Chitterne to Castle Barn (Elimination of Stand Alone Source), Shrewton, Wiltshire

An Archaeological Watching Brief

context one
ARCHAEOLOGICAL SERVICES LTD

Chitterne to Castle Barn (Elimination of Stand Alone Source), Shrewton, Wiltshire

An Archaeological Watching Brief

for

Wessex water plc

by

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COAS Project Reference: C1/WBF/11/CCB

OASIS ID: contexto1-123719

National Grid Reference: NGR ST 99573 44902 to SU 03468 41462

West Wiltshire District Council Planning Reference: N/A

West Wiltshire Heritage Museum Accession Number: C1/WBF/11/CCB

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June 2012

Front cover image: Walk-over survey in progress.

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Non-Technical Summary

Context One Archaeological Services Ltd carried out a walkover survey followed by an archaeological watching brief during groundworks relating to a pipeline for the elimination of a standalone source between Chitterne and Castle Barn, Salisbury Plain, Wiltshire (from NGR ST 99573 44902 to SU 03468 41462). The project was commissioned and funded by Wessex Water plc and was carried out in two stages in November 2011 and March 2012.

The investigation found only very sparse evidence for archaeological remains, although the route of the pipeline is similar to areas on either side of it which are rich in known ancient field systems. The lack of archaeology may be due to harsh cultivation regimes which have cut into the soft chalk bedrock. Two ditches may have formed part of these systems but neither could be dated.

1. Introduction

1.1 Context One Archaeological Services Ltd (COAS) carried out an archaeological watching brief and walkover survey during groundworks relating to a *ca.* 5.7km long pipeline easement for the elimination of a standalone source between Chitterne and Castle Barn, Salisbury Plain, Wiltshire (from NGR ST 99573 44902 to SU 03468 41462; hereafter referred to as the Site). The project was commissioned and funded by Wessex Water plc and was carried out in two stages over 13 days between 28th November 2011 and 28th March 2012.

1.2 The watching brief was requested by Wiltshire County Archaeology Service (WCAS) in consultation with Mr Oliver Williams (Environmental Scientist, Wessex Water plc). In a letter dated 6th September 2011, Mr David Vaughan (Assistant County Archaeologist, WCAS) stated that:

> *'This is a significant historic landscape and together with the proximity of various Scheduled monuments, there is a need for some form of archaeological intervention.'*
>
> *'… the proposed route crosses an area extensively mapped with field systems and, in the case of the green line* (**Figure 1**; north to south linear *ca.* 350m south of TP 10) *in the centre of the image running SW-NE, at least one bank and ditch. The route will cross this feature.'*

1.3 Given the recorded archaeological and historical data for the Salisbury Plain, it was considered that archaeologically significant remains could be present on the Site, and these might damaged or destroyed by the proposed groundworks. However, as their presence and quality was unproven, it was determined that a reasonable response would be to carry out an archaeological watching brief during all ground disturbance associated with the development.

1.4 The request for the archaeological work follows advice given by Central Government as set out in Planning Policy Statement (PPS) 5: Planning for the Historic Environment (2010).

2. Site Location, Topography and Geology

2.1 Chitterne is set on Salisbury plain, *ca.* 4km north north east of where the River Wylie passes through Codford St. Mary, *ca.* 10km east of Warminster and *ca.* 10km south south west of Market Lavington. The pipeline easement, roughly 5.7km long, terminated at a low point of *ca.* 101m above Ordnance Datum (aOD), *ca.* 840m north north east of Chitterne before rising and following a broadly south easterly course across Chitterne and Maddington Downs. The route was over an undulating landscape of dry valleys culminating at a reservoir *ca.* 4.3km south west of Shrewton and *ca.* 4km west of Winterbourne Stoke at *ca.* 156 aOD.

2.2 At the west end of the Site the underlying geology comprises Lewes Nodular Chalk Formation Cretaceous Sedimentary Chalk which at the lowest point and in some dry valleys is covered with a Quaternary Alluvium of Clay, Sand and Gravel. The higher ground is made of Seaford Chalk Formation Cretaceous Sedimentary Chalk, which overlies the Lewes Nodular Chalk Formation. In some areas of higher ground the route bisected areas of Quaternary and Neogene Clay-with-Flints of Clay, Silt, Sand and Gravel.

Plate 1. Easement route towards Chitterne (from SE)

3. Archaeological and Historical Background

3.1 The archaeological background for the Site has been drawn from online sources, principally mapping and journals. The information is shown on **Figure 1**.

Bronze Age, Iron Age and Romano-British (2300BC – AD43)

3.2 Plotting from air photographs shows extensive field systems, likely to date from the Bronze Age through to the Romano-British period, to the east, south and south west of the pipeline route. Their morphologies are typical of Salisbury Plain. However, relatively few of these features impinge within 100m either side of the pipeline, other than at its north and south ends and one instance towards the middle.

3.3 By the Roman period, small farmsteads such as that at Maddington Farm, Shrewton, ca. 2.5km north east of the route and with an associated cemetery, may be typical of activity which is likely to have been erased from Chitterne and Maddington Downs by ploughing.

Modern (AD1800 –)

3.4 The reservoir is located within a group of linear features recorded from air photographs designated as 'Recent' (WCC), although they would appear to predate the Ordnance Survey 25' map of 1887 as they appear neither on that not on subsequent maps. Its eponymous barn was built between 1817 and 1841 and is presumed demolished around 1940, with the advent of military training (Crowley et al. 1995).

Undated

3.5 The reservoir is *ca*. 200m north of an enclosure scheduled as an undated Ancient Monument (WCC; EH).

CHITTERNE CP

Middle Barn Cottages

TP2
TP3
TP3a
TP4
TP5
TP6
TP7
TP8
TP9
TP10
TP11
TP12
TP13
TP14
TP15
TP16
TP17
TP18

ditch [1004]

ditch [1006]

route of easement

Manor Farm
Resr
Chitterne
The Manor
PO
Shrewton Road
Reservoir
Chitterne Down
Tumulus
Field System
Chitterne Road
B 390
MS
Clay Pit Hill
Resr 178
East Codford Down
BS
Reservoir
Deptford Down Barn
High Trees
Enclosure
Tumulus

N

0 1km

WILTSHIRE

- TPXX locations of test pits
- Scheduled Ancient Monuments
- interpretation of air photograph earthworks/cropmarks

PROJECT TITLE: Chitterne to Castle Barn, Wiltshire		
FIGURE TITLE: Site setting showing route of easement and locations of test pits and ditches		
SCALE: as shown	PROJECT CODE: C1/WBF/11/CCB	FIGURE NO.: 1

4. Methodology

Groundwork

4.1 Phase 1: A 360 degree tracked machine, fitted with a toothless grading bucket excavated a series of test pits (**Figure 1**) for the purpose of accurately assessing the ground conditions and estimating the cost of laying the pipeline. Each pit was *ca*. 0.50mm wide and up to 3m in length to allow excavation to the required depth of up to 3m.

4.2 Phase 2: A 360 degree tracked machine, fitted with a toothless grading bucket, was used to remove topsoil/overburden, along the route of the proposed pipeline to create a *ca*. 15m wide easement (**Figure 1**). The easement was used to facilitate access and provide an operations surface. After completion of topsoil removal and consultation with David Vaughn (WACS), it was deemed unnecessary to continue monitoring during the excavation of the continuous pipe trench.

4.3 During both phases, all machine excavation was carried out under archaeological supervision. Machine excavation and cleaning continued until the first of either archaeological features or *in situ* sub-soil or natural geology was encountered. The topsoil strip was designed to leave a good surface on the subsoil so that any archaeological features or deposits might be identified.

Archaeological Methodology

4.4 The archaeological programme was in two stages, comprising a walkover survey and a watching brief during the excavation of the test pits the stripping of the easement. Due to the very slight archaeological remains identified it was decided, after consultation with, that no monitoring of digging of the pipe trench would be necessary.

4.5 A topographical (walkover) survey was carried out along the route of the proposed pipeline scheme to determine the nature of the archaeological landscape and identify, if possible, any additional features of archaeological interest.

4.6 A qualified archaeologist was on the Site to monitor all groundworks for the purpose of identifying and recording any archaeological remains, features and deposits present. Extra time was allowed for the excavation and recording of archaeological features, as they were identified.

4.7 The archaeological work was carried out in accordance with codes standards and guidelines set out by the Institute for Field Archaeologists (IfA 1985, rev. 2010; 1990, rev. 2008; 1994, rev. 2008) at all times during the course of the investigation. Current Health and Safety legislation and guidelines were followed on site.

4.8 All features/deposits were recorded using standard COAS pro-forma recording sheets. Stratigraphic relationships were recorded using a 'Harris-Winchester matrix' diagram. A photographic record of the work was prepared and involved the use of digital images. The photographic record comprised digital images of individual features, development excavation areas and working shots to illustrate the nature of the archaeological operation mounted. The location, extent and altitude of the archaeological work, features and deposits were mapped relative to the National Grid and Ordnance Datum using a TopCon GRS-1 Global Positioning System receiving real-time calibrations to produce accuracies of 1-2cm.

5. Results

5.1 The deposits encountered during fieldwork are listed and described in **Appendix 1**. In the text, context numbers for layers and deposits appear in standard brackets, e.g. (102). Where a feature is discussed, it is referenced with its cut, and associated fill.

Soil sequence

5.2 Five of 18 test pits (TP) (**Figure 1**) were selected to provide representative profiles reflecting the variations in topography along the route. At *ca*. 148m aOD the inclusion free topsoil (500) of TP5 suggested that either the ground had not been ploughed recently or that its depth above the stony subsoil (501) was greater than the depth of cultivation (**Plate 2**). The subsoil itself included larger stones and lay directly over an abraded natural chalk surface, possibly reflecting an earlier period of cultivation. TPs 6-8 were broadly similar in character.

5.3 Although at a similar height, TP9 was situated close to the bottom of a gentle west to east declining combe and this was reflected in the deep accumulation and survival of darker, organically richer soils from the topsoil downwards (**Plate 3**).

Plate 2. TP5 profile (from N; 1m scale)

Plate 3. TP9 profile (from SE; 1m scale)

Plate 4. TP12 profile (no scale)

Plate 5. TP17 profile (no scale)

Plate 6. Ditch [1004] section (from SE; 1m scale)

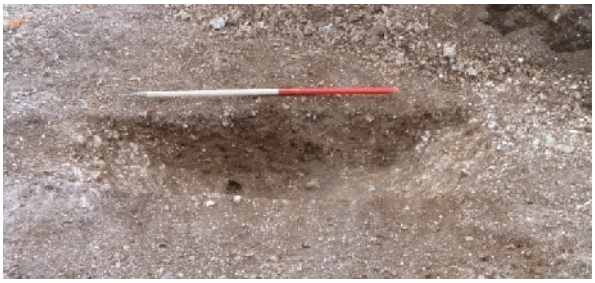


Plate 8. Ditch [1006] section (from N; 1m scale)

Plate 7. Ditch [1006] general view (from N; 1m scale)

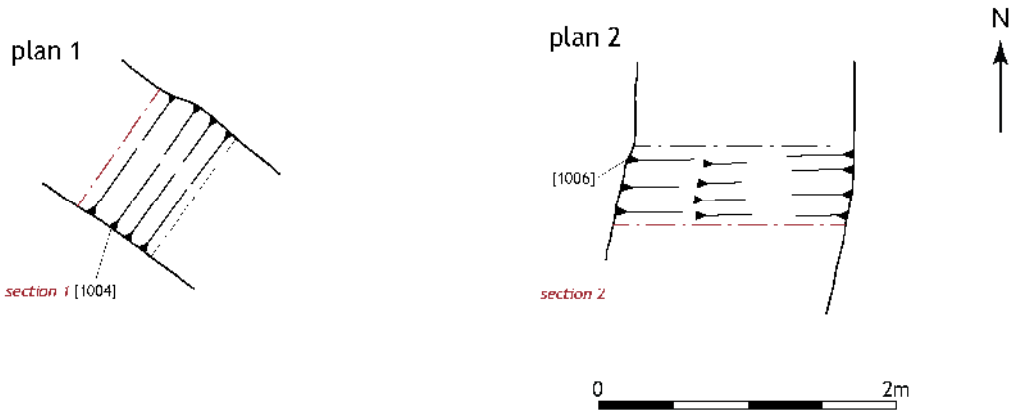
5.4 At *ca*. 110m aOD, TP 12 was cut midway down a moderately steep north to south facing decline. The lie of the land would have made cultivation extremely difficult without terracing, for which no evidence was found. The sparse small inclusions of chalk in the topsoil (1200), rising to moderate in the 0.50m deep subsoil (1201) (**Plate 4**), were consistent with the downslope movement of soils due to cultivation on the undulating plateau to the north.

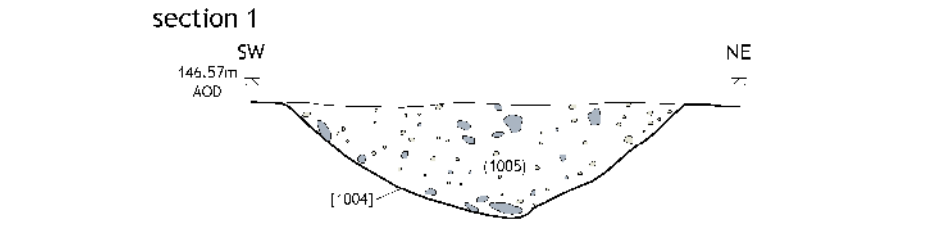
5.5 At *ca*. 145m aOD, TP15 was situated on the south east edge of a ridge overlooking another dry combe. The frequent small pieces of chalk in the topsoil (1500) suggest that it had been under long term cultivation, probably leading to the formation of positive lynchet. It lay over a subsoil (1501) with equally frequent, some larger, stones, consistent with it being a plough headland deposit (**Plate 5**) formed during the initial scouring of the natural.

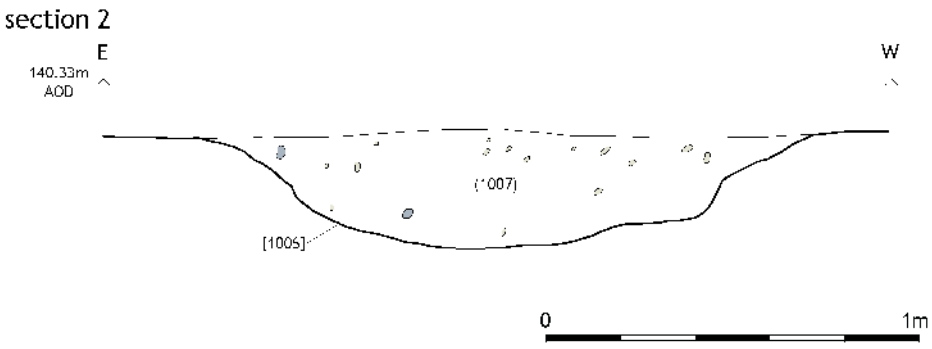
5.6 At *ca*. 220m north of the reservoir, at *ca*. 143m aOD, the thin topsoil (1700) in TP 17 gave way to a very stony subsoil (1701), again indicative of soil movement due to intensive cultivation.

5.7 Following stripping of the easement, two linear features were exposed, both interpreted as ditches. North east of Chitterne, mid way between TPs 4 and 5, a 10m length of a splayed 'V'-profiled linear [1004], cut in a perpendicular relationship to the prevailing north west-facing slope, had a stony fill (1005) (**Plate 8**; **Figure 2**, plan and section 1) with a degree of compaction suggesting a long settling period. The frequency and angularity of the inclusions implied fairly rapid filling. No finds were recovered but the compaction might indicate that it was a feature of some antiquity.

5.8 Between TPs 9 and 10 a *ca*. 12m length (**Plate 7**) of a splayed profile, flat-bottomed, north to south oriented linear [1006] appeared to have been recut (**Plate 8**; **Figure 2**, plan and section 2) and was again in a broadly perpendicular relationship to the gentle south facing slope on which it was set. The fill was noted as firm and the relatively sparse inclusion implied a gradual formation.







(000)	deposit/fill number
[000]	cut number
XX.Xm AOD	height above ordnance datum (AOD)
	flint
	chalk

PROJECT TITLE
Chitterne to Castle Barn, Wiltshire

FIGURE TITLE
Plans and sections 1 - 2

SCALE	*PROJECT CODE*	*FIGURE NO.*
as shown	C1/WBF/11/CCB	2

5.9 Both features were sealed by a stony subsoil and may be regarded as earlier than a phase of cultivation predating the forming of the topsoil. However, no finds were recovered from the fill of [1006] and a single pot sherd recovered from (1005) cannot be dated reliably. The fabric appeared earlier than a pitch-like substance adhering to its surfaces and broken edges.

6. Finds

Pottery

6.1 A single sherd (25g) from (1001) had a yellowish grey core and orange margins and surfaces, and traces of a lighter orange interior slip. It was of a moderately hard, well-fired, sandy fabric which included sparse, fine, brown iron grains and rare red grog. It was part of a footring base from an Early to Middle Romano-British colour coated bowl.

Other ceramic

6.2 A single coarse sherd (30g) from (1005) with a dark grey core and orange margins and surfaces, was in a hard, well-fired, sandy fabric including moderate clear, fine subangular and rare coloured medium subangular quartz, sparse medium iron grains and fine to medium grey grog pellets and rare small to large (<12mm maximum dimension) fragments of chalk. It was flattened on one surviving edge below which part of a perforation survived. Traces of a black, pitch-like substance were visible on surviving surfaces, including that of the perforation.

Flint

6.3 The leading edge from a flint axe (14g) from (1001) showed characteristic bifacial reduction.

Bone

6.4 The bone assemblage (73g) comprised a single cattle molar and part of a badly pitted leg bone shaft from a large mammal, both from (1001).

7. Conclusions

7.1 Although covering a substantial area of chalkland which appeared to differ little in its topographical character from land on either side, rich in field systems identified from air photographs, very few finds and archaeological features have been identified. There was insufficient evidence to date either of the two linear features, although the orientation of [1006] might allow it to be related to a small group of undated linears recorded from the air to the west of TP 10 (**Figure 1**).

7.2 Much of the higher ground on the Wessex chalk has been badly degraded by harsh cultivation regimes which have cut into the soft underlying geology. This may explain, at least in part, the sparseness of features observed during the watching brief. The incomplete patterns of linear and enclosure air photographic features north east of Chitterne, east of TPs 5-8 and west of TPs 9 and 10 lends weight to this interpretation, as does the absence of features in the busy area around TPs 16-18.

8. Archive

8.1 The Site archive is currently held at the offices of Context One Archaeological Services Ltd and consists of 83 digital images in .jpg format, including nine context and profile sheets, five scaled drawings and various registers. The archive will be prepared to comply with guidelines set out in *Environmental Standards for the Permanent Storage of Excavated Material from Archaeological Sites* (UKIC 1984, Conservation Guidelines 3)/ *Guidelines for the Preparation of Excavation Archives for Long-term Storage* (UKIC 1990)/ *Standards in the Museums Care of Archaeological Collections* (Museum and Galleries Commission 1992)/ *Management of Archaeological Projects 2* (English Heritage

1991). Arrangements will be made to deposit the archive with Wiltshire Heritage Museum within 12 months following the submission of this report.

8.2 Copies of the Watching Brief report will be deposited with:

Wessex Water plc
Claverton Down
Bath
BA2 7WW

Wiltshire County Historic Environment Record
Wiltshire Archaeology Service
The Wiltshire and Swindon History Centre
Cocklebury Road
Chippenham
SN15 3QN

9. COAS Acknowledgements

Context One Archaeological Services Ltd would like to thank the ground staff of Trant Construction Ltd for their assistance during the course of the project and to Mr Oliver Williams (Environmental Scientist, Wessex Water plc). We are also grateful to David Vaughan (Assistant County Archaeologist, WCAS) for his advice.

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Appendix 1. Context Summary

Context no.	Period	Type	Description	Earlier than	Contemp. with	Later than	Length	Width/ Diameter	Thickness / Depth
001	Modern	Layer	**Topsoil**. Slightly reddish mid brown silty clay			002			<0.40m m
002	Undated	Layer	**Subsoil**. Red brown silty clay including frequent gritty to sparsely medium chalk and some flint fragments	001		003			<0.30m
003	Geological	Layer	**Natural**. Greyish white weathered chalk with flint fragments	002					2.30m exc
500	Modern	Layer	**Topsoil**. Dark brown silty clay			501			<0.30m
501	Undated	Layer	**Subsoil**. Dark brown silty clay including moderate subrounded chalk fragments	500		502			<0.40m
502	Geological	Layer	**Natural**. White chalk	501					1.80m exc
900	Modern	Layer	**Topsoil**. Dark brown silty clay			901			<0.30m
901	Undated	Layer	**Subsoil**. Dark brown silty clay including moderate subangular chalk fragments	900		902			<0.40m
902	Undated	Layer	**Combe deposit**. Dark brown silty clay including frequent subangular chalk fragments	901		903			<0.80m
903	Geological	Layer	**Natural**. White chalk	902					1.0m exc
1200	Modern	Layer	**Topsoil**. Dark brown silty clay including sparse small subrounded chalk fragments			1201			<0.30m
1201	Undated	Layer	**Subsoil**. Dark brown silty clay including moderate small subrounded chalk fragments	1200		1202			<0.50m
1202	Geological	Layer	**Natural**. White chalk	1201					1.70m exc
1500	Modern	Layer	**Topsoil**. Dark brown silty clay including frequent small subrounded chalk fragments			1501			<0.20m
1501	Undated	Layer	**Subsoil**. Dark brown silty clay including frequent small to medium subrounded chalk fragments	1500		1502			<0.30m

1502	Geological	Layer	**Natural**. White chalk	1501					2.10m exc
1700	Modern	Layer	**Topsoil**. Dark brown silty clay including sparse subrounded chalk fragments			1701			<0.20m
1701	Undated	Layer	**Subsoil**. Dark brown silty clay including frequent small, to sparsely medium and rarely large, subrounded chalk fragments	1700		1702			<0.30m
1702	Geological	Layer	**Natural**. White chalk	1701					2.00m exc
1000	Modern	Layer	**Topsoil**. Darkish, greyish brown, friable, silty clay loam including chalk fragments and flint			1001			<0.20m
1001		Layer	**Subsoil**. Pale brown, firm, silty clay including chalk and flint fragments	1000		1002, 1003			<0.15m
1002		Layer	**Colluvium**. Reddish brown, friable, silty clay including chalk and flint fragments	1001		1003			<0.30m
1003	Geological	Layer	**Natural**. Greyish white weathered chalk with flint fragments and nodules disturbed frequent three throw and root hollows	1001, 1002					
1004		Cut	**Ditch**. North west to south east oriented, V-profiled, linear cut	1005		1003	10m exp	0.95m	0.30m
1005		Fill	**Ditch fill [1004]**. Greyish brown, compacted, silty clay including chalk and flint fragments	1001		1004	10m exp	0.95m	0.30m
1006		Cut	**Ditch**. Irregular north to south oriented, U-profiled, linear cut	1007		1003	12m exp	1.60m	>0.32m
1007			**Ditch fill [1006]**. Mid brown, firm, silty clay including chalk and frequent angular and subangular flint fragments	1001		1006	12m exp	1.60m	>0.32m