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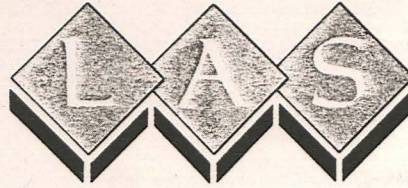
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# LINDSEY ARCHAEOLOGICAL SERVICES

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## **Bourne to Morton Mains Replacement Scheme:**

### **Archaeological Monitoring at Dyke and Morton**

NGR: **TF 1066 2245 - 1056 2380**

Site Code **BMM 96**

LCNCC Museum Accn. No. **95.96**

Report prepared for Anglian Water

**October 1996**

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**Summary**

*A pipe trench beside the Car Dyke in the village of Dyke cut through at least 5 intercutting flat-bottomed pits thought to be of late 12th or 13th century date. Large amounts of sizeable pottery sherds were found (apparently derived from a single deposit within one pit). These may have been rubbish from the village centre the other side of the Car Dyke or from an unlocated contemporary dwelling slightly further south from the Car Dyke. The pottery assemblage was closely dated and of regional importance; it included two wares not previously reported and cooking pot forms not often found in South Lincolnshire.*

*Pronounced ridge and furrow close to this site had been levelled in places by tipped building material including brick rubble; this was thought to be post-medieval. The levelling had obscured any surface indication of a relationship between the furrows and the area with pits. Away from these features, the medieval headland beside the Car Dyke had been re-used (probably after Enclosure) as a hedged strip to enable easy access to land south of the deep-cut stream. A decayed stone and brick bridge across the Car Dyke was observed beyond the pipe trench.*

*The existing stream was found to overlie a peat-filled channel centred on the northern side of the present feature. This overlay a broad clay-filled feature on the northern side which was interpreted as the actual course of the Roman canal.*

*In Morton, the trench cut through an area of archaeological features identified from cropmarks but no dateable features were observed. A large ditch and associated upcast bank may have been part of a Romano-British settlement. Three worked flint flakes were collected. A peat deposit was found beneath a modern stream.*

**Introduction**

Lindsey Archaeological Services (LAS) was commissioned by Anglian Water in July 1996 to conduct a watching brief during trenching for a replacement watermain between the villages of Dyke and Morton, north of Bourne, Lincs (Fig. 1).



The watching brief had been requested by the Assistant County Archaeological Officer for specified areas beside the Car Dyke at Dyke and beside the former railway line south of Morton (Fig. 2). The Car Dyke is a minor stream which fossilises the course of a Roman canal which linked Cambridgeshire, Bourne and the Fens with the River Witham and Lincoln (Pl. 1).

Constant archaeological monitoring was maintained throughout trenching at the two specified locations by the author, with assistance from Mick Clark at Dyke. Monitoring took place on July 15th, 16th and 18th 1996.

### **Archaeological Background**

The parish of Morton and the village of Dyke (in Bourne parish) were included within the South-West Fens study area of the Lincolnshire Survey by The Fenland Project in 1984-5 (Hayes and Lane 1992). The Fenland Project, funded by English Heritage, included the results of fieldwalking, air photograph assessment, and a consideration of previously reported findspots as well as archive and cartographic sources. The present pipe trench was sited across land outside the fieldwalked area at Dyke but within the area at Morton. At Dyke no finds were recovered by the Fenland Survey in the near vicinity but at Morton an Early Bronze Age flint scatter (A6) was found 100m west of the pipe trench course. At Morton a Roman settlement site was identified from air photographs beside a possible track leading from the fen-edge and a scatter of finds were recovered from the field surface (MOR 32). Ridge and furrow cut by the railway at the southern end of the monitored Morton pipe trench was also noted.

Before the Fenland Survey, a small number of artefacts had been found by chance and reported. These included a prehistoric bronze dagger from Dyke, and a polished Neolithic stone axe.

The Car Dyke has been identified for many years as the remains of a partly artificial Romano-British watercourse leading from Lincoln to Cambridgeshire. The extent to which it was used as a canal has been disputed, but it almost certainly served as a navigable route and was probably used for some trade of bulky materials.

### **The Watching Brief**

#### **Dyke** (Figs. 3 and 5-8)

The trench was excavated parallel to the southern edge of the Car Dyke, 2.7m south of the field fence, and 3.7m south of the stream edge. The 0.5-0.8m wide trench was excavated using a JCB and a 360° machine with toothed bucket. When monitoring began, the trench had been excavated and backfilled in the road leading south of the village. Monitoring began just into the field west of the road.

The trench was dug to an average depth of about 1.4m except where it crossed beneath the Car Dyke. Here it was considerably deeper (over 3.3m), but collapsing trench faces made recording difficult.

Numbers have been assigned for recording purposes both to layers seen within the trenches and to observation points along the route of the pipeline. These are referred to in the text and on the figures for ease of reference.

**Ditch 1.** (not illustrated) A north-south aligned backfilled ditch, 0.95m deep and 1.2m wide, was seen in the trench face 3.7m south of the stream. A water supply pipe led at the eastern edge of this feature towards a field trough further to the south, presumably coincidentally (Pl. 2). The ditch fill appeared to be overlain by levelling deposit **14**, suggesting that levelling had occurred comparatively recently. The fills consisted of dark brown clay loam with stone inclusions, overlying an ashy deposit (Pls. 3 and 4). This may represent a medieval or later field division (or house plot boundary), draining into the Car Dyke; the ash suggests that a house may have been nearby.

**Pit 5.** 9m NE of Ditch **1**, a flat-bottomed pit was seen in both trench faces (Pl. 6). This was 2.4m west-east and 0.4m deep, filled with **3** and **22**. It had cut natural layer **6** but there was no surviving relationship with pit **7** because of later truncation.

**Pit 7.** This was a flat-bottomed pit 2.7m west-east and 0.4m deep, filled by **8** and probably later than **10** (Pl. 7).

**Pit 9.** This flat-bottomed feature 0.3m deep and at least 0.9m west-east seemed to be a pit, filled by **10** (Pl. 8). It had been partially removed by pit **11**, and had probably been cut by pit **7** although that stratigraphic relationship was less certain.

**Pit 11.** This 2.1m wide pit was the deepest identified but its base (0.7m deep, 1m below the present ground surface) remained within layer **24**. The southern face was almost vertical but the northern side sloped steeply to two slight shelves and the deepest point. Green soil (possibly cess-derived) and ash was present covering these profile shelves, together with more pottery than found anywhere else on the site. These observations suggests that this corner of the pit was specifically excavated deeper for disposal of domestic refuse. The pit cut fills **10** and **15** and contained fills **12**, **17** and **18** (Pls. 8 and 9).

290 pottery sherds were recovered from the nearby trench spoil, in a green-brown clay loam deposit **2** (Pl. 5). There were several sizeable sherds with recent breaks, implying that they had been broken by the machine bucket. This pottery assemblage (interpreted as a domestic rubbish deposit) has regional importance because it contained previously unreported fabrics and the earliest identified occurrences of other wares (App. 2; Fig. 8). A search of the trench faces found very few traces of this deposit remaining visible as fill **12** of Pit 11. Here a lens of green clay loam near the base of this pit was interpreted as possibly cess although no environmental sample was taken. The green soil overlay an ashy fill **18** and was sealed by fill **17**.

**Pit 16.** A 2.20m wide and 0.6m deep pit, filled by **15** (Pls. 9 and 10). This pit had a more uneven base than the others identified in the trench; both sides had been effectively removed by later pits **11** and **19**.

**Pit 19.** A shallow pit of unknown width and 0.3m deep was found, containing fills **20** and **21** and cutting fill **15**. This pit was not recognised during excavation but was identified from the photographs at the northern side of the other pits; it is possible that other pits were present but not seen (Pls. 9 and 10).

**Post-medieval levelling layer 14.** A levelling deposit of brown/dark brown loamy clay with very frequent limestone pieces, and brick and tile fragments, was seen beneath the topsoil. The layer was seldom under 0.1m thick and was up to 0.3m thick in places. It directly sealed pits **9**, **11**, **16** and **19**. It appeared to be similar in character to layer **4** which lay beneath it over the backfill of pits **5** and **7**; **14** and **4** may have been the same deposit. This spread was visible in the trench faces south of the stream along the entire monitored length; a corresponding deposit in the field to the north was allocated a separate context number **37** although the material may have come from the same source.

The limestone and brick rubble seemed to indicate that it was demolition rubble imported onto the site or removed from buildings adjacent to the site. Although there was some indication that the pits had been close to a dwelling site (probably within the same modern field but to the SE) the inclusions of brick and the similarity of this rubble to that north of the stream implied that the demolished structure had been sizeable, mostly stone built and probably post-medieval. A plausible source is the farmyard complex to the north of the road bridge (now converted to residential use).

**?Bank 23.** A layer of yellow chalky clay was found beneath the levelling deposit **14** at the southern edge of the pit complex; it had been cut by pit **5**. This layer was not apparently a naturally produced buried topsoil or subsoil (as the underlying layer **24** is gravel and sand) but was perhaps an upcast bank from excavation of (or a deposit from cleaning) the Car Dyke.

### **Natural deposits**

All the medieval pits had been excavated onto or into layer **24**, a naturally formed layer of orange sandy clay with fine gravel, 0.4m thick. In places a thin band of overlying orange clay loam **6** had been dug through. This suggests that the pits may have been dug for gravel to use as road metalling material.

The base of **24** was only visible where the trench was excavated deeper either side of the stream. Beneath this was **25**, a dark brown clay layer and **26**, a silty grey clay layer 1.15m thick (Pls. 11 and 12). Under these was **27**, a 0.85m thick layer of dark brown clay seen 2.45m below ground level on the

south side of the stream crossing. This layer sealed the top of a layer of peat **28** visible at 3.3m below ground level on the south side of the stream crossing. This did not seem to be part of peat deposit **33**.

#### **Medieval and later features south of the stream**

**29.** To the east of the backfilled pits on the south side of the stream, a mortared block of brickwork was seen in the north face of the trench. At first this was thought to be a large piece of redeposited demolition rubble within the levelling spread **14** but it may have been the *in situ* foundation of a removed brick structure (Pl. 13).

**30.** Pronounced undulations of medieval ridge and furrow cultivation survived to the south of the Car Dyke, east and NE of the monitored pipe trench (Pl. 14). The furrows were aligned SE-NW and extended close to the Car Dyke, although the zone close to the stream beside the pipe trench was indistinct as a result of deliberate levelling.

**31.** To the NE of the pipe trench south of the stream, the medieval plough furrows appeared to extend very close to a hawthorn hedge and ditch aligned parallel to the stream 20m to its south (Pl. 15). The excavation of that ditch seemed to have produced the narrow levelled band to the east of the hedge which was too small to have been a plough headland. This sequence suggested that the original headland **36** had been north of the hedge where no furrows were visible (Pl. 16).

**32.** The Enclosure Plan was examined but the ink has faded to the extent that detail in this area is illegible (LAO Bourne Par 17/1). It seems probable that the area south of the stream had been a single large field prior to Enclosure in 1770. After that date, the former headland was retained and enclosed as a linear strip providing easy access between fields south of Car Dyke, while the former ploughed area was used as pasture.

#### **The stream crossing (Fig. 7)**

**Channel 36.** A large deep ditch-like feature, aligned west-east, was observed on the north side of the present stream, cut into orange sandy clay **24**, the uppermost layer in a series of natural deposits numbered **24**, **25**, **26**, **27** and **28**. It had a steeply sloping north edge; the base was below the bottom of the excavated trench. Its south edge was recorded in the base of the trench but merged with the recut containing **34**. It was seen in both trench faces for 22m north of the stream side, probably about 17m perpendicular to the stream (Pls. 20 and 21). This was interpreted as possibly the actual course of the Roman Car Dyke canal. It contained fill **35**, a dark brown clay deposit with some limestone (Pl. 19). No finds were seen.

Above **35** were two layers, a white chalky deposit, **34** (Pl. 17), and mid-brown peat deposit **33** (Pls. 17 and 18). Interpretation of these deposits is not clear. The earliest recorded channel which had become filled with **35** was cleaned out and silted up again with the chalky deposit **34**. This in turn had been

partially cleaned out to form a narrower channel which eventually silted up with the peat deposit **33**. Alternatively, deposits **33** and **34** may be two deposits filling a single phase of the recut channel. The modern stream is the latest channel along the same alignment. Presumably, the original (Car Dyke?) channel has been cleaned out many times but only three, possibly four recuts were visible in the recorded trench section.

#### **North of the Car Dyke (Pl. 22)**

**37.** A spread of brown clay loam with frequent limestone and brick rubble inclusions, 0.6m thick, was seen beneath the turf on the north bank of stream. An architectural fragment (part of a probably 13th century moulding) was seen but not removed (Pl. 23). The rubble appeared to be identical to the levelling spread **14** (on the south side of the stream) and may have been post-medieval demolition material from the nearby farmyard complex (Pl. 24).

**38.** On the northern side of the stream a barbed wire fenceline restrained cattle from the stream valley. When this part of the trench was excavated there were several bricks disturbed from each face, as if there had formerly been a brick wall beside the stream.

**39.** A single certain small pit was seen in the trench face north of the stream (Pl. 25). The lower fill was dark grey/brown clay, above which was stony material which probably formed part of levelling spread **37**.

**40.** A concentration of larger limestone lumps in each trench face 18m north of the stream edge may have been a wall foundation. If so, demolition of this structure may have produced the material spread as **37** and **14**.

**41.** 160m NE of the pipe trench crossing the stream, the stone and brick remains of a collapsed bridge were seen either side of Car Dyke. The remains on the northern bank were most substantial and incorporated a few large limestone blocks within a matrix of thin limestone (Pl. 26). The inside of the arch had been faced with two courses of brick, possibly as a later repair. On the southern bank only the last traces of core rubble were visible and no bricks were seen. The photograph shows the turf covering layers of stone and mortar which might be a track surface, but as these overlie dark brown clay (which appears to be slumped topsoil or alluvium sealing the rubble core) they may represent demolition material (Pl. 27).

**42a and b.** The pasture fields north of the stream contained earthworks but at ground level it was difficult to identify these as ridge and furrow or house platforms (Pl. 28). Several mature walnut trees are present within this field and the land may formerly have been built on. A slight linear ridge aligned parallel to the stream and about 20m west of it may be the remains of an upcast bank for the Roman canal.

**42c.** To the west of **42b**, the pipe trench cut through a field of well-preserved ridge and furrow cultivation earthworks (Pl. 29). The width of each north-

south aligned ridge was about 6m and the furrow width was about 11m from crest to crest.

**Morton** (Fig. 4)

**43.** At the parish boundary, the pipe trench was excavated at the edge of the fields east of the removed railway track (Pl. 30). 20m north of the Bourne/Morton parish boundary a 0.6m wide cut with vertical sides was seen in the trench face (Pl. 31). It had been backfilled with dark brown clay (less stony than the undisturbed material) and was deeper than the trench. This feature was suspected to be a land drainage trench.

**44.** A number of anomalies within the stony clay were observed, usually where the clay contained fewer stones. It was impossible to see clearly into the narrow trench, especially as the spoil ridge along the trench top made the viewing angle worse. In the absence of visible artefacts these anomalies were dismissed as either land drainage trenches or natural features. These were most numerous up to 100m north of the parish boundary.

**45.** At about 150m north of the boundary, a worked flint flake was collected from the spoil (App. 3).

**46.** Part of a worked flint flake was found in the trench spoil 20m south of the stream (App. 3).

**47.** A 6m wide feature, possible of artificial origin was seen about 30m north of **45**, filled with brown clay. This feature may be a former field division but it was not possible to suggest its date.

**48.** On the south side of the stream, the subsoil exposed by the trench was markedly different from further south (Pl. 32). In place of the stony yellow-brown clay, 16m south of the stream dark brown or dark yellow-brown clay was revealed; this dipped beneath the trench base despite the greater depth of the trench where it passed beneath the stream. At the stream base, grey mud (possibly slightly peaty) was noted (Pls. 33 and 34).

The stony clay reappeared in the trench 37m north of the stream, after a further stretch of yellow-brown clay. It seems probable that the trench was revealing an ancient stream valley about 60m wide within which the present stream flows.

**49.** Approximately 300m north of the stream, a marked ridge crossed the western side of the field from west to east (Pl. 35). This was interpreted as the remains of an upcast bank.

**50.** 10m north of the base of ridge **49**, a 1m deep ditch was seen in the trench faces, aligned west-east. The 5m wide ditch was filled with clay and limestone lumps, some of which had been burnt (Pl. 36). It seems certain that this is an artificial feature but no dating evidence was seen. From its position close to

49, it is probable that it was a ditch with associated upcast bank; much of the bank seems to have remained in place but the ditch was backfilled with other material, perhaps material from stone buildings.

Cropmarks of apparently Roman archaeological features including a possible east-west track have been identified in this field from air photographs (Hayes and Lane 1992, 126). During the watching brief variations in crop ripening were seen but could not be recognised as features (Pl. 37).

51. Another possible ditch was observed about 70m north of 50 but it was not possible to retrieve more information.

52. A worked flint flake was recovered from the spoil heap close to the northern end of the field (App. 3).

### **Conclusion**

#### **Rubbish pits at Dyke**

The line of inter-cutting pits at Dyke may have originally been excavated for gravel as they penetrate a thin seam above the underlying deposits. The quantity of recognised domestic rubbish was small and the pits seem to have been used for rubbish disposal rather than excavated for that purpose. The source of this rubbish is not known but may have been from a dwelling south of the Car Dyke rather than in the present village settlement. The 1st and 2nd edition OS 1:10,560 maps (1886 and 1906) indicate a building on the south side of the Car Dyke (Fig. 5). This lies within a rectangular enclosure within the narrow strip of land beside the Car Dyke; two other rectangular enclosures shown on the eastern side of the field may indicate the site of a demolished building. Earlier buildings on either of these sites may have produced the pottery found in the pipe trench.

The pottery assemblage from 2 (probably derived from 12) was of unusual interest despite its limited size. The vessel types were readily dated to the late 12th century or early 13th century and included probably the earliest reported occurrence of Bourne wares. Two previously unreported coarse wares were also present, thought to from a south Lincolnshire kiln.

#### **Site Levelling at Dyke**

The pipe trench south of Car Dyke revealed an extensive spread of limestone and brick rubble along the dyke edge, thought to have been imported as demolition material. The brick content suggested that this had been tipped after the 17th century, but it may have been considerably later.

From surface indications of filled furrows, the spread of this material was estimated at about 15-20m from the dyke edge. It is feasible that this rubble was spread specifically onto this strip as hardcore for a shared lane/droeway.

#### **Car Dyke Bank at Dyke**

It was observed that the Car Dyke retains a bank on the south side to the west of the Wath Bridge but no trace is visible to the east (Pls. 38 and 39). The trench stratigraphy was inspected but a possible upcast bank at **42b** was the only hint of a surviving bank. Assuming that a bank had existed along this side, it had probably been removed before excavation of the rubbish pits in the late 12th century. The material was presumably incorporated into the soil and subsequent plough ridges by the date of local Enclosure. Removal of the bank would have created ready access along the side of the watercourse to the east of Wath Bridge. There is no visible raised upcast bank along the south side of the dyke beneath the hedge further to the east.

### **Romano-British Settlement Site at Morton**

The Fenland Survey located an area of Romano-British pottery, tile and other occupation debris to the east of the former railway line at Morton on a cropmark site known from air photographs. The monitored pipe trench passed beside this site but no artefacts were seen. A ditch containing burnt limestone rubble, and the remains of a broad bank were seen but although these probably represent features associated with that site there was no evidence to support this assumption.

### **Acknowledgements**

Thanks are due to Anglian Water (especially Mike Owers (Project Engineer) and Stuart Weaver) and to their contractors The Lincolnshire Drainage Company for the co-operation received during the watching brief.

The author would like to express particular thanks to Mr. Philip Ash and W. Ash and Sons (owners of the land monitored at Dyke) for their interest and for agreeing that the archaeological finds could be donated to the City and County Museum, Lincoln.

The County Archaeology Section and the Sites and Monuments Record provided assistance and access to previously reported archaeological information. Help received from the staff of Lincolnshire Archives was also appreciated.

The finds were identified and described by Jane Young (pottery) and Ian Brooks [Engineering Archaeological Services] (flints). The pottery (Fig. 8) was illustrated by Zoe Pattinson.

Mick Clark assisted with the recording of the medieval pits; the finds were processed and the illustrations prepared by Mick McDaid. The report was collated and produced by Jane Frost.

Geoff Tann  
Lindsey Archaeological Services  
1st October 1996



### **References**

Hayes, P.P. and Lane, T.W. 1992 *The Fenland Project No. 5: Lincolnshire Survey, The South-West Fens* East Anglian Archaeology 55.

LAO Bourne Par 17/1 1770 *Enclosure Award and Plan for Bourne* (including Dyke). Plans by J. Oldknow. Lincolnshire Archives Office.

### **Archive Summary**

Anglian Water plans (and annotated copies)

Archaeological finds: pottery, flint

Specialist reports: pottery, flint

Field drawings

Inked archive drawings

Photographs

Correspondence

## Appendix 1

### Summary of Previously Reported Archaeological Sites and Finds

(SMR = Lincs. County Sites and Monuments Record)

PRN	NGR (TF)	
33168	106 240	undated ringditch cropmark
33169	106 236	undated cropmarks; CUCAP ABP 45 28/6/60 and JP TF1023/21 14/7/84
33241	106 227	Romano-British pottery beaker found during cleaning of dyke in 1950
33243	106 218	prehistoric bronze dagger
33249	1161 2278	Neolithic polished stone axe 1969
34089	1080 2340	undated cropmark features; RCHM TF1023/20 103-104 14/7/84
34090	1045 2355	undated cropmark ringditch; TF1023/22 JP 3031-20a
34477	1050 2374	fieldwalking finds of Romano-British pottery scatter; also fired clay, flint, tile, animal bone and burnt stone. Further scatter of pottery and tile with burnt limestone rubble to east. Total area of scatter 0.15ha. Fenland Survey MOR 32.
34525	1021 2330	fieldwalking finds of early-Saxon undecorated pottery (6 sherds) from sandy gravel area close to stream. Possible settlement site, 0.5ha extent. Fenland Survey A5.
34526	104 232	fieldwalking finds of worked flints (incl. 4 cores and 5 scrapers) probably Late Neolithic - Bronze Age; 159 flints from 8ha area. Fenland Survey A6.
SAM 297		Roman canal on course of Car Dyke; scheduled area to west of Dyke village.

## **Appendix 2**

### **BMM96: Assessment Report on the Post-Roman Pottery**

*Jane Young*

09.09.96

A small but important group of pottery was recovered from context 2. Included were 19 vessels of early medieval date. The presence of four Bourne-type (BOUA) vessels indicates that this group must date at the earliest to the last quarter of the 12th century. The handmade globular cookpots (EMHM) are not usually found later than the early 13th century giving a deposition date of the period between the late 12th and the early 13th century. Groups of contemporary material of similar date in the South Lincolnshire area are almost unknown. Previous sites producing early Bourne-types such as Baston, contain material which probably slightly post-dates the BMM96 group making this the earliest known occurrence of the ware. Included in the group are vessels in two new ware types, SLEMO and SLSOF. These types can now be regarded as the 12th century coarse ware equivalents to the LEMS found in central Lincolnshire.

A single 11th century Stamford (ST) sherd was recovered from context 3.

The material from 4 is principally of early to mid 13th century date although a single possibly contaminating sherd of 17th or 18th century Blackware (BL) was present.

Context 12 contained 12 sherds from a single EMHM vessel contemporary in date to the material from 2.

Topsoil 13 produced two undiagnostic sherds of BOUA dating to anywhere between the late 12th and the early 14th century.

#### **Ware and fabric types**

Boua	Bourne fabrics A-C: mid 12th - late 14th centuries
Emhm	early medieval handmade fabrics: early 12th - early 13th centuries
St	Stamford ware: late 9th - early 13th centuries
Slemo	South Lincs. Early Medieval oolitic limestone: unknown, ?12-13th century
Slsf	South Lincs. shell, oolitic limestone and iron: unknown, ?12-13th century
Sneot	St. Neots type ware: late 10th century - early 13th century
Medloc	medieval local fabrics: early 13th - late 15th centuries
Glg	Glazed greensand fabrics :mid 12th/late 15th centuries

#### **Date codes**

ASH 12	Saxo-Norman; early 11th - early/mid 11th century
ASH 14	Saxo-Norman; late 11th - early/mid 12th century
MH 1	early medieval; early-mid 12th century
MH 3	early medieval; mid-late 12th - early 13th century
MH 4	early medieval; early-mid 13th century
MH 5	early/mid 13th century - ?late 13th century
MH 6	medieval; late 13th-mid 14th century
PMH 5	post-medieval; mid-late 17th century
PMH 8	late post-medieval; early 18th - mid 18th century

POST-ROMAN POTTERY ARCHIVE: BMM96 WARE TYPES BY CONTEXT

Context	Ware	Sherds	Form	Comments
2	BOUA	1	?	-
2	BOUA	1	?	INT GLZE
2	BOUA	1	JAR	EXT GLZE
2	BOUA	3	JAR	DR6;RIM & BS;SOOT;SOME GLZE
2	EMHM	68	COOKPOT;GLOB	DR4;PROFILE;SOOT;OCC OOLITE
2	EMHM	69	COOKPOT;FLAT	DR5;RIM BASE & BS;SOOT
2	SLEMO	59	BOWL	DR3;PROFILE;SOOT
2	SLSOF	35	JAR	RIM BASE & BS;THUMBED RIM;SOOT
2	SLSOF	37	JAR	DR2;RIM & BS;THUMBED RIM;SOOT
2	SLSOF	6	JAR;SMALL	DR1;RIM
3	ST	1	JAR	RIM;UNGLZE;11TH
4	BL	1	?	STAFFS;INT GLZE;17/18TH
4	BOUA	1	JAR	UNGLZE
4	BOUA	1	JUG	EARLY ?;PART GLZE
4	BOUA	1	JUG	GLZE
4	BOUA	1	JUG	NO GLZE
4	MEDLOC	1	JUG	FABRIC INCLUDES QUARTZ + FE; RILLED;CU GLZE
4	SLSOF	3	?	SCRAPS
4	SNEOT	1	?	? ID OR LVYDEN
8	BOUA	1	?	INT GLZE
8	GLGS	2	?	NO GLZE
12	EMHM	12	COOKPOT	SAGGING BASE
13	BOUA	1	JAR	GLZE
13	BOUA	1	JAR	RIM;UNGLZE

POST-ROMAN POTTERY ARCHIVE: BMM96 HORIZON DATING

Context	Earliest horizon	Latest horizon	Probable horizon	Date range
2	MH3	MH4	-	LATE 12TH TO EARLY 13TH
3	ASH12	ASH14	-	11TH
4	MH4 OR PMH5	MH5 OR PMH8	-	17/18TH OR INTRUSIVE IN EARLY TO MID 13TH
8	MH3	MH6	-	LATE 12TH TO LATE 13TH
12	MH1	MH4	-	12TH OR EARLY 13TH
13	MH3	MH6	-	12TH TO EARLY 14TH

**ENGINEERING ARCHAEOLOGICAL SERVICES LTD**

**WORKED FLINTS FROM  
BOURNE-MORTON  
WATERMAIN 1996**

July 1996

**REPORT FOR  
LINDSEY ARCHAEOLOGICAL SERVICES**

**I.P. Brooks**

**Unit 2, Glanypwll Enterprise Workshops,  
Ffordd Tanygrisiau, Blaenau Ffestiniog,  
Gwynedd, LL41 3NW**

**Registered in England No. 2869678**

## WORKED FLINTS FROM BOURNE-MORTON WATERMAIN 1996

Three flint artefacts were recovered from the Bourne-Morton Watermain 1996. These are detailed below.

Flakes are separated into three main groupings. Primary flakes with a completely corticated dorsal surface, secondary flakes with partially corticated dorsal surface and tertiary flake with an uncorticated dorsal surface. The classification of the cores follows Clark *et al* (1960), the description of the tools follows that of Inizan *et al* (1992) and the flint colours are defined by the Geological Society of America's Rock-Color Chart (Goddard *et al* 1948)

Lincolnshire is a flint rich area with a range of potential sources which could have been exploited in the past (Brooks 1989, 55-59). The chalk of the Lincolnshire Wolds contains considerable flint resources in the form of both tabular and nodular bands (Wood and Smith 1978). These are generally of poor quality, being opaque, grey and faulted. There are, however, a series of derived flint deposits in the form of tills, gravels and beach deposits. The flint in these is often of a superior quality and is the preferred source of flint for much of the flint assemblages in Lincolnshire.

- 52 A "pot lid" fracture (38 x 15 x 8 mm) with a 20 mm long, convexed, modified edge. This was defined by a series of intermediate scalar removals along one edge. The tool was in a semi-translucent pale yellowish brown flint (10 YR 6/2) of derived type (either Till or gravel source).
- 45 A distal tertiary flake (18 x 18 x 4 mm) with short scalar removals along the left distal side. The tool is in an opaque, very pale yellowish brown (10 YR 7/2) flint, possibly from a chalk source, although similar flint also occur in the local tills.
- 46 The distal end of a plunging, secondary flake (22 x 9 x 8 mm). The flake is in a translucent dark yellowish brown (10 YR 4/2) flint with a worn cortex. Probable till or gravel source.

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## Appendix 5

### Context List: BMM 96 (Dyke village)

Context No.	Type	Stratigraphic Relationships	Finds	Description [w:width; d:depth; L/S:limestone]
1	ditch+fill	sealed by 14, cuts 24		N-S aligned, 1.2m w, 0.95m d; ?p.med
2	fill	spoil on spoil heap	12/13thC pottery	green/brown clay loam
3	fill	fill of 5; over 22, under 4	11thC pottery	dark brown clay loam
4	layer	sealed by 14, over 8 and 3	13+?18thC pottery	dark brown loamy clay with limestone
5	pit	filled by 3 and 22; cuts 6		flat base, 2.4m w, 0.4m d
6	layer	cut by 42 and 7, overlies 24		orange clay loam natural
7	pit	filled by 8, cuts 10		flat base, 2.7m w, 0.4m d
8	fill	sealed by 4, fill of 7	12/13thC pottery	dark brown clay loam
9	pit	filled by 10, cuts 24		flat base, 0.9m+ w, 0.3m d
10	fill	cut by 11 and 7, fill of 9		light brown clay loam
11	pit	filled by 12, 17 and 18, cuts 24		irreg. base, 2.1m w, 0.7m w
12	fill	fill of 11; under 17, over 18	12/13thC pottery	green clay loam, ?cess
13	layer	over 14 and 37	12-20thC pottery	very dark brown clay loam topsoil
14	layer	under 13, over 4, 1, 29, 34, 17, 20		dark brown loamy clay with L/S + brick
15	fill	fill of 16; cut by 11 and 19		dark brown clay with L/S
16	pit	filled by 15, cuts 24		irreg. base, 2.2m w, 0.6m d
17	pit	fill of 11; under 14, over 18		dark brown loamy clay
18	fill	fill of 11, under 12		dark brown, ashy
19	pit	filled by 20 and 21; cuts 15		?m w, 0.3m d
20	fill	fill of 19; under 14, over 21		yellow loamy clay
21	fill	fill of 19; under 20		light brown clay loam with chalk
22	fill	fill of 5; under 3		blue clay
23	layer	cut by 5, over 24		yellow chalky clay
24	layer	under 6 and 23, over 25		orange sandy clay + gravel, natural
25	layer	under 24, over 26		dark brown clay
26	layer	under 25, over 27		silty grey clay
27	layer	under 26, over 28		dark brown clay
28	layer	under 27		peat
29	structure	sealed by 14, over 24		brick foundation
30	cultivation	?under 14, over 24		ridge and furrow
33	layer	under 38, over 34		brown peat
34	fill	under 33, over 35		white chalky deposit
35	fill	fill of 36; under 34, 37 and 39		dark brown clay with L/S
36	canal	filled by 33, 34 and 35		?17m wide; ?Roman Car Dyke
37	layer	under 13, over 38		brown clay loam + L/S and brick
38	wall	under 37, over 33		possible brick wall
39	pit+fill	under 37, cuts 35		grey/brown clay
40	wall	under 37, over 35		?limestone wall foundation

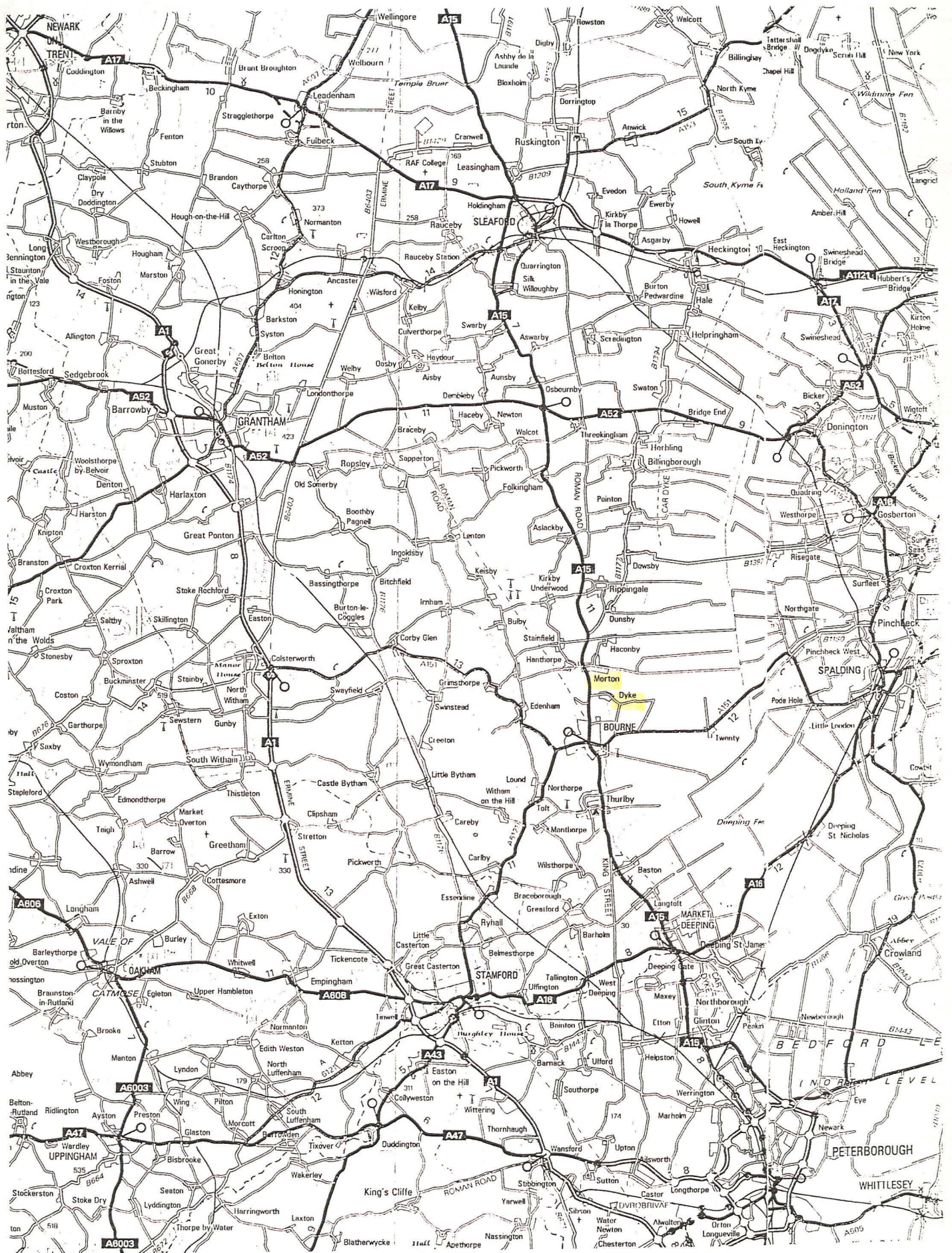


Fig. 1 Location of Morton and Dyke

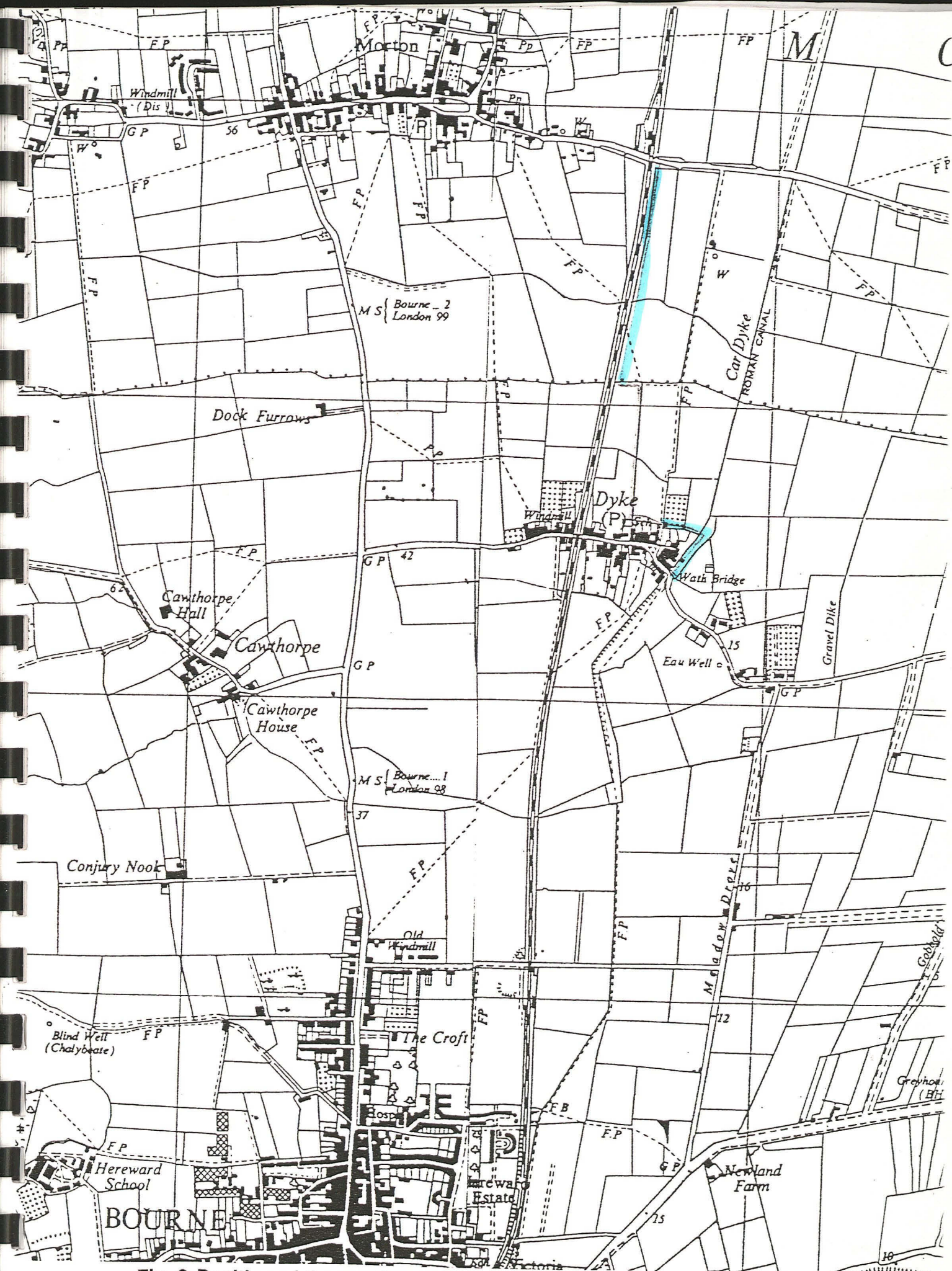


Fig. 2 Position of the monitored pipe trench (based on an enlarged copy of the 1960 1:25,000 Ordnance Survey map, Sheets TF 12 and TF 02; Crown Copyright; reproduced with the permission of the Controller of HMSO; LAS Licence No. AL50424A).

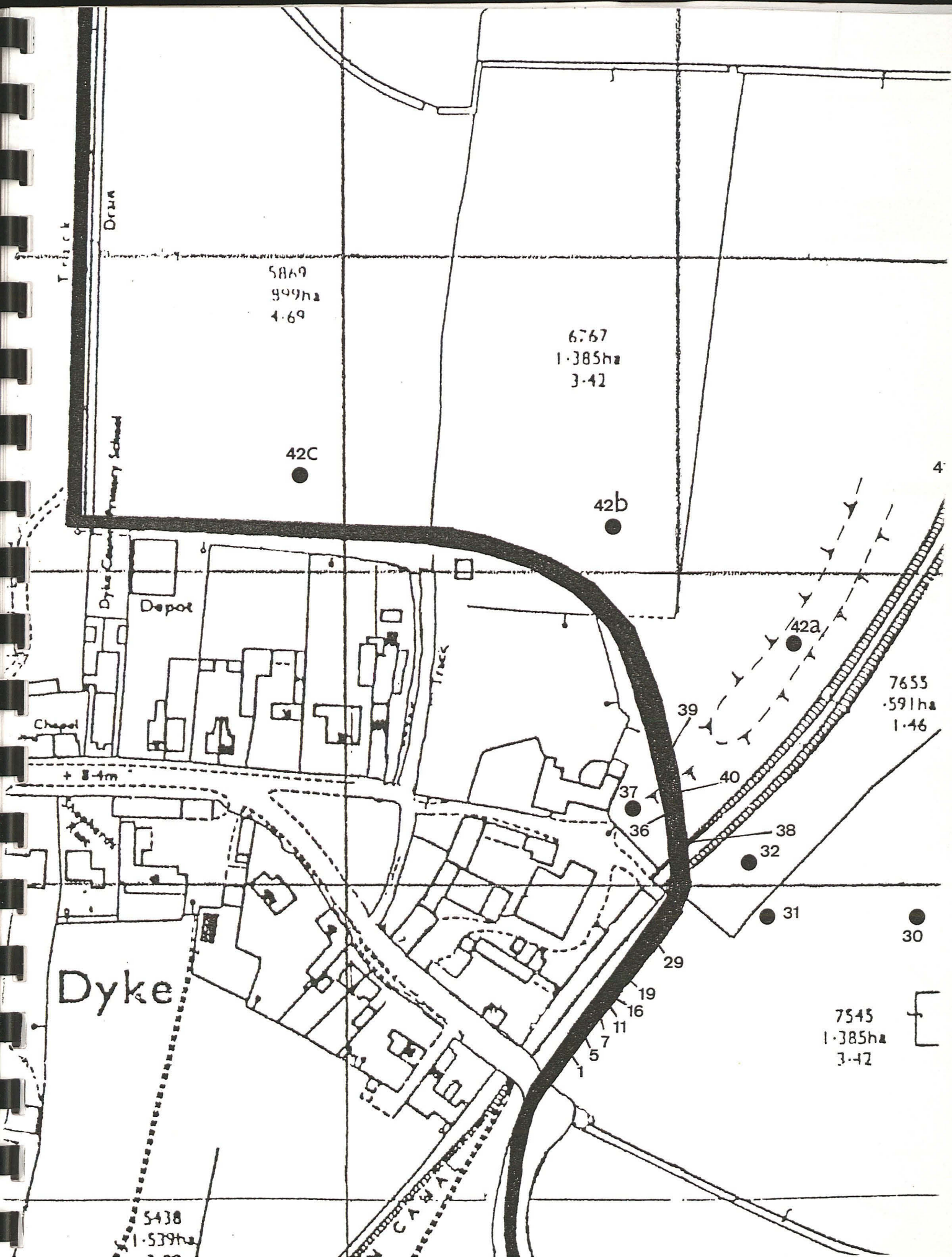


Fig. 3 Archaeological observations from monitoring the pipe trench at Dyke (based on the 1:2500 plan supplied by Anglian Water [dwg. no. 9W33907/2].

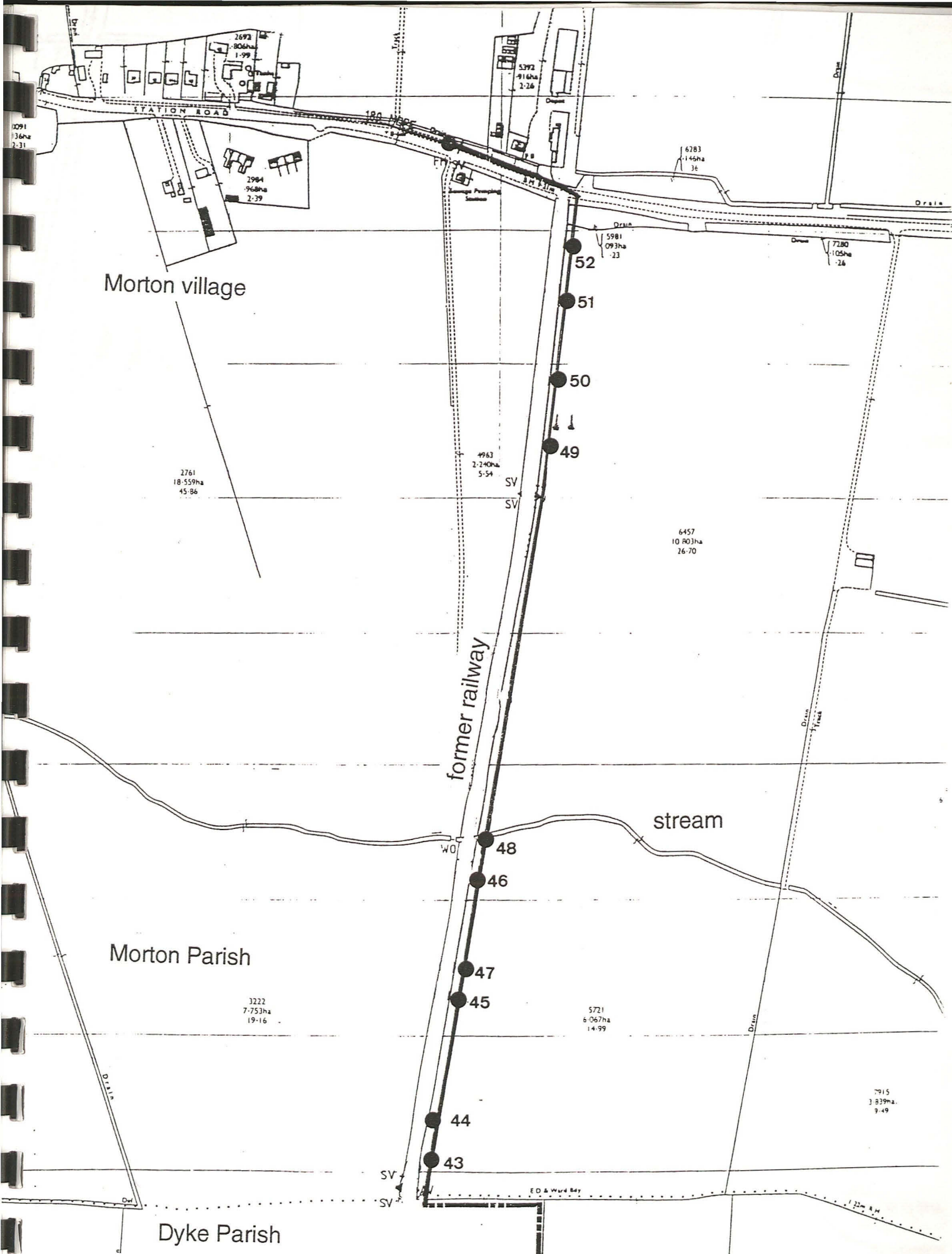


Fig. 4 Archaeological observations from monitoring the pipe trench at Morton (based on the 1:2500 plan supplied by Anglian Water [dwg. no. 9W33907/2]. Crown Copyright; reproduced at reduced scale with the permission of the Controller of HMSO; LAS Licence No. AL50424A).

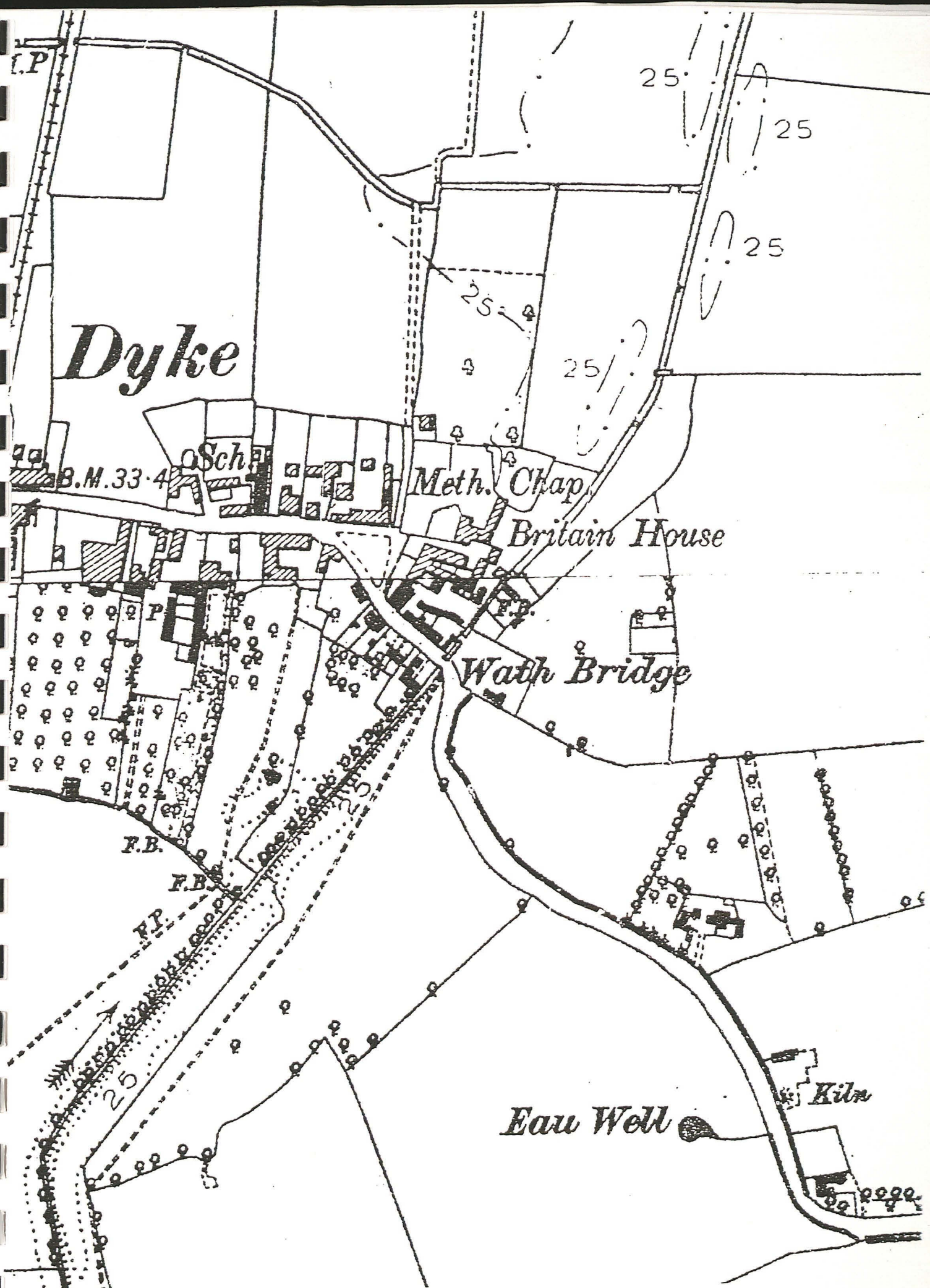


Fig. 5 Dyke in 1886 (reproduced at enlarged scale from the Ordnance Survey 1:10,560 1st edition map, Sheets Lincs. 132 SE and 140 NE).

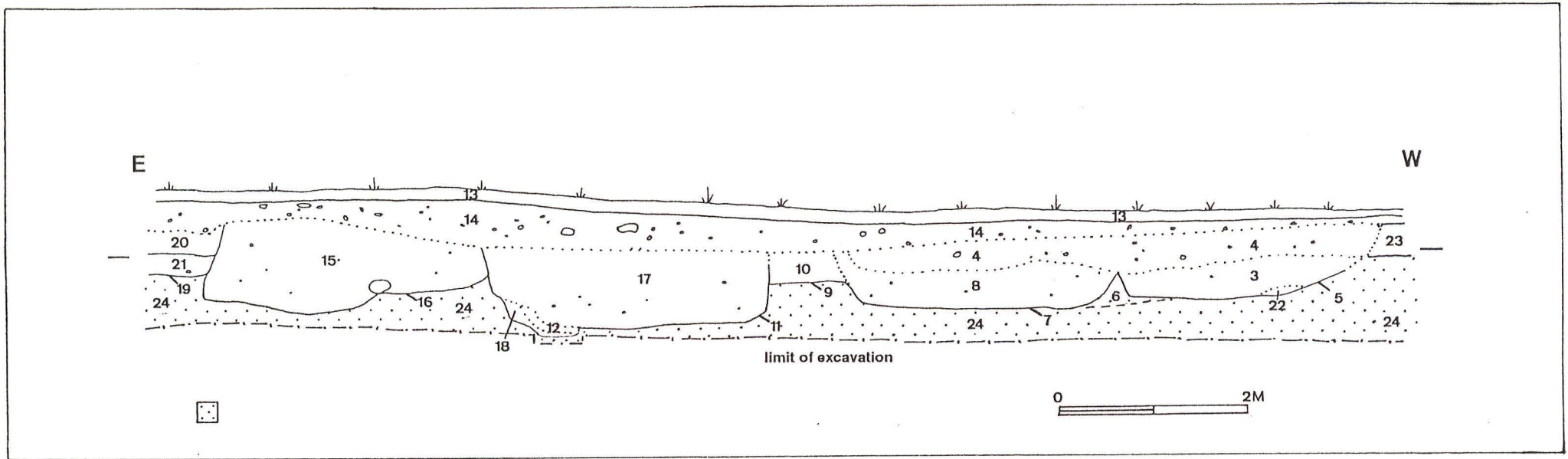


Fig. 6 Section of the medieval pits cut by the pipe trench at Dyke (McDaid, after Clark and Tann).

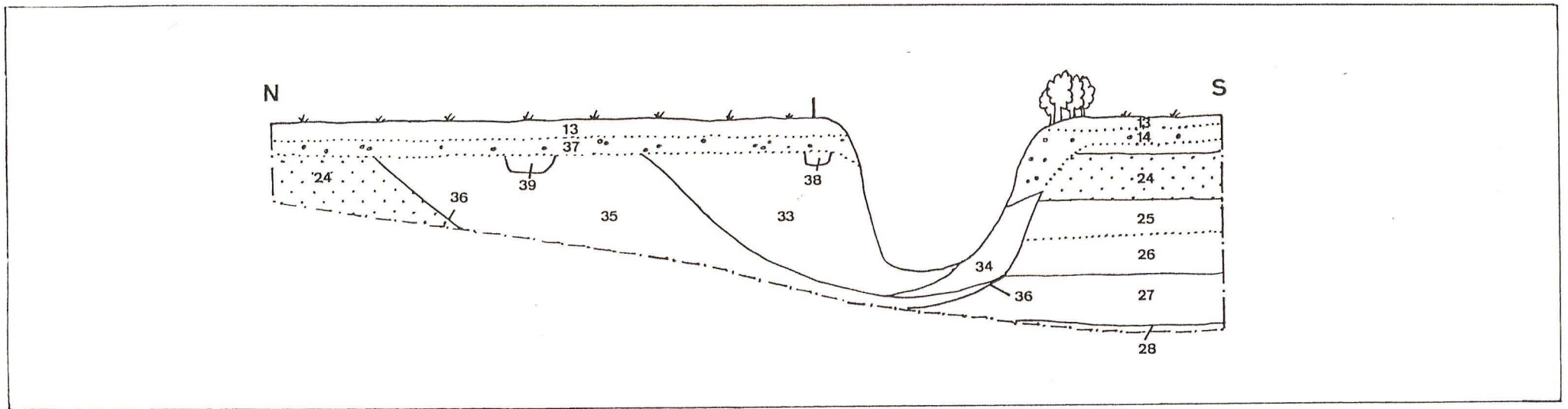
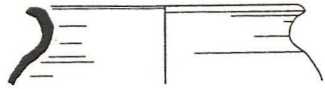
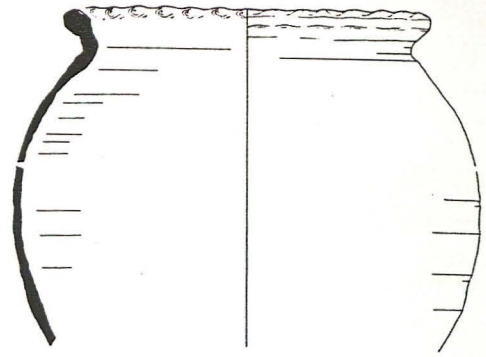


Fig. 7 Sketch section of deposits seen in the trench face crossing the Car Dyke at Dyke (McDaid, after Tann).

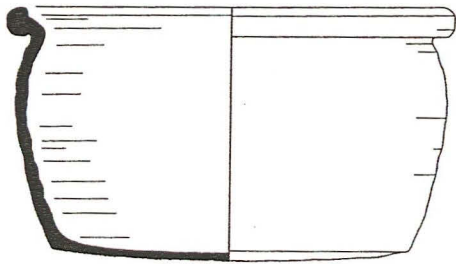




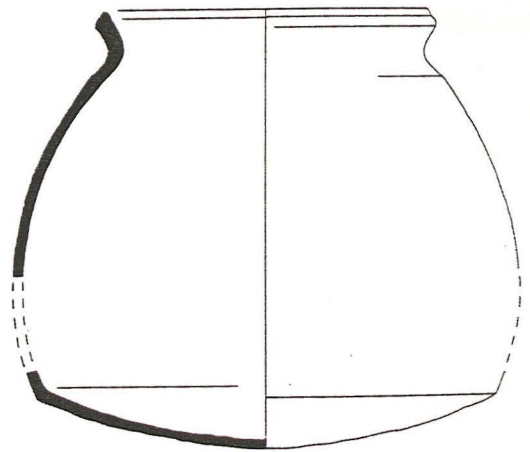
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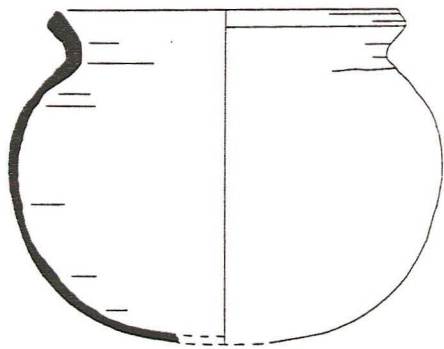
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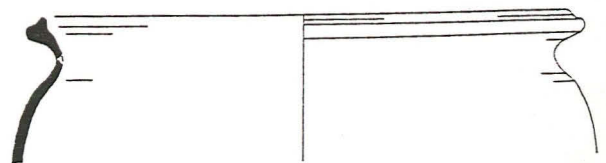
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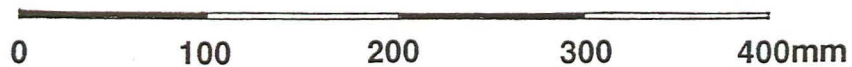


Fig. 8 Early medieval pottery vessels from Context 2 at Dyke (Zoe Pattinson): numbered as in Pottery Archive [Appendix 2]  
 1) and 2) South Lincs. Early Medieval Oolitic Limestone Ware jars  
 3) South Lincs. Early Medieval Oolitic Limestone with Iron Ware bowl  
 4) and 5) Early Medieval Hand-Made Ware cooking pots  
 6) Early Bourne-type ware jar



Pl. 1. The Car Dyke stream to the north of Dyke village, Bourne (looking NE).

Pl. 2. The monitored pipe trench at Dyke, showing the position of the Car Dyke stream and the redeveloped farmyard site south of the stream. Ditch 1 crossed the trench behind the red cones. (Looking north).





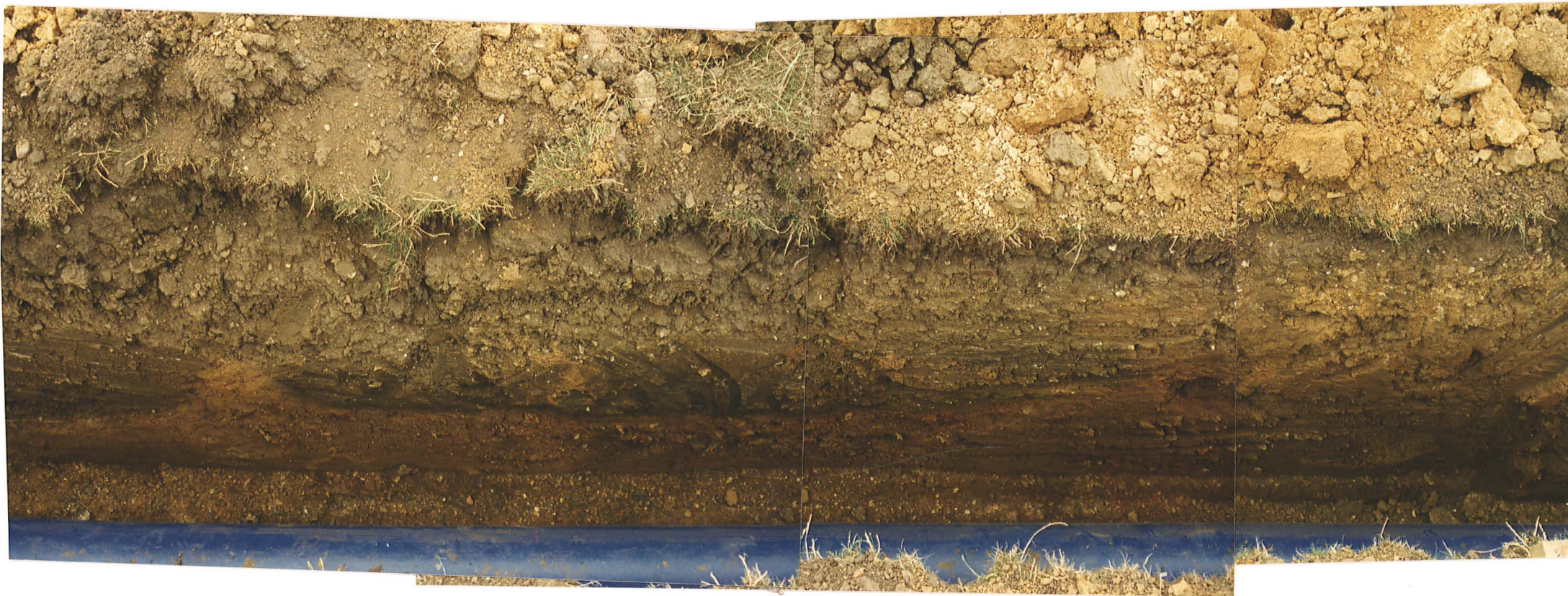
Pl. 3. Dark soil backfill of Ditch 1, showing position of water supply pipe (looking east; scale divisions 0.5m).

Pl. 4. Ash and burnt clay at the bottom of ditch 1, above the orange natural sandy clay.

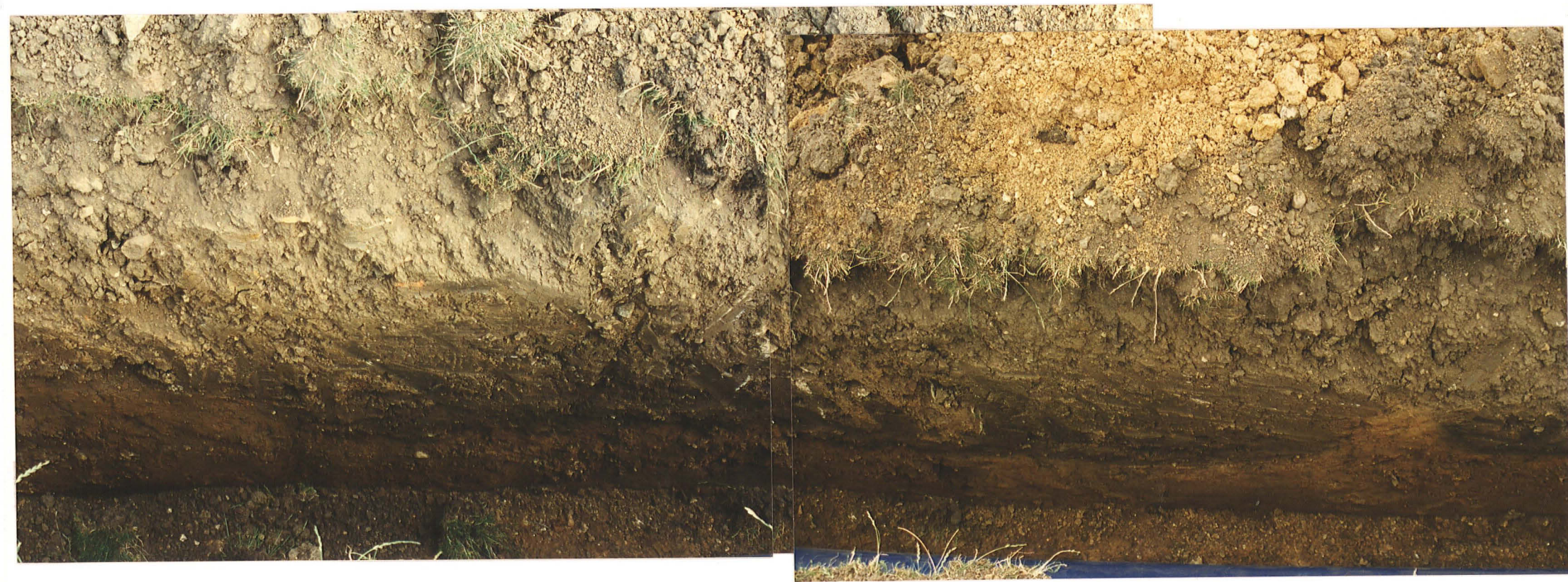




Pl. 5. Green clay loam on the trench spoil heap, from which 209 pottery sherds were collected.



**Pl. 6. Composite view of pit 5 in the eastern trench face (central) with layer 23 to the right and pit 7 to the left. The clay with stone levelling layers 14 and 4 are visible beneath the turf (trench depth 1.2m).**



Pl. 7. Composite view of pit 7 in the eastern trench face (central) with pit 5 to the right and pit 9 to the left. The clay with stone levelling layers 14 and 4 are visible beneath the turf.

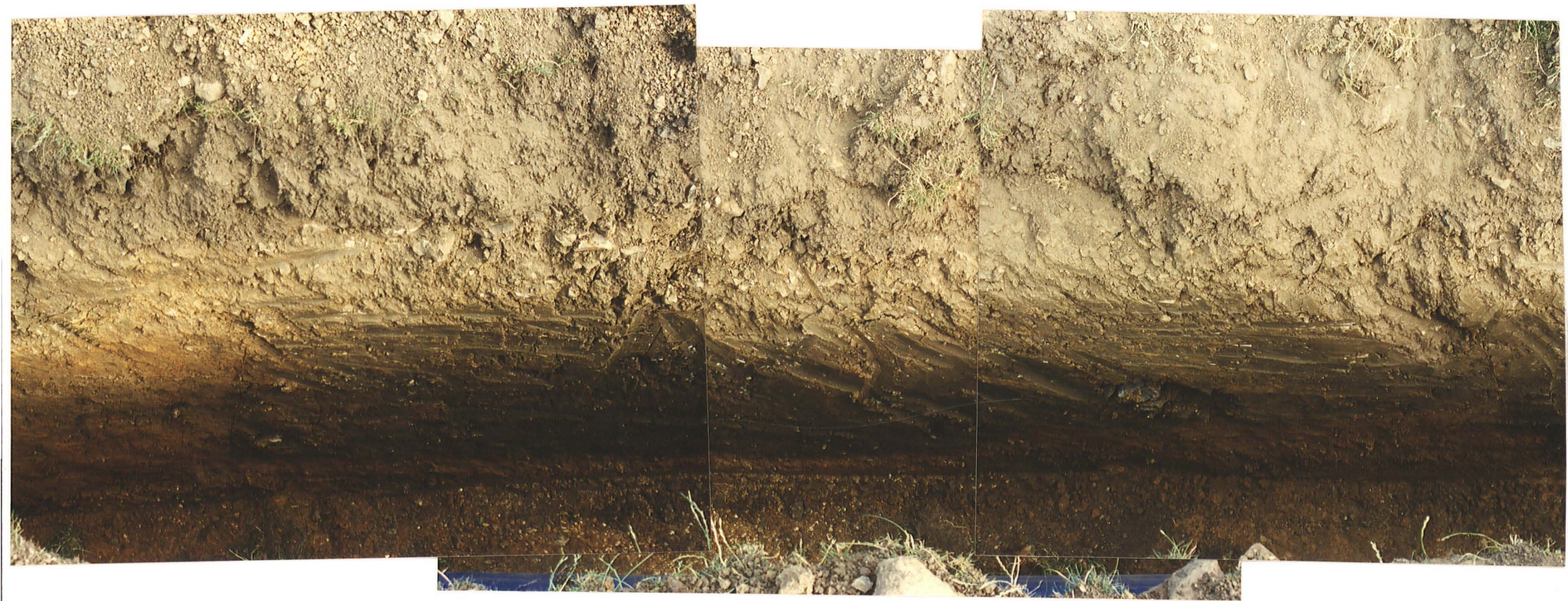


Pl. 8. Composite view of pit 11 in the eastern trench face (central) with pit 9 to the right and pit 16 to the left.



Pl. 9. The dark fills of pits 16 and 11 in the eastern trench face (looking SE).

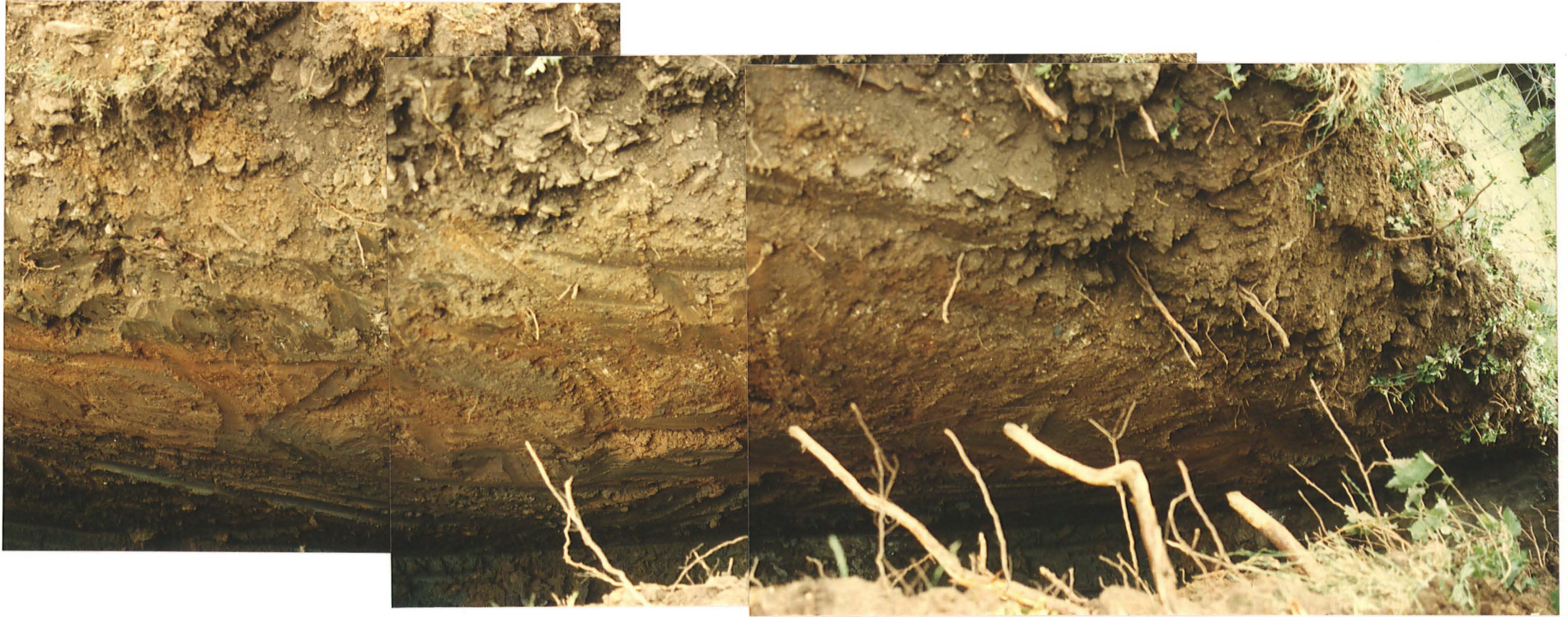




Pl. 10. Composite view of pit 16 in the eastern trench face (central) with pit 11 to the right and pit 19 to the left.



Pl. 11. View of the deeper pipe trench south of the stream crossing during excavation. The thick orange sandy clay with gravel layer overlies darker deposits (looking north).



Pl. 12. Composite view of deposits in the trench face south of the stream. The rubble levelling deposit 14 follows the stream edge profile (looking NW).



Pl. 13. Part of the in situ foundation of a removed brick structure 29 in the western trench face.

Pl. 14. Earthworks of ridge and furrow cultivation 30 in the pasture east of the pipe trench (looking NW towards Dyke village).





Pl. 15. Post-medieval ditch 31 cutting across (and backfilling) earlier plough furrows to the east (looking north).

Pl. 16. Enclosed former plough headland 31 along the south side of the Car Dyke, providing access to fields (looking NE).





Pl. 17. Thick recent peat deposit 33 and underlying chalky silt 34 beside Car Dyke stream (looking north).

Pl. 18. Peat 33 and underlying chalky silt 34 in trench spoil north of the stream.





Pl. 19. Composite view of deposits in the northern trench face north of the stream. The stone and tile rubble layer 37 overlies dark clay 35, which may be fill of the Roman canal (looking NE).



Pl. 20. Dark fill 35 within the feature thought to be the Roman canal (looking NE with stream at extreme right).





PI. 21. Western edge of feature 36 (the possible Roman canal) with the underlying yellow sandy clay 24 visible to the left (looking NE).



Pl. 22. Trenching north of the Car Dyke, using a land drainage machine to produce a narrower trench (looking south).

Pl. 23. Architectural fragment with keel moulding, (probably from a 13th century shaft in a church or high status building) in layer 37. Photographed on adjacent derelict cart to show complete profile.





Pl. 24. Modern residential development north of the Car Dyke within the farmyard area of Britain House. Demolition of buildings here may have produced levelling spreads 4, 14 and 37 (looking SW).

Pl. 25. Small undated pit 39 showing in trench face north of the stream.





Pl. 26. Western side of demolished stone bridge 41 (looking west). Note the brick arch facing.

Pl. 27. Stone rubble marking site of eastern side of bridge 41 (looking east).





PI. 28. Slight earthworks in pasture fields 42a and 42b, looking NW.  
Note the mature walnut tree (to right), one of several in these  
fields.

PI. 29. Ridge and furrow cultivation earthworks 42c surviving in pasture  
(looking west).





PI. 30. Position of the pipe trench in Morton parish, adjacent to the hedge of a removed railway line (looking north).

PI. 31. Feature 43: a vertical-sided trench backfilled with brown clay, seen in the pipe trench face. This may have been a land drain, with the pipe deeper than the monitored trench.





Pl. 32. Variations in the deposits cut by the pipe trench at 48, marking the southern limit of a natural stream channel (looking west).

Pl. 33. Peat at the trench base at 48 where the trench revealed a palaeochannel.





Pl. 34. The contractors mark the northern side of the present stream, but the trench spoil colours show the broader extent of palaeochannel 48 (looking SE).

Pl. 35. The east-west ridge across the field may reflect an upcast bank 49 associated with ditch 50.







Pl. 36. Limestone mixed with clay in backfill of ditch 50, thought to be a Romano-British feature.

Pl. 37. Differential ripening in wheat crop perhaps indicating archaeological pit and ditch features in area of known cropmarks; ridge 49 and ditch 50 are at the furthest end of the visible trench (looking south).





Pl. 38. Upcast bank on south side of Car Dyke at edge of Dyke village (looking SW).

Pl. 39. Course of the Car Dyke to NW of Dyke village, with no surviving bank. A possible vestigial ridge was seen in the far pasture field (looking SW).

