



Bulford Washdown Facility Project, Bulford, Wiltshire

Archaeological Investigation Report



Ref: 106092.03
December 2016



Bulford Washdown Facility Project, Bulford, Wiltshire

Archaeological Investigation Report

Prepared for:
WYG Planning and Design
Ropemaker Court
11-12 Lower Park Row
Bristol
United Kingdom
BS1 5BN

Prepared by:
Wessex Archaeology
Portway House
Old Sarum Park
Salisbury
Wiltshire
SP4 6EB

www.wessexarch.co.uk

December 2016

Report ref: 106092.03



Quality Assurance

Project Code	106092	Accession Code		Client Ref.	
Planning Application Ref.	15/03456/FUL	Ordnance Survey (OS) national grid reference (NGR)	417770 144520		

Version	Status*	Prepared by	Checked and Approved By	Approver's Signature	Date
v01	E	REW	GW & RAP	<i>Nails</i>	08/12/2016
File:	X:\PROJECTS\106092_Reports				
v01	F	REW	GW & RAP	<i>Nails</i>	19/12/2016
File:	X:\PROJECTS\106092_Reports				
File:					
File:					
File:					

* I = Internal Draft; E = External Draft; F = Final

DISCLAIMER

THE MATERIAL CONTAINED IN THIS REPORT WAS DESIGNED AS AN INTEGRAL PART OF A REPORT TO AN INDIVIDUAL CLIENT AND WAS PREPARED SOLELY FOR THE BENEFIT OF THAT CLIENT. THE MATERIAL CONTAINED IN THIS REPORT DOES NOT NECESSARILY STAND ON ITS OWN AND IS NOT INTENDED TO NOR SHOULD IT BE RELIED UPON BY ANY THIRD PARTY. TO THE FULLEST EXTENT PERMITTED BY LAW WESSEX ARCHAEOLOGY WILL NOT BE LIABLE BY REASON OF BREACH OF CONTRACT NEGLIGENCE OR OTHERWISE FOR ANY LOSS OR DAMAGE (WHETHER DIRECT INDIRECT OR CONSEQUENTIAL) OCCASIONED TO ANY PERSON ACTING OR OMITTING TO ACT OR REFRAINING FROM ACTING IN RELIANCE UPON THE MATERIAL CONTAINED IN THIS REPORT ARISING FROM OR CONNECTED WITH ANY ERROR OR OMISSION IN THE MATERIAL CONTAINED IN THE REPORT. LOSS OR DAMAGE AS REFERRED TO ABOVE SHALL BE DEEMED TO INCLUDE, BUT IS NOT LIMITED TO, ANY LOSS OF PROFITS OR ANTICIPATED PROFITS DAMAGE TO REPUTATION OR GOODWILL LOSS OF BUSINESS OR ANTICIPATED BUSINESS DAMAGES COSTS EXPENSES INCURRED OR PAYABLE TO ANY THIRD PARTY (IN ALL CASES WHETHER DIRECT INDIRECT OR CONSEQUENTIAL) OR ANY OTHER DIRECT INDIRECT OR CONSEQUENTIAL LOSS OR DAMAGE.



Bulford Washdown Facility Project, Bulford, Wiltshire

Archaeological Investigation Report

Contents

Summary	iii
Acknowledgements.....	iv
1 INTRODUCTION.....	5
1.1 Project background	5
2 SITE DESCRIPTION.....	5
2.1 Location, topography and geology.....	5
3 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND	6
3.1 Introduction	6
3.2 Previous archaeological investigations.....	6
4 AIMS AND OBJECTIVES	7
4.2 Specific objectives.....	7
5 METHODOLOGY	7
5.1 Introduction	7
5.2 Health and safety	8
5.3 Recording.....	8
5.4 Monitoring	9
5.5 Finds and environmental sampling.....	9
6 ARCHAEOLOGICAL RESULTS.....	9
6.1 Introduction	9
6.2 Natural deposits and soil sequence.....	9
6.3 Modern.....	10
6.4 Undated	10
7 ARTEFACTUAL EVIDENCE	11
7.1 Introduction	11
7.2 Worked flint	11
7.3 Metalwork.....	11
7.4 Glass.....	11
7.5 Pottery.....	12



8	ENVIRONMENTAL EVIDENCE	12
8.1	Introduction	12
9	DISCUSSION	12
9.1	Summary.....	12
10	STORAGE AND CURATION	12
10.1	Museum	12
10.2	Preparation of the archive	13
10.3	Discard policy.....	13
10.4	Security copy.....	13
10.5	Copyright.....	13
11	REFERENCES	13
11.1	On-line resources.....	14
12	APPENDICES	15
12.1	Appendix 1: Summary table of contexts	15
12.2	Appendix 2: Oasis form	16

Figures

Figure 1: Site location and plan of monitored areas

Plates

Plate 1: West facing representative section
Plate 2: West facing representative section
Plate 3: West facing representative section
Plate 4: West facing representative section
Plate 5: Northwest facing representative section
Plate 6: Northwest facing representative section
Plate 7: South facing representative section
Plate 8: North facing representative section
Plate 9: North facing section of military practice trench 6004
Plate 10: Plan view of an unexcavated military 'foxhole' feature
Plate 11: North facing section of 'foxhole' feature 6006
Plate 12: East facing section of ditch 5004
Plate 13: West facing section of post-hole 6008
Plate 14: Southeast facing section of ditch 1204



Bulford Washdown Facility Project, Bulford, Wiltshire

Archaeological Investigation Report

Summary

Wessex Archaeology carried out archaeological investigations for a new tank track and vehicle washdown facility at Bulford, Wiltshire, within Salisbury Plain Training Area (NGR 417770 144520). The tank track extends from Bulford Garrison to the northwest, crossing Bulford Droveaway before turning to the northeast and heading to Bulford Plantation where it joins an existing track. The proposed vehicle washdown facility (planning ref. 15/03456/FUL) is located adjacent to the east side of the new tank track, approximately 150 m to the north of Bulford Droveaway.

The archaeological investigations were carried out in a number of stages, as determined by the groundwork construction programme between 22 August and 24 November 2016, and totalled 31 days.

A strip, map and record excavation was originally proposed in the approved written scheme of investigation, however, the discovery of unexploded ordnance and asbestos containing materials resulted in a revised methodology for the investigation with the result that only minimal excavation and recording of features in the northern part of the Site was possible. Despite these constraints, the archaeological investigation was successful in recording a number of modern military features, as well as two undated ditches and one undated post-hole, predominantly located in the northern part of the Site.

The military features including zigzag shaped practice trenches and pits known as 'foxholes' were surveyed but not archaeologically excavated in the northern part of the Site because of health and safety concerns. One 'foxhole' feature was partially excavated by machine and a number of artefacts were recovered suggesting a World War II date, though this does not necessarily mean that all these military features are of the same period.

Whilst three other hand-excavated features are undated, one northwest to southeast aligned ditch is definitely pre-modern and conceivably prehistoric in date and correlates with a linear anomaly recorded in the preceding geophysical survey, and may also be at the southern end of a long curving linear anomaly also revealed in the geophysical survey. Despite the known archaeological potential of the washdown area of the Site – it lay close to two ring ditches, possible remains of Bronze Age funerary monuments, that had been identified during the preceding geophysical surveys and desk-based assessment –, no archaeological remains were found in this specific locality.



Bulford Washdown Facility Project, Bulford, Wiltshire

Archaeological Investigation Report

Acknowledgements

Wessex Archaeology would like to thank WYG Planning and Design for commissioning the work and in particular Martin Brown for his help and support during the course of the project. Thanks are also due to the Dyer and Butler team, in particular Steven Mears, (Project Manager, Dyer and Butler) for their help and cooperation.

The watching brief was carried out by Tom Blencowe, Thomas Burt, Elisenda Gimeno, Phil Harding, Natalia Hunt, Lee Newton, Phoebe Olsen, Piotr Orczewski, John Powell, and Rachel Williams. This report was compiled by Rachel Williams and edited by Gail Wakeham. The finds were assessed by Sue Nelson. The illustrations were prepared by Nancy Dixon. The project was managed on behalf of Wessex Archaeology by Ruth Panes.



Bulford Washdown Facility Project, Bulford, Wiltshire

Archaeological Investigation Report

1 INTRODUCTION

1.1 Project background

1.1.1 Wessex Archaeology (WA) was commissioned by WYG Planning and Design to carry out an archaeological strip, map and sample excavation along the route of a new tank track and vehicle washdown facility to the northwest of Bulford Garrison within Salisbury Plain Training Area, centred on National Grid Reference (NGR) 417770 144520 (hereafter 'the Site', **Figure 1**).

1.1.2 Part of the proposals, namely the vehicle washdown facility and associated structures and infrastructure, was granted planning permission in July 2015 (ref 15/03456/FUL), subject to a number of conditions. One of these conditions related to archaeology:

- *8. No development shall commence within the application site until a written programme of archaeological investigation, which should include on-site work and off-site work such as the analysis, publishing and archiving of the results, has been submitted to and approved by the local planning authority; and the approved programme of archaeological work has been carried out in accordance with the approved details.*

Reason: To enable the recording of any matters of archaeological interest.

1.1.3 A number of non-intrusive surveys have been undertaken in support of the application, prior to this phase of archaeological excavation and recording, including a desk-based assessment (DBA; WYG 2015 and geophysical surveys (WA 2015 and Cranfield University 2016).

1.1.4 The investigations were completed over a number of phases, according to the contractor's work programme, between 22 August and 24 November 2016. All works were carried out in accordance with an approved Written Scheme of Investigation (WSI) prepared by WYG (WYG 2016).

2 SITE DESCRIPTION

2.1 Location, topography and geology

2.1.1 The Site is located immediately northwest of Bulford Camp and 2km east of Durrington village, Wiltshire, within the southern limits of the Salisbury Plain Training Area (SPTA) (**Figure 1**).

2.1.2 The route of the track extends for approximately 1 km (with an approximate width of 7 m) to the northwest from Ward Barracks, Bulford Garrison. The southern end of the track crosses the Nine Mile River and then the Bulford Drove, and traverses arable land before turning to the northeast and crossing open grassland to Bulford plantation where it follows a more easterly direction alongside the north side of the planted woodland before



joining an existing track. The widest part of the Site relates to the area of the proposed vehicle washdown facility, associated stores and related infrastructure measuring approximately 125 m by 75 m (**Figure 1**).

- 2.1.3 The Site extends from the base of a shallow valley in the south, lying at approximately 80 m above Ordnance Datum (aOD), to the brow of a hill in the north at an elevation of 114 m aOD.
- 2.1.4 The Nine Mile River, a tributary to the River Avon, flows northeast to southwest, parallel to a dismantled railway along the southern edge of the Site.
- 2.1.5 The underlying bedrock geology of the Site is recorded as Chalk, Seaford Chalk Formation dating to the Cretaceous period. Some superficial alluvium deposits are recorded at the very southern extent, consisting of clay, sand and gravel formed up to 2 million years ago in the Quaternary period (BGS on-line geology viewer).

3 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

3.1 Introduction

- 3.1.1 A desk-based assessment (DBA) was carried out by WYG detailing the full archaeological and historical background of the Site and its vicinity, and as such this information will not be repeated here in full.
- 3.1.2 A summary of previous archaeological work relating to the proposed development is presented below, together with a brief summary of the known archaeological assets that may be potentially impacted by the development.

3.2 Previous archaeological investigations

- 3.2.1 The DBA assessed the potential for archaeological remains to be present by studying known archaeological assets within a defined study area, encompassing five routes originally considered, before the preferred route [the Site] was formally proposed (WYG 2015).
- 3.2.2 Wessex Archaeology conducted gradiometer surveys of the majority of the proposed route, and an earlier iteration of the route. The survey covering some 11 ha highlighted the potential for the remains of known heritage assets, particularly in the northern part of the earlier considered route. Following this, the route was moved as far as practicable to avoid affecting these, and other ecological constraints. However, a number of potential archaeological anomalies lie within the Site including a linear ditch, a curvilinear ditch, pit-like anomalies, and former field boundaries, as well as areas of increased magnetic responses from modern services and other trends likely relating to military activity (WA 2015).
- 3.2.3 A further geophysical survey was carried out by Cranfield University (Cranfield University 2016). They conducted a ground penetrating radar survey in an area close to active badger setts, in order to define the extent of the animal activity. This survey noted a ditch that had previously been located by the earlier geophysical surveys.
- 3.2.4 Both the geophysical survey (WA 2015) and the DBA (WYG 2015) identified the presence of two ring ditches, potential prehistoric barrows (Wiltshire Historic Environment Record (HER) ref MWI12370 and MWI12371), on either side of the track, just to the north of the vehicle washdown facility. The DBA noted the potential for associated remains, including further burials in this area (WYG 2015, 18).

- 3.2.5 Both the geophysical survey (WA 2015) and the DBA (WYG 2015) noted the potential for an undated linear feature crossing the Site near the north-west corner of Bulford Plantation. This feature has been seen on aerial photographs and is recorded by the Wiltshire HER with the identifier MWI11652.
- 3.2.6 The potential for military training remains such as practice trenches and 'foxholes' was also highlighted in the DBA (WYG 2015,14). As with other sites on the Salisbury Plain Training Area military remains are treated as part of the archaeological resource in spite of their modernity.

4 AIMS AND OBJECTIVES

- 4.1.1 The aims of the archaeological work were defined in the WSI and were generally to record the location, extent, date, nature, character, and relationships of any surviving archaeological remains uncovered during the groundwork programme (WYG 2015).

4.2 Specific objectives

- 4.2.1 The specific objectives of the archaeological works, also outlined in the WSI (WYG 2015), were to:
- *identify archaeological features and deposits of interest;*
 - *excavate and record any identified archaeological features and deposits to a level to enable their nature and significance to be identified;*
 - *undertake sufficient post-excavation analysis to confidently interpret archaeological features identified during site works;*
 - *report the results of any investigation in the field and subsequent post-excavation analysis and place these results within the local and regional context; and*
 - *compile and deposit a suite archive at a suitable repository.*

5 METHODOLOGY

5.1 Introduction

- 5.1.1 The full detailed methodology of the archaeological works was set out in the agreed WSI (WYG 2016) and comprised:
- *Phase 1 strip, map and record during construction: covering the new track from the southern side of nine Mile River up to and including the washdown facility; as well as a section forming the western edge of Bulford Field Plantation; and*
 - *Phase 2 strip, map and record ahead of construction: covering two section, one between the northern edge of the washdown facility, and the northern section of the track where it runs east-west along Bulford Field Plantation.*
 - *The initial section of the track immediately north of Bulford Camp was not monitored because of significant modern disturbance and potential for contamination.*
- 5.1.2 The investigation was carried out in accordance with the relevant guidance given in the Chartered Institute for Archaeologist's *Standard and Guidance for an Archaeological Watching Brief* (CIfA 2014a) and *Standards and guidance for Archaeological Excavation* (CIfA 2014b).



- 5.1.3 The strip, map and record areas were excavated using a 360° tracked mechanical excavator employing a toothless ditching bucket, under the constant supervision by an experienced archaeologist, except for when health and safety constraints dictated otherwise. The topsoil was separated from the subsoil and the spoil from the trenches was scanned for artefacts.
- 5.1.4 Where safe to do so, a sufficient sample of any uncovered archaeological features or deposits was excavated by hand, in order to meet the aims of the investigation.

5.2 Health and safety

- 5.2.1 Health and safety considerations took precedence over all other considerations.
- 5.2.2 The discovery of asbestos containing materials and unexploded ordnance (UXO) in the modern military features in the north of the Site limited the level and detail of recording that could be safely achieved. Where practicable, the stripped areas were surveyed and features recorded, as conditions allowed, and a sample of the finds were then collected.
- 5.2.3 Following consultation with Martin Brown (WYG Principal Archaeologist) and Ian Phillips (WA Company Secretary & Compliance Director) the methodology of the investigation was altered. The altered methodology included monitoring from a vehicle parked at a safe distance from the working plant, with regular walkover surveys of the stripped area when the plant was stood down. As the construction methodology was to reduce to the top of the natural and then return and grade to formation levels, as appropriate, this methodology worked well. Wessex Archaeology are confident that the majority of archaeological features were identified in this northern area of the Site using this methodology. The potential for UXO within this area meant that archaeological features were only surveyed and not excavated by hand.

5.3 Recording

- 5.3.1 All archaeological deposits were recorded using WA's pro forma recording system with a unique numbering system for individual contexts. Archaeological features and deposits were hand-drawn at either 1:10 or 1:20 scale as appropriate.
- 5.3.2 Blocks of unique context numbers were allocated for different areas monitored during different periods of the investigation. Although these blocks of numbers were not continuous, continuity was ensured by using the same suffixes for the overlying soil sequence: topsoil was always numbered with the suffix 01, subsoil was numbered with the suffix 02 and the natural geology was numbered with the suffix 03.
- 5.3.3 A full photographic record was maintained during the investigation using digital cameras equipped with an image sensor of not less than 10 megapixels. The record illustrates both the detail and the general context of the principal features, finds excavated, and the site as a whole. Digital images have been subject to a managed quality control and curation process, which has embedded appropriate metadata within the image and ensures the long term accessibility of the image set.
- 5.3.4 The survey was carried out with a Leica Viva series GNSS unit, using the OS National GPS Network through an RTK network with a 3D accuracy of 30mm or below. All survey data was recorded using the OSGB36 British National Grid coordinate system.
- 5.3.5 A unique site code **106092** was allocated, and was used on all records and finds.



5.4 Monitoring

- 5.4.1 WA informed the WYG Principal Archaeologist of the commencement of fieldwork and the progress of the investigations on the Site. When it became apparent that the full methodology outlined in the WSI could not be safely implemented, WYG were immediately informed and a workable revised methodology was employed.

5.5 Finds and environmental sampling

- 5.5.1 The recording and cleaning, storage and conservation of finds was in accordance with the ClfA's *standards and Guidance for the Collection, Documentation, Conservation and Research of Archaeological Material* (ClfA 2014c) and *First aid for Finds* (Watkinson and Neal 1997).
- 5.5.2 Strategies for the recovery of environmental remains were in accordance with WA's own environmental sampling policy and *Environmental Archaeology; A Guide to the Theory and Practice of Methods, from Sampling and Recovery to Post-excavation* (English Heritage 2011).

6 ARCHAEOLOGICAL RESULTS

6.1 Introduction

- 6.1.1 The following section provides a full description of the results of the archaeological investigation. A number of features were recorded during the course of the investigation as illustrated in **Figure 1**. The uncovered features were all either modern military features, or undated.
- 6.1.2 Details of individual excavated contexts are retained in the project archive, though a summary table of contexts is presented in **Appendix 1**.

6.2 Natural deposits and soil sequence

- 6.2.1 The soil sequence was generally consistent across the Site. Photographs were taken of representative sections at locations across the length of the Site, starting from the southern end and progressing northwards (**Plates 1 – 8**); notable changes are discussed below.
- 6.2.2 The topsoil consisted of mid greyish brown silty clay with sparse sub rounded and sub angular flint cobbles, which were poorly sorted. The topsoil varied in depth between 0.15 m and 0.3 m. Frequent rooting was recorded in the east–west aligned northern section of the Site where the track ran through the edge of a recently planted copse.
- 6.2.3 In the southernmost part of the Site, south of the Bulford Droveaway, the subsoil was greyer in colour than elsewhere and contained common gravels and flint cobbles, which were moderately well sorted (**Plate 1**). This was the lowest lying part of the Site located close to Nine Mile River, so it is probable that the subsoil had derived both alluvially (from the river) and colluvially (from sediments moving down slope). Subsoil was not present in all parts of the Site (**Plates 2–4**). Where present, the subsoil generally consisted of a mid reddish brown silty clay with rare sub angular and sub rounded flint gravel inclusions (**Plates 5–8**). The subsoil varied in depth, up to a maximum of 0.8 m. The thickest subsoil was located in a small dry valley in the north of the Site, and was likely formed by colluvial action; no evidence of anthropogenic material was noted in this deep sequence (**Plate 7**).

6.2.4 The natural geology consisted of white Chalk, with evident periglacial scarring present across the Site. In places the horizon between the subsoil and the weathered natural was diffuse resulting in a loose and poorly defined horizon (Plate 5).

6.3 Modern

6.3.1 A number of features that were distinctly modern were surveyed in the northeastern area of the Site (**Figure 1**). This area is known to have been used by the Army for practice during World War I, with temporary camps potentially evident in the vicinity, and to the south-west the former Carter Barracks is indicated on the OS map of 1958 (WYG 2015, 14-20). These military features formed two distinctive categories, practice trenches with a zigzag pattern in plan and smaller rectangular pits or 'foxholes'.

6.3.2 Artefacts contained within the military trenches included dumps of asbestos, and at least nine live PIAT rounds were recovered and safely detonated by Range Operations. The rest of the material noted within the practice trenches appears to be from a military kitchen with bottles, NAAFI mugs and cooking utensils being amongst the finds noted (only a sample of which were recovered).

6.3.3 Part of a large practice trench (**6004**) was excavated it measured between 8 and 12 m in length and was 1.9 m wide and 0.4 m deep (**Plate 9**).

6.3.4 Nine small pits, known as 'foxholes', were also surveyed. These pits were not excavated for health and safety reasons. The 'foxholes' were typically 0.9 m long by 0.7 m wide, large enough for two men to fit in to (**Plate 10**). A possible 'foxhole' (**6006**) was partly machine excavated (**Plate 11**), and though this feature could not be fully archaeologically investigated due to the presence of unexploded ordnance, a range of finds were recovered suggesting a World War II date.

6.4 Undated

6.4.1 Two undated ditches and one post-hole were recorded during the investigation. No finds were recovered from any of these features but it is considered that two are probably modern, ditch **5004** was noted as cutting the subsoil and posthole **6008** contained a very dark fill, similar in consistency to the topsoil in that area of the Site.

6.4.2 Ditch **5004** measured 1.05 m wide and 0.2 m deep, and extended for over 8.3 m. The east–west aligned ditch had moderately sloped concave sides and a concave base and contained one fill (**Plate 12**). Stratigraphically, the ditch was noted to cut the subsoil suggesting that this ditch is likely modern in date. The geophysical survey recorded this feature as 4010 and noted that it was weakly defined negative anomaly typical of modern activity (WA 2015).

6.4.3 Post-hole **6008** was a sub circular feature with steep concave sides and a flat base measuring 0.26 m in diameter and 0.12 m in depth. Its close location to the other modern features and the similarity of its fill to the topsoil are probably indicative of a modern date (**Plate 13**).

6.4.4 Ditch **1204** measured 1.04 m wide and 0.46 m deep, and was exposed for approximately 9 m. The northwest–southeast aligned ditch had steep straight sides, with a small step on the northeast side and a flat base. This ditch contained one fill, although the possibility of collapsed bank material was noted on the northeast side of the ditch (**Plate 14**). The fill was distinctly different from the modern military features and it is considered archaeological. Its location and alignment is consistent with a linear anomaly identified by

the geophysical survey (anomaly 4014, WA 2015). This ditch was cut by a modern utility trench.

7 ARTEFACTUAL EVIDENCE

7.1 Introduction

7.1.1 A very small finds assemblage was recovered from the archaeological investigation. The finds comprised two unstratified pieces of worked flint, not diagnostic but broadly prehistoric in date, and a range of modern artefacts recovered from military 'foxhole' feature **6006**. All finds have been quantified by material type within each context, and the results are presented in **Table 1** below. .

Table 1: All finds by context (number/weight in grammes)

Context	Material	Count	Weight (g)
2001	Flint	1	2
5001	Flint	1	15
6007	Glass	6	1679
6007	Pottery	4	673
6007	Iron	2	474
6007	Cu Alloy	5	60

7.2 Worked flint

7.2.1 One worked flint blade and one flake were recovered from topsoil contexts **2001** and **5001** respectively. It is not possible to date these closely, However, they are indicative of prehistoric activity within the vicinity of the Site.

7.3 Metalwork

7.3.1 Several modern metal artefacts came from dumped deposit **6007**, in 'foxhole' **6006**. A small white enamelled tin milk saucepan with a blue rim, pouring spout and handle and a matching tin mug both bear the stamp 'Kockums, Sweden' – a well-known manufacturer of enamelled goods from the late 19th century until 1971 (<http://www.ronneby.se/en/ronneby-kommun/visitors/about-ronneby/places-outside-of-ronneby/kallinge/kockum-enamel-factory/>). It is impossible to date these precisely but such goods were distributed widely amongst the military.

7.3.2 Four .303 calibre bullet casings were recovered, three of which are in excellent condition with readable headstamps. Two of these are date-stamped 1942 and 1943 and another reads VII, which 'indicates the type of load (VII Z on .303 British indicates Mark VII ball ammunition loaded with nitrocellulose powder.)' (<http://www.Cartridgecollectors.org/headstampcodes?page=headstampcodes#References>). A further casing has a slightly different appearance and is stamped N 60 and has a symbol of a cross inside a circle.

7.4 Glass

7.4.1 Two Coca-Cola bottles were found, which date to between 1923 and 1951(<http://www.coca-colacompany.com/chronology>) were recovered from deposit **6007**. One of these has been burnt and broken.

7.4.2 Other complete or near-complete bottles include a Brylcreem bottle with a metal screw-top lid and some contents still intact. This product was enormously popular amongst the Armed Forces in the 1930s and 40s. There was also a decorative cologne or aftershave

bottle with a narrow opening that would originally have had a rubber stopper to prevent evaporation of the spirit-based contents. A hexagonal gin bottle stamped 'Booths Distilleries Ltd. London' dates stylistically to the 1940s. One small round clear glass bottle with screw thread could have contained medicine.

7.5 Pottery

7.5.1 Two partial cups and two mugs of refined whiteware pottery were recovered from deposit **6007**. All have dated stamps on the base. The two cups have N.A.A.F.I stamps dated 1943 and 1944 made by Tams of Staffordshire. The mugs are dated 1942 and 1944 and are made by George Jones & Sons and Wade Heath respectively, both also Staffordshire potteries.

8 ENVIRONMENTAL EVIDENCE

8.1 Introduction

8.1.1 No well-dated or sealed archaeological deposits suitable for environmental sampling were uncovered during the investigations.

9 DISCUSSION

9.1 Summary

9.1.1 Despite the limited excavation of features because of health and safety constraints, the archaeological investigation confirmed the presence of archaeological remains within the Site. The majority of the uncovered archaeological features were modern military practice trenches and 'foxhole' pits, but two undated ditches and a post-hole were also revealed, and at least one of these is pre-modern and conceivably even prehistoric.

9.1.2 Finds recovered from one excavated 'foxhole' were dated predominantly to the 1940s, though this doesn't necessarily mean that all the military features were contemporary as the zigzag practice trenches are generally considered to date from World War I (WYG 2015, 14)

9.1.3 Perhaps the most interesting feature recorded during the archaeological investigation was undated ditch **1204**. This ditch corresponds to anomaly 4014 from the preceding geophysical survey (WA 2015). The ditch could possibly be associated with a long curving linear feature that was also identified in the geophysical survey (anomalies 4015/4016/4018, WA 2015) that has several bends in it but extends from the north western end of the anomaly 4014, and heads in a general north westerly direction. It is uncertain if this feature is related to a linear feature known in this locality from aerial photographs and recorded in the Wiltshire HER (identifier MWI116562), though this latter feature is far straighter and follows a northeast to southwest alignment, so it is suggested that an association is unlikely.

10 STORAGE AND CURATION

10.1 Museum

10.1.1 It is recommended that the project archive resulting from the excavation be deposited with Salisbury and South Wiltshire Museum, Devizes. The Museum is not currently accepting archives and as a result, the project archive will be stored at WA offices until such time that a suitable repository becomes available. WA will pass charges incurred onto the Client or return the archive to them upon completion of the project.



- 10.1.2 Deposition of any finds with the Museum will only be carried out with the full agreement of the landowner.

10.2 Preparation of the archive

- 10.2.1 The complete site archive, which will include paper records, photographic records, graphics and digital data, is currently stored at the offices of Wessex Archaeology in Salisbury, under the project code 106092. It will be prepared following the standard conditions for the acceptance of excavated archaeological material by Salisbury and South Wiltshire Museum, and in general following nationally recommended guidelines (SMA 1995; ClfA 2014d; Brown 2011; ADS 2013).
- 10.2.2 The archive of all records and finds will be consistent with the principles of Management of Research Projects in the Historic Environment (MoRPHE) (Historic England 2015a).

10.3 Discard policy

- 10.3.1 WA follows the guidelines set out in *Selection, Retention and Dispersal* (Society of Museum Archaeologists 1993), which allows for the discard of selected artefact and ecofact categories which are not considered to warrant any future analysis. Any discard of artefacts will be fully documented in the project archive.
- 10.3.2 In this instance, the few finds recovered were of modern date and did not warrant retention for long-term curation, and will be recommended for discard.
- 10.3.3 The discard of environmental remains and samples follows nationally recommended guidelines (SMA 1993; 1995; English Heritage 2011).

10.4 Security copy

- 10.4.1 In line with current best practice (e.g. Brown 2011), on completion of the project a security copy of the written records will be prepared, in the form of a digital PDF/A file. PDF/A is an ISO-standardised version of the Portable Document Format (PDF) designed for the digital preservation of electronic documents through omission of features ill-suited to long-term archiving.

10.5 Copyright

- 10.5.1 The full copyright of the written/illustrative archive relating to the Site will be retained by Wessex Archaeology Ltd under the Copyright, Designs and Patents Act 1988 with all rights reserved. The recipient museum, however, will be granted an exclusive licence for the use of the archive for educational purposes, including academic research, providing that such use shall be non-profitmaking, and conforms with the Copyright and Related Rights regulations 2003.

11 REFERENCES

Archaeology Data Service (ADS) 2013 *Caring for Digital Data in Archaeology: a guide to good practice*, Archaeology Data Service & Digital Antiquity Guides to Good Practice

Brown, D H, 2011 *Archaeological archives; a guide to best practice in creation, compilation, transfer and curation*, Archaeological Archives Forum (revised edition)

Chartered Institute for Archaeologists (ClfA), 2014a, *Standard and guidance for an archaeological watching brief*



- ClfA 2014b *Standard and guidance for Archaeological Excavations*
- ClfA 2014c *Standard and guidance for the collection, documentation, conservation and research of archaeological materials*
- ClfA 2014d *Standard and Guidance for the creation, compilation, transfer and deposition of archaeological archives, Institute for Archaeologists*
- Cranfield University 2016 *Ground Penetrating Radar Survey at Bulford, Salisbury Plain, Wiltshire*
- English Heritage 2011 *Environmental Archaeology; a guide to theory and practice of methods, from sampling and recovery to post-excavation*, Swindon, Centre for Archaeology Guidelines (2nd edition)
- Historic England 2015 *Management of Research Projects in the Historic Environment: The MoRPHE Project Managers' Guide*
- Museums and Galleries Commission 1992 *Standards in the Museum Care of Archaeological Collections*
- Society of Museum Archaeologists (SMA) 1993 *Selection, Retention and Dispersal of Archaeological Collections*, Society of Museum Archaeologists
- SMA 1995 *Towards an Accessible Archaeological Archive*, Society of Museum Archaeologists
- Watkinson, D. and Neal, V. 1998 *First Aid for Finds: Practical Guide for Archaeologists*, United Kingdom Institute for Conservation of Historic & Artistic Works
- Wessex Archaeology 2015 *Bulford Garrison Backgate Phase 2, Detailed Gradiometer Survey*. Unpublished client report ref. 106091.03
- WYG 2015 *Defence Infrastructure Organisation, Bulford Back Gate, Archaeological Desk-Based Assessment*. Unpublished client report
- WYG 2016 *Bulford Washdown, Salisbury Plain, Wiltshire, Written Scheme of Investigation*. Unpublished client report

11.1 On-line resources

- <http://mapapps.bgs.ac.uk/geologyofbritain/home.html> (BGS on-line geology viewer accessed Dec 2016)
- <http://www.Cartridgecollectors.org/headstampcodes?page=headstampcodes#References>
- <http://www.coca-colacompany.com/chronology>
- <http://mapapps.bgs.ac.uk/geologyofbritain/home.html>
- <http://www.ronneby.se/en/ronneby-kommun/visitors/about-ronneby/places-outside-of-ronneby/kallinge/kockum-enamel-factory/>



12 APPENDICES

12.1 Appendix 1: Summary table of contexts

Co- ordinates		Length	Width	Ground level
E:417969.048 N: 144234.575		1181.83 m	x 7 m	78 – 102 m
Washdown area		124.50 m	x 73.79 m	aOD
Context	Description			Depth (m)
1	Layer	Topsoil – Mid – dark brown silty clay with rare loamy patches with sparse inclusions of sub rounded and sub angular flint cobbles and coarse gravels, poorly sorted. Rooting dependant on the current ground coverage, varied between marshland grasses, unimproved grassland, crops and trees. Moderately loose, friable with a distinct horizon with layer 2 and 3 when applicable.		0 – 0.3 m
2	Layer	Subsoil – Mid brown silty clay with sparse inclusions of sub rounded and sub angular flint cobbles and gravels, poorly sorted, sparse chalk cobbles, poorly sorted, rare rooting. Moderately loose with a diffused horizon with layer 3, especially when at depth over periglacial, weathered chalk. Not present in all areas of the strip.		0.15 – 1 m
3	Layer	Natural Chalk – Off white chalk with periglacial cracking and weathering, rare flint boulder inclusions, moderately compact.		0.1 m +
5004	Cut	Cut of east – west aligned ditch with moderately sloped concave sides and a concave base, measured 8.3 m + x 1.05 m x 0.20 m, contained one fill. Cut subsoil (2) and nat. (3). No anthropogenic material recovered from this slot. Filled with 5005.		0.35 – 0.55 m
5005	Fill	Secondary Fill. A secondary fill of ditch 5004 comprising of a mid-reddish brown silt with inclusions of common chalk pea grit, common chalk coarse gravels, sparse sub angular flint coarse gravels, moderately loose with a distinct horizon with layer 3, no anthropogenic material was recovered from this fill.		0.35 – 0.55 m
6004	Cut	Cut of north – south aligned (zigzag) linear with straight vertical sides, base shape is unknown. Measured 12.5 m + x 2 m x 0.4 m. Cuts layer 2. Filled with 6005. Cuts layer 2.		0.1 – 0.5.m +
6005	Fill	Deliberate backfill of practice trench comprising of a dark grey silt with inclusions of sparse sub angular flint and chalk cobbles. Archaeological remains include pottery, glass, shies, clothing, metal, and asbestos sheeting. Loose with a distinct horizon with layer 3.		0.1 – 0.5.m +
6006	Cut	Cut of sub circular pit whose sides and base shape are unknown. Filled with 6007		0.1 – 0.9 m +
6007	Fill	Deliberate backfill of pit 6006 comprising of dark grey silt. Archaeological remains include pottery, glass, shoes, metal, wire, asbestos sheeting, exploded and unexploded ordnance.		0.1 – 0.9 m +
6008	Cut	Cut of sub circular posthole with steep concave sides and a flat base, measured 0.26 m in diameter x 0.12 m, contained one fill, 6009. Cut natural, 3.		0.5 – 0.62 m
6009	Fill	Backfill of posthole 6008 comprising of a dark reddish brown silty clay loam with inclusion of sparse sub rounded chalk gravels and rare sub angular flint coarse gravels, poorly sorted, moderately loose with a distinct horizon with natural 3.		0.5 – 0.62 m
1204	Cut	Cut of northwest – southeast aligned ditch with steep straight sides and a flat base. Measured 9 m + x 1.04 m x 0.46 m, contained one fill, 1205, cut natural 3.		0.1 – 0.56 m
1205	Fill	Secondary Fill – Mid brown silty clay with sparse chalk cobbles, poorly sorted but predominantly on the northeast side, rare flint boulders on the northeast side, rare sub angular flint cobbles throughout. 1 small abraded piece of prehistoric pottery was noted during the excavation but not retained as it disintegrated when touched. Moderately compacted with a distinct horizon. Fill of ditch 1204.		0.1 – 0.56 m



12.2 Appendix 2: Oasis form

OASIS ID: wessexar1-270258

Project details

Project name	Bulford Washdown Facility Project, Bulford, Wilts.
Short description of the project	Wessex Archaeology carried out an archaeological watching brief of a new tank track and washdown facility on Salisbury Plain Training Area. The tank track leads from Bulford Garrison Barracks across Bulford Droveaway and meets current tracks to the northwest of Bulford Droveaway. The watching brief was successful in noting and recording two ditches and one posthole. Whilst both the ditches are undated one is probably prehistoric and coincides with a ditch noted by the Wiltshire Historic Environment Office as MW111652, a number of World War II practice trenches were noted but not excavated in the northern phase of the watching brief due to the presence of unexploded ordnance. The watching brief was carried out in a number of stages, as determined by the constructors, and totalled 31 days between 22nd August and 24th November 2016.
Project dates	Start: 22-08-2016 End: 24-11-2016
Previous/future work	Yes / Not known
Any associated project reference codes	106092 - Sitecode
Any associated project reference codes	106090 - Sitecode
Any associated project reference codes	106091 - Sitecode
Any associated project reference codes	MW111652 - HER event no.
Type of project	Field evaluation
Site status	None
Monument type	DITCH Uncertain
Monument type	TRENCH Modern

Project location

Country	England
Site location	WILTSHIRE SALISBURY BULFORD Bulford Washdown Facility Project
Postcode	SP4
Study area	15011 Square metres
Site coordinates	SU 417969 144234 50.927198178783 -1.405215592185 50 55 37 N 001 24 18 W Point
Height OD / Depth	Min: 78m Max: 102m

Project creators

Name of Organisation	Wessex Archaeology
Project brief	WYG Planning and Design

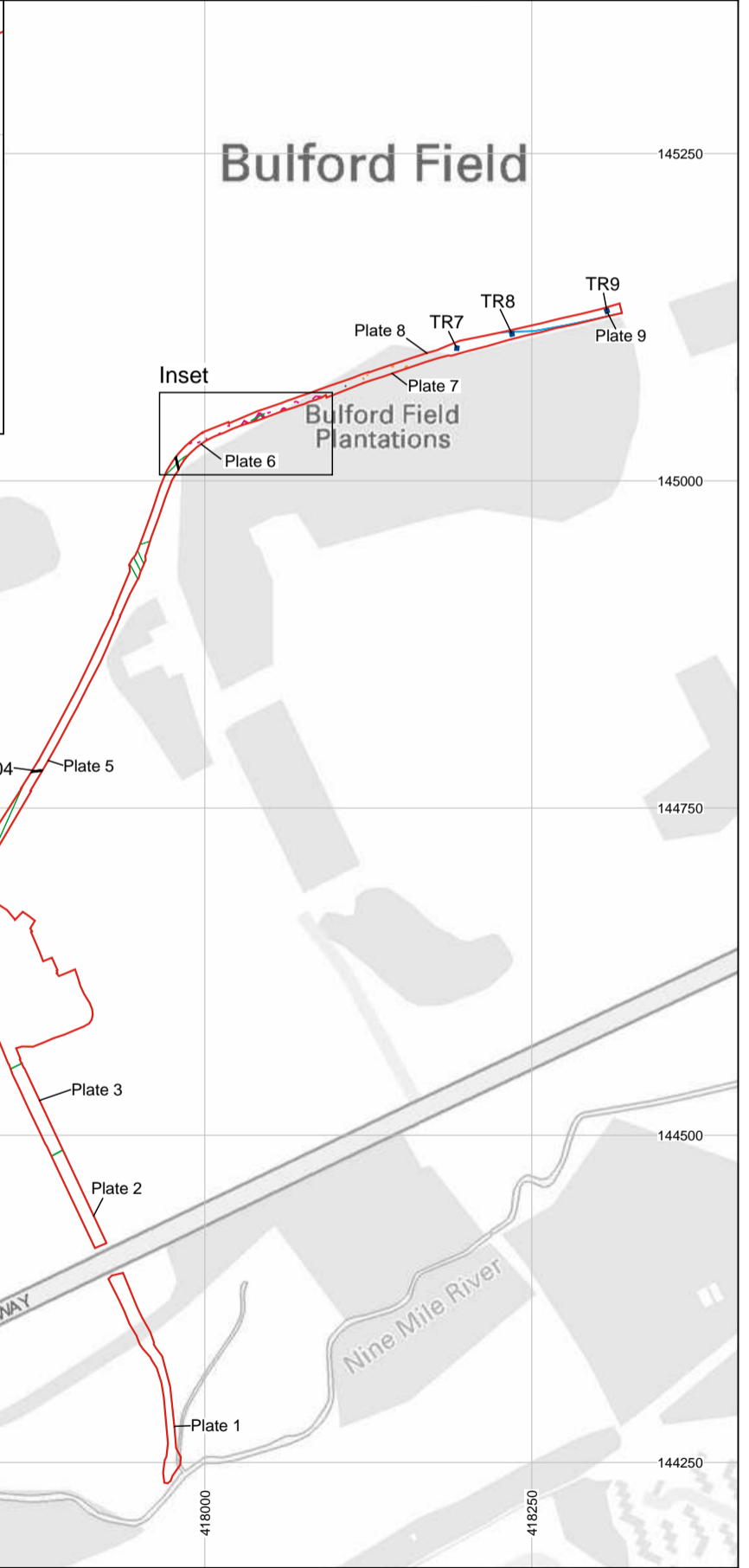
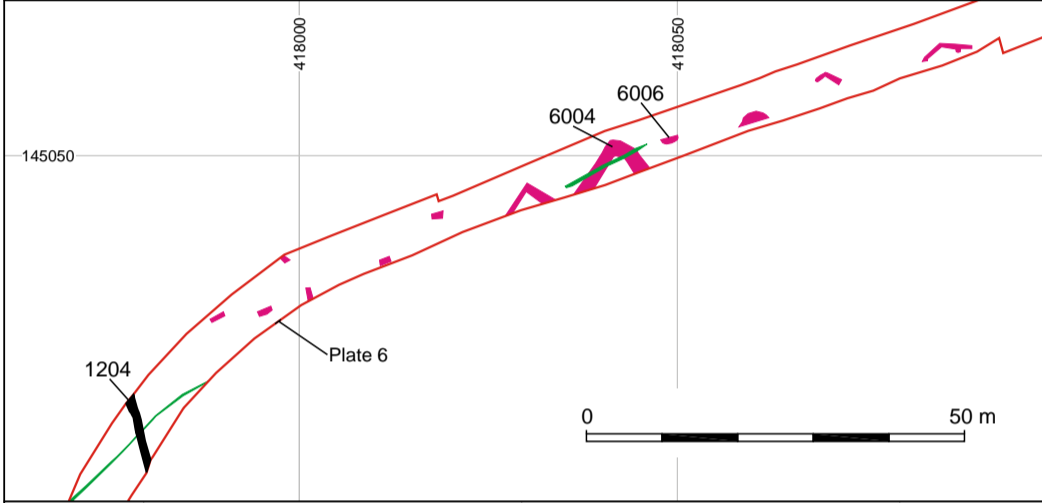
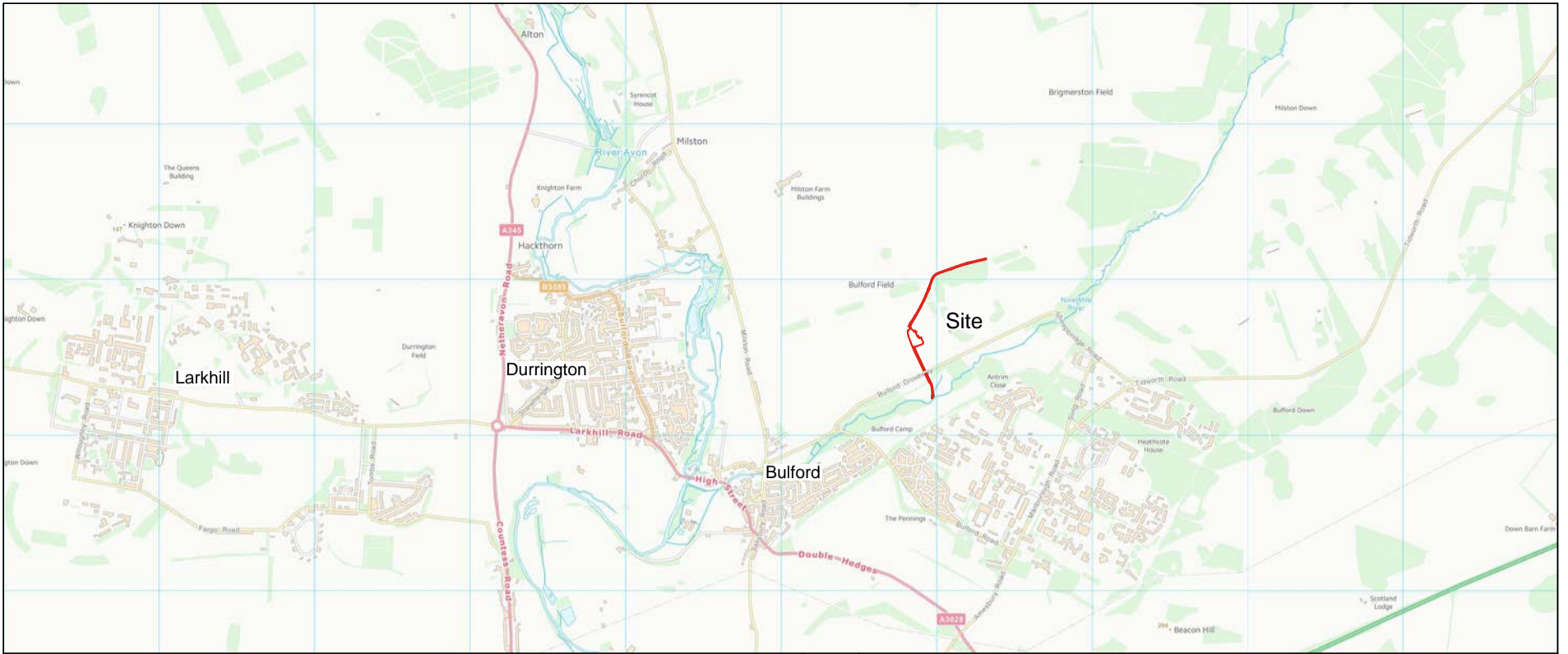


originator	
Project design originator	WYG Planning and Design
Project director/manager	Ruth Panes
Project supervisor	Elisenda Gimeno
Project supervisor	Tom Burt
Project supervisor	Tom Blencowe
Project supervisor	Phil Harding
Project supervisor	N Hunt
Project supervisor	Lee Newton
Project supervisor	Phoebe Olsen
Project supervisor	Piotr Orczewski
Project supervisor	John Powell
Project supervisor	Rachel Williams
Type of sponsor/funding body	Defence Engineering
Name of sponsor/funding body	Defence Infrastructure Organisation

Project archives

Physical Archive recipient	Salisbury and South Wiltshire Museum
Physical Contents	"Worked stone/lithics"
Digital Archive recipient	Salisbury and South Wiltshire Museum
Digital Media available	"Database", "Images raster / digital photography", "Survey", "Text"
Paper Archive recipient	Salisbury and South Wiltshire Museum
Paper Media available	"Context sheet", "Diary", "Drawing"

Entered by	Rachel Williams (r.williams@wessexarch.co.uk)
Entered on	2 December 2016



- Archaeologically monitored areas
- Archaeology
- WWII Archaeology
- Disturbance
- Tree throw
- Utility trench



Coordinate system:
OSGB36 (OSTN15/OSGM15)



Contains Ordnance Survey data © Crown Copyright and database right 2016.
This material is for client report only © Wessex Archaeology. No unauthorised reproduction.

Date:	08/12/2016	Revision Number:	0
Scale:	1:40,000; 1:5000; 1:1000 @ A3	Illustrator:	ND
Path:	X:\PROJECTS\106092\Graphics_Office\Rep figs\WB\2016_12_06		

Site location and plan of archaeologically monitored areas

Figure 1



Plate 1: West facing representative section



Plate 2: West facing representative section


	This material is for client report only © Wessex Archaeology. No unauthorised reproduction.			
	Date:	08/12/2016	Revision Number:	0
	Scale:	N/A	Illustrator:	ND
	Path:	X:\PROJECTS\106092\Graphics_Office\Rep figs\WB\2016_12_06\106092_Plates.cdr		



Plate 3: West facing representative section



Plate 4: West facing representative section


	This material is for client report only © Wessex Archaeology. No unauthorised reproduction.			
	Date:	08/12/2016	Revision Number:	0
	Scale:	N/A	Illustrator:	ND
	Path:	X:\PROJECTS\106092\Graphics_Office\Rep figs\WB\2016_12_06\106092_Plates.cdr		



Plate 5: Northwest facing representative section



Plate 6: Northwest facing representative section


	This material is for client report only © Wessex Archaeology. No unauthorised reproduction.			
	Date:	08/12/2016	Revision Number:	0
	Scale:	N/A	Illustrator:	ND
	Path:	X:\PROJECTS\106092\Graphics_Office\Rep figs\WB\2016_12_06\106092_Plates.cdr		



Plate 7: South facing representative section



Plate 8: North facing representative section


	This material is for client report only © Wessex Archaeology. No unauthorised reproduction.		
	Date:	08/12/2016	Revision Number: 0
	Scale:	N/A	Illustrator: ND
	Path:	X:\PROJECTS\106092\Graphics_Office\Rep figs\WB\2016_12_06\106092_Plates.cdr	



Plate 9: North facing section of military practice trench 6004



Plate 10: Plan view of an unexcavated military 'foxhole' feature


	This material is for client report only © Wessex Archaeology. No unauthorised reproduction.		
	Date:	08/12/2016	Revision Number: 0
	Scale:	N/A	Illustrator: ND
	Path:	X:\PROJECTS\106092\Graphics_Office\Rep figs\WB\2016_12_06\106092_Plates.cdr	



Plate 11: North facing section of 'foxhole' feature 6006



Plate 12: East facing section of ditch 5004



	This material is for client report only © Wessex Archaeology. No unauthorised reproduction.			
	Date:	08/12/2016	Revision Number:	0
	Scale:	N/A	Illustrator:	ND
	Path:	X:\PROJECTS\106092\Graphics_Office\Rep figs\WB\2016_12_06\106092_Plates.cdr		



Plate 13: West facing section of post-hole 6008



Plate 14: Southeast facing section of ditch 1204

	This material is for client report only © Wessex Archaeology. No unauthorised reproduction.			
	Date:	08/12/2016	Revision Number:	0
	Scale:	N/A	Illustrator:	ND
	Path:	X:\PROJECTS\106092\Graphics_Office\Rep figs\WB\2016_12_06\106092_Plates.cdr		



Wessex Archaeology Ltd registered office Portway House, Old Sarum Park, Salisbury, Wiltshire SP4 6EB
Tel: 01722 326867 Fax: 01722 337562 info@wessexarch.co.uk www.wessexarch.co.uk

