

# RIBBLE TA PIPELINE Lancashire



## Archaeological Topographic Survey and Watching Brief



**Oxford Archaeology North**

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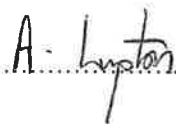
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## SUMMARY

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Following the findings of a desk-top assessment and walkover survey (OA North 2003a) on the proposed route of the Ribble TA pipeline in north-west Lancashire, United Utilities commissioned Oxford Archaeology North (OA North) to embark on a further series of works. This included a topographical survey and watching brief for all topsoil stripping.

The topographical survey was undertaken on 13 separate sites (**106, 110-11, 113, 118-19, 121-22, 124, 127-29, and 142**) (Fig 2), including areas of ridge and furrow, and earthworks identified by the walkover survey. The watching brief was maintained as a permanent presence during the stripping of topsoil along the entire length of the pipeline route. Due to the relatively shallow nature of the excavation there was a general paucity of archaeological features observed. The few features that were uncovered, however, included amorphous spreads of stone, areas of burnt material, cut features, and two pathways dating to the nineteenth century.

On completion of the watching brief, two sites, at Escowbeck Farm (OA North 2003c) and Caton River Terrace (OA North forthcoming), were deemed to need further excavation. The presence of a large number of flint artefacts uncovered at Caton River Terrace suggests that the area was fairly intensively used during the prehistoric period. A large amount of medieval pottery was recovered during the excavation at Escowbeck Farm which may have been evidence for a nearby pottery kiln, although no kiln was identified. No further archaeological deposits were found at either site during further watching briefs, undertaken as the pipe trench was excavated.

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## ACKNOWLEDGEMENTS

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Oxford Archaeology North is grateful to United Utilities for commissioning the project. The watching brief was undertaken by Mark Bagwell, Andrew Bates, Paul Clark, Dan Dodds, Daniel Elsworth, Gunner Hellström, Vix Hughes, Bryan Matthews, Sean McPhillips, Anthony Platt, Neil Wearing, and Christopher Wild. The topographic survey was undertaken by Daniel Elsworth and Peter Schofield. The report was written by Paul Clark and Anthony Platt and the report drawings prepared by Mark Tidmarsh. Jo Dawson assessed the post-medieval finds, with Elizabeth Huckerby studying the charcoal, and Dan Elsworth the flint. Carol Allen commented on the prehistoric pottery, Ian Miller the medieval pottery, and Andrew Bates the bone. Alison Plummer managed the project and edited the report.

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## 1. INTRODUCTION

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### 1.1 CIRCUMSTANCES OF THE PROJECT

- 1.1.1 United Utilities are planning to lay a new water pipeline from Borwick to Jackson's Pasture (Stage 1), from Lords Lot to Caton (Stage 2), from Lancaster to Caton (Stage 3), and from Burkes Farm to Lowgill (Stage 4) (Fig 1) (NGR: SD 6292 6898 to SD 5382 7076, SD 5432 7105 to SD 5380 7282). This led to Oxford Archaeology North (OA North) being commissioned to undertake an initial desk-based assessment and rapid walkover survey of the pipeline area, which have been submitted as a separate report (OA North 2003a). Following this work and discussions with the Sites and Monuments Record Officer of Lancashire County Archaeology Service, four distinct further areas of work were identified. The first two of these consisted of the geophysical survey and trial trenching in the vicinity of Castle Stede, Hornby (OA North 2003b and GSB 2003). The third area of work comprised a topographic survey of a number of features identified during the previous work, and the fourth comprised an archaeological watching brief for all topsoil stripping on site prior to the excavation of the pipeline. The sites where topographic survey was undertaken (Fig 2) were all located within Stage 1 of the scheme (Borwick to Jackson's Pasture). On sites where significant archaeological remains were identified during the topsoil stripping, a further phase of watching brief was undertaken during the pipeline trenching. This report forms the results of the topographic survey, and both the initial and further watching briefs.
- 1.1.2 The proposed line of the pipeline between Burkes Farm and Lowgill (Stage 4 of the scheme) was changed so that it ran along a modern roadway. It was therefore not necessary to undertake a watching brief on the works on this section as no archaeology would have been uncovered.

### 1.2 LOCATION, GEOLOGY AND TOPOGRAPHY

- 1.2.1 **Location:** the assessment area (Fig 1) includes a large part of north-west Lancashire, in particular the area immediately to the north and east of Lancaster along the Lune valley. It takes in several parishes including Halton, Lancaster, Melling-with-Wrayton, Tatham, Whittington, Quernmore, Nether and Over Kellet, Gressingham, Priest Hutton and Borwick. A large amount of the development will utilise already existing highways, while several sections of it will cross open fields.
- 1.2.2 **Geology:** the majority of the underlying geology is made up of Carboniferous rocks, in particular of the lower Millstone Grit groups (Brandon *et al* 1998). The gritstones of the Quernmore fault in particular, which runs north/south to the east of Lancaster, passes through Caton (*ibid*). The overlying soil is almost entirely glacially derived and part of a Drumlin field, with scattered bedrock outcrops (*ibid*). To a lesser extent it is also produced by fluvial deposits collected in the Lune valley, which consist of various rock types (*ibid*).

- 1.2.3 **Topography:** the landscape largely consists of undulating pasture within numerous river valleys, the fields of which tend to be small and well maintained (Countryside Commission 1998).

### 1.3 PREVIOUS ARCHAEOLOGICAL INTERVENTIONS

- 1.3.1 The area around the proposed pipeline has a very high number of sites of archaeological interest covering almost all periods of history and prehistory. These sites have been covered in depth in a previous report (OA North 2003a), although a brief general overview here may prove useful.
- 1.3.2 The post-medieval period in particular is very well represented, although a large number of these sites are standing buildings. The Roman period too is relatively well represented, and the position of the pipeline makes further discoveries in this area during the construction very probable, although surface features might not be obvious. Similarly, the early medieval and medieval periods are represented within this area, but the nature of the evidence does not directly identify the position of further sites with any certainty. However, 13 sites of ridge and furrow were located within the area of the pipeline, south of Wennington and Melling. These were considered to be of the wrong shape, spacing and size for post-medieval steam ploughing, and are therefore thought to relate to medieval open fields.
- 1.3.3 The majority of the sites previously identified (OA North 2003a) will not be affected by the proposed development, but 36 sites, are located within the easement of the pipeline route. These consisted of 13 sites of ridge and furrow (Sites 106, 113, 118, 119, 121, 125, 129, 160, 171, 183, 186, 200, 202), 11 earthworks relating to grubbed-out field boundaries or parish boundaries (Sites 122, 124, 127, 128, 149, 177, 179, 185, 189, 208, 213), two small quarries (Sites 111 and 142), one likely gravel pit (Site 110), one sheep fold (Site 123), two barns (Sites 180 and 197), a track (Site 195) and one piece of moulded masonry reused in a dry stone wall (Site 131), originating from a mullioned window. Sections of Roman road (Sites 92, 93, 94) are also liable to be affected by the development, as is the area around Castle Stede (Site 99)(mostly dealt with separately (OA North 2003b)).

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## 2. METHODOLOGY

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### 2.1 PROJECT DESIGN

- 2.1.1 A Project Design for an archaeological watching brief (*Appendix 2*), compliant with a brief issued by Lancashire County Archaeology Service (LCAS) (*Appendix 1*), was submitted by OA North in response to a request from the client. Following acceptance of the project design, OA North undertook the watching brief, over a number of weeks, spanning July and August 2002, November 2002, and May, June and September 2003.
- 2.1.2 The project design was adhered to in full; the work undertaken by OA North complied with current legislation and accepted best practice, including the Code of Conduct and the relevant professional standards of the Institute of Field Archaeologists (IFA).

### 2.2 TOPOGRAPHIC SURVEY

- 2.2.1 The topographic surveys (all of which were located within Stage 1 of the scheme) were undertaken utilising a total station (TST) with portable logger, the data from which was downloaded into a CAD package (AutoCAD Release 14). The results of the surveys enabled the production of plans for the following features (numbers relate to the site gazetteer in OA North 2003a):
- (i) Ridge and Furrow 106, 113, 118, 119, 121, 129;
  - (ii) Gravel Pit 110;
  - (iii) Quarries 111, 142;
  - (iv) Earthworks 122, 124, 127, 128.
- 2.2.2 The plans produced show outline detail and hachures only. The final drawings were produced at a relevant scale (1:1000 to 1:2500) and, where possible, were dropped onto Ordnance Survey base maps.

### 2.3 WATCHING BRIEF

- 2.3.1 A permanent programme of observation accurately recorded the location, extent, and character of any surviving archaeological features within the excavations in the course of the proposed development. This work comprised observation during the topsoil stripping for these works, and the accurate recording of all archaeological features and horizons, and any artefacts, identified.
- 2.3.2 During this phase of work, recording consisted of a full description and preliminary classification of features or materials revealed, and their accurate location (either on plan and/or section, or as grid co-ordinates where appropriate). All archaeological information collected in the course of fieldwork was recorded in standardised form, and included national grid



references. Features were planned at appropriate scales and annotated on to a large-scale plan provided by the Client.

- 2.3.3 The work was divided into three distinct stages, each of them with individual blocks of field and context numbers to ensure each feature and field was uniquely numbered. A table of all context numbers issued and their location has been added as *Appendix 3*. Stage 1 consisted of the stretch from Borwick to Jackson's Pasture (Figs 9a-d); in total, sixty fields were covered in this phase. Stage 2 referred to the pipeline between Lord's Lot and Caton (Figs 10a-c) and covered a total of 48 fields, designated Field 101 to Field 148. Stage 3 of the project covered the pipeline between Caton and Lancaster (Figs 11a-b) and, in total, 36 fields were observed during this stage, numbered from Field 1000 to 1010 and Field 2000 to 2030, with field numbers 2021-2026 remaining unallocated.

## 2.4 HEALTH AND SAFETY

- 2.4.1 Full regard was given to all health and safety constraints, as well as to all Health and Safety regulations. A risk assessment was carried out in advance of work commencing; Oxford Archaeology 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 (rev 1999).

## 2.5 ARCHIVE

- 2.5.1 A full professional archive has been compiled in accordance with the project design (*Appendix 2*), and in accordance with current IFA and English Heritage guidelines (1991).

### 3. RESULTS

#### 3.1 TOPOGRAPHIC SURVEY

3.1.1 The result of the topographic surveys was the production of a number of plans, showing the surveyed features. An overall location map (Fig 2) locates the surveyed features, whilst the site number, site type and figure number where the feature is fully illustrated are listed below;

Site Number	Site Type	Shown on Figure No
106	Ridge and Furrow	3
113	Ridge and Furrow	5
118	Ridge and Furrow	8
119	Ridge and Furrow	8
121	Ridge and Furrow	8
129	Ridge and Furrow	7
110	Gravel Pit	4
111	Quarry	4
142	Quarry	6
122	Earthworks	8
124	Earthworks	8
127	Earthworks	7
128	Earthworks	7

#### 3.2 WATCHING BRIEF STAGE 1 (FIGS 9a-d)

3.2.1 Field 1 was located at the eastern end of Stage 1 of the pipeline, close to Jackson's Pasture. A 9m wide area was stripped of topsoil, along the northern boundary of the field. This strip went to a maximum depth of 0.50m, exposing natural orange sandy clay across most of the area, although some patches of subsoil remained. A total of four field drains were exposed, these being the only archaeological remains observed.

3.2.2 Field 2 was located to the west of Field 1. A 9m wide area was stripped of topsoil, to a depth of 0.3m, along the northern boundary of the field. Over

- most of the area natural, orange sandy-clay was exposed, although over about 5% of the area, a mid-grey, sandy, silty-clay subsoil remained. The field boundary ditch between Fields 1 and 2 was excavated and found to be 0.30m deep and 1.80m wide, with the fill comprising a dark grey sandy silty clay. Two field drains were also excavated, both of them containing modern material in the backfill, with the maximum depth of drain being 0.30m.
- 3.2.3 Field 3 was located to the west of Field 2. A 9m wide area, along the northern boundary of the field (225m in length), was stripped, to a maximum depth of 0.50m, removing the topsoil across the whole area, and the subsoil across most of the area. For the easternmost 27m of the strip, very stony material was exposed, but this is thought to be a variation in the natural rather than the result of human activity. A linear disturbance, running roughly north/south, was observed, almost certainly as a result of bioturbation from an old hedge line. After the completion of the topsoil strip, the northern half of the area was excavated a further 0.30m-0.40m, and exposed natural boulder clays and sands. This excavation revealed a stone culvert, with a ceramic feeder pipe still attached.
- 3.2.4 Field 4 was located to the west of Field 3. An area (200m x 9m) was stripped to a depth of 0.25m, removing the topsoil, and in places the subsoil. About a third of the field remained unstripped because of live services, a third was stripped of topsoil and a third to natural subsoil. No archaeology was observed.
- 3.2.5 Field 5 was located to the north-west of Field 4. An area, running initially north-west, then turning to the west, measuring 140m x 9m, was stripped of topsoil to an average depth of 0.30m. Across 90% of the area, natural glacial till was exposed, with patches of subsoil accounting for the remaining 10%. No archaeological remains were observed.
- 3.2.6 Field 6 was located to the west of Field 5. An area, measuring 80m x 9m, was stripped of topsoil to an average depth of 0.30m. Across 30-40% of the exposed area natural till was visible, the remaining area only being stripped down to subsoil. No archaeology was observed in this field.
- 3.2.7 Field 7 was located to the west of Field 6. An area, running along the southern boundary of the field, measuring 260m x 12m was stripped of topsoil, to an average depth of 0.35m. This exposed a mid-greyish-brown sandy, silty clay subsoil across almost the whole area, with only small patches stripped down to the underlying natural till. No archaeology was observed, but the presence of archaeology cutting the unexposed natural till should not be ruled out.
- 3.2.8 Field 8 was located to the west of Field 7. An area, running west-north-west/east-south-east, a metre in from the southern boundary of the field, measuring 110m x 12m, was stripped of topsoil to an average depth of 0.30m. This revealed a sandy, silty-clay subsoil across the whole area and therefore the presence of archaeology cutting the unexposed natural till should not be ruled out.

- 3.2.9 Field 9 was located to the north-west of Field 8. An area measuring 110m x 12m, a metre in from the southern boundary of the field, was stripped of topsoil to an average depth of 0.30m, revealing a sandy, silty-clay subsoil across the whole area. The lack of exposed natural till made it impossible to ascertain the presence or absence of archaeology.
- 3.2.10 Field 10 was located to the north-west of Field 9. An area, 1m in from the southern boundary of the field, measuring 220m x 12m, was stripped of topsoil to an average depth of 0.30m. This revealed subsoil across the whole area, which was truncated by a number of north-east/south-west aligned, stone-filled field drains. However, as no natural till was exposed, all but the most recent features remained unseen.
- 3.2.11 Field 11 was located to the west of Field 10. An area, 1m in from the southern field boundary, measuring 120m x 12m, was stripped of topsoil to an average depth of 0.3m. This exposed subsoil, truncated by a number of stone-filled field drains, aligned north-east/south-west.
- 3.2.12 Field 12 was located to the west of Field 11. An area measuring 30m x 18m, along the southern boundary of the field, was stripped of topsoil to an average depth of 0.30m. The strip exposed subsoil across the whole of the area, leaving the natural unexposed.
- 3.2.13 Field 13 was located to the north-west of Field 12, on the opposite side of the River Wenning. An area of 120m long by up to 21m wide was stripped of topsoil to an average depth of 0.30m. This strip revealed both ceramic and stone-filled field drains running east/west across the southern half of the area, cutting the subsoil, which was exposed across the whole area. To the south-east of the gate into Field 14 an area of rounded river stones, typically 0.1m in diameter, was observed. These were probably laid down as a surface for cattle using the gate. The underlying natural till was not exposed.
- 3.2.14 Field 14 was located to the west of Field 13 and to the south and west of Raw Ridding Farm. An area of 300m x 12m, running initially east/west but turning, after 230m, to north-west/south-east, was stripped of topsoil to an average depth of 0.30m. The strip uncovered a silty clay subsoil, with a higher concentration of gravel in the south-western corner. An area of metalling, **15** was uncovered, 12m from the south-east corner of the field, comprising pebbles in a loose gravel matrix. This was edged by larger rounded stones, which possibly related to an earlier phase of construction of the metalled surface. The metalling was overlain by a probable bonfire, **16**, consisting primarily of charcoal and containing a reasonable number of nails, hinges and bolts, suggesting the burning of demolition debris. Both of these appeared to be relatively recent, probably dating to the mid-twentieth century. No natural was exposed.
- 3.2.15 Field 15 was located to the north-north-west of Field 14. An area, 300m long with width varying between 9.7m and 11.5m, was stripped of topsoil to an average depth of 0.20m. This revealed both orangey-brown silty clay natural and mid-brown subsoil, with the natural being concentrated towards the north-east corner of the strip. A number of patches of darker clay were excavated,

but these appeared to be natural features, relating to root action. No archaeological features were observed.

- 3.2.16 Field 16 was located to the north-west of Field 15. An area measuring 175m x 12.5m was stripped of topsoil to an average depth of 0.25m. The strip revealed a mid brown silty clay subsoil over the whole of the area. The natural subsoil was not exposed and no archaeological features were observed.
- 3.2.17 Field 17 was located to the west of Field 16. An area running north-west/south-east, measuring 195m x 12m, was stripped of topsoil to an average depth of 0.30m. An orangey-brown, sandy-clay subsoil was exposed over the whole area, with the only visible features being a series of field drains. The field drains were on two alignments, north/south at the south-east end of the field and north-east/south-west at the north-west end. These drains had vertical sides to a depth of 0.5m, where a ceramic pipe was encountered.
- 3.2.18 Field 18 was located to the north-west of Field 17. An area measuring 106m x 12m, aligned north-west/south-east, along the northern boundary of the field, was stripped of topsoil to a maximum depth of 0.40m. This revealed subsoil across the majority of the field, which proved to be archaeologically sterile, although in the south-west corner of the area this too was removed. At the boundary between Fields 17 and 18 a bank and ditch (**20**) were observed, acting as a field boundary; a slot was excavated through the ditch, which was 1.4m wide, and 0.45m deep. No finds were retrieved from within the feature, but it was assumed to be a probable post-medieval field ditch. In the north-west corner of the strip, where the subsoil was removed, a north-west/south-east aligned ditch, **19**, was exposed. Given its different alignment, ditch **19** could represent a boundary for an earlier field system, although with no finds recovered from the ditch, this hypothesis remained inconclusive. A trackway, **17**, was observed at the boundary between Fields 18 and 19, consisting of a compacted surface of stones, probably representing a relatively recent consolidation of the well-used access between the two fields. A number of field drains were also observed, aligned north-east/south-west.
- 3.2.19 Field 19 was located to the north-west of Field 18. An area measuring 350m x 12m, aligned initially north-west/south-east along the northern boundary of the field, before turning to east/west, was stripped of topsoil to an average depth of 0.25m. A double-ditched field boundary, aligned north/south, was observed cutting the subsoil to a maximum depth of 0.35m. A ceramic pipe fragment was recovered from one of the ditches, suggesting a post-medieval date for this feature. Occasional field drains, aligned north-east/south-west, were also observed. Elsewhere, the natural subsoil was not exposed, and no archaeological features were observed.
- 3.2.20 Field 20 was located to the north-west of Field 19. A rectangular area aligned north-west/south-east, measuring 250m x 12m, was stripped of topsoil along the north-eastern edge of the field, about 2m in from the boundary wall. The strip removed an average of 0.25m of material revealing subsoil across most of the area; in discrete areas natural was exposed, but this had a high degree of subsoil mixed with it. A metallised surface, **24**, measuring 3m x 1.6m, was exposed immediately in front of a gate in the north-eastern boundary wall,

- suggesting that this was laid down for the benefit of the traffic passing through this gate.
- 3.2.21 Field 21 was located to the north-west of Field 20. An area measuring 230m x 12m, aligned north-west/south-east, was stripped of topsoil to an average depth of 0.30m. This revealed a light-orangey-brown sandy clay subsoil across most of the area, although there were also significant areas where topsoil remained. A number of land drains were revealed across the area, and a shallow depression was seen, initially before the strip, measuring 20m x 1m, filled with up to 0.01m of topsoil. This depression may have been formed by slumping into an earlier archaeological feature, but excavation did not reach sufficient depth to prove or disprove this.
- 3.2.22 Field 22 was located to the north-west of Field 21. A roughly L-shaped area, orientated initially north-west/south-east before turning to south-west/north-east, with a total length of 400m, was stripped to a width of 12m and a depth of 0.20m. This exposed dark reddish brown sandy clay subsoil across the whole area, cut by a number of land drains, most of them backfilled with small stones. A small patch of low quality metallurgy was exposed next to an existing metal trough; this probably represented nothing more than stone being dumped into a hollow caused by animals drinking from the trough. An area of grey clay, measuring 7m x 2m, was observed, but excavation suggested this was probably a natural hollow. Further excavation of the subsoil, removing 0.4m-0.5m of material, revealed two ceramic field drains, and a single stone-filled drain. Subsoil still remained across the entire area and the underlying natural was not revealed.
- 3.2.23 Field 23 was located to the south-west of Field 22. A rectangular area, measuring 160m x 15m, aligned north-east/south-west, about 10m in from the field's north-western boundary was stripped of topsoil to an average depth of 0.20m. This strip revealed yellowish-brown, sandy-clay subsoil. No archaeology was observed.
- 3.2.24 Field 24 was located to the south-west of Field 23. A rectangular area, measuring 140m x 16m, running north-east/south-west, approximately 10m from the field's western boundary, was stripped of topsoil to a depth of between 0.20m and 0.30m. The strip initially revealed subsoil which was identical to that observed in Field 23, but further south became a much brighter mid-orange-brown clayey sand. No archaeology was observed in this field.
- 3.2.25 Field 25 was located to the south-south-west of Field 24. A rectangular area, 15m in from the north-western field boundary and measuring 260m x 15m was stripped of topsoil to a maximum depth of 0.30m. This revealed bright-orange, clayey sands and light yellowish-brown clayey sands across the whole of the stripped area, as well as six distinct patches of charcoal. Only one find was retrieved from any of these patches, which was a single piece of unworked chert.
- 3.2.26 Field 26 was located to the south-west of Field 25. A rectangular strip measuring approximately 100m x 15m, aligned north-east/south-west and 10m

- in from the field boundary, was stripped of topsoil to a depth of 0.20m to 0.30m. This initially revealed a stony, mid orangey-brown clayey sandy subsoil until about 25m from the south-west corner of the strip when the subsoil became a much greyer clayey-sand. No archaeological features were exposed in this field, although the strip was too shallow to have had any chance of revealing putative features which may have been present cut into the natural geology.
- 3.2.27 Field 27 was located to the west of Field 26, on the other side of the A683. A rectangular strip running almost east/west through the middle of the field and measuring 130m x 15m was stripped of topsoil to a depth of 0.2m-0.3m. Below the strip level a very clean stony subsoil was uncovered, containing no artefacts or archaeological features.
- 3.2.28 Field 28 was located to the north-west of Field 27. A rectangular strip measuring 140m x 15m, about 100m south-west of the north-eastern field boundary and running south-east/north-west, was stripped of topsoil to a depth of 0.20m-0.30m. This revealed a very clean, stony, mid-orangey-brown subsoil, containing no archaeological features. It should be noted that archaeological evaluation trenches were excavated in this field after the completion of the topsoil strip (OA North 2003b), which revealed a single isolated pit.
- 3.2.29 Field 29 was located to the north-west of Field 28. A rectangular strip measuring 270m x 15m was stripped of topsoil to an average depth of 0.2m. The strip commenced from the south-eastern field boundary, approximately 100m south-west of the field's eastern corner, running north-west for 20m then turning to the west for 170m, before finally turning to west-south-west for 80m, finishing at the River Lune. The initial 20m of strip was down a significant slope, and here some subsoil was also excavated to a maximum depth of 0.50m below the ground surface. At the base of the slope, soft greyish and orangey-brown clay-sands were exposed, possibly representing alluvial deposits. A stone soakaway was observed 4m from the base of the slope, running north-east/south-west. Further west of this, a vertical ceramic pipe was uncovered, presumably joining to a deep drain. It seemed most likely that the earthworks to the north-east of the easement related to this deep drain, as the vertical pipe lay directly in line with them. Seventy metres from the end of the strip a pit, **26**, was observed, which contained modern burnt debris, probably representing the remains of a bonfire.
- 3.2.30 Field 30 was located to the west of Field 29, on the west bank of the River Lune. A rectangular area measuring 530m x 15m, running west-north-west was stripped of topsoil to a depth of 0.30m-0.40m. This revealed a clean, dark orangey-brown, fine clay-sand subsoil. A probable stakehole, **28**, was found near the eastern end of the easement, possibly for a fence post, but unfortunately it contained no dating material. Wall tumble was observed, just to the west of the point at which the Gressingham road turned to run parallel to the strip, most probably the remains of an earlier dry stone field boundary (not contexted).

- 3.2.31 Field 31 was located to the west of Field 32. A roughly rectangular area measuring 50m x 15m, although widening to 25m at the boundary with Field 32, was stripped of topsoil to a depth of 0.20m-0.30m. This revealed a clean, dark orangey-brown fine clay-sand subsoil. No archaeological features were encountered.
- 3.2.32 Field 32 was located to the west of Field 31. A rectangular area measuring 100m x 15m, running east/west, approximately 10m north of the field's southern boundary was stripped of topsoil to a depth of 0.20m-0.30m. Beneath the topsoil, a very dark brown stony subsoil was revealed across the whole of the area. The natural subsoil was not exposed, and no archaeological remains were encountered.
- 3.2.33 Field 33 was located to the west of Field 32. A rectangular area measuring 280m x 15m, running south-east/north-west, was stripped of topsoil to a depth of 0.40m. This exposed a mid-orangey-brown, fine clayey sand subsoil across the whole of the area. Approximately 100m from the south-eastern end of the strip, a 10m long linear alignment of stones, **29**, was observed, aligned towards a gateway in the southern boundary of the field. It seems most likely that these stones are the heavily truncated remains of a dry stone wall boundary.
- 3.2.34 Field 34 was located to the north-west of Field 33. A rectangular strip, measuring 160m x 15m, aligned mainly east/west, although with a slight dogleg to the south-east at the eastern end of the field, was excavated to a depth of 0.25m-0.30m. Across much of the field this meant that some topsoil was left in place, but a yellow sandy silt subsoil was exposed in a number of locations. Two archaeological features were found in this field, comprising the remains of a cobbled surface (**31**) and a dump of material (**30**), which included a fair amount of building debris. The material within these features dated from the post-medieval to modern periods, suggesting they both related to fairly recent land usage.
- 3.2.35 Field 35 was located to the west of Field 34. A rectangular strip measuring 110m x 15m, aligned west-north-west/east-south-east, was stripped to a maximum depth of 0.28m. Across most of the stripped area this revealed a mid-to dark-orangey-brown, sandy-silt subsoil. However, this subsoil was only 0.08m thick and so, in places, mottled, orangey-brown, sandy-clay natural subsoil was exposed. Beyond a small lens of charcoal, probably representing a dump of burnt material, no other archaeology was observed in this field.
- 3.2.36 Field 36 was located to the north-west of Field 35. A rectangular strip, measuring 160m x 15m, aligned north-west/south-east, was stripped to a depth of 0.25m-0.30m. The strip entirely removed the topsoil, which had a maximum depth of 0.18m, and revealed mid-orangey brown, sandy-silt subsoil. A stone-lined field drain, **50**, orientated east/west and the remains of a wall, **51**, measuring 11m long, 0.5m wide and 0.1m high, were the only archaeological features uncovered in this field.



- 3.2.37 Field 37 was located to the north-west of Field 36. A rectangular strip, measuring 150m x 12m, aligned north-west/south-east for the first 50m, before turning to west-north-west/east-south-east, was stripped of topsoil to a depth of 0.20m-0.30m. Approximately 2m east of the boundary with Field 38 this revealed the remains of a stone culvert, aligned north/south, measuring 10m long by 0.40m wide, and with a maximum remaining depth of 0.28m.
- 3.2.38 Field 38 was located to the west of Field 37. A rectangular strip measuring 90m x 15m and aligned south-west/north-east, was stripped to a depth of 0.2m-0.25m. The strip revealed a mid-grey sandy silt, cut by two probable land drains aligned north-west/south-east running across the strip. Beyond these the only other feature was the remains of a possible field wall, located 10m south-west of the north-eastern corner of the easement. These remains consisted of a dense linear deposit of stones but unfortunately were too disturbed by the machine in the course of the stripping to be able to confirm whether or not this was a wall.
- 3.2.39 Field 39 was located to the south-west of Field 38. An L-shaped area was excavated, consisting of a 190m x 12m strip aligned south-west/north-east, before turning to north-west/south-east for a further 70m. The strip was carried out to a depth of 0.25m-0.40m. This revealed both a pale, orangey-brown, sandy-silt subsoil and the underlying natural geology. One archaeological feature, **32**, was observed in this field, which consisted of a dense concentration of stones, 1.1m wide, in a linear, north-west/south-east, alignment. This probably represented the remains of a field wall.
- 3.2.40 Field 40 was located to the south-west of Field 39. An area, measuring 110m x 12m along the south-eastern field boundary and 105m x 12m along the south-western boundary, was stripped to a depth of 0.25m-0.30m. This revealed both a mid-orangey-brown, sandy-silt subsoil, and mid-orange, sandy clay natural geology. In the southern corner of the field, a probable boundary ditch, **34**, was exposed for a length of about 35m, running north-east/south-west. An amorphous feature, **53**, measuring 3.40m in length, was exposed approximately 3.50m north-east of the field's south-western boundary. It contained no artefactual remains and so could not be dated. In the north-west corner of the strip, an area, **54**, of redeposited natural material was observed containing some modern rubbish, which probably represented a dump of refuse material.
- 3.2.41 Field 41 was located to the north-west of Field 40. A rectangular area, measuring 250m x 10m, aligned north-west/south-east, about 3m north-east of the southern field boundary, was stripped to a maximum depth of 0.30m. This revealed both a sandy-silt subsoil and the sandy clay natural geology beneath. Along with numerous field drains, a pit, **36**, was observed. This pit measured 0.65m x 0.55m, with a depth of 0.40m. No date could be established for this feature as no finds were recovered.
- 3.2.42 Field 42 was located to the north-west of Field 41. A rectangular strip measuring 110m x 12m, aligned north-west/south-east, about 3m in from the field's south-western boundary, was stripped of topsoil to a depth of 0.27m-0.29m. The strip revealed light reddish-brown, stony, silty-sand subsoil, along

with patches of sand, which were rich in iron pan. The remains of ridge and furrow, represented by linear patches of upcast sand running north-east/south-west, were observed in the south-eastern third of the stripped area, gradually becoming fainter to the north-west. Fifty three metres south-east of the boundary with Field 43, and 9m north-west of the south-eastern field boundary, a stone-capped spring was observed. The remainder of the field was sterile of archaeology.

- 3.2.43 Field 43 was located to the north-west of Field 42. A rectangular area, measuring 230m x 15m, aligned north-west/south-east, running along the south-western boundary of the field, was stripped to a depth of 0.25m-0.33m. Light reddish-brown, silty sand subsoil was revealed across most of the area stripped, although against the south-western boundary patches of orange sandy clay were exposed, and against the north-eastern boundary a fairly large area of silty clay was uncovered. Two natural springs were observed in this field, and the only man-made feature of note was the remains of a poorly-made wall, which ran parallel to the field boundary for 4m in the southern corner of the field.
- 3.2.44 Field 44 was located to the west of Field 43. It was triangular in shape, lying between Borwick Road and the B6254. The field was stripped along its length of 189m. Removal of topsoil exposed silty clay of variable colour: dark red-brown towards the east; yellow and red-brown to the west. The land was low lying, and stone culverts and ceramic drains had been installed to alleviate ground water. Topsoil stripping in the area of Compound 1 towards the eastern end of the field revealed two curvilinear ditches, *6* and *8*, separated by a bank and hedge, and three other linear features, *10*, *12* and *14*. Local residents identified the ditches as former field boundaries. Post-medieval pottery was recovered from the top of Ditch *8*. Linear features, *10*, *12* and *14*, were aligned roughly north-east/south-west. Features *10*, and *12*, appeared to merge with boundary ditch *8*, whilst feature *14* appeared to cross both ditches and continue southwards until petering out. In all cases, the stratigraphic relationships were not confirmed. Six additional trenches were dug in Compound 1. OA North was called in too late to monitor Trench 1, which had been dug and backfilled before archaeologists arrived. Trench 2 was almost complete, although no archaeology was visible within the exposed sections. Trench 3 measured 150m x 0.25m x 1.0m. Dark grey sandy-clay subsoil was seen to a depth of 0.60m. This overlaid a presumed natural deposit of light orangey-brown, sandy clay. Towards the north-western end, a linear feature, approximately 0.40m deep and 0.60m wide, was observed. This was cut from immediately below the topsoil and was thought to be modern; no finds were recovered. Trench 4 measured 40m x 0.25m x 0.7m and contained a sequence of deposits identical to that seen in Trench 3; no archaeology was visible. At 30m and 20m long respectively, Trenches 5 and 6 were shorter than Trench 4, but were otherwise identical in all other respects.
- 3.2.45 Field 45 was located to the north-west of Field 44. Like the latter, Field 45 lay between Borwick Road and the B6254. Topsoil was stripped to a maximum depth of 0.29m, across an area measuring 80m x 13m. The field sloped down towards the east. At the lowest part, the field was characterised by dark brown

- silty-clay, containing roots and marshy vegetation. The land gently undulated towards the western end. The subsoil was a yellowy-red colour in this part. Scattered fragments of ceramic piping were observed, but no *in situ* land drain was recorded.
- 3.2.46 Field 46 was located to the north-west of Field 45. Borwick Road ran along the field's southern edge; the field sloped down from north to south. Topsoil was stripped to a maximum depth of 0.18m, across an area measuring 130m x 12m, exposing a light red/yellow brown silty clay at the top of the slope, changing to a darker subsoil towards the bottom. The soil matrix in this area was more densely packed with stones due to hillwash. No archaeology was visible. A single sherd of post-medieval pottery was recovered.
- 3.2.47 Field 47 was located to the west of Field 46, and bounded on its southern and western sides by Borwick Road. Topsoil up to 0.21m in depth was removed across an area measuring 370m x 12m, uncovering a mixed subsoil ranging from light yellow to dark reddy-brown, sandy clay. A fire pit containing timber remains, nails and lynch pins was recorded. This appeared to be of modern date, possibly associated with an adjacent cattle barn. Surface finds from other parts of the field comprised eighteenth and nineteenth century pottery. A further area was investigated, much wider than the initial strip, encompassing an area of 120m x 65m. Topsoil was removed to a maximum depth of 0.40m. No archaeology was identified. However, exposure of the subsoil and natural clay below that was partial, making it difficult to determine the presence or otherwise of archaeology.
- 3.2.48 Field 48 was located to the north of Field 47, and was irregularly shaped; Borwick Road ran along its western side. Topsoil was stripped to a maximum depth of 0.18m, across an area measuring 350m x 12m, revealing light brown silty-clay subsoil, which became darker towards the west. A shallow, oval, fire pit, 42, was excavated near the southern boundary with Field 47. It was up to 1.90m wide and 0.10m deep, and filled with burnt soil. A cobbled surface, east/west aligned, and covering an area of 5m x 1.50m, lay some 100m north of the pit. It consisted of regularly-sized, rounded cobbles set within dark brown soil, possibly redeposited topsoil. An area, measuring 150 x 35m, was subsequently stripped of topsoil to a maximum depth of 0.25m, exposing light-brownish-grey, sandy-silt subsoil, above light-orangey-yellow, boulder clay natural. This part of the field sloped steeply down from east to west, which made the mechanical excavator difficult to manoeuvre. In addition, freshly exposed surfaces were often rapidly spoiled by the tractor as it moved soil away from the area. Archaeological features were not observed, but given the poor visibility, it is unclear whether this reflects a genuine absence. A third area was investigated ahead of construction of a new access road. A 4m wide cut was made against the south-eastern limit of the second stripped area. Sediments were removed to a total depth of 1.50m, revealing natural clay deposits. With the exception of three field drains, no archaeology was present. A further watching brief was undertaken at the site of the reservoir during the cutting of a water main. Topsoil removed to a maximum depth of 0.40m revealed mid-orangey-brown, sandy-clay. This overlaid sandstone bedding at the northern edge of Field 48, and mid-grey, orangey-brown clay natural. A

subsequent visit found that exposed surfaces had been subject to severe machine disturbance, rendering any archaeology very difficult to identify.

- 3.2.49 Field 49 was located to the north-west of Field 48. Borwick Road lined the field's southern boundary. Topsoil was removed to a depth of 0.20m, across an area measuring 100m x 12m, exposing subsoil similar to that seen in Field 48. No archaeological remains were visible, though a piece of glassy slag was recovered.
- 3.2.50 Field 50 was located to the south-west of Field 49, and to the north-east of Stage 2 Field 101 (see below - 3.3.1); it sloped down towards the north-east. An area measuring 200m x 12m was stripped of topsoil to a maximum depth of 0.30m. Mid brown, sandy-clay subsoil was exposed. Light yellowy-orange clay was revealed in higher parts of the field into which two parallel linear features had been cut. Both were shallow, at approximately 0.15m deep, but no finds were recovered from either deposit, leaving them difficult to interpret. A number of stone-lined and ceramic field drains were seen in the low-lying area. Four pieces of worked timber, **43**, also from this area, were recovered. A 1.60m wide trench was later excavated within the stripped area, extending the depth of exposed deposits by a further 1.50m. Of this, subsoil accounted for 0.20m, before being replaced by the clay natural.
- 3.2.51 Field 51 was located to the south-west of Field 50. In Stage 2, the field was redesignated Field 102 (see below - 3.3.2). A rectangular area, orientated north/north-west/south-south-east, measuring 150m x 12m was stripped of topsoil to a maximum depth of 0.35m. Light orangey-grey subsoil or the underlying yellowy-orange, sandy-clay natural were revealed only in patches. Within the south-eastern corner of the exposed area, a linear feature with black-brown soil was revealed, appearing to contain slag fragments. The feature had a maximum width of 0.85m and depth of 0.80m. The feature may be related to a clinker surface, seen in Field 101, and possibly functioned as a trackway.
- 3.2.52 Field 52 was located to the north and west of Field 51. The topsoil was stripped from a rectangular area of 270m x 13m, to a maximum depth of 0.40m. Light orangey-yellow, sandy-clay was largely exposed throughout. A shallow curvilinear ditch, **44**, was observed towards the western end of the trench, opposite the entrance to Gamekeeper's Tower. A short way beyond this feature, the stripped area turned towards the north. A rubbish dump or midden, **45**, was located near the northern limit of the field. Measuring 19m x 3m, and set within the topsoil, it contained glass, pottery, iron objects and shotgun pellets, suggesting a modern date.
- 3.2.53 Field 53 was located to the north-west of Field 52. A rectangular area measuring 250m x 12m was stripped of topsoil to a maximum depth of 0.30m, exposing light orangey-yellow sandy clay, and occasional patches of light grey, sandy-clay subsoil. A small bonfire pit at the southern end of the area was excavated, but no finds were recovered. The pit had been truncated by a north-west/south-eastern aligned field drain, containing a ceramic pipe, which was seen at a depth of 0.50m below the stripped level.

- 3.2.54 Field 54 was located to the north-west of Field 53. Topsoil was stripped to a maximum depth of 0.30m across a rectangular area of 250m x 12m. The topsoil across approximately a third of the area became very stony and, consequently, was not removed. In the remaining area, light yellowy-brown, sandy clay subsoil and light yellowy-orange clay natural were intermittently exposed. Two patches of an unknown black material, possibly industrial waste, were encountered, approximately twenty metres apart, in the middle of the field. One measured 1.45m x 0.50m; the other 1.70m x 0.80m.
- 3.2.55 Field 55 was located to the north-west of Field 54. A rectangular area measuring 70m x 12m was stripped of topsoil, to a maximum depth of 0.30m. Light grey sandy clay subsoil underlaid the topsoil. This was not revealed throughout the area, since patches of topsoil remained after uneven stripping. A number of field drains were seen to cut the lowest level of the topsoil. An isolated posthole was observed; a rotting post was still *in situ*.
- 3.2.56 Field 56 was located to the north-east of Field 55. Topsoil was stripped to a maximum depth of 0.25m from a rectangular area measuring 130m x 12m, revealing a light brown sandy clay subsoil. A dry stone wall bounded the south-eastern side of the field. This evidently had replaced an earlier wall, which survived as a turf-covered bank.
- 3.2.57 Field 57 was located to the north-east of Field 56. Topsoil was stripped from a rectangular area of 200m x 8m to a maximum depth of 0.25m, exposing mid to dark brown sandy-clay subsoil. A concentration of stones along the south-eastern edge of the field represented a continuation of a former wall, seen in Field 56.
- 3.2.58 Field 58 was located to the north-east of Field 57. Topsoil was stripped from a rectangular area measuring 70m x 8m to a maximum depth of 0.40m, being deepest in the south-eastern corner of the field. Light brown, sandy-clay subsoil and mid to dark orange boulder clay natural was revealed. No archaeology was observed.
- 3.2.59 Field 59 was located to the north-east of Field 58. A fence line divided the field, and the two areas were labelled as Field 59a and 59b. An area of 180m x 12m was stripped of topsoil in the former, to a maximum depth of 0.25m. The field sloped down towards its north-eastern corner. Light to mid orange boulder clay, representing the natural, was revealed on the slope. At the base, dark brown sandy-clay subsoil was exposed, which presumably formed a colluvial deposit overlying the natural seen higher up. The natural was again exposed as the ground level rose. A line of concrete and demolition debris was visible near to the centre of the field, probably representing the remains of a modern shed or similar structure.
- 3.2.60 Field 59b consisted of the north-western half of Field 59. A rectangular area measuring 200m x 11m was stripped of topsoil to a maximum depth of 0.30m. Light brown, sandy, silty-clay subsoil was exposed largely throughout the area, although natural light yellow boulder clay was revealed in places of deeper mechanical excavation. A spread of very dark, grey sandy silt, some 18m across and containing charcoal flecks and burnt clay, was observed

roughly halfway along the south-eastern edge of the area. A small slot was cut, showing that the deposit was up to 0.25m deep, overlying burnt natural. The deposit probably represented the remains of fires set within a natural hollow, although there is the slim possibility that this feature represents the remains of a burnt mound. No finds were recovered and it remained undated.

- 3.2.61 Field 60 was located to the north-west of Field 59. The field was bounded on its south-eastern side by a stream, and along its longer north-eastern side by Borwick Road. The stripped area, 340m long and up to 12m wide, followed the course of these boundaries. Topsoil was removed to a maximum depth of 0.35m. Light brown, sandy-silt subsoil was exposed near to the stream, becoming darker towards the north-west, before once again turning a lighter brown. At lower lying points, orange boulder clay natural was revealed. With the exception of four field drains, no archaeology was observed.

### 3.3 WATCHING BRIEF STAGE 2 (FIGS 10a-c)

- 3.3.1 Field 101 was located at the northern end of Stage 2 of the pipeline, and is the same field as Stage 1 Field 50 (see above – 3.2.50), as Stage 1 and Stage 2 diverge in this field. A 15m wide by 278m long area, aligned north-east/south-west, was stripped of topsoil. The presence of a spring immediately to the north of the pipeline resulted in the soil being very wet, which, consequently, slowed the progress of the mechanical digger. Topsoil was removed to a depth of 0.40m, exposing a compact, clinker surface with sandstone and limestone pieces in the eastern half of the field. Glass fragments were recovered. The surface ran c5-6m south of the field wall, and possibly formed part of an agricultural trackway through the waterlogged field. The soil was drier to the west of the spring, occupying higher ground thrown up during the creation of the reservoir.
- 3.3.2 Field 102 has already been discussed, under its other name of Stage 1 Field 51, (*Section 3.2.51*)
- 3.3.3 Field 103 was located to the south-west of Field 101. The topsoil was 0.30m deep. No archaeological features were seen within the subsoil, although the western part of the field at the top of the hill was marked by tree throw pits. The remains of a north-west/south-east aligned dry stone wall, **100**, were observed crossing the route of the pipeline 52m west of the boundary with Field 101.
- 3.3.4 Field 104 was located to the south-west of Field 103 and represented a continuation of the north-east/south-west alignment of the pipeline. The field rose from north to south, with the greatest depth of topsoil, between 0.20m and 0.38m, naturally settling at the bottom of the slope. Land drains ran down the centre and along the southern edge of the easement.
- 3.3.5 Field 105 was the same field as Field 104, but was recorded separately as it covered a short north-west/south-east aligned spur of the pipeline, off the main pipeline route. The topsoil was stripped to a depth of between 0.28m and 0.32m. No archaeological features were observed.

- 3.3.6 Field 106 was located to the south-west of Field 105. The pipeline clipped the south-east corner of the field only.
- 3.3.7 Field 107, was located to the south of Field 106, on the opposite side of Lord's Lot Road. The course of the pipeline ran south and to the east of the road. A large modern barn was located at the north end of the field.
- 3.3.8 Field 108 was located to the south of Field 107. Topsoil stripping in the north end of the field exposed a land drain set within a shallow cut. Nineteenth or twentieth century pottery was recovered from an area of dumped or landscaped material also located within the northern end of the furrow. A second linear feature was uncovered, *104*, running across the field, which presumably acted as an open drain at the field boundaries.
- 3.3.9 Field 109 was located to the south of Field 108. The pipeline continued on a north/south alignment through this field. Topsoil was stripped to a depth of 0.3m and no archaeological features were present.
- 3.3.10 Field 110 was located to the south of Field 109. The pipeline was aligned north/south through this field. Topsoil was stripped to a depth of 0.35m, with no archaeological features observed in this field.
- 3.3.11 Field 111 was located to the south of Field 110. The pipeline continued on a north/south alignment through this field, crossing Hesley Beck. Topsoil was stripped to a depth of 0.3m and no archaeological features were present.
- 3.3.12 Field 112 was located to the south of Field 111, with the pipeline following a north-east/south-west orientation. The Swarth Beck ran along the western boundary of the field wide easement, which rendered the ground wettest at that point. Occasional stone drains had served to channel return ground water to the Beck. No archaeology was encountered.
- 3.3.13 Field 113 was located to the south-west of Field 112, with the pipeline aligned south-west/north-east. The topsoil was stripped to a maximum depth of 0.25m, and no archaeology was encountered.
- 3.3.14 Field 114 was located to the south-west of Field 113, with the pipeline following a north-east/south-west orientation. A trackway, aligned west-north-west east-south-east, was encountered approximately 150m from the field's southern boundary; no further archaeology was encountered.
- 3.3.15 Field 115 was located to the south-west of Field 114, with the pipeline aligned north-east/south-west. The topsoil was stripped to an average depth of 0.25m in this field, with a maximum depth of 0.3m. No archaeology was encountered.
- 3.3.16 Field 116 was located to the south-west of Field 115. The ground was marshy within the lowest-lying areas. Occasional patches of pebbles and boulders were set presumably to consolidate the surface. A rocky outcrop to the east of the easement had been quarried. Traces of a demolished stone wall, *107*, were also observed.

- 3.3.17 Field 117 lay on the south side of the Nether Kellet road, opposite to Field 116. The ground was lowest towards the eastern part of the field and was, consequently, marshy. A small, irregular area of trackway cobbling was exposed in this area, from which nineteenth century pottery was recovered. No archaeology was observed in the remaining areas.
- 3.3.18 Field 118 was located to the west of Field 117, with the pipeline aligned west-south-west/east-north-east through this field. The topsoil was removed to a maximum depth of 0.3m, with no archaeology observed.
- 3.3.19 Field 119 was located to the west of Field 118 with the pipeline easement approximately two metres in from the edge of the Nether Kellet road. No archaeology was observed within this field.
- 3.3.20 Field 120 was located to the west of Field 119, with the pipeline initially aligned west/east before turning to north/south. No archaeology was observed.
- 3.3.21 Field 121 was located to the south of Field 120, with the pipeline still aligned north/south. The pipeline continued on the same alignment into Field 122, where it turned to west-south-west/east-north-east, an alignment it continued on through Field 123, into Field 124. In Field 124 the pipeline turned to south-west/north-east. The ground level was undulating throughout. No archaeological features were seen.
- 3.3.22 Fields 125-126a were located to the south-west of Field 124, with Field 125 on the opposite side of Dunald Mill Lane to Field 124. An approximately 500m length of topsoil was stripped, continuing on a south-west/north-east alignment. No archaeology was encountered.
- 3.3.23 Field 126b separated Fields 126a and 127. Topsoil was stripped to reveal a large stone spread. It had a diameter of 3.90m and a depth of 0.10m. It comprised a mix of medium to large sub-rounded and rounded cobbles and angular and sub-angular stones. A large rectangular stone, some 0.70m x 0.50m x 0.25m in size, was located in the centre of the spread. The stones overlaid the natural. Interpretation was uncertain: the presence of worked flint suggested a feature, possibly a cairn, of some antiquity. However, the recovery of medieval pottery hints at the stone representing a more recent episode of clearance.
- 3.3.24 Field 127, roughly in the shape of an inverted 'L', was located to the south of Field 126. An area of 175m x 9m was stripped of topsoil to a depth of 0.30m. This overlaid a subsoil of dark, grey-brown, clayey, silty-sand, which settled above the clay natural. No archaeological features were observed, although patches of overburden remained after stripping; consequently, the complete absence of archaeology could not be confirmed.
- 3.3.25 Field 128 was located to the south-west of Field 127. A north-north-east/south-south-west aligned area measuring 140m x 9m was stripped of topsoil to a depth of 0.30m. This revealed dark grey-brown, clayey, silty-sand subsoil between 0.10m and 0.15m thick, which in turn overlaid sandy clay natural. No archaeology was observed.



- 3.3.26 Field 129 was located to the south of Field 128. Topsoil was removed to a depth of 0.30m along a north-east/south-west orientated strip of 65m x 10m. Clayey, silty-sand subsoil was removed to a maximum depth of 0.15m, exposing sandy clay natural. No archaeological features were apparent, although stripping had not uniformly exposed the natural geology.
- 3.3.27 Field 130 was located to the west of Field 129, on the opposite side of Scargill Road. A 180m x 11m north-east/south-west aligned area of topsoil was stripped to a maximum depth of 0.40m, revealing a clayey, silty-sand subsoil. A roadside linear cut was observed at the northern end of the strip, which, according to local information, was a modern soakaway, *111*. It yielded residual nineteenth century pottery. No other features were observed.
- 3.3.28 Field 131 was located to the south-west of Field 130. It was a large sub-rectangular field, bounded to the east by Scargill Road. A north-south aligned area measuring 380m x 13m was stripped of topsoil, to a maximum depth of 0.40m. An isolated pit, *115*, located along the western side of the easement, had been cut through the underlying, brown, silty-sand subsoil. It was 3m wide and 0.80m deep, and contained a single fill, *114*, of redeposited topsoil and subsoil. The deposit yielded coal fragments and post-medieval pottery. The feature may have served as a quarry pit.
- 3.3.29 Field 132 was located to the south-east of Field 131, on the opposite side of Scargill Road. Topsoil was stripped to a maximum depth of 0.40m along a north-west/south-east aligned area measuring 300m x 14m. This revealed a silty-sand mixture of subsoil and natural. Four archaeological features that cut the natural were observed against the southern limit of the pipeline corridor. Shallow pits, *118*, and *120*, contained single fills of burnt sand and charcoal, *117*, and *119*, respectively. At no more than 0.18m deep and 0.80m wide, the features may have functioned as hearths. No finds were recovered and the features remained undated. Two more pits were recorded further east. Pit, *122*, was up to 0.10m wide and 0.20m deep. It appeared to contain redeposited topsoil, *121*. A similarly shallow pit, *124*, was situated west of *122*, and was also filled with redeposited topsoil, *123*. No dating evidence was recovered from either, but given the character of their fills, the pits are likely to be modern.
- 3.3.30 Field 133 was located to the south-east of Field 132. An area of 80m x 11m, aligned north-west/south-east was stripped of topsoil to a depth of 0.30m. A fence had separated fields, *132*, and *133*, but topsoil exposure revealed an older boundary dry stone wall, now represented by a north-east/south-western aligned linear spread of foundation stones beneath the fence. The feature was up to 1.20m wide and 11m long, and comprised sub-rounded and angular stones, loosely packed with silty-sand (possibly redeposited subsoil). The wall turned eastwards at its northern end to follow the north-eastern edge of the field and was visible as a grassed-over bank up to 1m high. Although no other features were observed, topsoil stripping had been uneven, and the absence of archaeology in the remaining parts of the field could not be confirmed.
- 3.3.31 Field 134 was located south-east of Field 133. A rectangular area, orientated north-west/south-east and measuring 370m x 13m, was stripped of topsoil to a

- maximum depth of 0.30m. This exposed a silty-sand subsoil. No archaeological features were observed. The complete absence of features cannot be confirmed, however, since topsoil stripping was uneven, barely reaching the subsoil in places. The north-eastern edge of the field was bounded by a toppled wall surviving as a grassed-over bank, presumably a continuation of the wall observed in Field 133.
- 3.3.32 Field 135 was located some 400m to the north-east of Field 134, with the area between the two remaining unstripped. Kirkby Lonsdale Road formed the field's north-west boundary, while Green Lane bound it on its south-western side. Topsoil was stripped to a depth of 0.30m along a north-west/south-east aligned area measuring 280m x 10m. A brownish-orange, clay-sand natural subsoil was exposed. No archaeology was encountered. Machining had again been uneven, leaving areas of topsoil, which would have obscured potential features.
- 3.3.33 Field 136 was located to the south-east of Field 135 and sloped down towards the south. An area measuring 125m x 10m, aligned north/south, was stripped of topsoil to a depth of 0.25m. No archaeology was visible within the orange brown clay-sand subsoil.
- 3.3.34 Field 137 was located to the south of Field 136. The stripped area ran down a slope in a southerly direction. The topsoil was removed to a depth of 0.30m from an area of 165m x 10m, exposing an orange brown clay sand subsoil. No archaeological features were observed.
- 3.3.35 Field 138 was located to the east of Field 137. Topsoil was stripped to a depth of up to 0.30m to expose an orangey-brown, silty, sandy-clay subsoil. No archaeological features were encountered, although charcoal and post-medieval pottery were recovered from the topsoil.
- 3.3.36 Field 139 was located to the south-east of Field 138. Topsoil was stripped to a depth of 0.30m, revealing dark grey-brown sandy, silty-clay. This yielded eighteenth-nineteenth century pottery. A lynchet was observed within the field. This extended across the width of the easement and was approximately 1m high. A row of stones was placed along the crest of the lynchet, below the turf line.
- 3.3.37 Field 140 was located to the south of Field 139. Topsoil was removed to a depth of 0.40m, exposing an orangey-brown, sandy-clay subsoil. No archaeological features were observed, however, a worked flint, together with medieval and post-medieval pottery sherds, was recovered from the topsoil.
- 3.3.38 Fields 141-142 were located consecutively within the floodplain either side of the river Lune to the south-east of Field 140. Topsoil was stripped to a maximum of 0.30m, although progress was hampered by flooding. Consequently, no archaeology was observed.
- 3.3.39 Fields 147-148 were located between Fields 142 and 143, and bounded by a dismantled railway line and the Lancaster Road. A 250m long piece of land was stripped of topsoil to a maximum depth of 0.30m. Up to 50m had been

machined unevenly, and little of the underlying deposit had been exposed. The subsoil, where revealed, was orange brown sandy-clay. No features were recorded. However, the topsoil yielded post-medieval pottery, while worked flint was recovered from the subsoil in Field 148.

- 3.3.40 The site was subjected to an archaeological excavation in November and December 2002, undertaken along a 200m section of the pipeline easement, which had already undergone topsoil stripping. A 4m wide strip, centred on the proposed line of the pipe trench, was subject to manual cleaning, which resulted in the identification of a significant scatter of mesolithic flint artefacts (OA North forthcoming). Weathering of the topsoil spoil heap revealed several more chert and flint artefacts, including a fine Neolithic blade, and a sherd of medieval pottery. Following on from the archaeological excavation, a watching brief was undertaken during the excavation of the pipe-trench, which provided no further archaeological evidence. The trench was excavated to a depth of 1.40m. The width of the trench narrowed from the top down, being 0.60m at the bottom, but typically 1.20m at the surface. An orangey-brown silty clay subsoil was observed, and was approximately 0.30m thick. This overlaid a rather loose, mid-brown gravely sand, with very frequent small rounded pebbles, and approximately 30-40% rounded to sub-angular stones of varying sizes, typically 60mm length, but frequently up to 170mm.
- 3.3.41 Fields 143-144 were located some 150m to the east of Field 148. The easement in these fields was aligned north/south, and was against the eastern boundaries of the fields. Topsoil was stripped to reveal dark grey-brown subsoil. Metalwork and medieval pottery recovered intermittently from the topsoil by local residents suggested that archaeological features were present. However, no remains were observed, as the natural was not exposed.
- 3.3.42 The site was subjected to an excavation in November and December 2002, with the intent of locating further evidence for the location of a pottery kiln which is known to have existed in the vicinity (OA North 2003c). The excavation was targeted on part of the stripped easement where a concentration of medieval pottery had been identified, and an area measuring 20m by 4m was subject to detailed investigation. A series of archaeological features and deposits were revealed, although the majority were of later post-medieval date and did not provide any further evidence for the presence of a medieval pottery kiln. A further watching brief was undertaken during the excavation of the pipe-trench, during which a single sherd of medieval pottery was retrieved, but no evidence of the kiln. The pipe trench was excavated to a maximum depth of 1.50m, and a width of 0.70m. A 0.30m layer of quite soft, dark brown silty clay subsoil was found to overlie a bluey-orange natural clay. The clay gave way to layers of shale towards the southern end of the field. To the north, the subsoil was noticeably lighter and sandier in texture, with frequent charcoal flecks and fragments. The layer contained a concentration of post-medieval pottery fragments. Below this layer, another subsoil layer was observed. This consisted of a light brown, slightly clayey, fine sand, with occasional charcoal flecks. This layer contained a single medieval pottery sherd, and was 0.25m thick. This overlaid a layer of naturally derived fine sand, 0.30m thick, which was observed above the boulder clay.

3.3.43 Fields 145-146, part of Escowbeck Farm, were located to the south of Field 144. Topsoil was stripped to a maximum depth of 0.30m, revealing orange brown sandy clay subsoil. Medieval and post-medieval pottery was recovered from the topsoil. No features were observed; any present may have been sealed by the subsoil and would therefore be invisible prior to full stripping to natural. The pipeline continued southwards from Field 146, into Field 2029 (see below – 3.4.12), where it linked into Stage 3 of the pipeline.

### 3.4 WATCHING BRIEF STAGE 3 (FIGS 11a-c)

3.4.1 Field 1010 was situated to the east of Field 1009, and was the easternmost field on the Caton Spur section of pipeline. It ran roughly north-east/south-west for 70m before turning to north-west/south-east for 280m. The field rose faintly from the west, and became gently undulating towards the south and east. The topsoil was a dark grey, clayey sand, 0.20m-0.30m thick. The subsoil varied in colour between orangey-brown and grey-brown and consisted of slightly clayey sand, frequent sandstones were present, up to 250mm in length. The natural subsoil was not exposed and no archaeological remains were observed.

3.4.2 Field 1009 was situated to the north-west of Field 1010 and rose gently from west to east. This field was notably stonier than Field 1008, which was located immediately to the north-west. The topsoil comprised a dark grey-brown, silty sand, approximately 0.20m thick, but up to 0.30m. The subsoil was an orangey-brown, clayey sand with frequent stones, up to 0.12m. The underlying natural geology was not exposed, although a considerable amount of modern brick and rubble was noted at western edge of field. No archaeological features were observed in the field, and all finds of pottery pertained to the post-medieval period.

3.4.3 Field 1008 was located immediately south of “Moorgarth” former Workhouse and north-west of Field 1009. The pipeline ran approximately south-east/north-west for a length of 130m. The topsoil was represented as a dark grey silty sand, 0.25m-0.30m thick. The subsoil was a mid-grey brown silty sand, with occasional stones. The natural subsoil was not exposed. The large number of post-medieval pottery sherds retrieved may be the result of rubbish having been dumped from Moorgarth Workhouse, located less than 50m to the north. A stony, linear surface, *1033*, was located running north/south, directly across easement, approximately 50m from eastern end of field. The surface was 1.85m in width and comprised angular, sub-angular, and occasional sub-rounded stones, typically 40mm in length, but occasional stones were up to 100mm in length. This feature, a probable path, would perhaps once have served the southern side of Moorgarth. Post-medieval pottery sherds located from within the stones, whilst not giving a definitive date for construction, confirmed this feature to have been in use during the post-medieval period.

3.4.4 Field 1004 was a small field located immediately to the west of Field 1008 and to the east of Littledale Road. The topsoil was a brown, silty clay loam, up to 0.30m thick. The subsoil was up to 0.15m thick and comprised of orangey-

- brown silty clay. The natural subsoil was an orangey-brown silty clay with occasional outcroppings of stone. The natural was exposed only in patches. No archaeological features or finds were observed.
- 3.4.5 Field 1000 was located immediately to the west of Field 1004 on the opposite side of Littledale Road. Approximately 0.10m of dark brown, silty, loam topsoil was stripped revealing a light brown silty clay subsoil. This was typically 0.10m thick. A natural subsoil comprising yellowy-brown silty clay with frequent stones up to 0.80m in length was observed in patches across the field. No archaeological features or finds were observed.
- 3.4.6 Field 1001 was located immediately to the west of Field 1000. Deposits encountered were exactly the same as those in Field 1000, described above. The natural subsoil appeared more frequently but no archaeology was noted.
- 3.4.7 Field 1002 was located immediately west of Field 1001. The topsoil was a brown silty loam, with a uniform thickness of 0.10m. The subsoil was a light brown to slightly orangey-brown, silty clay loam, 0.30m-0.40m thick. The natural subsoil was occasionally exposed and was a yellowy-brown silty clay with frequent large outcropping stone, some boulders up to 0.85m in length. No archaeology was noted.
- 3.4.8 Field 1003 was located west of Field 1002 on the Caton Spur. The topsoil was a brown silty clay loam, 0.24m-0.26m deep. The subsoil was a slightly orangey-brown loam; maximum depth not observed but typically 0.15m thick. Rather a lot of the subsoil remained unexcavated; therefore any possible features were likely to have been obscured. The natural subsoil was glimpsed in small patches, however, and comprised of orangey-brown silty clay. A single flint waste flake was retrieved.
- 3.4.9 Field 1007 was located to the west of Field 1003 and the easement ran east/west for approximately 250m. The topsoil was a dark brown clayey sand, 0.10m-0.15m thick. The subsoil consisted of an orangey-brown, quite firm sandy clay / clayey sand with occasional sub-rounded stones; the natural subsoil was not exposed. No archaeological features were noted in this field.
- 3.4.10 Field 1006 was located immediately to the west of Field 1007. The topsoil was a dark brown silty sand, 0.10m-0.15m thick approximately. The subsoil was an orangey-brown sandy silt, 0.25m thick. Natural shale was exposed approximately 10m from western field boundary at a depth of 0.35m and was evidenced in an area approximately 3m x 2m where the machine excavated slightly deeper. A former field boundary, **1020**, was observed, approximately 60m from the present western field limit. This was visible as a single line of large angular stones aligned north-east/south-west. The stones were typically 0.45m long, 0.35m wide, and 0.17m thick. The boundary was evident in the field either side of the easement where it could be traced as a broken, low earthfast bank with occasional hedgerow trees. The boundary line was shown on current maps.
- 3.4.11 Field 1005 was located to the west of Field 1006. The topsoil was a dark brown clayey loam, 0.25m thick. The subsoil comprised of a mid brown,

- slightly clayey, silty sand, with occasional stones, up to 0.10m in length. The natural subsoil was not exposed and no archaeological features were noted. It must be noted that the steep, easternmost 20m of the field is actually a separate field, bounded by a road to the east and a hedge and fence at the bottom of slope to west. Due to the small size it has been included as part of Field 1005, having all the same deposit attributes. Several sherds of post-medieval pottery were recovered.
- 3.4.12 Field 2029 was situated to the west of Field 1005. A dark brown clayey sand topsoil was excavated and found to be 0.22m-0.30m thick. The subsoil consisted of a mid-brown clayey-sand with occasional angular stones and rare boulders, up to 0.50m. Other inclusions observed were occasional charcoal and coal fragments. The natural subsoil was not exposed. No archaeology was observed. Within this field the pipeline split, with the pipeline running to the north being part of the Stage 2 Pipeline (see above – 3.3.43)
- 3.4.13 Field 2030 was located immediately to the south of Field 2029. A dark brown silty clay topsoil 0.18m thick was stripped. This revealed a mid-brown, silty clay subsoil with approximately 2% stone inclusions. The natural subsoil was exposed in a small area to the south-east, and consisted of orangey-brown clay with occasional large rounded stones. No archaeological features were noted.
- 3.4.14 Field 2000 was situated to the south-west of Field 2030 and immediately west of Quernmore Road, Caton. The pipeline ran broadly south-west/north-east and continued towards Deys Farm on the western side of road. The topsoil was a brown silty clay loam, 0.10m thick. The subsoil consisted of a slightly orangey brown silty clay loam, 0.30m-0.40m thick. The natural subsoil was visible in patches and was a yellowy-brown silty clay with frequent stones. A possible feature, **1003**, resembled a patchy, stony spread. This consisted of frequent sub-angular to sub-rounded stone within the subsoil. This was thought to be the result of hardcore from the adjacent road spreading slightly down slope. No finds were retrieved.
- 3.4.15 Field 2005 was located on the side and brow of a hillock, immediately south of Deys Farm, on the east side of Quernmore Road. The topsoil varied in thickness between 0.10m in the centre of the field, to 0.30m at the brow of the hillock. The natural geology was mostly obscured by a reddish-brown, silty-clay subsoil. No archaeology or finds were observed although some modern debris and a gravel spread were noted at the extreme north of the field, adjacent to farm buildings.
- 3.4.16 Field 2006 was located south of Field 2005. A 0.15m thickness of topsoil was removed. This revealed a subsoil of reddish-brown silty clay, with frequent stones. A pale orangey-brown clay natural was observed in small patches at the southern end of the field. No archaeology was observed.
- 3.4.17 Field 2001 was situated west of Lythe Brow, between fields 2006 and 2002. A fairly thin topsoil, 0.15m thick, and subsoil, 0.10m thick, rapidly gave way to a grey-brown clay or yellow brown clay. In the north-eastern corner of the field was an area of disturbance, which appeared to be a former driveway access, consisting of a mixture of topsoil and subsoil, medium to large

rounded and sub-rounded stone, with occasional scattered tarmac and plastic. The subsoil within this field obscured any archaeology, which may have been present beneath.

- 3.4.18 Field 2002 was located immediately south of Lythe Brow Farm. The topsoil was 0.15m thick across the field, and was stripped to reveal small areas of peaty spreads, overlying an orangey-brown silty clay natural till, with frequent stones. A variation in the subsoil was noted at the southern end of the field, changing to a pale yellowy-brown silty clay with frequent stone. No archaeology was observed in this field.
- 3.4.19 Field 2003 was located south of Field 2002. The natural subsoil observed was located at a typical depth of 0.30m and was a brown silty boulder clay. This was overlain by pockets of peaty silt within depression and dips. The topsoil was found to have an approximate depth of 0.15m. Two modern, stone-built drains were observed at the southern end of the field.
- 3.4.20 Field 2004 was located to the south-west of Field 2003. The northern end of Field 2004 was found to have been heavily disturbed, around a gateway. Some very poorly defined linear features, *1010*, were investigated within the north of the field. They were found to be very shallow and irregular, being 0.10m deep and 1.20m wide. The fill, *1011*, was a brown silty clay. Some modern gravel debris were noted in the fill which suggests that the feature was most likely to have been a modern intrusion. Two post-medieval, stone filled drains were observed in the centre of the field. These were situated in an area of peaty ground in a slight depression.
- 3.4.21 Field 2007 was located south of Quernmore Road, north-east of Ivy Cottage and Field 2008. The topsoil was typically 0.20m thick. Frequent pockets of peat were observed beneath the topsoil, filling natural dips and hollows in the topography. Elsewhere, a subsoil consisting of pale grey-brown silty clay with frequent stones was exposed. No archaeology was observed.
- 3.4.22 Field 2008 was located to the south of Field 2007 and to the east of Ivy Cottage, bounded by two dry stone walls, approximately 30m apart. 0.20m of topsoil was removed. A pinkish-brown silty clay containing 6% small to medium sized stones represented the underlying subsoil. No archaeology was observed.
- 3.4.23 Located immediately south of Field 2008, Field 2009 was located on a sloping hillside, running down eastwards to the valley bottom. Approximately 0.10m of topsoil was stripped to reveal a pale, brownish-orange, clayey-silt natural subsoil. A north/south aligned shallow linear feature, *1016*, was observed. This was manually excavated to reveal a very shallow, broad cut, 0.10m deep, by 1.50m wide. The fill, *1015*, contained coal lumps, although lacked any datable material. Elsewhere, some very mixed and patchy disturbances, grouped together as *1018*, were investigated and found to be very irregular in form. They were presumed to be probable result of modern disturbance associated with the pipeline.

- 3.4.24 Located to the west of Field 2009 and to the north of Field 2010, Field 2028 was dominated by a steep, east/west running incline, approximately 90m in length. The topsoil was typically 0.20m thick, and overlaid a thin, 50mm thick layer of orangey-brown, clayey-sand subsoil, with occasional angular sandstones. The natural subsoil was exposed across 80% of the easement and was characterised at the western end of the field by brownish-orange sand with up to 35% large angular sandstone inclusions, becoming more frequently grey and less stony to the east. No archaeological features were observed.
- 3.4.25 Field 2010 was located at the top of a bank, south of Field 2028. Approximately 0.20m of topsoil was excavated, revealing a sandy natural subsoil of varying colour, from very pale brownish-grey, to pale orange. A stone-filled drain, *1019*, was observed, running for 20m from the southern gateway of the field northwards. Excavation revealed a depth of 0.20m, and a 0.40m width. The feature was cut by one of several modern land drains observed.
- 3.4.26 Field 2011 was located immediately to south Field 2010. Topsoil stripping to a depth of 0.22m-0.25m revealed a dark orangey-brown, sandy, silty clay subsoil with occasional stones. A poorly-sorted stony layer, *1020*, was noted, approximately 6m x 3m in area. This consisted of small, angular and sub-angular fragments of sandstone, less than 0.18m thick, together with fragments of roof slate and post-medieval pottery. A field drain was located to the south of the stone spread. No other archaeology was apparent.
- 3.4.27 Field 2012 was situated south-west of Field 2011, and sloped gently to the east, towards Knotts Farm. The topsoil was found to be a dark grey-brown silty clay, 0.25m thick. The subsoil was typically a mottled, pale brown/mid orange, silty, sandy clay, with occasional small rounded stone and rare large rounded stones. An orange subsoil was observed, which extended 15m into field from Field 2013 to south. The natural subsoil boulder clay was observed in small patches where the machine had excavated slightly deeper. A possible pit, *1034*, was excavated, 0.60m in diameter, 0.20m deep, near the centre of the field. It was cut into the natural subsoil and filled with loose mid-brown sandy clay with iron staining, *1035*. No finds were recovered, and the feature remained difficult to verify or interpret. Several modern land drains were observed across the field, orientated north-south.
- 3.4.28 Field 2013 was situated immediately south-west of Field 2012. Topsoil, to a depth of 0.20m, was removed, which exposed a mid-orangey-brown subsoil, with approximately 10% rounded stones. A stony layer was noted in the northern end of the field, and it was unclear whether this was a natural stone deposit, or the remnants of deliberate dumping. Areas of modern disturbance had resulted in the redeposition of subsoil, which was visible to the west. The undisturbed subsoil was also found to be much stonier to the west. A number of modern field drains were observed, but no other archaeology.
- 3.4.29 Situated to the east of Field 2013, Field 2027 contained a farm access track, which resulted in the stripping of a short easement, away from the main pipeline route. Approximately 0.10m-0.20m of topsoil was removed, exposing



- a dark brownish-grey sandy clay, with occasional rounded stones. No archaeology was observed.
- 3.4.30 Field 2014 was located south of Fields 2013 and 2027, and south of Littledale Road. Topsoil 0.20m-0.30m thick was stripped, as was a thin, 0.10m layer of yellowish-orange subsoil. The natural subsoil was observed across most of field, appearing as a pale yellowish-orange clay with 20% rounded stones. The field sloped downwards to the south-east and the subsoil was observed as being darker and siltier down slope. A single ceramic field drain was noted, along with several fragments of ceramic drain.
- 3.4.31 Field 2015 was located south of Field 2014. Topsoil was removed to a depth of 0.20m, exposing a dark, orangey-brown, soft, sandy clay subsoil with occasional rounded stones. The natural subsoil was evident, and was represented by a mid-orangey-brown clay with approximately 20% rounded stones. The field sloped gently down to the east, and, as with Field 2014, a dark, silty layer of subsoil was observed down slope, probably the result of wetter ground conditions. Ridge and furrow remains were observed in the bottom of the field on a low bluff, orientated north-east/south-west. Little Fell Cottage was situated at the southern end of the field. This timber and corrugated sheet building was derelict and in a poor state of preservation. The building fabric appeared to be mostly nineteenth and early twentieth Century, but was based around an earlier chimney. Immediately to the north of Little Fell Cottage was located a concrete floor and cobbled stone surface, *1026*, associated with the building, 4m of which projected into the easement.
- 3.4.32 Located south of Field 2015, Field 2016 sloped gently down from south to north. A rather thin, 0.15m thick layer of topsoil was found to overlie a mid-orangey-brown sandy clay with approximately 3% small stones. It was observed that the subsoil became less orangey and greyer in hue towards the south; the natural subsoil was not exposed. A stone-filled field drain, *1027*, was noted running south-east/north-west across the field, approximately 50m from the northern boundary. No other archaeological features were observed.
- 3.4.33 Field 2017 was located south of Field 2016. A depth of 0.15m of topsoil was removed, which exposed a mid-orangey-brown, clayey sand which contained approximately 3% stones, up to 0.50m in length. The natural subsoil was not exposed. No archaeological features were observed.
- 3.4.34 Located to south of Field 2017, Field 2018 sloped gently down to the south up to a rocky outcrop within Field 2019. 0.15m-0.20m of topsoil was stripped. This revealed a grey-brown clayey sand with approximately 2% sandstones, typically 70mm in length, but up to 0.50m in length. The natural subsoil was not exposed and no archaeological features were observed.
- 3.4.35 Field 2019 was situated south of Field 2018. The topsoil was a dark grey-brown sandy clay, 0.20m thick. A thin layer of subsoil was also removed, consisting of a mid-brown, clayey sand with frequent sandstone and iron staining. The natural subsoil was exposed across 5% of the field, and consisted of a light brown sand (patchy, sandy clay), with approximately 5-10% sandstone inclusions. Some occasional, large boulders were observed, up to

1.00m length. A 2.75m wide strip of very stony material, **1029**, ran east/west across the easement. This appeared to have been deliberately laid as a track surface and was located at a shallow 80mm depth, primarily within the topsoil layer. The stones were a mixture of angular sandstone fragments and other unidentified stones, typically 70mm in length. A 0.25m portion of the feature was excavated at the western edge of the easement. This revealed a depth of 0.26m and the stones were found to overlie what appeared to be an orange/grey clay sand natural subsoil, 0.36m from the ground surface. Modern glass and ceramic drain fragments were recovered from the surface of the feature. The track was most likely associated with quarrying activity which took place in the first half of the twentieth century at the rocky outcrop located approximately 30m to the east.

3.4.36 Field 2020 was located south of Field 2019. The topsoil was 0.15m thick. A mid-grey, mottled orangey-brown clayey sand subsoil was exposed; containing approximately 2% rounded stones, including much angular sandstone and occasional large boulders up to 1.00m. The natural subsoil was not exposed and no archaeology was observed.

3.4.37 Fields 2021-2026. These field numbers were not allocated.

### 3.5 WATCHING BRIEF STAGE 4

3.5.1 The proposed line of the pipeline between Burkes Farm and Lowgill (Stage 4 of the scheme) was changed so that it ran along a modern roadway. It was therefore not necessary to undertake a watching brief on the works on this section as no archaeology would have been uncovered.

### 3.6 FINDS

3.6.1 *Introduction:* in total, 977 artefacts and ecofacts were recovered from the watching brief, the majority of which was fragments of pottery. The remainder comprised glass, iron, lead, aluminium, brass, clay tobacco pipe, stone, ceramic building material, industrial debris, coal, unidentified ceramic, plastic, bone, charcoal, and natural concretions (*see Table 1*). Many of the finds were retrieved from topsoil, and others were found in other contexts and unstratified deposits, with only a few originating from the subsoil. Catalogues of the artefacts have been included in *Appendix 4* in field number order. The finds from Fields 143–46 have been discussed in a previous report (OA North 2003c, 12-18).

3.6.2 The types of finds found in contexts other than the topsoil and subsoil are summarised in Table 2, below. It can be seen that most of the contexts contained finds dating to the post-medieval period, mainly between the eighteenth and twentieth centuries. Two, however, produced finds of an earlier date. Field wall **29** (Stage 1 Field 33) produced pottery that may date to the medieval period, as well as post-medieval finds, and feature **158** (Stage 2 Field 126/7) produced a flint scraper probably dating to the late Neolithic period or early Bronze Age, as well pottery that may date to the medieval period.

	Topsoil	Subsoil	Unstratified	Other contexts	Total
Aluminium	2	0	0	0	2
Bone	0	0	11	0	11
Brass	0	0	1	0	1
Ceramic (unid)	1	0	0	1	2
Ceramic building material	9	0	0	5	14
Charcoal	0	0	0	Abundant	Abundant
Clay tobacco pipe	16	0	6	0	22
Coal	2	0	0	1	3
Glass	42	1	13	42	98
Industrial debris	0	1	4	8	13
Iron	6	1	3	67	77
Lead	0	0	0	1	1
Natural concretions	0	0	Abundant	0	Abundant
Plastic	0	0	0	1	1
Pottery	346	38	147	186	717
Stone	2	1	6	6	15
<i>Total</i>	<i>426</i>	<i>42</i>	<i>191</i>	<i>318</i>	<i>977</i>

Table 1: Type of finds from different contexts

Context	Description	Finds	Date of finds
5	Fill of curvilinear boundary ditch 6	Pottery, industrial debris, plastic, charcoal, stone	Late eighteenth – twentyfirst century
16	Hearth	Glass, metal	Nineteenth – twentyfirst century
17	Track surface	Pottery	Late seventeenth – early twentieth century
22	Field boundary ditch	Ceramic building material	Post-medieval
27	Fill of post hole 28	Industrial debris	Undated
29	Field wall	Pottery, coal	Medieval?, Late eighteenth – twentieth century
30	Spread of debris	Ceramic building material, pottery, glass, iron, stone	Late eighteenth – twentieth century
31	Cobbled surface	Pottery, glass, iron	Late eighteenth – twentieth century
45	Rubbish dump	Pottery, glass, iron	Late eighteenth – twentieth century
48	Fill of linear cut 44	Glass	Eighteenth – twentieth century
100	Dry stone wall	Pottery, glass	Late seventeenth – early twentieth century
158	OA North 2003c	Pottery, industrial debris, stone	Late Neolithic – early Bronze Age; Medieval?
1020	Subsoil, field boundary, or stony spread	Pottery, stone, glass	Late eighteenth – twentieth century
1021	Fill of drain 1022	Pottery, glass	Late eighteenth – twentieth century
1024	Drained boggy area	Pottery, glass, iron	Late eighteenth – twentieth century

<b>1026</b>	Cobbled area	Pottery, metal, ceramic building material, glass, industrial debris	Eighteenth – twentieth century
<b>1031</b>	Layer sealing subsoil	Pottery, unidentified ceramic	Eighteenth – twentieth century

Table 2: Summary of dated finds by context number

3.6.3 All artefacts appeared to fall into a date range between the medieval period and the twentieth century, with the pottery fragments providing the most reliable dating evidence. The exceptions were three pieces of pottery which may either date to the prehistoric or the medieval periods. This pottery has been shown to the appropriate specialists, and agreement could not be reached as to the date. 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 site.

3.6.4 **Pottery:** the finds assemblage was dominated by post-medieval pottery. In total, 717 sherds were retrieved, many from topsoil (see Table 1). Analysis of the pottery was based solely on visual inspection of individual sherds. In general terms, the material was in good condition, with only the medieval sherds small and severely abraded. The date ranges suggested for these fabrics are approximate, and are based on parallels from fabrics discovered within the North West region, and known production dates for industrial pottery.

Pottery type	Date range	Quantity
Various	Prehistoric or medieval	3
Various, including white gritty	Medieval	13
Waster	Post-medieval	1
Brown-glazed, purple bodied, high-fired pottery	Mid sixteenth - seventeenth century	2
Tin-glazed earthenware	Seventeenth – eighteenth century	2
Slip-decorated tableware	Late seventeenth – early eighteenth century	5
Scratch blue (white salt-glazed stoneware)	Eighteenth century	1
Brown-glazed red earthenware (coarseware)	Late seventeenth – twentieth century	223
Red earthenware	Late seventeenth – twentieth century	11
Jackfield ware?	Eighteenth – nineteenth century	1
Stoneware	Eighteenth – twentieth century	49
Majolica	Eighteenth – twentieth century	1
Unidentified	Eighteenth – twentieth century	1
Brown-glazed white earthenware	Late eighteenth – twentieth century	7
Porcelain	Late eighteenth – twentieth century	36
White-glazed white earthenware	Late eighteenth – twentieth century	361

Table 3: Types of pottery with approximate date ranges and quantity of fragments

3.6.5 Thirteen fragments of pottery were dated to the medieval period (see Table 3), including some possible wasters, most of which were recovered from topsoil or unstratified deposits. Still smaller quantities of pre-nineteenth century

pottery were recovered (tin-glazed earthenware, scratch blue white salt-glazed stoneware, and slip-decorated tableware), all from topsoil.

- 3.6.6 The single largest collection came from context **45** (Stage 1 Field 52), which contained 93 ceramic vessel sherds, dating to the eighteenth to twentieth centuries. All sherds were large with unabraded breaks, and the sherd to vessel ratio was high. The fabrics present were porcelain, white glazed white earthenware, stoneware, and brown glazed red earthenware, with a single sherd of a more heavy-duty fabric also present. Vessels included dinnerware, tea or breakfast ware, and kitchenware vessels. The patterns identified were Asiatic Pheasant and Willow. All the red earthenware kitchenware vessel sherds had internal white slip, and came from tall pots with horizontal handles below the rims (McGarva 2000, 26).
- 3.6.7 The sherds from the topsoil and smaller deposits comprised kitchenware, dinnerware and tea or breakfast ware sherds, mainly plain but some decorated with transfer patterns, and occasionally with painted and spongeware patterns. The patterns identified were Asiatic Pheasant, Willow, Broseley, Forest, and Fibre. A previously unrecorded pattern (Coysh and Henrywood 2001) was identified from the topsoil of Field 108 (object number 128). It was a dark green transfer pattern called Berber, manufactured by Edge Malkin and Co, Newport and Middleport Potteries, Burslem, Staffordshire, between 1871 and 1903 (Godden 1991, 230). From the same field, also from the topsoil, a bowl base with an impressed maker's mark was recovered: TG Brown WL St..a. Moore and Co, apparently a previously unrecorded manufacturer (Godden 1991). Two adjoining sherds of a stoneware Apollinaris bottle were found in Field 2015 (Object number 252). The Apollinaris is an alkaloid salty spring, which was discovered in 1853 beside the river Ahr in Germany, producing a refreshing drink (Harley 1999). In 1878 the sole distribution was transferred to the Apollinaris Company Limited in London, with a branch in Remagen, Germany (*ibid*). Apollinaris continued to use the traditional stoneware bottle during the early twentieth century (Osborne n.d.).
- 3.6.8 **Metal:** in total, 81 metal objects were recovered. Many these objects were iron and highly corroded, meaning they could not be identified with confidence, or dated. A plough tip was identified (object number 165) from the topsoil of Field 30. Thirty-eight metal objects dated to the twentieth or twenty-first centuries, and included zips, allen keys, screws, and hinges (object numbers 130 and 136). Nineteen cartridge cases from context **45** also dated to the twentieth or late nineteenth century.
- 3.6.9 **Glass:** eighty glass vessel fragments were recovered. They came from green, brown and clear bottles, and clear tableware, with a date range of eighteenth to twentieth century.
- 3.6.10 **Clay tobacco pipes:** twenty-two sherds from clay tobacco pipes were recovered. All but two of these were stem sherds, dating to the seventeenth to twentieth centuries. One bowl sherd was plain and undiagnostic; the other bowl base came from Field 148, and had a pedestal spur stamped with the initials 'GR'. It dates to the seventeenth or eighteenth century.

- 3.6.11 **Building materials:** fourteen pieces of ceramic drain pipes and bricks were recovered, in addition to 18 window pane sherds and two pieces of roofing slate. The majority of these finds originate from the topsoil.
- 3.6.12 **Industrial residue:** small quantities of coal, slag, and potash were recovered. They do not contribute significantly to understanding of activity in the area.
- 3.6.13 **Flint:** *Object 105, Field 25:* the find consists of badly burnt and cracked grey flint, with some cortex remnants. No evident working is visible, this appears to be a rough flake or chunk. This may possibly be a gunflint, and therefore post-medieval in date, but is very difficult to identify.
- 3.6.14 *Object 184, Field 52:* the find consists of mid-brown, translucent flint. It is a large flake with bulb of percussion partially present. There was evidence of possible working on several sides indicating an abandoned attempt at an arrowhead or tool. This object is difficult to date but likely to be Neolithic to early Bronze Age.
- 3.6.15 *Object 207, Field 1023, Context 1023:* a small piece of white flint, possibly heavily patinated. The flint is extensively worked with fine retouch forming a small triangle. It is evidently the tip of a very well-made arrowhead, the exact form of which is difficult to ascertain. It may be of a fine leaf-shaped form, or tanged and barbed, and is therefore probably late Neolithic to late Bronze Age in date.
- 3.6.16 *Object 225, Field 2012:* two objects were recovered. The first is a very small, narrow blade, in pale yellow-cream flint, possibly snapped at the proximal end. This is Late Mesolithic in style but not easily dated. The second is a reworked flake in grey translucent flint. A bulb of percussion is present and retouch is visible along both sides. It has been substantially reworked on the dorsal surface. This is probably a form of plano-convex blade, and therefore is likely to be early Bronze Age. These flints are usually associated with burials.
- 3.6.17 *Object 232, Field 2019:* two objects were recovered. The first is a slate pencil, with evidence of having been resharpened. It is probably of nineteenth to early twentieth century date. The second is a fine black chert. This is probably a multidirectional core, with a number of small flakes removed. The small size and material would suggest a late Mesolithic date.
- 3.6.18 *Object 257, Field 2857:* three objects were recovered. The first two consist of dark grey to black chert waste flakes or chunks. Bulbs of percussion are visible on one. The third is a mid grey flint waste flake. All are difficult to date but their size suggests they may be late Mesolithic.
- 3.6.19 *Object 261, between Fields 126 and 127:* a dark brown flint, still with some cortex remaining. This consists of a long, straight blade with slight retouch along one, and possibly the other, edge forming a saw. The flint was possibly deliberately snapped and retouched at one end. It is difficult to date but is probably Neolithic to early Bronze Age
- 3.6.20 *Object 262, Field 143:* a dark grey to black chert pebble. This was unworked.

- 3.6.21 *Object 263, between Fields 126 and 127, Feature 158:* a large flake of pale brownish-grey flint with speckled inclusions was recovered, with a prominent bulb of percussion. A steep retouch is visible along one side and forms a broad scraper. Further retouch is visible along the distal end and forms a smaller projecting thumbnail scraper end. This makes this an unusual double-sided scraper. It is probably late Neolithic to early Bronze Age in date.
- 3.6.22 *Bone:* bone fragments were recovered from Field 148 (*Object number 260*). They had all been burnt, and comprised one sheep metapodial fragment, two large mammal fragments, three medium mammal (sheep-sized) fragments, and five unidentified fragments.
- 3.6.23 *Charcoal:* the charcoal recovered (Field 25 Context 5) was very well preserved oak charcoal, including roundwood suitable for radiocarbon dating.

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## 4. DISCUSSION AND CONCLUSIONS

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### 4.1 DISCUSSION

- 4.1.1 The results of the watching brief were surprisingly limited, given the high potential for archaeological remains suggested in the desk-top and walkover surveys. While these studies concluded that few of the known sites, primarily of medieval and post-medieval date, would be affected by the pipeline route, they nevertheless suggested that significant new discoveries were likely to be made during the course of the watching brief. Areas around Castle Stede and Gressingham were particularly important as places of potential sub-surface archaeology associated with complex standing remains.
- 4.1.2 Ultimately, new archaeological sites were few, with only two substantial sites being uncovered, Caton River Terrace (OA North forthcoming) and Escowbeck Farm (OA North 2003c), located in fields 147-8 and 143-4 respectively (see section 4.1.7). The majority of other remains identified by the watching brief were isolated and related to post-medieval or modern agricultural practices, former field boundaries, or discrete, undated, and largely uninterpreted features. Of the 60 fields recorded during Stage 1, 21 yielded no physical remains of anthropogenic activity. Archaeological features were present in 18 fields, whilst the remaining fields contained land drains or relict field boundaries, or occasionally both. Stage 2 fared worse. Out of a total of 48 fields, 33 saw no archaeological remains, seven fields contained archaeological features, while drains or old field boundaries were found in the remaining eight fields. Of the 36 fields recorded during Stage 3, 23 yielded no physical remains of anthropogenic activity. Archaeological features were located in seven fields, whilst the remaining six fields contained ruined field boundaries or, more typically, modern land drains.
- 4.1.3 The low frequency of sites may represent a genuine absence of archaeology. If so, then the pattern of settlement and land use within the region has remained constant throughout the different periods of occupation. However, it is worth noting that the topsoil stripping in as many as 39 fields (64%) in Stage 1, 44 fields (92%) in Stage 2, and 19 fields (53%) in Stage 3, failed to reveal extensive areas of natural geology. Instead, depths tended to extend only to subsoil, with occasional patches of topsoil remaining in some fields. Consequently, any archaeology located at a level below the subsoil would not have been observed within the majority of fields. Topography may have prevented the mechanical excavator from reaching the natural soils in some fields, for example in field 45, which was marshy in places, and field 59A, which was on a hill, resulting in colluvial build-up. Fields 101, 141 and 142 were effectively waterlogged. Occasionally, further excavation was undertaken in order to remove a greater depth of subsoil, although, perhaps significantly, natural deposits were rarely reached in such cases.
- 4.1.4 **Stage 1:** archaeological features revealed in Stage 1 tended to take the form of amorphous spreads of stone, areas of burnt material, or cut features. Stone spreads, such as that in Field 14 or Field 34, appeared to form short lengths of



surface and seemed to be located in areas of congregation or movement, for example along the edge of a field or near a gateway. Occasional cut features were observed. Ditches or gullies seen in fields 44 and 52 presumably functioned as drains or boundaries. Field 41 contained a pit, while a single posthole was uncovered in Field 55. Isolated as they are, these features cannot be interpreted any further. The function of the pits in fields 47, 48, and 53 seems to be more certain. Burnt material found within their fills suggests that the pits contain the refuse from a bonfire. One pit, from Field 47, yielded modern iron nails. A more enigmatic burnt feature was uncovered in Field 59b. A large sub-circular deposit of charcoal and burnt soil was contained within a shallow hollow. Burnt natural suggests that burning was *in situ*. The feature may be the remains of a burnt mound, although stones found within the fill have not been recorded as being burnt, nor is the feature immediately adjacent to a water source. Both are essential characteristics of this feature type. Instead, the feature is likely to represent, simply, a place where multiple bonfires were lit. The earliest definitively dateable feature to be uncovered is the ridge-and-furrow in Field 42. This appears to be the only surviving evidence of medieval fields along the pipeline, although, as noted, the depth of soil removal may not have been sufficient to reveal similar features elsewhere. The archaeological evaluation at Castle Stede (OA North 2003b) revealed only a single truncated pit and so it was not considered necessary to undertake any further excavation work at this site.

4.1.5 **Stage 2:** the Stage 2 watching brief revealed a similar range of evidence. The compact clinker surface in Field 101 may join an identical surface seen in adjacent Field 50, presumably forming a trackway through the interconnecting gate. The area of cobbling in Field 117 may also be part of a surface. Local residents identified the pit in Field 130 as a modern soakaway. More evidence of shallow fire pits or hearths were seen in Fields 131 and 132. The lynchet in Field 139 provides evidence for an earlier field boundary. Unfortunately, the absence of related evidence means that the field system of which the boundary formed part cannot be reconstructed. Two sites that were deemed worthy of further work were, however, uncovered during the course of the Stage 2 watching brief. The first site, located in Fields 147 and 148, was identified by a large number of flint artefacts recovered during the watching brief on the topsoil strip. This led to excavation taking place, the results of which are to be found elsewhere (OA North forthcoming). The second site was located in Fields 143 and 144, on the basis of significant amounts of medieval pottery recovered during the watching brief on the initial topsoil strip. This led to an open area excavation, with the hope of locating a pottery kiln. Unfortunately no kiln was identified, although a useful assemblage of medieval pottery was recovered from the site (OA North 2003c). Both of these excavations were also subject to further watching briefs during the excavation for the pipe trench, and although a Neolithic arrow head was recovered from the Caton River Terrace excavation site, no further archaeological deposits were identified at either site.

4.1.6 **Stage 3:** seven archaeological features were recorded. Pathway **1033**, situated in Field 1008 served the southern approach to the Moorgarth workhouse, constructed in the nineteenth century. Trackway **1029**, situated in Field 2019,

was most likely to have represented a route of communication to the now disused quarry, located to the east. No evidence from either of these two thoroughfares suggested a construction date earlier than the nineteenth century. Two stony spreads, **1003** and **1020**, were observed. Feature **1003**, located in Field 2000, was thought to have been the result of modern construction material from the adjacent road spreading down slope. The second stony spread, **1020**, was recorded in Field 2011. Its function was unknown, although the field was rather poorly drained and it may be assumed that the material was deposited to stabilise the ground. Inclusions of post-medieval pottery indicated that it was in use during this time. Poorly defined linear features **1010** and **1016**, located in Fields 2004 and 2009 respectively, were shallow and contained modern debris within their fills. A possible pit, **1034**, was located within Field 2012. No finds were retrieved from the fill, and the date and function of the feature are unknown.

## 4.2 CONCLUSIONS

- 4.2.1 In practical terms, visibility of deposits during topsoil stripping was poor. Additionally, few features were seen within the subsoil. Due to the engineering requirements of the development this was inconsistently removed, so that the natural geology was rarely revealed to any extensive degree. That said, archaeological finds collected from the topsoil and subsoil have generally reflected the chronological distribution of the features encountered, suggesting few significant sites dating earlier than the medieval period, with most dating later. However, the site excavated at Caton River Terrace (OA North forthcoming) certainly provides strong evidence of at least one area of fairly intensive usage in the prehistoric period. The overall pattern, however, suggests that the pipeline route extends through a region that did not witness intensive activity until the medieval period. It must be stressed that this is quite possibly merely an illusion caused by the difficulties of observing archaeology due to the methodology employed during the construction of this pipeline.

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## APPENDIX 1: PROJECT BRIEF

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## BRIEF FOR AN ARCHAEOLOGICAL EVALUATION AND RECORDING

**Location: Ribble TA Pipelines - Lancaster to Caton, Lords Lot to Caton, Borwick to Jackson's Pasture, Burkes Farm to Lowgill**

**Proposal: New Water Mains**

### 1. Summary

1.1 In order to improve the quality of drinking water supply United Utilities is proposing to lay new pipelines from Lancaster to Caton, from Lords Lot to Caton, from Borwick to Jackson's Pasture and from Burkes Farm to Lowgill. An appraisal of the route on using the Lancashire Sites and Monuments Record (SMR) showed that there are a significant number of sites potentially affected by the works, including the Scheduled Ancient Monument at Castle Stede, Hornby and the site of Dunald Mill, Nether Kellet. A rapid identification survey has been carried out by the Lancaster University Archaeology Unit (now Oxford Archaeology North, OAN) and a further series of archaeological sites identified along the pipe corridor.

1.2 Following a meeting between the County Archaeology Service, a representative of United Utilities and OAN a piece of further investigation and a scheme of impact mitigation was agreed. This work comprises:

1.2.1 Geophysical survey and trial trenching in the vicinity of Castle Stede, Hornby.

1.2.2 Topographic survey and photographic recording of a number of features before construction commences.

1.2.3 A watching brief during topsoil stripping for the entire pipe corridor.

1.2.4 A limited programme of watching briefs during pipe trench excavation.

### 2. Site Location and Description

2:1 The lines of the pipes are shown on the attached plans (REF ). They are located in the mid and lower Lune Valley, passing through land that is generally in pastoral use although there are both areas of arable land and woodland. The landscape here is generally rolling, but with some steep slopes and includes areas of both limestone and sandstone geologies. This is generally overlain with fluvio-glacial or riverine deposits that vary from thin to very thick.

### 3. Archaeological Background

3.1 Archaeological sites along the proposed pipe route, identified from the Lancashire Sites and Monuments Record and the OAN field study are attached as Appendix 2. The potential effect of the pipeline on these sites has been identified by OAN.

3.2 Where the pipeline passes Castle Stede, Hornby, there is thought to be a reasonable potential for the discovery of important medieval remains relating to the castle and a possible deserted village associated with it (sites 45, 55, 59). It was agreed that this area should be subject to geophysical survey and trial trenching, so that any buried remains could be identified and a suitable mitigation scheme devised.

3.3 A series of sites which are threatened by the pipeline construction but which do not merit preservation in situ were also identified. These sites (106, 110, 111, 113, 118, 119, 121,

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122, 123, 124, 127, 128, 129, 142) require recording by means of topographical survey and photographs before construction works commence.

- 3.4 A watching brief will be necessary during the topsoil stripping phase, along the whole length and width of the pipeline corridor. This work will need to be coordinated with the work programme of the pipeline contractors and will also need to include a contingency plan for the discovery of archaeological remains which may need (a) rapid recording or (b) full excavation prior to the construction of the pipeline.
- 3.5 Any site that reveals archaeological remains during topsoil stripping will also require a watching brief during trenching for the pipe laying unless otherwise agreed with the County Archaeology Service and United Utilities.

#### **4. Requirements – Investigations at Castle Stede**

- 4.1 The proposed construction of the pipelines would damage or destroy archaeological remains that may be present in the vicinity of Castle Stede, Hornby. It has therefore been recommended that geophysical survey and trial trenching should be undertaken along the pipeline corridor from the River Lune at SD 58216980 to the field boundary between Lawnds Farm and Holme Head at SD 58546969. This work should be designed to detect the presence, attempt to interpret the function and assess the state of preservation of any archaeological features and deposits.
- 4.2 The work should include geophysical survey of the pipe corridor between the two limits above. It should be undertaken by such methods as may be deemed appropriate by a specialist geophysical consultant or contractor. The results of this work should include a written report, maps and diagrams, indicating the methods employed, the results obtained and the conclusions drawn. Paper and digital versions of the report and survey results should be submitted to the County Archaeology Service for inclusion in the SMR and to the Archaeology Data Service at York.
- 4.3 Following the geophysical survey trial trenches should be excavated to cover at least 5% of the area of the pipeline corridor between the two limits above. Trenches should be located to investigate any anomalies detected by the geophysical survey and if appropriate to confirm the absence of archaeological deposits in areas where no anomalies were detected. Trenching should be undertaken in a stratigraphic manner and may employ suitable machine excavation provided it is under appropriate archaeological supervision and does not proceed deeper than the surface of the first significant archaeological deposit. Deposits should be then cleaned by hand. An appropriate sampling strategy for intact archaeological deposits, features and finds should be employed and disturbance and damage to important remains minimised as far as is possible. The results of this work should include a written report, maps and diagrams, indicating the methods employed, the results obtained and the conclusions drawn. Recommendations for further work may be included in the report following discussion with the County Archaeology Service. Paper and digital versions of the report should be submitted to the County Archaeology Service for inclusion in the SMR.

#### **5. Requirements – Recording in Advance of Construction**

- 5.1 A series of sites that are threatened by the pipeline construction do not merit preservation in situ. These sites, numbers 106, 110, 111, 113, 118, 119, 121, 122, 123, 124, 127, 128, 129 and 142 in the OAN survey, require recording by means of topographical survey and photographs before construction works commence.

5.2 The sites listed above should normally be recorded by 35mm or medium-format photography (colour slides and black and white prints) although digital photography may be acceptable if it is to a sufficient quality and appropriate storage of the images can be ensured. Photographic logs must accompany the recording, indicating camera and film type, frame numbers, subjects and details of the views provided. Paper and digital versions of the report should be submitted to the County Archaeology Service for inclusion in the SMR. Photographic negatives should be retained with the project archive and be deposited in the County Record Office at the end of the project.

5.3 Topographic survey shall produce line and hachure surveys at scales of 1:500, 1:1,000 or 1:2,500 as appropriate. Each survey should be linked into the Ordnance Survey national grid by surveying or GPS methods to an accuracy of +/- 10cm. A report describing the techniques utilised and an estimate of error should accompany the survey. Paper and digital versions of the report should be submitted to the County Archaeology Service for inclusion in the SMR. If electronic methods of survey are utilised, a digital version of the survey should accompany the paper survey in either DWG or AutoCAD DXF format as agreed with the County Archaeology Service.

## **6 Requirements - Watching Brief During Topsoil Stripping**

6.1 This work will cover the whole of the topsoil stripping process and any associated earthmoving activities including the preparation of access routes, site compounds and material/equipment stores.

6.2 Appropriately qualified archaeologists shall systematically observe the above works and record any surviving archaeological remains revealed. All records shall include an accurate location, a description of the remains encountered and at least one photograph. Where appropriate plans and/or section drawings should be made. Photographs should normally be 35mm (colour slides and black and white prints) although digital photography may be acceptable if it is to a sufficient quality and appropriate storage of the images can be ensured. The report shall include a gazetteer and plan locating all the remains recorded.

6.3 Whilst it is anticipated that the archaeological contractor will have the ability to stop works for up to one hour to allow the recording of significant archaeological deposits, the contractor should ensure that an agreement is included in their contract and that methods of invoking it are robust and sufficient.

6.4 The archaeological contractor should have a contingency plan to deal with particularly important remains that may require more extensive recording or excavation in advance of construction and an agreement on how such recording is to be invoked.

## **7 Requirements – Further Watching Brief**

7.1 Where significant archaeological remains were identified during the topsoil stripping (above), a further phase of watching brief shall be undertaken during pipeline trenching. The methodology should be the same as that above.

## 8 Other Considerations

- 8.1 All appropriate health and safety matters should be taken into account when projects are being designed. In particular the hazards of undertaking the watching brief work and the possible need to undergo formal safety inductions with pipeline contractors need to be considered.
- 8.2 All work shall be undertaken to the standards and guidance set out by the Institute of Field Archaeologists.

## 9 Reporting and Archive

- 9.1 The project will result in the production of a series of formal reports on the separate requirements above. All should include an executive summary, methodology, results and discussion sections. Where appropriate digital data sets (survey and geophysical survey, digital photography) should be included. All appropriate plans, drawings and maps should be included, and a copy of the project design should be included as an appendix.
- 9.2 Copies of the reports will be supplied to the County Archaeological Officer and to the Lancashire Sites and Monuments Record on the understanding that it will become a public document after an appropriate period (a maximum of 6 months after the completion of the assessment unless another date is agreed in writing with the County Archaeological Officer). They should be provided both as bound paper documents and in an agreed digital format on CD-ROM.
- 9.3 A digital version of the geophysical survey should be deposited in an acceptable form with the Archaeology Data Service in York.
- 9.4 The site archive, including finds and environmental material, shall be conserved and stored according to the UKIC Guidelines for the preparation of excavation archives for long-term storage (1990) and the Museum and Galleries Commission Standards in the Museum Care of Archaeological collections (1992) 'Standards for the preparation and transfer of archaeological archives'.
- 9.5 Provision and agreement will be made for the appropriate academic publication of any results that are not to form part of any further work. A brief summary report of fieldwork, to appear in the Council for British Archaeology North West *Archaeology North West* will be produced, even when a project encountered no archaeological deposits. This will be sent to the editor of *Archaeology North West* in time for it to appear within a calendar year of the completion of fieldwork.

## 10 Further Details

- 10.1 Further information about the proposed pipelines can be obtained from United Utilities.
- 10.2 Any queries about the contents of the brief should be addressed to the Lancashire County Archaeology Service, Lancashire County Council Environment Directorate, Guild House, Cross Street, Preston PPR1 8RD Tel 01772 2261550, fax 01772 2634203
- 10.3 The document entitled "General Conditions for Appropriate Archaeological Contractors in Lancashire" is in use as a model of expected practices and procedures. A copy of that document is attached as Appendix One.



**Appendix 1**  
**Lancashire County Council**  
**General Conditions for Archaeological Contractors**

Organisations and individuals wishing to be included on the County Council's list of Archaeological Contractors are requested to fulfil the general conditions below that provide a model for best practice and professional conduct in archaeological work. The County Council will require the fulfilment of these conditions in its own contracts. Other clients are advised that it is their responsibility to satisfy themselves that their contractors meet all relevant standards.

**1. Professional Standards**

- 1.1 Contractors shall work to the standards of professional conduct outlined in the Institute of Field Archaeologists Code of Conduct, the IFA Code of Approved Practice for the Regulation of Contractual Arrangements in Field Archaeology, and the British Archaeologists and Developers Liaison Group Code of Practice.
- 1.2 Contractors should be either IFA Registered Organisations or individual corporate members of the IFA. In addition Project Directors should be recognised in an appropriate Area of Competence by the IFA.
- 1.3 Contractors with a significant backlog of unpublished projects will not usually be included on the list.
- 1.4 Where students or trainees are employed on a project, their ratio to professional staff shall not normally exceed 1:2.
- 1.5 In the case of dispute over matters of professional conduct or practice, arbitration will normally be sought through the IFA or the British Archaeologists and Clients Liaison Group.

**2. Finance**

- 2.1 Contractors shall make available at the request of the County Council a recent set of audited accounts.

**3. Insurance**

- 3.1 Contractors shall hold a current certificate of Public Liability and (where relevant) Employers Liability insurance, and shall produce it at the request of the County Council.

**4. Health and Safety**

- 4.1 Contractors shall comply with the requirements of all relevant Health and Safety legislation.
- 4.2 Site procedures shall be in accordance with the guidance set out in the Health and Safety Manual of the Standing Conference of Archaeological Unit Managers.

**5. Project Design**

- 5.1 Individual projects shall be designed in accordance with a brief provided by the County Archaeology Service. Before commencement of a project, Contractors shall submit a written project design for agreement with the County Council

**6. Sub-Contracting**

- 6.1 The names of proposed Sub-Contractors shall be included in the Project Design. All such Sub-Contractors shall be required to fulfil the General Conditions for Contractors.

**7. Form of Contract**

- 7.1 Before commencement of a project, the Contractor shall enter into a written agreement with the Client. It is recommended that such agreements should be in conformity with the IFA Model Contract for Archaeological Services or such other form as approved by the County Council.

**8. Project Monitoring**

- 8.1 The County Council may make arrangements for the monitoring of archaeological progress throughout the project.
- 8.2 Contractors shall provide the County Council with an outline programme of work. Any modification to this programme, due to unforeseen or other circumstances, shall be agreed with the Council. It is recommended that Project Designs include a contingency factor to allow for such circumstances.

**9. Publication**

- 9.1 Publication shall be in a form and to a timetable to be agreed on completion of the site archive and narrative. A copy of the site narrative and publication synopsis shall be lodged with the County Sites and Monuments Record.
- 9.2 Whilst acknowledging the need for confidentiality in some instances, a summary of the archaeological information resulting from a project should normally enter the public domain within six months of the completion of fieldwork.

**10. Archive**

- 10.1 Archive deposition shall take place according to a timetable to be agreed on completion of the site archive and narrative.
- 10.2 The site archive, including finds and environmental material, shall be conserved and stored according to the UKIC *Guidelines for the preparation of excavation archives for long-term storage* (1990) and the Museums and Galleries Commission *Standards in the Museum Care of Archaeological Collections* (1992), "Standards for the preparation and transfer of archaeological archives".

## Brief for an Archaeological Evaluation and Recording - Ribble TA Pipelines

- 10.3 The archive shall be deposited as soon as is practicable in a Registered Museum fulfilling the HBMC/MGC Eligibility Criteria for the Grant Aided Storage of Excavation Archives. This will normally be the Lancashire County Museums Service (artefact and environmental collections and their documentation), or the County Record Office (site documentation).
- 10.4 Any material not to be archived, such as unstable material or items to be retained by the landowner, shall be fully analysed and reported upon.
- 10.5 A copy of the reproducible elements of the site archive should be deposited in the National Archaeological Record.

### **11. Acknowledgement**

- 11.1 Lancashire County Council shall be acknowledged in all publicity - including media releases, site displays, exhibitions and publications - arising from the project, and any such publicity should be agreed in advance with the County Council.

All enquiries regarding these conditions should be addressed to:

The County Planning Officer  
Lancashire County Council Environment Directorate  
PO Box 9  
Guild House  
Cross Street  
PRESTON  
Lancashire  
PR1 8RD

Tel. 01772 261734  
Fax 01772 263423

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## APPENDIX 2: PROJECT DESIGN

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July 2001

Lancaster  
University  
Archaeological  
Unit

**RIBBLE TA PIPELINES,  
LANCASHIRE**

**ARCHAEOLOGICAL TOPOGRAPHIC SURVEY AND  
WATCHING BRIEF**

***Proposals***

*The following project design is offered in response to a request from United Utilities for an archaeological desk based assessment and rapid assessment survey to be carried out prior to the ground disturbance for the Ribble TA Pipeline, Lancashire.*

## 1 INTRODUCTION

- 1.1 United Utilities (hereafter the client) propose to lay new pipelines from Lancaster to Caton, from Lords Lot to Caton, from Borwick to Jackson's Pasture and from Burkes Farm to Lowgill, Lancaster. An archaeological desk-based assessment and programme of fieldwalking undertaken in 2001 by Oxford Archaeology (North) has indicated that a significant number of archaeological sites will be affected by the works associated with the laying of the pipeline.
- 1.2 Following discussions with the Sites and Monuments Record Officer a programme of recording has been specified for a number of the sites identified during the earlier archaeological programme of works.
- 1.3 Oxford Archaeology (North) (OA(N)) has considerable experience of excavation of sites of all periods, having undertaken a great number of small and large scale projects throughout Northern England during the past 20 years. Evaluations, assessments, watching briefs and excavations have taken place within the planning process, to fulfil the requirements of clients and planning authorities, to very rigorous timetables. OA(N) has the professional expertise and resources to undertake the project detailed below to a high level of quality and efficiency. Of most relevance OA(N) has carried out extensive works on pipelines on behalf of United Utilities; current projects include Grasmere to Windermere, Garnet Bridge to Watchgate, Coalpit Wood and Caldbeck.
- 1.4 OA(N) 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 evaluate the archaeological deposits affected by the proposed developments. The required stages to achieve these ends are as follows:
  - 2.1.1 **Field Survey:** to undertake an instrument survey of a number of sites for the purposes of producing plans.
  - 2.1.2 **Permanent Presence Watching Brief:** archaeological monitoring during all topsoil and ground disturbing activities on site prior to excavation of the pipeline.
  - 2.1.3 **Additional Watching Brief:** archaeological monitoring during excavation for the pipeline, of sites identified during the initial watching brief, as being of particular significance.
  - 2.1.4 **Report and Archive:** a report will be produced for the client within six weeks of completion of the fieldwork. 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. METHODS STATEMENT**

3.1 The following work programme is submitted in line with the stages and objectives of the archaeological work summarised above.

#### **3.2 INSTRUMENT SURVEY**

3.2.1 The instrument survey will utilise a total station (TST) with portable logger, the data from which will be downloaded into a CAD package (AutoCAD Release 14). It will comprise the production of plans for the features as follows: (numbers relate to the site gazetteer)

- (i) Ridge and Furrow 106,113,118,119,121,129;
- (ii) Gravel Pit 110;
- (iii) Quarries 111, 142;
- (iv) Earthworks 122, 124, 127, 128.

3.2.2 The plans produced will show outline detail and hachures only. The final drawings will be produced at a relevant scale (1:1000 to 1:2500). It is envisaged, that where possible, the plans will be dropped onto Ordnance Survey maps.

#### **3.3 PERMANENT PRESENCE WATCHING BRIEF**

3.3.1 The watching brief will cover the whole of the topsoil strip and associated earth moving activities for the Stage 1 section of pipeline.

3.3.2 A permanent programme of observation will accurately record the location, extent, and character of any surviving archaeological features within the excavations in the course of the proposed development. This work will comprise observation during the excavation for these works, the systematic examination of any subsoil horizons exposed during the course of the foundation works, and the accurate recording of all archaeological features and horizons, and any artefacts, identified during observation.

3.3.3 During this phase of work, recording will comprise a full description and preliminary classification of features or materials revealed, and their accurate location (either on plan and/or section, or as grid co-ordinates where appropriate). All archaeological information collected in the course of fieldwork will be recorded in standardised form, and will include accurate national grid references. Features will be planned accurately at appropriate scales and annotated on to a large scale plan provided by the Client.

3.3.4 It is assumed that OA(N) will have the authority to stop works for up to one hour to enable the recording of significant archaeological deposits.

### 3.4 ADDITIONAL WATCHING BRIEF

- 3.4.1 This will be undertaken during excavation for the pipeline, and will focus on areas that proved to be of significant archaeological interest during the initial watching brief. The methodology will be as *sections 3.3.2 and 3.3.3 above*.
- 3.4.2 **Health and Safety:** OA(N) 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.
- 3.4.3 OA(N) 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.

### 3.5 REPORT AND ARCHIVE PRODUCTION

- 3.5.1 **Archive:** the results of Stage 3.2 to 3.4 will form the basis of a full archive to professional standards, in accordance with current English Heritage guidelines (*Management of Archaeological Projects, 2nd edition, 1991*) and the *Guidelines for the Preparation of Excavation Archives for Long Term Storage* (UKIC 1990). The project archive represents the collation and indexing of all the data and material gathered during the course of the project. The deposition of a properly ordered and indexed project archive in an appropriate repository is considered an essential and integral element of all archaeological projects by the IFA in that organisation's code of conduct.
- 3.5.2 This archive can be provided in the English Heritage Centre for Archaeology format, both as a printed document and on computer disks as ASCII files (as appropriate). The paper archive will be deposited with the Lancashire Record Office within six months of the completion of the fieldwork. The material archive (artefacts and ecofacts) will be deposited with an appropriate museum following agreement with the client. A synthesis of the archive will also be available for deposition in the National Monuments Record.
- 3.5.3 **Report:** one bound and one unbound copy of the report will be submitted to the client within six weeks of completion of the fieldwork. A further copy of the collated final report will be submitted to the County SMR within six months of the completion of the fieldwork. The final report will include a copy of this project design, and indications of any agreed departure from that design. It will present, summarise, and interpret the results of the programme detailed above, and will include recommendations for any further mitigation works and details of the final deposition of the project archive.
- 3.5.4 **Confidentiality:** the final report is designed as a document for the specific use of the client, and should be treated as such; it is not suitable for publication as an academic report, or otherwise, without amendment or revision. Any



requirement to revise or reorder the material for submission or presentation to third parties beyond the project brief and project design, or for any other explicit purpose, can be fulfilled, but will require separate discussion and funding.

#### 4. WORK TIMETABLE

4.1 The various stages of the project outlined above will fall into four distinct phases, which would follow on consecutively, where appropriate. The phases of work would comprise:

4.1.2 **Instrument Survey:** it is anticipated that the surveying should take in the region of thirteen days in the field (approximately one day per site), to be followed by a short period of drawing and report production.

4.1.3 **Permanent Presence Watching Brief:** the development programme will dictate the timescale of this phase. OA(N) generally calculates a 1:0.5 ratio of fieldwork: post-fieldwork (archive, analysis, and report preparation) if the level of archaeology observed is low or 1:1 if the level of archaeology is high.

4.1.4 **Additional Watching Brief:** as above (section 4.1.3) but likely to be for a reduced area of the pipeline.

4.1.5 **Archive/Report:** the report and archive will be produced following the completion of all the fieldwork. The final report will be submitted within six weeks of completion of the fieldwork and the archive deposited within six months.

#### 5. OUTLINE RESOURCES

5.1 The project will be managed by **Alison Plummer, BSc (Hons)** (OA(N) Project Manager) to whom all correspondence should be addressed.

5.2 Present timetabling constraints preclude detailing exactly who will be carrying out each specific task, but all elements of the project are likely to be supervised by an OA(N) project supervisor experienced in this type of project. All OA(N) project officers and supervisors are experienced field archaeologists capable of carrying out projects of all sizes.

5.3 Assessment of the finds from the watching brief will be undertaken by OA(N)'s in-house finds specialist **Christine Howard-Davis BA MIFA** (OA(N) project officer). Christine acts as OA(N)'s in-house finds specialist and has extensive knowledge of all finds of all periods from archaeological sites in northern England.

#### 6. MONITORING

6.1 Monitoring of the project will be undertaken by the Sites and Monuments Record Officer (SMRO).

- 6.2 Access to the site for monitoring purposes will be afforded to the SMRO at all times.

## APPENDIX 3: CONTEXT LIST

<b>Context Number</b>	<b>Location</b>	<b>Description</b>
<i>1</i>	Compound 1	Residual Topsoil
<i>2</i>	Compound 1	Fill of <i>3</i>
<i>3</i>	Compound 1	Culvert
<i>4</i>	Compound 1	Fill of <i>3</i>
<i>5</i>	Compound 1	Fill of <i>6</i>
<i>6</i>	Compound 1	Curvilinear Boundary Ditch
<i>7</i>	Compound 1	Fill of <i>8</i>
<i>8</i>	Compound 1	Curvilinear Boundary Ditch
<i>9</i>	Compound 1	Fill of <i>10</i>
<i>10</i>	Compound 1	Linear Cut
<i>11</i>	Compound 1	Fill of <i>12</i>
<i>12</i>	Compound 1	Linear Cut
<i>13</i>	Compound 1	Fill of <i>14</i>
<i>14</i>	Compound 1	Linear Cut
<i>15</i>	Field 14	Metalled Surface
<i>16</i>	Field 14	Hearth
<i>17</i>	Field 18	Track Surface
<i>18</i>	Field 18	Fill of <i>19</i>
<i>19</i>	Field 18	Ditch Cut
<i>20</i>	Fields 17 and 18 junction	Field Boundary Ditch
<i>21</i>	Fields 17 and 18 junction	Fill of <i>20</i>
<i>22</i>	Field 19	Field Boundary Ditch

<b>23</b>	Field 19	Field Boundary Ditch
<b>24</b>	Field 20	Metalled Surface
<b>25</b>	Field 29	Fill of <b>26</b>
<b>26</b>	Field 29	Pit Cut
<b>27</b>	Field 30	Fill of <b>28</b>
<b>28</b>	Field 30	Post Hole Cut
<b>29</b>	Field 33	Field Wall
<b>30</b>	Field 34	Spread of Debris
<b>31</b>	Field 34	Cobbled Surface
<b>32</b>	Field 39	Field Wall
<b>33</b>	Field 40	Ditch Cut
<b>34</b>	Field 40	Ditch Cut
<b>35</b>	Field 41	Fill of Pit <b>36</b>
<b>36</b>	Field 41	Pit
<b>37</b>	Field 42	Stone Capped Spring
<b>38</b>	Field 43	Wall or Road Ditch Infill
<b>39</b>	Field 44	Culvert
<b>40</b>	Field 47	Bonfire Pit
<b>41</b>	Field 47	Fill of <b>40</b>
<b>42</b>	Field 48	Bonfire Pit
<b>43</b>	Field 50	Worked Timber
<b>44</b>	Field 52	Linear Cut
<b>45</b>	Field 52	Rubbish Dump
<b>46</b>	Field 53	Fill of <b>47</b>
<b>47</b>	Field 53	Bonfire Pit
<b>48</b>	Field 52	Fill of <b>44</b>

<b>49</b>	Field 36	Fill of <b>50</b>
<b>50</b>	Field 36	Drain Cut
<b>51</b>	Field 36	Wall Footing
<b>52</b>	Field 40	Fill of <b>53</b>
<b>53</b>	Field 40	Ditch Cut
<b>54</b>	Field 40	Redeposited Natural
<b>100</b>	Field 10	Dry stone wall
<b>101</b>	Field 10	Topsoil
<b>102</b>	Field 103	Subsoil
<b>103</b>	Field 105	Topsoil
<b>104</b>	Field 108	Cut of drain
<b>105</b>	Field 108	Backfill of pipe furrow
<b>106</b>	Field 108	Pipe and packing
<b>107</b>	Field 116	Field wall
<b>108</b>	Field 116	Topsoil
<b>109</b>	Field 116	Subsoil
<b>110</b>	Field 130	Topsoil
<b>111</b>	Field 130	Soakaway
<b>112</b>	Field 130	Subsoil
<b>113</b>	Field 131	Topsoil
<b>114</b>	Field 131	Fill of pit <b>115</b>
<b>115</b>	Field 131	Large pit
<b>116</b>	Field 131	Natural
<b>117</b>	Field 132	Fill of hearth <b>118</b>
<b>118</b>	Field 132	Cut of hearth
<b>119</b>	Field 132	Fill of hearth <b>120</b>

<b>120</b>	Field 132	Cut of hearth
<b>121</b>	Field 132	Fill of pit <b>122</b>
<b>122</b>	Field 132	Cut of small pit
<b>123</b>	Field 132	Fill of pit <b>124</b>
<b>124</b>	Field 132	Cut of pit
<b>1000</b>	Field 1003	Topsoil
<b>1001</b>	Field 1003	Subsoil
<b>1002</b>	Field 1003	Natural
<b>1003</b>	Field 2000	Stoney Spread
<b>1004</b>	Field 2001 & 2002	Natural
<b>1005</b>	Field 2002	Natural
<b>1006</b>	Field 2002 & 2003	Natural Peaty Deposits
<b>1007</b>	Field 2003	Peaty Soil
<b>1008</b>	Field 2003	Natural Clay
<b>1009</b>	Field 2003	Stone Drains
<b>1010</b>	Field 2004	Drainage Ditches
<b>1011</b>	Field 2004	Fill of <b>1010</b>
<b>1012</b>	Field 2008	Natural
<b>1013</b>	Field 2007	Subsoil
<b>1014</b>	Field 2009	Subsoil
<b>1015</b>	Field 2009	Fill of <b>1016</b>
<b>1016</b>	Field 2009	Post-Medieval Linear
<b>1017</b>	Field 2009	Fill of <b>1018</b>
<b>1018</b>	Field 2009	Cut of Pipe Trench
<b>1019</b>	Field 2010	Stone-filled Drain
<b>1020</b>	Field 2011	Subsoil

<b>1021</b>	Field 2011	Fill of <b>1022</b>
<b>1022</b>	Field 2011	Cut of Drain
<b>1023</b>	Field 2012 & 2013	Subsoil
<b>1024</b>	Field 2013	Drained Boggy Area
<b>1025</b>	Field 2013	Redeposited Natural
<b>1026</b>	Field 2015	Cobble Surface
<b>1027</b>	Field 2016	Cut for Drain
<b>1028</b>	Field 2016	Fill of <b>1027</b>
<b>1029</b>	Field 2019	Possible Surface
<b>1030</b>	Field 1006	Boundary Wall
<b>1031</b>	Field 7452	Layer sealing <b>1032</b>
<b>1032</b>	Field 7452	Subsoil
<b>1033</b>	Field 1008	Trackway
<b>1034</b>	Field 2012	Possible Pit
<b>1035</b>	Field 2012	Fill of <b>1034</b>

## APPENDIX 4: FINDS CATALOGUE

Field	Context	Object record	Qty	Material	Description	Date
-	Subsoil	218	15	Pottery	White-glazed white earthenware	Late eighteenth – twentieth century
-	Subsoil	218	1	Pottery	Porcelain	Late eighteenth – twentieth century
-	Subsoil	218	5	Pottery	Brown-glazed red earthenware (coarseware)	Late seventeenth – early twentieth century
-	Subsoil	218	1	Pottery	Industrial stoneware	Eighteenth – twentieth century
0014	Topsoil	191	12	Pottery	Brown-glazed red earthenware (coarseware)	Late seventeenth – early twentieth century
0014	Topsoil	191	14	Pottery	White-glazed white earthenware	Late eighteenth – twentieth century
0014	Topsoil	191	2	Pottery	Porcelain	Late eighteenth – twentieth century
0014	Topsoil	191	1	Pottery	Industrial stoneware	Eighteenth – twentieth century
0014	Topsoil	191	1	Pottery	Slip-decorated buff-bodied tableware	Late seventeenth century – early eighteenth century
0014	Topsoil	192	4	Glass	Green (bottles)	Eighteenth – twentieth century
0014	Topsoil	193	4	Pottery	Brown-glazed red earthenware (coarseware)	Late seventeenth – early twentieth century
0014	Topsoil	193	3	Pottery	White-glazed white earthenware	Late eighteenth – twentieth century
0014	Topsoil	193	1	Pottery	Industrial stoneware	Eighteenth – twentieth century
0014	Topsoil	194	1	Glass	Green (bottle)	Eighteenth – twentieth century
0014	16	106	1	Glass	Colourless tableware vessel	Nineteenth - twentieth century
0014	16	136	35	Iron	Iron nails, screws, hinges, Allen keys, etc	Twentieth - twentyfirst century
0014	16	136	1	Lead	Scrap of sheeting	Twentieth - twentyfirst century
0015	Topsoil	197	3	Ceramic building material	Drain pipes	Post-medieval
0015	Topsoil	198	1	Ceramic building material	Drain pipe	Post-medieval
0015	Topsoil	199	1	Iron	Nail	Undated
0018	17	108	1	Pottery	Red earthenware	Late seventeenth – early twentieth century
0019	22	109	1	Ceramic building material	Drain pipe	Post-medieval
0022	Topsoil	157	1	Pottery	White-glazed white earthenware	Late eighteenth – twentieth century



Field	Context	Object record	Qty	Material	Description	Date
0023	Topsoil	158	2	Pottery	Brown-glazed red earthenware (coarseware)	Late seventeenth – early twentieth century
0024	Topsoil	159	1	Ceramic building material	Drain pipe	Post-medieval
0024	Topsoil	160	8	Pottery	White-glazed white earthenware	Late eighteenth – twentieth century
0024	Topsoil	160	1	Pottery	Porcelain	Late eighteenth – twentieth century
0024	Topsoil	160	2	Pottery	Slip-decorated buff-bodied tableware	Late seventeenth century – early eighteenth century
0024	Topsoil	160	2	Pottery	Stoneware	Seventeenth - twentieth century
0024	Topsoil	160	9	Pottery	Brown-glazed red earthenware (coarseware)	Late seventeenth – early twentieth century
0024	Topsoil	160	2	Pottery	Red earthenware	Late seventeenth – early twentieth century
0024	Topsoil	161	4	Clay tobacco pipe	Stems	Seventeenth – early twentieth century
0024	Topsoil	162	1	Glass	Flat (window pane)	Post-medieval
0025	5	101	1	Pottery	Porcelain	Late eighteenth – twentieth century
0025	5	102	3	Industrial debris	Slag?	Undated
0025	5	103	1	Plastic	Syringe	Twentieth - twentyfirst century
0025	5	104	Lots	Charcoal	Large chunks	Undated
0025	5	105	1	Stone	Flint	Undated
0026	Topsoil	163	13	Pottery	Brown-glazed red earthenware (coarseware)	Late seventeenth – early twentieth century
0026	Topsoil	163	1	Pottery	Scratch blue (white salt-glazed stoneware)	Eighteenth century
0026	Topsoil	164	1	Clay tobacco pipe	Stem	Seventeenth – early twentieth century
0030	Topsoil	165	1	Iron	Plough tip	Post-medieval
0030	27	110	Lots	Industrial debris	Slag	Undated
0033	Topsoil	166	1	Pottery	Tin-glazed earthenware	Seventeenth – eighteenth century
0033	Topsoil	166	3	Pottery	White-glazed white earthenware	Late eighteenth – twentieth century
0033	Topsoil	166	1	Pottery	Slip-decorated buff-bodied tableware	Late seventeenth century – early eighteenth century
0033	Topsoil	166	2	Pottery	Red earthenware	Late seventeenth – early twentieth century
0033	Topsoil	167	2	Glass	Flat (window pane)	Post-medieval
0033	29	111	1	Pottery	White-glazed white earthenware	Late eighteenth – twentieth century

Field	Context	Object record	Qty	Material	Description	Date
0033	29	111	3	Pottery		Medieval?
0033	29	112	1	Coal	Burnt lump	Undated
0034	Topsoil	168	1	Ceramic building material	Brick	Post-medieval
0034	Topsoil	169	14	Pottery	Brown-glazed red earthenware (coarseware)	Late seventeenth – early twentieth century
0034	Topsoil	169	10	Pottery	White-glazed white earthenware	Late eighteenth – twentieth century
0034	Topsoil	169	3	Pottery	Brown-glazed white earthenware	Late eighteenth – twentieth century
0034	Topsoil	169	1	Pottery	Red earthenware	Late seventeenth – early twentieth century
0034	Topsoil	170	3	Clay tobacco pipe	Stems	Seventeenth – early twentieth century
0034	Topsoil	171	1	Iron	Unidentified object	Undated
0034	30	113	2	Ceramic building material	Brick and drain pipe	Post-medieval
0034	30	114	1	Pottery	White-glazed white earthenware	Late eighteenth – twentieth century
0034	30	115	1	Glass	Flat (window pane)	Post-medieval
0034	30	116	1	Iron	Nail	Undated
0034	30	117	1	Stone	Cumbrian slate	Post-medieval
0034	31	118	4	Pottery	White-glazed white earthenware	Late eighteenth – twentieth century
0034	31	118	1	Pottery	Porcelain	Late eighteenth – twentieth century
0034	31	118	2	Pottery	Industrial stoneware	Eighteenth – twentieth century
0034	31	118	1	Pottery	Brown-glazed red earthenware (coarseware)	Late seventeenth – early twentieth century
0034	31	119	1	Glass	Brown (bottle)	Eighteenth century – twentieth century
0034	31	120	7	Iron	Nails and wire?	Undated
0036	Topsoil	172	2	Pottery	White-glazed white earthenware	Late eighteenth – twentieth century
0036	Topsoil	172	3	Pottery	Brown-glazed red earthenware (coarseware)	Late seventeenth – early twentieth century
0036	Topsoil	172	1	Pottery	Tin-glazed earthenware	Seventeenth – eighteenth century
0036	Topsoil	173	1	Glass	Green (bottle)	Eighteenth – twentieth century
0037	Topsoil	174	1	Ceramic building material	Drain pipe?	Post-medieval
0037	Topsoil	175	1	Pottery	Brown-glazed red earthenware (coarseware)	Late seventeenth – early twentieth century
0037	Topsoil	175	1	Ceramic	Unidentified	Undated
0037	Topsoil	175	2	Pottery	White-glazed white earthenware	Late eighteenth – twentieth century

Field	Context	Object record	Qty	Material	Description	Date
0037	Topsoil	176	2	Clay tobacco pipe	Stems	Seventeenth – early twentieth century
0038	U/S	137	2	Industrial debris	Slag?	Undated
0039	U/S	138	1	Pottery	Rim	Medieval
0039	Topsoil	177	1	Ceramic building material	Drain pipe	Post-medieval
0039	Topsoil	178	2	Pottery	Brown-glazed purple-bodied high-fired pottery	Mid sixteenth - seventeenth century
0039	Topsoil	178	2	Pottery	Brown-glazed red earthenware (coarseware)	Late seventeenth – early twentieth century
0039	Topsoil	179	2	Coal	Burnt	Undated
0039	Topsoil	180	2	Iron	Nails	Undated
0040	Topsoil	181	5	Pottery	Brown-glazed red earthenware (coarseware)	Late seventeenth – early twentieth century
0040	Topsoil	181	5	Pottery	White-glazed white earthenware	Late eighteenth – twentieth century
0040	Topsoil	181	1	Pottery	Porcelain	Late eighteenth – twentieth century
0040	Topsoil	182	1	Glass	Green (bottle)	Eighteenth – twentieth century
0041	U/S	200	1	Pottery	Jackfield ware?	Eighteenth - nineteenth century
0043	U/S	140	1	Pottery	Brown-glazed red earthenware (coarseware)	Late seventeenth – early twentieth century
0043	U/S	140	2	Pottery	White-glazed white earthenware	Late eighteenth – twentieth century
0043	U/S	141	1	Iron	Unidentified object	Undated
0047	U/S	155	1	Pottery	Brown-glazed red earthenware (coarseware)	Late seventeenth – early twentieth century
0047	U/S	155	1	Pottery	Industrial stoneware	Eighteenth – twentieth century
0047	U/S	155	5	Pottery	White-glazed white earthenware	Late eighteenth – twentieth century
0047	U/S	155	1	Pottery	Porcelain	Late eighteenth – twentieth century
0047	U/S	156	1	Clay tobacco pipe	Stem	Seventeenth – early twentieth century
0047	Topsoil	183	1	Pottery	Brown-glazed red earthenware (coarseware)	Late seventeenth – early twentieth century
0047	Topsoil	183	4	Pottery	Industrial stoneware	Eighteenth – twentieth century
0047	Topsoil	183	9	Pottery	White-glazed white earthenware	Late eighteenth – twentieth century
0049	Subsoil	154	1	Industrial debris	Slag	Undated
0050	Subsoil	152	1	Pottery	Brown-glazed red earthenware (coarseware)	Late seventeenth – early twentieth century

Field	Context	Object record	Qty	Material	Description	Date
0050	Subsoil	152	1	Pottery	Industrial stoneware	Eighteenth – twentieth century
0050	Subsoil	152	1	Pottery	White-glazed white earthenware	Late eighteenth – twentieth century
0050	Subsoil	153	1	Iron	Nail	Undated
0051	U/S	142	2	Industrial debris	Slag	Undated
0052	U/S	143	4	Pottery	White-glazed white earthenware	Late eighteenth – twentieth century
0052	U/S	143	1	Pottery	Industrial stoneware	Eighteenth – twentieth century
0052	U/S	144	1	Pottery	Brown-glazed red earthenware (coarseware)	Late seventeenth – early twentieth century
0052	U/S	144	7	Glass	Colourless (bottles and tableware)	Eighteenth – twentieth century
0052	Topsoil	184	1	Stone	Flint	Undated
0052	45	121	60	Pottery	White-glazed white earthenware	Late eighteenth – twentieth century
0052	45	121	8	Pottery	Industrial stoneware	Eighteenth – twentieth century
0052	45	121	10	Pottery	Brown-glazed red earthenware (coarseware)	Late seventeenth – early twentieth century
0052	45	121	14	Pottery	Porcelain	Late eighteenth – twentieth century
0052	45	121	1	Pottery	Unidentified	Eighteenth – twentieth century
0052	45	122	2	Glass	Colourless (bottles)	Eighteenth – twentieth century
0052	45	122	1	Glass	Milky blue (vessel)	Eighteenth – twentieth century
0052	45	123	19	Iron	Cartridge ends	Nineteenth - twentieth century
0052	48	124	1	Pottery	Brown-glazed red earthenware (coarseware)	Late seventeenth – early twentieth century
0052	48	125	2	Glass	Green (bottles)	Eighteenth – twentieth century
0053	U/S	145	3	Pottery	Brown-glazed red earthenware (coarseware)	Late seventeenth – early twentieth century
0054	U/S	146	Lots	Natural	Concretions	Undated
0054	Topsoil	185	4	Pottery	White-glazed white earthenware	Late eighteenth – twentieth century
0054	Topsoil	185	1	Pottery	Porcelain	Late eighteenth – twentieth century
0054	Topsoil	185	2	Pottery	Brown-glazed red earthenware (coarseware)	Late seventeenth – early twentieth century
0054	Topsoil	186	1	Glass	Colourless (bottle)	Eighteenth – twentieth century
0055	Topsoil	187	1	Pottery	Brown-glazed red earthenware (coarseware)	Late seventeenth – early twentieth century
0056	Topsoil	188	1	Pottery	Industrial stoneware	Eighteenth – twentieth century

Field	Context	Object record	Qty	Material	Description	Date
0057	Topsoil	147	2	Pottery	White-glazed white earthenware	Late eighteenth – twentieth century
0057	Topsoil	147	1	Pottery	Brown-glazed red earthenware (coarseware)	Late seventeenth – early twentieth century
0058	Topsoil	189	2	Pottery	White-glazed white earthenware	Late eighteenth – twentieth century
0058	Topsoil	189	1	Pottery	Brown-glazed red earthenware (coarseware)	Late seventeenth – early twentieth century
0060	Topsoil	190	2	Pottery	White-glazed white earthenware	Late eighteenth – twentieth century
0101	100	126	1	Glass	Flat (window pane)	Post-medieval
0105	100	127	1	Pottery	Brown-glazed red earthenware (coarseware)	Late seventeenth – early twentieth century
0108	Topsoil	128	3	Pottery	White-glazed white earthenware	Late eighteenth – twentieth century
0108	Topsoil	128	1	Pottery	Industrial stoneware	Eighteenth – twentieth century
0108	Topsoil	132	6	Pottery	White-glazed white earthenware	Late eighteenth – twentieth century
0108	Topsoil	132	1	Pottery	Majolica	Eighteenth – twentieth century
0108	Topsoil	132	1	Pottery		Medieval?
0108	Topsoil	133	1	Glass	Colourless (bottle)	Eighteenth – twentieth century
126/7	Topsoil	261	1	Stone	Flint	Undated
126/7	158	134	2	Pottery	White gritty?	Medieval
126/7	158	135	1	Industrial debris	Potash?	Undated
126/7	158	263	1	Stone	Flint	Undated
0130	Topsoil	129	4	Pottery	Brown-glazed red earthenware (coarseware)	Late seventeenth – early twentieth century
0130	Topsoil	129	5	Pottery	White-glazed white earthenware	Late eighteenth – twentieth century
0130	Topsoil	129	1	Pottery	Green-glazed white gritty?	Medieval
0130	Topsoil	130	2	Aluminium	Zip and chocolate coin wrapper	Twentieth - twentyfirst century
0131	Topsoil	131	1	Pottery	Brown-glazed red earthenware (coarseware)	Late seventeenth – early twentieth century
0140 ?	Topsoil	195	4	Pottery	Brown-glazed red earthenware (coarseware)	Late seventeenth – early twentieth century
0140 ?	Topsoil	195	1	Pottery	Industrial stoneware	Eighteenth – twentieth century
0140 ?	Topsoil	195	2	Pottery	White-glazed white earthenware	Late eighteenth – twentieth century
0140 ?	Topsoil	196	1	Glass	Green (bottle)	Eighteenth – twentieth century
0143	U/S	262	1	Stone	Flint or chert	Undated
0148	U/S	148	1	Pottery	Brown-glazed red earthenware (coarseware)	Late seventeenth – early twentieth century

Field	Context	Object record	Qty	Material	Description	Date
0148	U/S	148	2	Pottery		Medieval or prehistoric?
0148	U/S	149	2	Pottery	Waster?	Medieval
0148	U/S	150	1	Clay tobacco pipe	Pedestal spur stamped GR	Seventeenth - eighteenth century
0148	U/S	151	1	Glass	Colourless (vessel/bottle)	Eighteenth – twentieth century
0148	U/S	260	11	Bone	Burnt	Undated
1005	U/S	219	4	Pottery	Brown-glazed red earthenware (coarseware)	Late seventeenth – early twentieth century
1006	U/S	220	3	Pottery	Brown-glazed red earthenware (coarseware)	Late seventeenth – early twentieth century
1006	U/S	221	1	Pottery	White-glazed white earthenware	Late eighteenth – twentieth century
1006	U/S	221	1	Glass	Green (bottle)	Eighteenth – twentieth century
1008	U/S	222	13	Pottery	White-glazed white earthenware	Late eighteenth – twentieth century
1008	U/S	222	4	Pottery	Stoneware	Eighteenth – twentieth century
1008	U/S	222	23	Pottery	Brown-glazed red earthenware (coarseware)	Late seventeenth – early twentieth century
1008	U/S	222	1	Pottery	Waster?	Post-medieval
1008	U/S	236	1	Clay tobacco pipe	Stem	Seventeenth – early twentieth century
1008	U/S	237	1	Glass	Brown (bottle)	Eighteenth – twentieth century
1009	U/S	223	2	Pottery	Industrial stoneware	Eighteenth – twentieth century
2007	U/S	224	1	Pottery	Brown-glazed red earthenware (coarseware)	Late seventeenth – early twentieth century
2011	<b>1020</b>	201	6	Pottery	White-glazed white earthenware	Late eighteenth – twentieth century
2011	<b>1020</b>	202	1	Stone	Roofing slate	Medieval/Post-medieval
2011	<b>1020</b>	203	1	Glass	Green (bottle)	Eighteenth – twentieth century
2011	<b>1021</b>	204	3	Pottery	Brown-glazed red earthenware (coarseware)	Late seventeenth – early twentieth century
2011	<b>1021</b>	204	7	Pottery	White-glazed white earthenware	Late eighteenth – twentieth century
2011	<b>1021</b>	205	1	Glass	Green (bottle)	Eighteenth – twentieth century
2012	Stoney layer	225	2	Stone	Flint	Undated
2012	U/S	242	1	Clay tobacco pipe	Stem	Seventeenth – early twentieth century
2012	U/S	243	1	Iron	Door hinge with eight screw holes	Nineteenth - twentieth century

Field	Context	Object record	Qty	Material	Description	Date
2013	Subsoil	238	2	Pottery	White-glazed white earthenware	Late eighteenth – twentieth century
2013	Topsoil	244	12	Pottery	Brown-glazed red earthenware (coarseware)	Late seventeenth – early twentieth century
2013	Topsoil	244	20	Pottery	White-glazed white earthenware	Late eighteenth – twentieth century
2013	Topsoil	244	1	Pottery	Red earthenware	Late seventeenth – early twentieth century
2013	Topsoil	246	1	Ceramic building material	Drain pipe	Post-medieval
2013	Topsoil	247	1	Iron	Nail	Undated
2013	Topsoil	248	4	Glass	Green (bottles)	Eighteenth – twentieth century
2013	Topsoil	248	1	Glass	Colourless (bottle)	Twentieth - twentyfirst century
2013	Topsoil	248	2	Glass	Flat (window pane)	Post-medieval
2013	1023	206	1	Pottery	Brown-glazed red earthenware (coarseware)	Late seventeenth – early twentieth century
2013	1023	206	1	Pottery	White-glazed white earthenware	Late eighteenth – twentieth century
2013	1023	207	1	Stone	Flint arrowhead tip	Undated
2013	1024	208	6	Glass	Various colours (bottle)	Eighteenth – twentieth century
2013	1024	208	1	Glass	Flat (window pane)	Post-medieval
2013	1024	209	34	Pottery	White-glazed white earthenware	Late eighteenth – twentieth century
2013	1024	209	1	Pottery	Porcelain	Late eighteenth – twentieth century
2013	1024	209	6	Pottery	Brown-glazed red earthenware (coarseware)	Late seventeenth – early twentieth century
2013	1024	210	1	Iron	Nail	Undated
2014	Subsoil	239	1	Pottery	White-glazed white earthenware	Late eighteenth – twentieth century
2014	Subsoil	239	1	Pottery	Brown-glazed red earthenware (coarseware)	Late seventeenth – early twentieth century
2014	Topsoil	249	5	Pottery	White-glazed white earthenware	Late eighteenth – twentieth century
2014	Topsoil	250	2	Pottery	Porcelain	Late eighteenth – twentieth century
2014	Topsoil	250	3	Glass	Colourless (bottle)	Eighteenth – twentieth century
2014	Topsoil	250	1	Glass	Flat (window pane)	Post-medieval
2015	Subsoil	240	1	Glass	Flat (window pane)	Post-medieval
2015	Subsoil	241	3	Pottery	Brown-glazed red earthenware (coarseware)	Late seventeenth – early twentieth century
2015	Subsoil	241	3	Pottery	White-glazed white earthenware	Late eighteenth – twentieth century
2015	Topsoil	245	1	Clay tobacco pipe	Bowl fragment	Seventeenth – early twentieth century

Field	Context	Object record	Qty	Material	Description	Date
2015	Topsoil	251	4	Glass	Flat (window pane)	Post-medieval
2015	Topsoil	252	8	Glass	Various colours (bottles)	Eighteenth – twentieth century
2015	Topsoil	252	3	Pottery	White-glazed white earthenware	Late eighteenth – twentieth century
2015	Topsoil	252	1	Pottery	Porcelain	Late eighteenth – twentieth century
2015	Topsoil	252	10	Pottery	Industrial stoneware	Eighteenth – twentieth century
2015	Topsoil	252	1	Pottery	White-glazed white earthenware	Late eighteenth – twentieth century
2015	Topsoil	252	1	Pottery	Porcelain	Late eighteenth – twentieth century
2015	Topsoil	252	2	Pottery	Industrial stoneware	Eighteenth – twentieth century
2015	Topsoil	252	1	Pottery	Brown-glazed red earthenware (coarseware)	Late seventeenth – early twentieth century
2015	1026	211	4	Pottery	White-glazed white earthenware	Late eighteenth – twentieth century
2015	1026	211	3	Pottery	Brown-glazed red earthenware (coarseware)	Late seventeenth – early twentieth century
2015	1026	211	2	Pottery	Industrial stoneware	Eighteenth – twentieth century
2015	1026	211	2	Pottery	Porcelain	Late eighteenth – twentieth century
2015	1026	212	4	Iron	Nails and other object	Undated
2015	1026	213	2	Ceramic building material	Brick	Post-medieval
2015	1026	214	24	Glass	Various colours (bottles)	Eighteenth – twentieth century
2015	1026	215	4	Industrial debris	Slag	Undated
2016	U/S	226	3	Pottery	Brown-glazed red earthenware (coarseware)	Late seventeenth – early twentieth century
2016	U/S	226	3	Pottery	White-glazed white earthenware	Late eighteenth – twentieth century
2017	U/S	227	2	Pottery	Brown-glazed white earthenware	Late seventeenth – early twentieth century
2017	U/S	227	6	Pottery	Brown-glazed red earthenware (coarseware)	Late seventeenth – early twentieth century
2017	U/S	227	9	Pottery	White-glazed white earthenware	Late eighteenth – twentieth century
2017	U/S	228	2	Glass	Green (bottles)	Eighteenth – twentieth century
2019	U/S	229	2	Pottery	Red earthenware	Late seventeenth – early twentieth century
2019	U/S	229	1	Pottery	Industrial stoneware	Eighteenth – twentieth century
2019	U/S	229	1	Pottery	White-glazed white earthenware	Late eighteenth – twentieth century



Field	Context	Object record	Qty	Material	Description	Date
2019	U/S	229	2	Pottery	Brown-glazed white earthenware	Late seventeenth – early twentieth century
2019	U/S	230	1	Iron	Drain pipe?	Nineteenth - twentieth century
2019	U/S	230	1	Brass	Bullet case	Twentieth century
2019	U/S	231	1	Glass	Colourless (bottle)	Eighteenth – twentieth century
2019	U/S	232	1	Stone	Slate pencil	Post-medieval
2019	U/S	232	1	Stone	Chert chunk or core	Undated
2020	U/S	233	2	Pottery	White-glazed white earthenware	Late eighteenth – twentieth century
2027	Topsoil	253	62	Pottery	White-glazed white earthenware	Late eighteenth – twentieth century
2027	Topsoil	253	6	Pottery	Porcelain	Late eighteenth – twentieth century
2027	Topsoil	253	1	Pottery	Red earthenware	Late seventeenth – early twentieth century
2027	Topsoil	253	16	Pottery	Brown-glazed red earthenware (coarseware)	Late seventeenth – early twentieth century
2027	Topsoil	253	1	Pottery	Industrial stoneware	Eighteenth – twentieth century
2027	Topsoil	253	2	Pottery	Brown-glazed red earthenware (coarseware)	Late seventeenth – early twentieth century
2027	Topsoil	254	5	Clay tobacco pipe	Stems	Seventeenth – early twentieth century
2027	Topsoil	255	4	Glass	Flat (window pane)	Post-medieval
2027	Topsoil	255	2	Glass	Colourless (bottles)	Eighteenth – twentieth century
2028	U/S	234	1	Pottery	Brown-glazed red earthenware (coarseware)	Late seventeenth – early twentieth century
2029	U/S	235	1	Pottery	Slip-decorated buff-bodied tableware	Late seventeenth century – early eighteenth century
2029	U/S	235	3	Pottery	Brown-glazed red earthenware (coarseware)	Late seventeenth – early twentieth century
2857	U/S	256	3	Pottery	??	Medieval?
2857	U/S	256	1	Pottery	Brown-glazed red earthenware (coarseware)	Late seventeenth – early twentieth century
2857	U/S	257	3	Stone	Flint	Undated
7452	U/S	258	20	Pottery	Brown-glazed red earthenware (coarseware)	Late seventeenth – early twentieth century
7452	U/S	258	1	Pottery	Red earthenware	Late seventeenth – early twentieth century
7452	U/S	258	7	Pottery	White-glazed white earthenware	Late eighteenth – twentieth century

Field	Context	Object record	Qty	Material	Description	Date
7452	U/S	259	2	Clay tobacco pipe	Stems	Seventeenth – early twentieth century
7452	<b>1031</b>	217	4	Pottery	Brown-glazed red earthenware (coarseware)	Late seventeenth – early twentieth century
7452	1031	217	2	Pottery	Industrial stoneware	Eighteenth – twentieth century
7452	1031	217	1	Ceramic	Unidentified	Post-medieval
7452	1032	216	1	Pottery		Medieval or prehistoric?

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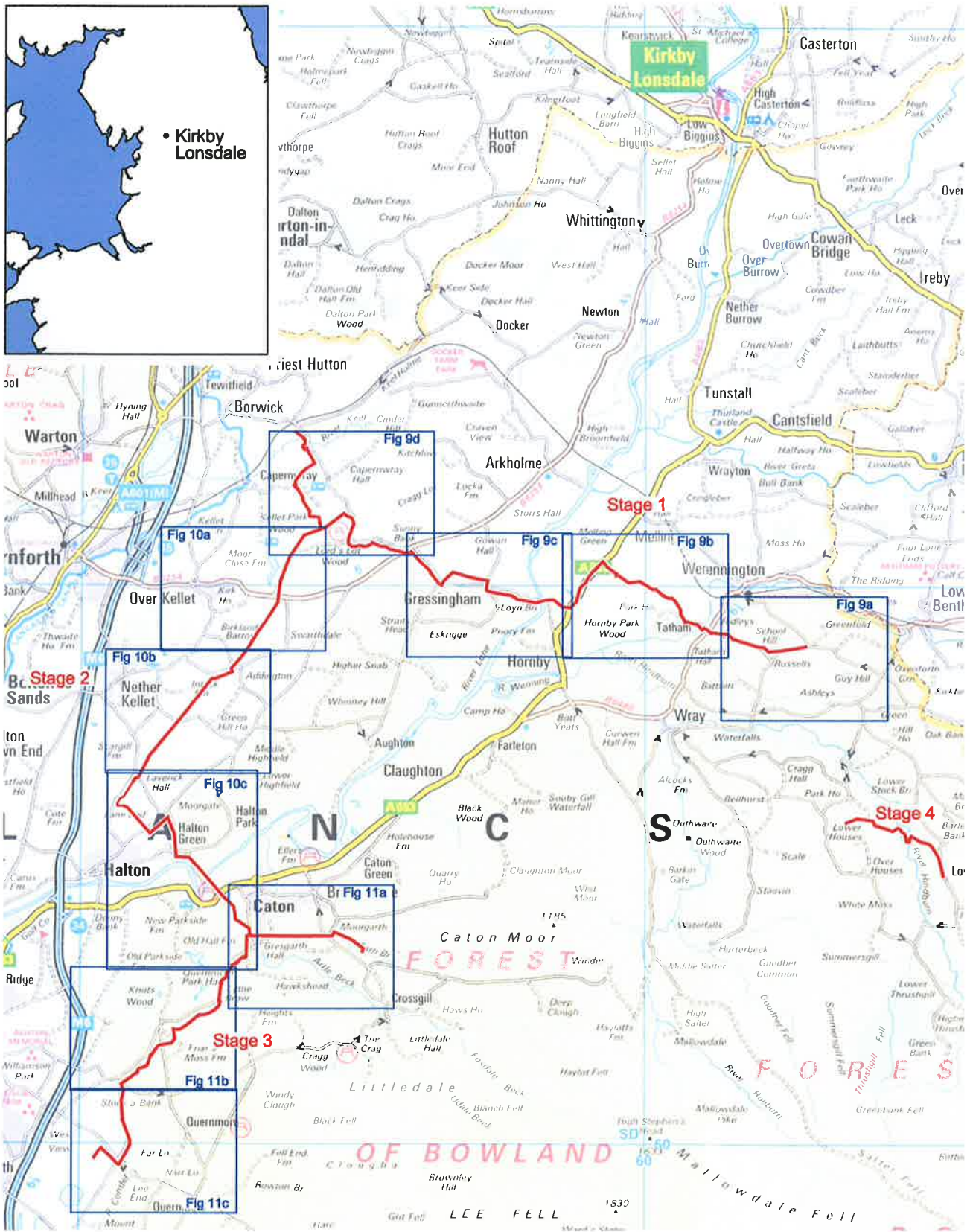
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Plate 7: Timber 43, Field 50



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 Pipeline

0 2500m



Figure 1: Location Map

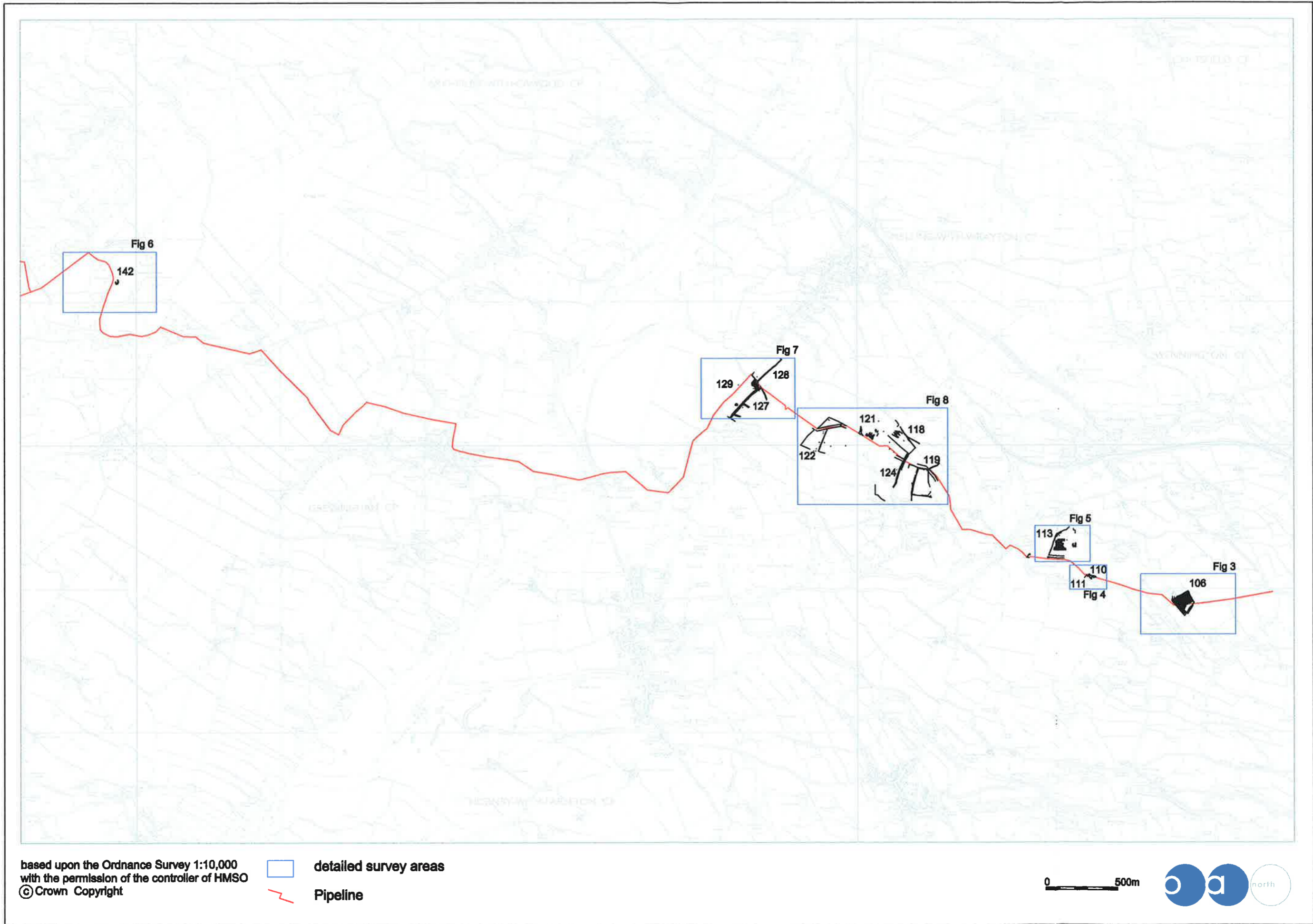


Figure 2 : Key Map for Topographic Survey

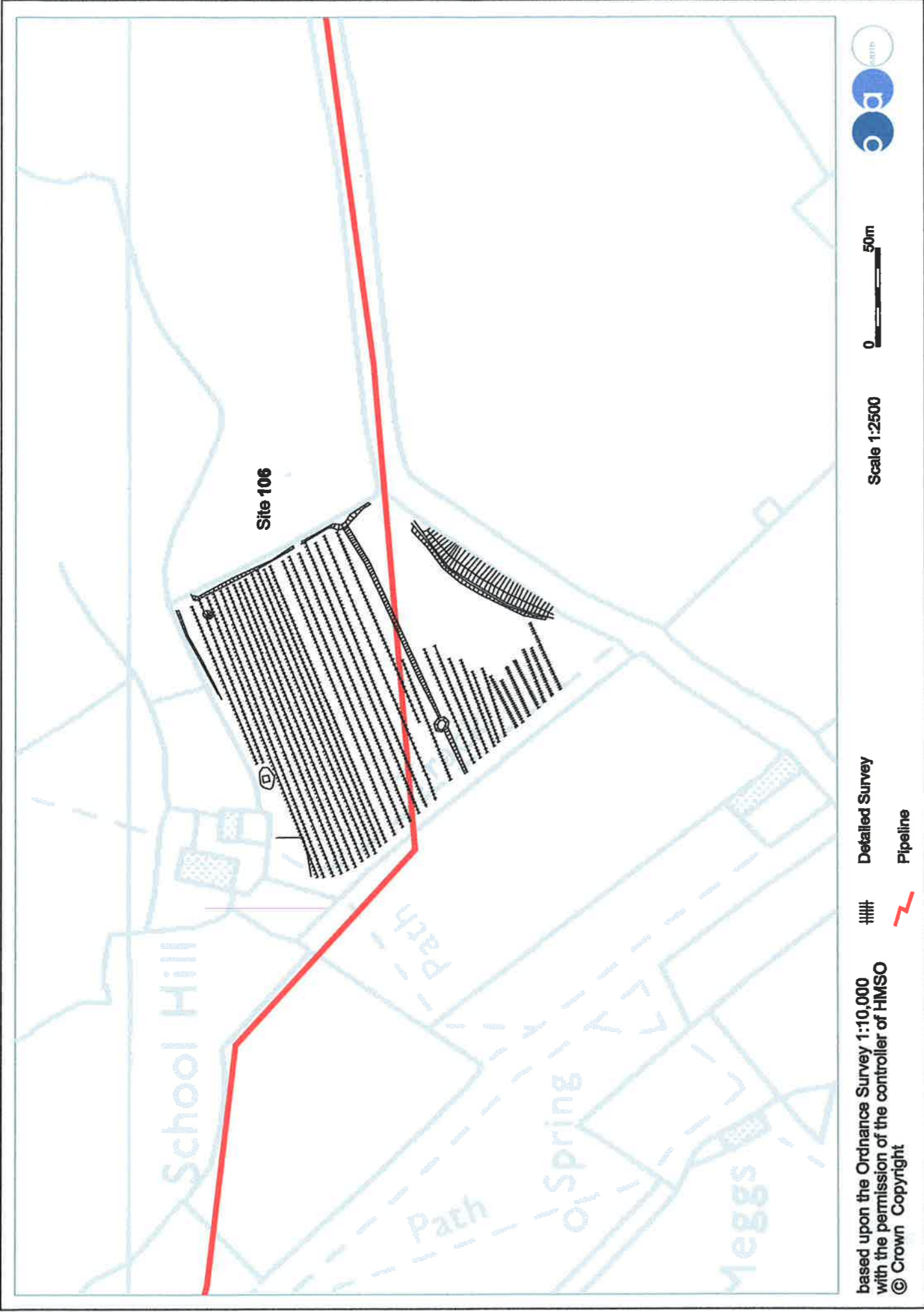


Figure 3 : Plan of site 106

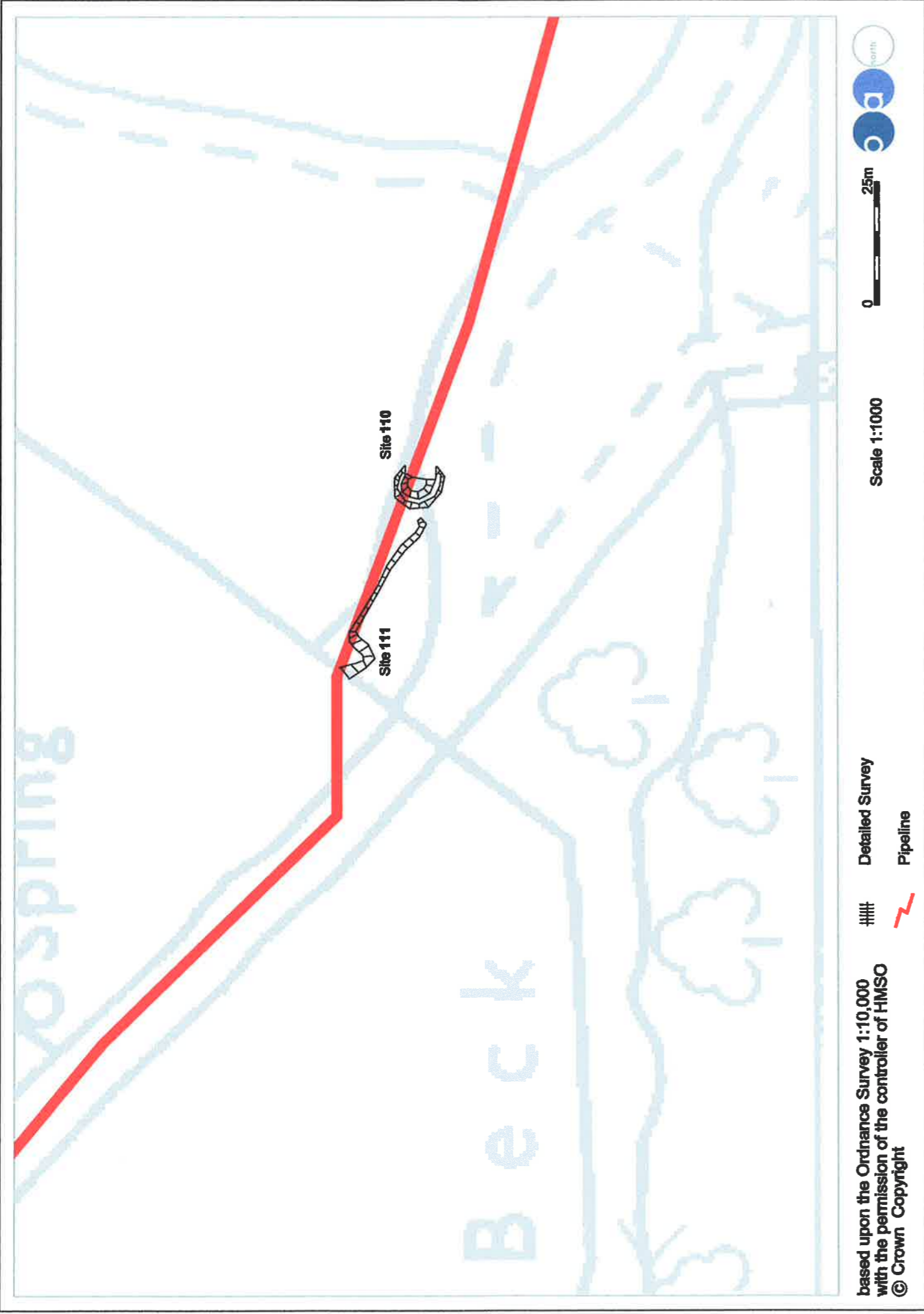


Figure 4 : Plan of sites 110 and 111

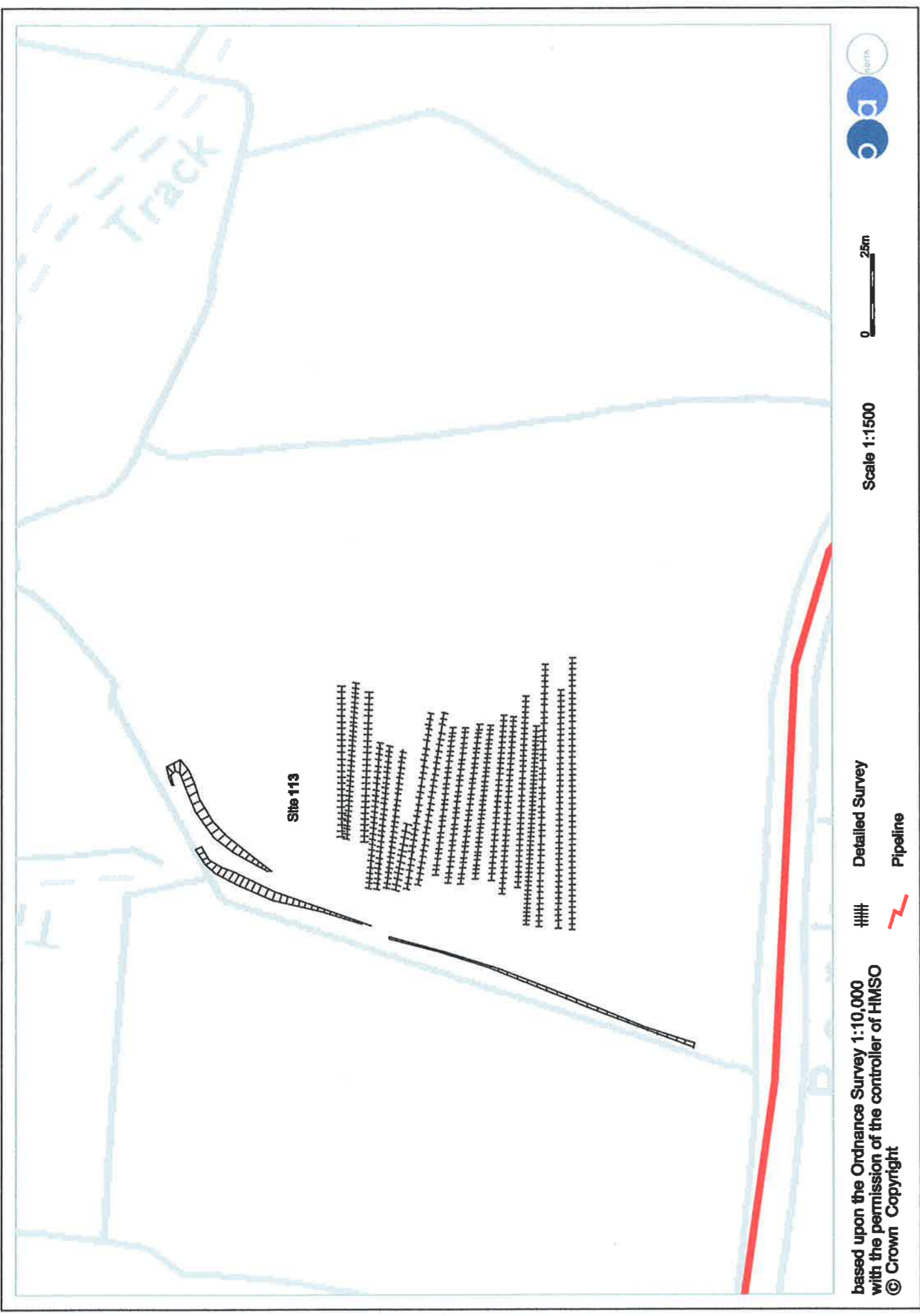


Figure 5 : Plan of site 113



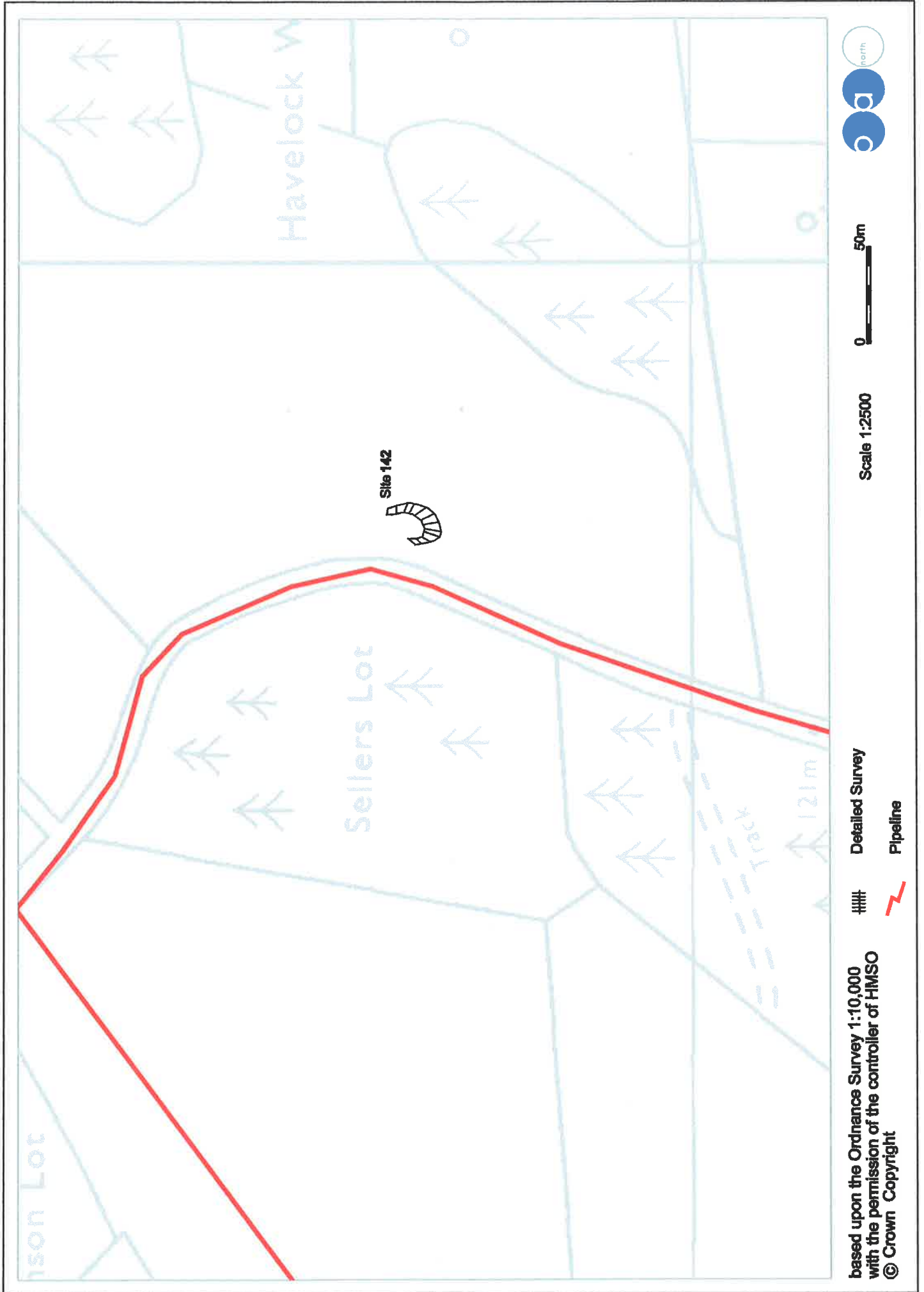


Figure 6 : Plan of site 142

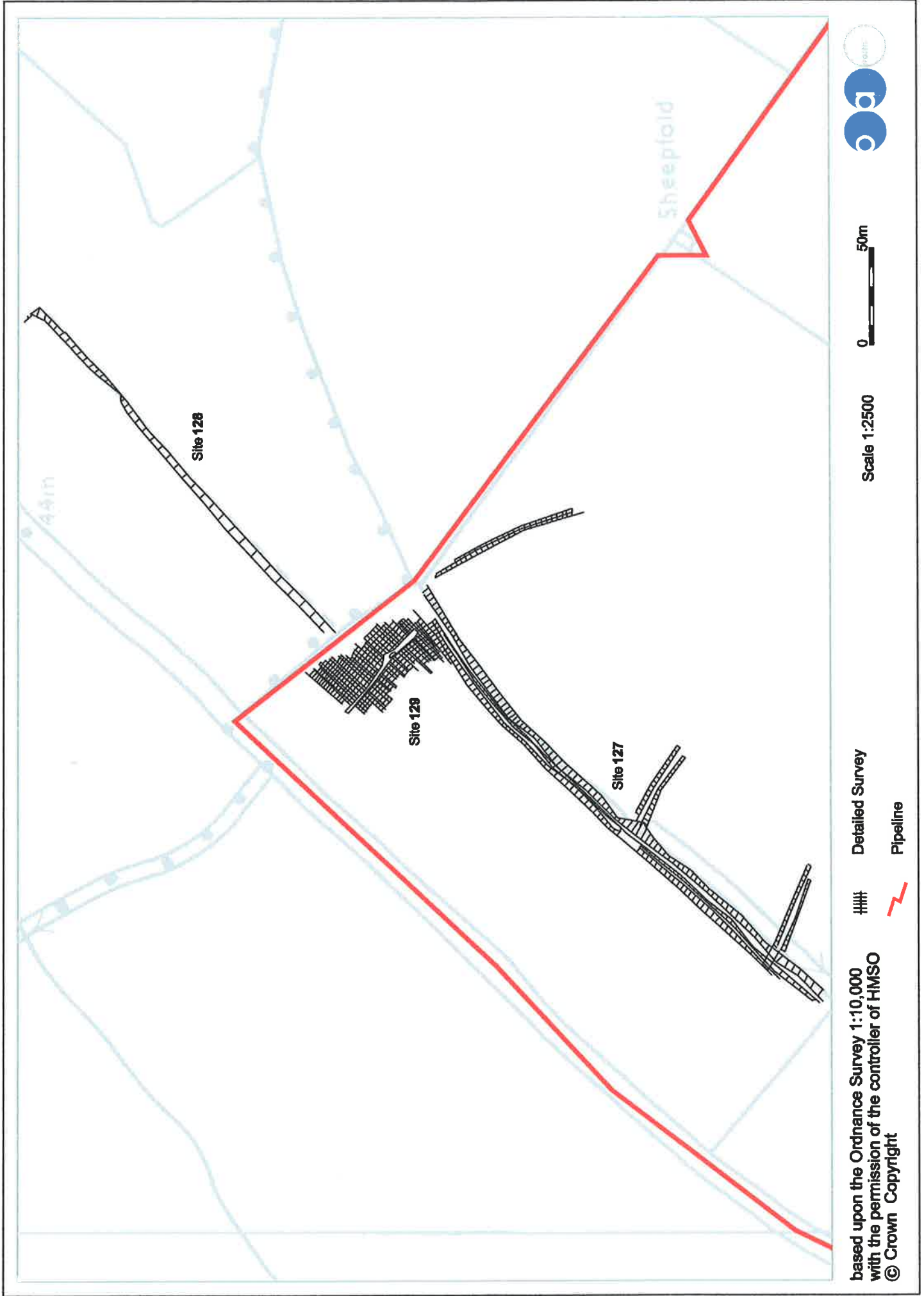


Figure 7 : Plan of sites 127, 128 and 129

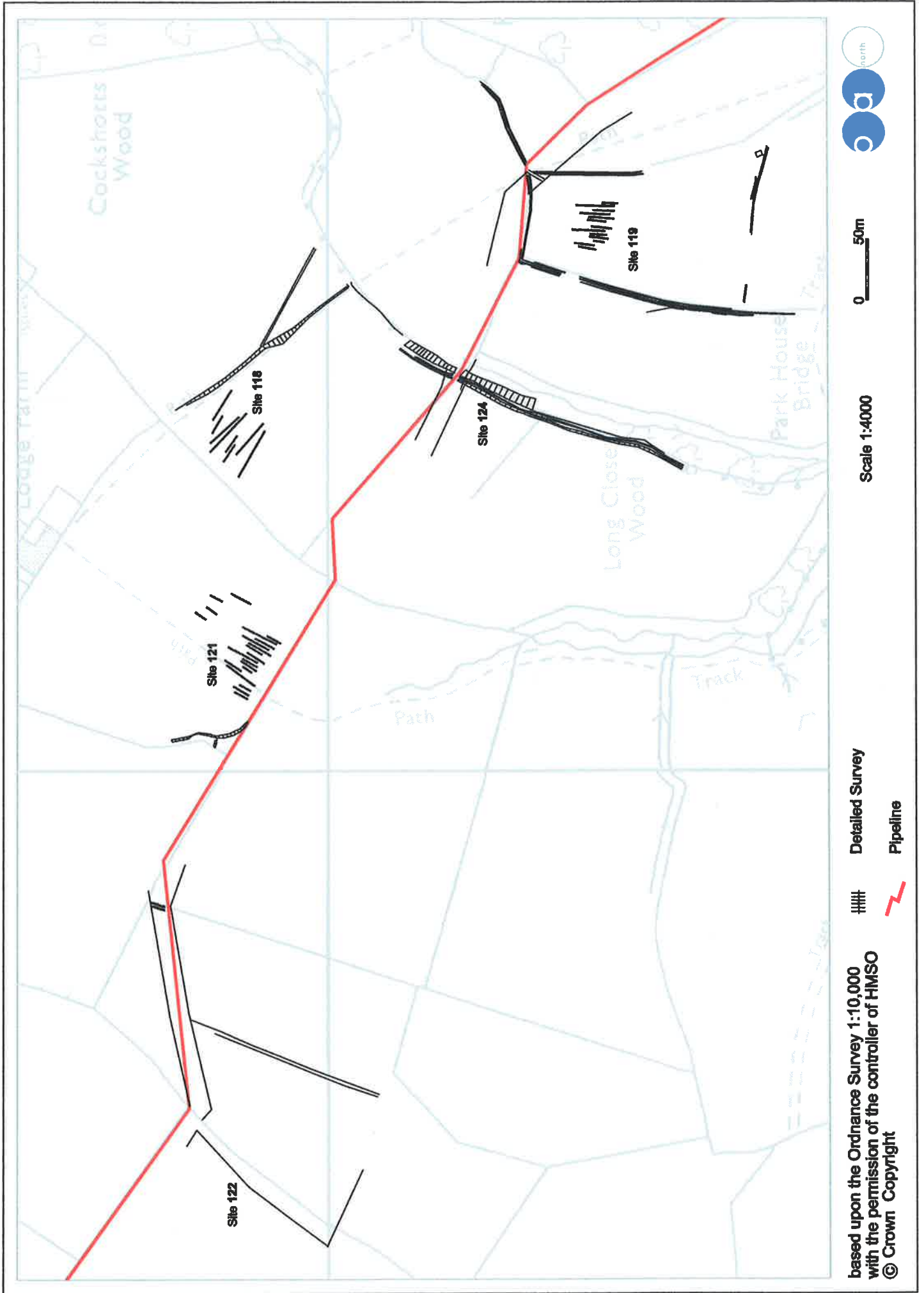


Figure 8 : Plan of sites 118, 119, 121, 122 and 124



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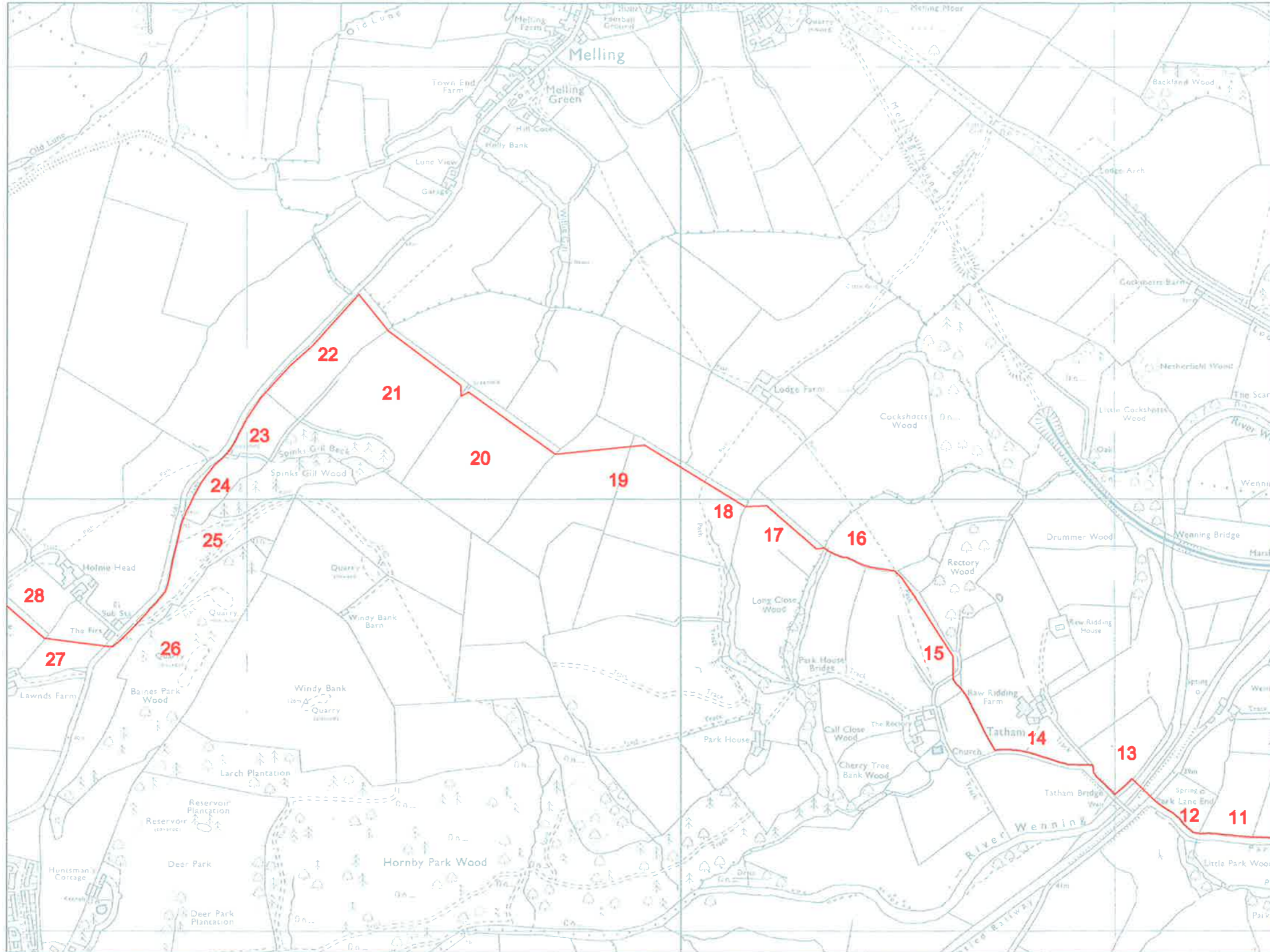
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 field number

8d  
8c 8b  
8a

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metres



Figure 9a : Plan of fields covered during Stage 1 Watching Brief



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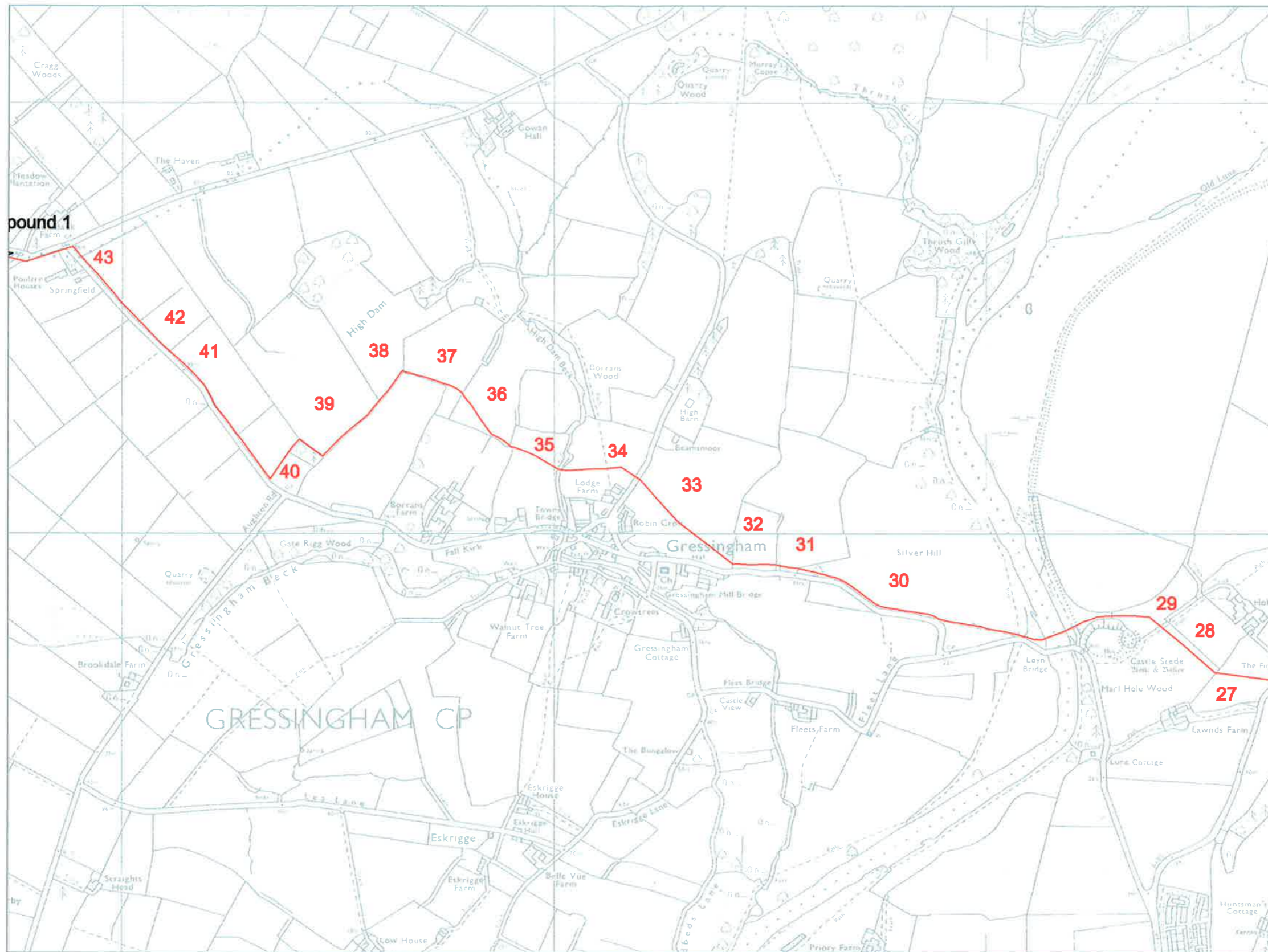
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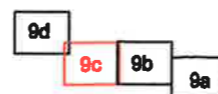


Figure 9b : Plan of fields covered during Stage 1 Watching Brief



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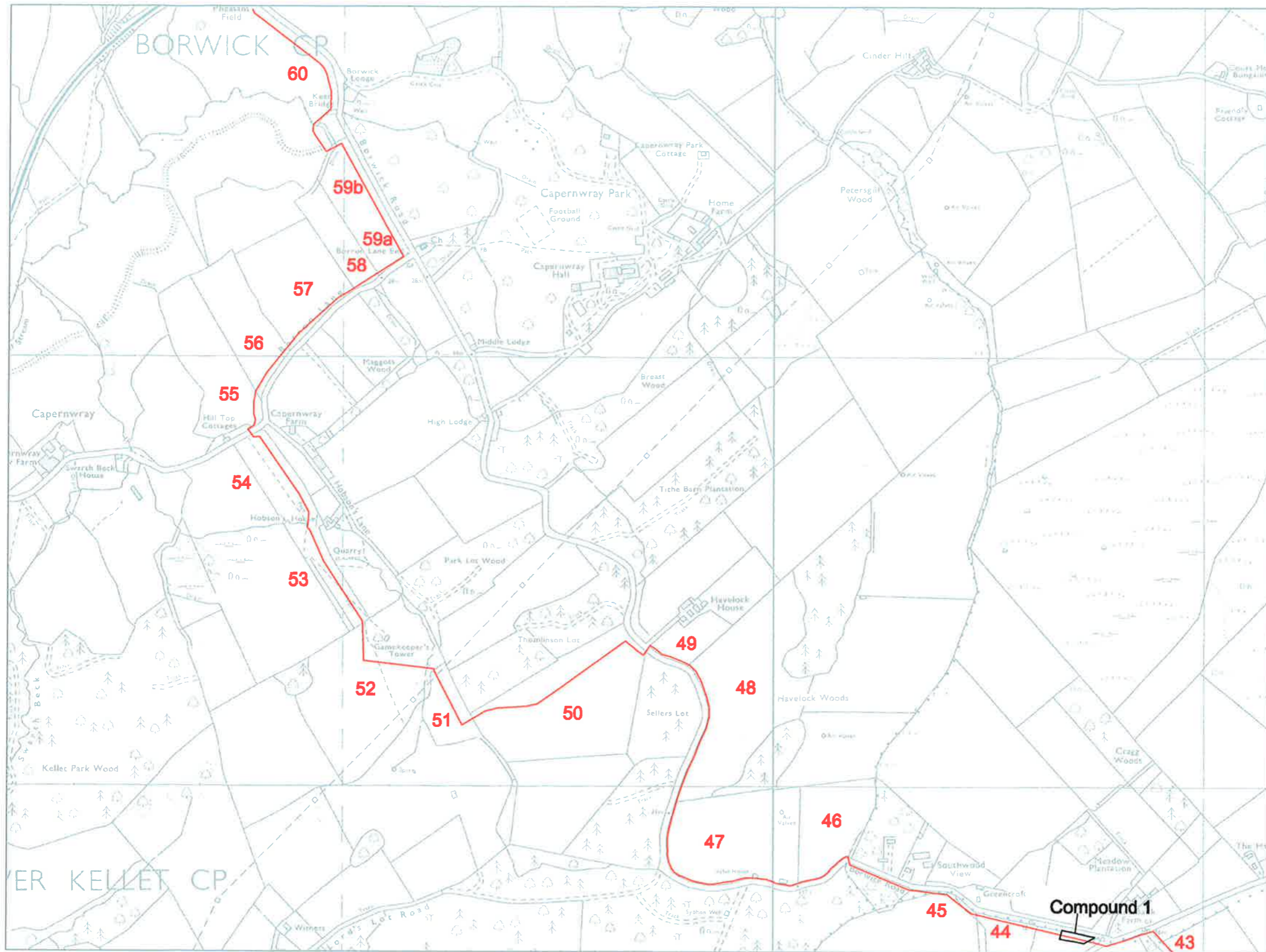
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




Figure 9c : Plan of fields covered during Stage 1 Watching Brief



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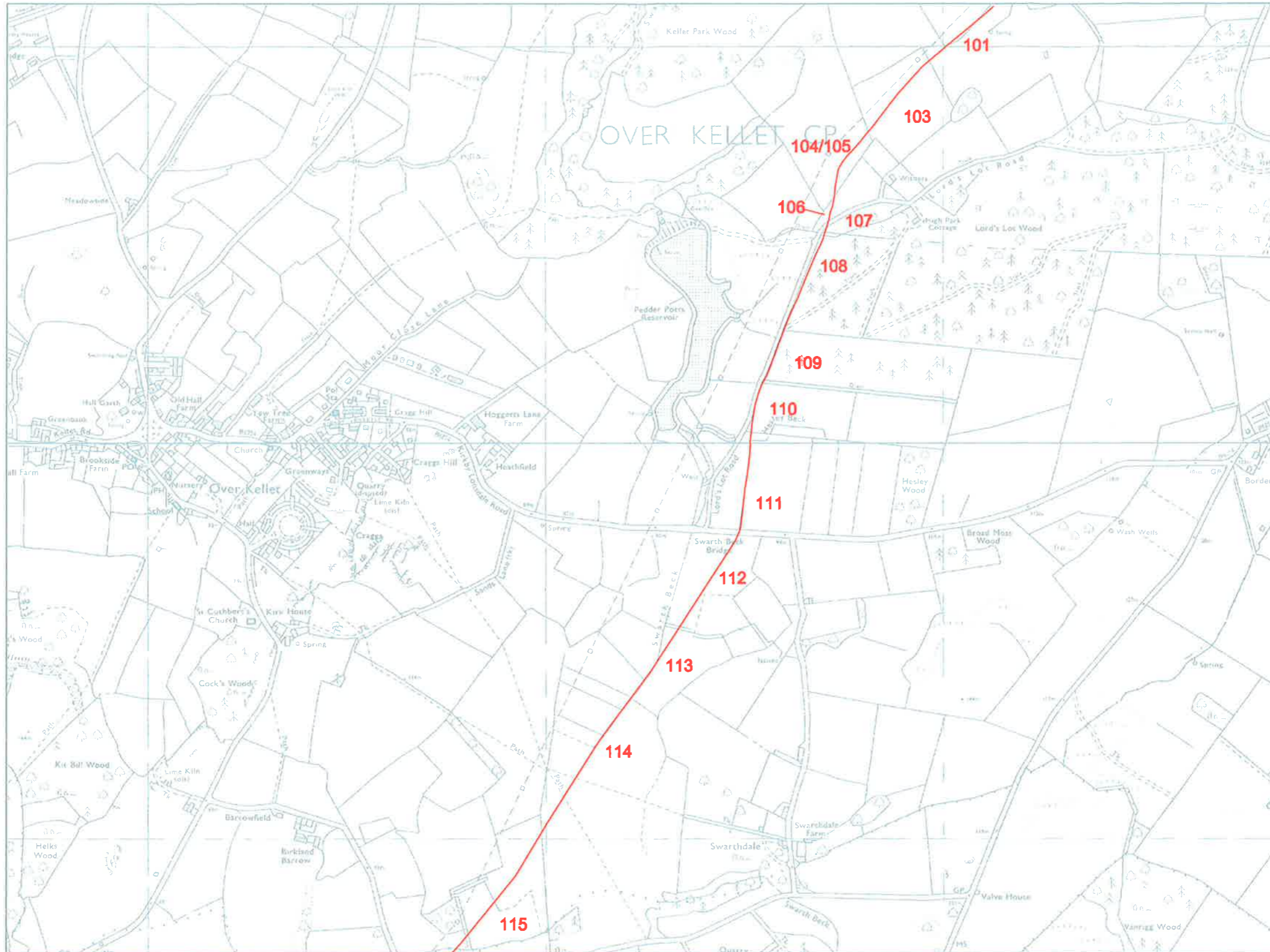
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metres



Figure 9d: Plan of fields covered during Stage 1 Watching Brief



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 pipeline  
 field number

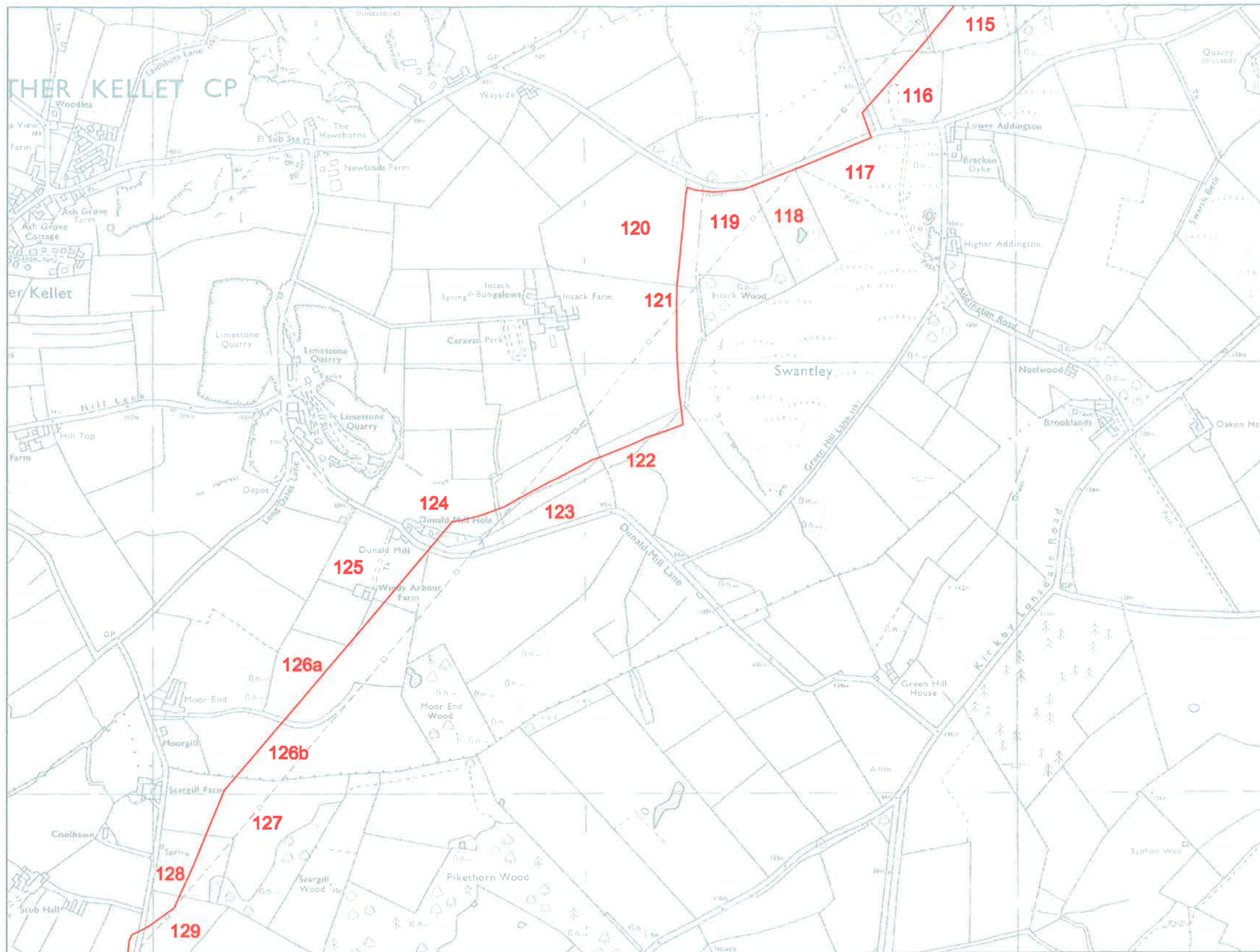
10a  
10b  
10c

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0 500  
metres



Figure 10a : Plan of fields covered during Stage 2 Watching Brief





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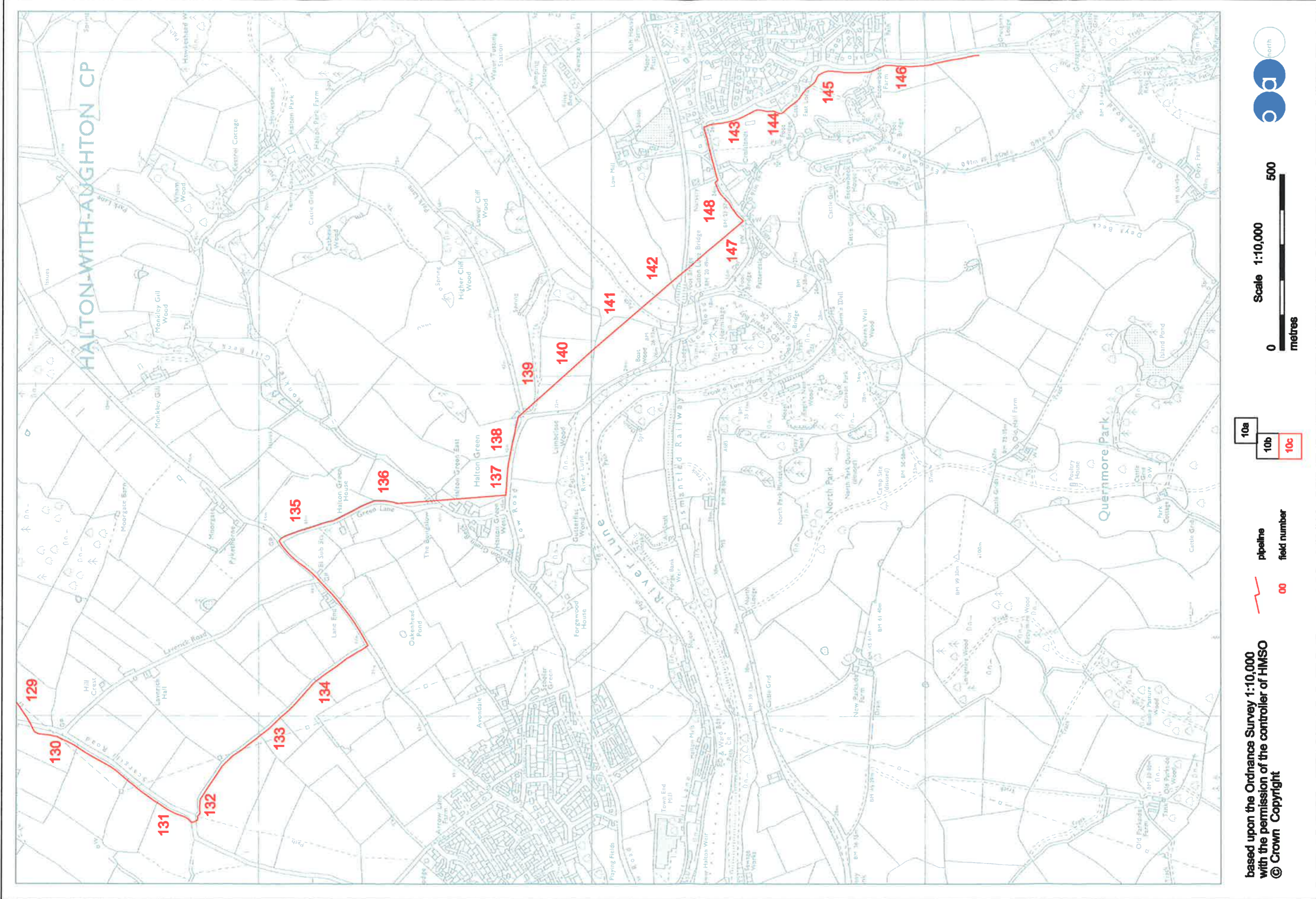
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 field number

10a
10b
10c

Scale 1:10,000  
0 500  
metres



Figure 10b : Plan of fields covered during Stage 2 Watching Brief



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10a  
10b  
10c

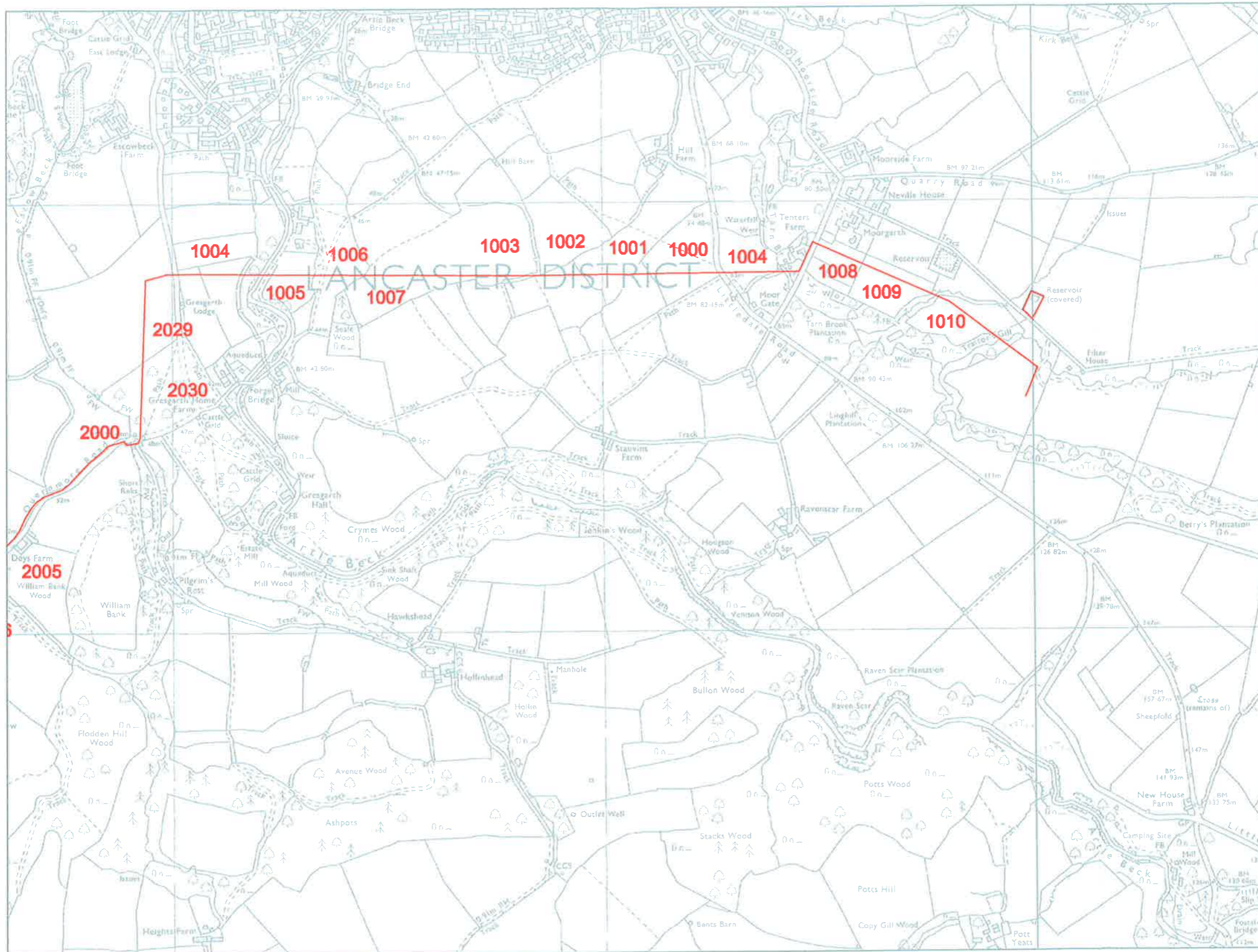
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field number

Scale 1:10,000

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Figure 10c : Plan of fields covered during Stage 2 Watching Brief



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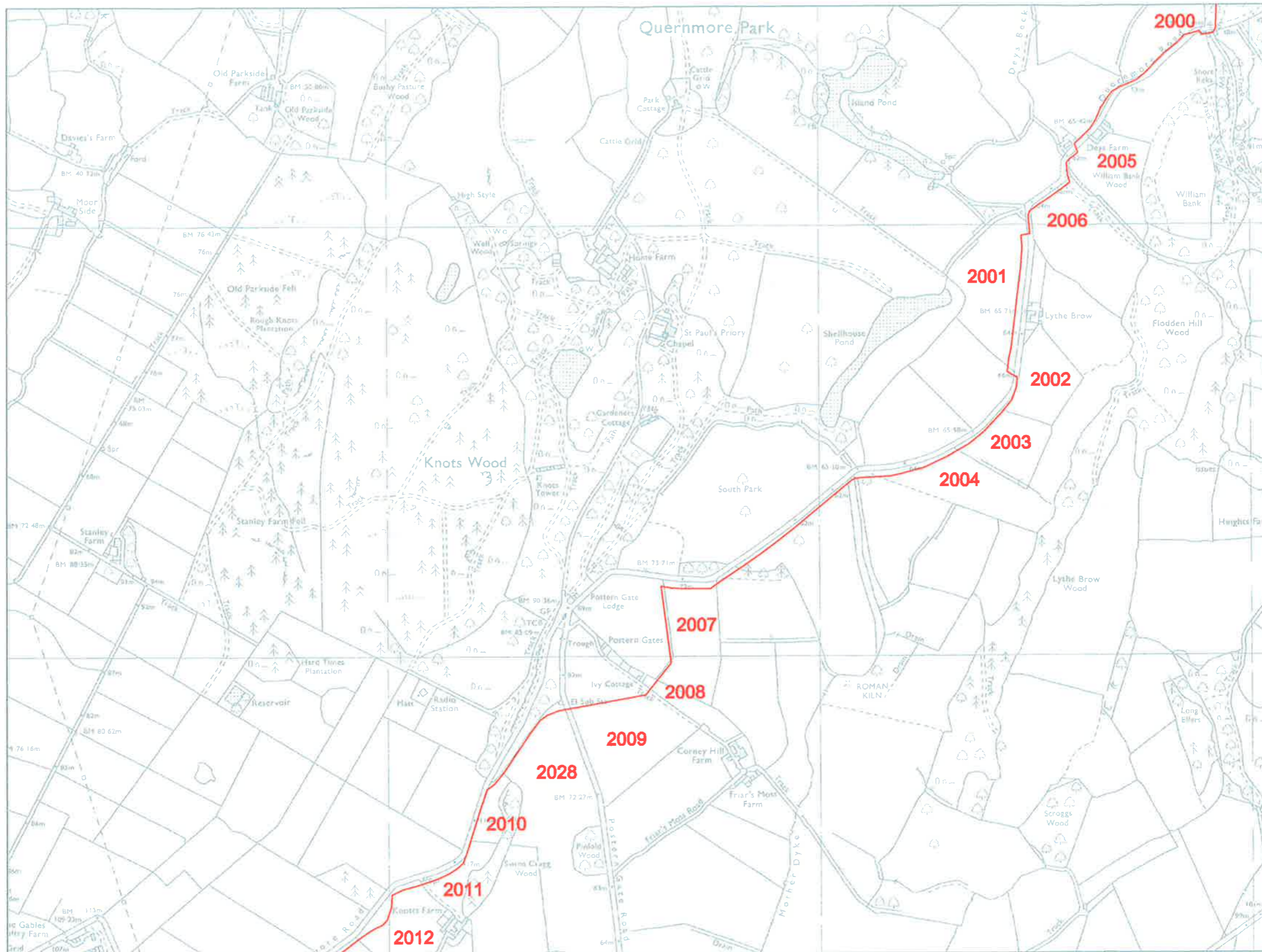
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metres






Figure 11a : Plan of fields covered during Stage 3 Watching Brief



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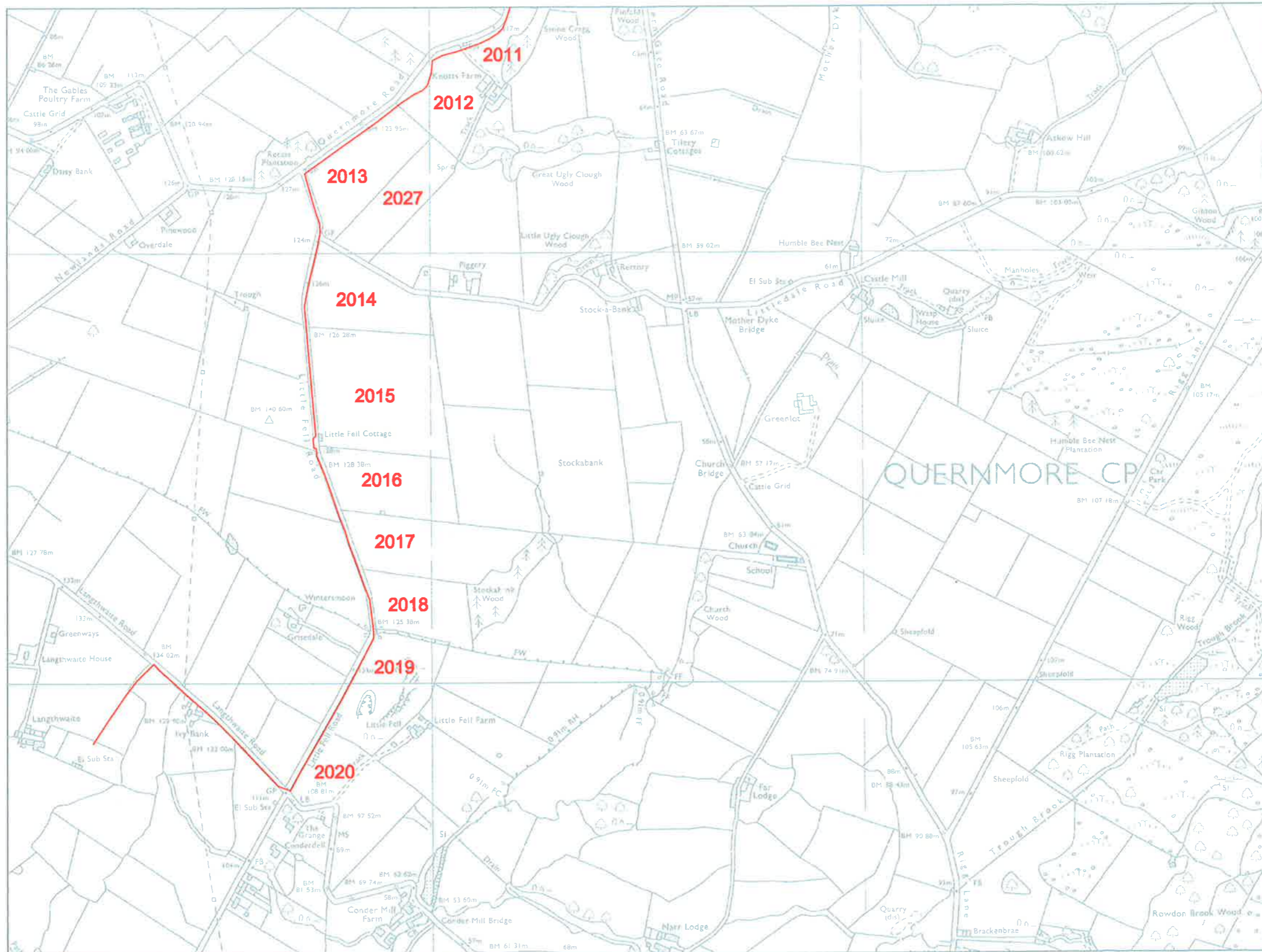
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 field number

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metres



Figure 11b : Plan of fields covered during Stage 3 Watching Brief



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 pipeline  
 field number

11b 11a  
11c

Scale 1:10,000  
0 500  
metres



Figure 11c : Plan of fields covered during Stage 3 Watching Brief



Plate 1: General View of Field 2

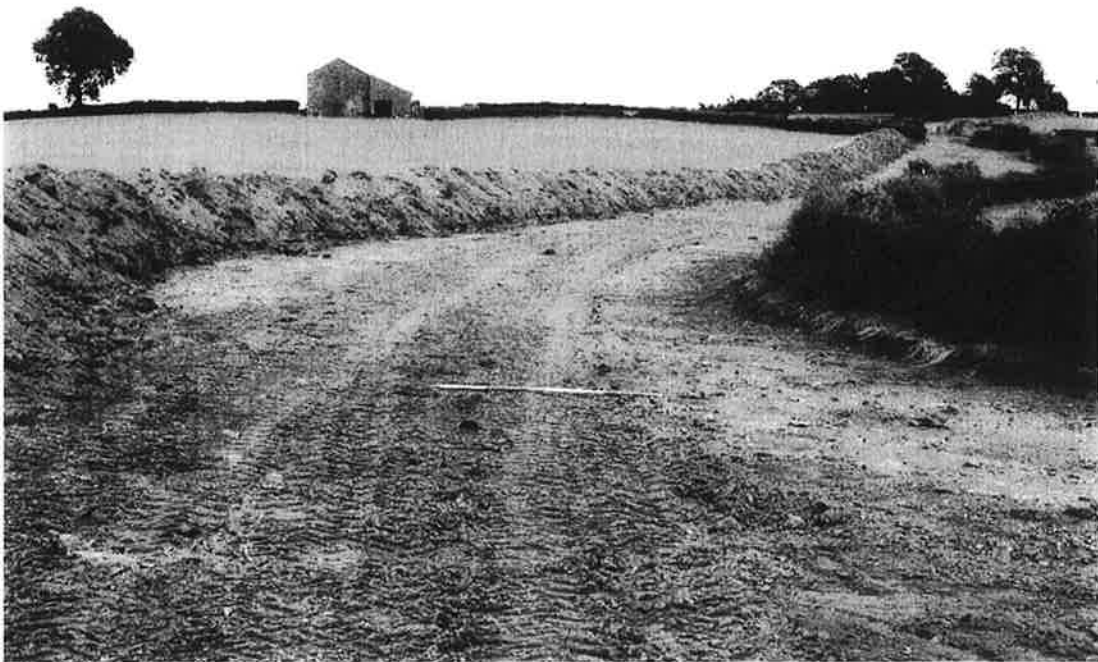


Plate 2: General View of Field 7

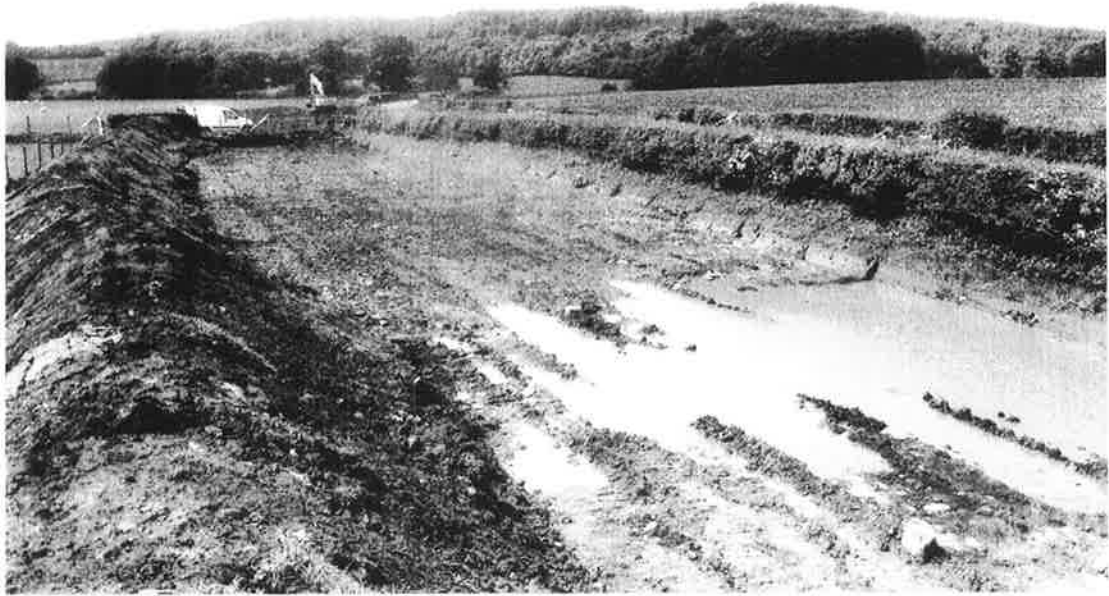


Plate 3: General View of Field 2004

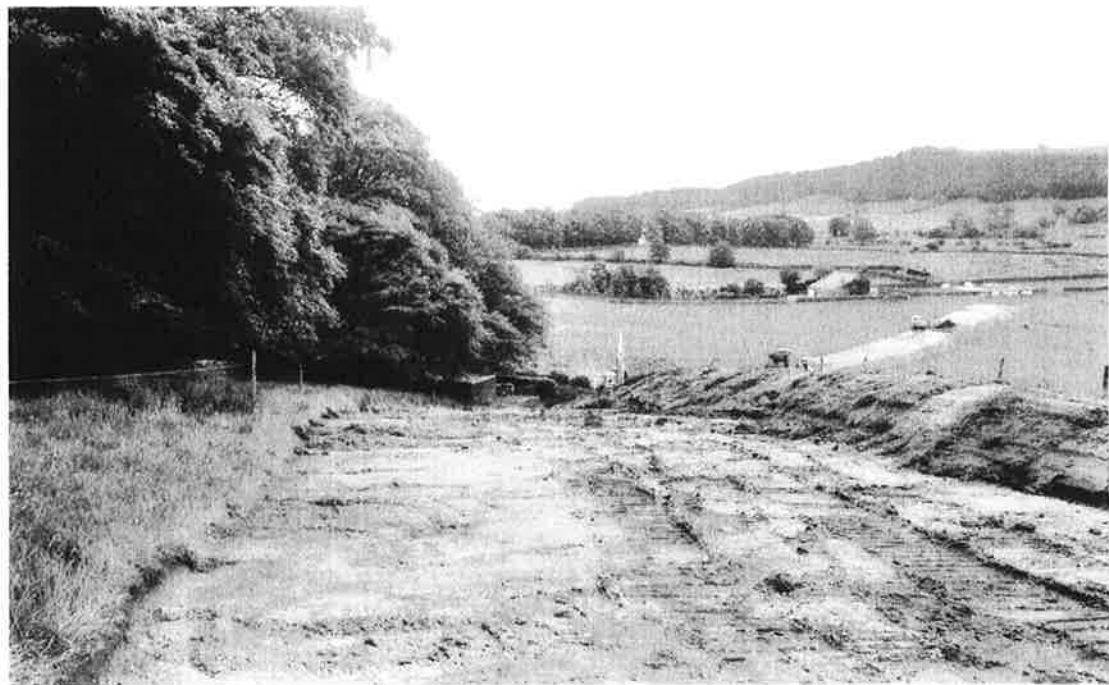


Plate 4: General View of Field 2007



Plate 5: Ditch *19*, Field 18

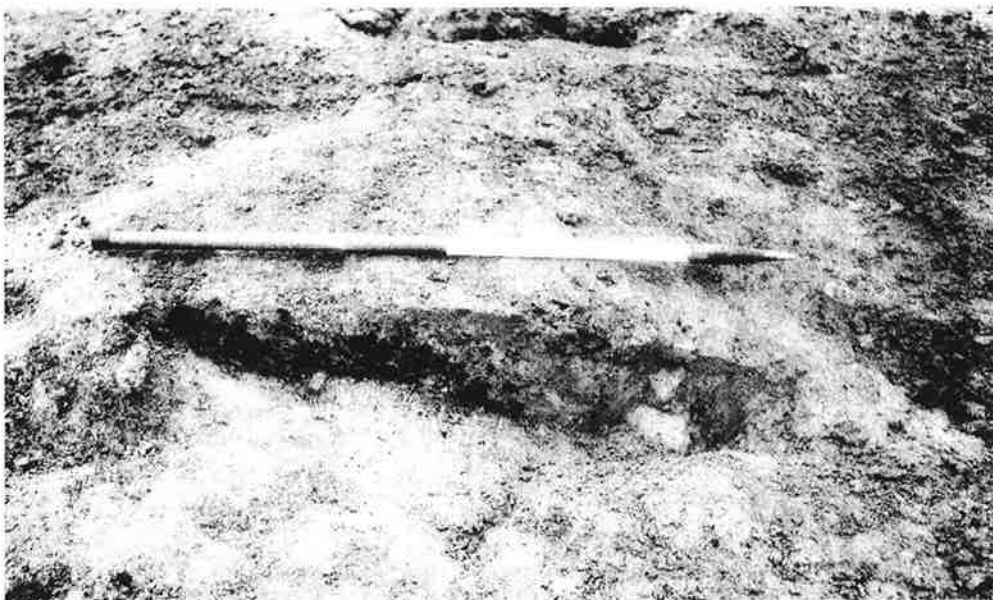


Plate 6: Bonfire *47*, Field 53



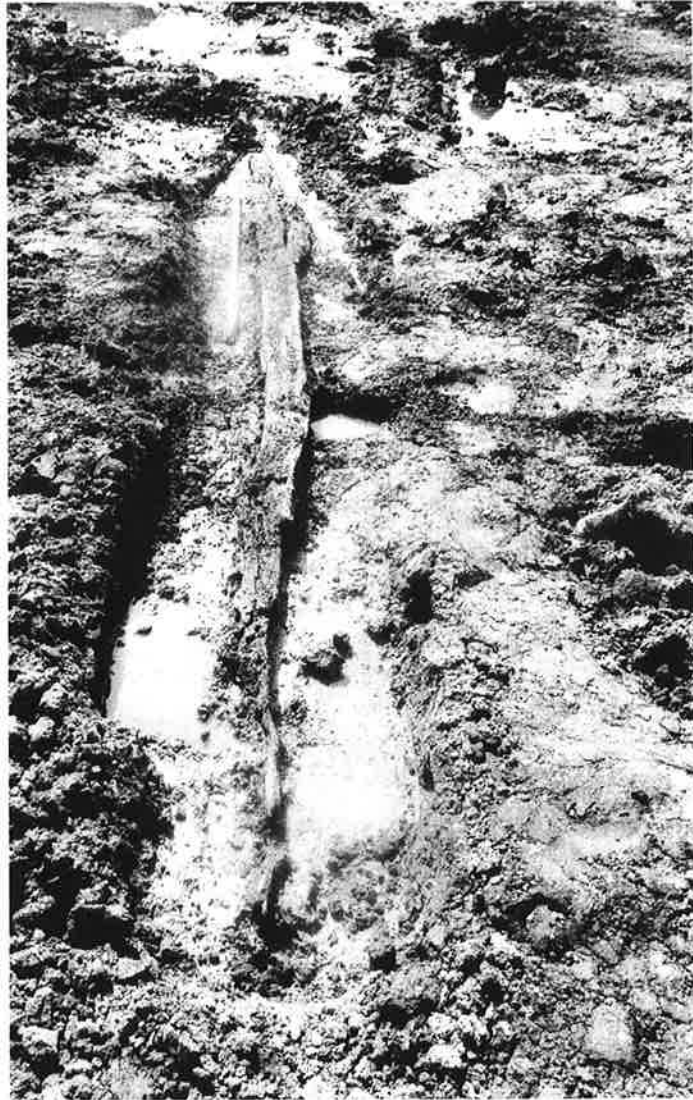


Plate 7: Timber 43, Field 50



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