

Archaeological Evaluation and Watching Brief Assessment Report

Ref: 108953.03 November 2015





Archaeological Evaluation and Watching Brief Assessment Report

Prepared for:

Mr Geoffrey Joyce
Principal Estates Advisor
Facilities Management Services
Room 22
Building 106
Dstl Porton Down
Salisbury
SP4 0JQ

Prepared by:

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

www.wessexarch.co.uk

November 2015

Report Ref: 108953.03



Quality Assurance

Project Code	108953	Accession Code		Client Ref.	
Planning Application Ref.			421394 136897 420984 137347		

Version	Status*	Prepared by	Checked and Approved By	Approver's Signature	Date			
v01	I	GW	sc	I. Sangal.	18/11/15			
File:	X:\\PROJECTS\108953_Reports\108953_Porton Down eval and Wb assessment_GW_111115							
v02	E	GW	ADC	A.D. Croslett	24/11/15			
File:	X:\\PRO	JECTS\108953_Rep	oorts\108953_Pd	orton Down eval and Wb ass	essment_v2			
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.



Archaeological Evaluation and Watching Brief Report

Contents

	owledgements	
1	INTRODUCTION	1
1.1	Project background	1
1.2	The Site	1
2	ARCHAEOLOGICAL BACKGROUND	2
2.1	Introduction	2
2.2	Designated assets	2
2.3	Recent investigations	
	Zone 2	
	Zone 3 Dstl Proposed Magazine Site, located south-east of Zone 2	
	Other investigations within the immediate surroundings of the Site	
3	METHODOLOGY	4
3.1	Aims and objectives	4
4	FIELDWORK METHODOLOGY	5
4.1	Introduction	5
4.2	Health and Safety	5
4.3	Zone 2 Trial trench evaluation methodology	5
4.4	Zone 3 Watching brief methodology	6
4.5	Recording of archaeological features and deposits	7
5	FINDS AND ENVIRONMENTAL SAMPLING	7
5.6	Introduction	7
5.7	Finds	7
5.8	Environmental sampling	8
5.9	Human remains	8
5.10	Treasure	8
6	ARCHAEOLOGICAL RESULTS	
6.1	Introduction	9
6.2	Soil sequence	
6.3	Natural features and deposits	10



6.4	Modern disturbance	10
6.5	Zone 2 evaluation: modern features and deposits	11
6.6	Zone 2 evaluation: features of uncertain date	11
6.7	Zone 3 watching brief: Bronze Age features	12
	Ditch group 11	
	Middle Bronze Age inhumation burial	
	Bronze Age pits Posthole of uncertain date	
7	ARTEFACTUAL EVIDENCE	13
7.1	Introduction	
7.2	Pottery	
1.2	Prehistoric	
	Post-medieval	
7.3	Worked flint	15
7.4	Burnt flint	15
7.5	Animal bone	15
7.6	Human bone	
	Methods	
	Results	16
7.7	Radiocarbon dating	16
8	ENVIRONMENTAL EVIDENCE	18
8.1	Introduction	18
8.2	Charred plant remains	18
8.3	Charcoal	18
8.4	Land snails	18
9	CONCLUSION	19
9.1	Zone 2 evaluation	
	Discussion of results	
	Conclusion	
9.2	Zone 3 watching brief	
	Discussion of results Recommendations	
	Recommendations	19
10	STATEMENT OF POTENTIAL AND PROPOSALS	20
10.1	Archaeological sequence	20
10.2	Finds	20
10.3	Environmental	20
11	RESOURCES AND PUBLICATION	21
11.1	Proposed publication	21
11.2	Management structure	21
11.3	Task list	
12	STORAGE AND CURATION	21
12.1	Museum	21



12.2	Preparation and deposition of archive	22
12.3	Discard policy	22
12.4	Security Copy	
12.5	Storage of materials and archives	22
12.6	Copyright	23
13	REFERENCES	23
14	APPENDICES	26
14.1	Appendix 1: Zone 2 evaluation trench summary tables	26
14.2	Appendix 2: Zone 3 watching brief summary table of contexts	38
14.3	Appendix 3: Environmental data	39
14.4	Appendix 4: OASIS record form	40
Tables		
Table 1:		
Table 2:		
Table 3: Table 4:		
Figures		
Figure 1		
Figure 2		
Figure 3	Zone 3 watching brief results: all archaeological features	
Plates		
Plate 1: Plate 2:	East facing section through feature 1604	
Plate 3:	Oblique view of natural features 1608, with 1604 in background General shot of extension to Trench 16 showing natural features	
Plate 4:	Selection of modern artefacts from modern pit 47	
Plate 5:	View of brick-lined modern feature 46	
Plate 6:	View from east of remains of modern railway line feature in Trench 28	
Plate 7:	Representative section of made ground over buried soil layers in Trench 42	
Plate 8:	Oblique view of modern building remains in Trench 42	
Plate 9: Plate 10	North-west facing section through undated ditch 4212 : Working shot of recording excavated sections through ditch group 11, with the	
riale 10	inhumation burial covered (prior to excavation)	;
Plate 11	···	7
Plate 12	: General view from the south of Middle Bronze Age inhumation burial 7 cut into group 11	ditch
Plate 13	- •	
Plate 14	·	
Plate 15		
Plate 16	: North-west facing section through undated posthole 12	



Archaeological Evaluation and Watching Brief Report

Summary

Wessex Archaeology were commissioned by Porton Down Defence Science and Technology Laboratory (Dstl) to undertake two separate archaeological investigations on land at Porton Down: an archaeological evaluation comprising the excavation of 42 trenches on former sport pitches proposed for redevelopment (Zone 2) and an archaeological watching brief monitoring groundwork associated with redevelopment (Zone 3), centred on NGR 421394 136897 and 420984 137347 respectively. The Zone 2 evaluation was undertaken between 29th June and 11th July 2015. The Zone 3 watching brief was undertaken between 11th May and 7th August 2015.

Despite the known archaeological potential, identified through a preceding desk-based assessment, the Zone 2 archaeological evaluation only identified a very low density of features. The majority of these features are of modern date and appear to relate to the earlier history of the Porton Down military establishment, although features of uncertain date were also uncovered including a substantial ditch in the far west of the Site as well as a smaller possible ditch and two postholes.

The location of sub-surface remains of a since demolished railway in the south of Zone 2 correspond to the line of a 'light railway' marked on Ordnance Survey (OS) maps from 1925–1961, although by 1961 it is labelled as 'disused'. In the west of Zone 2, the limited remains of a modern building (represented by its footings) approximately correspond to the location of a small building associated with the military establishment shown on OS maps from 1961 and 1977.

The large archaeological ditch recorded in the west of Zone 2, although of uncertain date, may potentially be associated with the later prehistoric divisions of the landscape known in the Porton Down area, possibly a 'Wessex linear' ditch.

The Zone 3 archaeological watching brief uncovered a small number of more significant features dating to the Bronze Age period. These comprised a slightly sinuous ditch that could not be precisely dated, although it was established by stratigraphic excavation to be earlier than a radiocarbon dated Middle Bronze Age inhumation burial. A short distance to the east of this landscape division, one small pit and a larger pit were both also dated to the Bronze Age and contained a range of artefacts indicative of occupation or settlement within the local area. A single posthole identified in close proximity to the other remains was of uncertain date.

A Statement of Potential and Proposals, solely in relation to the results of the Zone 3 watching brief, is outlined within this report which will lead to the production of a short article, to be submitted to the *Wiltshire Archaeological and Natural History Magazine*.



Archaeological Evaluation and Watching Brief Report

Acknowledgements

This project was commissioned by Porton Down Defence Science and Technology Laboratory (Dstl) and Wessex Archaeology are grateful to Geoffrey Joyce (the Principal Estates Advisor) in this regard. Wessex Archaeology would also like to thank Gary Harvey (Dstl Project Manager) and the team of high risk dig wardens for their assistance and support. Wessex Archaeology would also like to thank Clare King (Assistant County Archaeologist) for her advice and assistance. Thanks are also due to Readypower and their driver and Serco for their co-operation during the fieldwork.

The watching brief was undertaken by Neil Fitzpatrick assisted by Natalie Hunt. The evaluation was led by Benjamin Cullen, assisted by Steven Froud, Natalia Hunt and Bianca San Martin. This report was written by Gail Wakeham, with contributions by Benjamin Cullen. Report graphics were prepared by Elizabeth James. Finds were assessed by Matt Leivers, Phil Harding (flint), Lorrain Higbee (animal bone) and Kirsten Egging Dinwiddy (human bone). The samples were processed by Tony Scothern and were assessed by Sarah F. Wyles. Radiocarbon dating was prepared by Alistair J. Barclay and Sarah F. Wyles. The project was managed on behalf of Wessex Archaeology by Simon Cleggett.



Archaeological Evaluation and Watching Brief Report

1 INTRODUCTION

1.1 Project background

- 1.1.1 Wessex Archaeology (WA) was commissioned by the Principal Estates Advisor to carry out an archaeological evaluation and watching brief on land at Porton Down Defence Science and Technology Laboratory (Dstl the Client). The trial trench evaluation was undertaken within Zone 2 (EAC) centred on National Grid Reference (NGR) 421394 136897, and the archaeological watching brief monitored groundworks within Zone 3 (Enclosed Area) centred on NGR 420984 137347 (hereafter collectively known as the Site, although specific reference will be made to Zone 2 and Zone 3; **Figure 1**).
- 1.1.2 The archaeological evaluation was undertaken in order to inform the planning application for the proposed development of a new structure within Zone 2, following consultation with the Assistant County Archaeologist of Wiltshire County Council (WCC). The archaeological watching brief within Zone 3 was undertaken in order to record any buried archaeological remains that may be revealed during the redevelopment of 20th century buildings at Dstl Porton Down.
- 1.1.3 All archaeological investigations were carried out in accordance with the detailed methodologies and standards set out in a Written Scheme of Investigation (WSI; WA 2015a). The WSI was submitted to and approved by the Assistant County Archaeologist (WCC) prior to the commencement of fieldwork.
- 1.1.4 The Zone 2 archaeological evaluation comprising the excavation of 42 trial trenches (each measuring 30 m by 1.8 m) was carried out over a 10 day period between 29th June and 10th July 2015.
- 1.1.5 The Zone 3 archaeological watching brief was undertaken between 11th May and 7th August 2015.

1.2 The Site

- 1.2.1 The Site is located within the Dstl complex at Porton Down, Wiltshire, which lies to the east of the village of Idmiston and approximately 1.5 km north-east of the village of Porton.
- 1.2.2 Zone 2 comprises a parcel of land of 4.48 hectares (ha) centred on National Grid Reference (NGR) 421394 136897, immediately to the south-east of Zone 3. It is located within the sports recreation ground and is bordered by three unnamed roads to the north, west and south.
- 1.2.3 Zone 3 comprises a parcel of land of 20.79 ha centred on NGR 420984 137347. Zone 3 is bordered by Southway road to the south-west, the Salisbury to Grately railway line to the north-west and by two unnamed roads to the north-east and south-east.



- 1.2.4 The British Geological Survey map for the area (1:50,000 Solid and Drift Series, sheet 298) indicates that the underlying geology of the site consists of Upper Chalk. Alluvial deposits and Valley Gravel associated with the River Bourne are also present in the locality.
- 1.2.5 The land within the Site slopes gently to the south-east, falling from a height of approximately 110 m above Ordnance Datum (aOD) in Zone 3 to 104 m aOD in Zone 2. In terms of the wider topography, the Site is situated on chalk downland which rises to the east of the Site and drops to the valley of the River Bourne, situated approximately 2 km west of the Site, on the western side of Idmiston and Porton villages.

2 ARCHAEOLOGICAL BACKGROUND

2.1 Introduction

- 2.1.1 A number of nationally important designated assets, defined as ten Scheduled Monuments located within the Site's immediate environs as well as a Listed Building located within the Site itself (Zone 3), are detailed below (for their location see Figure 1 WA 2015b).
- 2.1.2 Several non-intrusive and intrusive archaeological investigations have been previously undertaken within the Site and its immediate surroundings, including: geophysical survey, Desk-based Assessment (DBA), archaeological evaluation and excavation. A summary of the findings is presented below.

2.2 Designated assets

- 2.2.1 The Scheduled Monuments mainly comprise a number of Bronze Age barrows (burial mounds), although also includes a Bronze Age enclosure and gas testing trenches relating to developments in gas warfare during the period 1916-1918.
- 2.2.2 To the east and north-east of the Site (approximately 200-400 m north-east of Zone 2) a group of barrows is located north-west of Idmiston Down, comprising two bell barrows (List Entry no. 1013970 and 1013989) and a saucer barrow (List Entry no. 1013970).
- 2.2.3 To the east and south-east of the Site (approximately 400-800 m from Zone 2) on Idmiston Down, a further group of Scheduled Monuments is located, comprising: two disc barrows and two bowl barrows (List Entry no. 1015557); a bell barrow, three bowl barrows and gas testing trenches (List Entry no. 1014818); and a Bronze Age enclosure and two bowl barrows (List Entry no. 1014819).
- 2.2.4 Approximately 600-900 m south of the Site, a further group of six bowl barrows are located (List Entry no. 1013972 contains three of these, 1013973, 1013974, and 1013975).
- 2.2.5 One Grade II Listed Building (List Entry no. 1300376) lies within the Site, more precisely in the south-east corner of Zone 3. The building (Building 106) represents a former headquarters building of 1918 for Royal Engineers Experimental Station (Gas Corps) and is presently in use as administration offices at Dstl.

2.3 Recent investigations

Zone 2

2.3.1 Zone 2 has been the subject of an archaeological DBA (WA 2015b) and a geophysical survey was provided by the Client which was undertaken primarily for the purposes of



UXO detection (WA 2015a Figure 2), but no intrusive archaeological investigations are known to have been carried out within this area of the Site.

2.3.2 A DBA was prepared for land at Zone 2 EAC (WA 2015b) in order to define the known archaeological and historic environment resource within 1 km of this part of the Site, as well as to predict the potential resource that may be affected by the proposed development; this also included an intervisibility study for known heritage assets of national importance within a 5 km radius. This assessment concluded whilst there were no overriding heritage constraints likely to prohibit the development, there was a defined potential for buried archaeological remains. This potential was likely to relate to known cropmarks of a field system of uncertain date partly extending into the Site, as well as for Neolithic and Bronze Age remains because these had been previously recorded in the immediate vicinity, and finally for features associated with the early 20th century Experimental Station. However, the full potential or significance of such archaeological remains could not be fully confirmed on the basis of the available information.

Zone 3

2.3.3 Some limited areas within Zone 3 have been the subject of archaeological investigations. These include a 1997 evaluation by archaeological site investigations within the northeastern part of Zone 3 which identified a number of archaeological features, mainly ditches, one of which was a different scale to the others and its 'V'-shaped profile suggested it may be of prehistoric date (HER no.EWI4616: WA 2015b, WA42) and a magnetometry survey undertaken in 2008 by Archaeological Surveys Ltd in the north of the Dstl complex revealed some weak anomalies that may have related to pit-like features with magnetically enhanced material (HER no. EWI6912: WA 2015b, WA35). Another small evaluation, again within the north of Zone 3, discovered no archaeological features (WA2015b Figure 1).

Dstl Proposed Magazine Site, located south-east of Zone 2

- 2.3.4 Following a DBA and geophysical survey, an archaeological evaluation consisting of 45 trial trenches was excavated across 24 hectares centred on NGR 421450 136400 (WA 2009a), located 200m to the south-east of the Zone 2 area of the Site. The evaluation established the presence of significant prehistoric archaeological features comprising a segmented enclosure ditch, a crouched inhumation burial, a segmented ring-ditch, a small 'C'-shaped enclosure and part of a 'Wessex Linear' ditch were present, though dating evidence was limited. A subsequent archaeological excavation was undertaken in 2011 (WA 2012), with further excavations because of changes to development plans undertaken in 2014 (WA 2014) and early 2015; the results of all these phases of work are included in a forthcoming publication (Andrews and Thompson forthcoming) as summarised below.
- 2.3.5 The excavation of an Early Beaker–Early Bronze Age funerary monument revealed an unusually complex burial sequence of 12 individuals, spanning four centuries, including eight infants and only one probable male, surrounded by a segmented ring-ditch. In the centre was a large grave which contained the disturbed remains of an adult female, accompanied by a Beaker, probably placed within a timber burial chamber and later 'revisited' on one or more occasions. This primary burial and an antler pick from the base of the ring-ditch provided identical Early Beaker radiocarbon dates. Two burials were accompanied by a food vessel and a miniature Collared Urn respectively, others were unaccompanied, and there was a single and a double cremation burial, both within inverted Collared Urns. A 'C'-shaped enclosure nearby may have had been contemporary with the funerary monument, but its date and function are uncertain. Other features included an Early Neolithic pit which contained a significant assemblage of worked flint,



and several Middle Bronze Age ditches and a Late Bronze Age 'Wessex Linear' ditch that reflect later prehistoric land divisions probably related to stock control (Andrews and Thompson forthcoming).

Other investigations within the immediate surroundings of the Site

- 2.3.6 A number of archaeological investigations have been undertaken within the immediate surroundings of the Site, as fully detailed in the DBA (WA 2015b); the most relevant of these to the archaeological investigations within the Site are described below.
- 2.3.7 To the immediate north-west of Zone 2 and east of Zone 3, archaeological observations undertaken in 2006-2007 by Southampton Archaeology Unit recorded a Neolithic pit containing Grooved Ware pottery and an assemblage of other finds, an arc of six undated postholes and an undated ditch (HER no. EWI6913: WA 2015b, Figure 2 WA14).
- 2.3.8 To the immediate south of Zone 3, two Iron Age pits were uncovered in 1970 (WA 2015b, Figure 2 WA17) and an archaeological evaluation undertaken in 2009 by WA located a series of lynchets, a limited quantity of residual Bronze Age finds and a 19th century field boundary (WA 2009b; WA 2015b, Figure 2 WA27).

3 METHODOLOGY

3.1 Aims and objectives

- 3.1.1 The aims of the Zone 2 archaeological evaluation as defined in the WSI (WA 2015a) were to:
 - Clarify the presence/absence and extent of any buried archaeological remains within the Site that may be impacted by development;
 - Identify, within the constraints of the evaluation, the date, character and condition of any surviving remains within the Site;
 - Assess the degree of existing impacts to sub-surface horizons and to document the extent of archaeological survival of buried deposits;
 - Place the Iron Age and earlier activity from recent investigations to the east and south of the Site within the context of this Site and its wider environs;
 - Produce a report which will present the results of the evaluation in sufficient detail to allow an informed decision to be made concerning the Site's archaeological potential.
- 3.1.2 The aims of the Zone 3 watching brief as defined in the WSI (WA 2015a) were:
 - To determine the presence or absence of archaeological remains, and should remains be present, to ensure their preservation by record to the highest possible standard;
 - To confirm the approximate date or date range of the remains, by means of artefactual or other evidence;
 - To determine or confirm the approximate extent of any remains;
 - To determine the condition and state of preservation of the remains;



- To determine the degree of complexity of the horizontal and/or vertical stratigraphy present;
- To prepare a report on the results of the watching brief.

4 FIELDWORK METHODOLOGY

4.1 Introduction

4.1.1 All works were undertaken in accordance with the methodology set out within the WSI (WA 2015a) and in compliance with the standards outlined in the ClfA's *Standard and guidance for archaeological field evaluation* (ClfA 2014a) and ClfA's *Standard and guidance for an archaeological watching brief* (ClfA 2014b) excepting where they are superseded by statements made below.

4.2 Health and Safety

- 4.2.1 Health and safety considerations were of paramount importance in conducting all fieldwork. Safe working practices will override archaeological considerations at all times.
- 4.2.2 All work was carried out in accordance with the *Health and Safety at Work etc. Act 1974* and the *Management of Health and Safety Regulations 1992*, and all other relevant Health and Safety legislation, regulations and codes of practice in force at the time.
- 4.2.3 WA supplied a copy of their Health and Safety Policy and a Risk Assessment to the Client before the commencement of any fieldwork. The Risk Assessment was read and understood by all staff attending the Site before any groundwork commenced.
- 4.2.4 Risks associated with the military use of the Site included the potential for the presence of unexploded ordnance (UXO). Geophysical survey and systematic UXO clearance was carried out and, a Clearance Certificate issued prior to fieldwork. Following Client policy, High Risk Dig Wardens were present at all times and consulted during the fieldwork.
- 4.2.5 Prior to fieldwork, the Client provided information regarding the presence of any below/above ground services. All evaluation trench locations were scanned before and during excavation with a Cable Avoidance Tool (CAT) in order to verify the absence of any live underground services. Where necessary trenches were moved to ensure no interference with live services, following consultation with High Risk Dig Wardens.

4.3 Zone 2 Trial trench evaluation methodology

- 4.3.1 The trench locations were laid out using GPS in general accordance with the pattern given in the WSI, as shown in **Figure 1**, although minor adjustments to the layout may have been required to take account of any on-site constraints such as vegetation, located services and to allow for manoeuvring; as well as changes to the southern Site boundary.
- 4.3.2 A total of 42 machine-excavated trial trenches each measuring 30 m in length and 1.8 m wide were excavated using a 360° excavator equipped with a toothless bucket and under the constant supervision of a suitably experienced WA Archaeologist and a High Risk Dig Warden.
- 4.3.3 Machine excavation continued in shallow spits to the top of archaeological levels, or until the top of natural deposits were exposed, whichever was the higher. All excavated spoil was visually scanned for archaeological artefacts and metal-detected as appropriate by trained archaeological personnel for the purposes of finds retrieval.



- 4.3.4 Where appropriate the base of the trenches/surface of archaeological deposits were cleaned by hand. All trenches and any archaeological features they contained were surveyed by GPS/Total Station to produce a Site plan that is related to Ordnance Survey National Grid and Datum (Newlyn).
- 4.3.5 Appropriate sampling of any potential archaeological features and deposits identified in the evaluation trenches was undertaken by hand, in order to address the aims of the evaluation, and were recorded to professionally accepted standards.
- 4.3.6 Where modern features of no archaeological significance, were identified to truncate the archaeological deposits, and where practicable, these were carefully removed without damage to surrounding deposits to enable the depth of stratification to be assessed.
- 4.3.7 Access to the Site was arranged for the Assistant Archaeologist (WCC) in order to monitor the archaeological investigations as they progressed. Any variations to the WSI were agreed in advance with WCC and the Client.
- 4.3.8 Once the archaeological investigation was completed to the satisfaction of the Assistant Archaeologist (WCC) and the Client, trenches were backfilled by machine using the excavated material in the approximate stratigraphic sequence in which they were excavated. They were left level on completion and no other reinstatement or surface treatment was undertaken.

4.4 Zone 3 Watching brief methodology

- 4.4.1 The watching brief monitored all intrusive construction groundworks associated with the development within Zone 3 (**Figure 1**).
- 4.4.2 The watching brief was undertaken by at least one experienced archaeologist subject to the number of site operations being undertaken at any one time. The mechanical excavation was, where possible, undertaken using a toothless ditching bucket and under constant supervision by WA. Machine excavation proceeded to the required construction levels or the top of archaeological levels whichever was the higher. Where necessary and practicable and without causing unreasonable delay to the groundwork programme, groundworks were halted whilst investigations were carried out by WA staff.
- 4.4.3 Where human remains (see below) were revealed, these were identified and the Assistant Archaeologist (WCC), the Client and their groundwork contractor were informed. Areas of archaeological interest were marked up and suitably protected in advance of their investigation and recording.
- 4.4.4 WA staff investigated archaeological deposits and features by excavation and recording commensurate with the scale of work and using WA's *pro forma* recording system. Where practical, and towards meeting the aims of the watching brief, excavation included sampling of features and deposits in order to determine stratigraphic relationships and to recover artefacts, ecofacts and dating evidence. Recording included written, drawn, and photographic elements as conditions allowed (in line with procedures outlined in Section 4.5 below). Archaeological features and deposits were surveyed using a Total Station/GPS and related to Ordnance Survey.
- 4.4.5 When required, arrangements were put in place with the Client in order for the Assistant Archaeologist (WCC) to access the Site to monitor progress of the watching brief. Where extensive and well preserved archaeological remains were present, a contingent programme for their excavation was agreed with the Client and the Assistant



- Archaeologist (WCC), potentially extending the scope of archaeological works, whilst ensuring no unreasonable delay was caused to the construction programme.
- 4.4.6 The watching brief was maintained throughout groundwork excavations and was concluded when, in consultation with the Assistant Archaeologist (WCC), it was clear that the potential for archaeological remains to be exposed had been exhausted.

4.5 Recording of archaeological features and deposits

- 4.5.1 All trenches and any exposed archaeological deposits were recorded using WA's *proforma* recording system.
- 4.5.2 A complete drawn record of excavated archaeological features and deposits was compiled. This includes both plans and sections, drawn to appropriate scales (1:20 for plans, 1:10 for sections), and with reference to a site grid tied to the Ordnance Survey National Grid. The Ordnance Datum (OD) height of all principal features and levels will be calculated and plans/sections will be annotated with OD heights.
- 4.5.3 A photographic record was maintained during the evaluation using digital cameras equipped with an image sensor of not less than 10 megapixels. Digital images were subject to managed quality control and curation processes which will embed appropriate metadata within the image and ensure long term accessibility of the image set.
- 4.5.4 A unique project code (108953) was allocated, and was used on all records and any recovered artefacts and environmental samples.

5 FINDS AND ENVIRONMENTAL SAMPLING

5.6 Introduction

- 5.6.1 Appropriate strategies for the recovery of artefacts and environmental samples were in line those outlined in the WSI (WA 2015a). Where necessary, specialist advice was sought from WA in-house Finds and Environmental Specialists, and if appropriate from the English Heritage Scientific Advisor.
- 5.6.2 The treatment of artefacts and environmental samples is in accordance with the CIfA's Standard and guidance for the collection, documentation, conservation and research of archaeological materials (CIfA 2014b).

5.7 Finds

- 5.7.1 All artefacts from excavated contexts were retained, except those from features or deposits of obviously modern date. In such circumstances, sufficient artefacts were retained in order to elucidate the date and/or function of the feature or deposit.
- 5.7.2 All retained artefacts were, as a minimum, processed, sorted, quantified, identified, assessed and reported on by WA in-house specialists.
- 5.7.3 Any artefacts requiring conservation or specific storage conditions were dealt with immediately in line with *First Aid for Finds* (Watkinson and Neal 1998). X-raying and storing of any metalwork and other delicate objects was undertaken by WA in-house conservation staff, or the staff of the Conservation Service, Wiltshire History Centre, Chippenham or another approved conservation centre.
- 5.7.4 Recovered artefacts were suitably bagged and boxed in accordance with the guidance given by the relevant museum repository, in general accordance with the Chartered



Institute for Archaeologist's guidance and the United Kingdom Institute for Conservation, Conservation Guidelines no. 2 (UKIC 2001).

5.7.5 All artefacts recovered during the excavations on the Site are the property of the landowner. On completion of the archaeological post-excavation programme and with the permission of the landowner it is anticipated that any artefacts will be deposited with the relevant museum.

5.8 Environmental sampling

- 5.8.1 Environmental sampling was undertaken in accordance with WA's *Guidelines for Environmental Sampling* along with policies outlined in the ClfA's guidance documents and *Environmental Archaeology; A Guide to the Theory and Practice of Methods, from Sampling and Recovery to Post-excavation (second edition*) (English Heritage 2011).
- 5.8.2 Bulk environmental soil samples for the recovery of plant macro fossils, wood charcoal, small animal bones and other small artefacts were taken as appropriate from well-sealed and datable archaeological contexts. Samples were of an appropriate size, for charred material typically from 20-40 litres, reduced to between 10-20 litres from waterlogged deposits, or 100 % of smaller contexts. Samples were not taken from the intersection of features or from those deposits with intrusive material.
- 5.8.3 Bulk environmental soil samples were processed by standard flotation methods and scanned to assess the environmental potential of deposits, but will not be fully analysed. The flot has been retained on a 0.25/0.5 mm mesh, with residues fractionated into 5.6/4 mm, 2 mm, 1 mm and 0.5 mm and dried as appropriate. Coarse fraction (>5.6/4 mm) was sorted, weighed and discarded, with any finds recovered given to the appropriate specialist. Finer residues will be retained until after analysis, with the project archive.
- 5.8.4 Other samples were taken, as appropriate, in consultation with WA specialists, the Assistant Archaeologist (WCC) and if appropriate the English Heritage Regional Science Advisor (e.g. soil micromorphology, pollen, microfossil, radiocarbon dating, dendrochronology etc).

5.9 Human remains

- 5.9.1 Upon the discovery of human remains, in accordance with the WSI and the tenets of the Ministry of Justice Licence (No.15-0188) they were, in the first instance, left *in situ*, covered and protected (**Plate 10**). WA informed the Client who notified the Assistant Archaeologist (WCC), at which point the need for and appropriateness of their excavation/removal as part of the fieldwork was determined. The greatest care was taken in dealing with human remains, in accordance with professional standards and in line with the latest government regulations.
- 5.9.2 Where human remains were excavated, all excavation and post-excavation was in accordance with the standards set out in ClfA Technical Paper 13 Excavation and post-excavation treatment of cremated and inhumed remains (McKinley and Roberts 1993). Where necessary, specialist guidance/site visits were undertaken by a WA osteologist. The final placing of human remains following analysis will be subject to the requirements of the Ministry of Justice Licence.

5.10 Treasure

5.10.1 WA would have notified the Client and Assistant Archaeologist (WCC) immediately if any material was recovered considered to be covered by the *Treasure Act* 1996. All necessary



information required by the *Treasure Act* (i.e. finder, location, material, date, associated items etc.) were reported to the County Coroner within 24 hours. No such material was recorded.

6 ARCHAEOLOGICAL RESULTS

6.1 Introduction

- 6.1.1 Nine of the 42 excavated evaluation trenches contained archaeological features, predominantly consisting of modern features relating to the remains of a railway line, a modern building as well as archaeological features of uncertain date including a large ditch and two postholes. All features are discussed below and illustrated in **Figure 2**.
- 6.1.2 The results from the Zone 3 watching brief are separately detailed below and illustrated in **Figure 3**. A Middle Bronze Age inhumation burial was uncovered that was cut into an earlier ditch; two Bronze Age pits and a posthole of uncertain date were also recovered within close proximity of each other.
- 6.1.3 Detailed trench descriptions from the Zone 2 evaluation are tabulated in **Appendix 1**. Context descriptions from the Zone 3 watching brief are tabulated in **Appendix 2**.
- 6.1.4 Several trenches were moved from the positions set out by the WSI (WA 2015a) and **Trenches 2** and **42** were shortened in length due to constraints, mainly relating to the location of services. **Trenches 16** and **42** were extended upon the request of the Assistant Archaeologist (WCC) in order to further examine features and meet the objectives of the evaluation.

6.2 Soil sequence

- 6.2.1 The soil sequence was broadly similar across the Site. The underlying natural geology was chalk with evident periglacial striping.
- 6.2.2 Above the natural chalk, a subsoil (the lower part of an overlying developed soil) was identified in the majority of the evaluation trenches in Zone 2. This consisted of a mid-yellowish or reddish-brown silty clay with moderate flint and chalk inclusions (of variable depth, approximately 0.06–0.23 m). This deposit had a diffuse lower interface with the underlying weathered chalk natural, the parent material for the soil. On its upper surface it generally had a sharp horizon with the overlying grassed topsoil, a likely truncation horizon, perhaps suggesting that the ground had been cultivated or potentially stripped to the upper surface of this subsoil when the grassed sports pitches were formed in this part of the Site.
- 6.2.3 In a small number of trenches, modern made ground was discovered below the topsoil.

 Trench 41 contained a thin layer (approximately 0.10 m deep) of modern made ground
 (4102) that contained rare (frequency) ceramic building material (CBM not retained) that
 overlay the subsoil. Made ground was also found in Trench 42 above the remains of a
 modern building (detailed below).
- 6.2.4 In all cases, the trenches were covered with grassed topsoil, a mid-yellowish/greyish brown silty loam deposit with sparse sub-angular flint inclusions and sparse small chalk pieces (approximately 0.20–0.25 m in depth).
- 6.2.5 In the Zone 3 watching brief area, the surface was formed of made ground of variable depth, approximately 0.3–0.4 m, overlying a subsoil intermittently surviving across the area, up to a maximum of 0.10 m deep.



6.3 Natural features and deposits

- 6.3.1 A significant proportion of trenches contained small slightly irregular features identified in plan; many of these were investigated by hand in order to confirm that they were natural geological features, and then were surveyed as such and not further recorded. Similarly tree-throws were surveyed as a separate category of their own for the formation of the Site plan and were also not further recorded.
- 6.3.2 **Trench 16** contained a feature that was initially considered to be archaeological. A short curving possible ditch segment measured approximately 4 m in length and appeared to terminate at either opposing end, with a width of 1.10 m and a depth of 0.25 m where excavated by hand in its central part (**1604**), where the cut was reasonably well defined with moderate straight sides and a narrow base (**Plate 1**). Nine pieces of worked flint and two burnt flints were recovered from its single secondary fill, a mid-reddish brown silty clay (**1605**), although these flints are likely to be residual, particularly as they were found within the upper 0.05 m of this deposit. The eastern possible terminus (**1606**) of this curving feature was also hand excavated and was not so clearly defined with irregular sides and base, no archaeological finds were recovered from fill **1607**.
- 6.3.3 Upon the request of the Assistant Archaeologist (WCC), **Trench 16** was extended southwards in order to determine whether there were further remains that could be associated with this curving possible ditch segment. A number of irregularly-shaped features were examined and recorded within this area that were all natural geological features (**1608**) representing periglacial features and solution hollows within the Chalk. No archaeological finds were recovered from these (**Plate 2**). Following comparison of the possible archaeological curving linear feature (**1604/1606**) with these natural features (**Plate 3**), it is concluded that curving linear feature **1604/1606** is actually also more likely to be a natural geological feature with the flint artefacts later naturally accumulating within a hollow, although this interpretation should be treated with caution.
- 6.3.4 **Trench 39** contained a large natural feature (**3904**) extending approximately 10 m in length and across the width of the trench (1.8 m +). At the request of the Assistant Archaeologist (WCC) a sondage was machine excavated through it to a depth of 3.6 m in order to ascertain if it was an archaeological or natural feature; observations made concluded that it was a natural feature known as a sinkhole.

6.4 Modern disturbance

- 6.4.1 Limited modern disturbance was recorded in the Zone 2 evaluation trenches. This consisted of a reduction in the level of the natural Chalk in **Trench 4** and a small rectilinear area of modern disturbance in **Trench 7**.
- In the Zone 3 watching brief area, a far greater amount of modern disturbance was recorded consisting of soakaways, manhole covers, service trenches, pits, storage tanks, and cellars from buildings that had previously stood within this area of the Site. This disturbance was where practicable, surveyed for the formation of the Site plan. A variety of artefacts comprising a selection of glass bottles, cutlery and crockery were recovered from a rectangular pit (47) in the east of the Zone 3 area (Plate 4) which may relate to the early use of the military site: however the artefacts could not be retained for assessment due to asbestos contamination. A brick-lined circular feature (46), possibly a well or footing for above-ground structure was surveyed in the west of the watching brief area (Plate 5) but again could not be excavated by hand because of contamination concerns.



6.5 Zone 2 evaluation: modern features and deposits

- 6.5.1 **Trenches 25, 27, 28, 30, 34** and **35** contained the remains of a modern railway line (**Plate 6**). This consisted of a construction cut approximately 3 m in width (0.42 m in depth, where excavated) that was cut through the subsoil, and was filled with a mid-reddish brown silty clay and sometimes redeposited chalk and gravel make up layers, with evident tarmac and the degraded wood of railway sleepers. This feature was not fully excavated by hand in all of these trenches because areas had not been UXO cleared due to the high presence of ferrous targets.
- 6.5.2 **Trench 42** contained multiple layers of made ground (**4202-4205**) underlying the turfed topsoil (**4201**) to a depth of approximately 0.62 m below the present ground surface (**Plate 7**): all of the made ground layers contained material of modern date (CBM, glass, slate, metal not retained). These made ground deposits physically overlay the recorded buried soil layer (**4206** representing the original soil sequence overlying the chalk) and stratigraphically overlay the *in situ* remains of a modern cavity wall (**4210**) of a building, therefore these made ground layers likely relate to subsequent ground levelling in this locality following the demolishing of the modern building.
- In **Trench 42**, the remains of a modern building were uncovered and continued beyond the western edge of the trench (**Plate 8**). The construction cut (**4209**) was 'L'-shaped in plan, measuring 2.7 m by 2.0 m long and was 0.52 m wide and was recorded to cut buried soil deposit **4206**. Construction cut **4209** was filled with, in stratigraphic order, a foundation (**4211**) consisting of cemented flint nodules (not coursed) varying in height between 0.04 m and 0.18 m, upon which the modern wall (**4210**) was built. 'L'-shaped wall **4210** was formed of cemented London Brick Company Fletton bricks and one footing course survived completely across this south-west corner of the building showing the wall to be of one construction phase with the second and third courses only partially surviving: wall **4210** stood 0.08-0.24 m high. The courses were regular, but insufficient courses were present in order to determine the brick bonding; however the wall stepped in slightly after the initial footing course. The cement jointing was thin and regular, approximately 0.01 m thick, however the jointing of the second course was thicker (0.06 m thick) in the central area between the two leaves of bricks suggesting that the wall was of cavity construction.

6.6 Zone 2 evaluation: features of uncertain date

- 6.6.1 **Trench 12** contained a single rectangular posthole (**1204**) measuring 0.29 m long by 0.20 m wide and 0.09 m deep. It was filled with a single light yellowish brown silty loam deposit (**1205**) from which one piece of worked flint was recovered and rare (frequency) charcoal flecks recorded.
- Trench 27 contained a north-west to south-east aligned possible ditch (2703) measuring 0.63 m in width and 0.28 m in depth. This ditch had a concave base with slightly convex steeply sloping sides. One sherd of post-medieval pottery was recovered from the upper portion of its single fill (2704), however this may be intrusive and is not considered sufficient to date the feature. No continuation of this possible ditch was recorded in any surrounding evaluation trenches.
- 6.6.3 A single undated posthole (**4003**) was uncovered in **Trench 40**. It was sub-circular in plan measuring 0.37 by 0.32 m, and was 0.15 m deep. No finds were recovered from its single secondary fill (**4004**).
- 6.6.4 **Trench 42** contained a substantial north-west to south-east aligned ditch (**4212**). It had steep straight sides and a concave base and was 2.10 m wide by 0.59 m deep (**Plate 9**). This ditch was cut into the natural chalk and its mid reddish brown silty clay secondary fill



(4213) was sealed by the buried soil layer (4207), which represents the original soil sequence overlying the chalk, and is proved stratigraphically earlier than the modern building remains in **Trench 42** (see above). No archaeological finds were recovered from this ditch and therefore it remains undated, although it is a definite archaeological feature.

6.7 Zone 3 watching brief: Bronze Age features

Ditch group 11

- 6.7.1 The stratigraphically earliest feature uncovered during the Zone 3 watching brief was a slightly sinuous ditch (group 11) that extended on a north-north-west to south-south-east orientation for some 28 m across the eastern part of Zone 3 (Plate 10). Although several sections were excavated by hand through this feature, only small quantities of worked and burnt flint were recovered from its single secondary fill, and these whilst inferring a prehistoric date, do not provide a secure date. However, inhumation grave 6 was cut into the infilled ditch (cut 9) and radiocarbon dates from the human bone returned a Middle Bronze Age date (section 7.7 below) providing a terminus post quem for this land division.
- 6.7.2 Ditch **11** appeared to terminate at its northernmost extent but excavation (cut **23**) revealed that it had suffered truncation.
- 6.7.3 At the southernmost extent of ditch 11, one excavated section (cut 30) was cut into an earlier feature (27), and is recorded as a re-cut of an earlier possible ditch segment (27). One piece of worked flint was the only find retrieved from the uppermost fill (29) of feature 27. The later ditch (30) contained a dark greyish brown fill (31) from which four pieces of burnt flint were recovered. It is possible that feature 27 may be natural in origin as a degree of weathering can be seen in the sides of the profile and the surrounding chalk natural; the fills of feature 27 (28 and 29) may appear to be anthropogenic due to sediment leaching through from the physically overlying darker deposit (31) of ditch cut 30 (Plate 11).
- 6.7.4 Throughout its length, ditch **11** was variable in its depth, a minimum of 0.08 m (cut **8**) and a maximum of 0.24 m (cut **4**) which may suggest that it was in fact constructed in segments. Although no dating evidence was recovered from ditch **11**, it is likely to be of Bronze Age date because linear divisions of the landscape in this local area are unlikely to predate this period, and the Middle Bronze Age date of the inhumation burial as stated above provides a *terminus post quem*.

Middle Bronze Age inhumation burial

- 6.7.5 Grave 6 stratigraphically cut a fill of ditch 11 (fill 10 of cut 9). The grave cut (6) was difficult to discern from the cut of the ditch because of truncation by machine (under watching brief conditions); however the grave cut measured approximately 1.53 m by 0.45 m and survived to a depth of 0.14 m. Root disturbance was also evident on the north-eastern side of the grave. The grave was aligned north-north-west to south-south-east, following the line of the earlier ditch (Plate 12).
- 6.7.6 The unaccompanied adult inhumation burial (context 7) had been placed in a flexed position, lying on the left side, with the head at the north-north-west end of grave 6 facing eastwards (**Plate 13**). The inhumation and grave were 100% excavated following the procurement of a Ministry of Justice licence (No. 15-0188) and in accordance with the methods outlined in the WSI (WA 2015a). Assessment of the human bone is detailed in section 7.6 and a sample of the human bone was radiocarbon dated to the Middle Bronze Age (1500–1300 cal BC detailed in section 7.7).



6.7.7 Inhumation grave **6** was backfilled with a mid-yellowish brown silty clay deposit with common chalk pieces and rare small flints with fine rooting noted throughout. No artefacts were recovered (context **8**). There was little discernible difference between this and the fill of the earlier ditch **11** (fill **10** of cut **9**).

Bronze Age pits

- 6.7.8 Circular pit **32** was located approximately 5 m east of the southernmost extent of ditch **11**. It was cut into the natural chalk and measured 1.2 m in diameter and 0.24 m in depth (**Plate 14**). It was initially half-sectioned and then 100% excavated and sampled for the recovery of environmental evidence (see section 8). It was filled with three deposits: the earliest of these was a deliberate dump (fill **33**) containing a large quantity of burnt flint and a worked flint assemblage with microdebitage. The material within fill **33** is probably related directly to the backfilling of the feature. Four sherds of probable Early Bronze Age pottery (perhaps belonging to a coarse Beaker) were also recovered from this context. The overlying fills (**34** and **35**) did not contain any artefacts and were likely formed through natural silting (accumulative sedimentation).
- 6.7.9 A substantial pit (**36**) (**Plate 15**) was located approximately 7 m from the northernmost extent of ditch **11**. Pit **36** was excavated in quadrants and it was established that it was cut by a later tree-throw (**44**) which contained no artefacts. The pit was oval in plan measuring 3.8 by 3.5 m and was 1.18 m+ in depth (the pit was not fully bottomed because of health and safety limitations): there was a shallow lip (0.15-0.30 m wide) around the upper edges of the cut. The sides descended steeply and had a convex profile.
- 6.7.10 Pit **36** was filled with a number of deposits (fills **37-43**): the earliest light greyish brown fills with common chalk pieces derived from the weathering of the feature sides and initial silting (**37-39**); these did not contain any artefacts. A number of artefacts were recovered from secondary fill **40** consisting of a variety of animal bones (including part of a sheep/goat bone point or gauge object), burnt flint and worked flint (including a retouched knife tool possibly of Early Bronze Age date). Finds retrieved from the overlying fills (dumped backfill **41** and secondary fill **42**) include sherds of both flint-tempered Middle or Late Bronze Age pottery together with three possible Beaker sherds of earlier Bronze Age date, this together with the worked flint assemblage indicates some redeposition i.e. that not all the finds may be contemporary. The largest concentration of animal bone from the Site (mainly cattle and sheep/goat) came from secondary fill (**42**), which was also bulk sampled for environmental information (see section 8). Animal bone was also recovered from the upper tertiary fill (**43**) of pit **36**.

Posthole of uncertain date

6.7.11 A single sub-circular posthole (12) was located 0.5 m east of ditch 11. It measured 0.32 m in diameter and 0.10 m in depth and was filled with a single secondary fill (13) from which no artefacts were recovered (**Plate 16**). Of uncertain date, the spatial proximity of the posthole with the other Bronze Age features may infer a similar phase.

7 ARTEFACTUAL EVIDENCE

7.1 Introduction

- 7.1.1 The Zone 2 evaluation and Zone 3 watching brief produced a small quantity of finds ranging in date from prehistoric to post-medieval, and occurring in a restricted range of material types; a quantified breakdown by material and by context is given in **Table 1**.
- 7.1.2 Human bone from the unaccompanied inhumation burial recovered from the Zone 3 watching brief was subject to assessment: in the absence of any dating evidence a 2.6 g



sample of bone (right tibia) was submitted for radiocarbon dating, the results of which determined a Middle Bronze Age date (see section 7.7).

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

Context	Animal Bone	Burnt Flint	Flint	Human Bone	Pottery
0007				1/1	
0016		1/288	2/34		
0019			1/12		
0029			4/47		
0031		4/130			
0033		1299/19340	42/336		4/8
0040	7/69	2/266	19/285		
0041	15/209	19/1625	40/1117		1/5
0042	252/2205	19/1295	54/1347		8/388
0043	48/239				
0801			1/21		
1205			1/3		
1601			1/22		
1605			13/572		
2704					1/31
2901		1/68			
3701			4/80		
u/s	1/3		7/102		
Total	323/2725	1345/23012	192/4090		14/432

7.2 Pottery

7.2.1 Of the 14 sherds recovered, 13 are of later prehistoric date and one of post-medieval date.

Prehistoric

- 7.2.2 Four sherds in a sandy fabric (from pit **32**) are most likely to be of Early Bronze Age date, perhaps belonging to a coarse Beaker. One sherd derives from a simple squared rim; the others are featureless.
- 7.2.3 A group of six flint-tempered sherds from context **42** in pit **36** appear to derive from two or three different Middle or Late Bronze Age vessels. Only featureless body sherds are present. Three much more abraded sherds in a sandy fabric (including one base angle and one with finger nail rustication) from fills **41** and **42** in the same feature may be additional coarse Beaker. Synonymous with the flint from this feature (below) the mix of types suggests some redeposition.

Post-medieval

7.2.4 A single sherd from ditch **2703** (context **2704**) can be identified as a rim from a Verwood-type earthenware vessel from east Dorset.



7.3 Worked flint

- 7.3.1 A total of 185 pieces of worked flint was recovered from 13 contexts. The most significant collection comprised 36 pieces, including 23 chips of core preparation debris from context 33 in Bronze Age pit 32. This group of material, characterised by cortical flakes also included two refitting flakes and other pieces that were undoubtedly derived from the same nodule. The presence of microdebitage also suggests that the material is related directly to the filling of the feature; however the inclusion of a broken burnt piece may indicate a short hiatus between flake production and the episode of dumping.
- 7.3.2 The largest collections of worked flints were recovered from contexts **40**, **41** and **42**, which collectively produced 121 artefacts, and are fills within Bronze Age pit **36**. These collections contain elements of the entire flaking sequence and include cores and retouched tools. However the surface condition of these pieces is more diverse than the collection from pit **32** (context **33**), they are also dominated by unbroken flakes and there is a marked absence of microdebitage. These observations suggest that there is a greater likelihood that the individual pieces are mixed and may not be contemporary.
- 7.3.3 The most notable retouched tool from these groups comprised a knife from Bronze Age pit **36** (context **40**). The blank selection and application of the delicate pressure flaked retouch along both edges is reminiscent of the style and manufacture of a similar implement found with the Amesbury Archer (Fitzpatrick 2011), suggesting that it may be of Early Bronze Age date. All other retouched tools from these collections are dominated by scrapers, none of which are noteworthy.
- 7.3.4 The remaining nine contexts (16, 19, 29, 801, 1205, 1601, 1605, 3701 and unstratified material) contained insufficient quantities to provide meaningful comment. Artefacts were variable in condition and probably residual.

7.4 Burnt flint

7.4.1 Burnt, unworked flint was also recovered. This material type is intrinsically undatable, although often taken as an indicator or prehistoric activity. In this instance, this does seem to be the case, as the distribution of burnt, unworked flint coincides very closely with that of the worked flint.

7.5 Animal bone

- 7.5.1 A total of 323 fragments (or 2.725 kg) of animal bone was recovered from Bronze Age pit **36** during the watching brief. Once conjoins have been taken into account this falls to 132 fragments (**Table 2**).
- 7.5.2 Identified bones from fill **40**, near the base of the pit, include a horse patella, cattle atlas vertebra, a fragment of roe deer maxilla and part of a bone point or gouge made from a modified sheep/goat metacarpal. Dump deposit **41** contained a few further fragments of cattle and sheep/goat bones including elements from the cranial and post-cranial skeleton. The largest concentration of bone fragments, about 78 % of the total, came from fill **42**, a secondary deposit overlying fill **41**. Most of the identified bones are from cattle and sheep/goat; they include a range of different skeletal elements, although bones from the forelimbs of cattle were more common than other body parts. Mandibles were recovered from two 30–36 month old cattle and a 1–2 year old sheep/goat. Other identified bones include a pig femur and skull fragments and the baculum (or os penis) from a dog. Six poorly preserved cattle bones were recovered from the upper tertiary fill **43**, of the pit.



Table 2: Animal bone: number of identified specimens present (or NSIP)

Species	N
cattle	34
sheep/goat	17
pig	3
horse	1
dog	1
roe deer	1
Total identified	57
Total unidentifiable	75
Overall total	132

7.6 Human bone

Methods

7.6.1 The bone was rapidly scanned to assess its condition, the age and sex of the individual, the potential for indices and the presence of pathological lesions. Assessment of age and sex was based on standard methodologies (Buikstra and Ubelaker 1994; Scheuer and Black 2000). Grading for bone condition followed McKinley (2004, fig 6).

Results

- 7.6.2 Poorly defined inhumation grave **6**, which survived to a depth of 0.14 m, was cut through gully **9** (which contained no dateable artefacts), and into the underlying natural chalk. The body had been placed in the grave in a flexed position, lying on the left side. The backfill (context **8**) was a chalky silty-clay.
- 7.6.3 The bone is in a fair condition, with moderate surface erosion and root etching (grade 3–4). Approximately 35% of the skeleton was recovered, much of which is moderately to heavily fragmented. Bone loss and fragmentation was mainly due to the circumstances of discovery i.e. mechanical excavation under watching brief conditions, though some crushing occurred in antiquity, and some disturbance had been caused by modern root systems. Dark grey fungal staining, usually associated with roots, was sparsely distributed across much of the skeleton.
- 7.6.4 The remains are those of an adult possible male *c*. 30–40 years old. Dental pathology includes calculus and periodontal disease; heavy chipping of the tooth enamel was also observed. Other pathological lesions include slight *Cribra orbitalia* indicative of metabolic problems, and a cyst or localised infection in the left orbit. Mild degenerative changes to the spine and right thumb were also noted. A few standard measurements are possible, though it is unlikely that stature will be calculable.

7.7 Radiocarbon dating

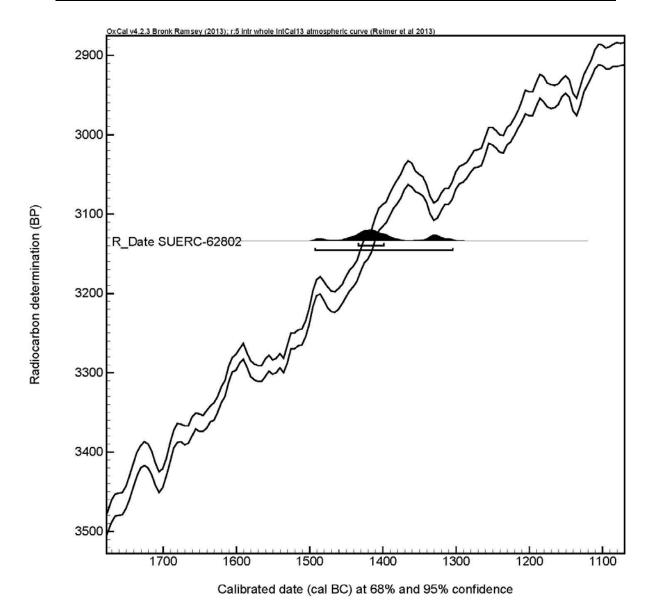
7.7.1 A single radiocarbon date was obtained from a sample of articulated human bone selected from the inhumation burial and submitted to the Scottish Universities Environmental Research Centre (**Table 3**). It has been calculated using the calibration curve of Reimer *et al.* (2013) and the computer programme OxCal (v4.2.3) (Bronk Ramsey and Lee 2013) and cited in the text at 95% confidence and quoted in the form recommended by Mook (1986), with the end points rounded outwards to 10 years. The range in plain type in the radiocarbon table has been calculated according to the maximum intercept method (Stuiver and Reimer 1986).



- 7.7.2 In addition, the δ^{13} C and δ^{15} N values (-21.2 and 8.5 with a ratio of 3.3) for the sample are consistent with a terrestrial diet and, therefore, the potential for a date offset is unlikely (see Bayliss *et al.* 2004). Dietary offsets can cause radiocarbon measurements to appear older than their actual date, which in turn can lead to misleading conclusions about the phase of a site.
- 7.7.3 The date (SUERC-62802) confirms that the burial was made at some point during the 15th or 14th century cal BC (at 95% confidence) corresponding with the Middle Bronze Age and the currency of Deverel-Rimbury pottery.

Table 3: Radiocarbon date

Laboratory Code	Feature and context	Material Identification	Radiocarbon Age (BP)	δ ¹³ C (‰)	δ15N (‰)	C:N Ratio	Calibrated Date Range (95.4% confidence) cal BC
SUERC- 62802	Grave 6	Human bone, ?right tibia	3135±31	-21.2	8.5	3.3	1500-1300





8 ENVIRONMENTAL EVIDENCE

8.1 Introduction

8.1.1 Two bulk samples were taken from Bronze Age pits **32** and **36** within Zone 3 watching brief area and were processed for the recovery and assessment of charred plant remains and charcoal.

8.2 Charred plant remains

- 8.2.1 The bulk samples were processed by standard flotation methods; the flot retained on a 0.5 mm mesh, residues fractionated into 4 mm, 2 mm and 1 mm fractions and dried. The coarse fractions 4 mm) were sorted, weighed and discarded. The flots were scanned under a x10 x40 stereo-binocular microscope and the preservation and nature of the charred plant and wood charcoal remains recorded in **Table 3**. Preliminary identifications of dominant or important taxa are noted below, following the nomenclature of Stace (1997) for wild plants, and traditional nomenclature, as provided by Zohary and Hopf (2000, Tables 3, page 28 and 5, page 65), for cereals.
- 8.2.2 The flots were generally large with low to high numbers of roots and modern seeds that may be indicative of stratigraphic movement and the possibility of contamination by later intrusive elements. The charred material was poorly preserved.
- 8.2.3 Very few charred plant remains were recorded from these Bronze Age pits. A few fragments of barley (Hordeum vulgare) were recovered from pit **36**.

8.3 Charcoal

8.3.1 Wood charcoal was noted from the flots of the bulk samples and is recorded in **Table 3**. A high number of charcoal fragments greater than 2 mm were noted in the sample from pit **32** and a moderately small number from pit **36**. The charcoal included mature wood fragments.

8.4 Land snails

- 8.4.1 The bulk samples were rapidly assessed by scanning under a x 10 x 40 stereo-binocular microscope to provide some information about shell preservation and species representation. The numbers of shells and the presence of taxonomic groups were quantified (**Table 4**). Nomenclature is according to Anderson (2005) and habitat preferences according to Kerney (1999), Davies (2008) and Evans (1972). The presence of these shells may aid in broadly characterising the nature of the wider landscape.
- 8.4.2 A shell of the Introduced *Helicellids* species was recorded in the sample from pit **32**. This is likely to be intrusive within the sample.
- 8.4.3 Large numbers of shells were recovered from pit **36**. These included shells of the open country species *Vallonia costata, Vallonia excentrica, Helicella itala, Pupilla muscorum* and *Vertigo pygmaea*, the intermediate species *Trochulus hispidus, Pomatias elegans, Cochlicopa* sp. and *Cepaea* sp., and the shade-loving species *Carychium tridentatum, Discus rotundatus, Oxychilus cellarius, Aegopinella nitidula, Aegopinella pura, Vitrea* sp., *Clausilia bidentata, Merdigera obscura* and *Acanthinula aculeata*.
- 8.4.4 Although the majority of the shade-loving species observed can be found in both leaf litter and long grass habitats, some of the species, such as *Acanthinula aculeata*, are indicative of woodland environments. The assemblage appears to be indicative of a generally open downland landscape, possibly of both pasture and arable, with areas of longer grass and



some woodland in the vicinity. This is comparable with other assemblages from Bronze Age deposits elsewhere on Salisbury Plain.

9 CONCLUSION

9.1 Zone 2 evaluation

Discussion of results

- 9.1.1 Despite the known archaeological potential of the Site, the archaeological evaluation only identified a very low level of features. The majority of these features are of modern date and appear to relate to the earlier history of the Porton Down military establishment, although features of uncertain date were also uncovered including a substantial ditch in the far west of the Site as well as a smaller possible ditch and two postholes.
- 9.1.2 The location of sub-surface remains of a since demolished railway in the south of Zone 2 correspond to the line of a 'light railway' marked on Ordnance Survey (OS) maps from 1925–1961, although by 1961 it is labelled as 'disused'. In the west of Zone 2, the limited remains of a modern building (represented by its footings) approximately correspond to the location of a small building associated with the military establishment shown on OS maps from 1961 and 1977. Although the date of its demolition is unclear, as is its purpose, this information could possibly be revealed by examination of Dstl's archive.
- 9.1.3 The large archaeological ditch recorded in the west of Zone 2 (Trench 42), although of uncertain date, may potentially be associated with the later prehistoric divisions of the landscape known in the Porton Down area: a 'Wessex Linear' ditch (considered to be of Late Bronze Age date) of a similar size but on a different alignment was discovered in excavations undertaken approximately 300 m to the south-east of Zone 2 (Andrews and Thompson forthcoming).

Conclusion

9.1.4 The Zone 2 evaluation indicates that there is a very low density of archaeological remains of low significance in this specific area of land in Dstl Porton Down. Any mitigation required within the Zone 2 part of the Site, considering the results of this evaluation, is the decision of WCC.

9.2 Zone 3 watching brief

Discussion of results

9.2.1 The watching brief in Zone 3 uncovered a small quantity of archaeological remains in the east of the observed area that were dated to the Bronze Age. Evidence comprised a slightly sinuous ditch that could not be precisely dated, although it has been established by stratigraphic excavation to be earlier than a radiocarbon dated Middle Bronze Age inhumation burial. A short distance to the east of this landscape division, one small pit and a larger pit were both also dated to the Bronze Age and contained a range of artefacts indicative of contemporary occupation or settlement within the local area. A single posthole identified in close proximity to the other remains was of uncertain date.

Recommendations

9.2.2 A Statement of Potential and Proposals solely in relation to the results of the Zone 3 watching brief is outlined below which will lead to the production of a short article, to be submitted to the Wiltshire Archaeological and Natural History Magazine.



10 STATEMENT OF POTENTIAL AND PROPOSALS

10.1 Archaeological sequence

- 10.1.1 The archaeological sequence has the potential to add to known evidence of Bronze Age funerary practice, landscape divisions and occupation within the local area.
- 10.1.2 No further analysis of the stratigraphic sequence is required as this has been completed for this assessment.
- 10.1.3 The results of the watching brief presented above will be edited for publication and considered in their broader archaeological context, with particular reference to other recent investigations at Porton Down.

10.2 Finds

- 10.2.1 Further analysis is only proposed for the human bone. The pottery, worked flint and animal bone have already been analysed to an appropriate level and the results above will be edited for inclusion in the publication report.
- 10.2.2 Full analysis of the human bone will allow limited osteological data to be retrieved, allowing a more informed assessment of age and sex of the individual, and potentially providing further information regarding health and lifestyle. The data will add to the existing corpus of Middle Bronze Age information to that gathered from nearby archaeological investigations (Andrews and Thompson forthcoming), and ones in the wider area (McKinley forthcoming, Egging Dinwiddy 2015), where analysis tentatively suggests that different mortuary rites were favoured for different members of the community (McKinley forthcoming). The findings will lead to a better understanding of the lives and rituals of the Bronze Age inhabitants of the region.
- 10.2.3 For the human bone, all unsorted <4 mm residues will be subject to a rapid scan at this stage to extract any identifiable material, osseous or artefactual. Taphonomic factors potentially affecting differential bone preservation will be assessed. The minimum number of individuals will be assessed following McKinley 2004. The age of individuals will be assessed using standard methodologies (Brothwell 1972; Beek 1983; Buikstra and Ubelaker 1994; Scheuer and Black 2000). Sex will be ascertained from the sexually dimorphic traits of the skeleton (Bass 1987; Buikstra and Ubelaker 1994). Where possible a standard set of measurement will be taken (Brothwell and Zakrzewski 2004) and nonmetric traits recorded (Berry and Berry 1967; Finnegan 1978). Pathological lesions will be recorded in text and via digital photography; some lesions may warrant photographing for publication purposes. It will be necessary to make X-radiographs of skeletal elements showing evidence of trauma or infection to ascertain, as far as possible, the full nature of the lesions.

10.3 Environmental

- 10.3.1 The ecofacts have little potential to provide detailed information on the nature of the local environment in the Bronze Age, given the small assemblage and absence of charred plant remains.
- 10.3.2 No further analysis of the environmental samples is required and the results of the assessment will be edited for inclusion in the publication report.



11 RESOURCES AND PUBLICATION

11.1 Proposed publication

- 11.1.1 It is proposed that, following the further analyses outlined above, the results of the watching brief will be reported on in the form of a short illustrated article of approximately three pages in the regional journal, *Wiltshire Archaeological and Natural History Magazine*.
- 11.1.2 Once the post-excavation assessment report has been approved the programme for further analysis and likely publication timetable will be confirmed.

11.2 Management structure

- 11.2.1 WA operates a project management system. The team will be headed by a Post-Excavation Manager who will assume ultimate responsibility for the implementation and execution of the project.
- 11.2.2 The Post-Excavation Manager will ensure that the report meets internal quality standards as defined in WA's guidelines.

11.3 Task list

11.3.1 The following WA staff are scheduled to undertake the work for post-excavation analysis and publication, as outlined below in **Table 4**.

Table 4: Task list

Task no.	Description	Grade	WA staff	Days
Managen	ent and support	<u>.</u>		
	Project management, QA and editing	SPM	Pippa Bradley	0.5
Stratigra	phy			
	Stratigraphic reporting and background research	SPO	Gail Wakeham	1
	Illustration of features and deposits	PO	GO	1
Finds and	lysis and reporting			
	Human bone analysis and reporting	PO	Kirsten Dinwiddy	1.75
	Pottery, flint and animal bone reporting	PM	Matt Leivers	0.25
Environm	ental reporting			
	Overview and environmental summary	SPO	tbc	0.25
Publication	on	<u>.</u>		•
	Journal cost		ext	
Archiving	1	<u>.</u>		•
	Archive preparation	PS	Catherine Coates	0.25
	Archive deposition	PS	Catherine Coates	0.125
	Box storage grant (2boxes)		ext	

12 STORAGE AND CURATION

12.1 Museum

12.1.1 It is recommended that the finds and archive be deposited with Salisbury and South Wiltshire Museum on completion of the project, though it should be noted that this is currently a closed repository, not accepting archaeological archives. Deposition of any finds with the Museum will only be carried out with the full agreement of the landowner



12.2 Preparation and deposition of archive

- 12.2.1 On completion of the report a cross-referenced and internally consistent archive will be produced, which will include paper records, photographic records, graphics, artefacts, ecofacts and digital data, will be prepared following the standard conditions for the acceptance of excavated archaeological material by the local museum, and in general following nationally recommended guidelines (SMA 1995; CIfA 2014d; Brown 2011; ADS 2013). All archive elements will be marked with the Site code (108953), and a full index will be prepared.
- 12.2.2 All archive elements will be marked with the project code (108953), and a full index will be prepared. The physical archive comprises the following:
 - 2 cardboard boxes of artefacts & ecofacts, ordered by material type
 - 2 files/document cases of paper records & A3/A4 graphics
 - 1 x A1 graphic
- 12.2.3 An OASIS online record http://ads.ahds.ac.uk/projects/oasis/ will be initiated and key fields completed on Details, Location and Creators Forms. All appropriate parts of the OASIS online form will be completed for submission to the Wiltshire HER. This will include an uploaded .pdf version of the entire report (a paper copy will also be included with the archive).

12.3 Discard policy

- 12.3.1 WA follows the guidelines set out in *Selection, Retention and Dispersal* (SMA 1993 and 1995) 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.
- 12.3.2 The discard of environmental remains and samples follows nationally recommended guidelines (SMA 1993; 1995; English Heritage 2011).

12.4 Security Copy

12.4.1 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.

12.5 Storage of materials and archives

- 12.5.1 No charge will be made for the temporary storage of finds or archives during the period when WA are undertaking analysis or report preparation.
- 12.5.2 However, if, after completion and submission of the report, finds and archives cannot be deposited with the relevant museum due to circumstances beyond WA's control, a charge will be made for storage.
- 12.5.3 A charge for storage may also be made where a delay is caused by a lack of confirmation of post-fieldwork analyses and report, if the delay exceeds three months.



12.6 Copyright

12.6.1 The full copyright of the written/illustrative archive relating to the site will be retained by WA under the *Copyright, Designs and Patents Act* 1988 with all rights reserved. The 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 to the *Copyright and Related Rights Regulations* 2003.

13 REFERENCES

- ADS 2013, Caring for Digital Data in Archaeology: a guide to good practice, Archaeology Data Service & Digital Antiquity Guides to Good Practice
- Anderson, R 2005 An annotated list of the non-marine Mollusca of Britain and Ireland, Journal of Conchology 38, 607–637
- Andrews, P and Thompson, S forthcoming *An Early Bronze Age funerary monument at Porton Down*, Wiltshire Archaeol Hist Mag
- Bass, W M 1987 Human Osteology, Columbia: Missouri Archaeological Society
- Bayliss, A, Sheperd Popescu, E, Beavan-Athfield, N, Bronk-Ramsay, C, Cook, G T, and Locker, A 2004 The potential significance of dietary offsets for the interpretation of radiocarbon dates: an archaeologically significant example from medieval Norwich. *Journal of Archaeological Science* 31, 563-575
- Beek, G C van 1983 Dental Morphology: an illustrated guide. Bristol
- Berry, A C and Berry, R J 1967 Epigenetic variation in the human cranium, *J Anatomy* 101(2), 261–379
- Bradley, R, Entwistle, R and Raymond, F 1994 *Historic Land Divisions on Salisbury Plain, The Work of the Wessex Linear Ditches Project*. London, English Heritage
- Bronk Ramsey, C and Lee, S 2013 Recent and phased development of the Program OxCal, *Radiocarbon* 55, (2-3), 720-730
- Brothwell D R 1972 Digging up bones. London, British Museum Natural History
- Brothwell, D and Zakrzewski, S 2004 Metric and non-metric studies of archaeological human remains, in M. Brickley and J.I. McKinley (eds) *Guidelines to the Standards for Recording Human Remains*, 24–30. British Association for Biological Anthropology and Osteoarchaeology and Institute for Field Archaeology [now Chartered]
- Brown, D H 2011 Archaeological archives; a guide to best practice in creation, compilation, transfer and curation, Archaeological Archives Forum (revised edition)
- Buikstra, J E and Ubelaker, D H 1994 Standards for data collection from human skeletal remains. Arkansas Archaeological Survey Research Series 44
- Chartered Institute for Archaeologists (ClfA) 2014a, Standard and guidance for archaeological field evaluation, ClfA



- Chartered Institute for Archaeologists (CIfA) 2014b Standard and guidance for an archaeological watching brief, CIfA
- Chartered Institute for Archaeologists (ClfA) 2014c Standard and guidance for the creation, compilation, transfer and deposition of archaeological archives, ClfA
- Davies, P 2008 Snails Archaeology and Landscape Change. Oxford, Oxbow Books
- Egging Dinwiddy, K 2015 Human bone, in A B Powell, Bronze Age and Early Iron Age burial grounds and later landscape development outside Little Woodbury, Salisbury, Wiltshire, Wiltshire Archaeol Natur Hist Soc Mag 108, 44–78
- 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)
- Evans, J G 1972 Land Snails in Archaeology. London, Seminar Press
- Finnegan, M 1978 Non-metric variations of the infracranial skeleton, *J Anatomy* 125(1), 23–37
- Fitzpatrick, A P 2011 The Amesbury Archer and the Boscombe Bowmen. Bell Beaker burials at Boscombe Down, Amesbury, Wiltshire, Salisbury, Wessex Archaeology Rep. 27
- Grootes, PM, Guilderson, TP, Heaton, TJ, Hoffmann, DL, Hogg, AG, Hughes, KA, Kaiser, KF,Kromer, B, Manning, SW, Nui, M, Reimer, RW, Scott, EM, Southon, JR, Staff, RA, Turney, CSM, & van der Plicht, J 2013 IntCal13 and Marine 13 Calibration Curve, 0–50,000 Years BP *Radiocarbon* 55 (4)
- Kerney, M P 1999 Atlas of the Land and Freshwater Molluscs of Britain and Ireland. Colchester, Harley Books
- McKinley, J I and Roberts, C 1993 Excavation and Post-excavation Treatment of Cremated and Inhumed Human Remains, Chartered Institute for Archaeologists Technical Paper No 13
- McKinley, J I 2004 Compiling a skeletal inventory: disarticulated and co-mingled remains, in M Brickley and J I McKinley (eds) *Guidelines to the Standards for Recording Human Remains*, 13–16. British Association for Biological Anthropology and Osteoarchaeology and Institute for Field Archaeology [now Chartered]
- McKinley, J I forthcoming The human remains, in A B Powell and A Barclay *Amesbury Down, Wiltshire, Volume II: Prehistoric.* Salisbury, Wessex Archaeology Rep
- Mook, W G 1986 Business Meeting: recommendations/resolutions adopted by the twelfth international radiocarbon conference, *Radiocarbon* 28, 799
- Reimer, P.J., Bard, E., Bayliss, A., Beck, J.W., Blackwell, P., Bronk Ramsey, C., Buck, C.E., Cheng, H., Edwards, R.L., Friedrich, M., Grootes, P.M., Guilderson, T.P., Haflidason, H., Hajdas, I., Hatté, C., Heaton, T.J., Hoffmann, D.L., Hogg, A.G., Hughen, K.A., Kaiser, K.F., Kromer, B., Manning, S.W., Niu, M., Reimer, R.W.,



- Richards, D.A., Scott, E.M., Southon, J.R., Staff, R.A., Turney, C.S.M. and van der Plicht, J. 2013. IntCal13 and Marine13 radiocarbon age calibration curves 0–50,000 years cal BP. *Radiocarbon* 55, 1869–87.
- Scheuer, L and Black, S 2000 *Developmental Juvenile Osteology*. London, Academic Press
- Society of Museum Archaeologists (SMA) 1993 Selection, Retention and Dispersal of Archaeological Collections, Society of Museum Archaeologists
- Society of Museum Archaeologists (SMA) 1995 *Towards an Accessible Archaeological Archive*, Society of Museum Archaeologists
- Stace, C 1997 New flora of the British Isles (2nd edition). Cambridge, Cambridge University Press
- Stuiver, M, and Reimer, P J, 1986 A computer program for radiocarbon age calculation, *Radiocarbon*, 28, 1022–30
- United Kingdom Institute for Conservation (UKIC) 2001 Guidelines for the Preparation of Excavation Archives for Long-term Storage
- 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 2009a Magazine site, Porton Down, Wiltshire. Archaeological evaluation report. Salisbury, unpublished client report 72830.03
- Wessex Archaeology 2009b Land at Porton Down, Salisbury, Wiltshire: Archaeological Evaluation Report. Salisbury, unpublished report 71861.02
- Wessex Archaeology 2012 Additional Magazine Storage Facility, Porton Down, Wiltshire: Assessment Report on Archaeological Excavation and Proposals for Post-Excavation Analysis and Publication. Salisbury, unpublished report 72832.02
- Wessex Archaeology 2014 Metfield, Porton Down, Wiltshire, Post-excavation Assessment Report and Proposals for Analysis and Publication. Salisbury, unpublished report 72833.01
- Wessex Archaeology 2015a Zone 2 EAC and Zone 3 Enclosed Area, Porton Down, Wiltshire, Written Scheme of Investigation for an Archaeological Evaluation and Watching Brief. Salisbury, unpublished client report 108953.01
- Wessex Archaeology, 2015b, Zone 2 EAC, Porton Down, Wiltshire, Archaeological Desk-Based Assessment. Salisbury, unpublished client report 108950.03
- Zohary, D and Hopf, M 2000 Domestication of plants in the Old World: the origin and spread of cultivated plants in West Asia, Europe, and the Nile Valley (3rd edition). Oxford, Clarendon Press



14 APPENDICES

14.1 Appendix 1: Zone 2 evaluation trench summary tables

TRENCH 1						
Dimensions	3.60					
Co-ordinate:	s: 421303.54E	137023.48	BN			
Context	Description				Depth from ground surface (m)	
101	Layer		Dark yellowish brown silt loam. tones <0.04m. Friable, loose, o		0-0.18	
102	Layer		or subsoil: Mid yellowish brow sparse sub angular stones <0.0	, ,	0.18-0.25	
103	Layer		ight yellowish white chalk with Periglacial scarring.	sporadic sparse pockets of	0.25+	

TRENCH 2							
Dimensions	54						
Co-ordinates	s: 421295.81E	137013.91	IN				
Context	Description				Depth from ground surface (m)		
201	Layer		dark yellowish brown silty loam. 0.04m, friable, undulating fairly o		0-0.23		
202	Layer		or subsoil: Mid reddish brown stones <0.06m, moderate chalk		0.23-0.40		
203	Layer	Natural: L of pea gri	ight yellowish white chalk with	periglacial striping. Pockets	0.40+		

TRENCH 3						
Dimensions	60					
Co-ordinates	s: 421287.20E	136973.90	6N			
Context	Description					Depth from ground surface (m)
301	Layer	Topsoil: dark yellowish brown silt loam, rooted, sparse sub angular stones <0.04m, rare chalk fragments, diffuse horizon.				0-0.20
302	Layer	B horizon or subsoil: mid reddish brown silty clay, common chalk fragments, moderate sub angular stones <0.05m, bioturbated, diffuse horizon.			0.20-0.40	
303	Layer		ight yellowish white chalk r moderate flint nodules	nottle	d with light reddish brown	0.40+

TRENCH 4							
Dimensions	.53						
Co-ordinates	s: 421262.43E	136973.58	BN				
Context	Description				Depth from ground surface (m)		
401	Layer		lark yellowish brown silty loam, diffuse horizon.	rooted, moderate flint	0-0.25		
402	Layer	B horizon diffuse ho	or subsoil: mid reddish brown prizon.	silty clay, rare pea grit,	0.25-0.39		
403	Layer		ight whitish chalk with thin strip arse sub angular flint.	oes of yellowish brown silty	0.39+		



TRENCH 5							
Dimensions (m): 30.31 by 2.10 Max. depth (m):0.58 Ground level (maOD):104.24							
Co-ordinates	s: 421245.05E	136914.17	7N				
Context	Description				Depth from ground surface (m)		
501	Layer		ight yellowish brown silty loam, be sub angular flint <0.05m, clear		0-0.29		
502	Layer		n or subsoil: mid yellowish browr lint, moderate chalk.	n silty clay, rooting, rare sub	0.29-0.49		
503	Layer	Natural: li	ight yellowish white chalk, friable	e, periglacial patches.	0.49+		

TRENCH 6							
Dimensions	Dimensions (m): 29.436 by 2.10 Max. depth (m):0.54 Ground level (maOD):104.37						
Co-ordinates	s: 421228.45E	136891.79	N				
Context	Description					Depth from ground surface (m)	
601	Layer		ight yellowish brown : sub angular flint <0.		oose, friable, rooted, horizon.	0-0.26	
602	Layer		or subsoil: mid yello 2m, rare chalk flecks,		i silty clay, rare sub angular rizon.	0.26-0.54	
603	Layer	Natural: v	vhite chalk, light yello	wish brown	n friable periglacial patches	0.54+	

TRENCH 7							
Dimensions	60						
Co-ordinates	s: 421263.26E	136894.15N					
Context	Description			Depth from ground surface (m)			
701	Layer	Layer Topsoil: mid yellowish brown silty clay, rooted, moderate poorly sorted angular to sub angular flint, diffuse horizon.					
702	Layer	B horizon or subsoil: light yellowish brow angular flints, rare-sparse chalk nodules,		0.25-0.59			
703	Layer	Natural: off-white chalk in a light whitish light and silty clay, moderate periglacial of large flint nodules.		0.59+			

TRENCH 8							
Dimensions	33						
Co-ordinates	s: 421268.18E	136914.02	N				
Context	Description				Depth from ground surface (m)		
801	Layer		ight yellowish brown silty loam int <0.04m, clear horizon.	, friable, rooted, sparse sub	0-0.31		
802	Layer		ı or subsoil: mid yellowish brow chalk <0.04m, diffuse horizon	n silty clay, rare sub angular	0.31-0.63		
803	Layer	Natural: o patches.	off-white chalk, light yellowish w	hite friable periglacial	0.63+		



TRENCH 9								
Dimensions (m): 29.89 by 2.10 Max. depth (m): 0.56 Ground level (maOD):104.82								
Co-ordinate	es: 421282.87E	136875.46N						
Context	Description			Depth from ground surface (m)				
901	Layer	Topsoil: mid yellowish brown silty clay, rooted, moderate-common poorly-sorted angular to sub angular flint, rare chalk flecks, diffuse horizon.						
902	Layer	B horizon or subsoil: light yellowish to common poorly-sorted angular to sul clear horizon.	0.28-0.45					
903	Layer	Natural: off-white chalk in a matrix of common periglacial striping, modera nodules.		0.45+				

TRENCH 10							
Dimensions	76						
Co-ordinates	s: 421284.17E	136851.18	N				
Context	Description				Depth from ground surface (m)		
1001	Layer		ight yellowish brown silty loar ar flints <0.04m, clear horizor		0-0.27		
1002	Layer		or subsoil: mid yellowish browm, rare chalk flecks, moderat	wn silty clay, rare sub angular ely compact, clear horizon.	0.27-0.46		
1003	Layer		halk bedrock, light yellowish t nd scarring, rare sub angular		0.46+		

TRENCH 11								
Dimensions	Dimensions (m): 29.37 by 2.10 Max. depth (m): 0.60 Ground level (maOD): 104.62							
Co-ordinates	s: 421288.67E	136892.3	5N					
Context	Description					Depth from ground surface (m)		
1101	Layer	Topsoil: mid yellowish brown silty clay, rooted, moderate-common poorly sorted angular to sub angular flint, rare chalk flecks, diffuse horizon.			0-0.25			
1102	Layer		n or subsoil: light yellowish b angular to sub angular flint,			0.25-0.45		
1103	Layer		off-white matrix of degraded of large flint nodules, comm			0.45+		



TRENCH 12	TRENCH 12							
Dimensions (m): 29.79 by 2.10 Max. depth (m): 0.60 Ground level (maOD):104.48								
Co-ordinates	Co-ordinates: 421316.94E 136900.88N							
Context	Description					Depth ground (m)	from surface	
1201	Layer		nid yellowish brown silty clay, ted angular to sub angular fli			0-0.30		
1202	Layer		or subsoil: light yellowish bro poorly sorted angular to sub a			0.30-0.50		
1203	Layer		ff-white matrix of degraded cl I striping, moderate outcrops			0.50+		
1204	Cut	concave s	0.29m by 0.20m by 0.09m. I sides and an irregular base.			0.09		
1205	Fill		y Fill: light yellowish brown si nt <0.05m and rare chalk fle		ite sub	0.09		

TRENCH 13	TRENCH 13								
Dimensions (m): 30.38 by 2.10 Max. depth (m): 0.48 Ground level (maOD):104.67									
Co-ordinates	s: 421324.85E	136877.59	N						
Context	Description				Depth ground (m)	from surface			
1301	Layer		ight yellowish brown silty clay l sub angular flint <0.05m, clea		0-0.23				
1302	Layer		or subsoil: mid yellowish brow rare sub angular flint <0.04m,		0.23-0.42	2			
1303	Layer		compact greyish white chalk, lig al patches and striping, rare sul		0.42+				

TRENCH 14	TRENCH 14							
Dimensions	Dimensions (m): 30.53 by 2.10 Max. depth (m): 0.46 Ground level (maOD):104.84							
Co-ordinates	s: 421289.83E	136858.67	N					
Context	Description				Depth from ground surface (m)			
1401	Layer		ight yellowish brown silty clitor 2m, rare chalk flecks, friable,		0-0.19			
1402	Layer		n or subsoil: mid yellowish brov 2m, loose, diffuse horizon.	vn silty clay, rare sub angular	0.19-0.26			
1403	Layer		off-white chalk, light yellowish moderate sub angular flint and		0.26+			

TRENCH 15	TRENCH 15							
Dimensions	84							
Co-ordinate:	s: 421330.33E	136851.13	3N					
Context	Description				Depth fi ground surf (m)	rom face		
1501	Layer		ight yellowish brown silty loam, lint <0.03m, clear horizon.	loose, rooted, moderate sub	0-0.21			
1502	Layer		n or subsoil: Mid yellowish brow 3m, sparse chalk flecks, moder		0.21-0.35			
1503	Layer	Natural: of flint < 0.05	greyish white chalk, periglacial : 5m.	scarring, rare sub angular	0.35+			



TRENCH 16					
	(m): 29.45	by 2.10.	Max. depth (m): 0.54	Ground level (maOD): 104	.85
Extension is Co-ordinates					
Context	Description	130040.31	IN		Depth from ground surface (m)
1601	Layer		ght yellowish brown silty loa int <0.04m, clear horizon.	m, loose, rooted, moderate sub	0-0.28
1602	Layer			own silty clay, rare sub angular ately compact, clear horizon.	0.28-0.50
1603	Layer	Natural: g	reyish white chalk, periglaci	al patches and striping.	0.50+
1604	Cut		eature: 1m+ by 1.10m by 0.2 sides and base. Originally the		0.25
1605	Fill	sub round		ty clay, common poorly sorted es<0.20m, sparse sub angular re flint flakes.	0.25
1606	Cut		eature: 0.72m+ by 0.60m by sides and base. Originally the	0.20m, curvilinear in plan with ought to be curving ditch	0.20
1607	Fill	weathere	ry fill: mid yellowish brown sil d chalk nodules, sparse poo fint <0.02m.	ty clay, sparse sub angular rly sorted sub angular to sub	0.20
1608	Cut	Natural fe base.	eature: 4.95m 0.60m+ by 0.6	7m. irregular in plan, sides and	0.67
1609	Fill		ry fill: mid reddish brown silty ngular flint <0.20m.	clay, very rare chalk flecks,	0.67

TRENCH 17	TRENCH 17							
Dimensions	Dimensions (m): 30.25 by 2.10 Max. depth (m): 0.44 Ground level (maOD):104.65							
Co-ordinates	s: 421331.45E	136866.51N						
Context	Description			Depth from ground surface (m)				
1701	Layer	Topsoil: light yellowish brown silty loam, angular flint <0.03m, clear horizon.	loose, rooted, sparse sub	0-0.20				
1702	Layer	B horizon or subsoil: mid yellowish brown flint < 0.01m, very rare chalk flecks, mode horizon.		0.20-0.26				
1703	Layer	Natural: greyish white chalk, periglacial p compact.	patches and striping,	0.26+				

TRENCH 18	TRENCH 18							
Dimensions	.58							
Co-ordinates	s: 421361.31E	136871.69	N					
Context	Description					Depth from ground surface (m)		
1801	Layer		ight yellowish brown silty loa int <0.04m, clear horizon.	m, lo	pose, rooted, sparse sub	0-0.31		
1802	Layer		or subsoil: mid yellowish bro 2m, very rare chalk flecks, m			0.31-0.40		
1803	Layer	Natural: compact.	greyish white chalk, periglaci	al pa	atches and striping,	0.40+		



TRENCH 19	TRENCH 19							
Dimensions (m): 30.23 by 2.10 Max. depth (m): 0.68 Ground level (maOD):104.87								
Co-ordinate:	s: 421328.75E	136827.08	BN					
Context	Description				Depth from ground surface (m)			
1901	Layer		ight yellowish brown silty loam, int <0.03m, clear horizon.	loose, rooted, sparse sub	0-0.24			
1902	Layer		or subsoil: mid yellowish brow 6m, very rare chalk flecks, mod		0.24-0.36			
1903	Layer		greyish white chalk, periglacial rare flint <0.03m	patches and striping,	0.36+			

TRENCH 20	TRENCH 20							
	Dimensions (m): 30.74 by 2.10 Max. depth (m): 0.53 Ground level (maOD):104.74							
Co-ordinates	s: 421337.62E	136814.81	N					
Context	Description				Depth from ground surface (m)			
2001	Layer		vellowish brown silty loam, loo int <0.07m, clear horizon.	se, rooted, sparse sub	0-0.16			
2002	Layer		n or subsoil: mid yellowish brow By compact, clear horizon.	vn silty clay, rare chalk fleck	o.16-0.35			
2003	Layer		greyish white chalk, periglacial rare flint <0.03m.	patches and striping,	0.35+			

TRENCH 21							
Dimensions (m): 29.84 by 2.10 Max. depth (m): 0.48 Ground level (maOD):104.71							
Co-ordinate:	s: 421359.94E	136798.7	5N				
Context	Description				Depth from ground surface (m)		
2101	Layer		ight yellowish brown silty loam lint <0.04m, clear horizon.	loose, rooted, sparse sub	0-0.26		
2102	Layer		or subsoil: mid yellowish brow 2m, very rare chalk flecks, mo		0.26-0.38		
2103	Layer	Natural: I compact.	ight yellowish white chalk, peri	glacial patches and striping,	0.38+		

TRENCH 22	TRENCH 22							
	Dimensions (m): 29.89 by 2.10 Max. depth (m): 0.45 Ground level (maOD):104.05							
Co-ordinates	s: 421390.27E	136823.31	N					
Context	Description				Depth from ground surface (m)			
2201	Layer		ight yellowish brown silty loam, lint <0.04m, rare chalk <0.02m,		0-0.23			
2202	Layer		n or subsoil: mid yellowish brow ery rare chalk flecks, moderatel		0.23-0.28			
2203	Layer	Natural: I compact.	ight greyish white chalk, perigla	icial patches and striping,	0.28+			



TRENCH 23	TRENCH 23							
Dimensions	Dimensions (m): 28.64 by 2.10 Max. depth (m): 0.43 Ground level (maOD):104.12							
Co-ordinates	s: 421386.67E	136844.90	N					
Context	Description				Depth ground (m)	from surface		
2301	Layer		ight yellowish brown silty loam, lint <0.04m, clear horizon.	loose, rooted, sparse sub	0-0.23			
2302	Layer		n or subsoil: mid yellowish brow 5m, very rare chalk flecks, mod		0.23-0.36			
2303	Layer	Natural: I compact.	ight greyish white chalk, perigla	icial patches and striping,	0.36+			

TRENCH 24	TRENCH 24						
Dimensions	Dimensions (m): 27.65 by 2.10 Max. depth (m): 0.65 Ground level (maOD):104.22						
Co-ordinates	s: 421396.20E	136801.35	5N				
Context	Depth from ground surface (m)						
2401	Layer		nid yellowish brown silty clay, s gular flint, clear horizon.	parse poorly sorted angular	0-0.26		
2402	Layer		or subsoil: light yellowish brow sparse chalk nodules, diffuse ho		0.26-0.54		
2403	Layer		natrix of off-white silty clay and Il striping, sparse seams of larg		0.54+		

TRENCH 25	TRENCH 25							
Dimensions	Dimensions (m): 28.79 by 2.10 Max. depth (m):0.57 Ground level (maOD):104.44							
Co-ordinates	s: 421399.12E	136775.99	9					
Context	Description					Depth from ground surface (m)		
2501	Layer		ight yellowish brown silty loa lint <0.04m, clear horizon.	ım, le	pose, rooted, sparse sub	0-0.25		
2502	Layer		n or subsoil: mid yellowish br 2m, very rare chalk flecks, n			0.25-0.48		
2503	Layer		ight yellowish white chalk, po Possible line of railway trac			0.48+		

TRENCH 26	TRENCH 26							
	Dimensions (m): 29.15 by 2.10 Max. depth (m): 0.48 Ground level (maOD):104.41							
Co-ordinates	s: 421405.79E	136761.80	N					
Context	Description					Depth from ground surface (m)		
2601	Layer		ight yellowish brown silty loa lint <0.03m, rare chalk flecks			0-0.26		
2602	Layer		n or subsoil: mid yellowish bi lint < 0.03m, very rare chalk prizon.			0.26-0.33		
2603	Layer		ight yellowish brown fine gr alk and periglacial scarring.	avel	silty clay mix, also greyish	0.33+		



TRENCH 27	TRENCH 27							
Dimensions (m): 30.11 by 2.10 Max. depth (m): 0.38 Ground level (maOD):104.								
Co-ordinates: 421404.92E 136804.00N								
Context	Context Description					Depth ground (m)	from surface	
2701	Layer		Dark yellowish brown silty clastones <0.07m, moderate pe			0-0.28		
2702	Layer	Layer Natural: light whitish yellow chalk, sporadic pockets of pea grit, common sub angular flint<0.04m.				0.28+		
2703	Cut		70m+ by 0.63m by 0.28m, lin stepped steeply sloping sides	•	cave base,	0.28		
2704	Fill		ary fill: mid reddish brown silty e sub angular flint <0.04m, sp rizon.			0.28		
2705	Cut	Cut of m	odern railway line. 4.47m by	3.30m		Not exca	vated	
2706	Fill	Fill of ra	lway line: noted remains of s	eepers set within	n tarmac.	Not exca	vated	
2707	Cut	Modern	feature	<u>-</u>	·	Not exca	vated	
2708	Fill	Seconda	ary fill: mid red brown silty cla	y loam		Not exca	vated	

TRENCH 28								
Dimensions	Dimensions (m): 28.64 by 2.10 Max. depth (m): 0.33 Ground level (maOD):104.34							
Co-ordinate	s: 421429.43E	136801.94N	·					
Context	Description			Depth from ground surface (m)				
2801	Layer	Topsoil: Light yellowish brown silt I angular flint<0.04m, clear horizon.	oam, friable, rooted, sparse sub	0-0.22				
2802	Layer	B horizon or subsoil:: mid yellow br compact, sparse sub angular flint < horizon.		0.22-0.30				
2803	Layer	Natural: Off-white light yellowish br	own chalk, periglacial scarring.	0.30+				
2804	Cut	Cut for railway line. 3.10m by 2.29r	n	Not excavated				
2805	Fill	Railway line (remains of): noted rea	mains of sleepers set in tarmac.	Not excavated				

TRENCH 29	TRENCH 29							
Dimensions	Dimensions (m): 29.33 by 2.10 Max. depth (m): 0.48 Ground level (maOD): 103.61							
Co-ordinates	s: 421443.86E	136827.10	6N					
Context	Description				Depth from ground surface (m)			
2901	Layer		ight yellowish brown silt loam, lint<0.04m, clear horizon.	friable, rooted, sparse sub	0-0.27			
2902	Layer		n or subsoil: mid yellow brown s sparse sub angular flint <0.04		0.27-0.37			
2903	Layer	Natural: 0	Off-white light yellowish brown	chalk, periglacial scarring.	0.37+			



TRENCH 30	TRENCH 30						
Dimensions	Dimensions (m): 29.91 by 2.10 Max. depth (m): 0.55 Ground level (maOD): 104						
Co-ordinates	s: 421438.50E	136808.84	N				
Context Description						from surface	
3001	Layer		ght yellowish brown silty clay gular to sub angular flint, clea	rooted, friable, sparse poorly r horizon.	0-0.28		
3002	Layer		or subsoil: mid yellow brown gular flint, sparse chalk nodul		0.28-0.49	Э	
3003	Layer	periglacia	off-white matrix of silty clay an I striping, rare seams of large rown silty clay.		0.49+		
3004	Layer	Railway c	onstruction layer: Tarmac		0.08		
3005	Layer	Railway c	construction layer: compact fli	nt gravel	0.25		
3006	Layer	Railway c	construction layer: compact ch	alk made ground	0.16		
3007	Layer	Railway c	construction layer: compact de	graded chalk made ground.	0.08		
3008	Cut	Construct	ion cut for railway: 9.28m by	1.20m by 0.42m.	0.42		

TRENCH 31							
Dimensions	Dimensions (m): 31.12 by 2.10 Max. depth (m): 0.30 Ground level (maOD): 104.69						
Co-ordinates	s: 421354.78E	136831.08N					
Context	Context Description Depth from ground surface (m)						
3101	Layer	Topsoil: light yellowish brown silt loam, ro	ooted, sparse sub angular	0-0.19			
3102	Layer	Natural: off-white chalk bedrock, periglac	ial scarring.	0.19+			

TRENCH 32	TRENCH 32						
Dimensions	Dimensions (m): 29.60 by 2.10 Max. depth (m): 0.28 Ground level (maOD): 105.00						
Co-ordinates	s: 421376.92E	136735.35	5N				
Context	Context Description Depth from ground surface (m)						
3201	Layer		dark yellowish brown silty clay lo s, moderate sub angular flint <0		0-0.26		
3202	Layer		ight yellowish white degraded cl erate sub angular flint.	nalk, periglacial scarring,	0.26+		

TRENCH 33	TRENCH 33							
Dimensions	Dimensions (m): 30.76 by 2.10 Max. depth (m): 0.36 Ground level (maOD):104.77							
Co-ordinates	s: 421341.40E	136761.67	N					
Context Description Depth from ground surfaction (m)								
3301	Layer		ight yellowish brown silty loam lint <0.06m, rare chalk flecks, t		0-0.21			
3302	Layer	flint<0.03	n or subsoil: mid red brown silt m, rare chalk flecks, unclear h	orizon.	0.21-0.29			
3303	Layer	Light yello bedrock a	owish brown silty clay/fine gra at base.	vel, periglacial scarring, chalk	0.29+			



TRENCH 34	TRENCH 34						
	Dimensions (m): 29.71 by 2.10 Max. depth (m): 0.40 Ground level (maOD):105.						
Co-ordinate:	s: 421320.05E	136774.95	5N				
Context Description					Depth from ground surface (m)		
3401	Layer		dark grey brown silty clay loar <0.08m, bioturbated, friable, c		lint	0-0.16	
3402	Layer		or subsoil: mid red brown sil les and cobbles, friable, diffus			0-0.34	
3403	Layer	patches of	off-white degraded upper cha of deeper alluvium, common so clear horizon.],	0.34+	
3404	Cut		tion cut for railway track: 4.29 orizon between cut and fill.	m by 2.68m. Not excava	ted.	Not excavated.	
3405	Fill		of railway track: noted remain horizon or subsoil:	ns of wooden sleepers se	t in	Not excavated.	

TRENCH 35	TRENCH 35							
Dimensions	Dimensions (m): 30.14 by 2.10 Max. depth (m): 0.38 Ground level (maOD):105.10							
Co-ordinates	s: 421300.99E	136779.52	2N					
Context	Description					Depth from ground surface (m)		
3501	Layer		dark grey brown silty clay bioturbated, friable, diffus		moderate sub angular flint zon.	0-0.14		
3502	Layer		ı or subsoil: mid red browı Om, friable, diffuse horizor	•	clay, common sub rounded	0.14-0.30		
3503	Layer		off-white degraded upper of sub-rounded flint <0.10m.		patches of deeper alluvium, pact, clear horizon.	0.30+		
3504	Cut	Railway I	ine: 4.59m by 3.22m, not	excav	ated.	Not excavated.		
3505	Fill	Remains tarmac.	of railway track: noted rei	mains	of wooden sleepers set in	Not excavated.		

TRENCH 36	TRENCH 36							
Dimensions	Dimensions (m): 28.67 by 2.10 Max. depth (m): 0.77 Ground level (maOD):104.90							
Co-ordinate	s: 421265.26E	136807.23	BN					
Context	Description				Depth from ground surface (m)			
3601	Layer		nid greyish brown silty clay, roo lar to sub rounded flint, friable,		0-0.30			
3602	B horizon or subsoil: mid yellowish brown silty clay, moderate poorly sorted sub angular to sub rounded flint, rare chalk flecks, and clear horizon.							
3603	Layer		off-white matrix of silty clay and wish brown silty clay, common		0.77+			



TRENCH 37	TRENCH 37							
Dimensions	Dimensions (m): 29.79 by 2.10 Max. depth (m): 0.61 Ground level (maOD):104.94							
Co-ordinates	s: 421279.74E	136813.04	4N					
Context	Description				Depth from ground surface (m)			
3701	Layer		mid greyish brown silty clay, roo lar to sub rounded flint, friable,		0-0.20			
3702	Layer		or subsoil: mid yellowish brow b angular to sub rounded flint,		0.20-0.54			
3703	Layer		off-white matrix of silty clay and wish brown silty clay, common		0.54+			

TRENCH 38	TRENCH 38							
Dimensions	Dimensions (m): 28.30 by 2.15 Max. depth (m): 0.50 Ground level (maOD):104.73							
Co-ordinates	s: 421255.95E	136837.71	N					
Context	Description					Depth from ground surface (m)		
3801	Layer		mid yellowish brown silty cla lint, sparse chalk fragments		ed, moderate sub	0-0.32		
3802	Layer		n or subsoil: dark reddish bro lar flint <0.50m, moderate c	•		0.32-0.40		
3803	Layer	Natural: I	ight yellowish white chalk, p	eriglacial sc	arring.	0.40+		

TRENCH 39									
Dimensions	Dimensions (m): 30.35 by 2.15								
Co-ordinates	s: 421248.22E	136844.59)N						
Context	Description					Depth from ground surface (m)			
3901	Layer Topsoil: mid yellowish brown silty clay loam, rooted, moderate sub angular flint <0.05m, common chalk fragments, diffuse horizon.					0-0.20			
3902	Layer		or subsoil: mid reddish bro gments <0.04m.	own s	ilty clay loam, moderate	0.20-0.30			
3903	Layer	Natural: li alluvium.	ght yellowish white chalk,	perig	acial scarring, patches of	0.30+			
3904	Cut	Natural si	nkhole feature: 10.90m+ b	y 2.1	5m+	3.60			
3905	Fill		khole: mid red brown silty of lint boulders.	lay, r	moderate well sorted	3.60			

TRENCH 40	TRENCH 40							
Dimensions	Dimensions (m): 29.89 by 2.15							
Co-ordinate	s: 421191.91E	136850.70	ON					
Context	Description					Depth ground (m)	from surface	
4001	Topsoil: mid yellowish brown silty clay loam, rooted, common pea grit, moderate sub angular flint, sparse chalk fragments, distinct horizon.				0-0.27			
4002	Layer	Natural: li angular fl	ight yellowish white chalk, c lint.	omn	non pea grit, common sub	0.27+		
4003	Cut	Cut Posthole: sub oval with an irregular base and irregular steeply sloping sides. 0.37m by 0.32m by 0.15m.				0.15		
4004	Fill		ry fill: mid yellowish brown s nalk fragments, sparse sub			t, 0.15		



TRENCH 41						
Dimensions (m): 29.06 by 2.10 Max. depth (m): 0.57 Ground level (maOD):103.84						
Co-ordinate	s: 421149.94E	136891.0	1N			
Context	Description					Depth from ground surface (m)
4101	Layer	Layer Topsoil: mid greyish brown silty clay, rooted, moderate fairly poorly sorted angular-sub rounded flint, friable, clear horizon.				
4102	Layer		ound: light grey chalky matr clear horizon.	x, tar	mac, CBM, other modern	0.27-0.38
B horizon or subsoil: mid yellowish brown silty clay, sparse chalk flecks, moderate fairly poorly sorted angular-sub rounded flint, clear horizon.					0.38-0.49	
4104	Layer		off-white clay and chalk mix aded chalk, moderate sear			0.49+

TRENCH 42						
	(m): 26.51	by 2.10. Ma	x. depth (m): 1.26	Ground level (maOD):103	3.84	
Extension 3.		100010 0711				
Co-ordinates Context	s: 421131.80E	136840.07N			Depth from	
Context	Description				Depth from ground surface (m)	
4201	Layer			m, common sub angular flint, tile, metal), friable, distinct	0-0.18	
4202	Layer		: light grey sandy silt, ve odern detritus, compact	ery common fine sub rounded , distinct horizon.	0.18-0.30	
4203	Layer		dark grey sandy silt, m ern detritus, compact, d	oderate sub rounded flint istinct horizons.	0.30-0.46	
4204	Layer		Made ground: mid brown sandy silt, very common sub angular and sub rounded flint pebbles, modern detritus, compact, distinct			
4205	Layer	Made ground:	tarmac		0.54-0.62	
4206	Layer		id red brown silty clay, s le, clear horizons.	sparse sub rounded flint	0.62-0.82	
4207	Layer			abundant sub rounded flint ers, friable, clear horizon.	0.82-1.10	
4208	Layer	common sub clear horizon.	rounded flint pebbles, c	alk, predominantly matrix, obbles and boulders, friable,	1.10+	
4209	Cut		cut: right angled corner, I wall foundation 4211	2.70m+ by 0.52m. contains	0.34	
4210	Structure		d corner with stepped s cement mortar, cavity v	ides and a flat base, LBC vall.	0.24	
4211	Structure	Wall foundation	on: flint nodule (uncours	ed)set in cement.	0.18	
4212	Cut	sides, 0.5m+	by 2.1m.	ncave base and steep straight	0.59	
4213	Fill			y, sparse chalk fragments, flint <0.11m. clear horizon.	0.59	



14.2 Appendix 2: Zone 3 watching brief summary table of contexts

Context no.	Interpretative Category
1	Modern overburden
2	B horizon or subsoil
3	Natural Chalk
4	Cut of ditch
5	Secondary fill of ditch 4
6	Cut of inhumation grave
7	Human skeleton inhumation
8	Backfill of grave 6
9	Cut of ditch
10	Secondary fill of ditch 9
11	Group no. for NNW–SEE ditch
12	Cut of posthole
13	Secondary fill of posthole 12
14	Cut of ditch
15	Secondary fill of ditch 14
16	Secondary fill of ditch 14
17	Cut of ditch
18	Secondary fill of ditch 17
19	Secondary fill of ditch 17
20	Cut of ditch
21	Secondary fill of ditch 20
22	Secondary fill of ditch 20
23	Cut of ditch
24	Secondary fill of ditch 23
25	Cut of ditch
26	Secondary fill of ditch 25
27	Cut of ditch
28	Primary fill of ditch 27
29	Secondary fill of ditch 27
30	Cut of ditch
31	Secondary fill of ditch 30
32	Cut of small circular pit
33	Deliberate backfill in pit 32
34	Secondary fill of pit 32
35	Secondary fill of pit 32
36	Cut of large pit
37	Primary fill of pit 36
38	Secondary fill of pit 36
39	Secondary fill of pit 36
40	Secondary fill of pit 36
41	Deliberate backfill in pit 36
42	Secondary fill of pit 36
43	Tertiary fill of pit 36
44	Cut of tree-throw
45	Fill of tree-throw 44
46	Cut of modern brick-lined feature
47	Cut of modern rectangular pit



14.3 Appendix 3: Environmental data

Table 14.3.1: Assessment of the charred plant remains and charcoal

	Sample	es	Flot						Flot			
F	Comtout	Sam	Vol.	Flot %	%	% Charred Plant Remains Charcoal Other		Charred Pla			Anal	
Feature	Context	ple	Ltrs	(ml)	roots	Grain			Grain Chaff Other Comments >4/2mm	>4/2mm	Other	ysis
						Zone 3 Bronze Age pits						
32	33	7	40	250	70	-	-	-	-	10/35 ml	Moll-t (C)	_
36	42	8	20	150	25	С	-	-	Barley grain frags	5/7 ml	Moll-t (A**)	-

Key: A*** = exceptional, A** = 100+, A* = 30-99, A = >10, B = 9-5, C = <5; Moll-t = terrestrial molluscs

Table 14.3.2: Assessment of the Land snails

Description	Bronze Age Pit 32 Context 33 Sample 7 (40L)	Bronze Age Pit 36 Context 42 Sample 8 (20L)
Open country species		
Pupilla muscorum	-	A
Vertigo spp.	-	A
Helicella itala	-	А
Vallonia costata	-	A
Vallonia excentrica	-	А
Intro. Helicellids	С	-
Intermediate species		
Trochulus hispidus	-	А
Pomatias elegans	-	A
Cochlicopa spp.	-	A
Cepaea spp.	-	В
Shade-loving species		
Carychium tridentatum	-	A
Discus rotundatus	-	A
Oxychilus cellarius	-	A
Aegopinella nitidula	-	A
Aegopinella pura	-	A
Clausilia bidentata	-	С
Merdigera obscura	-	С
Acanthinula aculeata	-	А
Vitrea sp.	-	А
Burrowing species		'
Cecilioides acicula	С	А
Approx totals	1	100+

Key: A = >10, B = 9-5, C = <5; + = present



14.4 Appendix 4: OASIS record form

OASIS ID: wessexar1-231513

Project details

Project name Zone 2 EAC and Zone 3 Enclosed Area

Short description of the project

Wessex Archaeology were commissioned by Porton Down Defence Science and Technology Laboratory (Dstl) to undertake two separate archaeological investigations on land at Porton Down: an archaeological evaluation comprising the excavation of 42 trenches on former sport pitches proposed for redevelopment (Zone 2) and an archaeological watching brief monitoring groundwork associated with redevelopment (Zone 3). The location of sub-surface remains of a since demolished railway in the south of Zone 2 correspond to the line of a 'light railway' marked on Ordnance Survey (OS) maps from 1925-1961, although by 1961 it is labelled as 'disused'. In the west of Zone 2, the limited remains of a modern building (represented by its footings) approximately correspond to the location of a small building associated with the military establishment shown on OS maps from 1961 and 1977. The large archaeological ditch recorded in the west of Zone 2, although of uncertain date, may potentially be associated with the later prehistoric divisions of the landscape known in the Porton Down area, possibly a 'Wessex linear' ditch. The Zone 3 archaeological watching brief uncovered a small number of more significant features dating to the Bronze Age period. These comprised a slightly sinuous ditch that could not be precisely dated, although it was established by stratigraphic excavation to be earlier than a radiocarbon dated Middle Bronze Age inhumation burial. A single posthole identified in close proximity to the other remains was of uncertain date.

Project dates Start: 11-05-2015 End: 07-08-2015

Previous/future work Yes / Not known

Any associated project reference

project reference codes

108953 - Sitecode

Type of project Field evaluation

Site status None

Current Land use Other 15 - Other

Monument type INHUMATION Middle Bronze Age

Monument type DITCH Middle Bronze Age

Monument type PIT Middle Bronze Age

Significant Finds POTTERY Early Bronze Age

Methods & techniques

"Sample Trenches"

Development type Not recorded

Prompt National Planning Policy Framework - NPPF

Position in the planning process

Not known / Not recorded



Project location

Country England

WILTSHIRE SALISBURY IDMISTON Zone 2 EAC and Zone 3 Enclosed Area Site location

Postcode SP4 0BQ

Study area 4.48 Hectares

Site coordinates SU 421236 136868 50.920550231715 -1.400651927803 50 55 13 N 001 24 02 W Point

Lat/Long Datum Unknown

Height OD / Depth Min: 103m Max: 104m

Project creators

Name of Organisation Wessex Archaeology

Project brief originator

Wessex Archaeology

Project design originator

Wessex Archaeology

Project

director/manager

Simon Cleggett

Project supervisor

Ben Cullen

Type of

sponsor/funding

body

Defence Engineering

Name of

sponsor/funding

body

Dstl Porton Down

Project archives

Physical Archive recipient

Wiltshire and Swindon History Centre

Physical Archive ID 108953

Physical Contents "Ceramics", "Human Bones", "Worked stone/lithics"

Digital Archive

recipient

Wiltshire and Swindon History Centre

Digital Archive ID 108953

Digital Contents "none"

Digital Media

available

"Images raster / digital photography", "Spreadsheets", "Survey", "Text"

Paper Archive Wiltshire and Swindon History Centre



recipient

Paper Archive ID 108953

Paper Contents "none"

Paper Media

"Context sheet", "Drawing", "Notebook - Excavation', 'Research', 'General

available Notes","Photograph","Plan","Report","Section"

Project bibliography 1

Grey literature (unpublished document/manuscript)

Publication type

Title Zone 2 EAC and Zone 3 Enclosed Area: Archaeological Evaluation and Watching Brief

Assessment Report

Author(s)/Editor(s) Wakeham, G

Other bibliographic

details

108953.03

Date 2015

Issuer or publisher Wessex Archaeology

Place of issue or

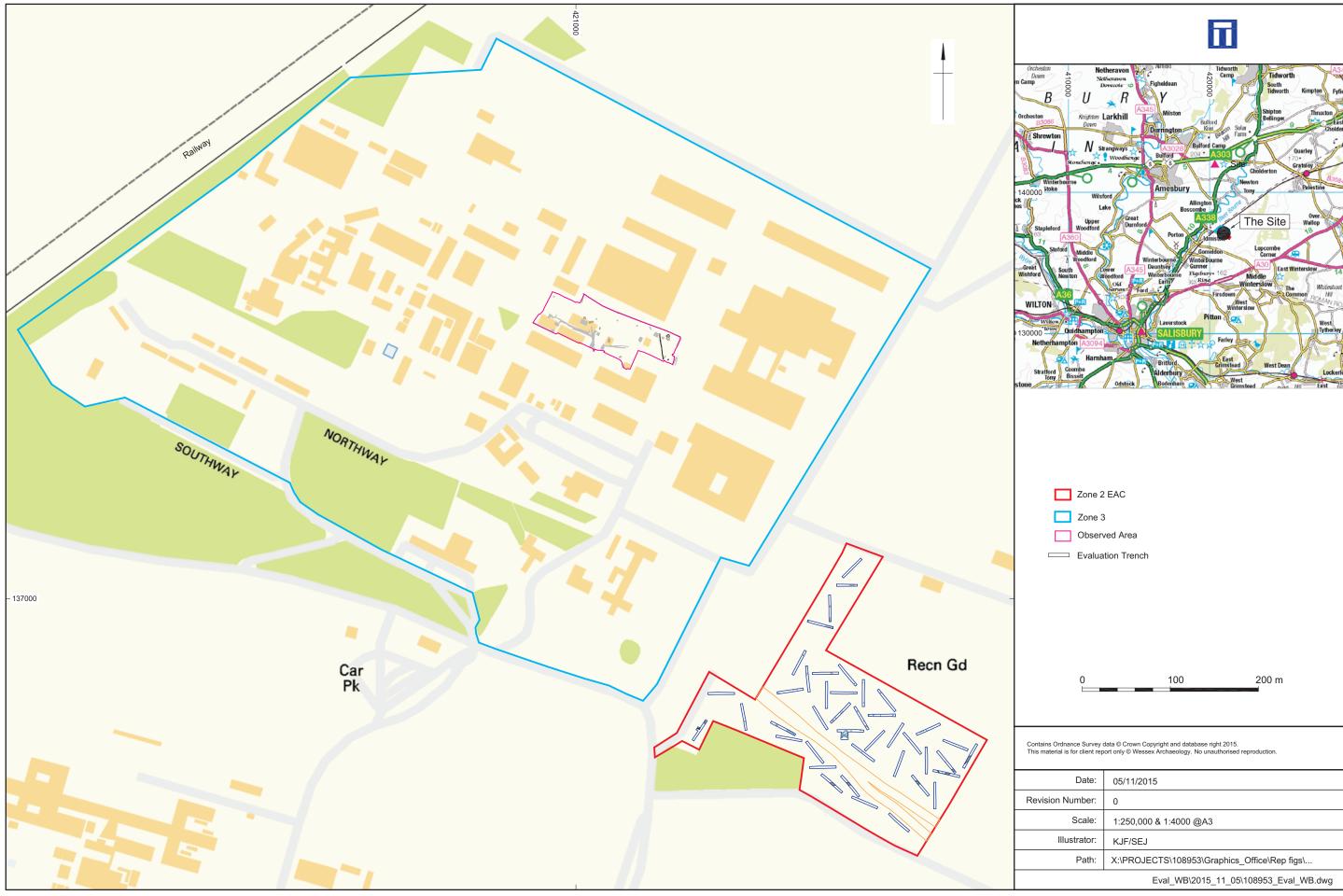
publication

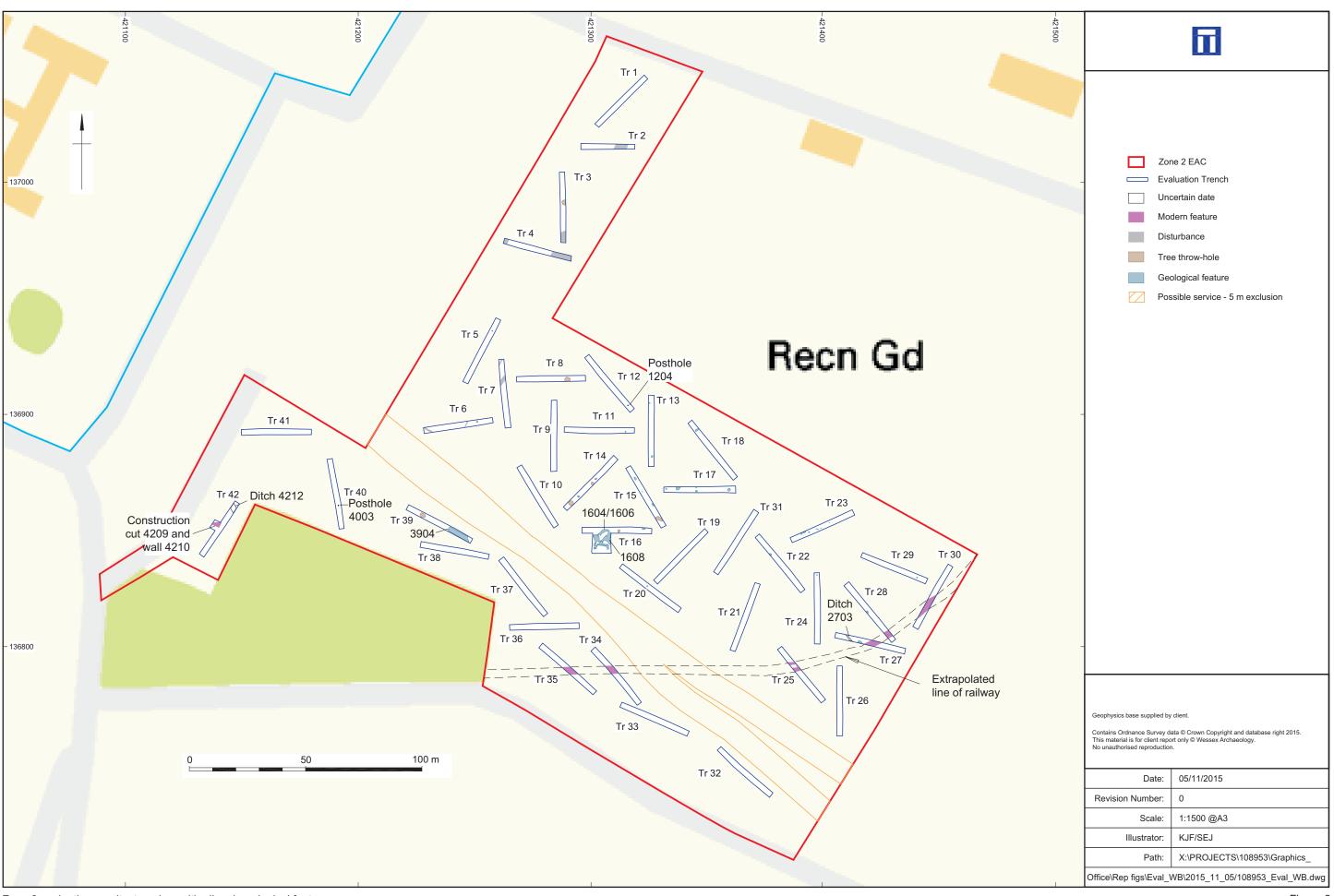
Wessex Archaeology, Salisbury

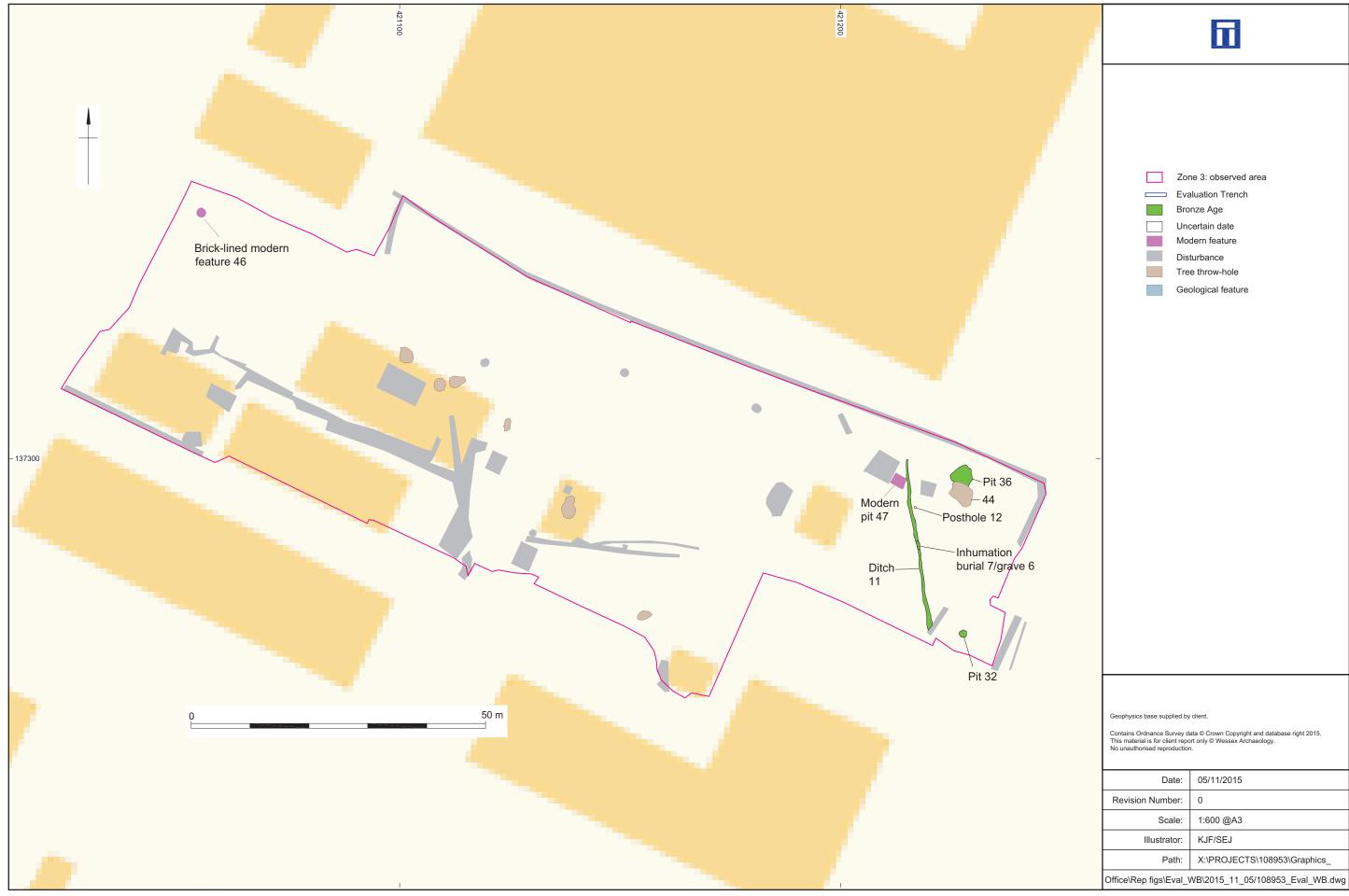
Description A4 illustrated client report

Entered by Gareth Chaffey (g.chaffey@wessexarch.co.uk)

Entered on 24 November 2015







Zone 3 watching brief results:all archaeological features



Plate 1: East facing section through feature 1604



Plate 2: Oblique view of natural features 1608, with 1604 in background

	This mate	This material is for client report only @ Wessex Archaeology. No unauthorised reproduction.						
	Date:	05/11/2015	Revision Number:	0				
П	Scale:	N/A Illustrator: SEJ						
	Path:	X:\PROJECTS\108953\Graphics_Office\Rep figs\Eval_WB\2015_11_05\108953_Eval_WB_plates.cdr						



Plate 3: General shot of extension to Trench 16 showing natural features



Plate 4: Selection of modern artefacts from modern pit 47

This mate	This material is for client report only @ Wessex Archaeology. No unauthorised reproduction.					
 Date:	05/11/2015	Revision Number:	0			
Scale:	N/A Illustrator: SEJ					
Path:	X:\PROJECTS\108953\Graphics_Office\Rep figs\Eval_WB\2015_11_05\108953_Eval_WB_plates.cdr					



Plate 5: View of brick-lined modern feature 46



Plate 6: View from east of remains of modern railway line feature in Trench 28

This material is for client report only @ Wessex Archaeology. No unauthorised reproduction.			
 Date:	05/11/2015	Revision Number:	0
Scale:	N/A	Illustrator:	SEJ
Path:	X:\PROJECTS\108953\Graphics_Office\Rep figs\Eval_WB\2015_11_05\108953_Eval_WB_plates.cdr		



Plate 7: Representative section of made ground over buried soil layers in Trench 42



Plate 8: Oblique view of modern building remains in Trench 42

This material is for client report only @ Wessex Archaeology. No unauthorised reproduction.			
 Date:	05/11/2015	Revision Number:	0
Scale:	N/A	Illustrator:	SEJ
Path:	X:\PROJECTS\108953\Graphics_Office\Rep figs\Eval_WB\2015_11_05\108953_Eval_WB_plates.cdr		



Plate 9: North-west facing section through undated ditch 4212



Plate 10: Working shot of recording excavated sections through ditch group 11, with the inhumation burial covered (prior to excavation)

This material is for client report only @ Wessex Archaeology. No unauthorised reproduction.			
 Date:	05/11/2015	Revision Number:	0
Scale:	N/A	Illustrator:	SEJ
Path:	X:\PROJECTS\108953\Graphics_Office\Rep figs\Eval_WB\2015_11_05\108953_Eval_WB_plates.cdr		



Plate 11: North-west facing section through ditch 30 (group 11) cut into earlier feature 27



Plate 12: General view from the south of Middle Bronze Age inhumation burial 7 cut into ditch group 11



This material is for client report only © Wessex Archaeology.

Date:	05/11/2015	Revision Number:	0			
Scale:	N/A	Illustrator:	SEJ			
Path:	X: lem:lem:lem:lem:lem:lem:lem:lem:lem:lem:					



Plate 13: Detail view of inhumation burial 7 (from above)



Plate 14: South facing section through Bronze Age pit 32

	This material is for client report only Wessex Archaeology. No unauthorised reproduction.			
	Date:	05/11/2015	Revision Number:	0
Hil	Scale:	N/A	Illustrator:	SEJ
	Path:	X:\PROJECTS\108953\Graphics_Office\Rep figs\Eval_WB\2015_11_05\108953_Eval_WB_plates.cdr		

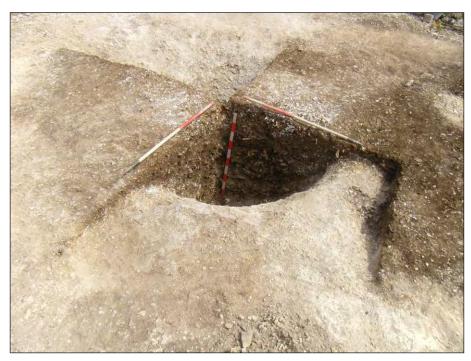


Plate 15: View from south-west of tree-throw hole cutting Bronze Age pit 36



Plate 16: North-west facing section through undated posthole 12

	This material is for client report only @ Wessex Archaeology. No unauthorised reproduction.			
_	Date:	05/11/2015	Revision Number:	0
 	Scale:	N/A	Illustrator:	SEJ
	Path:	X:\PROJECTS\108953\Graphics_Office\Rep figs\Eval_WB\2015_11_05\108953_Eval_WB_plates.cdr		







