

ARCHAEOLOGICAL MONITORING REPORT

RANSOME'S OUTFALL DRAIN, NACTON (NAC 095)



Clare McLannahan
Field Team
Suffolk C.C. Archaeological Service

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Lucy Robinson, County Director of Environment and Transport
Endeavour House, 8 Russell Road, Ipswich IP1 2BX

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List of Contributors

All Suffolk C.C. Archaeological Service, unless stated.

Clare McLannahan	Assistant Project Officer
Richenda Goffin	Finds Manager
Val Fryer	Environmental Specialist (Freelance)

Acknowledgements

This project was funded by TA Millard Engineers and was monitored by Bob Carr (Suffolk County Council Archaeological Service, Conservation Team).

The monitoring was carried out by Clare McLannahan and managed by John Newman (both Suffolk County Council Archaeological Service, Field Team) who also provided advice during the production of this report.

Finds processing was carried out by Richenda Goffin who also wrote the finds report. Other identification and a specialist report was provided by Val Fryer, who undertook sample analysis.

Thanks are also due to Chris Stannard, of Breheny's Contractors, who liaised with the archaeology service throughout the works.

Summary

Archaeological monitoring was undertaken during the excavation of an outfall drain from Ransome's Europark in Nacton, Ipswich in the north, to the River Orwell in the south, in order to observe and record any surviving archaeological deposits. The pipeline area was stripped to the level of the natural subsoil and then a trench for the pipe was dug through this, monitored intermittently by the observing archaeologist. Throughout the pipeline area, scattered finds including a spread of Saxon pottery and metalwork and a Bronze Age arrowhead as well as linear features seen on air photographs are recorded on the county Sites and Monuments Record (SMR) so it was hoped some archaeological evidence could be found during the monitoring. However, only a stretch through the field just south of Fox's Farm Barn produced any results. A small pit, containing a sherd of Bronze Age beaker pottery and burnt material throughout was seen just at the edge of the excavation area. Other occasional small features were revealed but were undated. A large area of hillwash was also seen through this area but no finds were found within it. The remainder of the monitoring produced no archaeological evidence.

SMR information

Planning application no.	Unknown
Date of fieldwork:	January, February 2005
Grid Reference:	TM 2014 4045
Funding body:	TA Millard Engineers

1. Introduction

Planning consent for a new rain outfall pipe from Ransome's Europark to the River Orwell in Nacton (Fig. 1) required a programme of archaeological monitoring to be undertaken. The proposed pipeline runs from TM 2054 4119 to TM 1971 3999 through arable land for pig and sheep grazing and crops, and Goldsmith's Covert, a woodland area which has been tree covered since at least the 19th century. At the River Orwell, an outfall drain was constructed through the saltmarsh, leaving a small channel between the end of the pipe and the river.

The proposed pipeline was in close proximity to areas of known archaeology recorded on the county SMR (Fig. 2) and thus it was deemed necessary to monitor the groundworks throughout the development, paying particular attention to the area through Goldsmith's Covert and the field just to the south-west of Fox's Farm Barn where most of the records on the SMR are located. The age of the wood was unknown and although no archaeology was recorded there previously, this development was an opportunity to investigate it's potential and to ensure nothing did exist here.

A Brief and Specification for the archaeological work (Appendix 1) was produced by Bob Carr of Suffolk County Council Archaeology Service (SCCAS) Conservation Team and the work was carried out by Clare McLannahan of the SCCAS Field Team, funded by TA Millard Engineers.



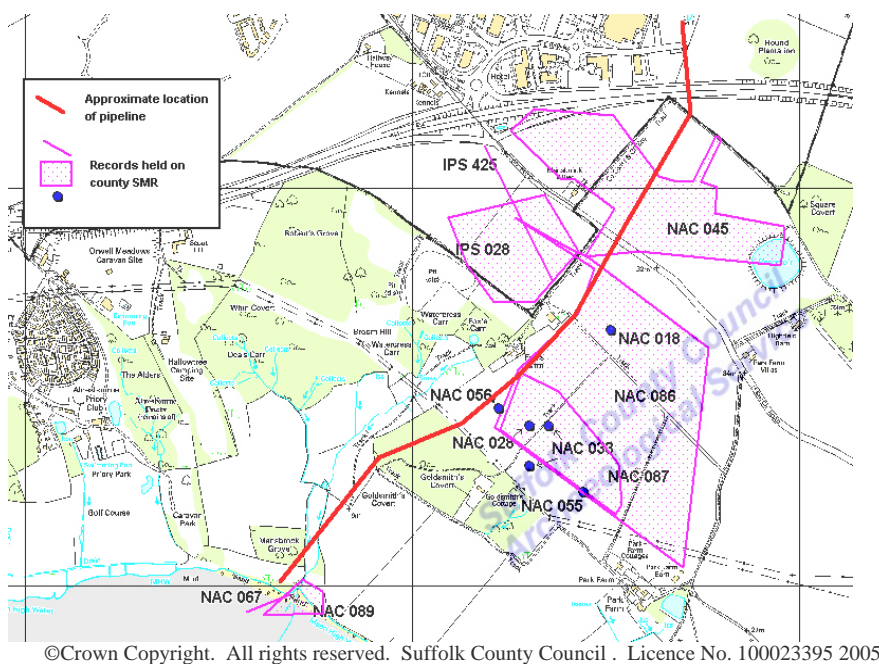
Figure 1: Site location

2. Methodology

The area of proposed extraction (Fig. 3) was stripped to the level of the natural subsoil throughout January and February 2005, by 360° mechanical excavators fitted with a toothless ditching bucket. A series of monitoring visits

were made while soil-stripping operations were in progress and both the excavated topsoil and the exposed surface of the stripped area were examined visually for finds and features. Where features were revealed, they were cleaned manually for definition and each allocated 'observed phenomena' (OP) numbers within a unique continuous numbering system under the SMR code NAC 095 then partially excavated in order to recover dating evidence as well as to observe their form and possibly determine any function. Where deemed necessary, features were sampled for analysis by a specialist. They were drawn on site at a scale of 1:20, recorded photographically using a digital camera and their locations plotted using a hand held GPS system. The site archive will be deposited in the County SMR at Shire Hall, Bury St Edmunds.

All finds were washed and marked before being quantified, identified and dated by the finds management staff of the Suffolk County Council Archaeological Service (see section 4. The Finds). TA Millard, Engineering Company, funded all archaeological work.



NAC 018: A Bronze Age barbed and tanged arrowhead
 NAC 028: A Bronze Age dirk or rapier found metal detecting.
 NAC 033: Medieval, Roman and Saxon material found within field in general scatter. Includes pottery and metalwork.
 NAC 045: A rectangular ditched enclosure and linear field boundaries seen on aerial photographs.
 NAC 055: Saxon dress fastener found.
 NAC 056: Saxon tweezers found.
 NAC 067/NAC 089: Single line of large posts on intertidal line of river Orwell running out to low water mark in a westerly direction from the bank.
 NAC 086: Fragments of a Post Medieval field system visible on aerial photographs.
 NAC 087: A ditched trackway and linear features of unknown date visible on aerial photographs.
 IPS 425: Linear ditch of unknown date and function seen on aerial photographs.
 IPS 428: Neolithic axe fragment and a possible later Prehistoric or Roman rectilinear enclosure and associated field system seen on aerial photographs.

Figure 2: Archaeological sites recorded on the county Sites and Monuments Record

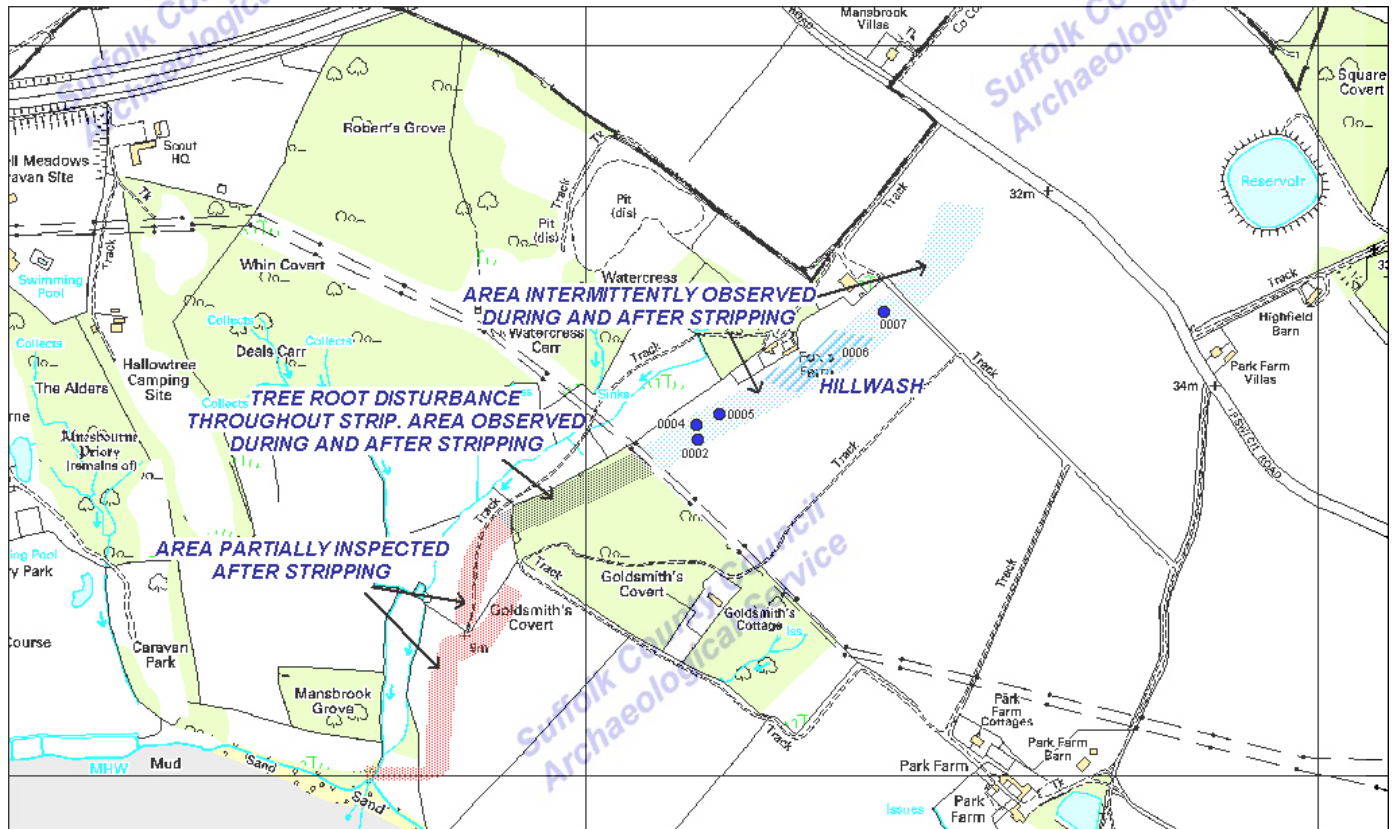
3. Results

Visibility varied throughout the pipeline strip (Fig. 3). Between Goldsmith's Covert and the River Orwell, the area was tracked over before the observing archaeologist could view the excavated area. However, from what could be seen, it appeared that no archaeological features were present there.

Throughout Goldsmith's Covert, the natural subsoil was heavily disturbed by tree roots and so the excavation was not clean, although it was observed throughout stripping. This natural varied from bright orange gravelly sand to soft pale yellow sand throughout this area. At TM 2006 4038 the natural sand was not reached; a deposit of dirty mid orange brown clay sand was seen to at least a depth of 1m. It is likely that this was hillwash as this area was in a natural 'dip' and natural subsoil could be seen at both sides. No finds were found within this hillwash.

The topsoil (0001) was similar over whole site; a mid/dark rich orange brown slightly clay soft sand with very occasional stones. It varied in depth from between c.250mm just south of the covert to around 800mm within the wood. Five fragments of pottery were found in this deposit,

including three very small sherds from a single vessel, thought to be Iron Age in date. Two larger fragments of medieval courseware were also recovered thought to date from between the 11th and 14th centuries. Modern glazed pottery and glass was also found right through this layer showing that some degree of mixing had occurred throughout and that any finds recovered were likely to have been residual.



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Figure 3: Plan of stripped areas and location of features

Stripping for the pipeline through the field between Goldsmiths's Covert and Fox's Farm Barn was intermittently observed. The natural was a very bright orange gravelly sand and was observed at a depth of c. 300mm. Occasional small circular black patches of burning were revealed, thought to be modern fog lifters. These were also found during excavations in the adjacent quarry (McLannahan, 2004) and it is thought that the proximity of both these sites to the former Ipswich Airport, c.1km away may explain their presence.

Visibility in this area was, at best, average. The angle of the sun made feature observation difficult and the softness of the ground meant that machining was quite erratic. Nevertheless, a few features were found within this stripped area (Fig. 3) and are described below.

Pit 0002 (Fig. 4) was medium sized and roughly oval in shape, approximately 1m x 1.3m at the edge of the stripped area. It was filled by 0003, a dark blackish charcoal rich sand with burnt stones throughout. Clay lumps were also throughout but in no apparent structure. There was obvious evidence of in situ burning or the fill added when still hot as the surrounding natural sand was heat reddened. A sherd of early Bronze Age Beaker pottery was found within the fill, which was sampled to ascertain a possible reason for the burning. The results of the sampling

were inconclusive due to the lack of suitable material to sample (see section 4.6. Sample results); the pit's size meaning only a small amount of fill could be taken from it.

Spread 0004 was approximately 1m x 1m and around 150mm deep. It consisted of dark orange brown stoney sand but was not excavated fully. It contained two small sherds of pottery, thought to be from the same vessel. These were heavily abraded but thought to be prehistoric in date.

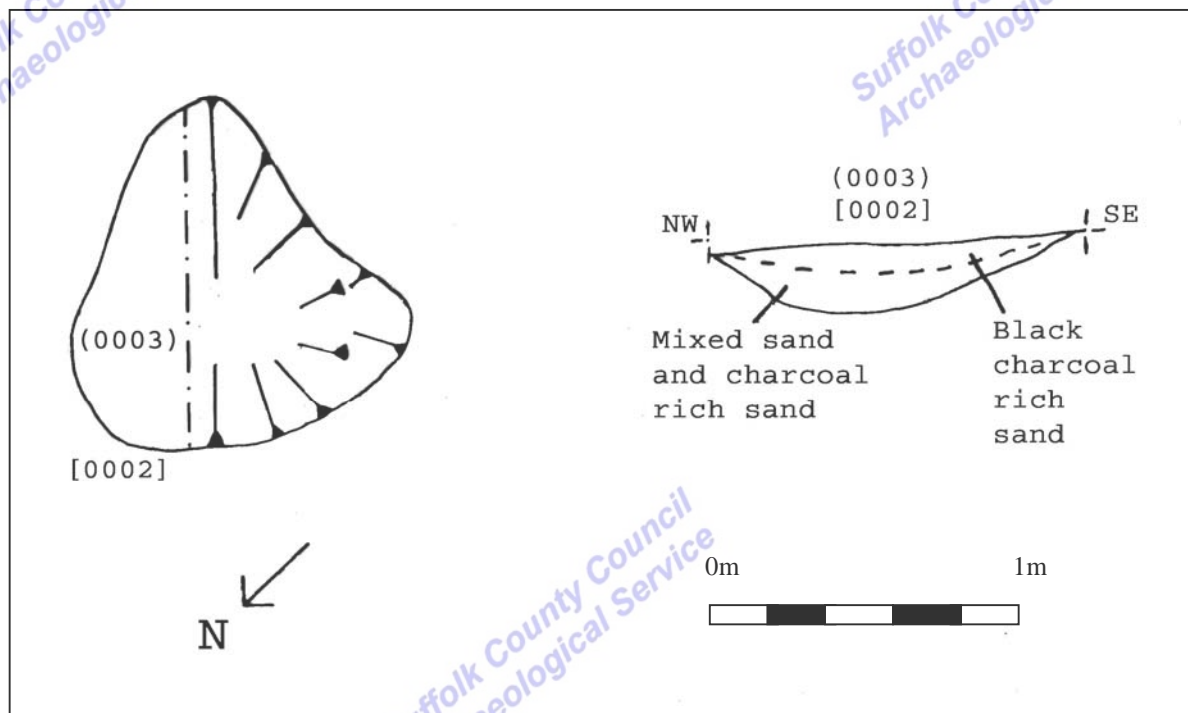


Figure 4: Pit 0002. Illustration of section and pit in plan.

Feature 0005 was approximately 1m x 2m and at least 300mm deep but was not bottomed. It consisted of a dark brown stoney sand but again, was not fully excavated.

Hillwash 0006 consisted of dark grey brown sand with frequent stones and stretched for c.120 metres through the stripped area, in a natural depression. No finds were found within it and its depth was not determined due to the pipeline excavations continuing without the observing archaeologist.

Pit 0007 was a small oval pit, approximately 300mm x 400mm x 150mm deep. It was filled by 0008, a mid brown sand with burnt clay lumps and evidence of burning throughout. No finds were found in this fill but it was sampled, again to ascertain a possible reason for the burning but again, this sampling proved inconclusive (see section 4.6. Sample results).

4. The Finds

Nacton (NAC 095): the finds

Richenda Goffin, March 2005.

4.1 Introduction

Finds were collected from three contexts, as shown in the table below.

Context	Pottery		Fired clay		Flint		Burnt flint		Spotdate
	No.	Wt/g	No.	Wt/g	No.	Wt/g	No.	Wt/g	
0001	5	35							Medieval
0003	1	13	1	2	1	3	2	28	Early Bronze Age
0004	2	6	1	1	1	2			Prehistoric
Total	8	54	2	3	2	5	2	28	

4.2 Pottery (Identifications by Edward Martin)

A total of eight fragments of pottery were recovered from the monitoring, weighing 54g.

Five fragments were found in the topsoil deposit 0001. Three very small hand-made thick-walled sherds from a single vessel are made in a fine sandy fabric with moderate flint inclusions up to 3mm in length. They are slightly abraded, and have an oxidised margin with a dark grey core. The sherds could be Iron Age in date, but it is also possible that they are earlier. In addition two fragments of medieval coarseware were found in the same deposit. A single large body sherd is made from a sandy fabric with occasional fine mica. A second fragment is smaller and considerably finer. Both are comparatively unabraded, and have a broad date range of the 11th-14th century.

A single, relatively unabraded fragment of a Beaker vessel was present in pitfill 0003. The sherd is made from a soft orange fabric which contains grog and sparse burnt flint inclusions up to 2mm, and is decorated with eight rows of comb impressed decoration. The vessel is Early Bronze Age in date.

Two further fragments of very abraded pottery were identified in the sandy spread 0004. The sherds have lost most of their outer surface, but are likely to be from the same vessel. They are made of a soft fine fabric with moderate flint inclusions of variable size but not larger than 2mm in length. The fabric matrix also contains some evidence of fine organic inclusions. There is some evidence that both sherds have an oxidised outer surface. They are of general prehistoric date and are not closely dateable.

4.3 Fired clay

Two small undiagnostic fragments of fired clay were recovered from 0003 and 0004. Neither of the pieces had any indication of structural impressions or other features of note.

4.4 Flint (identifications by Colin Pendleton)

A fragment of a burnt snapped flake was recovered from pitfill 0003. It has slight edge retouch,

from wear or use, and is Neolithic/Bronze Age in date. Two fragments of burnt flint were also found in the fill.

Part of a secondary flake with hinge fracture present in spread 0004, is of indeterminate date.

4.5 Discussion

The fragment of Beaker vessel was found within the remains of a pit which contained burnt materials, including stones and charcoal. The sherd itself, although slightly abraded, has not been affected by the heat. Fragments of Beaker pottery have been recorded from other parts of the county, with particular concentrations found on the relatively undisturbed area in the north-west of the county, around Lakenheath, and also Ipswich and its surroundings (Bamford 138).

References

Bamford, H., 1982, Beaker Domestic Sites in the Fen Edge and East Anglia, EAA Report No 16.

4.6 Sample results

Val Fryer, March 2005

AN ASSESSMENT OF THE CHARRED PLANT MACROFOSSILS AND OTHER REMAINS FROM THE RANSOME'S RAIN OUTFALL, NACTON, SUFFOLK (NAC 095)

**Val Fryer, Church Farm, Sisland, Loddon, Norwich, Norfolk, NR14 6EF
March 2005**

Introduction

Excavations prior to construction work at the Ransome's rain outfall site were undertaken by the Suffolk County Council Archaeology Service. The work revealed features of prehistoric date including two pits with evidence of *in situ* burning, one of which also contained sherds of Beaker period pottery. Single samples for the extraction of the plant macrofossil assemblages were taken from both pits.

Methods

The samples were processed by manual water flotation/washover, and the flots were collected in a 500 micron mesh sieve. The dried flots were scanned under a binocular microscope at magnifications up to x 16, and the plant macrofossils and other remains noted are listed below on Table 1. All plant remains were charred. Modern fibrous roots were present in both samples.

The non-floating residues were collected in a 1mm mesh sieve and sorted when dry. Artefacts/ecofacts were not present, but fragments of burnt/fired clay and burnt stone were recovered from sample 0008.

Results of assessment

Although charcoal fragments were recorded at a low density from both samples, other plant macrofossils were exceedingly scarce, consisting only of a single culm node from sample 0003 and an indeterminate seed fragment from sample 0008.

Fragments of burnt or fired clay were moderately common in both assemblages, and small pieces of coal were also recorded, although these are almost certainly intrusive within the contexts. The siliceous concretions and the black tarry material are possibly derived from the combustion of organic remains (including straw/grass) at very high temperatures. A single very small (<2mm) fragment of burnt bone was noted within sample 0008.

Conclusions and recommendations for further work

In summary, insufficient material was recovered from the samples to conclusively interpret the assemblages. However, the *in situ* burning which occurred within the pits may have employed both dried plant material and small quantities of wood/charcoal as fuel.

As the assemblages are so small, no further analysis is recommended.

Context No.	0003	0008
Charcoal <2mm	x	x
Charcoal >2m	x	
Indet.culm node	x	
Indet.seed frag.		x
Black tarry material		x
Bone		xb
Burnt/fired clay	xx	x
Siliceous concretions	x	
Small coal frags.	x	x
Sample volume (litres)	5	2
Volume of flot (litres)	<0.1	<0.1
% flot sorted	100%	100%

Table 1. Charred plant macrofossils
And other remains from the Ransomes
Sewer Outfall, Nacton, Suffolk.

Key: x = 1 – 5 specimens
xx = 5 – 10 specimens
b = burnt

5. Discussion

Monitoring of this site produced limited archaeological evidence. With the exception of the Bronze Age pit seen, no features of note were revealed. This is somewhat surprising due to the presence of scattered pottery and metal work from varying ages found previously and also the ditch systems, trackways and enclosures seen on aerial photographs, all recorded on the county SMR (Fig. 2). This would imply that archaeological evidence in the stripped area was likely, especially in the field to the south-west of Fox's Farm Barn where many of these sites are recorded, but it appeared that this was not the case.

There are a number of possible reasons for the lack of evidence. The enclosure seen on air photographs in the field to the south-west of Fox's Farm Barn, may mark the edge of a former boundary and the stripped area, being just outside this boundary, may not have been used for whatever reason. The evidence may exist closer to the centre of the field and certainly many of the finds previously recorded were from this central area suggesting activity was kept within this boundary.

It is also possible that features could have existed under the hillwash 0006 but due to the nature and speed of the works, it wasn't possible to observe the excavation of this.

The visibility could also be a factor in the lack of evidence particularly in the area to the north-east of the wood, with its erratic machining and bad sunlight, where it is possible that some archaeology was present but was not seen. There was relatively little previous evidence of past activity through and south of the wood and so it is unlikely that any archaeological evidence was masked by the bad visibility also afforded here, due to the machine tracks and tree roots.

There is certainly still potential for archaeology in this area; the early Bronze Age pit proving that there was activity here at that time. This is likely to have been used for burning rubbish or

for fire although being right at the edge of the excavation and not being big enough to sample adequately made it difficult to interpret. It is hoped that any further work in this area, towards the centre of this field in particular, would reveal further evidence of archaeology and perhaps help to ascertain what these enclosure features, recorded on the county SMR, are.

References

McLannahan, C. 2004. *Land at Broom Hill and Fox's Carr, Nacton*. NAC 052. 2004/75