

Northamptonshire Archaeology

An archaeological evaluation
on the Moxhill to Sandy Watermain
Bedfordshire
December 2006



Mark Patenall

January 2007

Report 07/03

Northamptonshire Archaeology

2 Bolton House
Wootton Hall Park

Northampton NN4 8BE

t. 01604 700493 f. 01604 702822

e. sparry@northamptonshire.gov.uk

w. www.northantsarchaeology.co.uk



STAFF

Project Manager	Adam Yates BA AIFA
Fieldwork	Adrian Burrow MA Mark Patenall Angela Warner Jennifer Kinsman
Text	Mark Patenall
Environmental	Karen Deighton MSc
Illustrations	Hale Moharramzadeh BA MA

QUALITY CONTROL

	Print name	Signed	Date
Checked by	P Chapman		
Verified by	A Maull		
Approved by	Bill Boismier		

OASIS REPORT FORM

PROJECT DETAILS		
Project title	An Archaeological Evaluation on the Moxhill to Sandy Watermain, Bedfordshire	
Short description (250 words maximum)	Northamptonshire Archaeology conducted a trial trench evaluation prior to the construction of a new water main between Moxhill and Sandy, Bedfordshire. The work was commissioned by Anglian Water via Carl Bro Group. A total of 34 trenches were excavated, 2 further trenches were not available for excavation. The heavily truncated remains of a possible Roman road were identified, together with a small number of undated pits and gullies.	
Project type	Field Evaluation (Site Code: MSW06)	
Previous work	none	
Future work (yes, no, unknown)	Unknown	
Monument type And period	Roman road (HER738/11984)	
Significant finds (artefact type and period)	None	
PROJECT LOCATION		
County	Bedfordshire	
Site address (including postcode)	Grove Farm, Budna Road, Moggerhanger	
Easting	512683 – Start, 515964 – Finish	
Northing	246787 – Start, 248935 – Finish	
Height OD	c 25m	
PROJECT CREATORS		
Organisation	Northamptonshire Archaeology	
Project brief originator	Bedfordshire County Council Heritage & Environment Section	
Project Design originator	NA	
Director/Supervisor	Adrian Burrow	
Project Manager	Adam Yates	
Sponsor or funding body	Anglia Water	
PROJECT DATE		
Start date	December 2006	
End date	December 2006	
ARCHIVES	Location (Accession no.)	Content (e.g. pottery, animal bone etc)
Physical	BEDFM;2006.749	
Paper		Plans; sections; pro-forma sheets, colour slides, B + W contact sheets
Digital		
BIBLIOGRAPHY		
Title		
Serial title & volume	07/03	
Author(s)		
Page numbers		
Date		

Contents

1	INTRODUCTION	1
2	BACKGROUND	1
3	METHODOLOGY	2
4	THE EVALUATION EVIDENCE	3
5	THE ENVIRONMENTAL EVIDENCE	4
6	DISCUSSION	4
	BIBLIOGRAPHY	5
	APPENDIX A1: SITE DATA	6

TABLES

Table 1: Historic Environment Record sites in the surrounding area

FIGURES

Fig 1: Pipeline location 1:25,000

Fig 2: Trench locations 1:10,000

Fig 3: Trench Plans and Sections

**AN ARCHAEOLOGICAL EVALUATION
ON THE MOXHILL TO SANDY WATERMAIN
BEDFORDSHIRE
DECEMBER 2006**

ABSTRACT

Northamptonshire Archaeology conducted a trial trench evaluation prior to the construction of a new water main, which runs between Moxhill and Sandy, Bedfordshire. The work was commissioned by Anglian Water via Carl Bro Group. A total of 34 trenches were excavated, two further trenches were not available for excavation. The heavily truncated remains of a possible Roman road were identified, together with a small number of undated pits and gullies.

1 INTRODUCTION

Northamptonshire Archaeology undertook an archaeological evaluation in December 2006, on behalf of Anglia Water Services and Carl Bro Group. The route of the pipeline, approximately 4.7km, was between Moxhill reservoir (NGR 512683 246787) and Bridge Farm (NGR 515964 248935, Fig 1). The evaluation met the requirements of a specification prepared by Northamptonshire Archaeology (NA 2006) from a brief prepared by Bedfordshire County Council Heritage & Environment Section (BCCHEs, 2006).

The main objectives of the archaeological evaluation (as stated in the project design, NA 2006, section 2.1) were to;

- ❖ Provide detailed information regarding the extent, distribution and character of archaeological remains and palaeoenvironmental deposits across the route of the pipeline
- ❖ Place the archaeology of the site within its local, regional and national archaeological context
- ❖ To define any potential constraints for further archaeological fieldwork including areas of disturbance, service locations, etc.

2 BACKGROUND

2.1 Topography and geology

The route of the pipeline crossed seven arable fields. The southern section followed the line of St John's Road north from Moxhill reservoir, then north-east to follow a small stream valley, and

then eastwards adjacent to the A603 to Sandy (Fig 1). The average elevation of the site was 25m AOD. The geology comprised Ampthill and Oxford clays with river gravel terraces (www.bgs/geoindex).

2.2 Archaeological background

A range of archaeological interests are recorded along the pipeline route in the county Historic Environment Record (HER) (Fig 2). The trial evaluation directly impacted on two of these in particular;

HER 738/11984: Roman Road from Bedford to Sandy (Trench 29)

HER 15992: Findspot-Roman coin and tesserae (Trench 22)

In addition the pipeline route passes close to a number of additional HER sites (see below).

Table 1: Historic Environment Record sites in the surrounding area

HER No	Description
HER 224	Medieval moated site
HER 15093	Cropmark
HER 15094	Cropmark
HER 16212	Cropmarks, part of large rectilinear enclosure, finds including Roman pottery and coins
HER 16771	Cropmarks, fairly large curvilinear enclosure with features attached, including double-ditched trackway
HER 17125	Cropmark
HER 9797	Road

3 METHODOLOGY

A total of 34 trial trenches were excavated in the pipeline corridor, with a total area of 2150m² (Fig 2). Another two trenches (35 and 36) on the east side of the corridor were not excavated due to land access restrictions. The trenches were laid out using Leica 1200 GPS surveying equipment and related to the Ordnance Survey National Grid and Datum. All the trenches were excavated under archaeological supervision, using tracked excavators with 2m wide toothless ditching blades.

All potential archaeological features were examined by hand excavation, using standard Northamptonshire Archaeology recording procedures. Contexts were recorded on pro-forma sheets with a unique context number being allocated to each distinct deposit and feature (tabulated context descriptions are given in Appendix 1). Trenches containing archaeology were planned at 1:100 while all sections were recorded at 1:10. Levels were taken in all trenches and related to Ordnance Survey Datum.

All works were carried out in accordance with the *IFA Standards and Guidance for Archaeological Excavations* (1995, revised 1999) and the *Code of Conduct* of the Institute of Field Archaeologist (1985, revised 2000).

All procedures complied with the Northamptonshire County Council Health and Safety provisions and Northamptonshire Archaeology Health and Safety at Work Guidelines (NA 2003). Archaeological works were monitored by Martin Oake (Bedfordshire Planning Archaeologist)

4 THE EVALUATION EVIDENCE

4.1 General stratigraphic sequence

Of the 34 trenches excavated along the route of the pipeline (Fig 2), 26 trenches were 25m in length and 8 trenches were 50m in length. All trenches were 2m wide.

The depth of the trenches ranged from 0.24m to 1.02m. The natural substrate was generally consistent across the site, comprising red sand and orange brown gravel with patches of brown to grey clay. Deposits of alluvium were present in several trenches (30, 31, 32). The subsoil comprised a yellow brown to brownish grey clay loam with stone inclusions, ranging between 0.10m to 0.80m in thickness. The topsoil, which was between 0.23m to 0.53m thick, comprised a brown to dark grey sandy clay loam, which became more stony where no subsoil was present. Trenches 5, 7, 9, 10, 13, 14, 34, contained no subsoil and were between 0.24m and 0.53m deep.

Four trenches (15, 22, 27 and 29, Fig 3), contained archaeological features. These are described in detail below. All features cut the natural substrate and are overlain by subsoil.

4.2 Trench 15

This trench was 25m long, aligned east to west. A small gully [1505], was aligned south-east to north-west at the eastern end of the trench (Fig 3, Section 1). It had shallow curving sides and a flat base, and measured 0.60m wide by 0.07m deep. The fill (1504) consisted of a mid grey silty clay containing sparse small stones. No finds were present.

4.3 Trench 22

Measuring 50m in length, this trench was aligned north-west to south-east (2203). Two parallel

gullies [2205] and [2207], aligned north-east to south-west were present, cutting the natural at the southern trench end (Fig 3, Section 2). Gully [2205] had steep, slightly concave sides and a concave base and measured 0.5m wide by 0.26m deep. Filled by a firm mid grey silty clay (2206). No finds were present in this fill. Gully [2207] lay 2m to the east of [2205], 0.5 wide, but remained unexcavated due to standing water.

4.4 Trench 27

This trench measured 25m long and was aligned east to west. A sub-circular pit [2704] was revealed at the eastern trench end (Fig 3, Section 3). It had a shallow profile with concave sides and base, measuring 0.60m wide by 0.16m deep. The fill (2703) consisted of dark grey sandy clay, with inclusions of frequent charcoal flecks and pieces and moderate gravel. No finds were present in this fill, but it was sampled for palaeo-environmental assessment, (see report below).

4.5 Trench 29

This trench was 50m in length and aligned north-east to south-west. A gully/ditch [2905] was present 17m from the eastern trench end and was aligned north-west to south-east (Fig 3, Section 4). It had shallow irregular sides and a concave base measuring 0.60m wide by 0.10m deep. The fill (2904) consisted of a mottled orange-grey silty clay with occasional gravel and was very similar to the surrounding natural silts. No finds were present in this fill.

On the south side of the gully was a slightly darker spread of loose dirty gravel (2906), with uneven edges, approximately 4m wide and less than 0.05m thick (Fig 3).

5 THE ENVIRONMENTAL EVIDENCE

by Karen Deighton

A 10 litre sample was retrieved from fill (2704), within pit [2705] in trench 27. This sample was processed using a 500micron mesh and flot sieve. The resulting flot was dried and examined under a microscope (10x magnification)

The sample contained only five charcoal fragments, which were too small for further identification, and a single snail shell (*Bithynia* sp.).

6 DISCUSSION

The evaluation revealed limited evidence for past land use along the course of the watermain. Trench 15 revealed a shallow gully [1505], possibly a field boundary of unknown date. Trench 22, revealed two undated parallel gullies [2205] and [2207], adjacent to a known Roman findspot (HER 15992). Their orientation suggests a possible relationship to a cropmark (HER16212), to

the south which has produced Roman pottery (Aerial photo supplied by Bedfordshire SMR reference number unknown). Spaced approximately 2m apart they may represent a minor trackway between this site and the Roman road to the north. Trench 27 revealed a very small, irregular pit [2705] containing minor amounts of charcoal but no finds.

Trench 29 revealed a shallow possible gully [2905] and adjacent patch of darker gravel. This may be interpreted as evidence for the presence of the Roman road (HER738/11984) thought to be located here. The gully, orientated on the same east to west alignment as the road, may have been part of the road edging for drainage, with the gravel being the remnants of the now truncated bedding layer.

BIBLIOGRAPHY

BCCHES 2006 *Brief for the Archaeological Field Evaluation of the Moxhill-Sandy Mains Replacement Phase 1, Bedfordshire*, Bedfordshire County Council Heritage & Environment Section

IFA 1995 (revised 2000) *Code of Conduct*, Institute of Field Archaeologists

IFA 1999 *Standard and Guidance for Archaeological field evaluation*, Institute of Field Archaeologists

NA 2006 *Moxhill to Sandy Watermain, Bedfordshire, Project Design for Archaeological Trial Excavation*, Northamptonshire Archaeology

Websites

<http://www.bgs/geoindex>

APPENDIX A1: SITE DATA

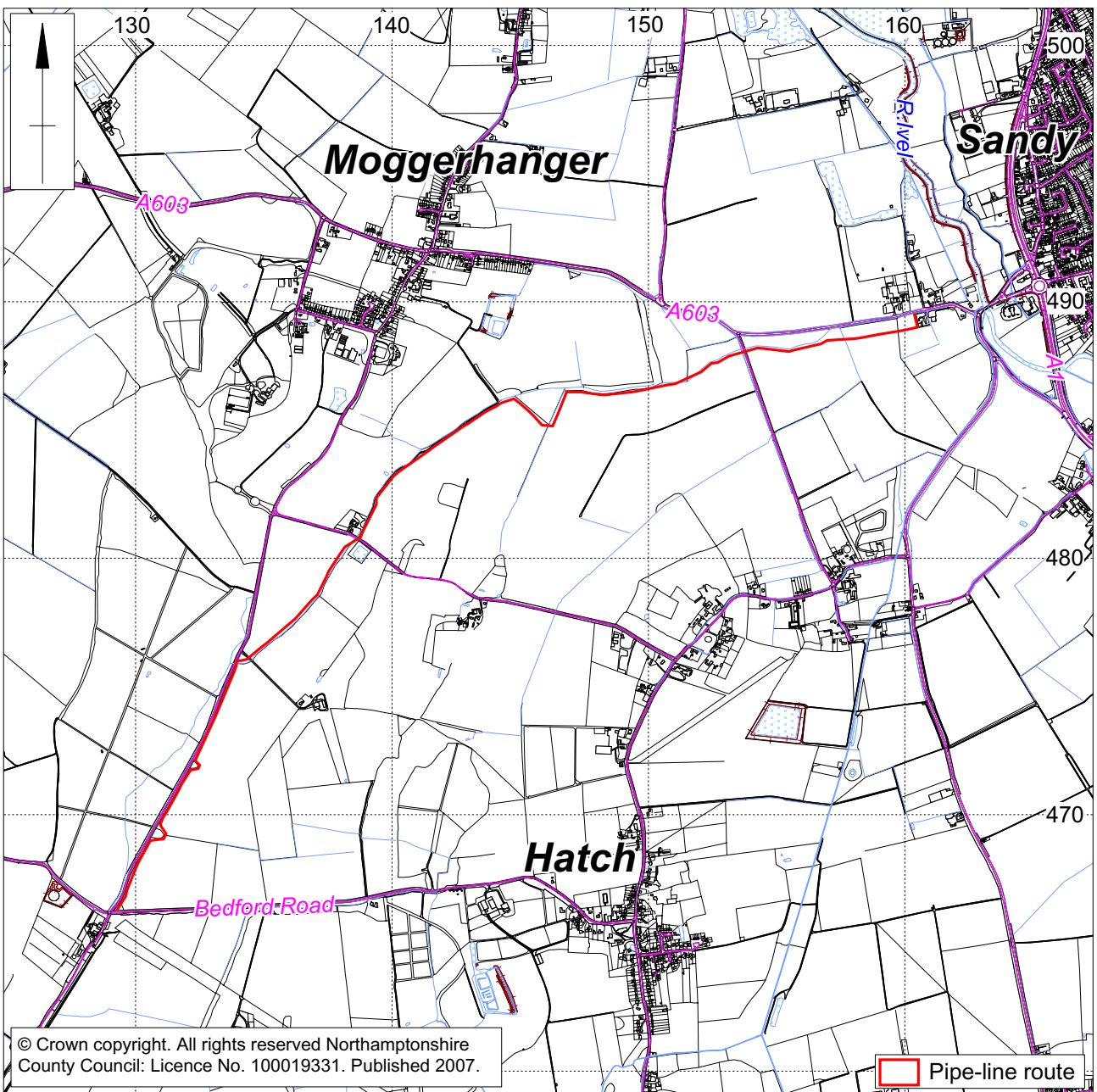
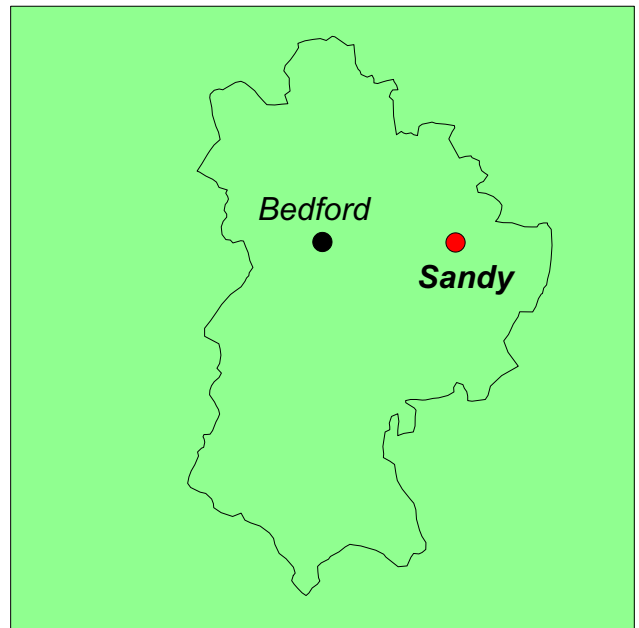
Trench No	Context	Deposit Type	Description
1	101	Topsoil	Firm mid-grey brown silty clay loam, 0.34m thick
	102	Subsoil	Firm orange-brown fine sandy clay, inclusions chalk and pebbles , 0.26m thick
	103	Natural	Firm blue grey clay with lenses of orange brown sands and gravels
2	201	Topsoil	Firm mid-grey brown silty clay loam 0.28m thick
	202	Subsoil	Firm orange-brown fine sandy clay, inclusions chalk and pebbles, 0.18m thick
	203	Natural	Firm blue grey clay with lenses of orange brown sands and gravels
3	301	Topsoil	Firm mid-grey brown silty clay loam 0.25m thick
	302	Subsoil	Firm mid- orange brown clay, 0.23m thick, inclusions frequent pebbles, pea gravel and chalk
	303	Natural	Firm blue grey clay with lenses of orange brown sands and gravels
4	401	Topsoil	Firm mid-grey brown silty clay loam, 0.24m thick
	402	Subsoil	Firm mid- orange brown clay, 0.23m thick, inclusions frequent pebbles, pea gravel and chalk
	403	Natural	Firm blue grey clay with lenses of orange brown sands and gravels
5	501	Topsoil	Firm mid-grey brown silty clay loam, 0.24m thick
	502	Natural	Firm blue grey clay with lenses of orange brown sand
6	601	Topsoil	Firm mid-grey brown silty clay loam 0.26m thick
	602	Subsoil	Firm orange brown fine sandy clay 0.10 m thick
	603	Natural	Firm mid-grey brown silty clay 0.24m thick
7	701	Topsoil	Firm light to mid greyish brown clay loam, 0.25 thick
	702	Natural	Firm orange brown sandy clay and gravel with lenses of blue grey clay
8	801	Topsoil	Firm light to mid grey brown clay loam, 0.25m thick
	802	Subsoil	Firm orange brown sandy clay, 0.29m thick
	803	Natural	Firm orange brown sandy clay with lenses of blue grey clay and gravel
9	901	Topsoil	Firm grey brown clay loam, inclusions of gravels, 0.25m thick
	902	Natural	Firm orange brown sandy clay with lenses of blue grey gravelly clay, 0.34m thick
10	1001	Topsoil	Firm grey brown clay loam, inclusions of gravels, 0.29m thick

Trench No	Context	Deposit Type	Description
	1002	Natural	Firm orange brown sandy clay with lenses of gravely blue grey clay, 0.30m thick
11	1101	Topsoil	Firm mid to dark orange brown clay loam, inclusions of gravel, 0.30m thick
	1102	Subsoil	Firm mid orange brown silty clay, inclusions infrequent gravel, 0.30m thick
	1103	Natural	Firm mid to dark reddish orange sandy gravel with patches of blue grey clay
12	1201	Topsoil	Firm grey brown clay loam, inclusions of infrequent gravels, 0.25m thick
	1202	Subsoil	Firm light brown sandy clay, inclusions of gravels, 0.17m thick
	1203	Natural	Firm yellow brown clay with lenses of reddish orange clay and gravel
13	1301	Topsoil	Firm mid to dark orange brown clay loam, 0.29m thick
	1302	Natural	Firm blue grey to reddish orange clay with patches of mid reddish orange sandy gravel
14	1401	Topsoil	Firm mid to dark orange brown clay loam, 0.53m thick
	1402	Natural	Firm mid orange brown gravely clay with patches of blue grey clay and reddish orange sand
15	1501	Topsoil	Firm mid to dark orange brown clay loam, 0.26m thick
	1502	Subsoil	Firm mid orange brown silty clay, inclusions infrequent gravel, 0.30m thick
	1503	Natural	Firm patches of blue grey clay, reddish orange sandy gravel and light to mid yellow brown silty clay
	(1504)	Gulley Fill	Firm light – mid grey silty clay, depth 0.60m, Width 0.7m. Overlain by (1503).
	(1505)	Gulley cut	Linear aligned SE – NW at eastern end of trench, shallow 20°-30° curving sides down to a flattish base. Depth – 0.7m, Width - 0.60m.
16	1601	Topsoil	Firm mid to dark orange brown clay loam, 0.23m thick
	1602	Subsoil	Firm mid orange brown silty clay, inclusions infrequent gravel, 0.40m thick
	1603	Natural	Firm patches of blue grey, orange brown clays and mid reddish orange gravels
17	1701	Topsoil	Firm dark grey clay loam, 0.30m thick
	1702	Subsoil	Firm yellow brown sandy clay, 0.10m thick
	1703	Natural	Firm yellow brown clay

Trench No	Context	Deposit Type	Description
18	1801	Topsoil	Firm dark grey clay loam, 0.28m thick
	1802	Subsoil	Firm orange brown sandy clay, inclusions infrequent small gravel, 0.36m thick
	1803	Natural	Firm light orange brown sandy clay with lenses of orange brown gravel
19	1901	Topsoil	Firm mid brownish grey clay loam, inclusions moderate gravels
	1902	Subsoil	Firm mid yellow brown silty clay, inclusions moderate small gravels
	1903	Natural	Firm light grey clay with patches of orange brown sand and gravel and blue grey clay
20	2001	Topsoil	Firm mid grey brown clay loam, 0.20m thick
	2002	Subsoil	Firm yellow brown clay, 0.20m thick
	2003	Natural	Firm light yellow brown gravelly clay
21	2101	Topsoil	Firm grey brown clay loam, 0.30m thick
	2102	Subsoil	Firm orange brown clay 0.20m thick
	2103	Natural	Firm light brown clay with lenses of orange brown gravels
22	2201	Topsoil	Firm dark grey clay loam, 0.30m thick
	2202	Subsoil	Firm brownish grey clay, inclusions infrequent gravels, 0.20m thick
	2203	Natural	Firm light yellow brown clay with lenses of gravel
	(2204)	Gulley fill	Firm mid grey clay silt, inclusions occasional charcoal flecks and moderate angular gravel, Width – 0.5m depth – 0.26, overlain by (2202)
	[2205]	Gully cut	Linear aligned NE – SW with steep 70 ° slightly concave sides and a concave base, width – 0.5m, depth - 0.26m
	(2206)	Gulley fill	Firm mid grey silty clay width - 0.5m
	[2207]	Gulley cut	Linear aligned NE – SW. Not excavated. Width – 0.5m.
23	2301	Topsoil	Firm mid dark grey brown clay loam , inclusions infrequent gravel, 0.28m thick
	2302	Subsoil	Firm mid orange brown sandy clay, inclusions infrequent gravel, 0.22m thick
	2303	Natural	Firm dark orange brown sandy gravel with lenses of blue grey clay
24	2401	Topsoil	Firm mid dark grey brown clay loam , inclusions infrequent gravel, 0.38m thick
	2402	Subsoil	Firm mid orange brown sandy clay, inclusions infrequent gravel 0.16m thick
	2403	Natural	Firm light to mid orange brown sandy clay

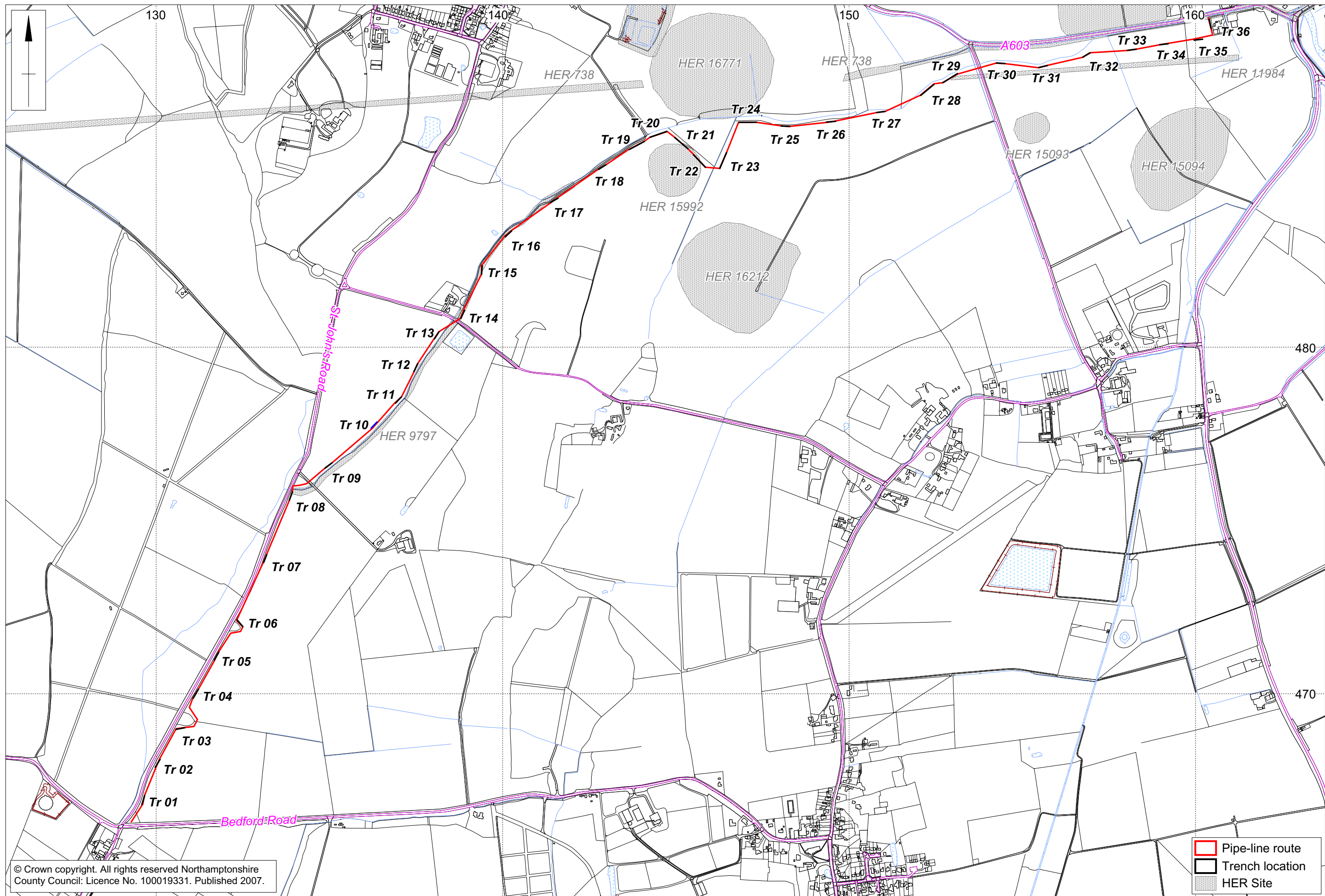
Trench No	Context	Deposit Type	Description
25	2501	Topsoil	Firm mid dark grey brown clay loam , inclusions infrequent gravel, 0.28m thick
	2502		Number not assigned
	2503	Subsoil	Firm mid orange brown sandy clay, inclusions infrequent gravel 0.27m thick
	2504	Natural	Firm blue grey clay with lenses of orange sandy gravel
26	2601	Topsoil	Firm mid dark grey brown clay loam , inclusions infrequent gravel, 0.20m thick
	2602	Subsoil	Firm orange brown sandy clay, inclusions frequent gravels, 0.24m thick
	2603	Natural	Firm blue grey clay with lenses of orange sandy gravel and a large patch of yellow orange sandy clay
27	2701	Topsoil	Firm dark grey clay loam, 0.30m thick
	2702	Subsoil	Firm orange yellow silty clay, inclusions infrequent gravel, 0.40m thick
	(2703)	Pit fill	Firm dark grey sandy clay, Inclusions frequent charcoal (flecks & pieces), moderate sub-angular gravel and possible decayed ceramic material, Width – 0.6m Depth – 0.16m
	[2704]	Pit cut	Sub – circular shallow 20°- 25° concave sides and a curved base, Width – 0.6m Depth – 0.16m
	2705	Natural	Firm orange gravel and clay
28	2801	Topsoil	Firm mid brown silty clay loam 0.3m thick
	2802	Subsoil	Firm dark orange brown sandy silt with gravel, 0.5m thick
	2803	Natural	Firm orange sandy gravel and clay
29	2901	Topsoil	Firm mid grey brown clay loam, 0.25m thick
	2902	Subsoil	Firm dark orange brown sandy clay, 0.23m thick
	2903	Natural	Firm light orange brown sandy clay with lenses of gravel
	(2904)	Ditch fill	Firm mottled orange grey silted clay, inclusions occasional gravel, Width - 0.6m Depth - 0.10m
	[2905]	Ditch cut	Direction NW – SE shallow irregular sides and a concave base, Width - 0.6m Depth – 0.10m
	(2906)	Layer	Firm dirty orange brown gravel running SE – NW, less than 5cm in depth
30	3001	Topsoil	Firm dark grey brown silty clay loam, inclusions moderate gravels, 0.3m thick
	3002	Subsoil	Firm mottled orange yellow silty clay, 0.5m thick

Trench No	Context	Deposit Type	Description
	3003	Natural	Firm orange to grey clay and gravels
31	3101	Topsoil	Firm dark grey silty sandy loam, 0.33m thick
	3102	Subsoil	Firm mid orange brown silty sandy loam, inclusions frequent rounded and angular stones, 0.80m thick
	3103	Natural	Firm mid orange brown sandy gravel
32	3201	Topsoil	Firm dark grey silty sandy loam 0.33m thick
	3202	Subsoil	Firm light to mid orange brown clay sandy loam, 0.20m thick
	3203	Layer	Firm mottled orange brown to light grey clay, 0.18m thick
	3204	Natural	Firm mid orange brown sandy gravel
33	3301	Topsoil	Firm dark grey silty sandy loam 0.30m thick
	3302	Subsoil	Firm mid orange brown silty clay loam, 0.15m thick
	3303	Natural	Firm mid orange brown sandy gravel
34	3401	Topsoil	Firm dark grey silty sandy loam 0.33m thick
	3402	Natural	Firm mid orange brown sandy gravel



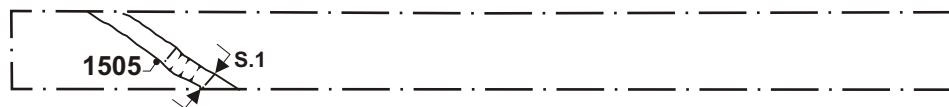
Scale 1:25,000

Pipe-line location Fig 1



Trench location Fig 2

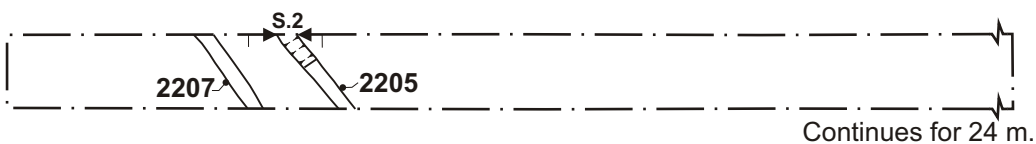
Trench 15



Section 1-Trench 15



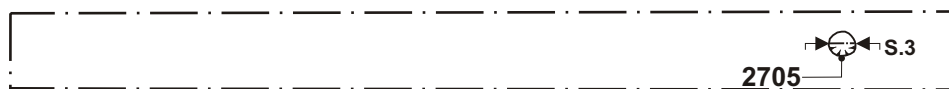
Trench 22



Section 2-Trench 22



Trench 27



Section 3-Trench 27



Trench 29



Section 4-Trench 29

