



Coldwell and Trawden Raw Water Transfer Pipeline to Laneshaw WwTW, Lancashire

Archaeological Evaluation Report



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SUMMARY

Following a proposal by United Utilities to construct a new transfer pipeline from Coldwell Reservoir (SD 94961 41232) near Trawden to Laneshaw Wastewater Treatment Works (SD 90016 36376), and between the Briercliffe Service Reservoir (SD 88576 35378) and Haggate (SD 85994 34921), the Specialist Advisor (Archaeology) at Lancashire County Archaeological Service (LCAS) recommended a programme of archaeological work be carried out prior to the development. The first central phase of this work comprised a desk-based assessment (OA North 20004a) and, as a direct result of the recommendations of the desk-based assessment, a second phase of work comprising an archaeological evaluation was undertaken.

All of the features discovered during the evaluation were post-medieval in date. These included evidence for peat cutting at Site **04**, a post-medieval ditch at Site **112** and deposits possibly associated with creating an area of hard standing at Sites **112/150**. However, most of the features identified during the evaluation related to field drainage. None of the features identified were considered of sufficient archaeological significance to warrant a programme of further archaeological work, apart for the general watching brief of the topsoil strip recommended in the desk-based assessment report (OA North 2004a).

Due to the existence of known peat deposits in the extreme north-east section of the proposed pipeline route, a programme of palaeoenvironmental coring was also carried out at Corn Close Bent Moor (SD 3937 4406 – SD 3949 4412). This was to determine the suitability of deposits for providing palaeoenvironmental information and to provide an account of the landscape history of the area in relation to human occupation.

The coring survey revealed up to 1.30m deep peat deposits at SD 39472 441198, roughly 50m north of the proposed development. Elsewhere, less than 0.50m deep peat was encountered, therefore no further palaeoenvironmental work is recommended. However, should the proposed pipeline route shift northwards then a programme of further sampling and palaeoenvironmental assessment should be implemented.

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The evaluation was undertaken by Andy Bates, with assistance from Steve Clarke and Pippa Howarth. Finds were catalogued by Sean McPhillips. The coring survey was carried out by Denise Druce and Sandra Bonsall. The report was compiled by Andy Bates and Denise Druce, and the drawings were undertaken by Mark Tidmarsh. The project was managed by Alison Plummer, who also edited the report.

1. INTRODUCTION

1.1 CIRCUMSTANCES OF THE PROJECT

- 1.1.1 Following a proposal by United Utilities to construct a new transfer pipeline from Coldwell Reservoir near Trawden (SD 94961 41232) to Laneshaw Wastewater Treatment Works (SD 90016 36376), and between the Briercliffe Service Reservoir (SD 88576 35378) and Haggate (SD 85994 34921), the Specialist Advisor (Archaeology) at Lancashire County Archaeological Service (LCAS) recommended a programme of archaeological work be carried out prior to the development. The first phase of this work comprised a desk based assessment (OA North 20004a) and a second phase of evaluation of specific sites was undertaken as a direct result of the recommendations of the desk-based assessment.
- 1.1.2 As there are known peat deposits in the extreme north-east section of the proposed pipeline route, a programme of palaeoenvironmental coring was also carried out at Corn Close Bent Moor (SD 3937 4406 – SD 3949 4412). This was to determine the suitability of deposits for providing palaeoenvironmental information and to provide an account of the landscape history of the area in relation to human occupation.
- 1.1.3 This report sets out the results of the evaluation excavations and the palaeoenvironmental survey. A statement of the impact of the development follows the results, with recommendations for any further work.

1.2 SITE LOCATION AND GEOLOGY

- 1.2.1 The main proposed section of the pipeline route is orientated approximately north-east/south-west between Coldwell reservoir at the south-west end (SD 90016 36376) and Laneshaw Wastewater Treatment Works at the north-east end (SD 94961 41232). The entire route is situated on the east edge of east Lancashire (the north-east end is situated on the boundary with Yorkshire), within 5km of Colne and Nelson. The smaller section runs approximately east/west between Briercliffe Service Reservoir (SD 88576 35378) and Haggate (SD 85994 34921), with a short branch to the north at Stony Rakes, and is situated on the outskirts of Haggate (Fig 1).
- 1.2.2 The landscape of the main pipeline is typically between 350m and 220m above sea-level and much of it is moorland, of the type which developed in the last 5000 years and was enclosed during the improvements of the late eighteenth and early nineteenth century (Ede and Darlington 2002, 64). This type of landscape forms the north-eastern edge of the Southern Pennines, and comprises coarse-grained sandstones (gritstones) on the higher ground and coal measures in the valleys (Countryside Commission 1998, 107-8). The majority of the land is used as grazing for sheep and cows, although the influence of centuries of industry, in particular water-powered mills and quarrying, is evident in many places (*ibid*). The smaller section is generally lower-lying but still typically at 250m above sea-level, and situated between the valleys of the River Don and Catlow Brook.

1.3 HISTORICAL AND ARCHAEOLOGICAL BACKGROUND

- 1.3.1 The archaeological and historical background of the proposed development area has been summarised in a previous report (OA North 2004a). The following paragraphs present a synopsis of the information presented in the report.
- 1.3.2 **Prehistoric Period:** evidence for prehistoric activity is visible in the immediate area from the Mesolithic period onwards. Flint scatters have been discovered, and in some cases, excavated on some of the higher, moorland areas to the north and south of the pipeline (Harrison (ed) 1998, 4), and form part of a wider distribution across the south Pennines (Cowell 1996). The Neolithic and Bronze Age periods are similarly represented, with occasional stray finds and burials making up the majority of the evidence (Bentley 1975; Harrison (ed) 1998, 4). This is a common feature of the period, although it is during the Neolithic that larger structures and monuments begin to appear for the first time (Middleton 1996, 43). During the Iron Age large enclosures were constructed, in particular ‘hill forts’, and there are a number of good examples of these in the surrounding area, including the multi-vallate site of Castercliffe to the south-west (Hazelgrove 1996, 68). There is a large collection of Scheduled Monuments to the south-east of Briercliffe at Twist Hill, including a number of burial mounds and earthworks.
- 1.3.3 There is only a single confirmed site of this period within the vicinity of the pipeline, a quern thought to be of Neolithic or Bronze Age date at Broadshaw Farm, Worsthorpe Moor. It has also been suggested that some of the standing stones, such as at Laneshaw, Pot Brinks Moor and Will Moor may form part of prehistoric monuments such as stone circles. Without further evidence this remains speculation. The place-name Burwains, situated immediately to the north-east of the smaller section of the pipeline, is thought to derive from the Old English for ‘bury’, and is generally taken as suggesting ancient burials are situated in the area (Ekwall 1922, 85).
- 1.3.4 **Roman:** Colne has long been regarded as having a Roman origin: ‘*This is unquestionably the Colunio of the anonymous Ravennas*’ (Whitaker 1818, 385), and there have been a number of discoveries of Roman coins in the area (Harrison (ed) 1998, 7). Evidence for Colne’s Roman origins has not been plentiful, however, although a Roman road is thought to pass to the north between Ilkley and Ribchester (*ibid*).
- 1.3.5 Only two sites of Roman date were identified within the study area, although these are both of great significance in the local area. A large number of silver Roman coins contained within a silver cup was discovered shortly before 1700 near Emmott Hall. The discovery was first reported by Leigh (1700, 10-11), and has been repeatedly discussed in the following 300 years (Watkin 1883, 233-4; Shotter 1978, 13). Unfortunately, it remains an unusual discovery, although further coins found in the same area might suggest it is not unique (Watkin 1883, 233-4). A second, smaller number of coins was found at Catlow, in Marsden (Shotter 1978, 13).
- 1.3.6 **Early Medieval:** there is little physical evidence for activity following the collapse of Roman control and the Norman Conquest in the eleventh century. The area probably came under a mix of Angle and Norse influence (Harrison

- (ed) 1998, 7), while place-name evidence suggests a strong British influence (Ekwall 1922, 87-8). It is thought that the battle of Brunanburh, at which the Anglo-Saxons under Athelstan defeated a combined force of the Scots, Strathclyde and the Norse in AD 937, is in the vicinity of Trawden (*ibid*), although a variety of other locations have been suggested (e.g. Lawrenson 2003).
- 1.3.7 There are no sites of early medieval date within close proximity to the pipeline, although many of the adjacent settlements undoubtedly have early medieval origins. In all cases, however, the evidence for this relies mainly on place-names (Ekwall 1922).
- 1.3.8 **Late Medieval:** during the medieval period the entire area of the development was within the parish of Whalley and Hundred of Blackburn. Much of it will have been within the chase or forest of Trawden, which is thought to have been established prior to the thirteenth century (Farrer and Brownbill 1911, 548). These chases were originally used as a deer park by local nobles, but they were reorganised later thirteenth century to form a number of vaccaries (*ibid*; Harrison (ed) 1998, 11). Two of these were situated at Wycoller, two at Beardshaw and one at Winewall (*ibid*), and one may be located at Monkroyd. The smaller section of pipeline is within the township of Briercliffe, which was historically part of the manor of Ightenhill (Farrer and Brownbill 1911, 468).
- 1.3.9 Evidence for the formation of the vaccaries that replaced Trawden Forest is present within the study area in the form of two areas of walling, Enclosures at New Laith and near Far Laith, the latter known as the “walls of Traden Forest” and which is considered to relate to the vaccaries. Also within the vicinity of the development, and of this period, is the stone cross which stands in the grounds of Emmott Hall.
- 1.3.10 **Post-medieval:** the area of the development is essentially rural in character but nevertheless, it changed dramatically during the late eighteenth and early nineteenth century. There was a drive towards improving areas that had previously been waste or used for common grazing, as demonstrated by the enclosure of Trawden Common (UDTr 4/1 1821). Much of the area had come into the possession of a few families during the medieval period and many of these improved or expanded their holdings from the seventeenth century onwards, and large houses such as Wycoller and Emmott Hall were expanded or rebuilt at this time (OA North 2004b). The area was also affected by the Industrial Revolution, albeit on a smaller scale, with a number of cotton mills being constructed around Trawden during the nineteenth century (RCHM(E) 1999). A similar collection of larger mills was also constructed in Haggate, such as Queen Street, Harle Syke, Briercliffe, Primrose and Walshaw mills, which in turn led to Haggate expanding in size to slightly less than its present extent.
- 1.3.11 A particularly local industrial phenomena was limestone hushing, whereby streams would be dammed and the water realised to wash soil and clay of the natural limestone. This could then be burned in limekilns and the lime used for building and in agriculture. Although evidence for the exact nature and date of this is far from clear it is evident in large parts of the surrounding landscape (P

Isles pers comm). A map dated to c1752 depicts this activity taking place near Deerstone Moor (DDBd 14/6/1).

- 1.3.12 The vast majority of sites identified within the area belong to the post-medieval period, many relating to industrial activity. These include quarries, limekilns, mills, and even a coal pit. A number of buildings of various types also belong to this period, most frequently farms houses or farm buildings, ecclesiastical buildings, a stables, school, inn and weavers cottages. It is also likely, judging by form, that most of the ridge and furrow in the area belongs to the late eighteenth or early nineteenth century. This was a period when *'ploughing extended onto many areas which have since reverted to moorland'* (Higham 2004, 58), much of it as a result of an increased need for production during the Napoleonic Wars (Turner 1984, 17). The improvement of much of this land is probably in turn linked to its enclosure and the availability of lime, as a result of limestone hushing.

2. METHODOLOGY

2.1 PROJECT DESIGN

2.1.1 The fieldwork was conducted in adherence with a project design compiled by OA North (*Appendix 1*), and in accordance with the verbal brief issued by Lancashire County Archaeological Services. The work was consistent with the relevant standards and procedures of the Institute of Field Archaeologists, and generally accepted best practice.

2.2 EVALUATION TRENCHING

2.2.1 In total, six sites were evaluated (Sites **4**, **65**, **112**, **116**, **130** and **150**) these being selected from the results of the previous desk-based assessment and walkover survey (OA North 2004a). In total, 16 evaluation trenches were excavated. The number and length of trenches varied in accordance with the size of the site being evaluated and proximity of the pipeline easement to the site. The size and number of trenches excavated at each site is given in the results section of this report (*Section 3*).

2.2.2 The trenches were excavated by either a 13 ton or five ton 360° mechanical excavator fitted with a 2m wide toothless ditching bucket, under the supervision of an OA North archaeologist. Each trench were excavated in a stratigraphical manner down to either the first archaeological deposits or natural glacial till, with the spoil heaps being scanned for artefacts.

2.2.3 The recording comprised a full description and preliminary classification of the deposits and materials revealed on OA North *pro-forma* sheets, as recommended by English Heritage's Centre for Archaeology. A plan was produced showing the location of each trench, with representative sections being drawn at a scale of 1:10. A photographic record, using black and white and colour slide formats, was maintained.

2.2.4 The position of the trenches was located with a differential GPS, which can achieve an accuracy of +/-0.25m with respect to the OS national grid. This was incorporated with digital map data in a CAD system to create the location maps.

2.2.5 All finds recovered were bagged and recorded by context number; all significant finds were retained and have been processed and temporarily stored according to standard practice (following the Institute of Field Archaeologists guidelines).

2.3 THE PALAEOENVIRONMENTAL SURVEY

2.3.1 Peat coring was carried out in the area highlighted as containing peat in order to determine the suitability of deposits for providing palaeoenvironmental information (Fig 13). The area was situated at the extreme north-east section of the proposed pipeline route, at Corn Close Bent Moor (SD 3937 4406 – SD 3949 4412).

2.3.2 The coring survey followed the route of the proposed pipeline, with cores taken every 20m using an Eiljkamp gouge auger. The depths of the cores were commensurate with the depth of construction/excavation of the proposed pipeline through the soft sediments, or stopped where bedrock was reached. Rapid field descriptions were made of the peat cores and logged in a field notebook, which will be kept with the project archive. It was anticipated that any areas of deep peat within 20m either side of the proposed route would also be investigated and mapped.

2.3.3 The position of the cores were surveyed using OA North's GPS equipment and plotted onto a digital map to produce a plan of the core locations. As the deposits encountered were relatively shallow and uniform, the coring data was presented as a table.

2.4 ARCHIVE

2.4.1 A full professional archive has been compiled in accordance with the project design (*Appendix 1*), and in accordance with current IFA and English Heritage guidelines (English Heritage 1991). The paper and digital archive will be deposited in the County Record Office in Preston, and a copy of the report will be deposited with LCAS.

3. EXCAVATION EVALUATION RESULTS

3.1 INTRODUCTION

3.1.1 In total, six sites were evaluated in accordance with the project design (*Appendix 1*). Detailed descriptions for each trench are given in *Appendix 2*, with an overview of the results from each site and a description of any archaeologically significant deposits described below.

3.2 RESULTS

3.2.1 **Site 04:** this crop mark was identified on an aerial photograph held at LCAS (OA North 2004a). In total, four trenches (Trenches 1 to 4) were excavated, comprising two 30m and two 20m trenches (Fig 2).

3.2.2 Topsoil, **1**, comprised a very dark grey-brown peaty deposit 0.30m to 0.40m deep, with an underlying mid-brown silty-clay subsoil, **2**, 70mm to 80mm in thickness and being present in Trenches 2 and 3. The underlying glacial till, **3**, comprised a light grey-orange sandy-clay with occasional sub-rounded gritstone inclusions present in all the trenches. No archaeological deposits were present in Trenches 1 to 3.

3.2.3 Trench 4 was excavated to investigate an area of possible peat cutting, visible on the surface as a small waterlogged hollow measuring 3m by 1.5m (Fig 2). The underlying glacial till, **3**, at the base of this feature has been truncated by 70mm where the last of this peat was removed, by cut **4** (Fig 2). A second circular waterlogged feature was located to the south-east of the pipeline easement, possibly an old dub or water hole. Together, these features, the peat cutting and dub, may form the features noted on the aerial photograph. All of the trenches rapidly filled with ground water soon after their excavation.

3.2.4 **Site 130:** this was identified as a site of a post-medieval farm “Great Hill” (OA North 2004a). Initially, a total of 50m of trenching was intended to evaluate the site, but due to the presence of a two watermains and overhead power cables the total length of trench was shortened to 35m, comprising two trenches (Trenches 5 and 6) measuring 16.5m and 18.5m in length respectively.

3.2.5 The soil horizon was excavated to a depth of 0.5m and 0.55m, and comprised topsoil deposits **5** and subsoil **6**. The underlying glacial till, **7**, comprised a light orangey-grey clay with occasional sub-rounded stone inclusions. Two field drains were noted in Trench 5; one orientated in an east/west direction and one in a north-west/south-east direction, both culverted with either stone or ceramic tiles. Two parallel field drains were also noted in Trench 6 orientated in an east/west direction. All of the field drains were left undisturbed by the excavations. No deposits of an archaeological significance were present. The trenches rapidly filled with ground water upon excavation.

3.2.6 **Site 150:** was selected for evaluation due to the presence of three concrete plinths to the north of the pipeline easement (OA North 2004a). A single 11.6m trench, Trench 7, was excavated close to the concrete plinths, within the

pipeline easement. Below the topsoil, **10**, two deposits were located, which appear to be an attempt to create an area of hard standing in an otherwise wet area. They comprised a layer of gravel layer, **12**, 0.13m thick overlying a layer of redeposited glacial clay, **13**, 0.15m thick (Figs 7 and 8; Plate 1). These layers are evidently post-medieval or modern in date, as post-medieval pottery was recovered from a the underlying subsoil, **11**.

- 3.2.7 The underlying glacial till, **14**, comprised a mid-orange grey clay. Cutting the till was a sub-square post-medieval pit **8**, possibly originally a post-hole although its purpose remains unresolved (Fig 7; Plate 2). The wooden base of a modern stake was also located in the base of the excavated trench.
- 3.2.8 **Site 112:** was identified as a site of post-medieval farm buildings to the north of the pipeline (OA North 2004a). Overhead power cables, and a modern road, prevented excavation adjacent to these buildings. Three trenches (Trenches 8 to 10) were excavated, measuring 20m, 11.6m and 4.7m in length (Fig 4). The presence of a mains power cable divided Trenches 9 and 10 from the originally intended single 20m trench.
- 3.2.9 Topsoil, **30**, and subsoil **31** were identical to that recorded at Site **150**, with a total soil horizon of between 0.4m to 0.45m in depth. In the northern 3m of Trench 8, between the layers of topsoil and subsoil, a deposit of gravel, **33**, was recorded identical to that recorded as deposit **12** in Trench 7 of Site **150**. The area of hard standing clearly extended between the trenches of these two sites. Two linear features were also noted in Trench 8. A shallow north-west/south-east orientated feature, **15**, containing slag and post-medieval pottery, is most likely a field drain (Plate 3). This was cut by ditch **17**, which was filled with sediment (**18**) eroded from surrounding topsoil, which contained abundant organic matter including twigs and roots. The ditch measured 0.85m wide, and was excavated to a depth of 0.35m, but due to waterlogged conditions further excavation was abandoned. The orientation of this ditch was at an angle to that of the current field boundaries. This feature conveniently serves to drain this field, and this may have been its original purpose. Alternatively, it may have related to the activities of Walshaw Mill, which was once located in the same field. Five modern post/stake holes were also located within this trench, with the wood of the stake/post still *in-situ*. In Trench 9, between the deposits of topsoil and subsoil, was 0.2m of redeposited glacial clay, **29**, identical to that located in Trench 7 of Site **150**.
- 3.2.10 **Site 116:** a curvilinear parch mark was identified on an aerial photograph of the area, crossing the field from its northern to eastern field boundaries (OA North 2004a). Four trenches were excavated (Trenches 11 to 14), two measuring 30m and two 20m in length. The soil horizon was removed in each trench, measuring between 0.22m and 0.44m thick, comprised deposits **19** and **20**. Trench 11 was located across the curvilinear parch mark, and revealed two parallel linear features **26** and **23**, the later within the western extant of the former (Fig 9). Linear **26**, which measured 1.7m wide and 0.19m deep, was filled with deposits **27** and **28**, both derived from the surrounding eroding topsoil. The hollow, which forms linear **26**, can be seen on the surface, and it is likely to have created the parch mark noted on the aerial photograph. However, it is considered that this feature represents ground water accumulating and naturally draining this field, rather than being archaeological

in origin. Linear **23** contained a small stone culvert, which is one of the current field drains, and was left undisturbed.

- 3.2.11 Trenches 12 and 13 contained no archaeologically significant deposits, although two plough scars were noted in Trench 12 and a number of field drains within Trench 13, which was left undisturbed by the excavation.
- 3.2.12 **Site 65:** this was identified on the 1851 Tithe map as “Bank Hall” (OA North 2004a, 32). It was speculated that this field name indicates the presence of an earlier building. Two trenches (**15** and **16**) were excavated, both 20m in length. The soil horizon, **34**, was excavated to a depth of 0.30m to 0.33, below which the underlying glacial till, **35**, was located. Current field drains, in the form of stone culverts, were located in Trench 15 and 16, both of which were left undisturbed by the excavation. No archaeologically significant deposits were identified.

3.2 FINDS

- 3.2.1 In total, 55 fragments of artefacts were collected during the evaluation. Of these 49 derived from pottery vessels of post-medieval date, with the remainder represented by industrial residue (5) and glass bottles (2). Of the fragments, 17 were recovered from stratified contexts comprising fills from a ditch (**16**), a pit (**8**) and subsoil deposit **II**, within two trenches (7 and 8) across Site **150**. The remainder were collected from unstratified deposits within Trenches 6 (Site **112**), 7 and 8. The finds catalogue is summarised in *Appendix 5*
- 3.2.2 All artefacts appeared to fall into a date range between the late eighteenth to twentieth centuries, with the pottery fragments providing the most reliable dating evidence. Details of the pottery are set out below, followed by a brief record of the other categories of finds. Whilst these finds, where they are datable, corroborate the pottery evidence, they have little other relevance for the results.
- 3.2.3 **Pottery:** most of the pottery fragments were collected from unstratified deposits. The assemblage was dominated by tableware vessels, whilst the remainder comprised stoneware bottles and jars amongst several coarsewares that were essentially vessels for use in the kitchen. A single sherd of trail slipware plate of Staffordshire type dating to the eighteenth century, was recovered from an unstratified deposit in Trench 7. Overall the assemblage is dominated by eighteenth to mid-nineteenth century wares, such as dark and yellow glazed red earthenware storage vessels, with lesser amounts of nineteenth century English stoneware bottles and jars, unglazed red earthenware flower pots, and twentieth century glazed white earthenware plates. Other pottery from this period include factory-made slipware mugs, and fragments from decorative porcelain cups, that probably derived from the early twentieth century. The quantities of the different pottery types identified are set out in Table 1, below
- 3.2.4 **Glass:** the vessels are represented by a clear base fragment from a milk bottle recovered from subsoil **II**, and a small pharmaceutical bottle with a screw-top neck deriving from an unstratified deposit within the same trench (7). Both vessels are dated to the twentieth century.

- 3.2.5 **Industrial Residue:** in total, five lumps (128g) of smithing slag were collected from the fill of ditch **15** across Site **112**. The presence of the slag suggests metal working in proximity.
- 3.2.6 **Conclusion:** the finds overall are of interest as a small post-medieval assemblage from rural Lancashire. However, since the majority of the finds were from unstratified deposits, their value is limited.

Pottery Type	Date Range	Quantity
Slip-coated earthenware	18th - 19th century	1
Yellow glazed red earthenware	18th - 19th century	24
English stoneware bottles and jars	19th century	7
Unglazed red earthenware	Late 18th - 20th century	3
Glazed white earthenwares	19th/20th century	6
Factory-made slipware	19th/20th century	2
Porcelain	20th century	5
Total		38

Table 1: Post-medieval pottery types

4. PALAEOENVIRONMENTAL SURVEY RESULTS

4.1 INTRODUCTION

4.1.1 Coring was carried out at Corn Close Bent Moor (SD 3937 4406 – SD 3949 4412), in the extreme north-east section of the proposed pipeline route. This area had been highlighted as containing peat deposits therefore the coring programme was carried out in order to determine the extent and depth of any peat deposits.

4.2 RESULTS

4.2.1 In total, 35 cores were taken, and these were spaced roughly 20m apart along the route of the proposed pipeline (Fig 13). In all cases the underlying weathered bedrock was reached within 0.5m depth. The gross stratigraphy consisted of soil or peat overlying sandy-silt with varying amounts of clay.

4.2.2 The lithology of each core was recorded in a field notebook and each position was recorded using OA North's GPS equipment. The lithological data was entered into spreadsheet, which is presented as a table in *Appendix 4*.

4.2.3 The data shows that an area centred at SD 394720 441198, on Corn Close Bent Moor, contains peat deposits of up to 1.3m depth. However, the adjacent peat deposits that will be directly impacted upon by the development (*Appendix 4: Cores 1-12*) are no more than *c.* 0.4m in depth. Site **04**, which is situated on Corn Close Moor at SD 394841 441137 has been interpreted as a peat cutting feature. Therefore, it is possible that the peat in this area has been truncated.

4.2.4 At the south-western end of the coring area, at SD 393726 440630, the deposits consist of up to 0.4m of soil overlying sandy silt (Cores 13-35). One or two pockets of up to *c.* 0.4m deep very humified peat were also encountered in places (Cores 22 and 25).

5. DISCUSSION

4.1 CONCLUSIONS

- 4.1.1 A number of post-medieval deposits or features were located. Features identified from aerial photographs at Sites **04** and **116** were excavated, and identified as an area of peat cutting and a natural water-worn hollow, with a later culverted field drain inserted into the hollow, respectively. No evidence of structures associated with potential post-medieval or earlier buildings were identified at Sites **65**, **112** and **130**, although it was not possible to evaluate directly over the location of the buildings at these sites. Site **112**. Deposits creating an area of hard standing were identified extending between Sites **112** and **150**, at the latter dated to the nineteenth or twentieth centuries. Other features identified during the evaluation excavations related to field drainage.
- 4.1.2 The palaeoenvironmental survey showed that although 1.3m deep peat is situated roughly 50m north of the proposed development on Corn Close Bent Moor, the adjacent peat deposits that will be directly impacted upon are no more than *c* 0.4m in depth. Given the evidence for peat cutting (Site **04**), it is possible that the peat here has been severely truncated. Elsewhere, the deposits consist of up to 0.4m of soil overlying sandy-silt with occasional pockets of very humified peat up to *c* 0.4m deep.

4.2 IMPACT AND RECOMMENDATIONS

- 4.2.1 None of the deposits or features located within the evaluation excavations were considered to be of a sufficient archaeological significance to require a programme of further archaeological investigation. However, an archaeological watching brief should be maintained of the groundworks of the pipeline to identify and record any significant deposits encountered during the development.
- 4.2.2 Given the relatively shallow depth of the threatened peat deposits in the north-eastern end of the development no further palaeoenvironmental work is recommended. However, should the proposed route of the pipeline and associated activity at Corn Close Bent Moor move northwards onto the deeper peat centred at SD 394720 441198, then it is recommended that palaeoenvironmental sampling and assessment should be carried out.

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ILLUSTRATIONS

FIGURES

Figure 1: Site location plan

Figure 2: Site **04**, evaluation trench location plan

Figure 3: Site **130**, evaluation trench location plan

Figure 4: Site **150,112,116**, evaluation trench location plan

Figure 5: Site **65**, evaluation trench location plan

Figure 6: Plan of Trench 7

Figure 7: Site **150**, north-facing section of Trench 7

Figure 8: Site **118**, plan of Trench 8

Figure 9: Site **116**, plan of Trench 11

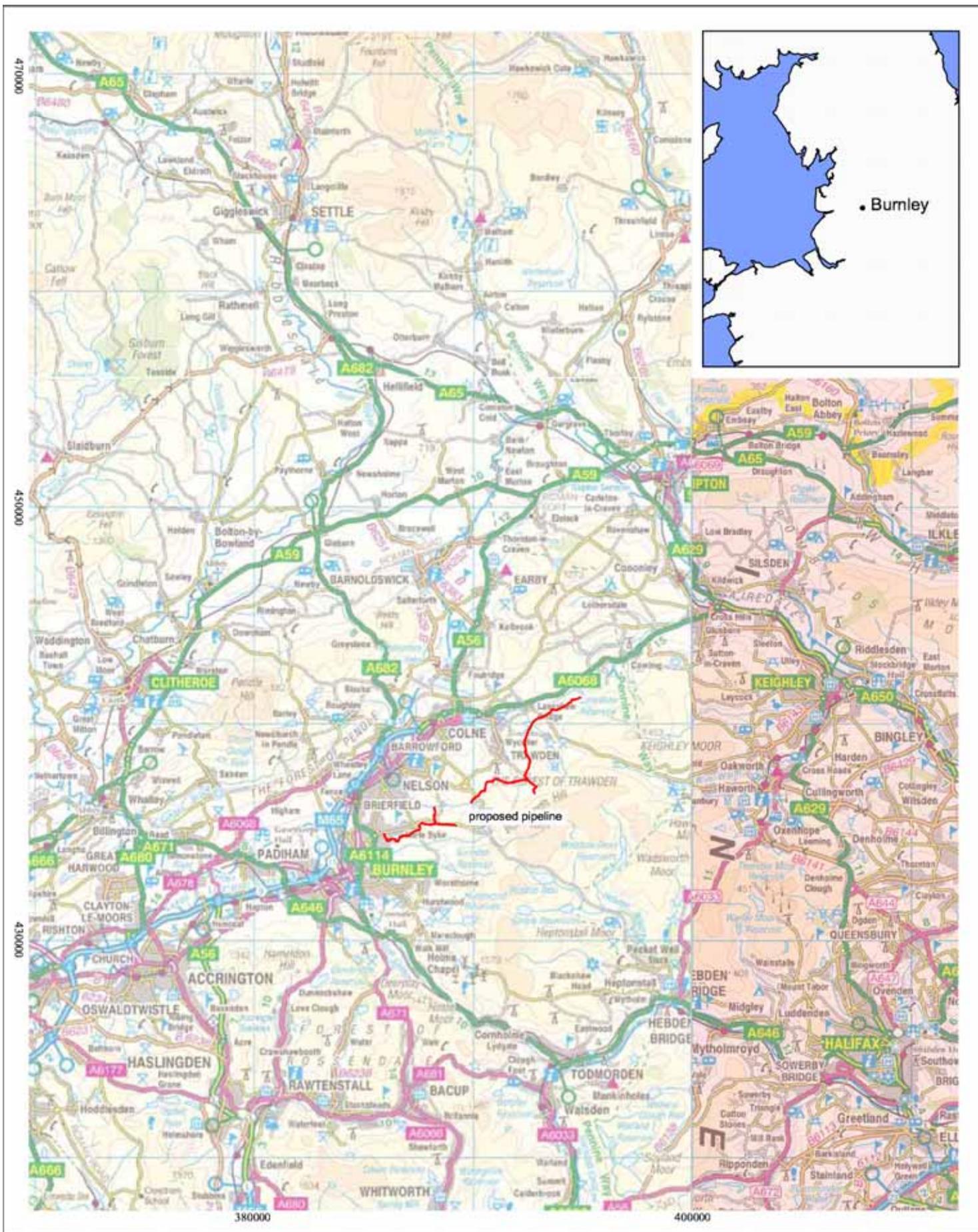
Figure 10: Coring location plan

PLATES

Plate 1: Site **150**, Trench 7, layers **12** and **13** creating area of hard-standing

Plate 2: Site **150**, Trench 7, east-facing section of pit **8**

Plate 3: Site **112**, Trench 8, west-facing section of linear **15**



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0 1000 2000 metres

Figure 1: Location Map

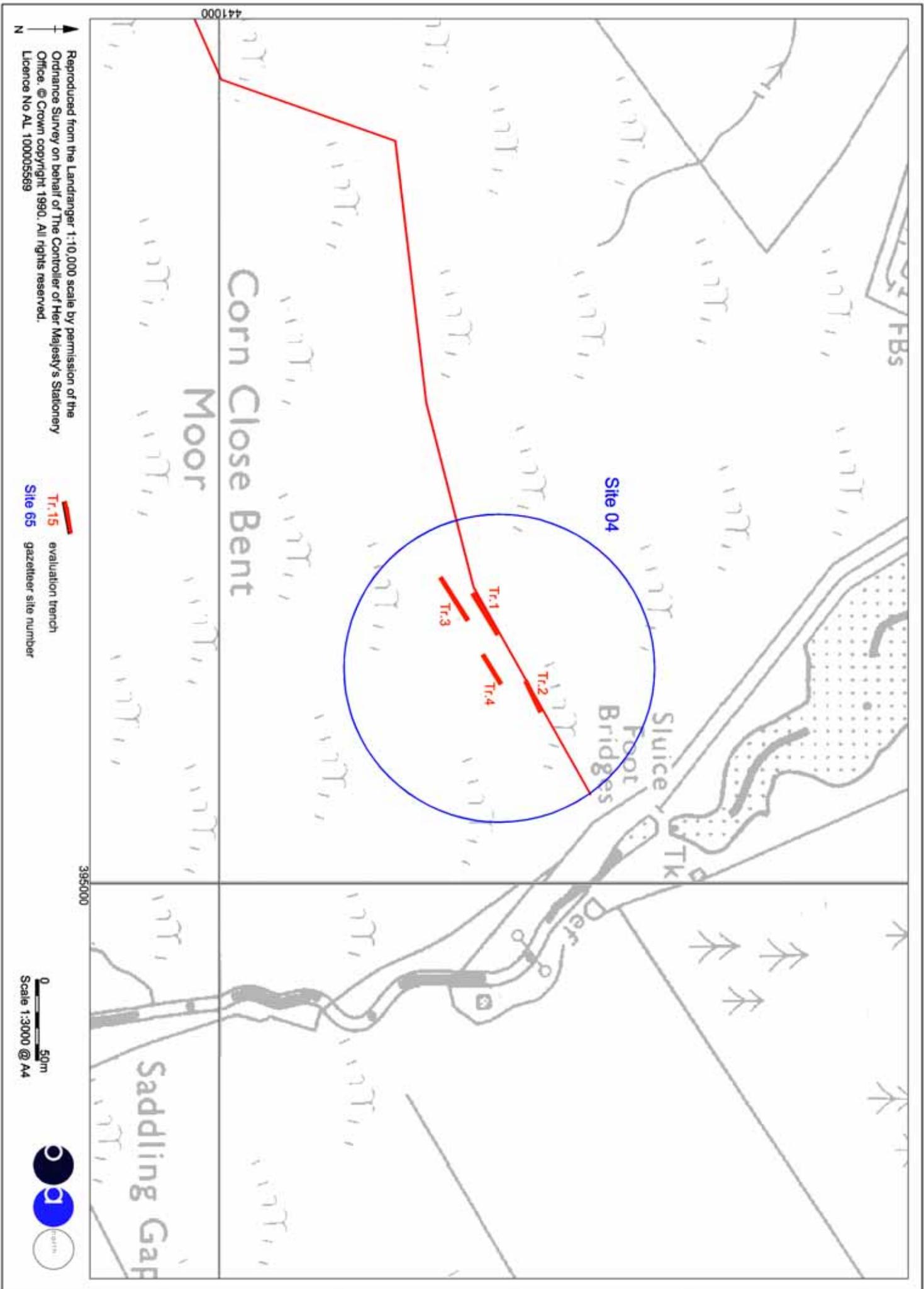


Figure 2: Site 04, Evaluation trench location plan

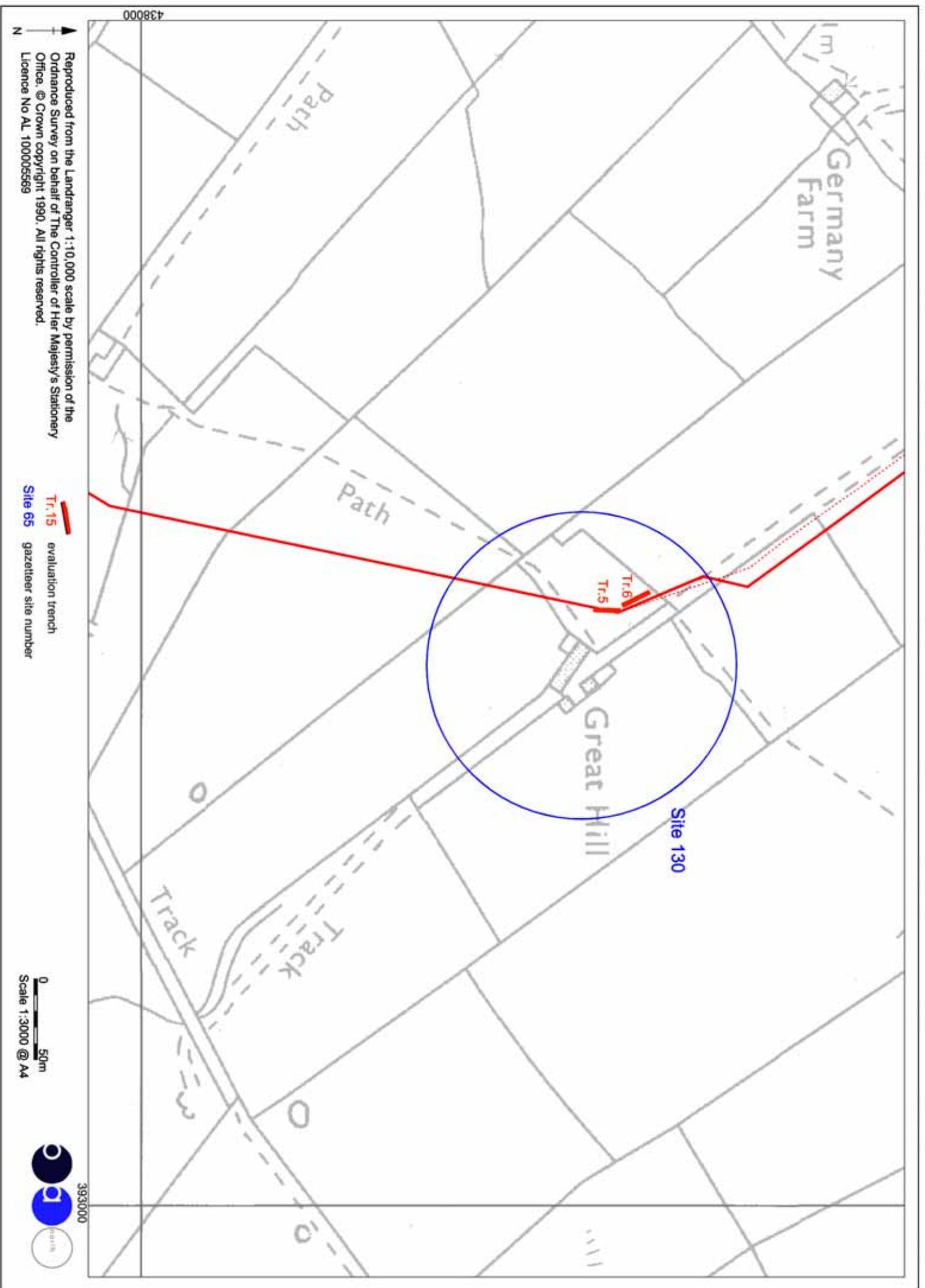
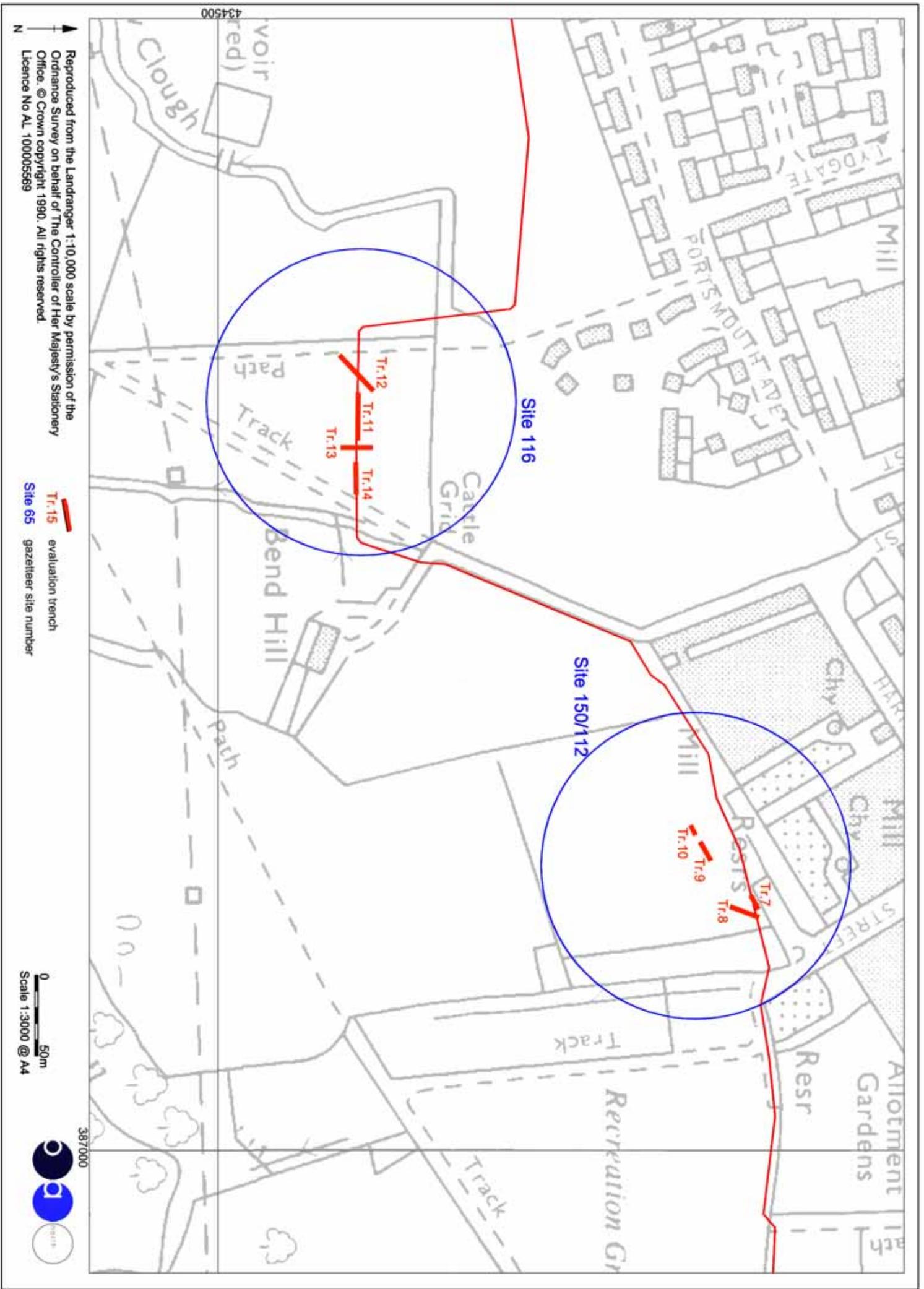


Figure 3: Site 130, Evaluation trench location plan



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Tr. 15 evaluation trench
 Site 65 gazetteer site number

0 50m
 Scale 1:3000 @ A4



Figure 4: Site 150,112,116, Evaluation trench location plan

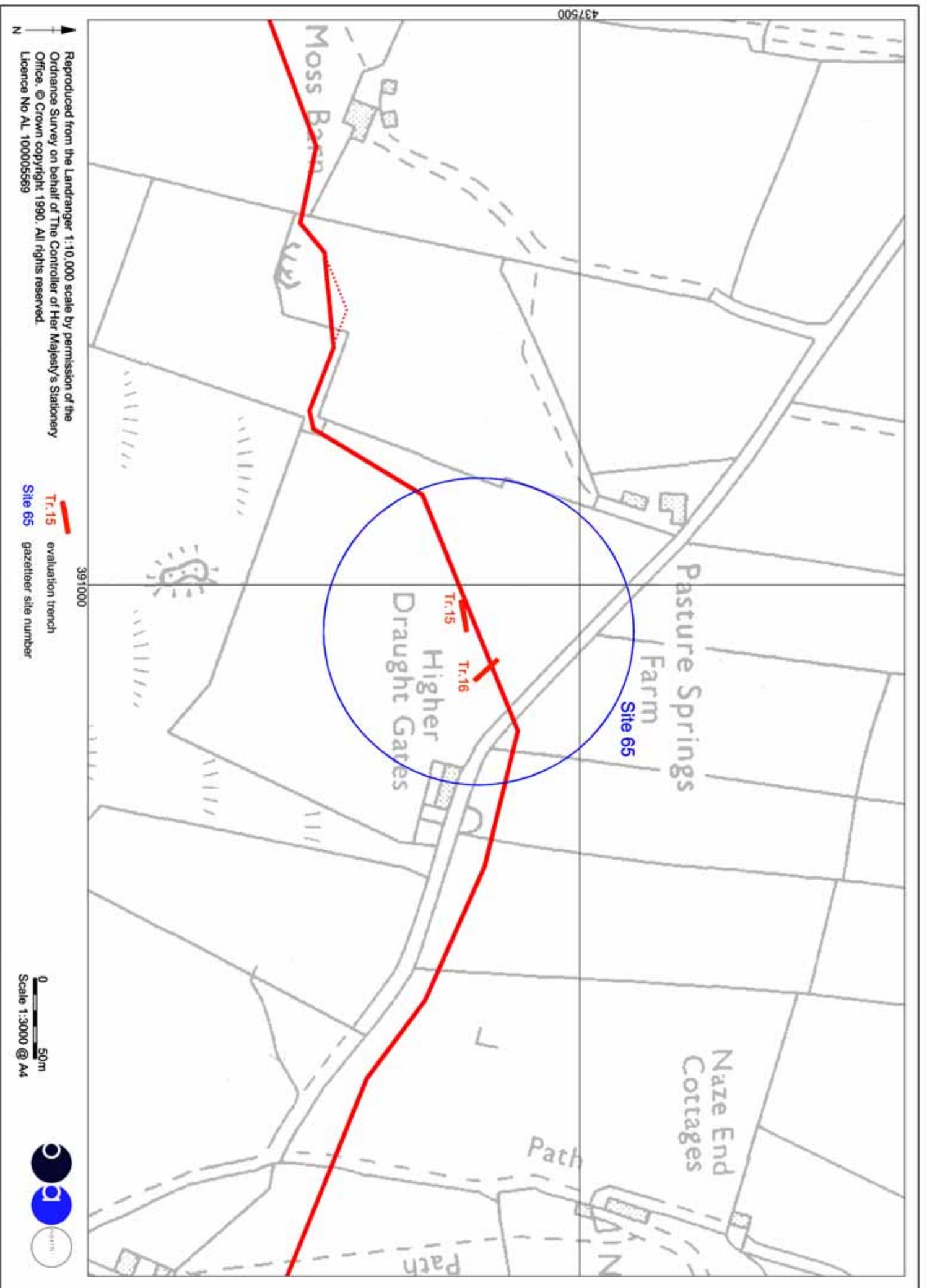
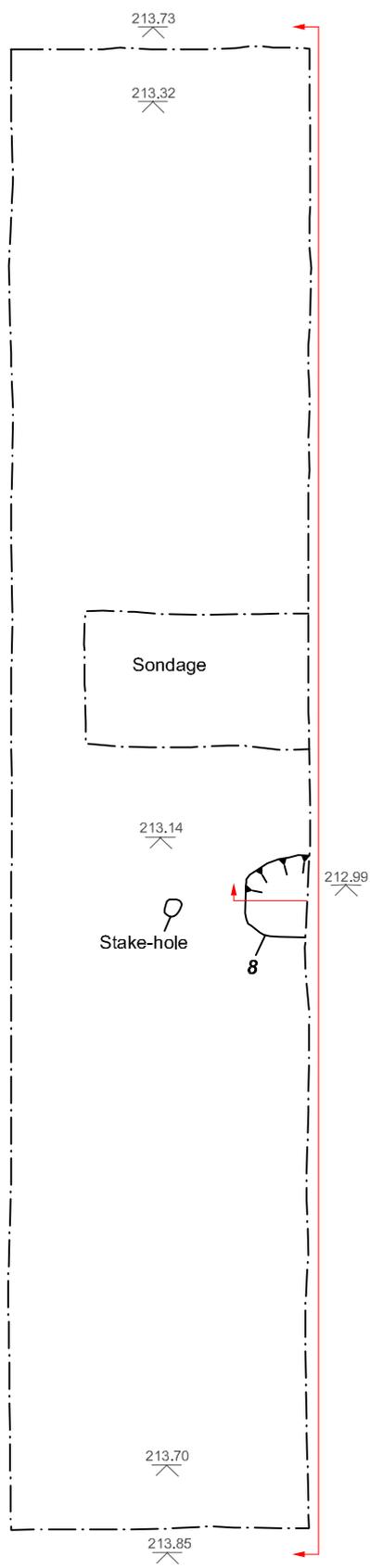


Figure 5: Site 65, Evaluation trench location plan

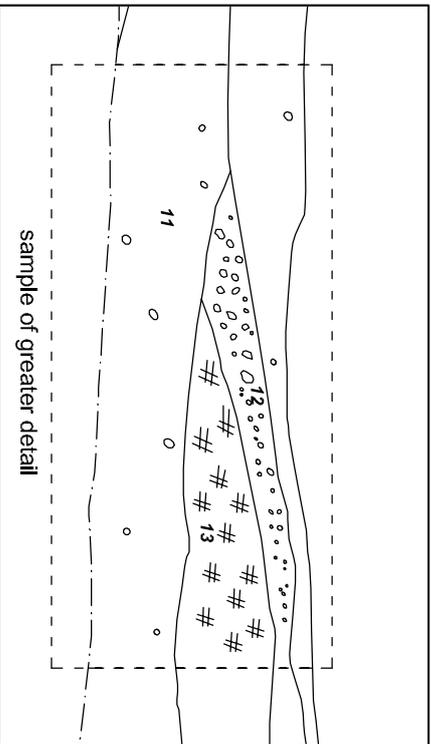
Key	
	truncated
	edge of excavation
	edge of context
	uncertain edge
	context number
	stone



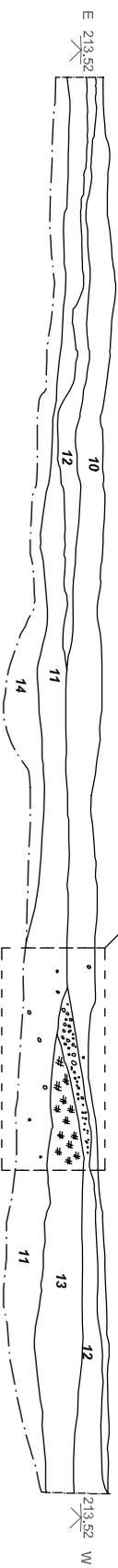
0 2m
Scale 1:50 at A4



Figure 6: Plan of trench 7



Key	
	truncated
	edge of excavation
	edge of context
	uncertain edge
04	context number
	stone
	glacial clay

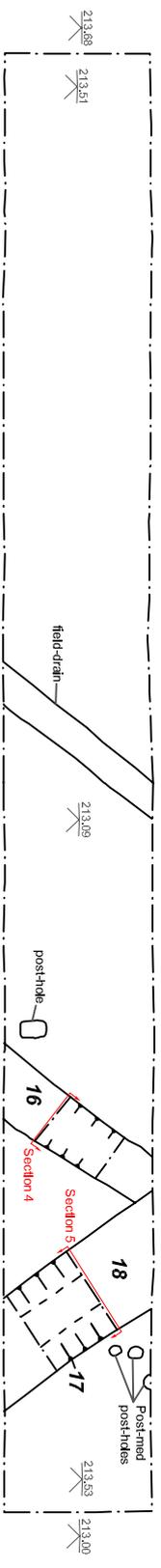


0 1m
Scale 1:50 @ A4



Figure 7: Site 150, north-facing section of Trench 7

Key	
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	edge of excavation
	edge of context
	uncertain edge
	context number
	stone

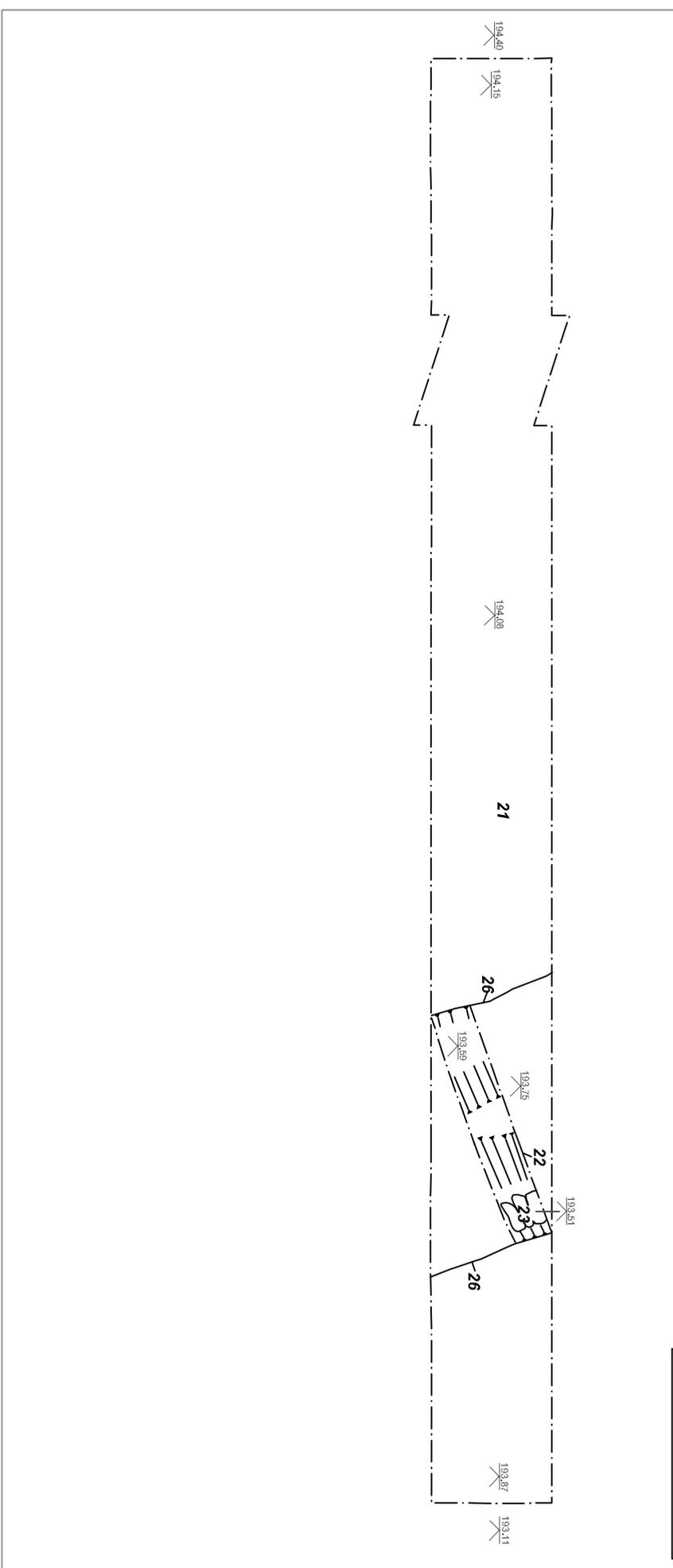


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Scale 1:100 @ A4



Figure 8: Site 118, plan of Trench 8

Key	
	truncated
	edge of excavation
	edge of context
	uncertain edge
04	context number
	stone



0 2m
Scale 1:100 @ A4



Figure 9: Site 116, plan of Trench 11

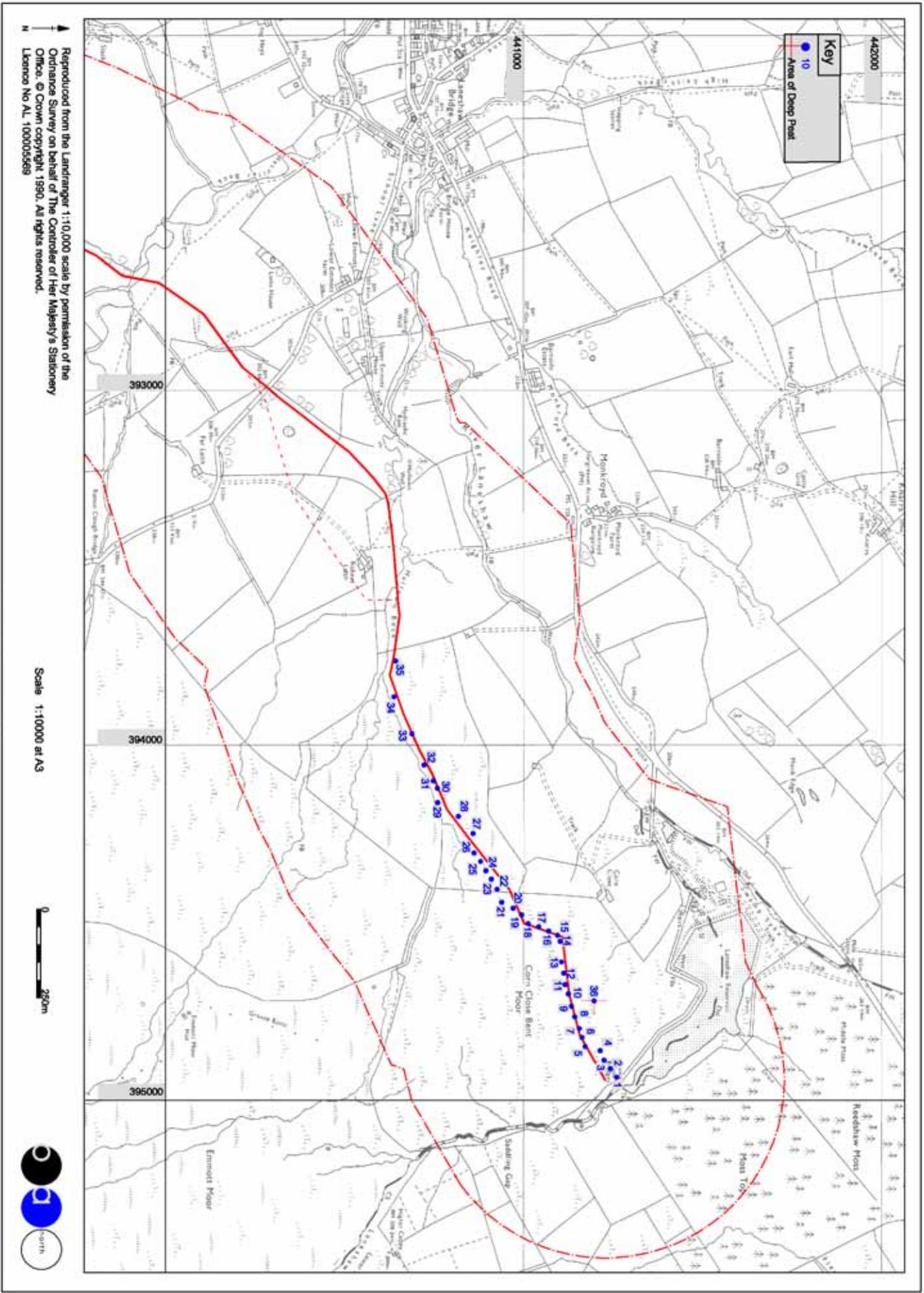


Figure 10: Core Location plan



Plate 1: Site **150**, Trench 7, layers **12** and **13** creating area of hard-standing



Plate 2: Site **150**, Trench 7, east-facing section of pit **8**



Plate 3: Site **112**, Trench 8, west-facing section of linear **15**

APPENDIX 1: PROJECT DESIGN

1. INTRODUCTION

- 1.1 This project design has been compiled for United Utilities (hereafter the client). It presents proposals for the assessment of a proposed new transfer pipeline from Coldwell and Trawden to Laneshaw Water Treatment Works (NGR North end: SD 394 441, South end: SD 390 436). Section 2 of this document states the objectives of the project, Section 3 deals with OA North's methodology. Section 4 addresses other pertinent issues including details of staff to be involved, and project costs are presented in Section 5.
- 1.2 Following the results of a desk-based assessment and walkover survey (OA North 2005) the Specialist Advisor (Archaeology) at Lancashire County Council (LCC) has recommended that a programme of topographic survey and evaluation is undertaken of the proposed pipeline route. This should not be seen as the final phase of work and it is likely that a scheme of mitigation will be required during the ground works associated with the pipeline including a watching brief. This document deals with the evaluation element of the archaeological programme of work.
- 1.3 OA North has the professional expertise and resources to undertake the project detailed below to a high level of quality and efficiency. OA North is an **Institute of Field Archaeologists (IFA) registered organisation, registration number 17**, and all its members of staff operate subject to the IFA Code of Conduct.

2 OBJECTIVES

- 2.1 The following programme has been designed to investigate the presence of above ground archaeological remains along the route of the pipeline and to investigate the potential for below ground remains. The required stages to achieve these ends are as follows:
- 2.2 **Evaluation:** to undertake evaluation trenching of *c* 5% of the **Sites 4, 65, 130, 112, 116, 145** and **150** as identified in the OA North 2004 report to determine the quality, extent and importance of any archaeological remains on the site. These sites are
- 2.3 **Report and Archive:** production of a report following the collation of data during Section 2.2. A site archive will be produced to English Heritage guidelines (MAP 2) and in accordance with the *Guidelines for the Preparation of Excavation Archives for Long Term Storage* (UKIC 1990).

3 METHOD STATEMENT

3.1 ARCHAEOLOGICAL EVALUATION

- 3.3.1 Approximately a 5% area of the development site based on the footprint of the proposed buildings and access road (5920m²) will be subject to evaluation trenching. This equates to approximately eighteen 10m x 1.6m trenches. The uppermost modern surface will be removed by machine (fitted with a toothless ditching bucket) under archaeological supervision to the surface of the first significant archaeological deposit. Thereafter, the trenches will be cleaned by

- hand, using either hoes, shovel scraping, and/or trowels depending on the subsoil conditions.
- 3.3.2 Any investigation of intact archaeological deposits will be exclusively manual. Selected pits and postholes will normally only be half-sectioned, linear features will be subject to no more than a 10% sample, and extensive layers will, where possible, be sampled by partial rather than complete removal. It is hoped that in terms of the vertical stratigraphy, maximum information retrieval will be achieved through the examination of sections of cut features. All excavation, whether by machine or by hand, will be undertaken with a view to avoiding damage to any archaeological features, which appear worthy of preservation *in situ*.
- 3.3.3 All information identified in the course of the site works will be recorded stratigraphically, using a system, adapted from that used by Centre for Archaeology of English Heritage, with sufficient pictorial record (plans, sections and both black and white and colour photographs) to identify and illustrate individual features. Primary records will be available for inspection at all times.
- 3.3.4 Results of all field investigations will be recorded on *pro forma* context sheets. The site archive will include both a photographic record and accurate large-scale plans and sections at an appropriate scale (1:50, 1:20 and 1:10). All artefacts and ecofacts will be recorded using the same system, and will be handled and stored according to standard practice (following current Institute of Field Archaeologists guidelines) in order to minimise deterioration.
- 3.3.5 The deposition and disposal of any artefacts recovered in the evaluation will be agreed with the legal owner prior to the work taking place. Except for items subject to the Treasure Act, all artefacts found during the course of the project will be donated to an appropriate receiving museum.
- 3.3.6 Environmental samples (bulk samples of 30 litres volume, to be sub-sampled at a later stage) will be collected from suitable deposits (i.e. the deposits are reasonably well dated and are from contexts the derivation of which can be understood with a degree of confidence). Where such deposits are encountered, an appropriate sampling strategy will be agreed with LCAS and will be subject to a variation to the project costs.
- 3.3.7 Samples will also be collected for technological, pedological and chronological analysis as appropriate. If necessary, access to conservation advice and facilities can be made available. OA North maintains close relationships with Ancient Monuments Laboratory staff at the Universities of Durham and York and, in addition, employs artefact and palaeoecology specialists with considerable expertise in the investigation, excavation and finds management of sites of all periods and types, who are readily available for consultation.
- 3.3.8 **Health and Safety:** OA North provides a Health and Safety Statement for all projects and maintains a Unit Safety policy. All site procedures are in accordance with the guidance set out in the Health and Safety Manual compiled by the Standing Conference of Archaeological Unit Managers (1997). A written risk

assessment will be undertaken in advance of project commencement and copies will be made available on request to all interested parties.

- 3.3.9 The client is requested to provide information relating to services in the vicinity of the trenches, though OA North will undertake a CAT scan in advance of site commencement.
- 3.3.9 If necessary the trenches will be excavated to a maximum depth of 1.2m. Following completion of the evaluation, the trench will be backfilled with the material removed in its excavation. Any other form of land reinstatement will be the responsibility of the client.
- 3.3.10 OA North has professional indemnity to a value of £2,000,000, employer's liability cover to a value of £10,000,000 and public liability to a value of £10,000,000. Written details of insurance cover can be provided if required.
- 3.3.11 Normal OA North working hours are between 9.00 am and 5.00 pm, Monday to Friday, though adjustments to hours may be made to maximise daylight working time in winter and to meet travel requirements. It is not normal practice for OA North staff to be asked to work weekends or bank holidays and should the client require such time to be worked during the course of a project a contract variation to cover additional costs will be necessary.

3.2 REPORT/ ARCHIVE

- 3.2.1 **Report:** the report will include the following:
- (i) a non-technical summary outlining the results of the survey;
 - (ii) an introduction presenting the background and circumstances of the project;
 - (iii) a method statement including sources of information consulted;
 - (iv) the results of the walkover survey highlighting areas of defined archaeology;
 - (v) a gazetteer of sites including a brief description and assessment;
 - (vi) a discussion of the impact of the proposed development and any relevant recommendations;
 - (vii) a bibliography of sources sources;
 - (viii) a copy of this project design;
 - (ix) illustrations including copies of relevant historic maps, photographs and plans.
- 3.2.2 One bound and one unbound copy of the report will be submitted to the Client, and a further copy submitted to the Lancashire SMR within eight weeks of completion of the study.

- 3.2.3 Provision will be made for a summary report to be submitted to a suitable regional or national archaeological journal within one year of completion of fieldwork, if relevant results are obtained.
- 3.2.4 **Confidentiality:** all internal reports to the Client are designed as documents for the specific use of the Client, for the particular purpose as defined in the project brief and project design, and should be treated as such. They are not suitable for publication as academic documents or otherwise without amendment or revision.
- 3.2.5 **Archive:** the results of all archaeological work carried out will form the basis for a full archive to professional standards, in accordance with current English Heritage guidelines (*Management of Archaeological Projects*, 2nd edition, 1991). The project archive represents the collation and indexing of all the data and material gathered during the course of the project. This archive will be provided in the English Heritage Centre for Archaeology format and a synthesis will be submitted to the SMR (the index to the archive and a copy of the report). Arrangements for deposition of the full site archive will be made the Lancashire County Record Office.

4 OTHER MATTERS

- 4.1 **Project Monitoring:** whilst the work is undertaken for the Client, the Lancashire Archaeological Officer will be kept fully informed of the work. Any proposed changes to the project design will be agreed with the Archaeological Officer and the Client.
- 4.1.1 **Access:** OA North will consult with the Client regarding access to the site.
- 4.1.2 **Health and Safety:** OA North provides a Health and Safety Statement for all projects and maintains a Unit Safety policy. All site procedures are in accordance with the guidance set out in the Health and Safety Manual compiled by the Standing Conference of Archaeological Unit Managers (1997). A written risk assessment will be undertaken in advance of project commencement and copies will be made available on request to all interested parties.
- 4.1.3 **Work Timetable:** the evaluations are expected to take approximately seven days to complete. The report will be completed within approximately eight weeks following completion of the fieldwork.
- 4.1.4 **Staffing:** the project will be under the direct management of **Alison Plummer BSc (Hons)** (OA North Senior Project Manager) to whom all correspondence should be addressed.
- 4.1.5 The evaluations will be supervised in the field by Andy Bates an OA North project officer. Andy will be assisted by two archaeologists.
- 4.1.6 **Insurance:** OA North has professional indemnity to a value of £2,000,000, employer's liability cover to a value of £10,000,000 and public liability to a value of £15,000,000. Written details of insurance cover can be provided if required.

APPENDIX 2: TRENCH DESCRIPTIONS

Site No: 4
Trench No: 1
Alignment: East/west
Length: 30.0m
Depth: 0.70m

Description:

Topsoil, **1**, excavated to a depth of 0.40m comprised a very dark grey-brown peaty layer with abundant quantities of organic matter. The underlying glacial till, **3**, comprised a light grey/orange sandy-clay with occasional sub-rounded gritstone inclusions.

The trench filled with ground water upon excavation. No deposits of archaeological significance were present.

Site No: 4
Trench No: 2
Alignment: East/west
Length: 20.0m
Depth: 0.60m

Description:

Topsoil, **1**, excavated to a depth of 0.37m comprised a very dark grey-brown peaty deposit with abundant quantities of organic matter. The subsoil, **2**, measured 0.08m in thickness, comprised a mid-brown silty-clay. The underlying glacial till, **3**, comprised a light grey/orange sandy-clay with occasional sub-rounded gritstone inclusions.

The trench filled with ground water upon excavation. No deposits of archaeological significance were present.

Site No: 4
Trench No: 3
Alignment: East/west
Length: 30.0m
Depth: 0.50m

Description:

Topsoil, **1**, excavated to a depth of 0.35m comprised a very dark grey-brown peaty deposit with abundant quantities of organic matter. The subsoil, **2**, which measured 0.07m in thickness, comprised a mid-brown silty-clay. The underlying glacial till comprised a light grey-orange sandy-clay with occasional sub-rounded gritstone inclusions.

The trench filled with ground water upon excavation. No deposits of archaeological significance were present.

Site No: 4
Trench No: 4
Alignment: East/west
Length: 20.0m
Depth: 0.57m

Description:

Topsoil, **1**, excavated to a depth of 0.30m comprised a very dark grey to black humic silt with abundant quantities of organic matter. The subsoil, **2**, measured 0.27m in thickness and comprised a mid-brown silt formed from decayed peat. The underlying glacial till, **3**, comprised a light grey sandy clay with less than 1% sub-rounded gritstone inclusions of a maximum size of 0.22m by 0.20m by 0.15m.

Cut **4** truncated the natural till. It was filled with the same topsoil and subsoil recorded across the length of the trench. It is thought to represent a limited area of peat cutting also visible as a shallow, waterlogged, depression to the north of the trench. The trench filled with ground water upon excavation.

Site No: 130
Trench No: 5
Alignment: North-east/south-west
Length: 16.50m
Depth: 0.67m

Description:

Trench 5 was shortened from the initial 20m to 16.5m to maintain a safe working distance from an overhead power line to the south-west and a mains waterpipe to the south-east of the trench. Topsoil, **5**, comprised a dark brown silty-clay excavated to a depth of 0.30m, and, together with the underlying mid-brown silty-clay subsoil, **6**, 0.20m in depth, formed a soil horizon 0.50m in thickness. The underlying glacial till, **7**, comprised a light orange-grey clay with occasional sub-rounded gritstone inclusions. Two field drains were noted, one, orientated in a east/west direction, comprised a small stone culvert, and the second, orientated in a north-west/south-east direction, comprised culverted field drain with brick walls and capping stones.

The trench rapidly filled with water upon excavation. No deposits of archaeological significance were present.

Site No: 130
Trench No: 6
Alignment: North west/south east
Length: 18.50m
Depth: 0.67m

Description:

Trench 6 was shortened from 20m to 18.5m to maintain a safe working distance from a mains waterpipe to the south-west of the excavated area. Topsoil, **5**, comprised a dark grey-brown silty-clay excavated to a depth of 0.35m, and, together with the following subsoil, **6**, a 0.20m thick mid-grey brown silty-clay, formed a soil horizon 0.50m in thickness. The underlying glacial till, **7**, comprised a light orangey grey clay with less than 1% sub-rounded gritstone inclusions.

Two active parallel field drains were noted cutting the glacial till, orientated in a east/west direction, measuring 0.20m wide and 0.25m deep and filled with redeposited topsoil. They were possibly excavated with the smaller narrow bucket of a mechanical excavator, but upon excavation immediately filled with water.

The trench filled with ground water upon excavation. No deposits of archaeological significance were noted.

Site No: 150
Trench No: 7
Alignment: South-west/north-east
Length: 11.60m
Depth: 0.45m

Description:

Topsoil, **10**, was excavated to a maximum depth of 0.18m and comprised a very dark grey fine sand silty-clay, with occasional small sub-rounded stone inclusions. At a depth of 0.03m a deposit of dark grey gravel, **12**, was located. This measured a 0.13m in thickness for 1.8m of the western end of the trench. Below this, for a maximum 0.15m, was a firm mid-orange grey clay, **13**, derived from the glacial till in the surrounding area. These two deposits appear to have been an attempt to form an area of hard standing in an otherwise very waterlogged area (Fig 6; Plate 1). Below this hard standing was 0.20m of a dark grey silty-clay subsoil, **11**, with occasional small sub-rounded stone inclusions, from which post-medieval pottery was recovered.

Glacial till, **14**, at the base of the trench comprised a mid-orangey grey clay. Cutting this natural clay was a small sub-square pit, **8** (Plate 2). It measured 0.50m in length and breadth and 0.20m in depth, with straight near vertical sides and a flat base. It was filled with a very dark grey silty-clay, **9**, containing occasional wood fragments, most likely where the feature had been backfilled with topsoil **10**. The purpose of the feature was undetermined, but it contained 19th/20th century pottery. A single wooden stake was recorded on the plan of the trench (Fig 6), evidently modern in origin as the base of the stake was still *in-situ*.

The trench filled with ground water soon after its excavation.

Site No: 112
Trench No: 8
Alignment: North/south
Length: 20.0m
Depth: 2.0m

Description:

Topsoil, **30**, was excavated to a depth of 0.20m, it comprised a very dark grey to black silty-clay, followed by a dark grey-brown silty-clay subsoil, **31**, 0.20m thick. A 50mm thick layer of gravel, **12**, identical to that located in Trench 7 was located between the topsoil and subsoil in the northern 3m of this trench. The underlying glacial till, **14**, comprised a light orangy-brown clay with occasional small sub-rounded stone or gravel inclusions.

Two features were located cutting the natural till. Ditch **15** was orientated in a north-west/south-east direction, measuring 0.40m in width and only 0.05m in depth (Plate 3). Its fill, **16**, comprised a dark brown-grey compact silty-clay with occasional small angular stones, slag and post-medieval pottery inclusions. Ditch **15** was truncated by ditch **17**, and therefore pre-dates it. The purpose of ditch **15** remains undetermined, but is most likely to relate to field drainage.

Ditch **17** was orientated north-east/south-west, with straight sides falling at a gradient of approximately 1:1, and measuring 0.85m in width. It was filled with a mid-grey-brown silty-clay, **16**, with approximately 20% organic matter (including roots and twigs) within it. This ditch was excavated to a depth of 0.30m and then abandoned as it immediately filled with water. The purpose of ditch **17** is undetermined. Although its orientation is at an angle to the current field boundaries, it may possibly relate to the activities of Walshaw Mill, once located in the same field. It clearly still performs a drainage function, which may have been its original purpose.

Five modern post or stake-holes were also located within this trench, with the wood of the stake/post remaining *in-situ*.

Site No: 112
Trench No: 9
Alignment: South-west/north-east
Length: 11.60m
Depth: 0.45m

Description:

Topsoil, **30**, excavated to a depth of 0.20m, comprised a very dark grey silty-clay. Beneath the topsoil lay 0.10m of mid orangy grey clay, **32**, a redeposited glacial till, identical to that identified in Site **50** Trench 7 as deposit **13**. Below this clay was a layer, 0.20m in thickness, of dark grey sandy-silt subsoil, deposit **31**.

The trench filled with ground water soon after its excavation.

Site No: 112
Trench No: 10
Alignment: South-west/north-east
Length: 5.70m
Depth: 0.35m

Description:

Excavation proceeded through 0.35m of very dark grey fine sandy-silt topsoil, **30**, to reveal the underlying glacial till, **32**. The glacial till comprised a mid orangy grey clay.

No deposits of archaeological significance were discovered. The trench filled with ground water soon after its excavation.

Site No: 116
Trench No: 11
Alignment: North-east/south-west
Length: 30.00m
Depth: 0.58m

Description:

Topsoil, **19**, excavated to a depth of 0.25m, comprised a very dark grey silty clay. The 0.10m of underlying subsoil, **20**, comprised a mid-grey-brown silty-clay. Beneath this was located a mid-orange grey clay, glacial till **21**.

Two linear features cut the glacial till in the south-western half of the trench. Linear **26** measured 1.7m wide and 0.19m deep. Its lower fill, **27**, comprised a mid-brown silty-clay 0.08m thick, with occasional small sub-rounded stone inclusions derived from surrounding topsoils. The upper fill, **28**, comprised a light grey sandy-clay 0.12m thick. This feature is visible as a curving linear hollow in the ground, undoubtedly the feature on the aerial photograph which this evaluation intended to locate. It is quite likely that this a natural feature, caused by the repeated flow of water, rather than being of an anthropogenic origin.

Linear **23** measured 1.36m wide and was excavated to a depth of 0.11m before locating an active, stone-lined, culverted field drain, which was left undisturbed. It within, and parallel to, the western edge of feature **26**.

Site No: 116
Trench No: 12
Alignment: North-east/south-west
Length: 30.00m
Depth: 0.39m

Description:

Topsoil, **19**, was excavated to a depth of 0.22m, and comprised a very dark grey-brown silty-clay. The underlying glacial till comprised of a mid-orange grey clay with occasional small sub-rounded gritstone inclusions. Two plough scars were visible at the north-eastern end of the trench, orientated in a north/south direction.

Site No: 116
Trench No: 13
Alignment: North/south
Length: 20.00m
Depth: 0.41m

Description:

Topsoil, **19**, was excavated to a depth of 0.37m and comprised a very dark grey brown silty-clay. Subsoil, **20**, was excavated for a further 0.07m and comprised a mid-grey brown silty-clay. The underlying glacial till, **21**, comprised a mid-orange grey clay with occasional medium-sized sub-rounded gritstone inclusions. A single field drain was recorded at the southern end of the trench, orientated in a north-west/south-east direction.

No deposits of archaeological significance were observed.

Site No: 116
Trench No: 14
Alignment: East/west
Length: 20.00m
Depth: 0.35m

Description:

Topsoil, **19**, was excavated to a depth of 0.30m and comprised a very dark grey-brown silty-clay. The underlying glacial till, **21**, comprised a mid-orange grey clay with occasional small sub-rounded gritstone inclusions. In total, seven field drains were recorded in the trench, five orientated in a north-east/south-west direction, one orientated north-west/south-east, and one orientated east/west, all being interconnected and, therefore, part of the same system of drainage.

Site No: 65
Trench No: 15
Alignment: North-east/south-west
Length: 20.00m
Depth: 0.35m

Description:

A very dark grey peaty silty-clay topsoil, **34**, was excavated to a depth of 0.33m. The underlying glacial till, **35**, comprised a light orange-grey clay with frequent sub-rounded grit stone of a maximum size of 0.10m by 0.10m by 0.10m. A stone-lined, culverted field drain was located across the south-western half of the trench orientated in an east/west direction. This was left undisturbed.

No deposits of archaeological significance were observed.

Site No: 65
Trench No: 16
Alignment: East/west
Length: 20.00m
Depth: 0.30m

Description:

Topsoil, **34**, identical to that described in Trench 15, was excavated to a depth of 0.30m. The underlying glacial till, **35**, comprised a light orange-grey clay with frequent stone inclusions of a maximum size of 0.65m by 0.50m by 0.45m. A stone-lined, culverted, field drain was located across the south-eastern end of the trench orientated in an south west/north east direction. This was left undisturbed.

No deposits of archaeological significance were observed.

APPENDIX 3: CONTEXT LIST

Context	Site	Description
1	4	Topsoil
2	4	Glacial till
3	4	Subsoil
4	4	Peat cutting
5	130	Topsoil
6	130	Subsoil
7	130	Glacial till
8	150	Pit cut
9	150	Fill of 8 , deliberate backfill
10	150	Topsoil
11	150	Subsoil
12	150	Gravel layer
13	150	Clay layer
14	150	Glacial till
15	112	Cut of ditch
16	112	Fill of 15 , material eroded from surrounding topsoil
17	112	Cut of ditch
18	112	Fill of 17 , material eroded from surrounding topsoil
19	116	Topsoil
20	116	Subsoil
21	116	Glacial till
22	116	Cut for culvert 23
23	116	Fill of 22 , stone culvert
24	116	Fill of 22 , deliberate backfill
25	116	Fill of 22 , deliberate backfill
26	116	Cut of ditch
27	116	Fill of 26 , material eroded from surrounding topsoil
28	116	Fill of 26 , material eroded from surrounding topsoil
29	112	Re-deposited glacial clay
30	112	Topsoil
31	112	Subsoil
32	112	Glacial till
33	112	Gravel layer
34	65	Topsoil
35	65	Subsoil

APPENDIX 4: CORE LOGS

Core	Easting	Northing	Depth 1 m	Depth 2 m	Description
1	94935	41261	0.00	0.20	Very humified peat with modern roots
			0.20	0.30	Very humified sticky peat
			0.30	0.40	Clayey silty soil
2	94911	41244	0.00	0.15	Very humified peat with modern roots
			0.15	0.27	Very humified sticky peat
			0.27	0.50	Clayey silt
3	94887	41226	0.00	0.05	Modern roots
			0.05	0.18	Very humified peat with modern roots
			0.18	0.28	Fibrous peat
			0.28	0.50	Clayey silt
4	94860	41215	0.00	0.05	Modern roots
			0.05	0.11	No core
			0.11	0.16	Moss peat
			0.16	0.42	Humified peat
5	94848	41173	0.00	0.05	Modern roots
			0.05	0.10	Moss peat
			0.10	0.15	Very humified peat with monocot
			0.15	0.16	Moss peat
			0.16	0.48	Humified peat
6	94823	41164	0.00	0.08	Very humified peat with modern roots
			0.08	0.10	Fibrous peat
			0.10	0.11	Humified peat
			0.11	0.12	Clay
			0.12	0.17	Moss peat
			0.17	0.32	Humified peat
			0.32	0.50	Silt
7	94798	41157	0.00	0.10	Modern roots
			0.10	0.25	Humified peat with sand
			0.25	0.45	Sandy silt
8	94765	41144	0.00	0.28	Very humified peat with sand
			0.28	0.48	Sandy silt
9	94735	41135	0.00	0.28	Very humified peat with sand
			0.28	0.30	Sandy silt
10	94700	41126	0.00	0.20	Very humified peat
			0.20	0.40	Clayey sandy silt
11	94674	41117	0.00	0.30	Very humified peat with modern roots
			0.30	0.40	Humified peat with sand
			0.40	0.42	Sandy silt
12	94642	41113	0.00	0.15	Very humified peat
			0.15	0.20	Sandy silt
13	94610	41107	0.00	0.10	Soil
14	94552	41103	0.00	0.15	Very organic soil
15	94535	41096	0.00	0.30	Very organic soil
16	94523	41071	0.00	0.30	Soil
17	94511	41043	0.00	0.15	Soil
18	94502	41014	0.00	0.10	Soil

19	94477	40996	0.00	0.10	Soil
20	94459	40972	0.00	0.30	Soil
21	94442	40940	0.00	0.05	Soil
22	94405	40927	0.00	0.30	Very humified peat with modern roots
			0.30	0.40	Very humified peat
23	94377	40911	0.00	0.30	Soil
24	94353	40896	0.00	0.20	Soil
25	94327	40881	0.00	0.22	Very humified peat
			0.22	0.45	Very organic clayey silt
			0.45	0.50	Sandy silt
26	94303	40863	0.00	0.08	Soil
27	94248	40860	0.00	0.10	Soil
28	94200	40819	0.00	0.12	Soil
29	94161	40761	0.00	0.40	Sandy soil
30	94120	40760	0.00	0.35	Very organic soil
			0.35	0.50	Silty sand
31	94100	40749	0.00	0.20	Very organic sandy silt
32	94055	40723	0.00	0.08	Soil
33	93967	40689	0.00	0.10	Soil
34	93863	40639	0.00	0.05	Soil
35	93762	40644	0.00	0.03	Soil

APPENDIX 5: FINDS SUMMARY

Trench	Context	Category	Quantity	Description	Date
6	<i>U/s</i>	Pottery	1	English blue salt-glazed stoneware jar	19th century
6	<i>U/s</i>	Pottery	1	Glazed white earthenware	19th century
7	8	Pottery	1	Glazed white earthenware	19th century
7	8	Pottery	1	Hard paste English porcelain plate	19th century
7	8	Pottery	1	Unglazed Porcelain cup	19th century?
7	11	Glass	1	Clear milk bottle	20th century
7	11	Pottery	2	English blue salt-glazed stoneware jar	19th century
7	<i>U/s</i>	Pottery	1	Trail slipware plate of Staffordshire type decoration	18th/19th century
7	<i>U/s</i>	Pottery	2	English blue salt-glazed stoneware jar	19th century
7	<i>U/s</i>	Pottery	1	Glazed white earthenware cup	19th century
7	<i>U/s</i>	Pottery	2	Factory-made slipware mug	19th/20th century
7	<i>U/s</i>	Pottery	1	Unglazed red earthenware flower pot	19th/20th century
7	<i>U/s</i>	Glass	1	Small clear glass pharmaceutical bottle with a screw neck	20th century
8	16	Industrial Residue	5	Slag; iron smithing?	Not dated
8	16	Pottery	1	Unglazed red earthenware flower pot	19th/20th century
8	<i>U/s</i>	Pottery	24	Yellow glazed red earthenware (coarseware, highly fired) storage jar/bowl	18th/19th century
8	<i>U/s</i>	Pottery	1	Stoneware ginger beer bottle	19th century
8	<i>U/s</i>	Pottery	1	English blue salt-glazed stoneware jar	19th century
8	<i>U/s</i>	Pottery	1	Unglazed red earthenware flower pot	19th/20th century
8	<i>U/s</i>	Pottery	1	Very hard glazed white earthenware, possible toilet fragment	20th century