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Shipton by Beningbrough Bypass

*Engineers Test Pits
Archaeological Watching Brief*

June 1993



**West Yorkshire
Archaeology Service**

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1. Report Summary

Client

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Objective

To assess the archaeological potential of the proposed bypass corridor by observing and recording test pits being excavated for the purpose of determining the engineering properties of the subsoil.

Method

Fifty two test pits were excavated by machine (Hymac) with a c. 0.6m wide toothless bucket. During machining the test pit was inspected for signs of archaeology. When necessary the test pit was widened to allow manual excavation and archaeological recording. When appropriate, a black and white photographic record was made of the observed archaeological features. In the test pits which did not contain archaeological deposits a record was kept of the dimensions of each test pit, its orientation and details of strata down to undisturbed geology.

Results

Only two test pits cut features which were undoubtedly archaeological in origin. The earliest was a ditch in Test Pit 15 which measured c. 1.6m in depth and an estimated 3m wide. It contained pottery of Roman date, slag and burnt material and was probably part of a known cropmark complex. A second ditch, which was probably open in post-medieval times, was cut by Test Pit 2 and may have been a component of an earlier medieval field system. No features were exposed in *Audby Field* where fieldwalking had produced much worked flint. Moreover, no evidence of the possible Roman road was seen.

Conclusion

Following an extensive archaeological assessment of the proposed road corridor only ephemeral traces of ancient occupation have been uncovered.

With the present proposed line of the bypass it would appear that the majority of archaeological work could be carried out as an extended watching brief in the early stages of road construction. Alternatively, if this were to interfere with the contractors' works then a stage of archaeological stripping might be time tabled prior to the commencement of any construction works.

Any scheme of archaeological works would require the agreement of the North Yorkshire Sites and Monuments Record Officer.

2. Introduction

This watching brief was preceded by a desktop survey and a programme of geophysical surveys and fieldwalking (Adams *et al.* 1993). The desktop survey initially identified areas of likely archaeological potential. This was followed by resistivity, magnetic susceptibility and gradiometer surveys and by fieldwalking which reinforced the findings of the desktop survey and produced new evidence. This watching brief was seen as the next stage in the evaluation of the archaeological potential of the bypass corridor. Specific points are listed below.

- A) An anomalous gradiometer reading suggested the possibility of early industrial activity (*op. cit.*, 8.5.4). Test Pit 32 was located at this point to see if there were remains of burning, hearths or any waste residues.
- B) The remains of a presumed medieval ridge and furrow system had been observed in the field centred on SE 560584. Test Pit 23 was positioned at right angles to one of the ridges to provide a section through it.
- C) An anomaly in the resistivity survey coincided with the possible course of a Roman road at SE 5612557650 (*op. cit.*, 8.7.1). Test pit 9 was located approximately where a proposed access road crossed the conjectured line of the Roman road.
- D) The course of the possible Roman road is unknown. However, north and south of Shipton, the present A19 could follow broadly the same alignment (*op. cit.*, 3.9). Road cores 10, 15 and 16 were deepened from 600mm to 1000mm and were archaeologically observed in the hope of finding evidence of either the *agger* (foundation/construction) or the *vallum* (roadside ditch) of the Roman road.
- E) The hypothesis that *Audby Field* is a relict part of a 'magnate farm' (*op. cit.*, 8.5.1) of probable early medieval date meant that, although the farmstead of this was likely to have been near East Lane and outside the proposed corridor, there was the possibility of early medieval remains in this field. Two additional test pits, 34A and 34B, were introduced in the hope of locating early medieval features.
- F) In *Audby Field* the correlation of a high concentration of worked flint, recovered through fieldwalking, and the high magnetic susceptibility (*op. cit.*, 8.5.3) suggested prehistoric activity, though no below ground traces have been shown by gradiometer. The proposed test pits, with the two additional ones referred to above, were deemed sufficient for evaluation purposes.
- G) Cropmarks known from aerial photography (*op. cit.*, Map 2) are outside the proposed corridor but their extent is unknown (*op. cit.*, 8.6). Disappointing gradiometer results (*op. cit.*, 8.6.1) meant that archaeological observation of the test pits was necessary.

3. Methodology

The test pits were excavated to the width of a single bucket (0.6m), and to a depth of 3.5m. The length of the test pits varied between *c.* 3m and *c.* 4.5m depending on the underlying geology. Machining ceased when archaeological features were observed to allow recording or manual excavation as appropriate. In cases where excavation by hand would be time consuming the machine moved to another test pit. To comply with health and safety regulations manual excavation ceased at a depth of 1.2m. Where appropriate test pits were widened to two or three buckets' widths, *c.* 1.2m or *c.* 1.8m. In test pits without archaeological traces a record was kept in a notebook of the length, orientation and, depth of the pit together with a brief description of the ploughsoil and the natural geology. Archaeological deposits were recorded on context sheets and sketch sections and plans were drawn. For the plans it was assumed that the machined test pit was rectangular. A summary record for each test pit is presented in Appendix 1. Test pits which cut archaeological remains or which were inspected at more length are reported in Section 4. The locations of the test pits are shown on Figure 1.

Road cores were taken with a 140mm diameter diamond tipped rotary borer driven by an electric motor. When this had removed the tarmac surface, a Dutch Auger was used to continue, where possible, to a depth of 1m. Bore hole logs were kept in a notebook and are presented in Appendix 2. The locations of archaeologically observed road cores are shown on Figure 1.

4. Results

Test Pits discussed in this section are shown by red squares on Figure 1.

Test Pit 2

A northeast-southwest oriented ditch (Fig. 2, F301) was observed in the southern end of this test pit. A total length of *c.* 1.9m of the feature was exposed, of which 0.8m was excavated manually. The excavated section was *c.* 2.5m wide and 1.3m deep, with a U-shaped profile. Its two fills, 302 and 303, were of a similar texture and colour, being a grey brown sandy clay loam, and both were heavily iron stained. The lower fill (302) was more stoney than the upper fill (303). There was no evidence to suggest deliberate back-filling and the ditch seems to have gradually silted up. The iron staining was probably caused by fluctuations of the water level in the ditch while it was silting up. No finds were recovered from fill 302 but fill 303 contained hand made bricks or tiles of probable medieval, or post-medieval, date and a sherd of Roman oxidised ware which is probably residual.

Test Pit 5

Approximately 3m of a northeast-southwest running gully (Fig. 3, F401) was observed in this test pit. A 0.5m section was excavated through this by hand. The gully measured 0.31m wide and 0.20m deep and had vertical sides and a horizontal base. The only fill (402) was a grey-brown sandy loam containing patches and lenses of clay. The natural geology was sand which lay at a depth of 0.2m on top of clay. Gully F401 was cut through the sand to clay. A drainage ditch would probably continue deeper into the clay although, to the south of this test pit there is a drainage ditch, to which this gully could have been a tributary. There were no finds to date this gully and its function is unknown.

Test Pit 9

After removing the ploughsoil potential archaeological features were revealed. As discussed in Section 2B, above, this test pit was located near the line of the possible Roman road. A second test pit was excavated at right angles to the southern edge of the initial test pit to allow engineering investigations to continue uninterrupted. There were no archaeological features in the second test pit. The features observed in the initial test pit turned out to be four field drains.

Test Pit 15

After the discovery of a ditch at a depth of 0.75m this test pit was widened to 1.8m. Finds recovered during machining and while cleaning by hand were attributed to context number 204. Ditch F201 (Fig. 4) ran roughly north to south for an exposed distance of 3m. A 0.6m long segment of the ditch was excavated by hand and recorded in detail to a depth of 1.2m. Further machining established the ditch's depth to be c. 1.6m. Its profile was U-shaped, with sides sloping at c. 45°. The slope of the upper ditch sides was much shallower, probably the result of erosion before the ditch had completely filled up. Its lower fill (202), which contained quantities of charcoal and stones, was a grey silt/loam with c. 10% red-brown mottles. The upper fill (203) was a yellowish brown clay that had similar red-brown mottles to those in fill 202. The mottling in both fills was probably the result of waterlogging in the ditch after the fills had formed. Both fill 202 and the general clearance context (204) produced Roman pottery. This pottery is judged to have come from a minimum of four vessels. Fill 202 also produced a possible Roman tile fragment and a small fragment of slag. A bulk sample from fill 202 was both sieved and floated in a Siraf Tank. The flotation produced fragments of charcoal (not yet identified) up to 15mm in size.

Test Pit 23

This test pit was positioned over a ridge in a relict ridge and furrow system. Excavation was temporarily stopped at a depth of c. 0.5m to allow archaeological inspection to take place. A modern land drain ran through the middle of the test pit and so the section could not be recorded. The modern ploughsoil was a 0.28m deep brown sandy clay loam. Below this was a 0.10m thick yellow clay mottled in equal proportions with brown sandy clay loam. This latter deposit had the appearance of a mixture of natural clay and topsoil. Below this was a possible buried soil measuring c. 70mm in depth. This was a grey, sandy clay loam which in turn gave way to a natural yellow clay.

Test Pit 32

This test pit was widened to c. 1.2m after a possible feature was observed at its northern end. Immediately after machining water started to flood the test pit making observation difficult. The possible feature ran from east to west, with a depth of 0.7m. Its fill was a grey clay loam with patches of clay. It contained bricks and a modern lock and at its deepest point a hole could be felt running east. The modern fill, the flooding and the hole in the edge of the test pit suggested that this feature was a part of a field drainage system. This conclusion seems to be confirmed by an area of c. 20m by 30m adjacent to the test pit where crops are not growing and the soil shows signs of frequent waterlogging.

Test Pit 34

After removing ploughsoil to a depth of *c.* 0.25m a possible archaeological feature was observed (Fig. 3, F101). The test pit was subsequently widened to 1.2m. Feature F101 was a shallow scoop measuring *c.* 1.0m long, 0.5m wide and 0.2m deep. Its major axis was aligned northeast to southwest. Its only fill (102) was a loose brown fine sandy loam containing occasional small stones. There was a very pale brown sandy lens at the top of this fill. As the natural geology is fine sand, which can blur the boundaries of features, a box section was excavated through this feature to confirm the above dimensions. The only finds from fill 102 are a fragment of brick and a piece of cinder or slag. This test pit was *c.* 2m from the edge of the field and it is possible that scoop F101 was caused by a plough digging more deeply when turning.

Test Pit 47

The plough soil was removed to reveal a mixed clay/clay loam deposit 1.6m deep, containing fragments of field drain, brick and a small fragment of modern glazed pottery. This modern disturbance was possibly connected to land drainage, as a possible land drain was found 1.7m below topsoil in Test Pit 43. No archaeological features were observed.

Test Pit 49

This exhibited a typical profile of a stagnopodzol (Limbrej 1975, 142-5).

Road cores 10, 15 and 16

The three road cores were broadly similar. Beneath a modern tarmac surface, of varying depth, was a layer of hard-core consisting of stone chippings. Below this was natural geology. There was no suggestion of make-up deposits of any antiquity from the cores observed.

5. Discussion

5.1 The short length of ditch F201 excavated produced pottery from a minimum of four vessels and considerable charcoal. The pottery from the fill of the ditch probably dates to the 1st or 2nd Century AD (Rush pers. com.). One particularly interesting sherd is the fragment of grey ware lid which is possibly from a cooking vessel, ceramic lids are not common in the Roman period. This lid, combined with the large sherd of oxidised ware from a possible flagon and the charcoal recovered during floatation, might suggest that the ditch was near a site of domestic occupation. The feature is very likely to be associated with the cropmarks known from aerial photography and so may be part of a larger complex.

5.2 Ditch F301 is dated by the bricks or tiles that it contained to the late medieval or post-medieval period. This would be in agreement with the 1st edition Ordnance Survey map which shows a field boundary in approximately the same position and on the same alignment. It is possible that this ditch was part of the medieval field system.

5.3 Gully F401 provided no dating evidence and no real clue to its function. It was probably too shallow for a drainage ditch and contained neither ceramic field drains nor the flat stones usually used before pipes were widely introduced. No post-holes were observed along the *c.* 3m length exposed implying it was not a structural feature such as a beam-slot.

5.4 No sign of the possible Roman road was seen. Whether Test Pit 9 missed it, or if modern disturbance has removed all traces of it in this area, is not known. The road cores produced no evidence to suggest that the present A19 is built over a Roman road, although any metalled surfaces could have been robbed or cleaned away to put a uniform foundation down for the modern road.

5.5 The ridge and furrow system investigated shows some potential for environmental analysis. A buried soil survives under the ridge, and in the poorly drained clays of the area pollens may survive. However, the ridge and furrow in this field is thought to be quite late in date (*op. cit.*, section 7.4).

5.6 Stagnopodzols, such as the one observed in Test Pit 49 lead to waterlogging which in turn reduces the agricultural capacity of the land. The ridge of sand that runs northwest to southeast to the north of Shipton village would not be the well drained soil that first impressions suggest. It is possible that the land had been deforested in the past by people expecting easily cultivated fields away from the poorly drained clay, only to find that the ground became "sour" after a few years. Therefore, it is possible that the prehistoric activity in the area was short lived and without permanent settlements.

6. Recommendations

6.1 The results of the watching brief on the engineer's test pits enable a more precise statement of the archaeological potential of the route of the proposed road corridor to be made. A combination of the results from the desktop appraisal, field assessments and this watching brief will be used to highlight those areas of archaeological interest and to propose ways in which these should be tackled.

6.2 *Audby Field* (*op. cit.*, 7.1 and 8.5)

6.2.1 Evidence from the topsoil in the form of a concentration of worked flint combined with slightly enhanced magnetic susceptibility indicates that ploughing has either damaged or destroyed deposits of prehistoric date. Whether this destruction is partial or total has not been successfully established as Test Pit 37 did not locate any features in the vicinity of the circular anomaly postulated from the fluxgate gradiometer survey (*op. cit.*, 7.1b). A choice of two options may be considered to determine whether the remains of prehistoric features still survive.

- i. A number of trial trenches (e.g. five trenches with dimensions measuring 20m by 4m) could be excavated in this area prior to the construction of the road. Flexibility should be allowed in this case to expand any trenches within the threatened area should features be discovered.
- ii. The area could be stripped to archaeological standards during the early stages of road construction and enough time be allowed to investigate any features uncovered. This might be seen as an extended watching brief.

6.2.2 The oval enclosure formed by modern boundaries and roads is thought to be of early medieval origin based on the evidence of the field name *Audby Field* on the Ordnance Survey 1st Edition 6" map of 1850. As the proposed road corridor cuts this in two places it may be worth taking the opportunity to investigate whether any evidence of an early boundary still survives. This could easily be carried out as part of a watching brief during the construction of the road.

6.2.3 No indication of occupation of early medieval date was uncovered during the archaeological fieldwork (the only find diagnosed as dating to this period may in fact be a sherd of Roman Black Burnished Ware and therefore was wrongly identified [Rush *pers. com.*]). If any occupation of this period does exist it is unlikely to be situated beneath the proposed route of the bypass on the basis of the archaeological information uncovered to date. No further archaeological response should be expected with regard to the early medieval occupation of this area.

6.2.4 The fluxgate gradiometer anomaly originally interpreted as being an early industrial feature (*op. cit.*, 7.1b) turned out, after observations in Test Pit 32, to be due to flooding from a burst drain. No further action would be required regarding this.

6.3 The Roman Road (*op. cit.*, 7.3 and 8.7)

Test Pit 9 failed to locate any trace of the road. However, as the line of the Roman road is central to discussions regarding the later development of Shipton Village every effort should be made to try and confirm its existence, location and line. In this case an extended watching brief during construction of the access road adjacent to Test Pit 9 should suffice. Enough flexibility should be allowed to enable a reasonable amount of recording to be carried out although this would not cause too much of a delay if timetabled at an early stage of construction.

6.4 The Crop-Mark Site (*op. cit.*, 7.2 and 8.6)

Crop-marks from aerial photographs combined with surface finds suggest the presence of late prehistoric and Roman occupation on this site. Test Pit 15 uncovered a feature of probable Roman date which supports the above assumption. Unfortunately the lack of enhancement of magnetic susceptibility on the site means that fluxgate gradiometry was not successful in locating features.

From the evidence that has been obtained it appears that the crop-mark features lie to the west of the proposed line of the road. If this line were to be moved westward for whatever reason then a trial trenching evaluation may be required on the site. The present line of the road would only require an extended watching brief but the possibility of features extending eastwards to within this line should not be discounted and time allowed to record them.

6.5 Ridge and Furrow (*op. cit.*, 7.4)

The present line of the road corridor does not cut through any early medieval ridge and furrow. However, if it were to cut the ridge and furrow in field 2 (*op. cit.*, Fig. 1) then there is a possibility that an earthwork survey and environmental appraisal of any buried soils would need to be carried out before the features are destroyed.

6.6 Conclusions

With the present proposed line of the bypass it would appear that the majority of archaeological work could be carried out as an extended watching brief in the early stages of road construction. Alternatively, if this were to interfere with the contractors' works then a stage of archaeological stripping might be time tabled prior to the commencement of any construction works.

If the line of the bypass were to be moved westwards then trial trenching could be required on the crop-mark site. It may also be necessary to devise a scheme of earthwork recording and soil sampling to deal with any early medieval ridge and furrow and buried soils that would be destroyed.

Any scheme of archaeological works would need to be devised or agreed by the North Yorkshire Sites and Monuments Officer.

Bibliography

- Adams, M., Boucher, A., Roberts, I. and Webb, A., 1993, *Shipton by Beningbrough Bypass: Archaeological Investigations* West Yorkshire Archaeology Service Report 131
Limbrey, S., 1975, *Soil Science and Archaeology*

Acknowledgements

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Illustrations: Jon Prudhoe
Pottery report: Pete Rush BSc, Ceramics Laboratory, Department of Archaeological Sciences, University of Bradford
Report: Jamie Wright BSc
Recommendations: Andy Boucher BSc

Appendix 1

Test Pit	O.S. Coords.	Length (m)	Orientation	Depth of soil (m)	Type of soil	Geology
1	SE 5642856969	3.0	N-S	0.40	grey-brown clay loam	clay
2	SE 5641057046	3.5	N-S	0.20		clay
3	SE 5635857190	3.5	N-S	0.30	grey-brown clay loam	clay
4	SE 5639257263	3.5	E-W	0.35	grey-brown	clay
5	SE 5638457412	4.0	E-W	0.20	grey-brown sandy loam	0.20m sand over clay
6	SE 5640357498	4.0	N-S	0.40	grey-brown clay loam	clay
7	SE 5588657590	3.0	NNE-SSW	0.20	grey brown	clay
8	SE 5634957567	3.5	N-S	0.30	brown	clay
9	SE 5615657547		See results			clay
10	SE 5641357669	3.5	N-S	0.30		clay
11	SE 5639257735	4.5	NE-SW	0.30		gleyed clay
12	-	-	This test pit was not excavated			-
13	SE 5638557811	3.5	NW-SE	0.25	clay loam	yellow-brown clay
14	SE 5624957904	4.5	N-S	0.25		clay
15	SE 5630057972	3.0	N-S	0.30		clay
16	SE 5623058068	4.0	N-S	0.25	clay loam	clay
17	SE 5637158062		Not excavated under archaeological supervision			
18	SE 5622158145	4.0	N-S	0.20		clay
19	SE 5636958154	3.8	N-S	0.30		clay
20	SE 5634058234	4.0	NW-SE	0.30		clay
21	SE 5615958289	4.0	N-S	0.25		clay
22	SE 5637158309	3.5	NW-SE	0.30		clay
23	SE 5612458404	4.0	NNW-SSE	see text		yellow clay
24	SE 5626558504		Not excavated under archaeological supervision			
25	SE 5629558554	4.0	E-W	0.30		gleyed clay
26	SE 5607158651	4.5	E-W	0.20		clay
27	SE 5624858664	4.5	E-W	0.30		clay
28	SE 5613058732	3.0	E-W	0.25		gleyed clay
29	SE 5619858806	4.0	E-W	0.60/0.30		clay
30	SE 5603758888		Not excavated under archaeological supervision			
31	SE 5598359026		Not excavated under archaeological supervision			
32	SE 5577059128	4.0	N-S	see text		clay
33	SE 5601359133		Not excavated under archaeological supervision			
34	SE 5532359208	5.0	N-S	0.25		fine sandy silt loam
34A	SE 5541959134	4.0	N-S	0.20	sandy silt loam	fine sandy silt loam
34B	SE 5541959204	4.0	E-W	0.35		grey-brown sand
35	SE 5539059261	4.0	E-W	0.35		sand and rounded stones
36	SE 5555859256	4.0	E-W	0.30		sand above clay
37	SE 5541359326	4.0	E-W	0.25	sandy silt loam	sandy silt loam with stones
38	SE 5550559323	4.0	E-W	0.30	grey sandy loam	sand with stones
39	SE 5525959424		Not excavated under archaeological supervision.			
40	SE 5513259519	4.0	NE-SW	0.25	grey clay loam	yellow and blue gleyed clay
41	SE 5502559652	5.0	E-W	0.18	grey clay loam	yellow-brown sand
42	SE 5499259741	4.0	N-S	0.25	grey clay loam	slightly gleyed clay
43	SE 5493459909	4.0	NNW-SSE		grey brown clay loam	clay
44	SE 5484160069	4.0	N-S	0.23	grey silty clay loam	yellow-brown gleyed clay
45	SE 5455460125	4.0	N-S	0.30	grey fine sandy loam	sandy clay, frequent stones
46	-	-	This test pit was not excavated			-
47	SE 5457560181	4.0	NNW-SSE	0.22	grey silty clay	clay/clay loam. frags of tile
48	SE 5476360218	4.0	N-S	0.20	grey brown sandy loam	mottled fine sandy silt loam
49	SE 5470860299	3.0	N-S	0.24	grey sandy silt loam	pale brown sandy silt loam
50	SE 5479560291	3.5	NNW-SSE	0.30	pale grey sandy loam	brown fine sandy silt loam
51	SE 5473960446	5.0	N-S	0.25	dark grey clay loam	sandy clay, heavy gleying
52	SE 5467860519	4.0	N-S	0.25	grey sandy loam	mottled sandy silt loam

Numbers in italics are approximations.

Appendix 2

Road core 10

SE 5494359810

Circa 0.16m of tarmac, possibly in six phases, overlay 0.25m of mixed concrete and tar. Below was 0.10m of clay and small stones and below this, at a total depth of 0.51m was sand. This latter was assumed to be *in situ* geology. The borehole was continued and a gleyed blue grey clay was encountered at a depth of 0.80m.

Road core 15

SE 5472160428

Circa 0.78m of tarmac surfacing was above 0.17m of loose angular medium stone rubble. This rubble appeared similar to the hardcore used on modern roads. At a depth of 0.95m the rubble was too loose to remove by corer but too large to remove using the auger so the hole was abandoned at this depth. The present road surface is *c.* 1.7m above the level of adjacent fields which here form a poorly drained hollow. It is possible that the road was recently raised here.

Road core 16

SE 5469860489

Between 0.74m and 0.78m of modern tarmac was removed below which was *c.* 40mm of rubble similar to that in road core 15. At a total depth of 0.78m an orange brown sandy silt loam was encountered. With increased depth the colour changed to grey. This sandy silt loam was similar to the natural geology in Test Pit 52. The present road surface is *c.* 1.1m above the adjacent field.

Appendix 3

The assemblage of possible Roman pottery comprised the following:

Context 202 (Test Pit 15)

Six fragments of rough orange ceramic, probably Roman.

One Roman grey ware lid with soot marks.

One possible piece of Roman roof tile.

One fragment of slag of fired clay.

Context 204 (Test Pit 15)

Four sherds of heavily tempered fabric probably all from jars and one of which was a definite jar rim. Probably Roman.

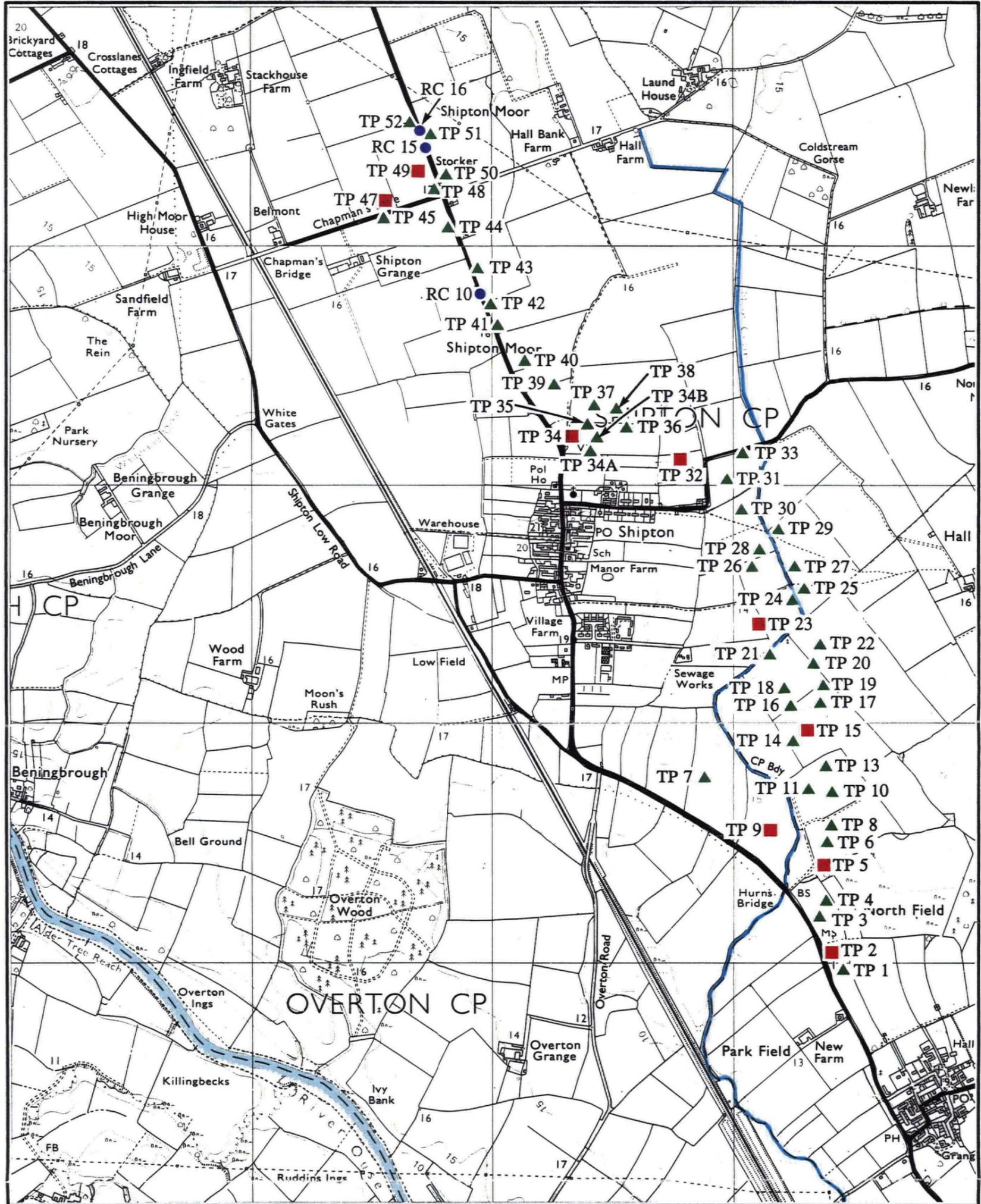
One sherd of oxidised ware, perhaps from a large flagon. Roman in date.

One fragment of Roman ceramic material.

Context 303 (Test pit 2)

One sherd of Roman oxidised ware.

There were also a number of pieces of tile, mainly of medieval or later date, including one fragment of field drain.



- Test pits discussed in text
- Test pits not discussed in text
- Road cores

Fig. 1. Locations of test pits and road cores covered by this report.

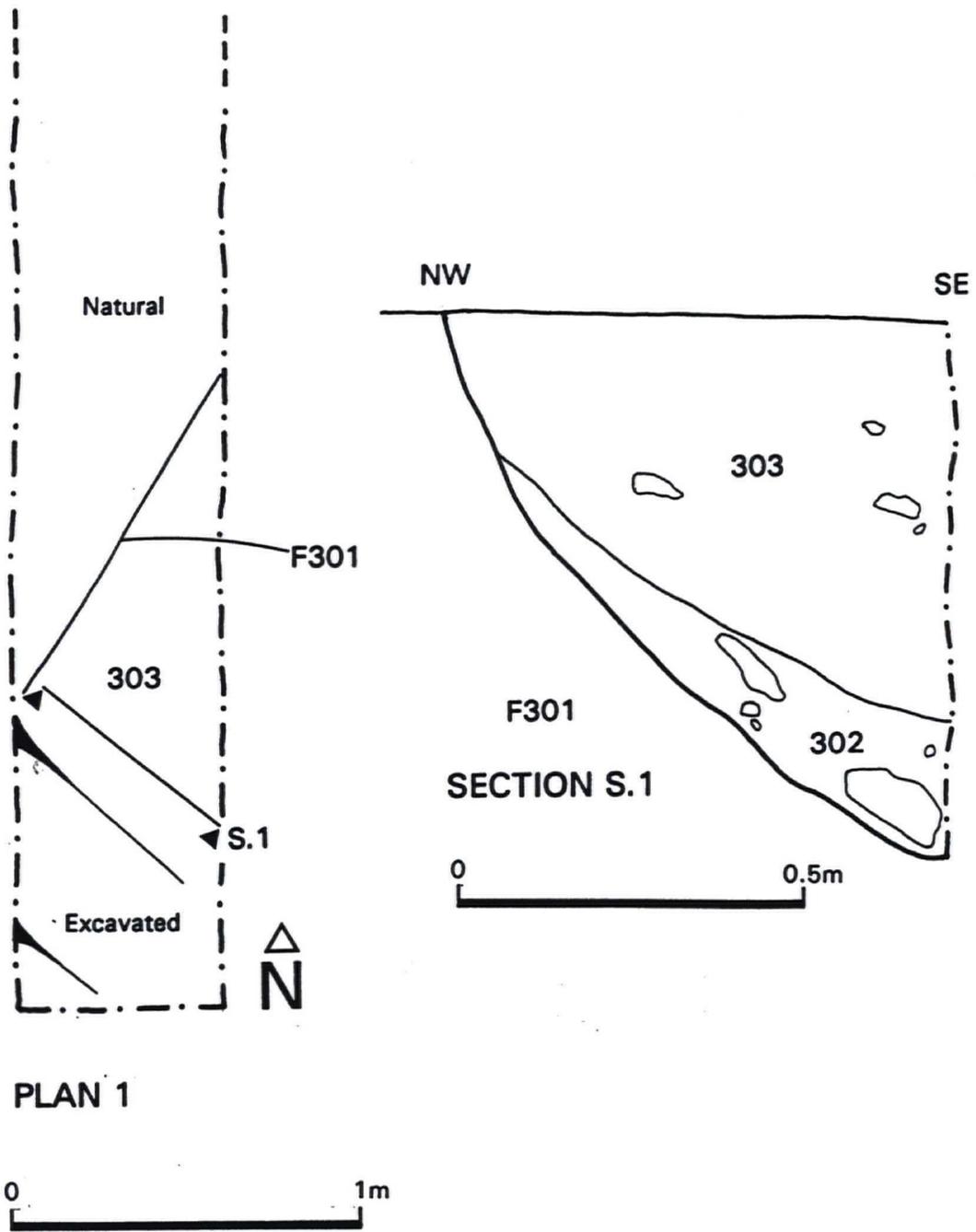
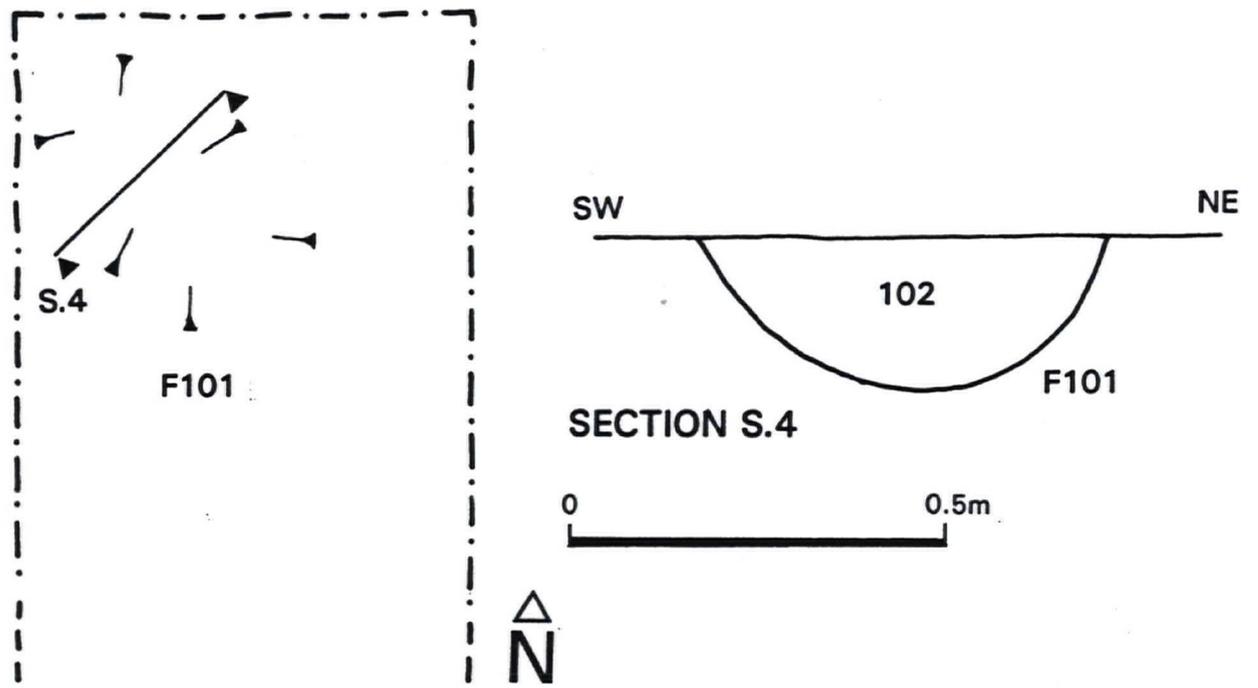
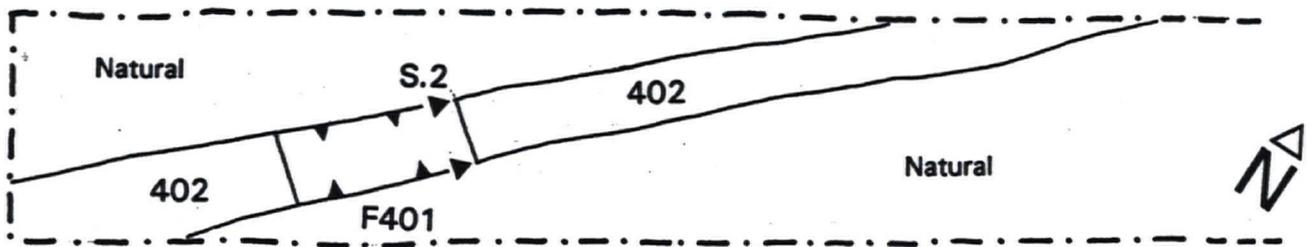


Fig. 2 Test Pit 2

Test Pit 34



PLAN 4



PLAN 2

Test Pit 5

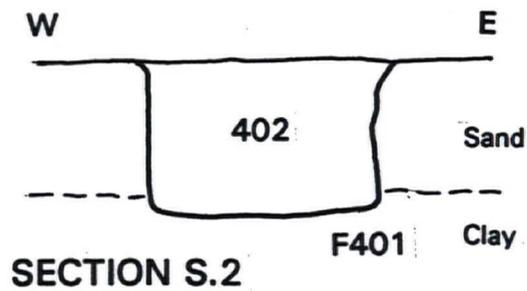


Fig. 3 Test Pits 5 and 34

PLAN 3

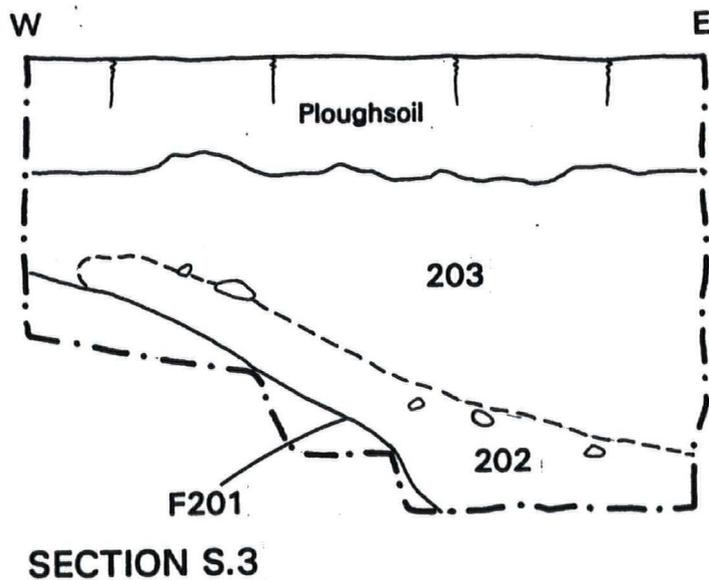
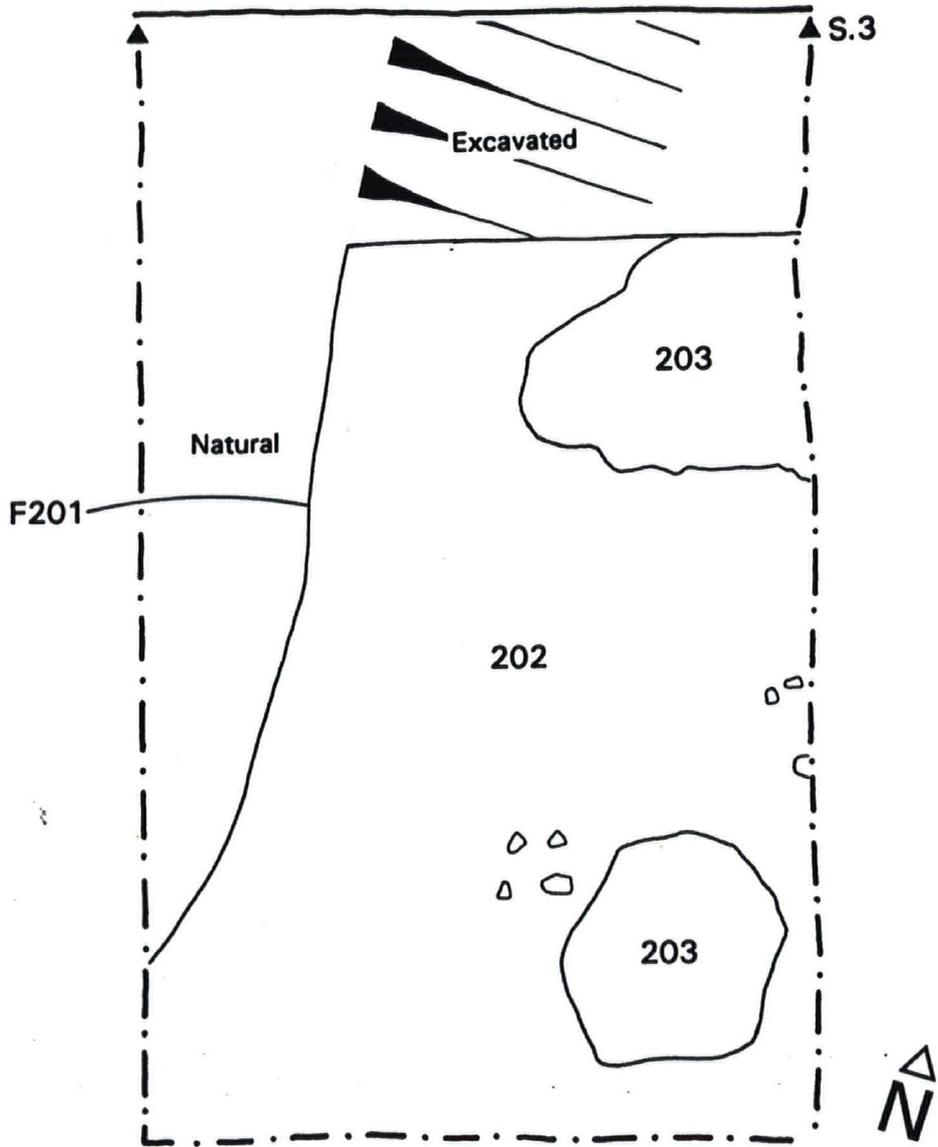


Fig. 4 Test Pit 15