



Northamptonshire Archaeology

Archaeological watching brief along the route of a
gas main within the city of St Alban's, Hertfordshire
June to August 2011



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OAS/S REPORT FORM

PROJECT DETAILS		
Project title	Archaeological watching brief along the route of a gas main, within the city of St Albans, Hertfordshire	
Short description	An archaeological watching brief was carried out by Northamptonshire Archaeology during groundworks for the replacement of a gas main at St Albans, Hertfordshire. Part of the gas main route passed through Beech Bottom Dyke, a Scheduled Monument dating to the Iron Age. A total of 15 access pits were observed over a route of 1900m length. No archaeological features were found during the works since all the excavations for the new pipe were made into the backfill of the existing gas main.	
Project type	Watching Brief	
Previous work	Historic Environment Assessment (Townend 2011a)	
Current land use	Road route and pathways	
Future work	Unknown	
Monument type and period	SM1019136 Beech Bottom Dyke: Iron Age territorial boundary	
Significant finds	None	
PROJECT LOCATION		
County	Hertfordshire	
Site address	St Albans	
Easting Northing	TL 150055 08772 (north end), TL 13633 07523 (south end)	
Area (sq m/ha)	1800 linear metres- pipeline route	
Height aOD	86m to 103m	
PROJECT CREATORS		
Organisation	Northamptonshire Archaeology (NA)	
Project brief originator	-	
Project Design originator	Dr Stephen Townend (Entec)	
Director/Supervisor	Christopher Jones(NA)	
Project Manager	Dr Stephen Townend (Entec) Mark Holmes (NA)	
Sponsor or funding body	Entec Uk Ltd	
PROJECT DATE		
Start date	01/06/2011	
End date	9/12/2011	
ARCHIVES	Location	Contents
Physical	BBG11	1 archive box of site records and a fragment of medieval roof tile
Paper		
Digital		
BIBLIOGRAPHY		
Journal/monograph, published or forthcoming, or unpublished client report (NA report)		
Title	Archaeological Watching brief along the route of a gas main, within the city of St Albans, Hertfordshire	
Serial title & volume	11/269	
Author(s)	Christopher Jones and Carol Simmonds	
Page numbers	17 pages of text and illustrations	
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Contents

1	INTRODUCTION	1
2	BACKGROUND	1
2.1	Location and geology	1
2.2	Historical and archaeological background	3
3	OBJECTIVES AND METHODOLOGY	6
4	THE ARCHAEOLOGICAL EVIDENCE	7
4.1	The excavated evidence	7
4.2	Ceramic roof tile by Pat Chapman	11
5	DISCUSSION	11
	BIBLIOGRAPHY	11

Tables

Table 1: Concordance of access pit data

Figures

Front Cover: General view of Pit I, looking east

Fig 1: Site Location, 1:25,000

Fig 2: Designated sites and Historic Environment Record (HER) data, 1:20,000

Fig 3: Areas of Intervention, 1:5,000 (at A3)

Fig 4: Pit 6, the ageing gas pipe, looking south-west

Fig 5: Pit 5, the backfill of the old pipe trench, looking east

Fig 6: Pit G, pre-gas main layers visible in side of trench beneath make-up for modern concrete foundation, looking north

**ARCHAEOLOGICAL WATCHING BRIEF ALONG THE ROUTE OF A GAS MAIN,
WITHIN THE CITY OF ST ALBANS, HERTFORDSHIRE
JUNE TO AUGUST 2011**

Abstract

An archaeological watching brief was carried out by Northamptonshire Archaeology during groundworks for the replacement of a gas main at St Albans, Hertfordshire. Part of the gas main route passed through Beech Bottom Dyke, a Scheduled Monument dating to the Iron Age. A total of 15 pits were observed over a route of 1900m length. No archaeological features were found during the works since all the excavations for the new pipe were made into the backfill of the existing gas main.

1 INTRODUCTION

Northamptonshire Archaeology (NA) was commissioned by Entec UK Ltd to undertake an archaeological watching brief on the route of a gas main, replacing an ageing cast iron pipe, at St Albans, Hertfordshire. The gas main lay between the A4147 Hemel Hempstead Road in the south (NGR 513633 207523; Fig 1) and Beech Road in the north (NGR 515055 208772). It passed through two sections of a Scheduled Monument (SM 1019136), recorded as *Iron Age territorial boundary known as Beech Bottom Dyke* (Figs 1 & 2).

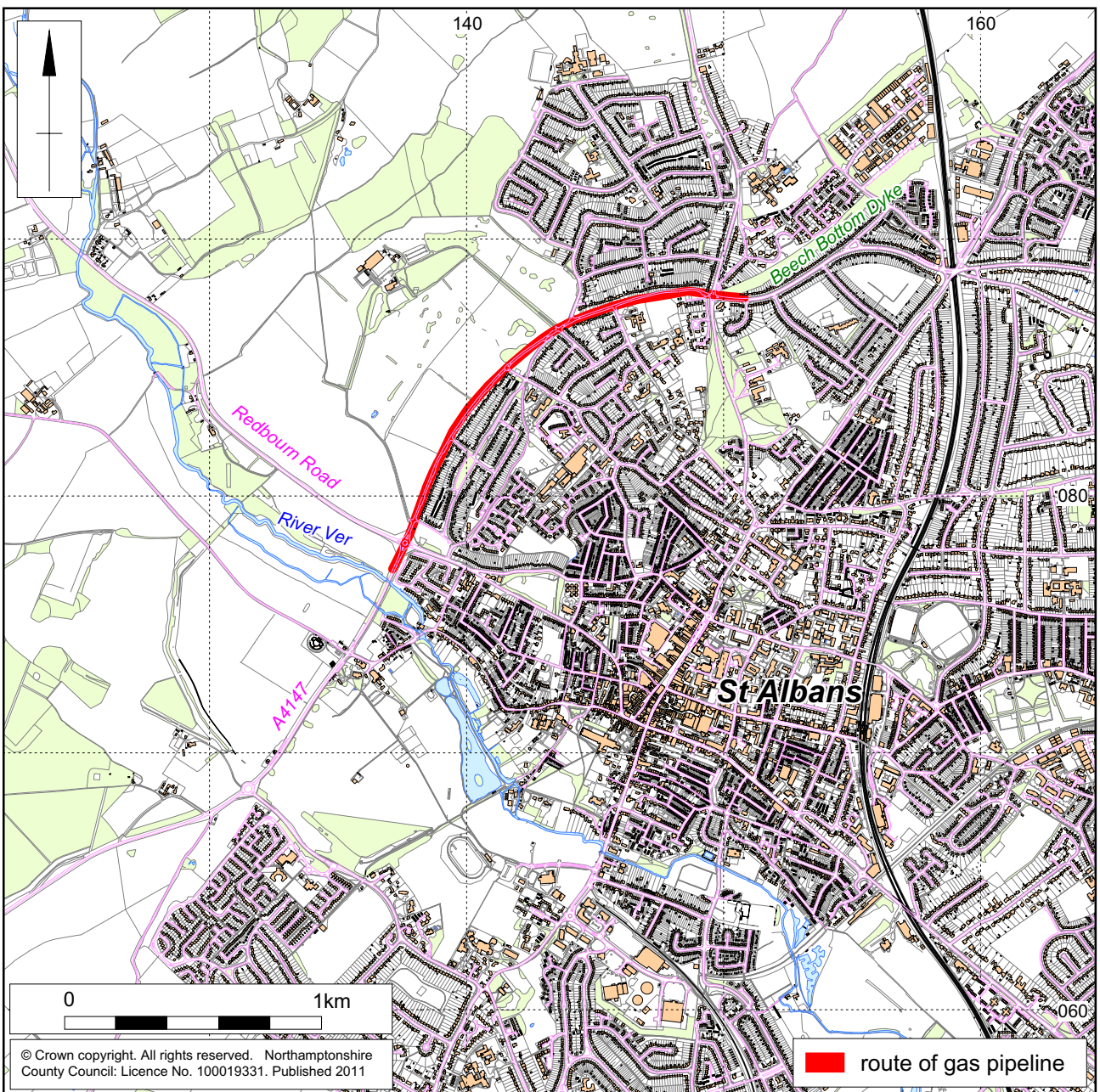
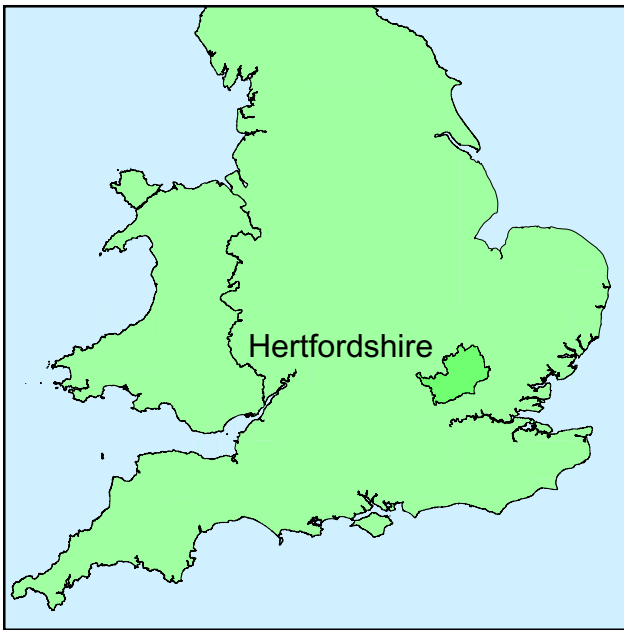
The groundworks involved the excavation of 15 access pits, up to 2m in depth, at existing valve locations and the insertion of a plastic sleeve within the existing iron pipe between the valve locations.

2 BACKGROUND

2.1 Location and geology

The replacement gas main was located on the line of a main arterial road in a northern suburb of the city of St Albans (Fig 1). The area of observation was approximately 1900m long and started at the junction of Hemel Hempstead Road and Batchwood Drive (Pits 1, 2 and 3; Fig 3). It then covered the length of Batchwood Drive (Pits 4-6, A-C, and E-F) and terminated at the western end of Beech Road (Pits H and I). Other pits were excavated on Waverley Road (Pit D) and on a footpath to the south of Batchwood Drive (Pit G).

The gas main rises from an elevation of 86m aOD at the south-west to a height of 103m aOD at the north-east (Beech Road). The underlying geology comprises chalk overlain by superficial deposits comprising either Diamicton tills or sands and gravels (BGS GeoIndex).



Scale 1:25,000

Site location Fig 1

2.2 Historical and archaeological background

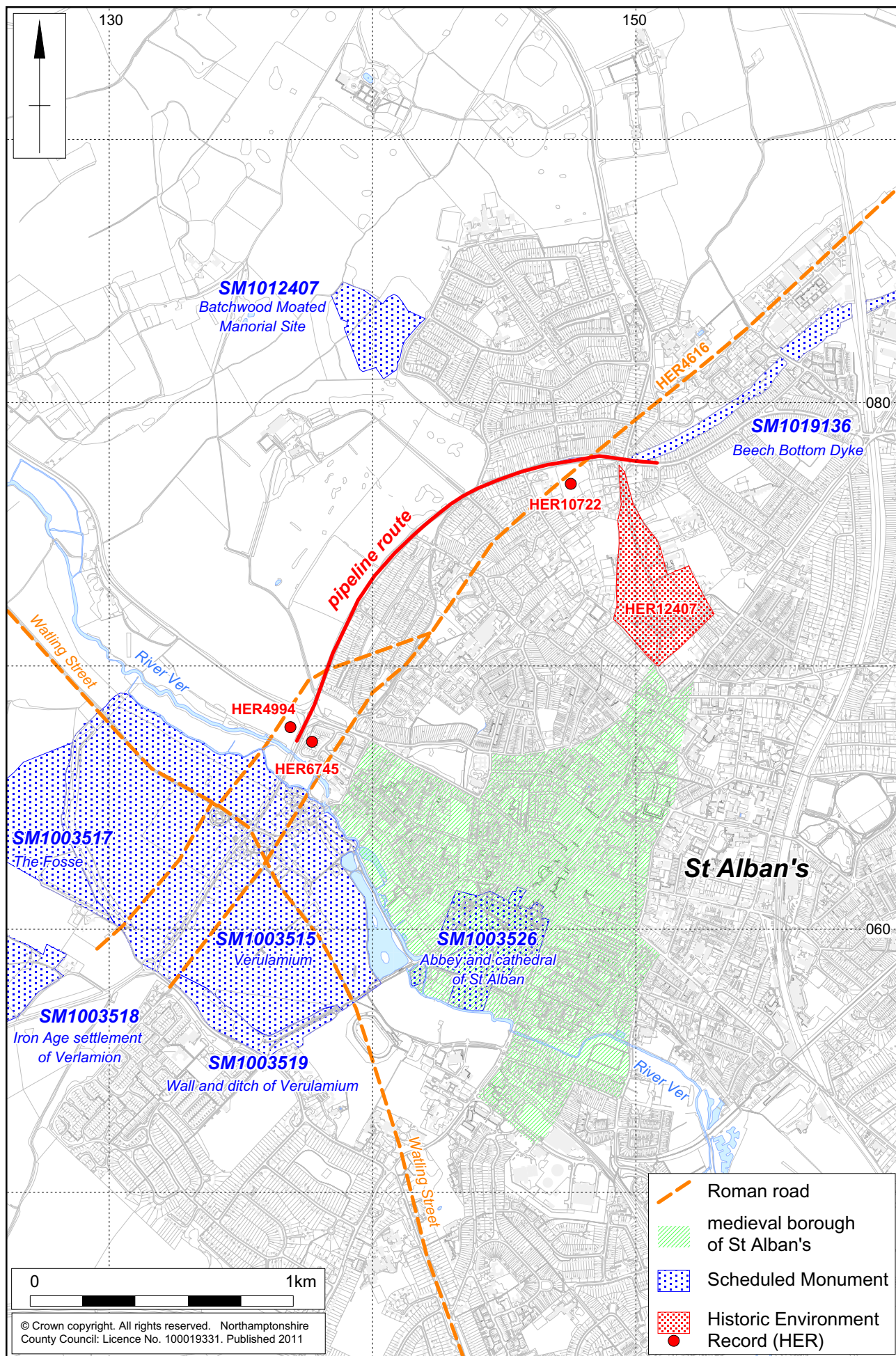
Part of the pipeline route passes through a Scheduled Monument (**SM1019136**), and also passes through or near to a further five undesignated sites (Historic Environment Record entries) (Fig 2). A Historic Landscape Assessment was undertaken by Entec Uk Ltd in 2011 (Townend 2011a) and the following summary is partly based upon this work.

St Albans lies within an area of extensive occupation dating from the Iron Age to the present day. The pipeline route lies between the sites of the Iron Age settlement of *Verlamion* (**SM1003518**) to the south-west and Wheathampstead to the north-east. The Iron Age territorial boundary known as Beech Bottom Dyke (**SM1019136**, **HER29449**) survives as an earthwork and may have originally linked Wheathampstead with *Verlamion* (Pastscape). It has been suggested that it formed part of a major territorial boundary constructed in the late Iron Age. The north-eastern part of the pipeline route coincides with the south-western tip of the dyke.

The site of *Verlamion* was later developed into a major Roman administrative centre of the *Catuvellauni* tribe called *Verulamium* (**SM1003515**, **HER4**). This encompassed at least 80ha of land enclosed by an earthwork ditch and stone wall (**SM1003519**), parts of which still survive today. An ancillary area called The Fosse (**SM1003517**) defined by earthworks lay to the west of the walled *municipium*. Watling Street, which linked London to the midlands, passes through the centre of the *municipium*. The site of a Roman road, parallel with Beech Bottom Dyke, may pass through the middle of the pipeline route (**HER4616**).

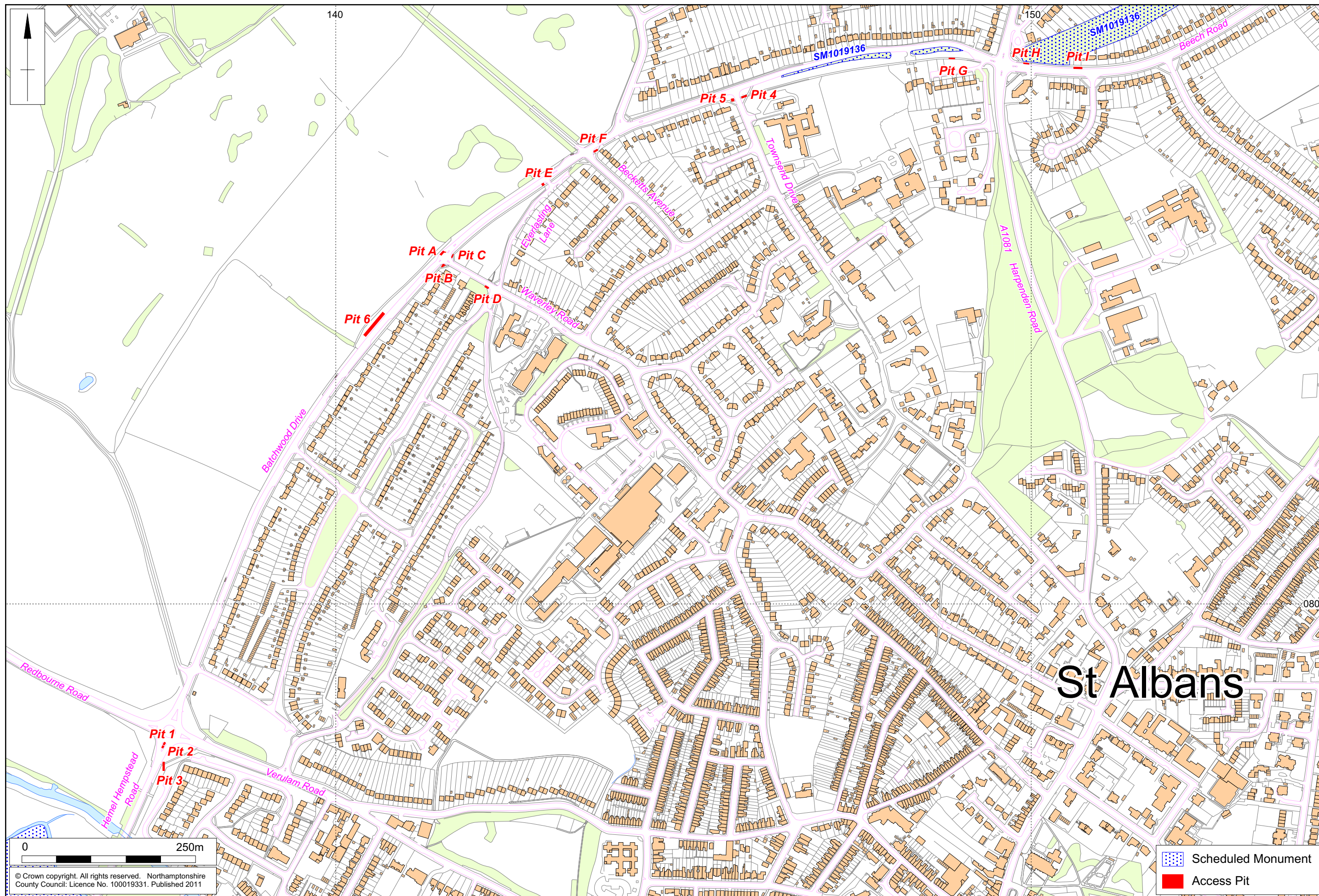
Parts of the Roman city were excavated in the 1930s by Sir Mortimer Wheeler and also in the 1950s in advance of the widening of Hemel Hempstead Road (Frere 1972). Frere identified successive timber and later stone foundations of shops and housing units (*insulae*), dating from the 1st to 3rd centuries AD, to the east of the theatre. There is evidence for some extra-mural settlement as identified by find spots and cropmarks. Sherds of Roman pottery were recovered in the area of the playing fields south of Batchwood Drive (**HER10722**), and immediately to the north of the Roman town lay other buildings (**HER4994**) and cemeteries (**HER6745**).

Saxon settlement (around Kingsbury) reputedly lay between the River Ver and Verulam Road (Page 1908). Sometime after a monastery, dedicated to St Alban, was founded in 793 AD, the core of the medieval town shifted to around the site of the Abbey (**SM1003526**). Although the town (borough) is thought to have been walled, an earthwork called Tonman Ditch defined part of its boundary. Much of the pipeline route lay within heathland (such as Bernard's Heath- **HER1012407**) or in open fields which were later enclosed into irregular shaped fields as shown on early historic maps (Old Maps). According to the first edition Ordnance Survey map, part of Beech Bottom Dyke was used as a Rifle Range in the 1870s - 1880s. By the 1960s, St Albans had expanded and its northern boundary was defined by Batchwood Drive. The gas pipeline that was being replaced, dates from the time of this expansion.



1:20,000

Designated sites and Historic Environment Record (HER) data Fig 2



3 OBJECTIVES AND METHODOLOGY

The objective of the archaeological watching brief was to identify and record the presence, location, extent and pattern of any surviving archaeological remains found during the excavation of the access pits at valve locations (Townend 2011b). Further to this and dependent on the results of the works, consideration would be given to the parameters defined by the Regional Research Frameworks.

The work was carried out in accordance with the Institute for Archaeologists *Code of Conduct* (IfA 2010) and *Standards and Guidance for an Archaeological Watching Brief* (IfA 2008) and the *Management of Research Projects in the Historic Environment* (EH 2006).

A total of 15 pits were excavated (Fig 3). Because part of the pipeline traversed through a Scheduled Monument, consent for the work was sought and obtained from English Heritage (consent number S00010661). This covered the excavation and monitoring of three pits (Pits G, H and I).

Groundworks comprised the mechanical excavation of overburden to the base of the existing cast-iron gas main, which was left *in situ* (Fig 4). Due to the depths of excavation, archaeological monitoring and recording was predominantly undertaken from the sides of the trenches.



Pit 6, the ageing gas pipe, looking south-west Fig 4

Recording followed standard Northamptonshire Archaeology procedures as described in the *Fieldwork Manual* (NA 2006). Deposits were described on *pro-forma* sheets, including measured and descriptive details of the context, its relationships, interpretation and a checklist of associated finds. Site photographs were taken using 35mm black and white and colour slides film, supplemented with digital images. Spoil heaps were scanned with a metal detector to maximise the recovery of metal objects.

4 ARCHAEOLOGICAL EVIDENCE

4.1 The excavated evidence

The pits were wholly excavated within the backfill for the existing 1960s pipe trench (Fig 5). As such, earlier deposits along the pipeline were shown to be truncated up to a depth of c 2m below ground surface. For the most part the backfill deposits comprised orange or orangey-brown sands and clays and contained modern brick, tile and glass fragments (not retained).

Pit G, within the zone of the Scheduled Monument, was the only area of intervention which had layers of material which pre-dated the construction of the 1960s pipe trench (Fig 6). These were visible in the southern face of the trench only. In the base of the trench was a light brown clay with frequent gravel inclusions. This was overlain by a former subsoil of light brown clay (0.65m thick). Above this was a grey-brown clay probably representing a former garden soil (0.30m thick). Both layers contained brick and tile fragments. A thin layer of light brown clay (0.10m thick) and a modern concrete wall foundation (0.65m deep) lay above. In the remainder of the trench was the backfill of the old gas pipe trench.

A brief description of each pit (from south to north) is listed in Table 1.

Table 1: Concordance of access pit data

Pit	Location	NGR	Dimensions	Observations
1	Junction (roundabout) Hemel Hempstead Road/ Redbourne Rd/ Batchwood Drive	513753 207799	4.0m long 2.40m wide 1.80m deep	Backfill of old gas pipe trench. Orange sandy clay (0.80m thick) overlain with a hardcore and concrete road surface material (1.0m thick).
2	Junction (roundabout) Hemel Hempstead Road/ Redbourne Rd/ Batchwood Drive	513751 207795	3.50m long 2.40m wide 1.80m deep	Backfill of old gas pipe trench. Orange sandy clay (0.80m thick) overlain with a hardcore and concrete road surface material (1.0m thick).

Pit	Location	NGR	Dimensions	Observations
3	Junction (roundabout) Hemel Hempstead Road/ Redbourne Rd/ Batchwood Drive	513750 207770	12.50m long 2.50m wide 2.0m deep	Backfill of old gas pipe trench. Orange-brown sandy clay with gravel and flint (0.90m thick) overlain with a grey sandy clay and pebbles (0.40m thick) and a dark brown topsoil 0.70m thick).
6	Batchwood Drive	514060 208400	45.0m long 1.10m wide 1.60m deep	Backfill of old gas pipe trench. Orangey-brown sandy clay (1.0m thick) overlain with a dark brown loamey clay with brick and glass fragments (0.60m thick).
A	Junction Batchwood Drive/ Waverley Road	514150 208500	4.0m long 1.60m wide 1.50m deep	Backfill of old gas pipe trench. Light brown sandy clay and gravels (0.60m thick) overlain with modern road surface layers (0.65m thick).
B	Junction Batchwood Drive/ Waverley Road	514160 208490	2.50m long 1.0m wide 1.10m deep	Backfill of old gas pipe trench. Light brown sandy clay and gravels (0.80m thick) overlain with modern road surface layers (0.30m thick).
C	Junction Batchwood Drive/ Waverley Road	514170 208500	5.0m long 2.0m wide c 1.50m deep	Backfill of old gas pipe trench. Light brown sandy gravels (1.20m thick) overlain with modern road surface layers (0.30m thick).
D	Waverley Road	514220 208460	5.0m long 1.0m wide 1.10m deep	Backfill of old gas pipe trench. Light brown sandy clay and gravels (0.80m thick) overlain with modern road surface layers (0.30m thick).
E	Junction Batchwood Drive and Everlasting Lane	514300 208600	5.0m long 2.0m wide 2.30m deep	Backfill of old gas pipe trench. Light brown sandy clay and gravels (2.0m thick) overlain with modern road surface layers (0.30m thick)

Pit	Location	NGR	Dimensions	Observations
F	Junction Batchwood Drive and Becketts Avenue	514370 208650	3.0m long 1.50m wide 2.0m deep	Backfill of old gas pipe trench. Orangey-brown sandy clay (1.20 thick) overlain with modern road surface make-up (0.60m thick).
5	Junction Batchwood Drive and Townsend Drive (Fig 5)	514570 208730	3.0m long 2.40m wide 1.0m deep	Backfill of old gas pipe trench. Dark brown clay and orange sand (0.50m thick), containing brick, which was overlain with a layer of clay also containing brick and glass fragments (0.50m thick) upon which slabs had been laid.
4	Junction Batchwood Drive and Townsend Drive	514590 208730	7.0m long 1.50m wide 1.40m deep	Backfill of old gas pipe trench. Orange sandy clay (0.60m thick) overlain by a thick layer of topsoil with modern brick and glass (0.80m thick).
G	Footpath parallel with Batchwood Drive (Fig 6)	514890 208780	8.50m long 1.50m wide 2.05m deep	Pre-pipeline layers were visible trench's southern face. A light brown clay with frequent gravel was overlain by light brown clay (0.65m thick). Above this was grey-brown clay (0.30m thick). Both layers contained brick and tile fragments. A thin layer of light brown clay (0.10m thick) and a modern concrete wall foundation (0.65m deep) lay above. In the remainder of the trench was the backfill of the old gas pipe trench. Light brown clay with frequent gravel and brick and tile inclusions (1.50m thick). Overlain by Modern path (0.15m thick).
H	Beech Road	514990 208770	3.0m long 3.0m wide 1.0m deep	Backfill of old gas pipe trench. Dark orangey-brown clayey sand with flint and pebbles (0.30m thick) overlain with orange clayey sand, flint and pebbles (0.40m thick) and a thin layer of dark brown topsoil (0.30m thick).

Pit	Location	NGR	Dimensions	Observations
I	Beech Road	515070 208770	6.0m long 2.0m wide 1.50m deep	Backfill of old gas pipe trench. Dark orangey-brown clayey sand with flint and pebbles (0.80m thick) overlain with orange clayey sand, flint and pebbles (0.40m thick) and a thin layer of dark brown topsoil (0.30m thick).



Pit 5, the backfill of the old pipe trench, looking east Fig 5



Pit G, pre-gas main layers visible in side of trench beneath make-up for modern concrete foundation, looking north Fig 6

4.2 Ceramic roof tile by Pat Chapman

Just one small fragment of tile, weighing 10g, was recovered, coming from Pit G. The tile is 13mm thick and made from fine sandy orange clay. It would appear to be from a typical flat roof tile, in common use from the 14th to 19th centuries. It is considered suitable for discard.

5 DISCUSSION

The archaeological watching brief identified no archaeological features nor the underlying geology within the areas excavated along the replacement of the old gas main. The deposits recorded suggest that the new pipe was situated solely within the modern backfill of the older pipe trench.

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