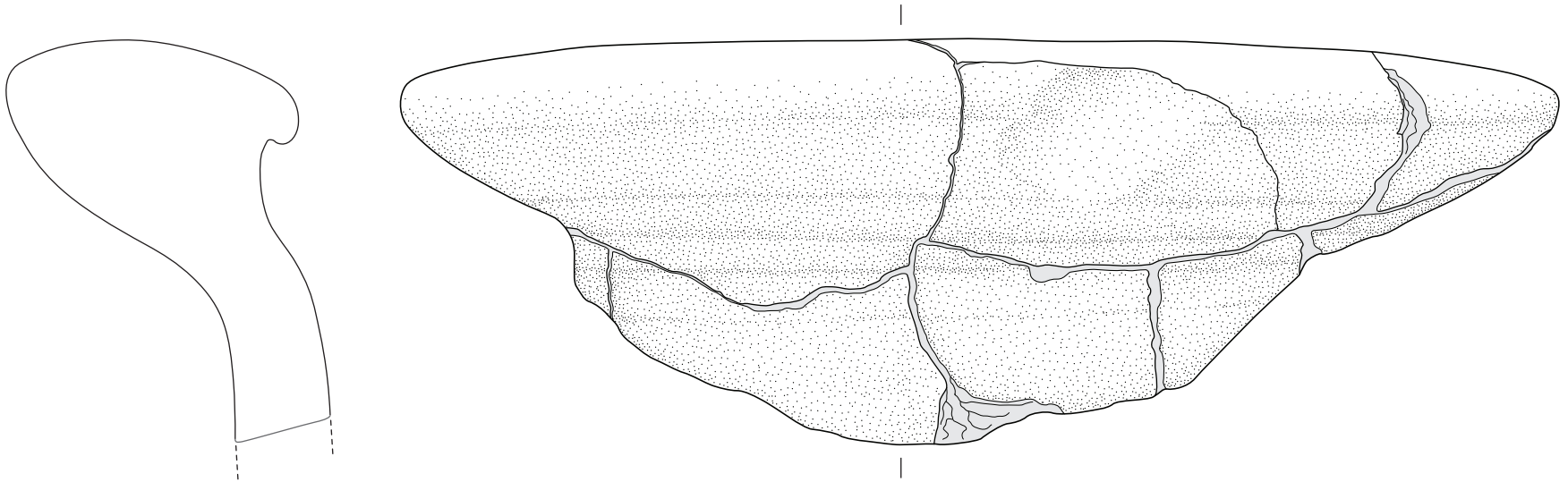


YBD13: 1164:002
South Midlands Shell-tempered Ware
(Jar Rim)

Drawn by: Hannah Sims

0 5 cm

Figure 47 - Illustration of Roman pottery recovered from the site.

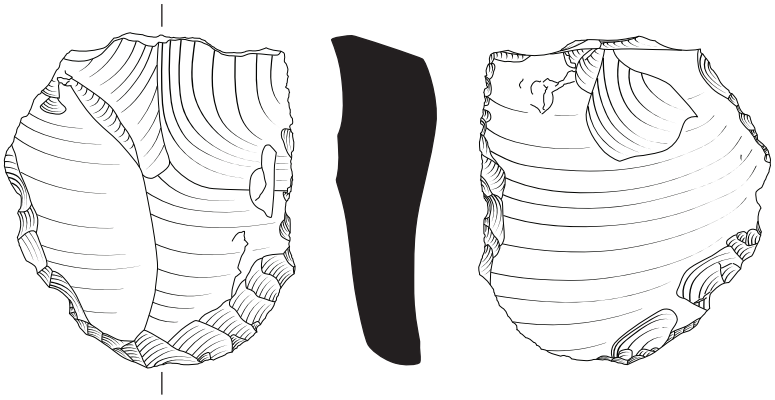


YBD13: 1038:001
Amphora Vessel 2 (Rim & Neck)

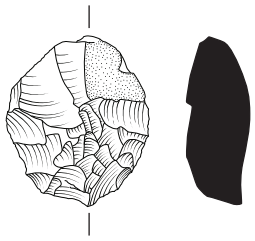
Drawn by: Hannah Sims

0 5 cm

Figure 48 - Illustration of Roman pottery recovered from the site.



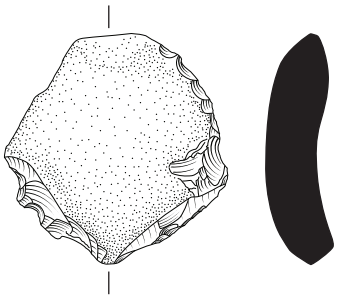
YBD13: 1001B:003
End & side flint scraper



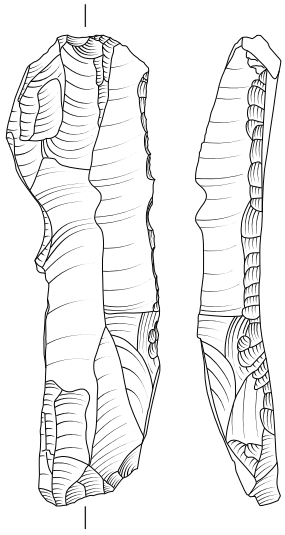
YBD13: 1210:001
Flint thumbnail scraper

YBD13: 1430:004
Possible flint microlith

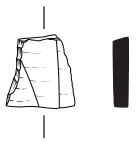
YBD13: 1430:011
Concave flint scraper



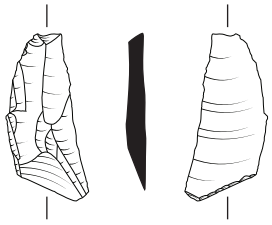
YBD13: 1430:035
Flint side scraper/spurred piece



YBD13: 1697:001
Flint side scraper



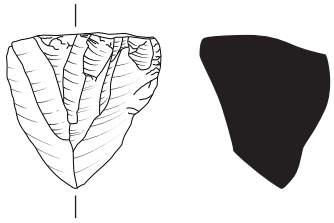
YBD13: 2142:004
Possible flint microlith



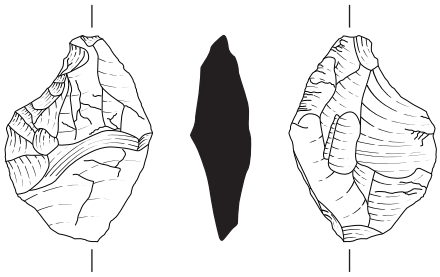
YBD13: 3001:076
Truncated flint bladelet

Drawn by: Hannah Sims

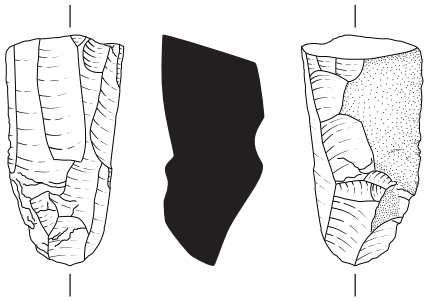
Figure 49 - Illustrations of a selection of lithics recovered from the site.



YBD13: 3001:186
Flake & bladelet flint core



YBD13: 3001:196
Concavo-convex chert scraper



YBD13: 3001:312
Chert bladelet core

Drawn by: Hannah Sims

0 5 cm

Figure 50 - Illustrations of a selection of lithics recovered from the site.

Plate 1 - Overview of Area 1

Plate 2 - View of ring-ditches [1010] and [1159]

Plate 3 - View of ring-ditch [1291] and pit cluster

Plate 4 - View of ring-ditches [1281] and [1191]

Plate 5 - View of prehistoric structure [1382] Area 1

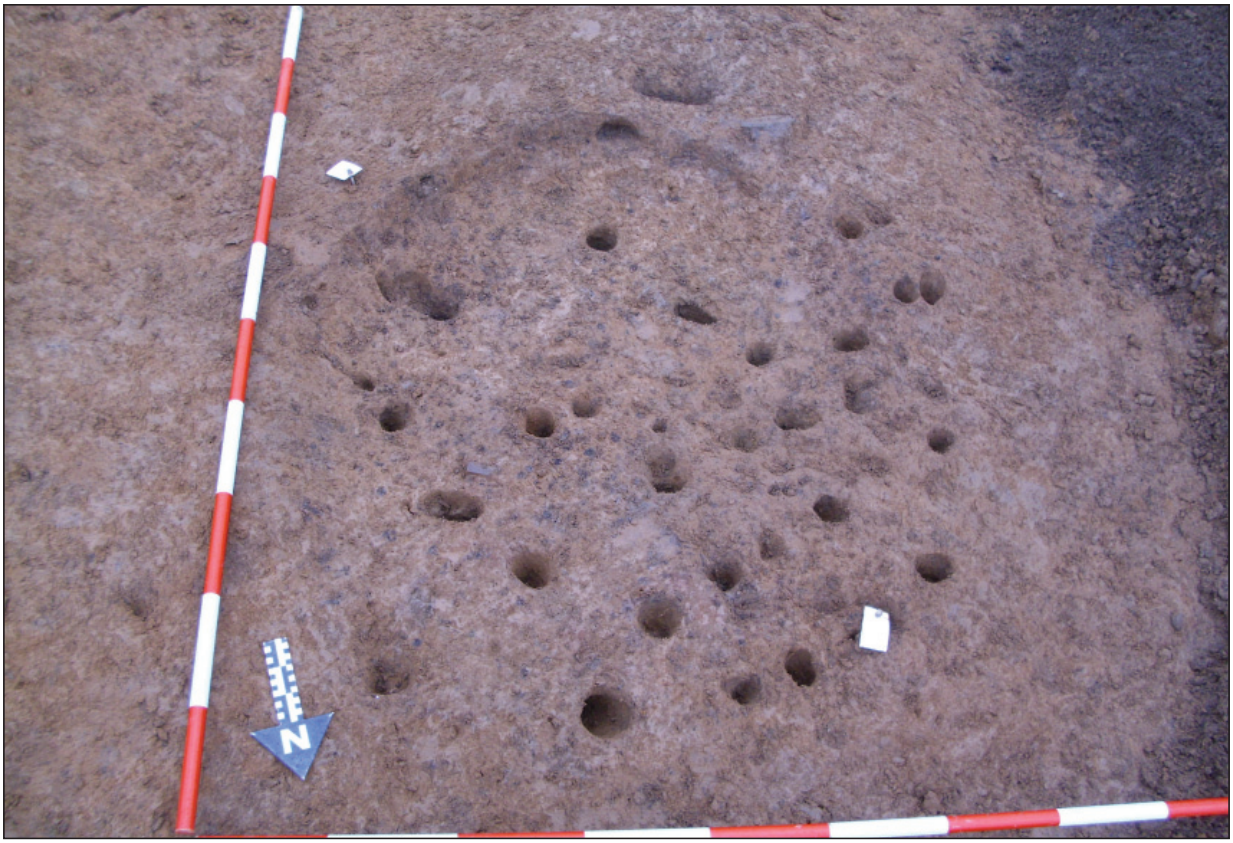


Plate 6 - Post-excavation view of charcoal production pit [093] in Area 5.1b

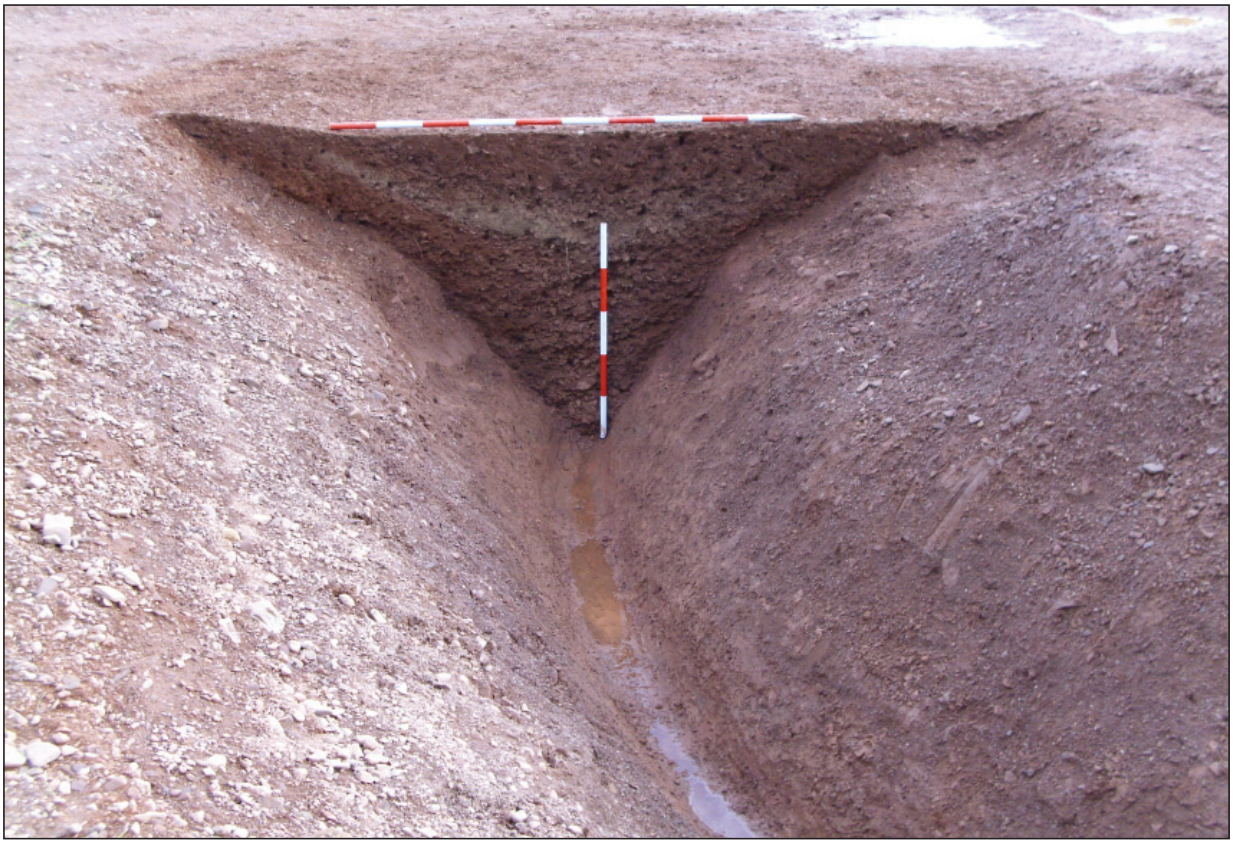


Plate 7 - North-facing section of ring-ditch [1010]

Plate 8 - Post-excavation view of possible Neolithic structure in Area 1

Plate 9 - Mid-excavation view of kiln [1265], showing fuel ash slag in Area 1.

Plate 10 - Mid-excavation view of post-hole [1335] showing in situ packing stones

Plate 11 - View of flat cemetery near ring-ditch [1191]

Plate 12 - Post-excavation view of prehistoric structure [1382]

Plate 13 - Mid-excavation view of kiln [2008]

Plate 14 - Post-excavation view of possible cereal-drying kiln [2004]

Plate 15 - Mid-excavation view of roasting pit or pot-boiler [1553] in Area 1

Plate 16 - Mid-excavation view of linear ditches [2009] and [2011] that form part of Rectangular Enclosure 2 in Area 2

Plate 17 - Mid-excavation view of the corner [2120] of Rectangular Enclosure 1 in Area 2

Plate 18 - Mid-excavation view of cremation [1501] Spit 2

Plate 19 - Post-excavation view of cremation pit [1280] cutting ring-ditch [1291]

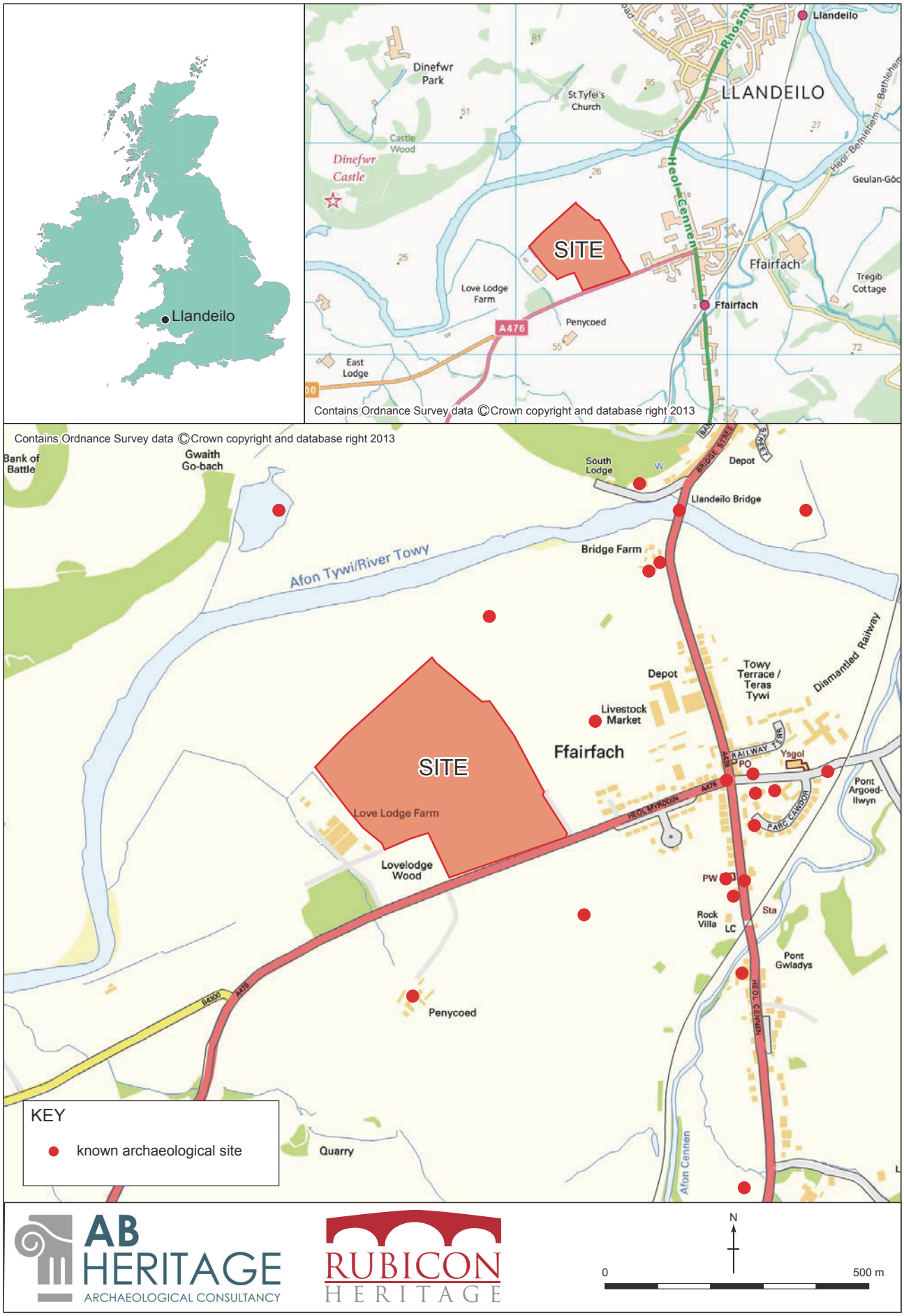


Figure 1 - Site location and Historic Environment Record (HER) data.

Figure 2 - Aerial view of site showing surrounding landscape.

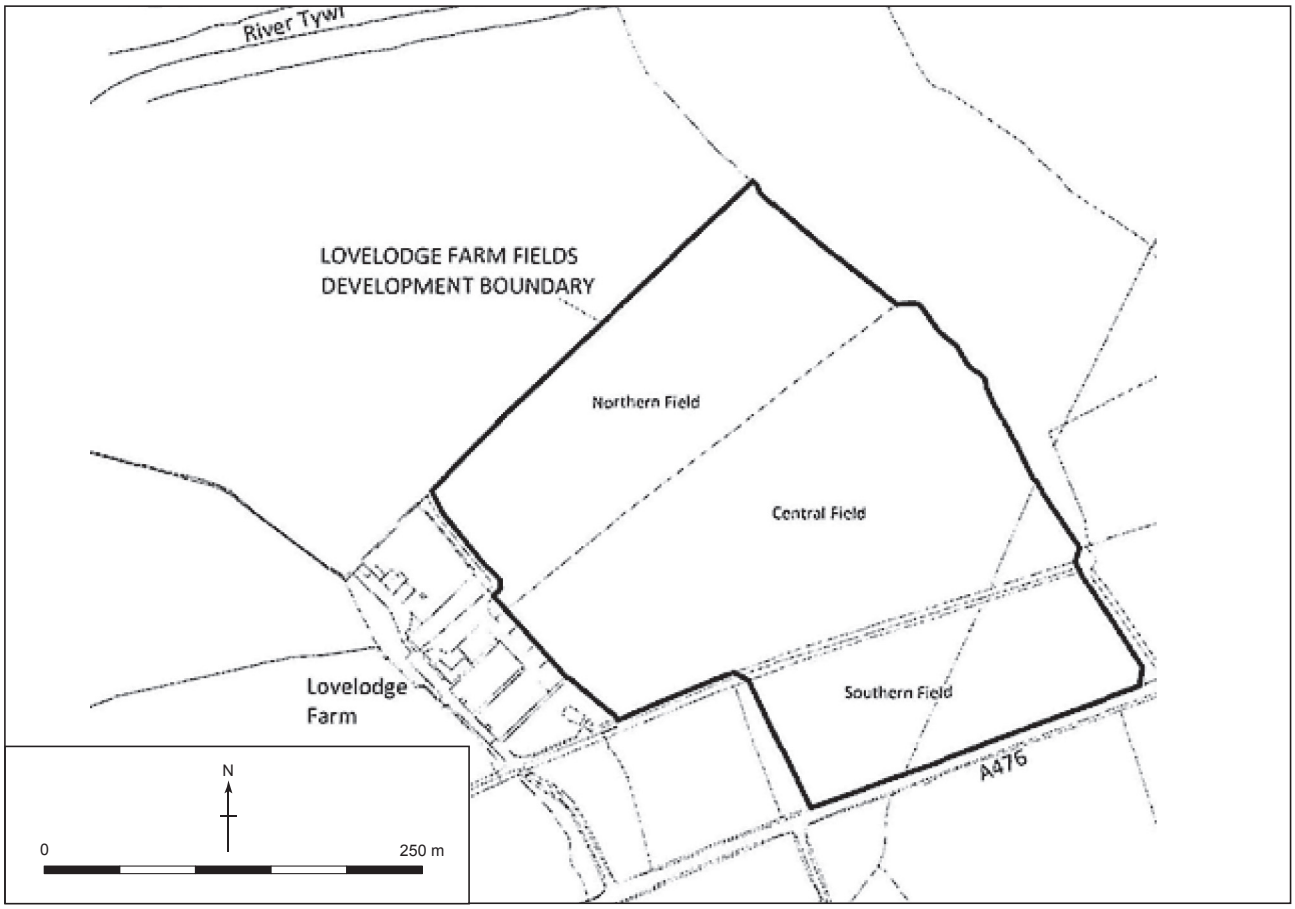


Figure 3 - Proposed development site boundaries.

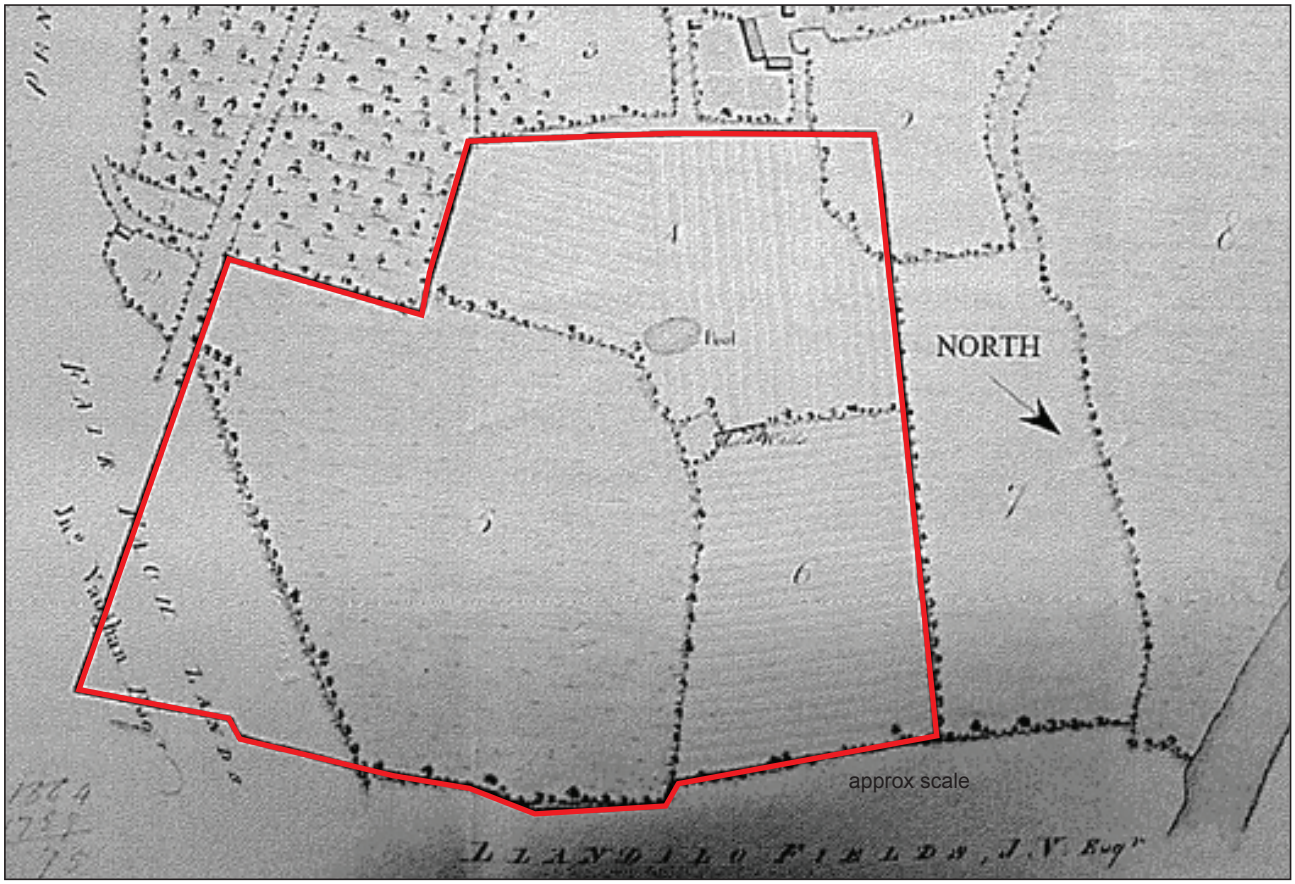


Figure 4 - Extract from the 1793 Golden Grove Estate Map.

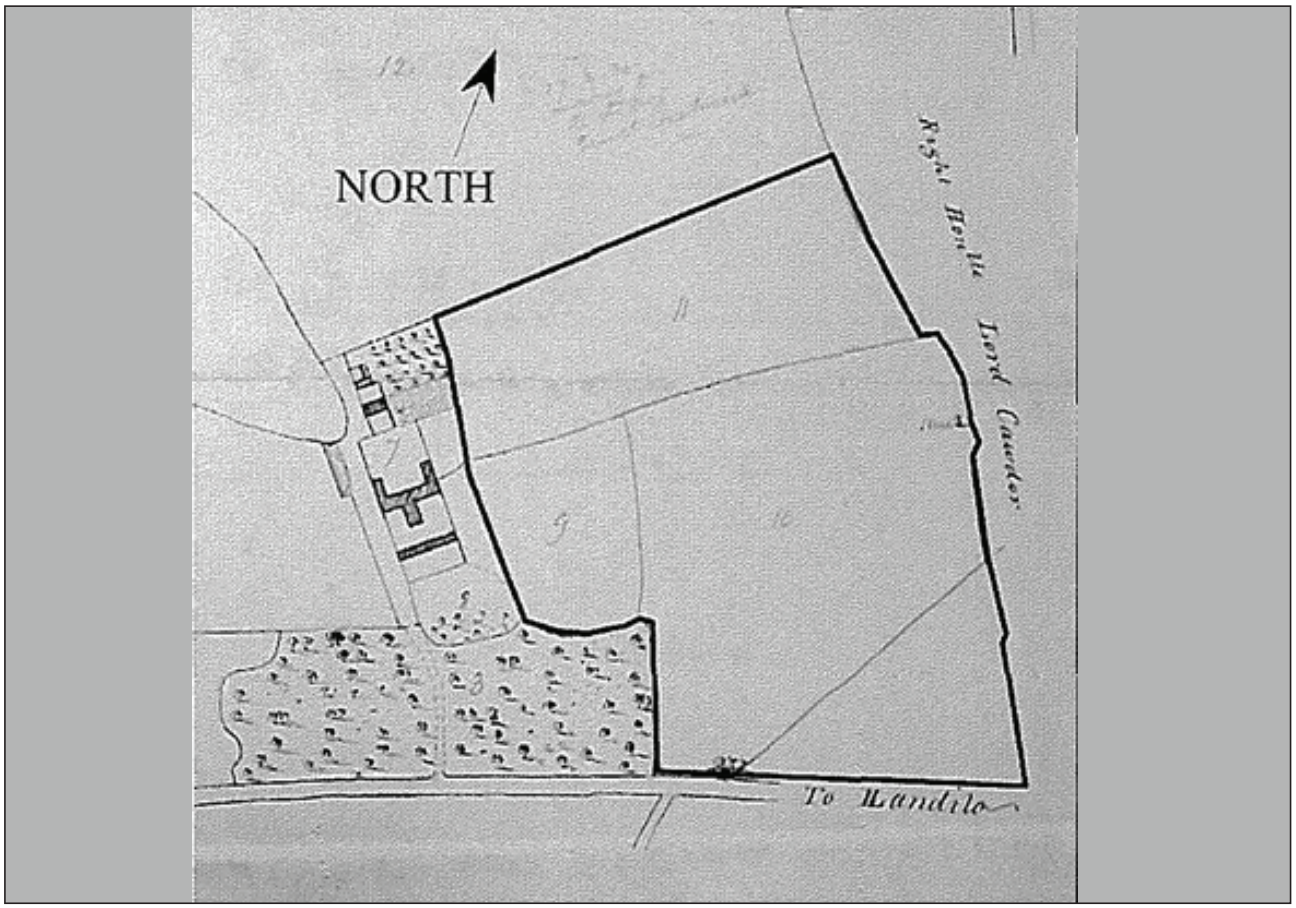


Figure 5 - Extract of Estate Map of Love Lodge 1810.

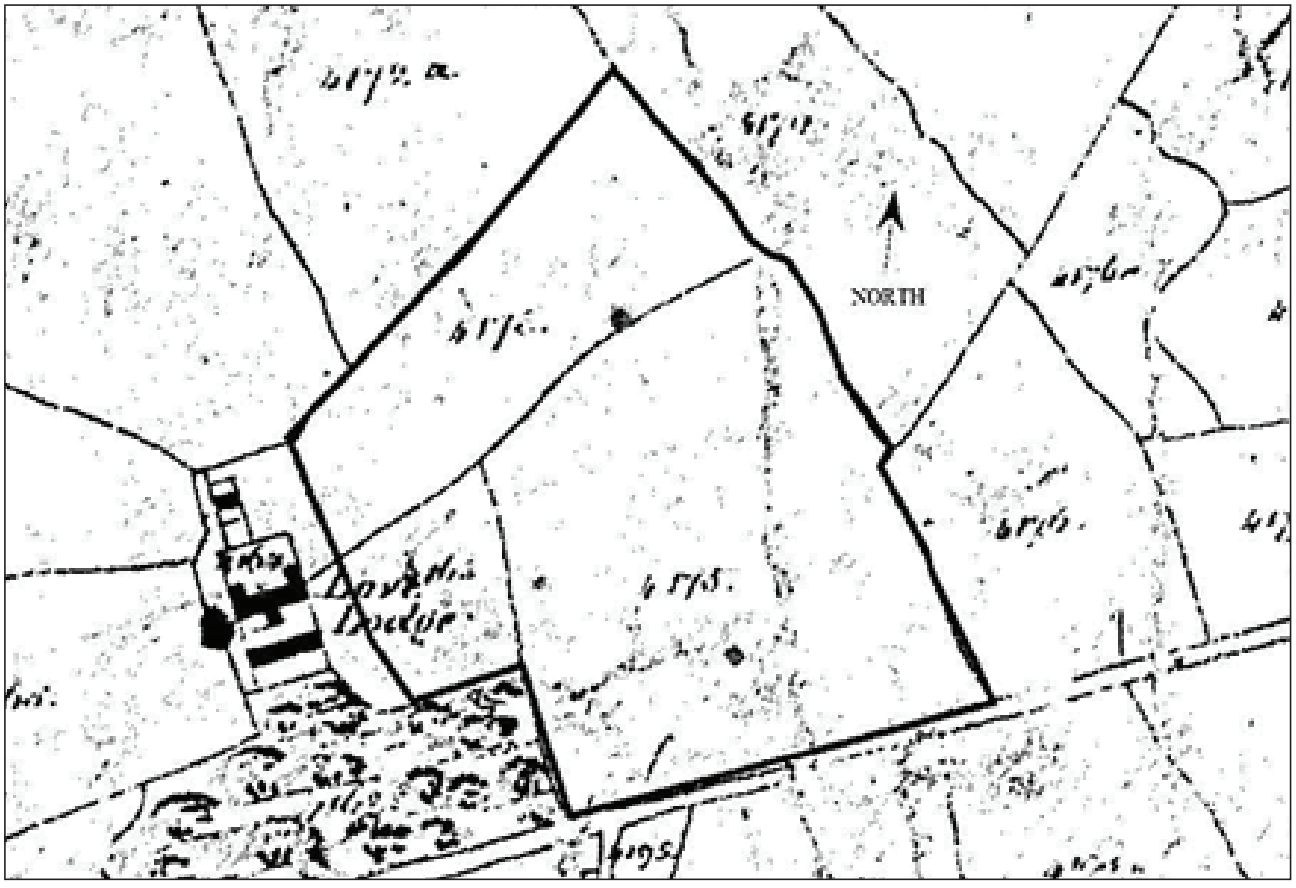


Figure 6 - Extract of 1841 Tithe Map.

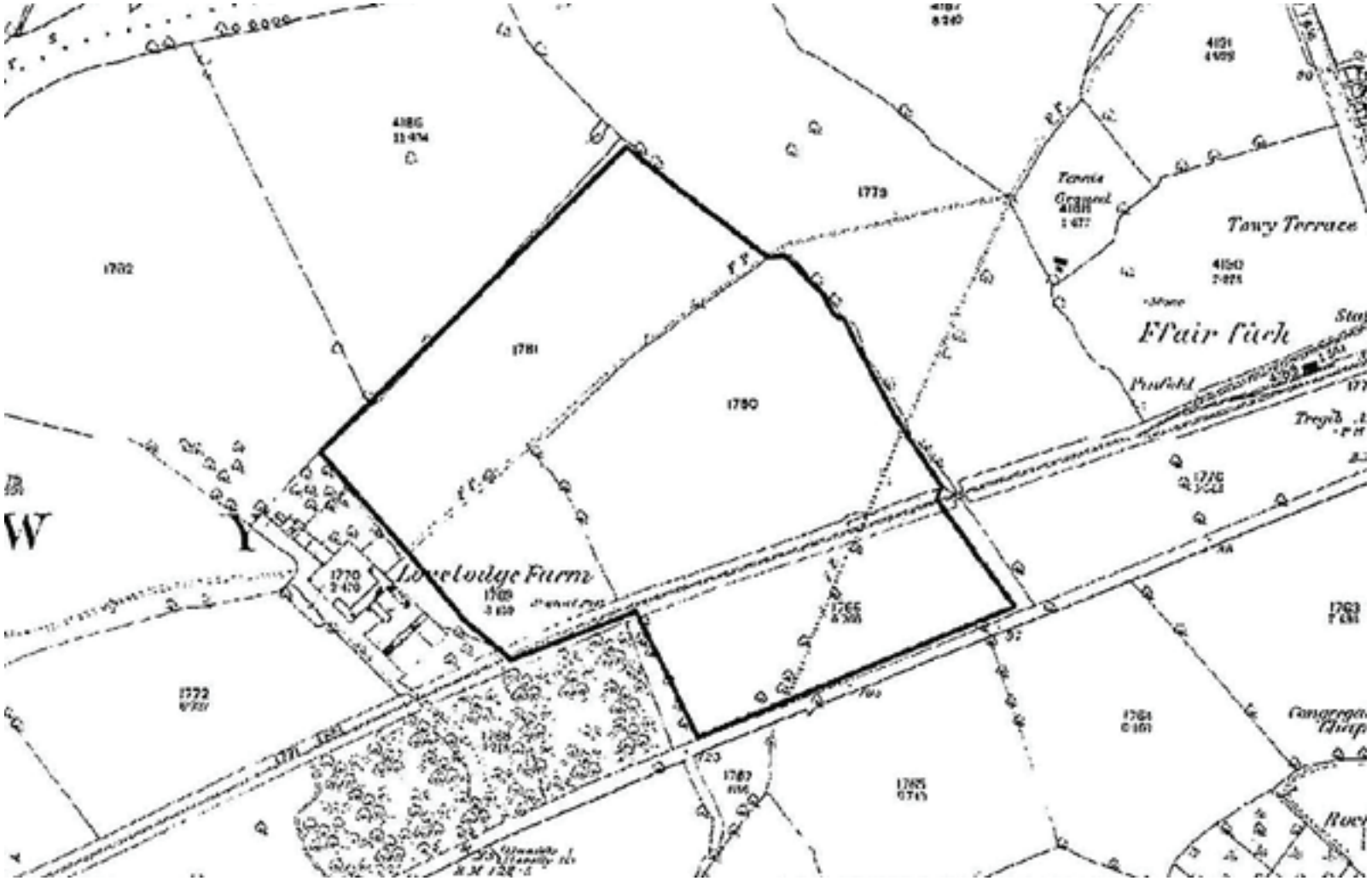


Figure 7 - Extract from the 1884 First Edition Ordnance Survey map.

Figure 8 - Geophysical survey results, presented as a grey-scale plot, and original trenches, positioned to target identified geophysical anomalies.

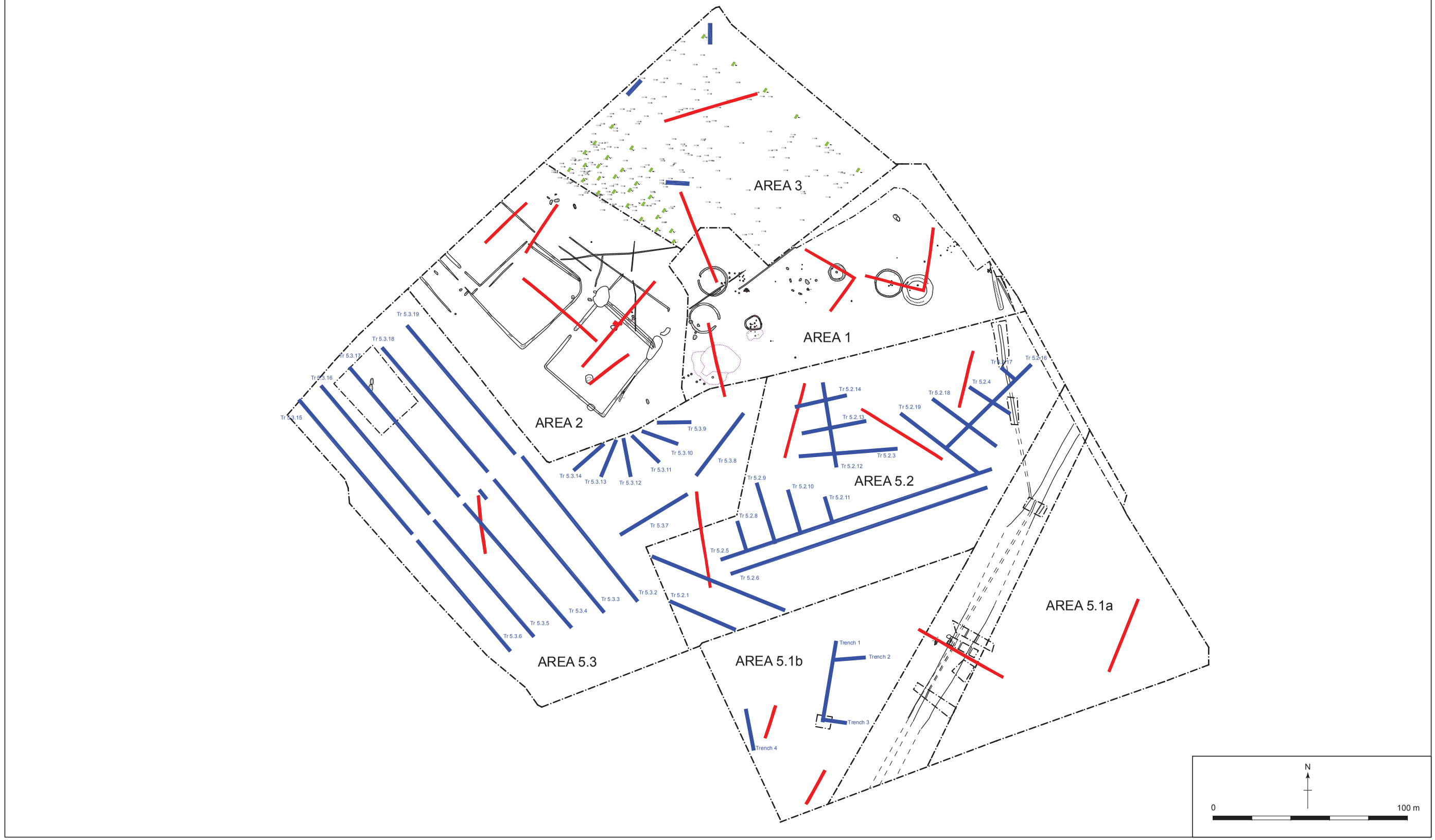


Figure 9 - Original trenching (red), additional trial trenching (blue) and Test Pits (green).

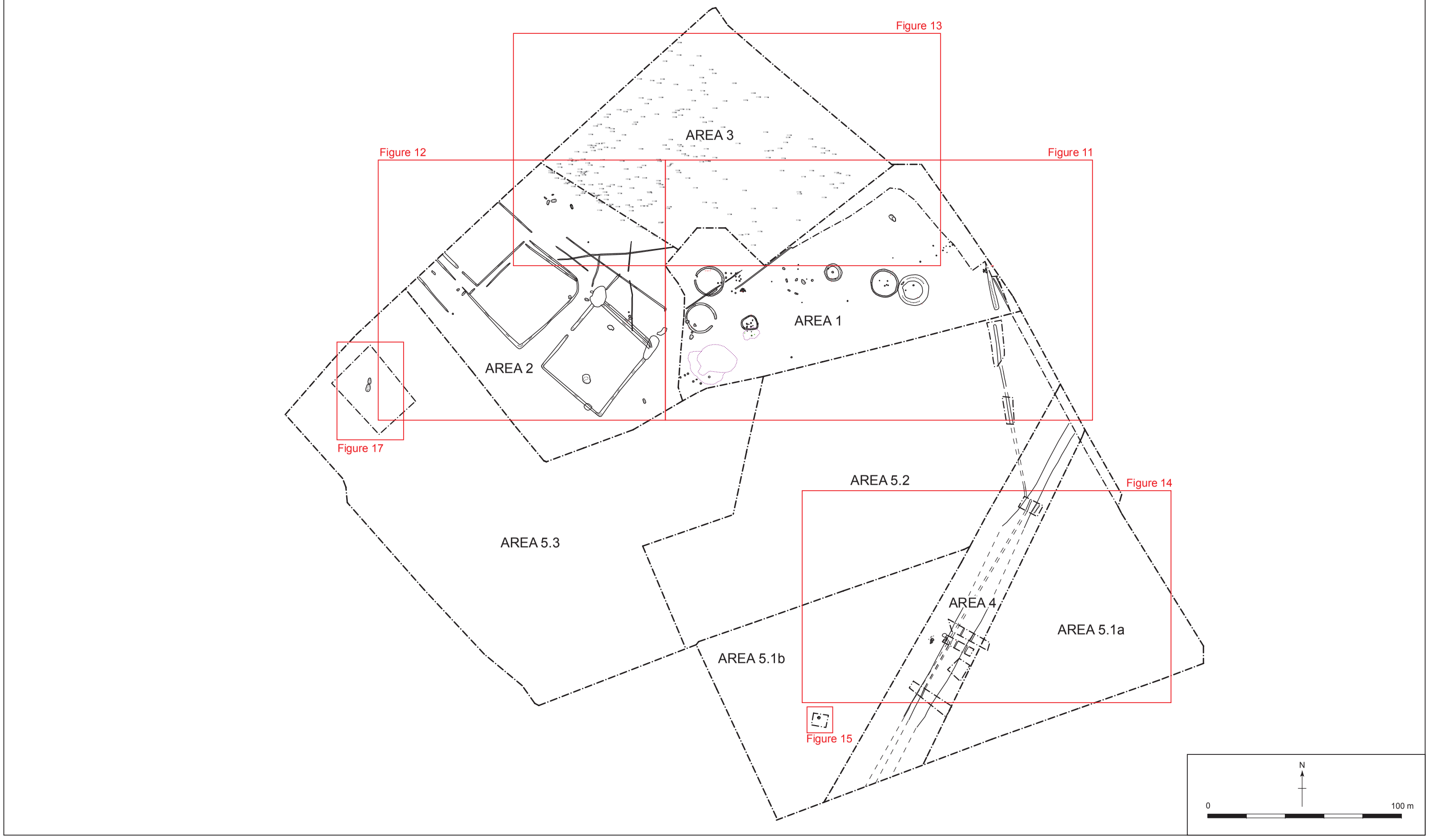


Figure 10 - Overall site excavation map.

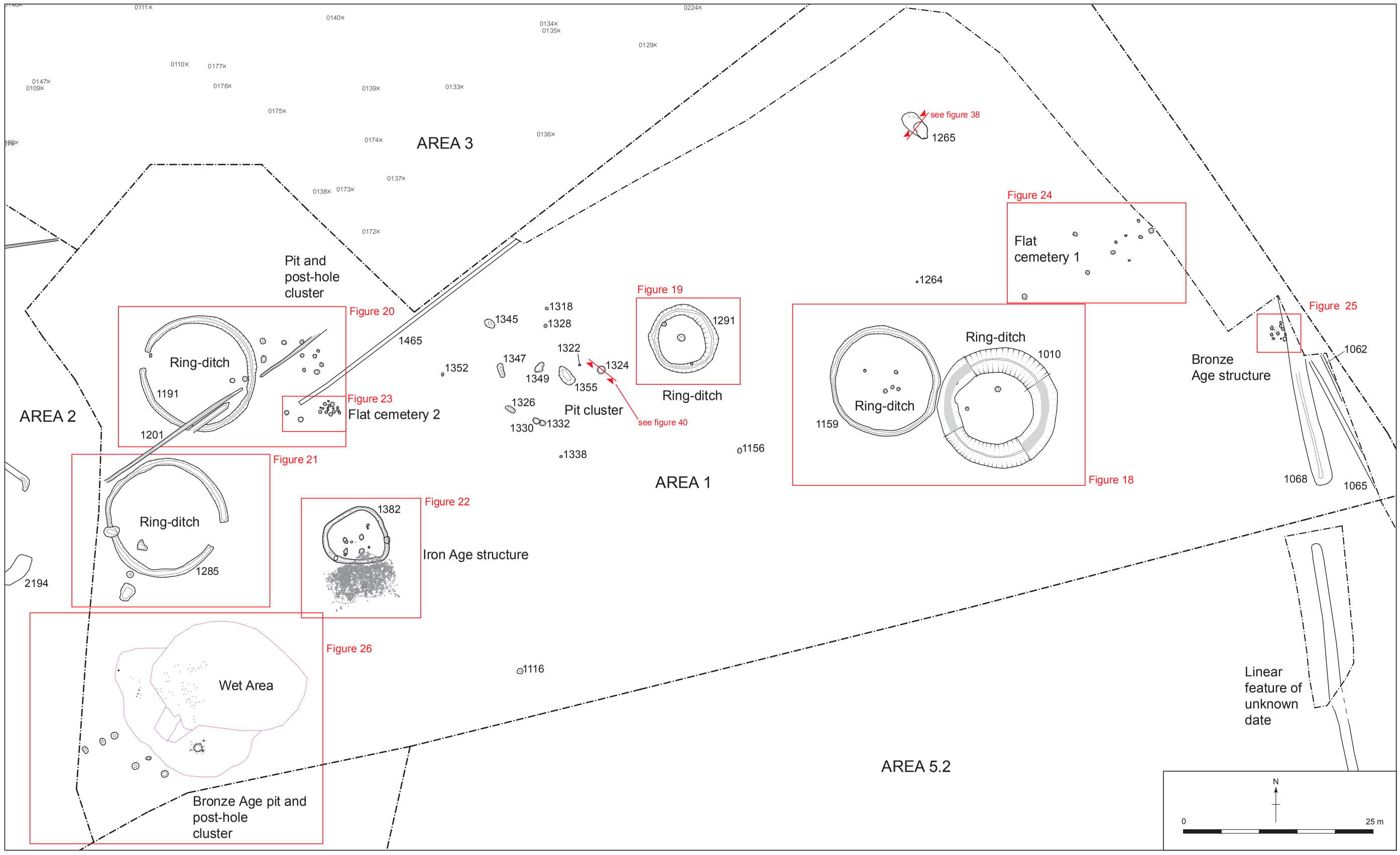


Figure 11 - Layout of Area 1.

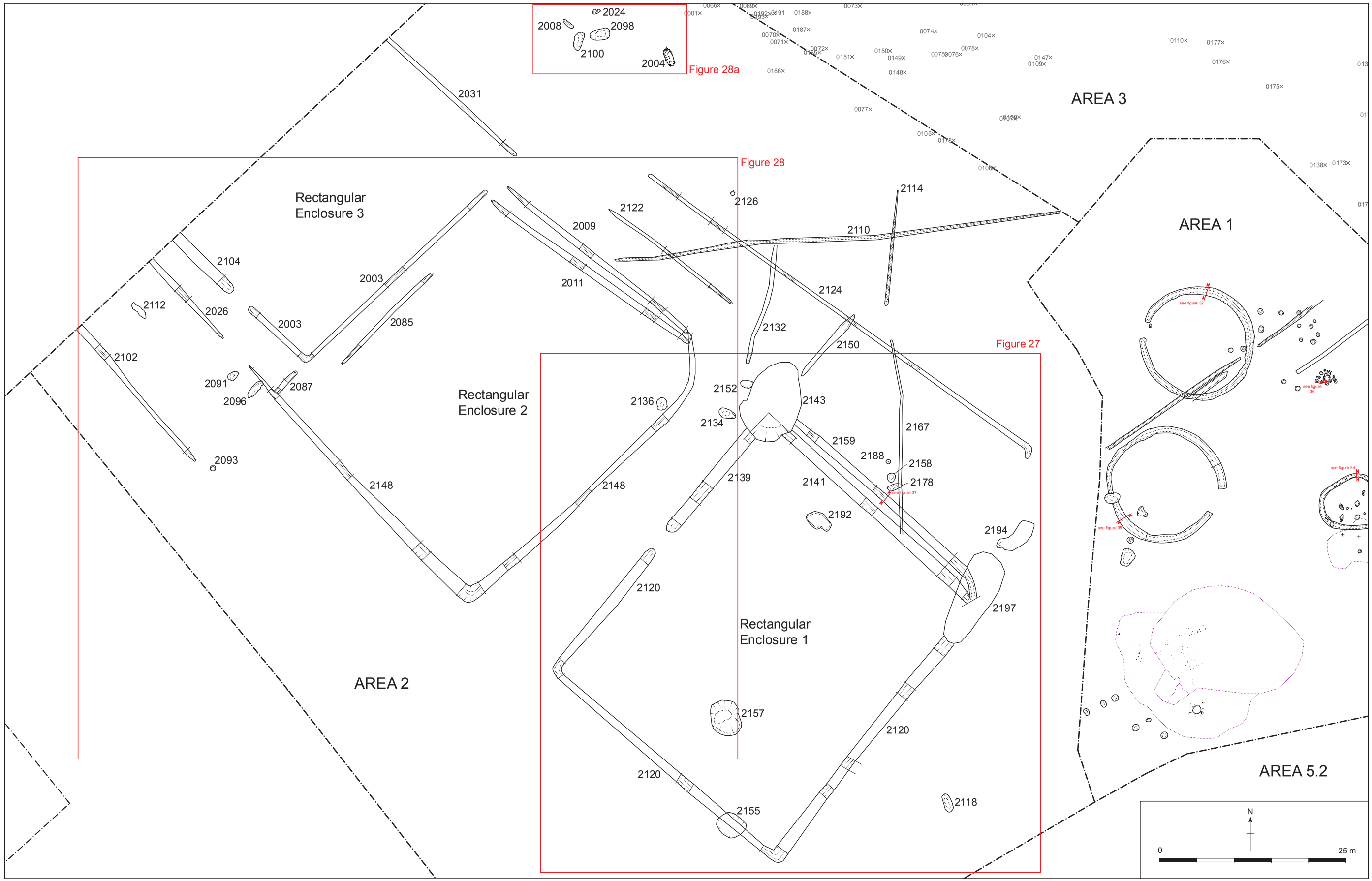


Figure 12 - Layout of Area 2.

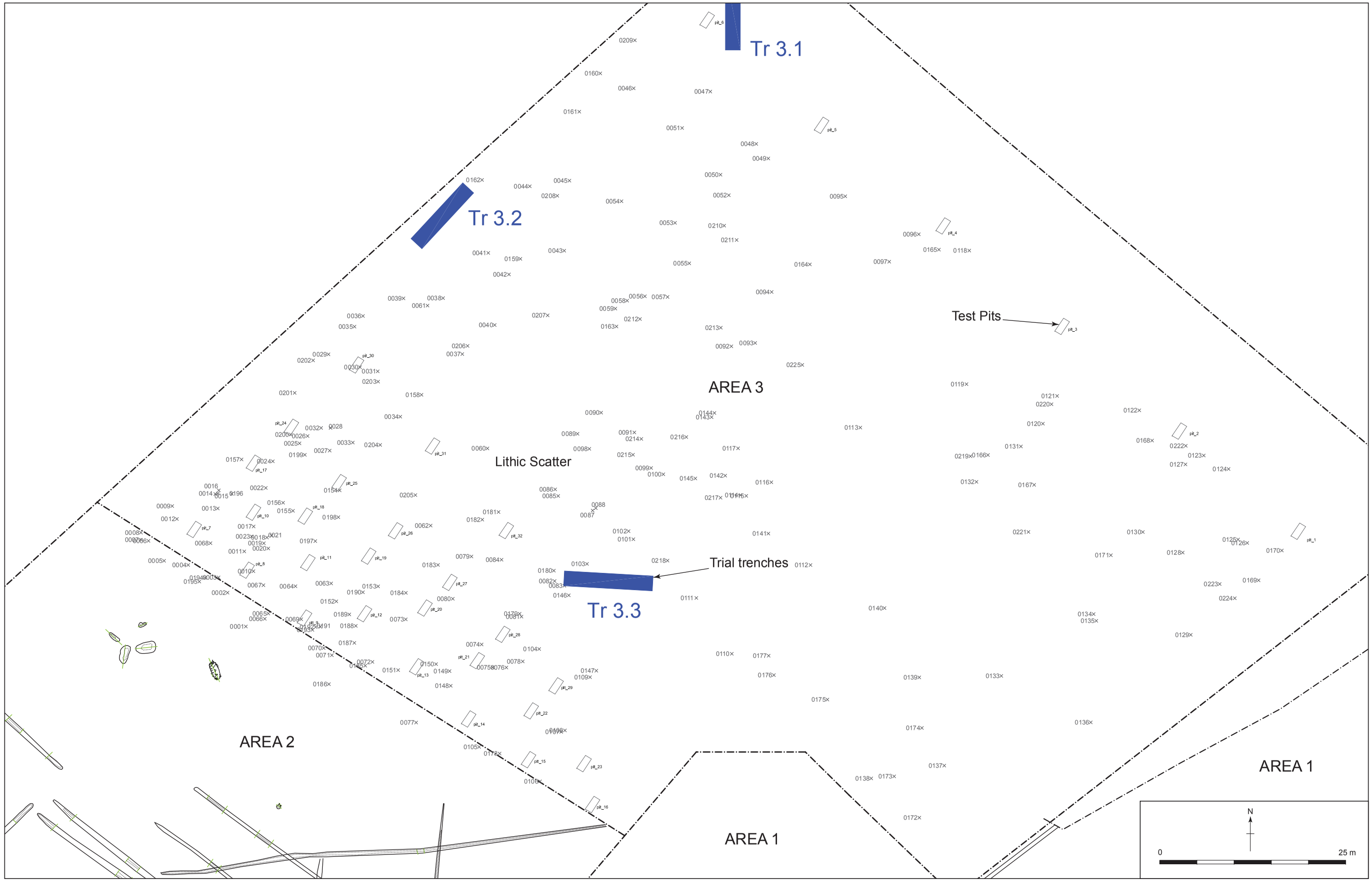


Figure 13 - Lithics scatter in Area 3.

Figure 14 - Layout of Area 4.

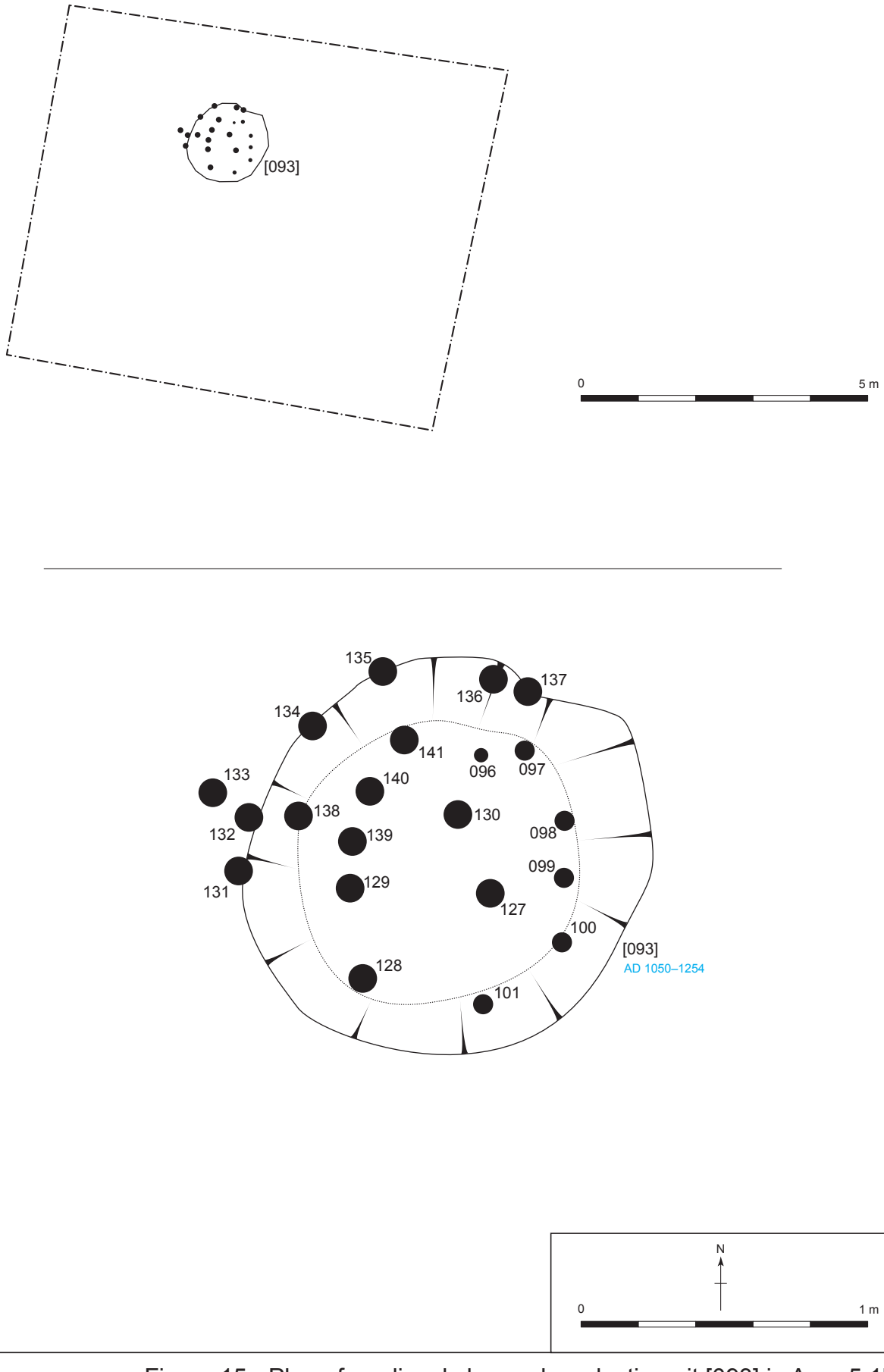


Figure 15 - Plan of medieval charcoal production pit [093] in Area 5.1b.

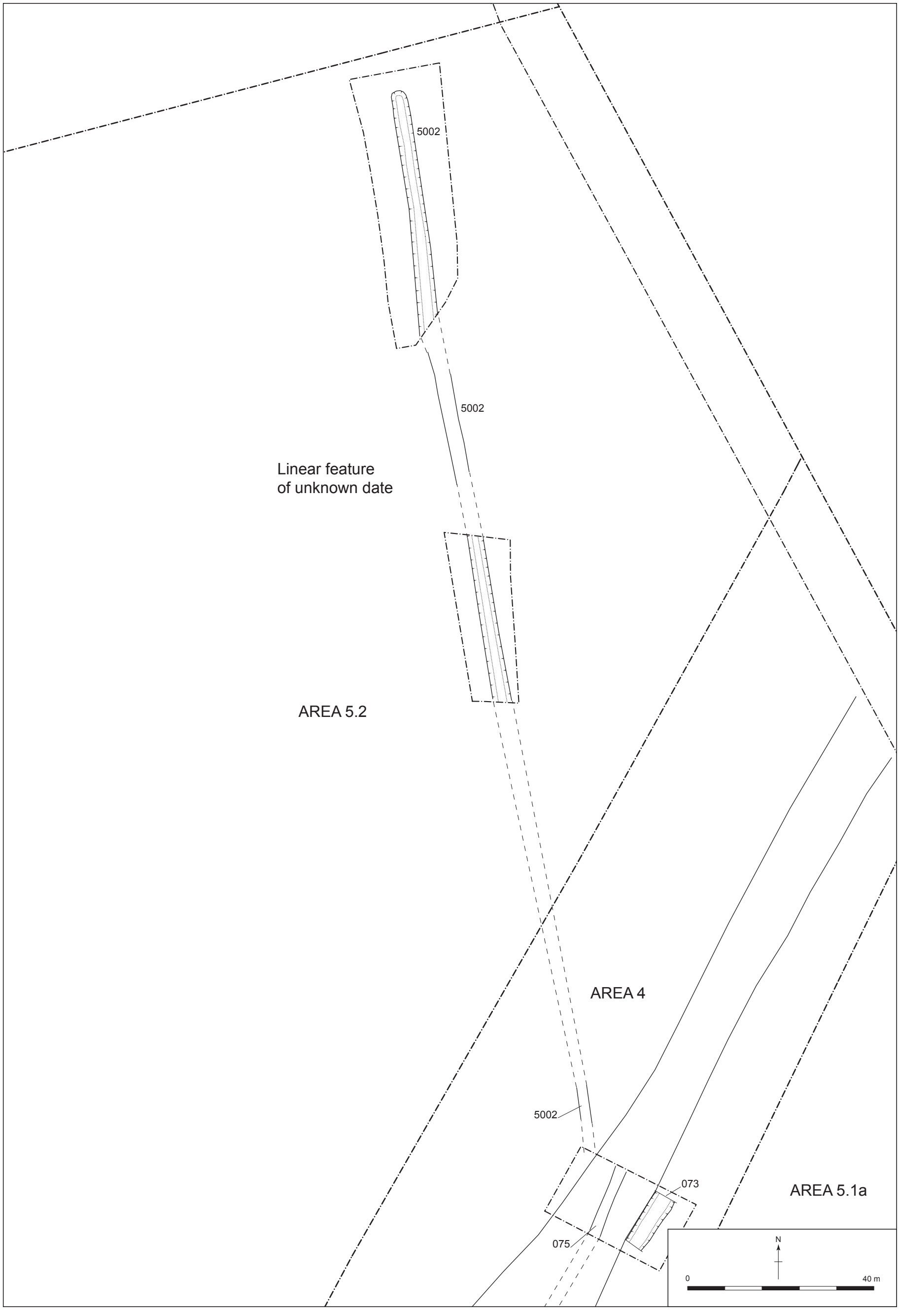
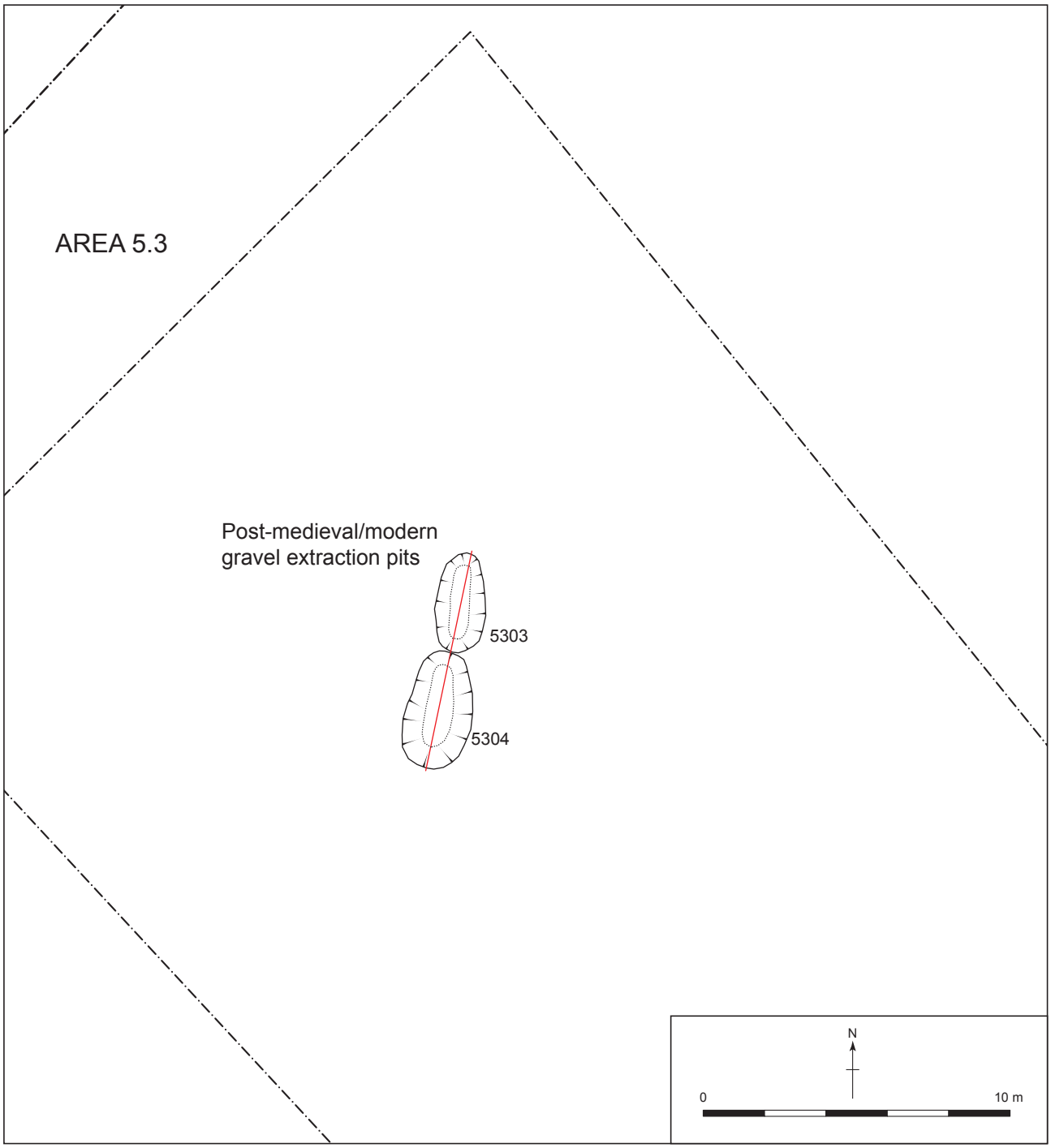


Figure 16 - Boundary ditch in Area 5.2.



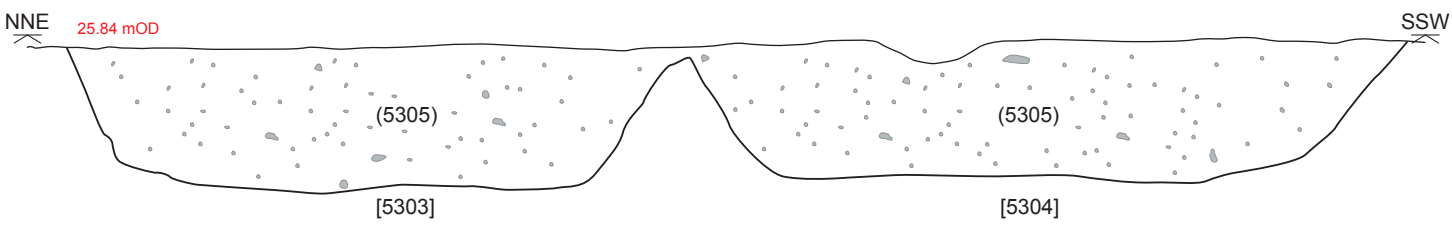


Figure 17 - Post-medieval/modern gravel extraction pits in area 5.3, with section through [5303] and [5304].

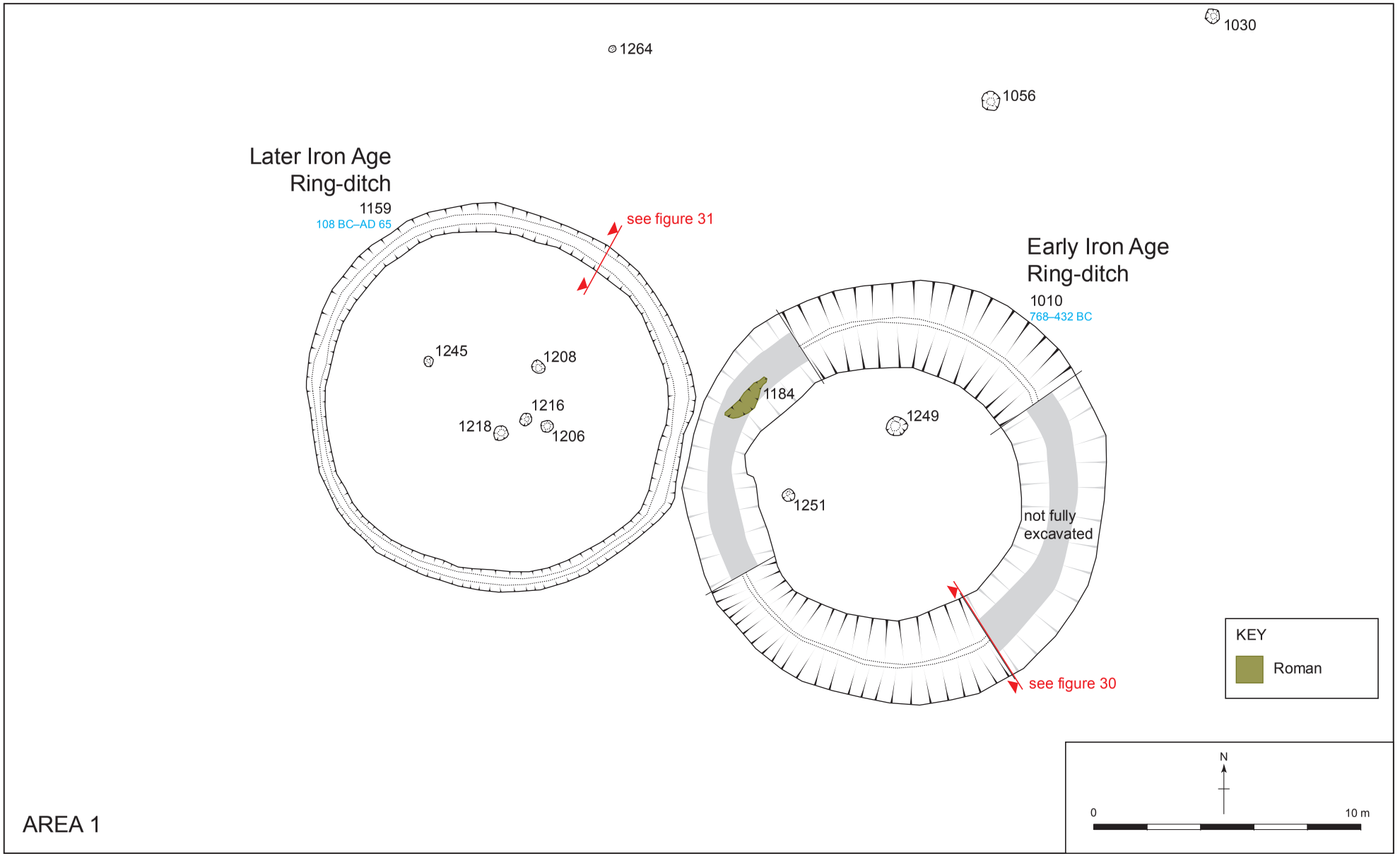
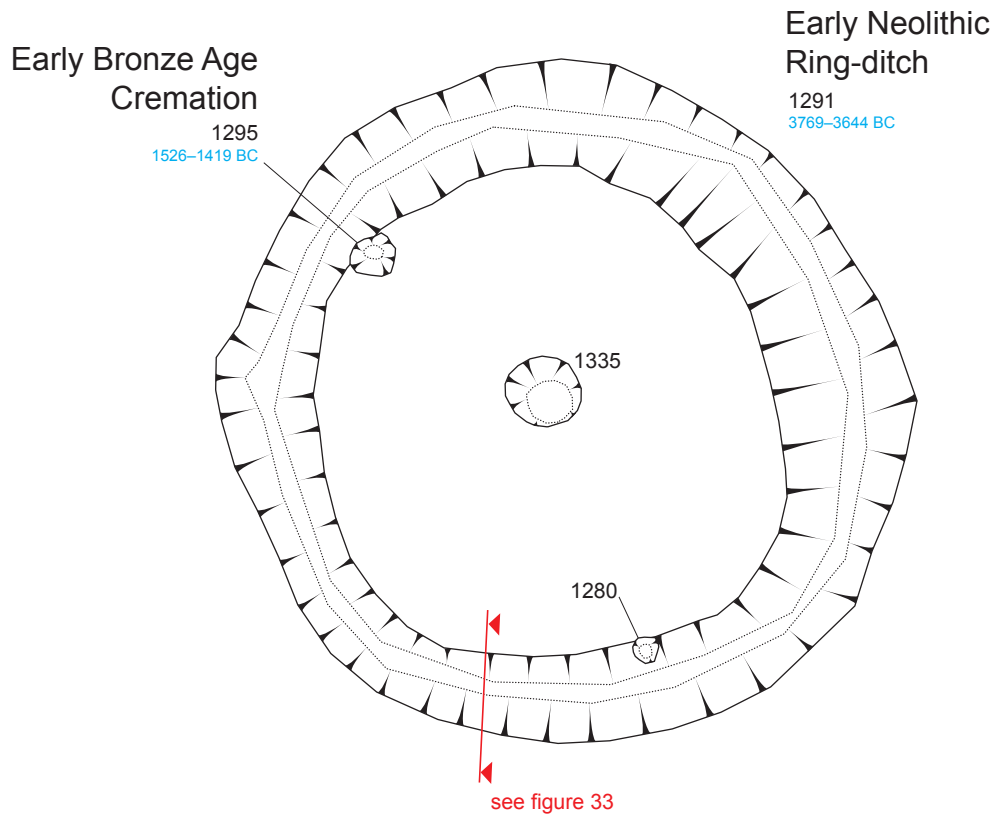


Figure 18 - Plan of ring-ditches [1010] and [1159], Area 1.



AREA 1

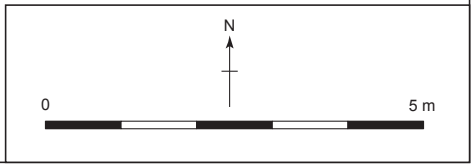


Figure 19 - Plan of ring-ditch [1291], Area 1.

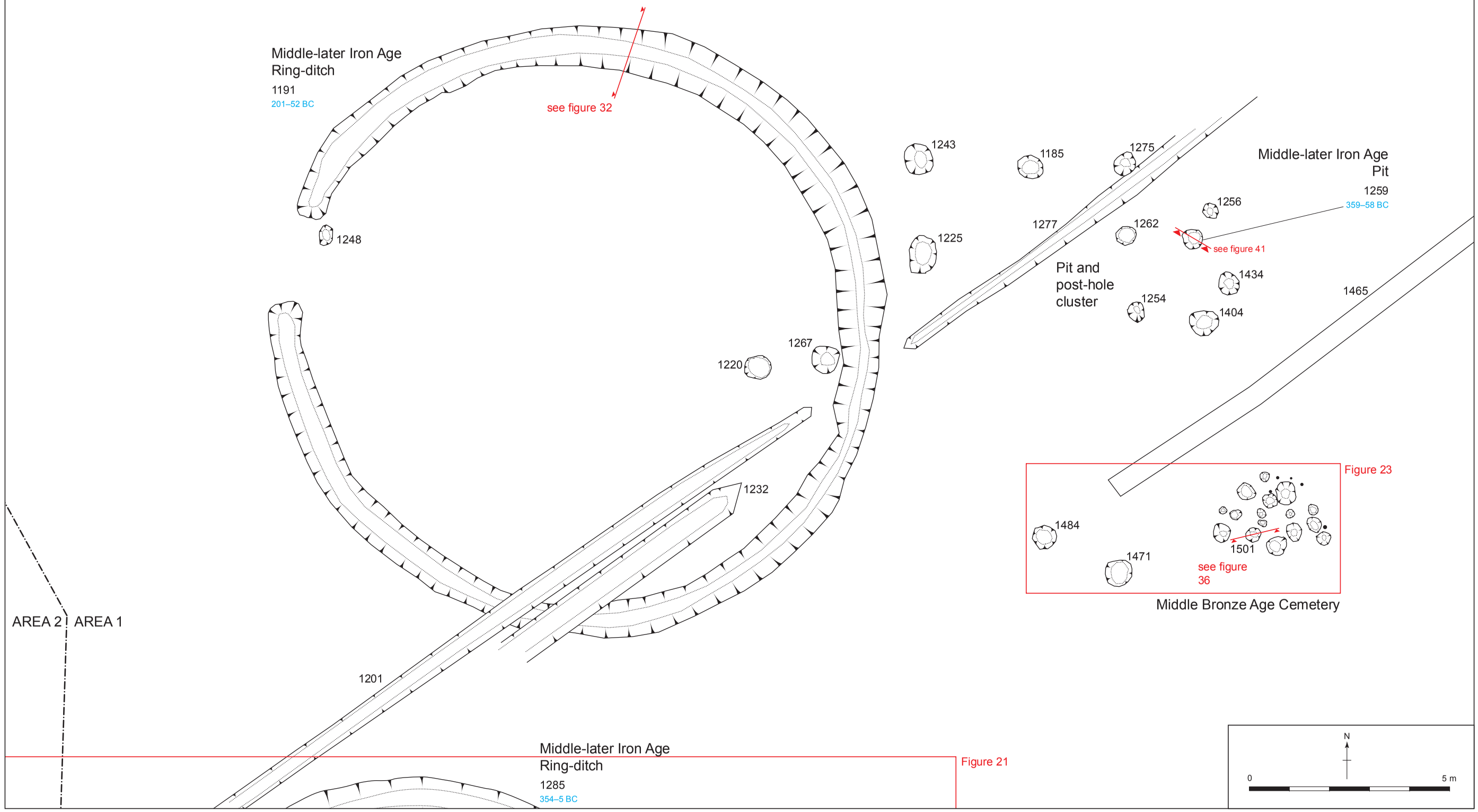


Figure 20 - Plan of ring-ditch [1191] and nearby post-holes, Area 1.

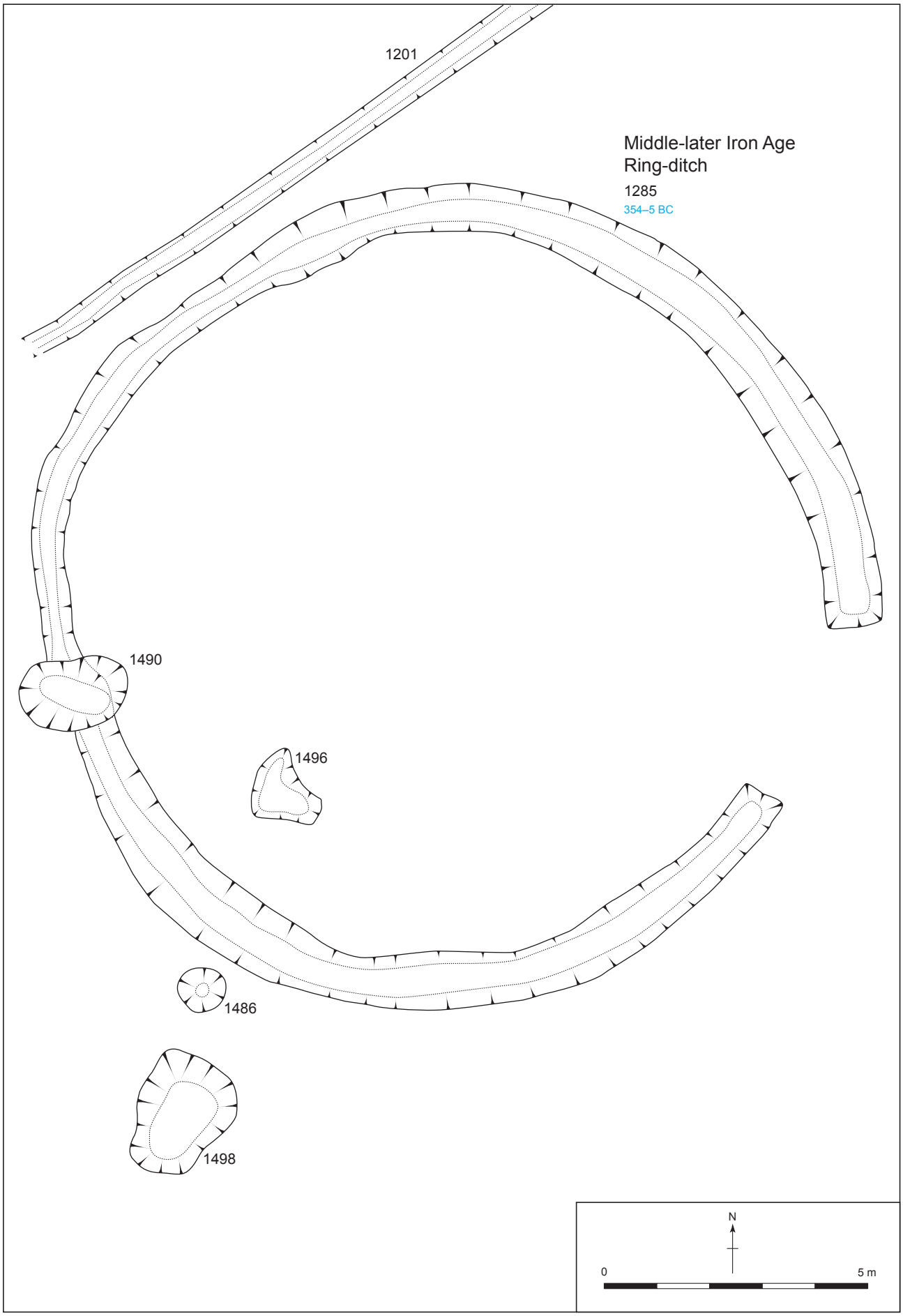


Figure 21 - Plan of ring-ditch [1285], Area 1.

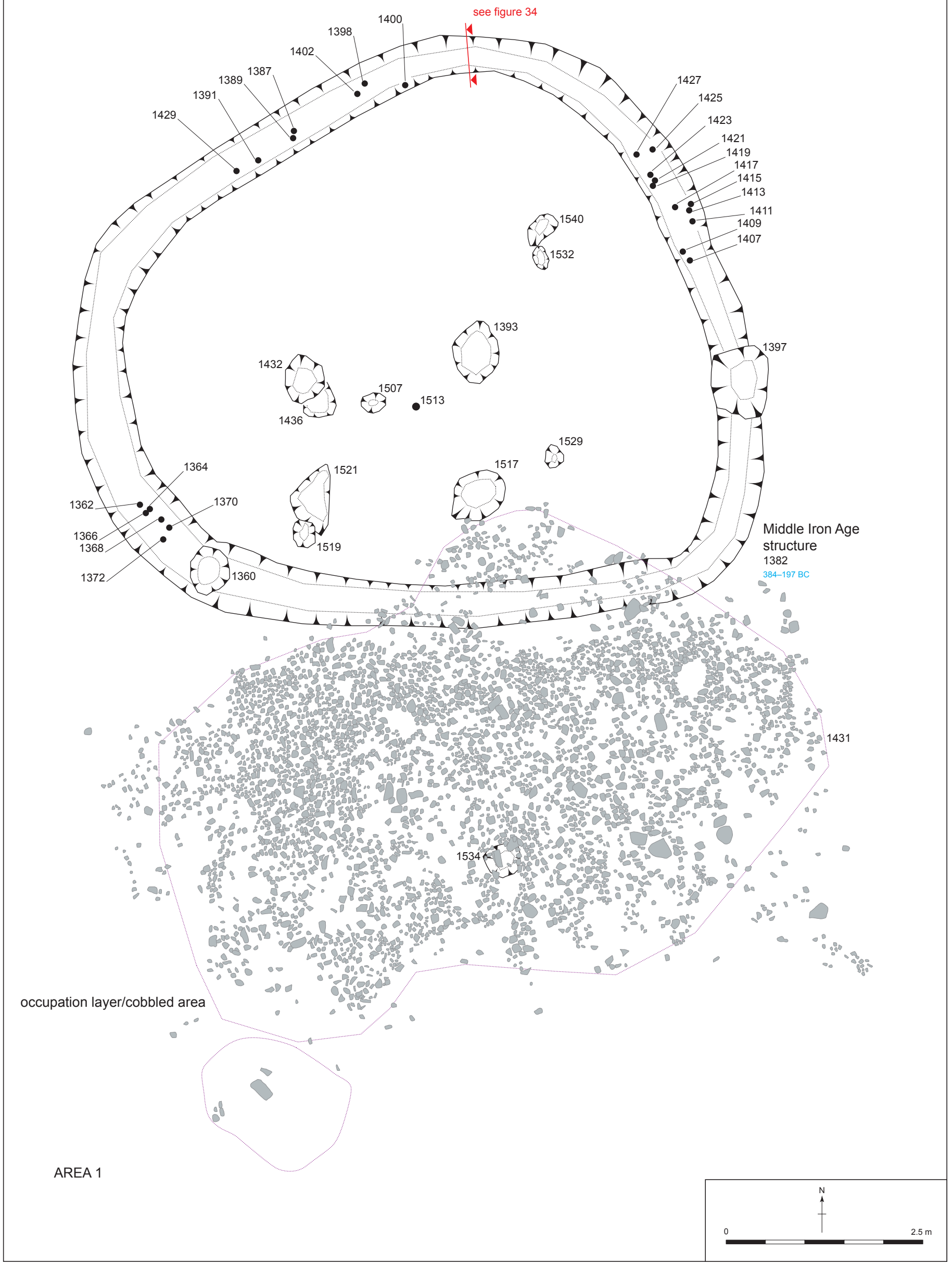


Figure 22 - Plan of Iron Age structure [1382], Area 1.

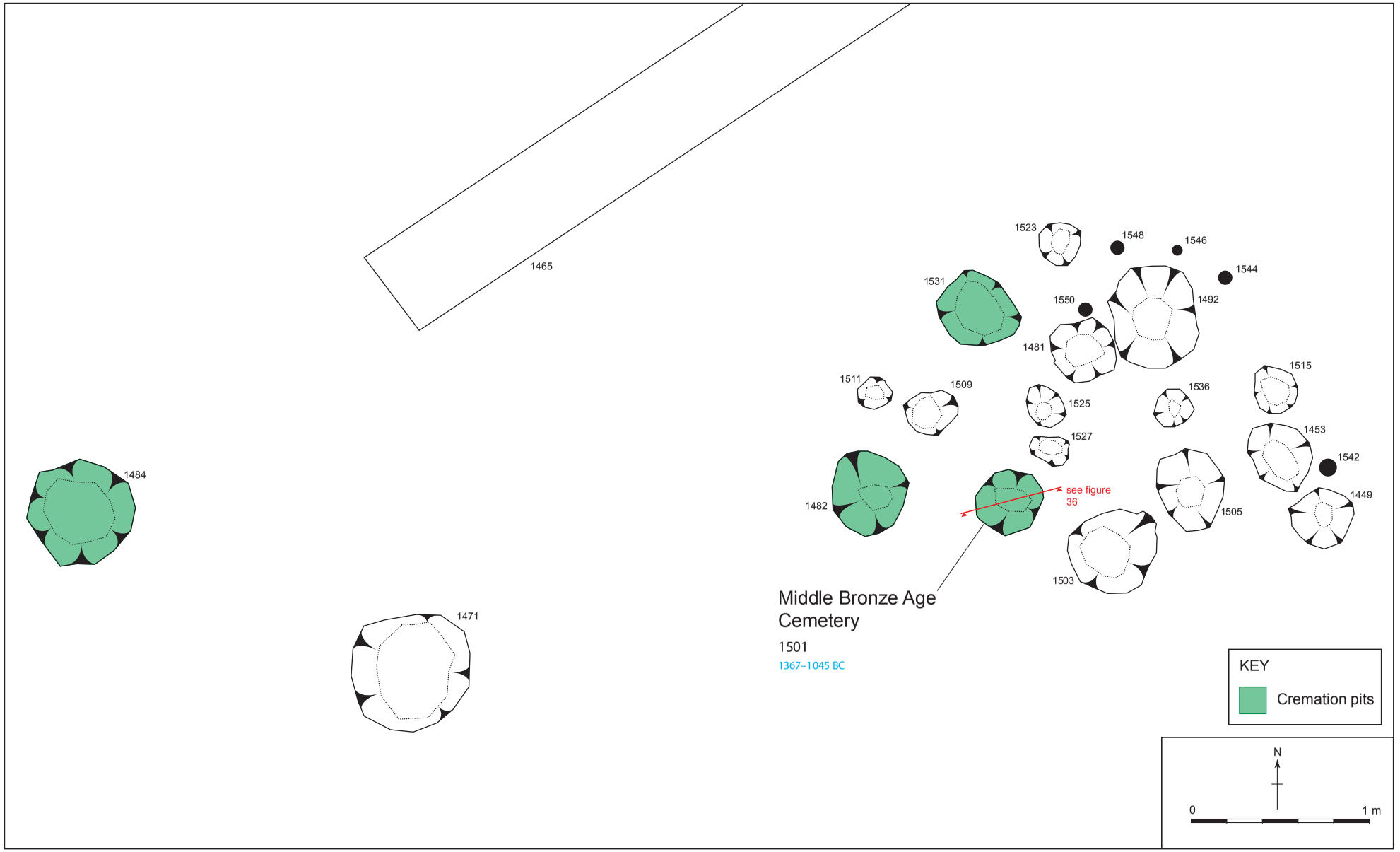


Figure 23 - Plan of Flat Cemetery 2 near ring-ditch [1191], Area 1.

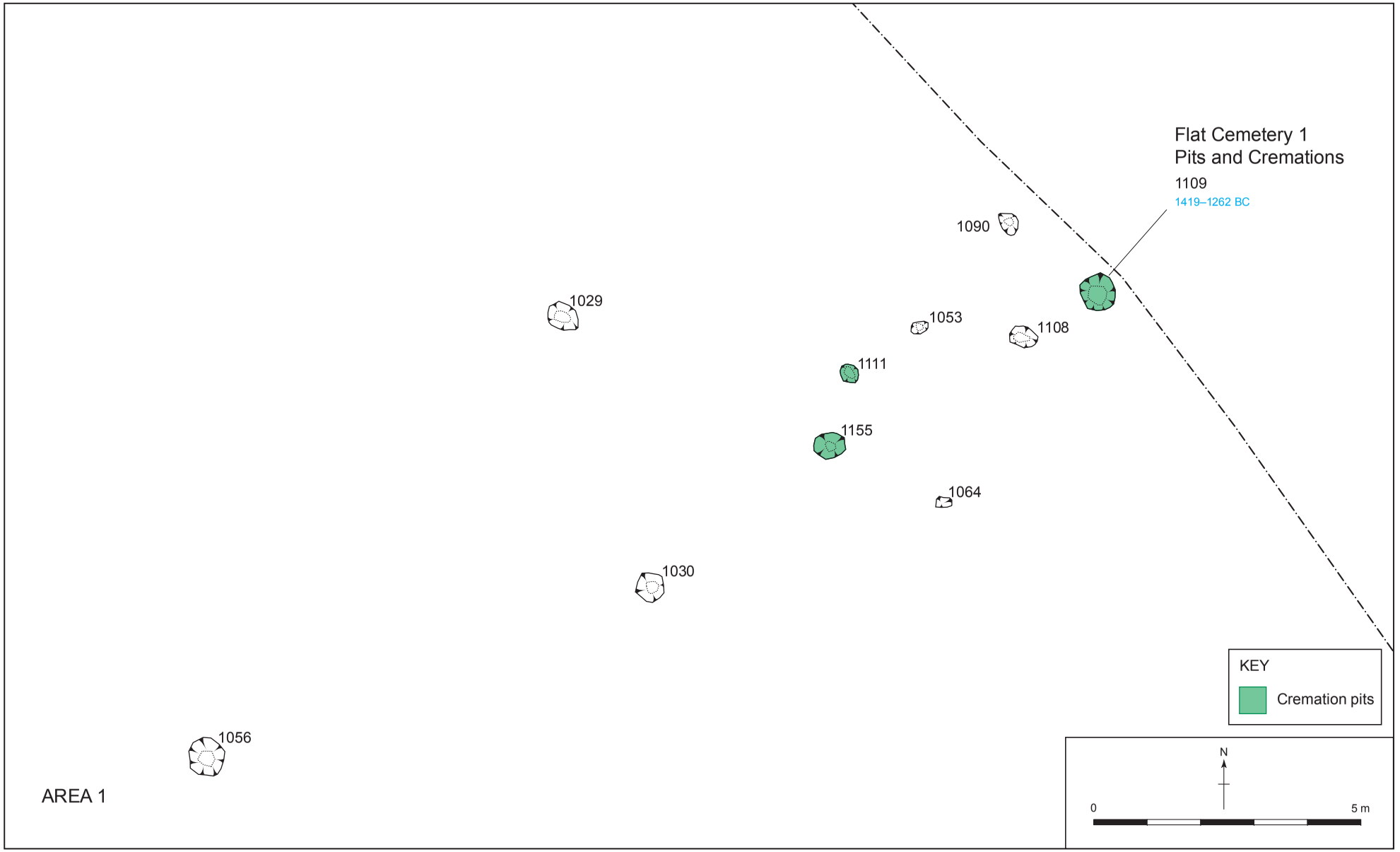


Figure 24 - Plan of Flat Cemetery 1 in the east of site, Area 1.

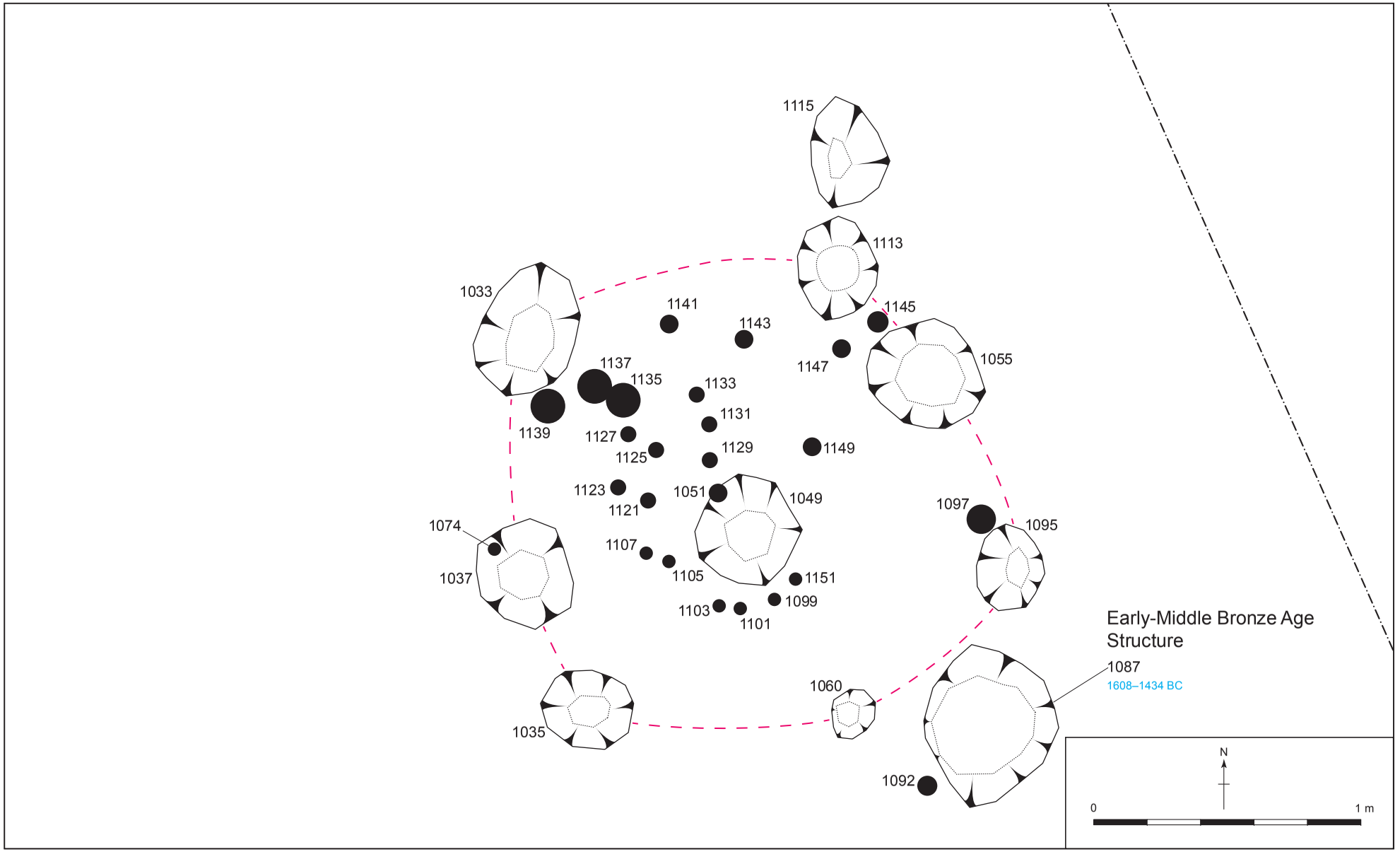


Figure 25 - Plan of Early-Middle Bronze Age structure.

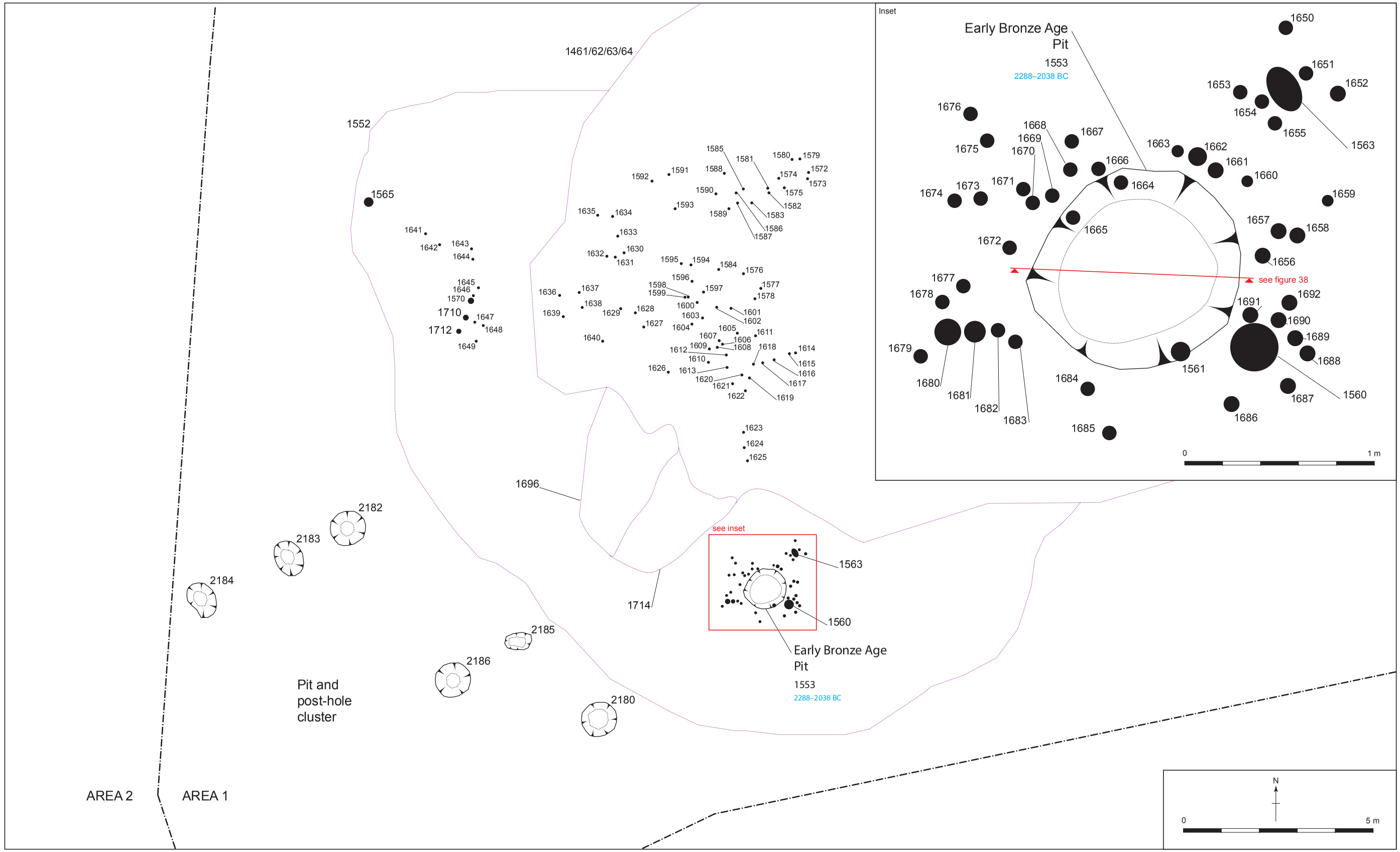


Figure 26 - Plan of stake-hole and pit cluster in Area 1.

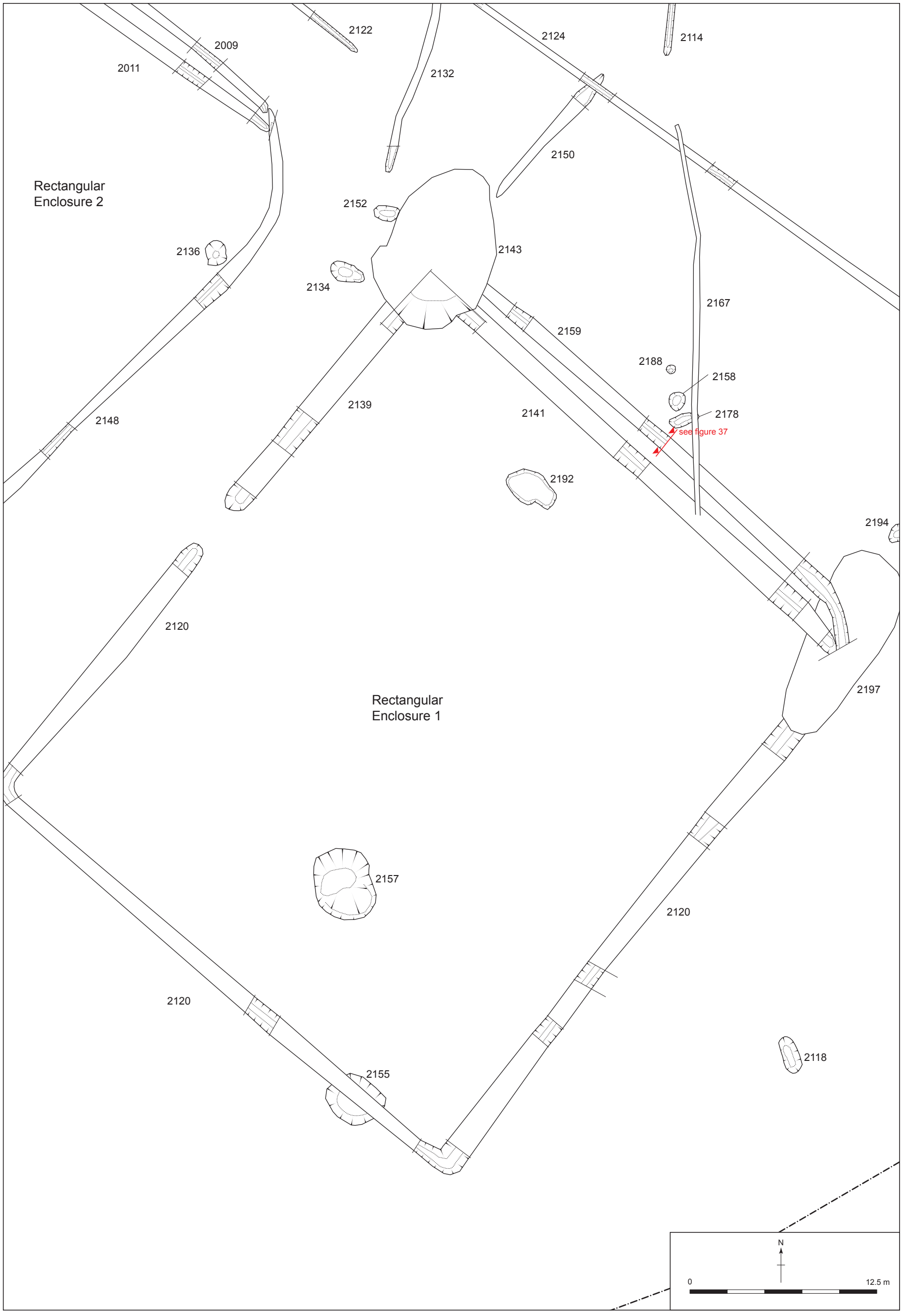


Figure 27 - Plan of Rectangular Enclosure 1, in Area2.

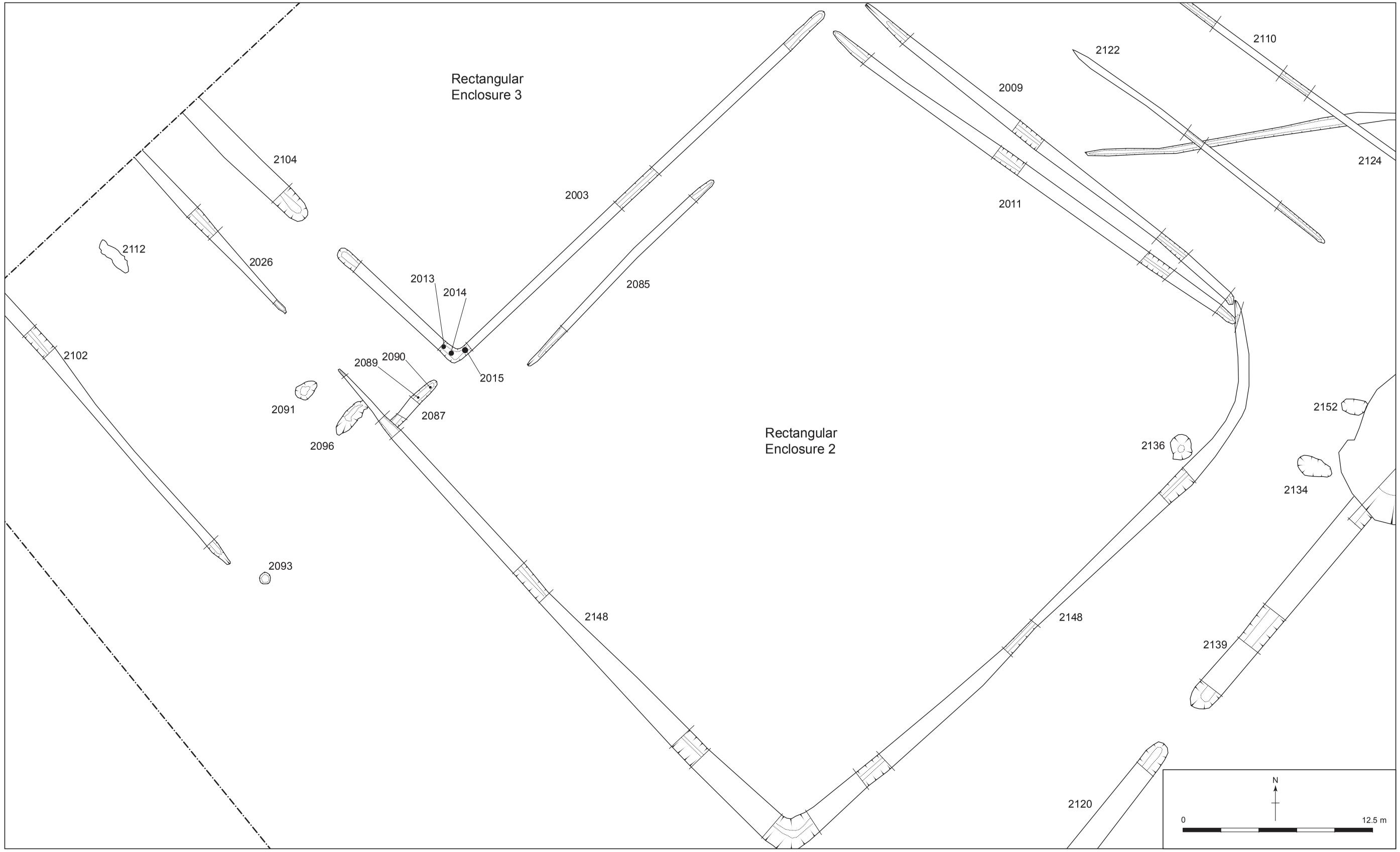
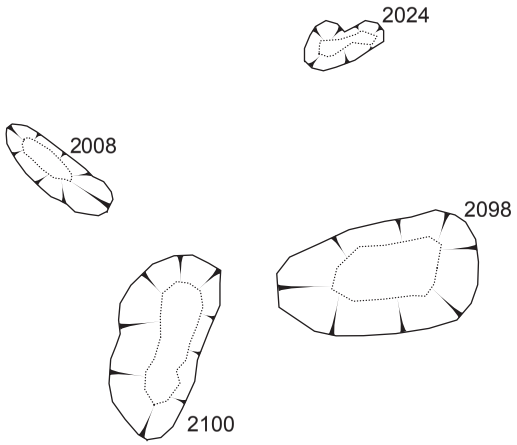
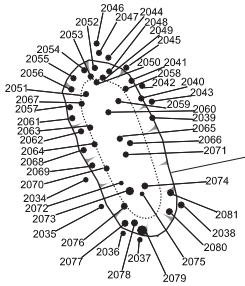


Figure 28 - Plan of Rectangular Enclosures 2 and 3 in Area 2.





Early medieval
Pit
2004
AD 668–770

AREA 2

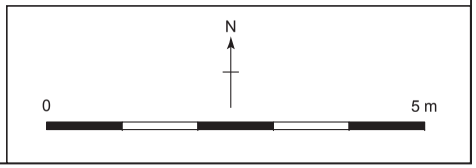


Figure 28a - Area of early medieval activity.

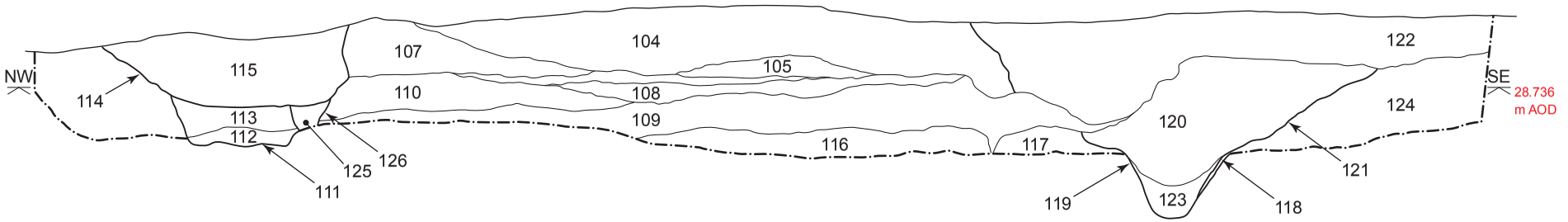


Figure 29 - SW-facing section of Roman road and later repairs.

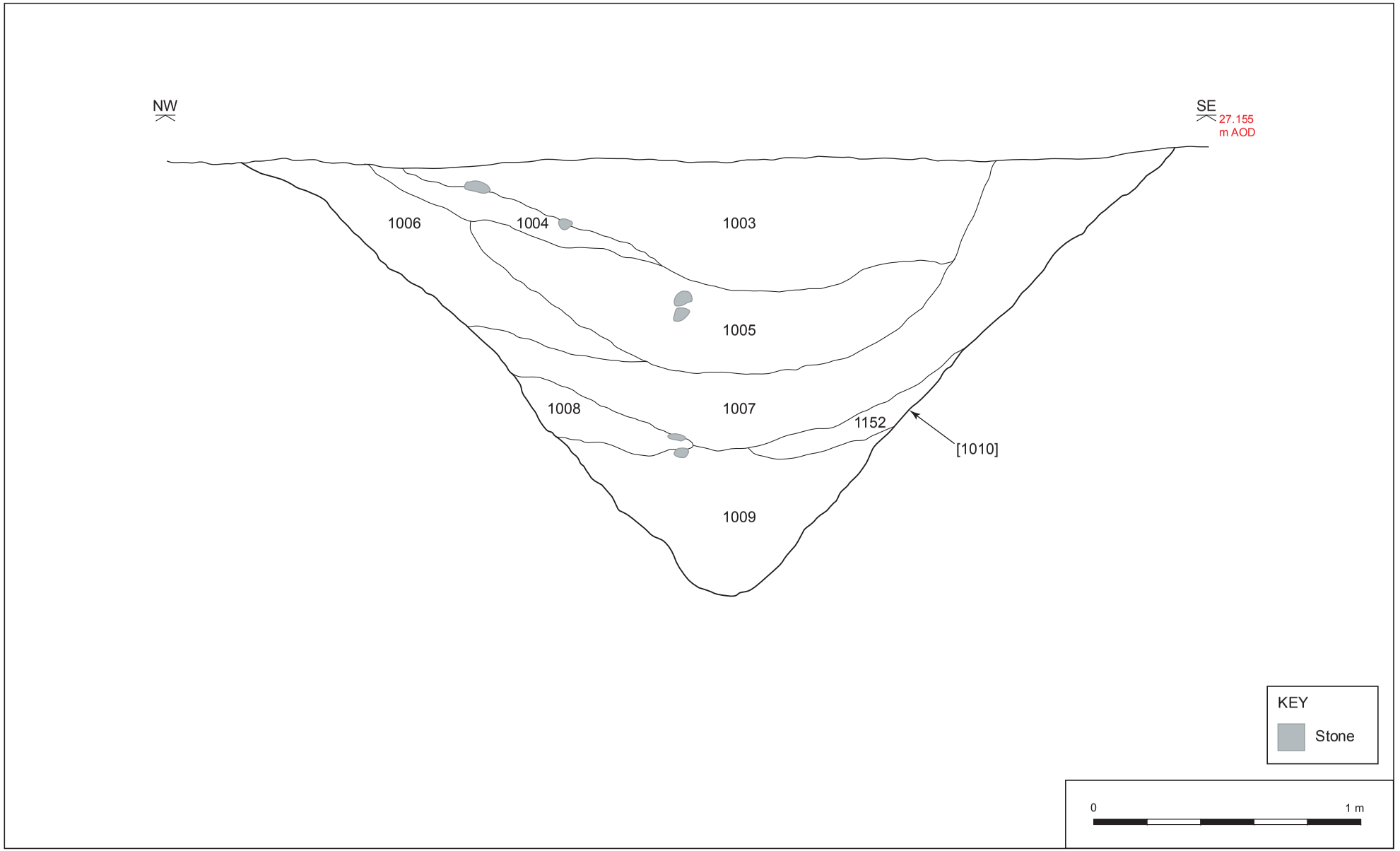
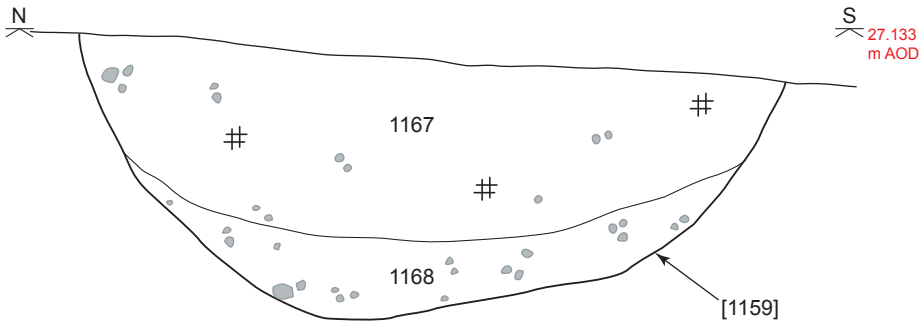


Figure 30 - SW-facing section of ring-ditch [1010].



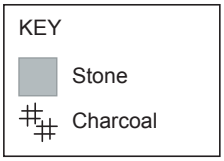


Figure 31 - West-facing section of ring-ditch [1159].

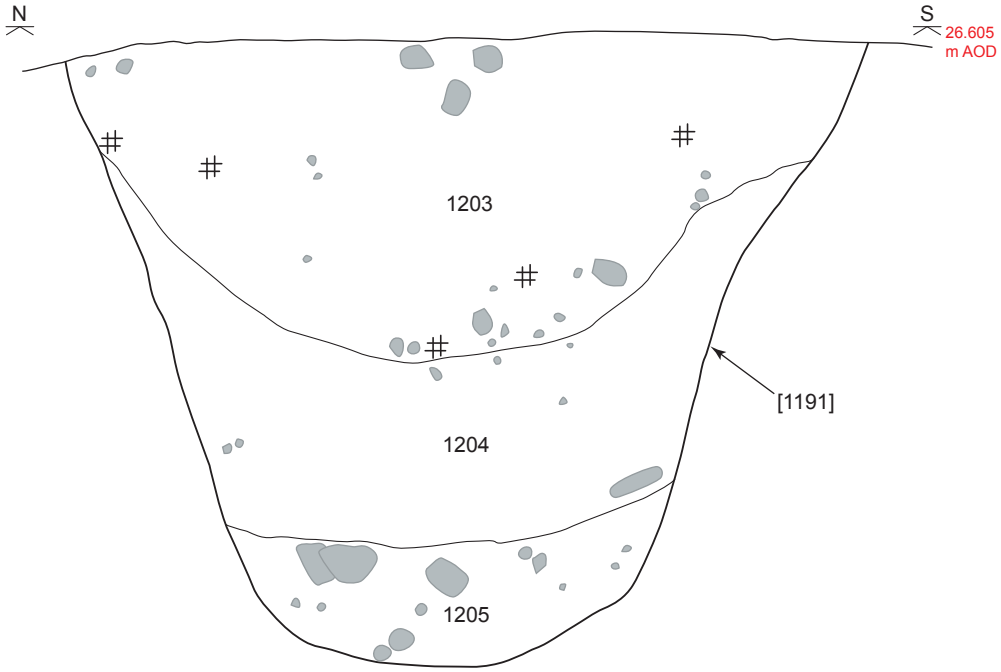


Figure 32 - SW-facing section of ring-ditch [1191].

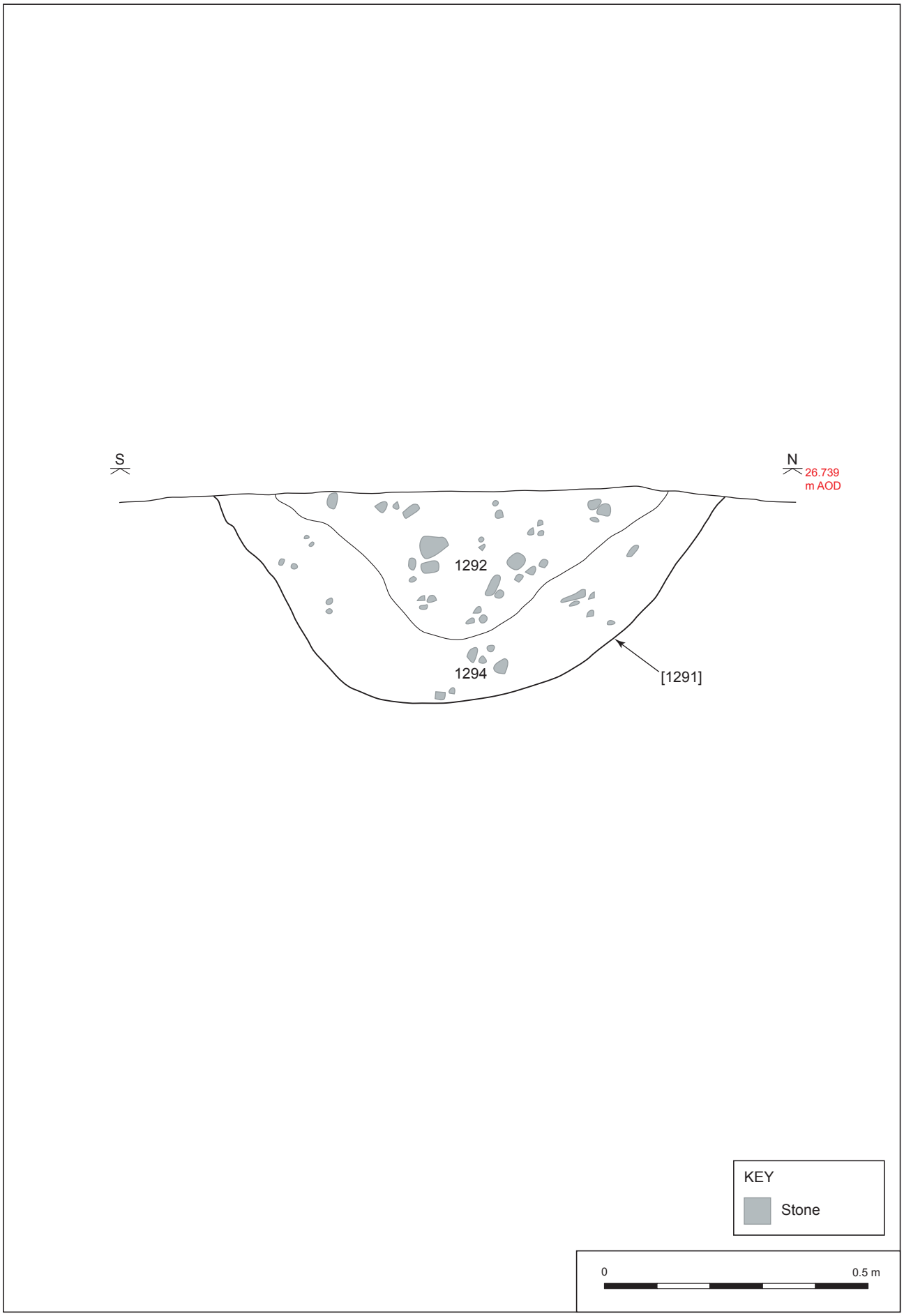


Figure 33 - East-facing section of ring-ditch [1291].

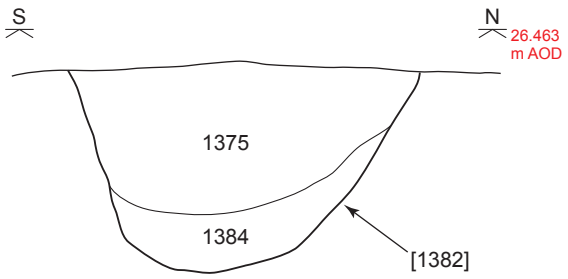


Figure 34 - East-facing section of slot trench [1382], part of prehistoric structure in Area 1.

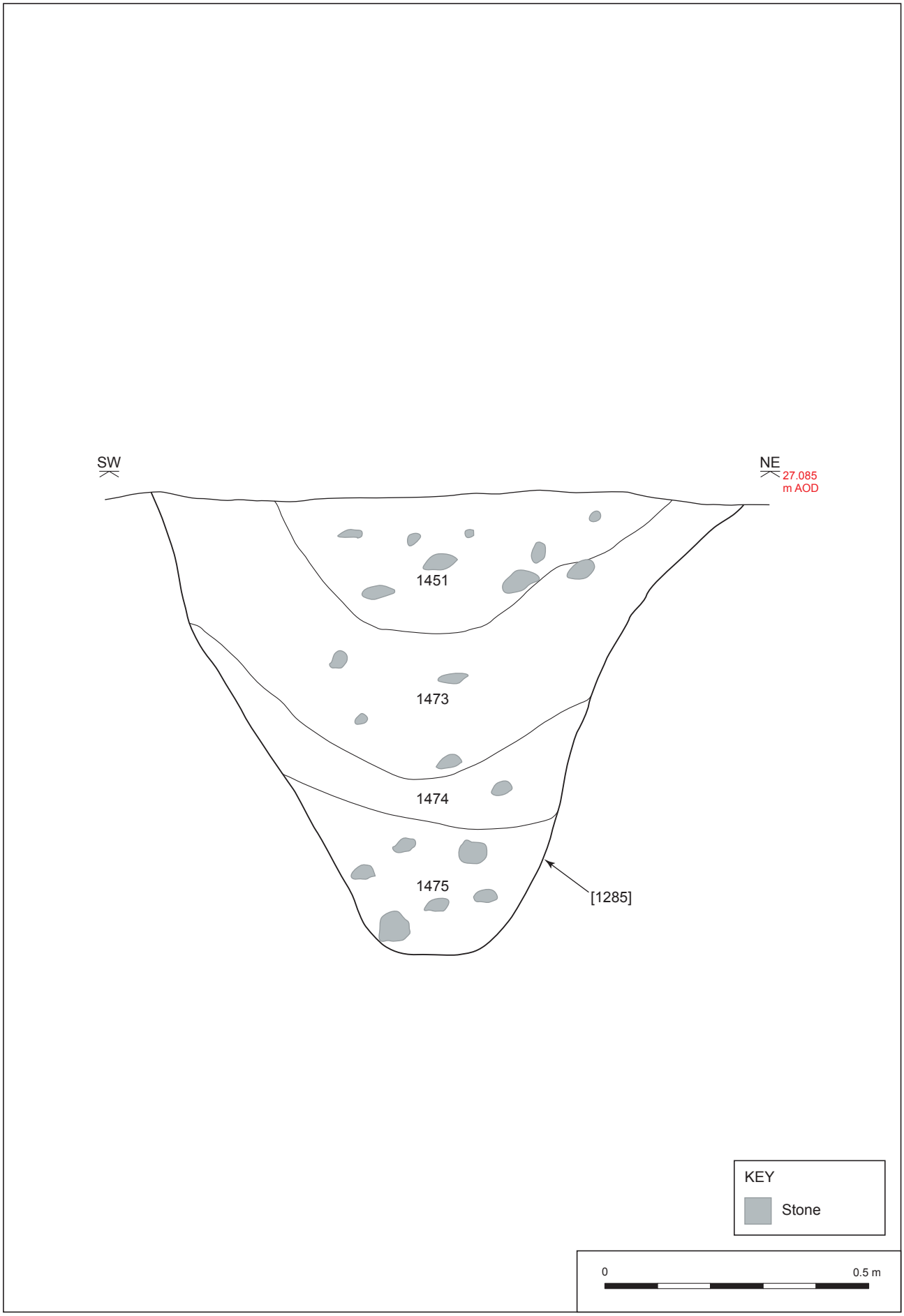


Figure 35 - SE-facing section of ring-ditch [1285].

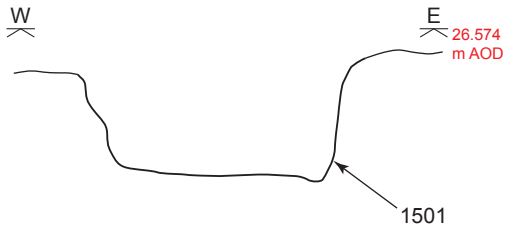


Figure 36 - South-facing profile of cremation [1501].

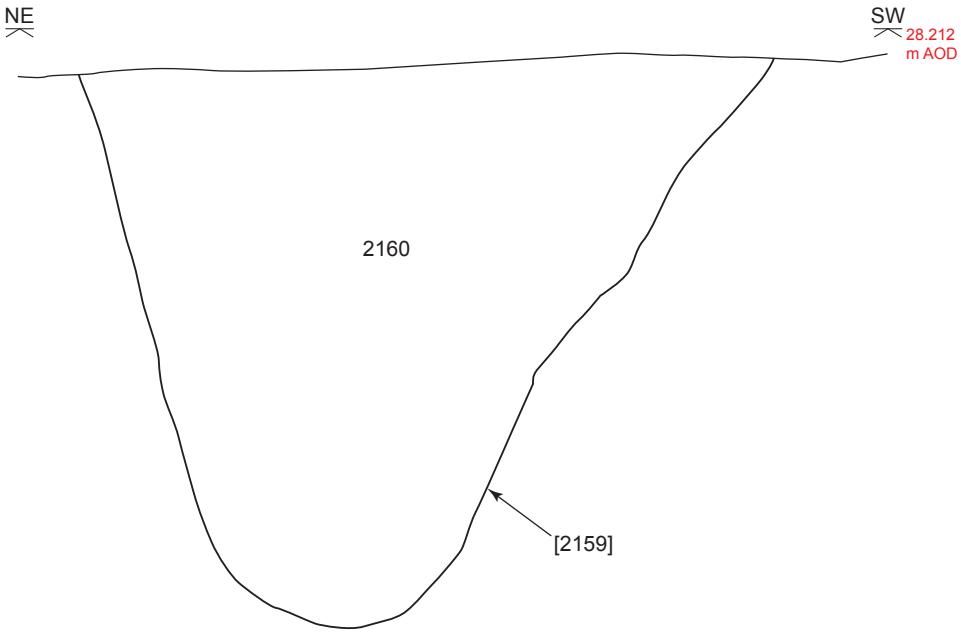


Figure 37 - NW-facing section of ditch [2159].

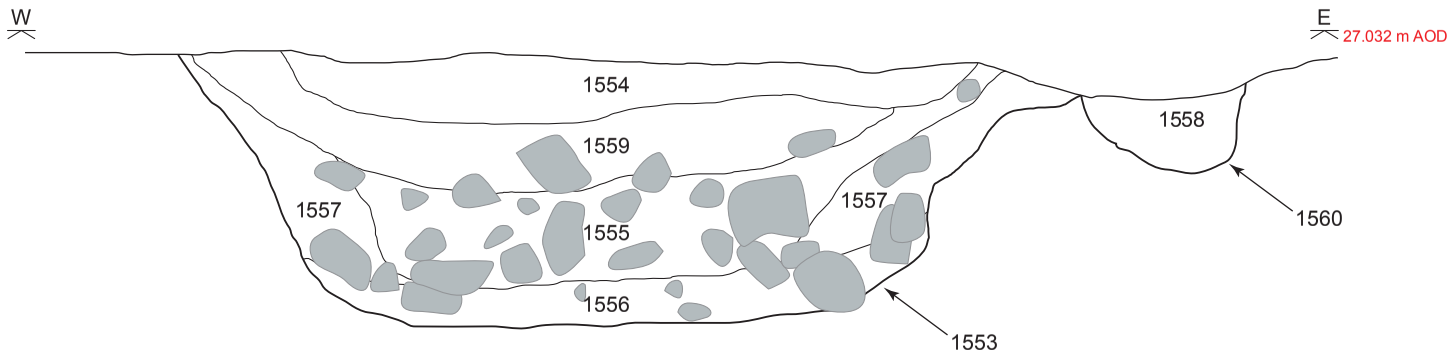


Figure 38 - South facing section of roasting pit 1553.

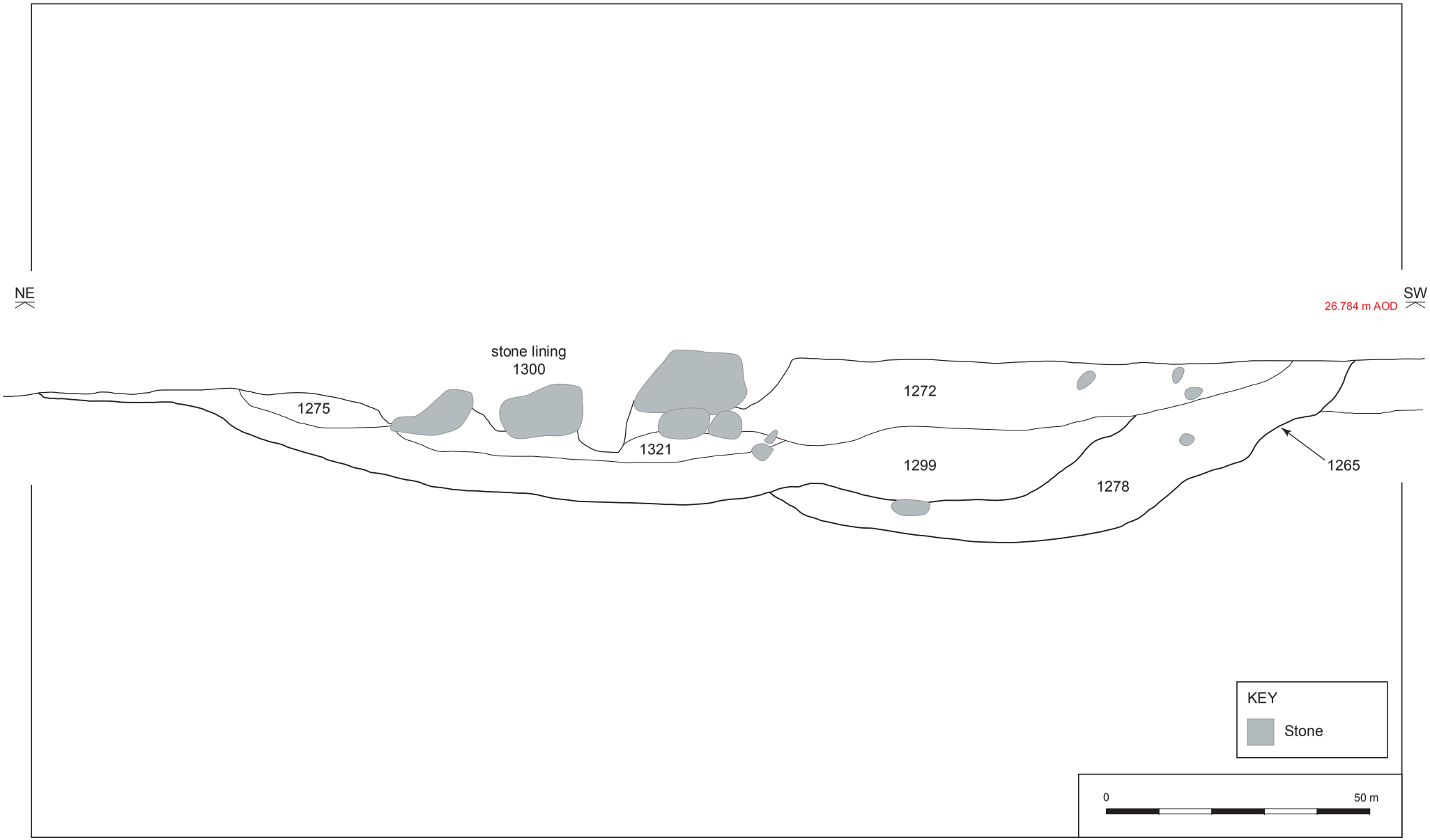
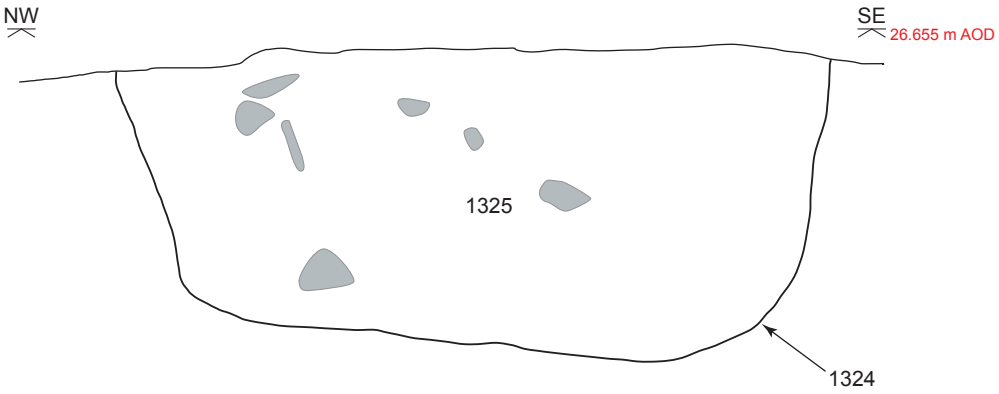


Figure 39 - NW-facing section of cereal-drying kiln 1265.



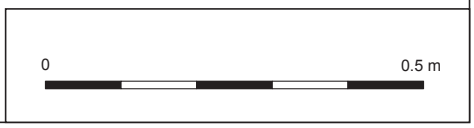
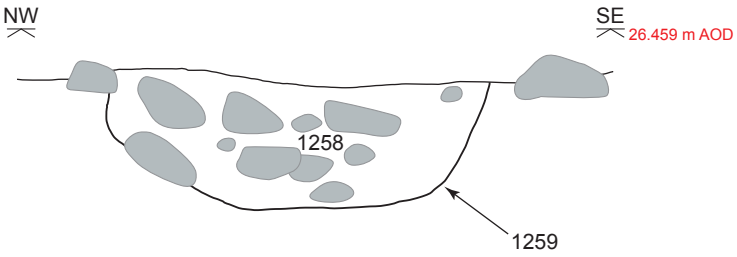


Figure 40 - SW-facing section of pit 1324.

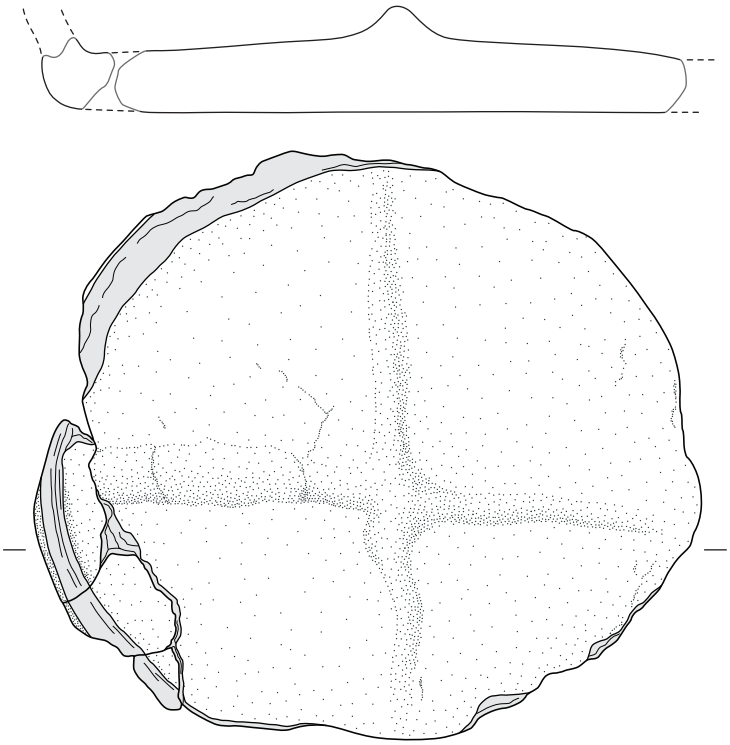


KEY

Stone

0 0.5 m

Figure 41 - SW-facing section of pit 1324.



YBD13: 1510:001
Base with internal decoration

Drawn by: Hannah Sims

0 10 cm

Figure 42 - Illustration of cordoned Bronze Age pottery base YBD13:1510:001.

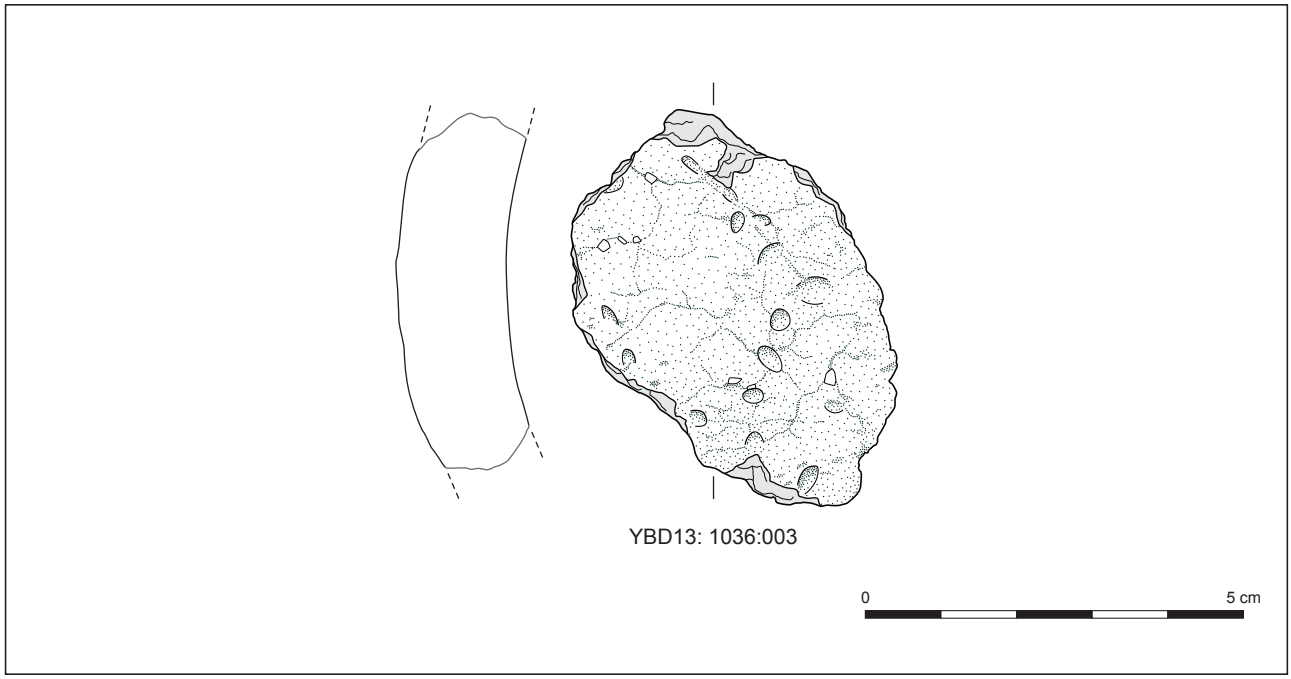


Figure 43 - Illustration of decorated Bronze Age pottery sherd YBD13:1036:003.

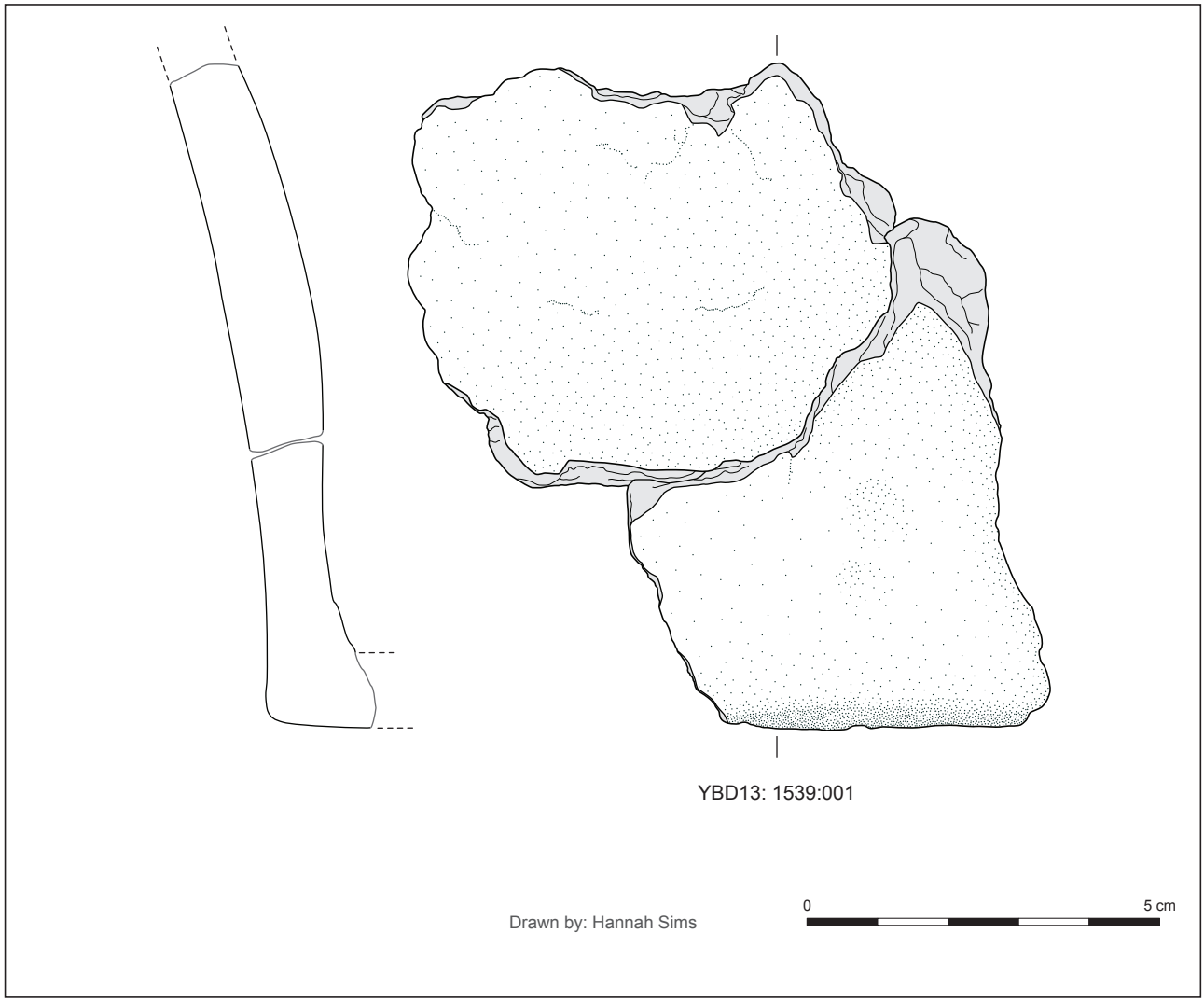
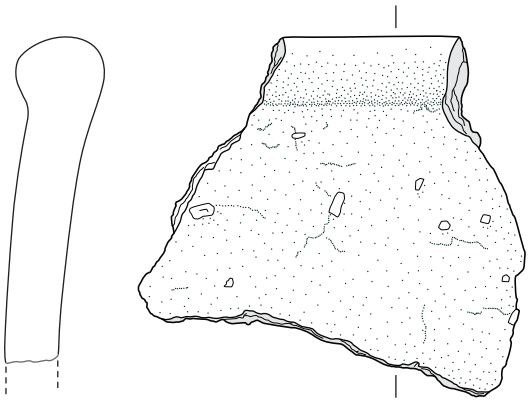


Figure 44 - Illustration of Bronze age pottery YBD13:1539:001.

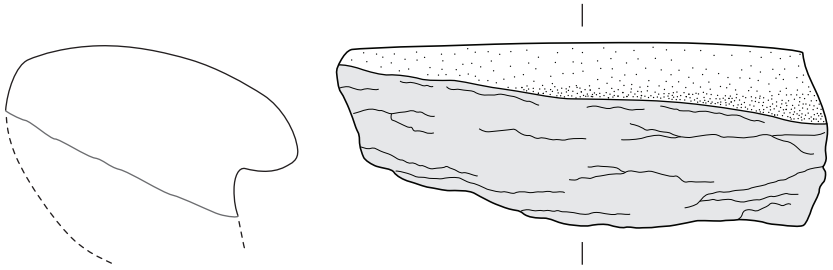


YBD13: 1003:005

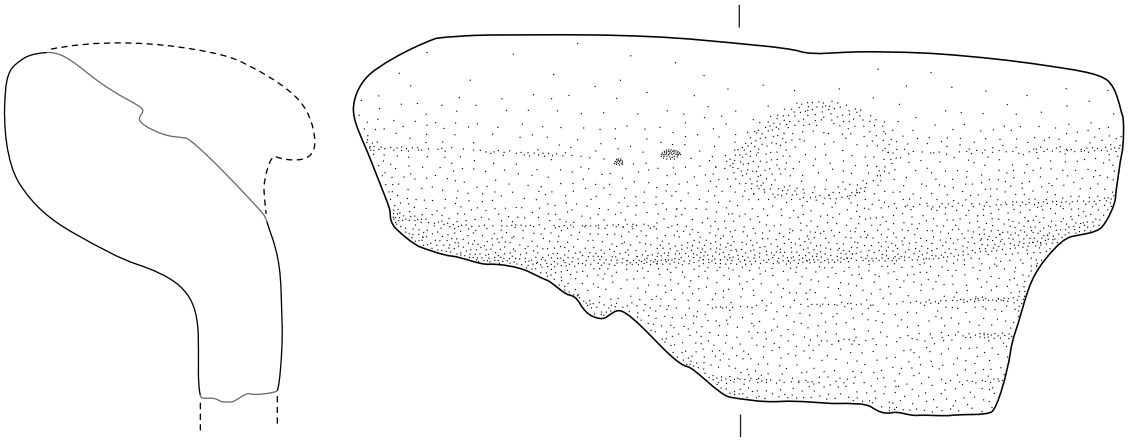
Drawn by: Hannah Sims

0 5 cm

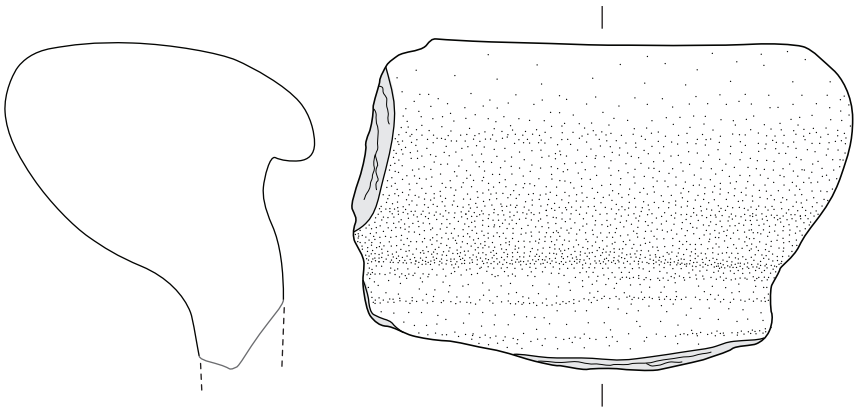
Figure 45 - Illustration of Middle Iron Age pottery rim sherd YBD13:1003:005.



YBD13: 1001:002
Amphora Vessel 1 (Rim)



YBD13: 1003:002
Amphora Vessel 1 (Rim)

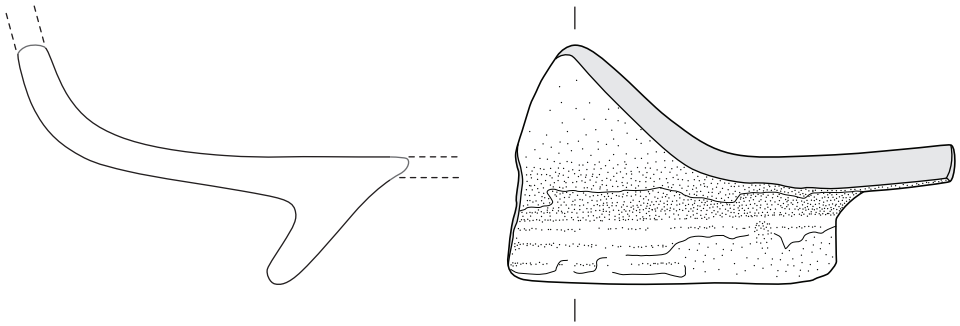


YBD13: 1003:003
Amphora Vessel 1 (Rim)

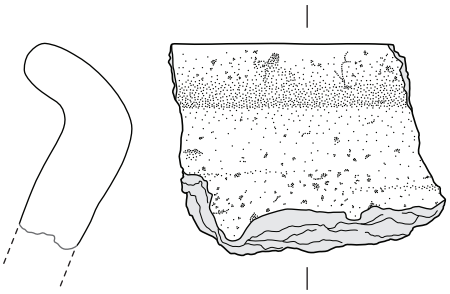
Drawn by: Hannah Sims

0 5 cm

Figure 46 - Illustration of Roman pottery recovered from the site.



YBD13: 1013:001
Central Gaulish Terra Sigillata
(Bowl Base)

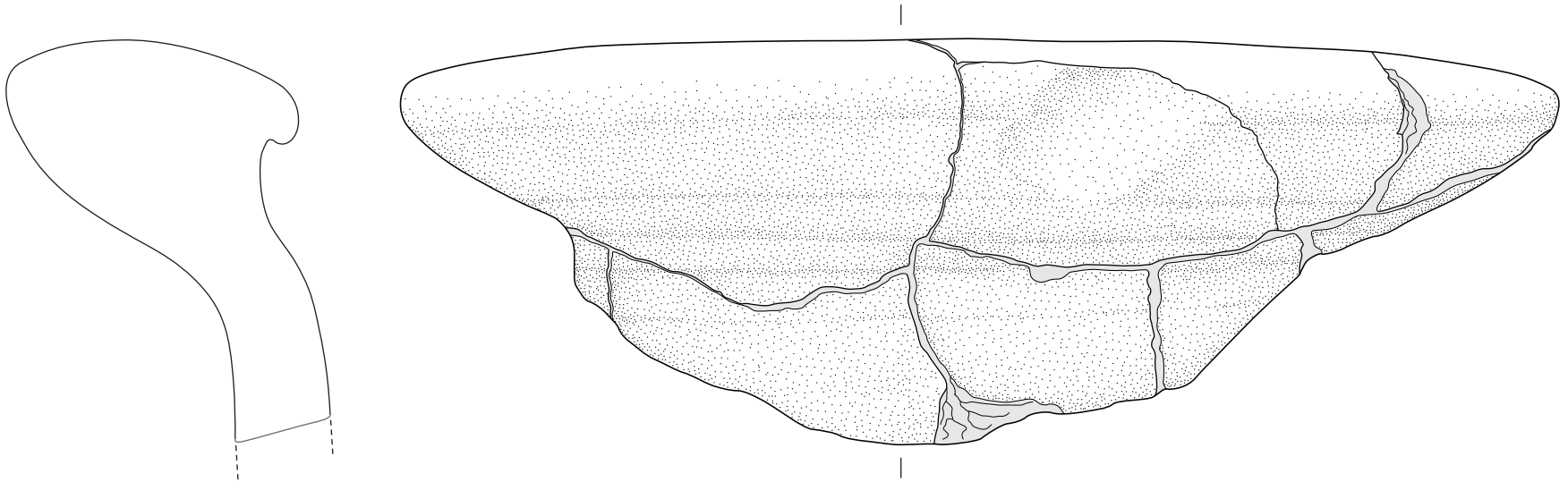


YBD13: 1164:002
South Midlands Shell-tempered Ware
(Jar Rim)

Drawn by: Hannah Sims

0 5 cm

Figure 47 - Illustration of Roman pottery recovered from the site.

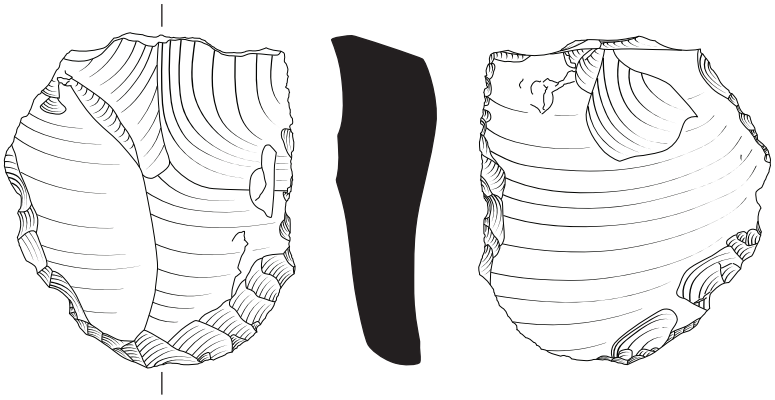


YBD13: 1038:001
Amphora Vessel 2 (Rim & Neck)

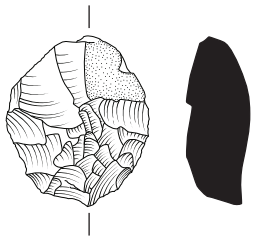
Drawn by: Hannah Sims

0 5 cm

Figure 48 - Illustration of Roman pottery recovered from the site.



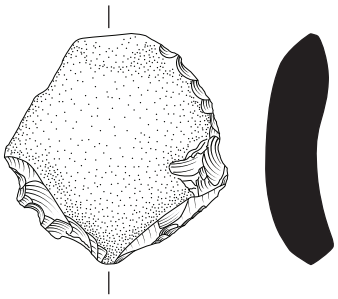
YBD13: 1001B:003
End & side flint scraper



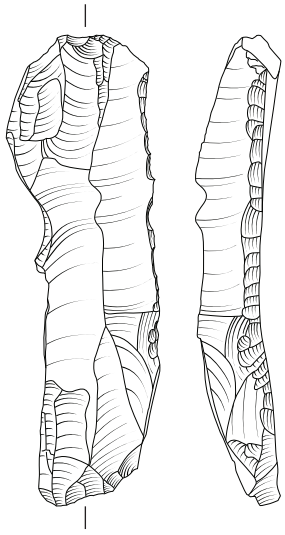
YBD13: 1210:001
Flint thumbnail scraper

YBD13: 1430:004
Possible flint microlith

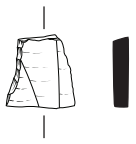
YBD13: 1430:011
Concave flint scraper



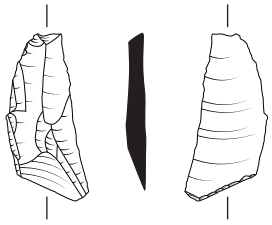
YBD13: 1430:035
Flint side scraper/spurred piece



YBD13: 1697:001
Flint side scraper



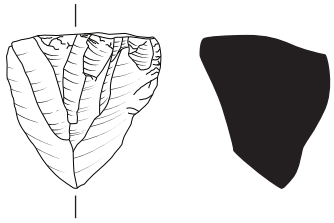
YBD13: 2142:004
Possible flint microlith



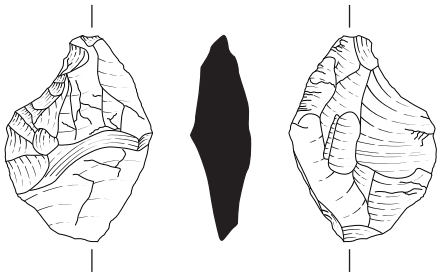
YBD13: 3001:076
Truncated flint bladelet

Drawn by: Hannah Sims

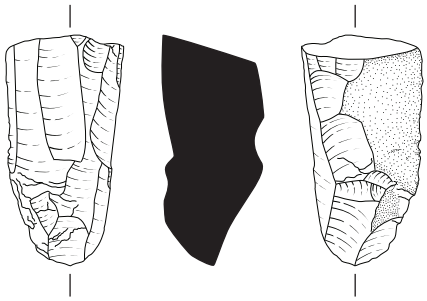
Figure 49 - Illustrations of a selection of lithics recovered from the site.



YBD13: 3001:186
Flake & bladelet flint core



YBD13: 3001:196
Concavo-convex chert scraper



YBD13: 3001:312
Chert bladelet core

Drawn by: Hannah Sims

0 5 cm

Figure 50 - Illustrations of a selection of lithics recovered from the site.

Plate 1 - Overview of Area 1

Plate 2 - View of ring-ditches [1010] and [1159]

Plate 3 - View of ring-ditch [1291] and pit cluster

Plate 4 - View of ring-ditches [1281] and [1191]

Plate 5 - View of prehistoric structure [1382] Area 1

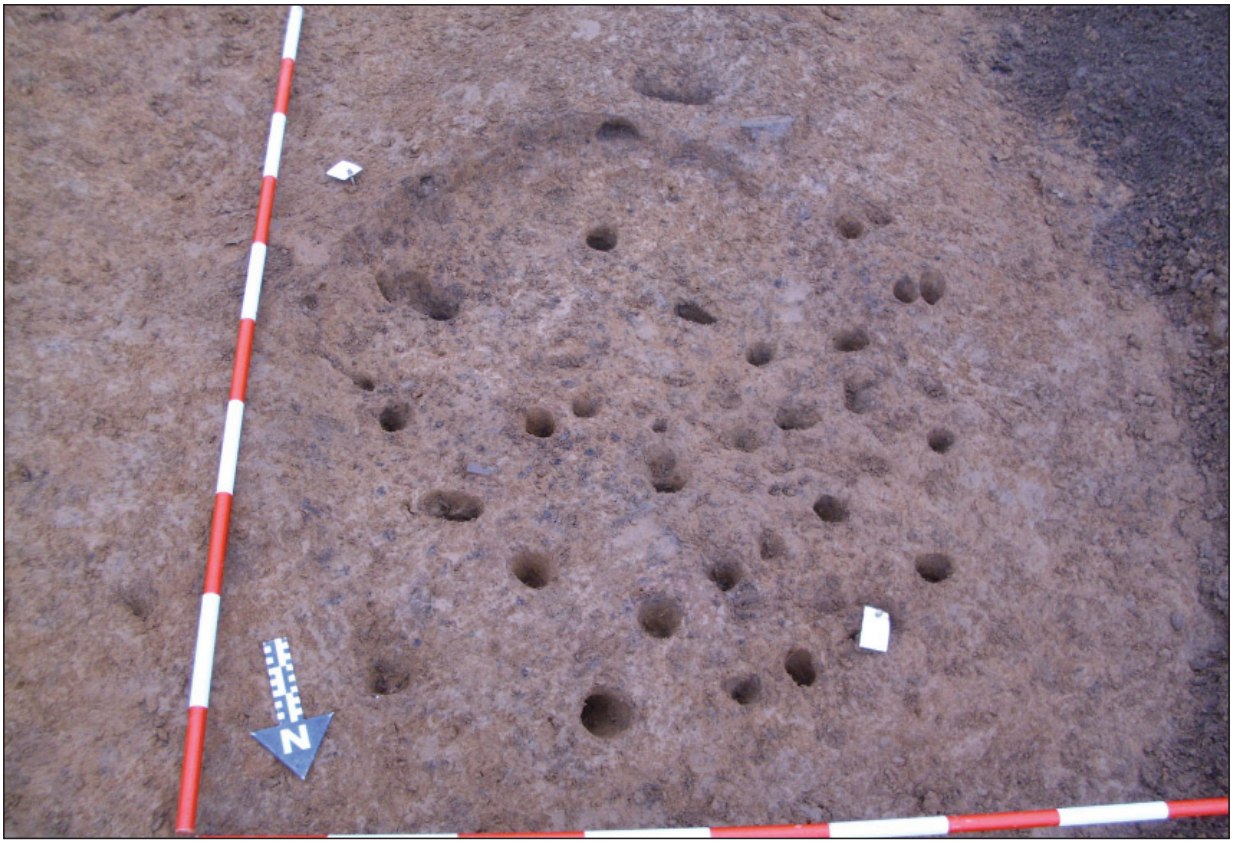


Plate 6 - Post-excavation view of charcoal production pit [093] in Area 5.1b

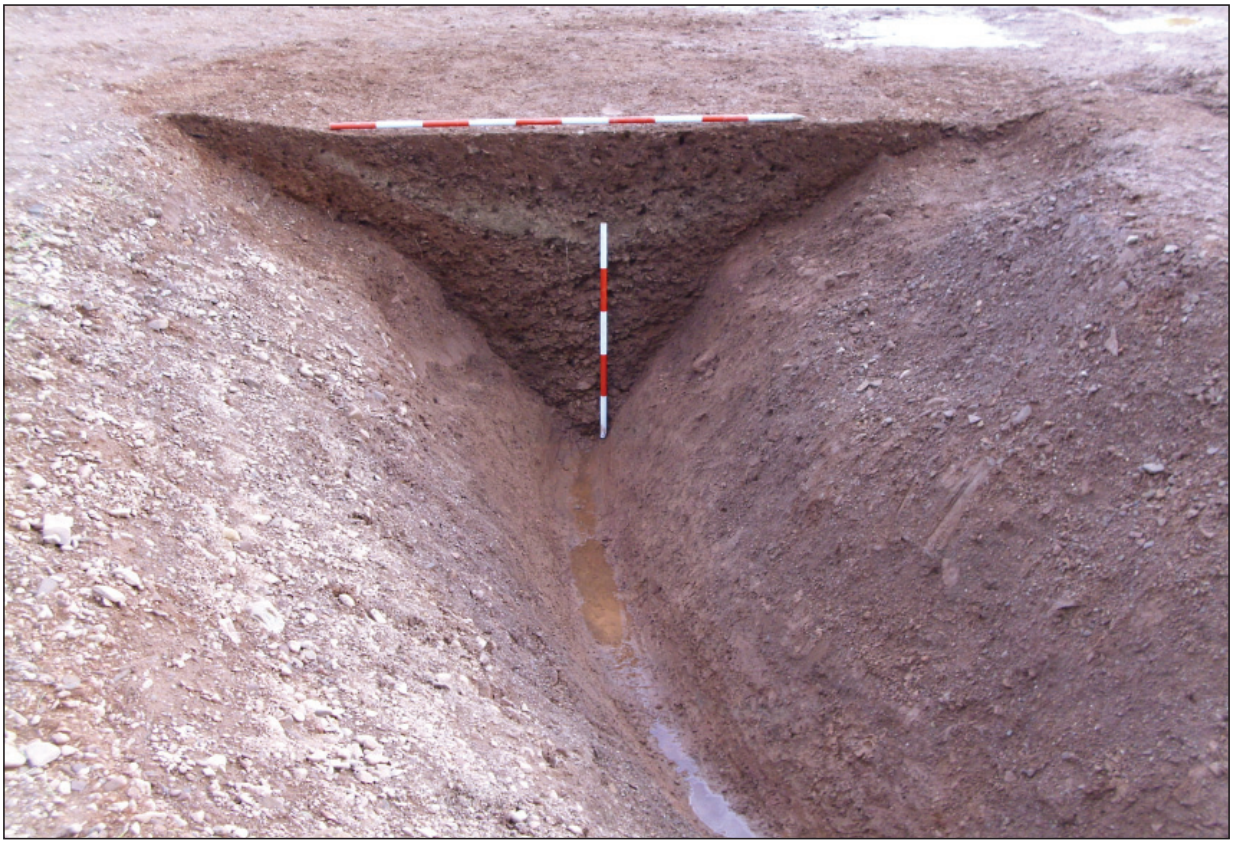


Plate 7 - North-facing section of ring-ditch [1010]

Plate 8 - Post-excavation view of possible Neolithic structure in Area 1

Plate 9 - Mid-excavation view of kiln [1265], showing fuel ash slag in Area 1.

Plate 10 - Mid-excavation view of post-hole [1335] showing in situ packing stones

Plate 11 - View of flat cemetery near ring-ditch [1191]

Plate 12 - Post-excavation view of prehistoric structure [1382]

Plate 13 - Mid-excavation view of kiln [2008]

Plate 14 - Post-excavation view of possible cereal-drying kiln [2004]

Plate 15 - Mid-excavation view of roasting pit or pot-boiler [1553] in Area 1

Plate 16 - Mid-excavation view of linear ditches [2009] and [2011] that form part of Rectangular Enclosure 2 in Area 2

Plate 17 - Mid-excavation view of the corner [2120] of Rectangular Enclosure 1 in Area 2

Plate 18 - Mid-excavation view of cremation [1501] Spit 2

Plate 19 - Post-excavation view of cremation pit [1280] cutting ring-ditch [1291]