Archaeological Services & Consultancy Ltd

ARCHAEOLOGICAL EVALUATION
LAND ADJACENT TO STOKE ROAD
WATER EATON, BLETCHLEY
MILTON KEYNES

on behalf of

RPS Planning, Transport & Environment

for English Partnerships

Alastair Hancock BSc PgDip

January 2005

ASC: 629/WES/03

Letchworth House
Chesney Wold, Bleak Hall,
Milton Keynes MK6 1NE
Tel: 01908 608989 Fax: 01908 605700
Email: office@archaeological-services.co.uk
Website: www.archaeological-services.co.uk

REGISTERED ORGANISATION IFA

Site Data

ASC site code:	WES	*Project no:*	629
County:	Buckinghamshire (historic county)		
Town:	Milton Keynes Unitary Authority		
District:	Water Eaton		
Parish:	Bletchley CP		
NGR:	SP 8810 3271		
Extent of site:	*c.*3.5ha		
Present land use:	Pasture		
Planning proposal:	Housing Development		
Extent of development:	*c.*3.5ha		
Planning application ref/date:	04/1381/OUT		
Milton Keynes Event Number:	936		
Museum Accession Number	Pending		
Dates of fieldwork: Geophysics *Evaluation*	1st – 3rd December 2004 10th - 14th January 2005		
Clients:	English Partnerships RPS Planning, Transport & Environment Mallams Court 18 Milton Park Abingdon Oxfordshire OX14 4RP		
Contact name:	Martin Connell		
Telephone		*Fax:*	

Internal Quality Check

Primary Author:	A.J.Hancock	*Date:*	January 2005
Edited/Checked By:		*Date:*	
Revisions:		*Date:*	
Edited/Checked By:		*Date:*	

CONTENTS

Figures:

Plates:

Appendices:

Summary

Archaeological Services and Consultancy Ltd. (ASC) undertook an evaluation in December 2004 and January 2005 at land adjacent to Stoke Road, Water Eaton, Bletchley.

The two contiguous fields comprising the site contained pronounced ridge and furrow. An earthwork survey recorded its location, direction and profile.

Geophysical survey (magnetometry) did not reveal anomalies suggesting the presence of cut and infilled archaeological features although parallel, strongly positive curvilinear anomalies caused by the deeper soils atop the ridges were evident.

Excavation of fifteen evaluation trenches to verify the negative geophysics results exposed two shallow ditches, two pits and two postholes. Two contingency trenches exposed more of the ditches and another posthole. Potsherds recovered from the features date to the middle Saxon period suggest settlement activity in a restricted area in the central part of the site. It is thought that truncation of the features at the base of the furrows and masking by the strong magnetic responses of the ridges was responsible for the negative geophysical results.

1 Introduction

1.1 During December 2004 and January 2005 *Archaeological Services and Consultancy Ltd* (ASC) carried out an archaeological evaluation at land adjacent to Stoke Road, Water Eaton, Bletchley. The evaluation comprised three phases of work: earthwork survey, geophysical survey and evaluation trenching. The project was commissioned by *RPS Transport, Planning and Environment,* on behalf of *English Partnerships,* in advance of proposed residential development, and was carried out according to a brief (PS/537/2/A/C1413; Giggins, 2004), prepared by the Archaeological Officer of *Milton Keynes Council* (AO), and a written scheme of investigation prepared by ASC (629/WES/01, Zeepvat, 2004).

1.2 *Reason for Work*

Outline planning permission for residential development at the site was granted in 2004 (Application No: 04/1381/OUT). The archaeological work was undertaken to fulfil a condition imposed on the development by the CAO, which specified evaluation of the site *"in order to establish the areas of archaeological significance"* (Giggins, 2004). The condition was designed to satisfy the material consideration of the disturbance of archaeological deposits prior to development and their preservation by record where disturbance or destruction is unavoidable (DOE, 1990).

1.3 *Setting*

1.3.1 *Location and Extent*

The *c.*3.5ha site was located on the southeastern periphery of Bletchley in the unitary authority of Milton Keynes (Fig. 1). The site was divided into two contiguous north-south aligned fields with its centre at Ordnance Survey National Grid Reference SP 8818 3271 (Fig. 2). The southernmost field was bounded to the west by a hedge and wooden fencing, to the south by a hedge, to the north by barbed wire and wooden fencing and to the east by the Grand

Union Canal. The northern field was bounded on the west by brambles and chain link fencing, to the north and south by barbed wire and wooden fencing, and the Grand Union Canal and property boundary fencing to the east.

1.3.2 *Geology and Topography*

The soils of the site comprise the *Bishampton 2 Association.* These are fine loamy and fine loamy over clayey soils with slowly permeable subsoils that exhibit some slight seasonal waterlogging, and overly river terrace drift of the river Ouzel (Soil Survey 1983, 572t). The two fields lie at an elevation of *c.*75m OD although both have a gradual west-east trending slope, which descends a maximum of *c.*3.0m in the southern field.

1.3.3 *Site Conditions*

The groundcover in both fields comprised rough grass and a number of mature trees were evident growing adjacent to the canal in the southern field. It was apparent that geotechnical testpits, *c.* 0.5m x 0.5m, had been machine excavated across the evaluation area. Pronounced ridge and furrow cultivation strips were present, aligned east-west across the majority of the site. The weather was intermittently overcast and remained cold with occasional drizzle during all phases of work. Encroaching brambles and the ferrous content of the boundaries slightly reduced the area suitable for magnetometry.

1.3.4 Constraints

The position of the evaluation trenches was constrained by a 30m exclusion zone imposed because of the presence of badger sets in the southern field, and modern services or utilities running through both fields (Figs. 4 and 6).

2 Aims & Methods

2.1 *Aims*

As described in the brief (Section 5), the aims of the evaluation were:

- To obtain information on the extent and character of any archaeological remains that may be present
- To obtain information on the state of preservation and relative quality of any archaeological remains present

2.2 *Methods*

The work was carried out according to the brief (Section 5.6, 5.7 and 5.8), which required:

- Earthwork survey of the ridge and furrow and examination of any historic hedgerows
- Geophysical survey
- Excavation of a minimum of 1040 square metres of archaeological trial trenches.
- A contingency for an additional 10m of trenching

The methods used were set out in the project design (Zeepvat, 2004).

2.6 *Standards*

The work conforms to the requirements of the *Brief*, to the relevant sections of the Institute of Archaeologists' *Standard & Guidance Notes* (IFA 2001) and *Code of Conduct* (IFA 2000a), to English Heritage's *The Management of Archaeological Projects* (EH 1991) and to the relevant sections of ASC's own *Operations Manual.*

3 Archaeological & Historical Background

3.1 *Introduction*

Bletchley is an area of considerable archaeological and historical importance. The evaluation area was located c.1.3km to the southwest of the Roman town of *Magiovinium*. A number of archaeological sites of other periods are known to exist within the surrounding area. The evidence, summarised below, indicated that the site had the potential to reveal archaeological features of a variety of periods although the focus of attention was likely to lie in the Roman period.

3.2 *Prehistoric* *(before 600BC)*

Although artefacts and features of this period have not been discovered at the site, disparate prehistoric finds are known from the Ouzel valley.

3.3 *Iron Age* *(600BC-AD43)*

Late Iron Age settlement is known from the Lakes Estate, Bletchley (CAS no. 303500000) and also near Mill Farm, to the northeast of the site. Further settlement of the period has been recorded at Saffron Gardens *c.*1km north of the site. Late Iron Age pottery has also been recorded in a field on the east side of Stoke Road, immediately north of the site (CAS 305501001).

3.4 *Roman* *(AD43-c.450)*

The area was within the territory of the *Catuvellauni* and of considerable importance during the Roman period. A major road from London to the West Midlands, now known as *Watling Street*, passed *c.*1.3km northeast of the site. The first road crossing of the Ouzel was initially guarded by a fort established shortly after the Conquest, this attracted settlement, which developed into the small Roman town of *Magiovinium* (Neal 1987). Roman finds have been discovered in the vicinity of the site at SP 8798 3298, 8793 3247, 8805 3225 and 8802 3271. Sherds of Roman coarse pottery and Samian ware have been recovered during dredging of the adjacent stretch of the Grand Union Canal

3.5 *Medieval* *(c. AD450-1500)*

Definite evidence of early Saxon activity has not been recovered in the general vicinity of the evaluation area although a late Saxon settlement is unequivocally present at Water Eaton, immediately north of the site. The Domesday survey (1086) refers to *Etone*, which was held by Geoffrey, Bishop of Coutances. The population recorded in the entry is high, suggesting that Etone contained a number of dispersed settlements, that later became Bletchley, Far Bletchley and Water Eaton (Croft & Mynard 1993, 54). Etone village was located on the west bank of the Ouzel, north of Watereaton Mill, latterly Mill Farm (*ibid.*). At this time the site fell within the open fields of Etone: the surviving ridge and furrow covering the site is likely a survival from this period. As noted in the brief, an early bridging point of the Ouzel lies *c.* 300m northeast of the site at the mill.

3.6 ***Post-Medieval*** *(AD1500-1900)*

The survival of pronounced ridge and furrow indicates that the site has been little used or subject to pastoral agricultural use since its enclosure. Settlement at Water Eaton declined in the post-medieval period after the manor was demolished by Arthur, Lord Grey de Wilton, lord of Bletchley and Whaddon, and all re-useable materials were taken to Whaddon to build his new house (Croft & Mynard 1993, 54.).

The site is bounded to the east by the Grand Union Canal. This was opened in 1797 as the *Grand Junction Canal,* which extended as far as Fenny Stratford and was a major impetus to the economic development of Bletchley and the surrounding area. The works associated with the canal have truncated the ridge and furrow and may have caused other localised disturbance. The site is shown on the Bletchley tithe map (1813), as one large parcel of land, which included the modern residential development on the east side of Stoke Road.

4. Earthwork Survey

The ridge and furrow is aligned east – west (Fig. 7). The distance between the tops of the ridges varies between *c.*10m to *c.*7m and exhibits an overall reduction from south – north. The distance between the base of the furrows varies between *c.*12m – 8m and exhibits a similar reduction from south to north. The apex of the ridges generally stands *c.* 0.6m above the base of the furrows (Fig. 8).

At its western extremity in the southern field the ridge and furrow starts to curve to the south east which suggests that a former headland may have been situated a short distance to the west. The ridge and furrow is truncated to the west by Stoke Road and housing, and by the Grand Union Canal and housing to the east. It was levelled at the northern extremity of the site, and partially levelled beyond the southern site boundary in a parcel of land subject to a previous evaluation by ASC (Hancock, 2004). A linear depression caused by slumping of the backfill of a modern service trench cuts through the ridge and furrow and is overlain by a later dump of (dredging?) material that lies next to the canal in the northern field. The hedgerows forming the boundary on Stoke Road and delimiting the southern boundary overlie the truncated ridge and furrow and were established at, or subsequent to, the enclosure of this area.

5. Geophysical Survey

A detailed magnetometer (fluxgate gradiometer) survey of the site was carried out during the 1st – 3rd of December 2004. Technical information on the equipment used, data processing and magnetic survey methodology is provided in Appendix 3. Appendix 4 details the survey location information and Appendix 5 describes the composition and location of the archive.

5.1 Isolated dipolar "iron spike' responses (see Appendix 3) were identified distributed across all of the survey area. These are indicative of ferrous material in the topsoil or subsoil and, although archaeological artefacts may cause them, they are more usually caused by modern cultural debris introduced into the topsoil. Unless there is strong supporting evidence to the contrary, for example if they are located close to areas of archaeological activity, they are assumed to be non-archaeological in origin.

5.2 Area A (Figs. 3 and 4)

5.2.1 A strongly dipolar north - south aligned linear anomaly runs adjacent to and parallel with the canal. This anomaly defines the location of a modern ferrous service pipe.

5.2.2 Discrete areas of magnetic disturbance are visible scattered throughout this area. Such anomalies are characteristic of large pieces of modern ferrous debris or recent areas of burning.

5.2.3 The areas of magnetic disturbance on the western boundary are caused by magnetic detritus from gardening activity and the ferrous content of fencing at the rear of the properties facing Stoke Road. The two areas of disturbance identified abutting the canal are the result of relatively recent erosion and dredging; the more northerly corresponds with a dump of material *c* 1.6m high. The northern area of disturbance adjacent to Mill Road is probably caused by activity related to construction of the housing located immediately north and east. It was noted that the ridge and furrow has been significantly truncated in this area.

5.2.4 A northwest-southeast aligned weakly positive linear trend is visible at the centre of the survey area. Although an archaeological origin is not discounted it is thought more probable that it is caused by an agricultural / geological drainage feature.

5.2.5 East-west aligned positive linear anomalies are evident distributed across the survey area. These anomalies are caused by the ridge and furrow and are often apparent in geophysics data even when their physical manifestation has been destroyed or significantly truncated. The spatial correlation between the earthworks and these anomalies reaffirms that they are distinctive indicators of this former agricultural regimen.

5.3 Area B (Figs 5 and 6)

5.3.1 A strongly dipolar northnortheast - southsouthwest aligned linear anomaly runs adjacent to and parallel with the canal. This anomaly defines the location of a modern ferrous service pipe.

5.3.2 A weakly dipolar north-south aligned linear anomaly is visible in the centre of this area. This type of anomaly is characteristic of a modern cable or small service pipe.

5.3.3 Discrete areas of magnetic disturbance are visible scattered throughout this area. Such anomalies are characteristic of large pieces of modern ferrous debris or recent areas of burning

5.3.4 A large area of magnetic disturbance is evident located adjacent to the southern field boundary. It is probable that it is caused by magnetic detritus associated with demolished buildings formerly located immediately south of the field boundary The areas of disturbance near the northern boundaries are caused by the ferrous content of the fencing that defines them. The magnetic disturbance on the western limit of the survey is in close proximity to an active badger set and may be caused by these animals reworking and mixing soils.

5.3.5 A northwest-southeast aligned weakly positive linear trend is visible in the centre of the survey area. It appears to have been truncated by the base of a furrow and thus predate this agricultural regime. Although an archaeological origin is not discounted it is thought more probable that it is caused by an agricultural / geological drainage feature.

5.3.6 Parallel east-west aligned positive linear anomalies are evident distributed across the survey area. These anomalies closely correspond with the location of the extant ridge and furrow and they are distinctive indicators of this former agricultural regimen.

6. Evaluation Trenching

Fifteen trenches (Figs 4 and 6), were located over targets identified by the geophysical survey and topsoil was machine stripped under close archaeological supervision to test the geophysical results. Linear and discrete archaeological features that were not apparent in the geophysical data were discovered in Trenches 9, 10 and 11 (Fig 9) and two further contingency trenches (16 and 17) were opened to test the spatial extent and relationship of the archaeology. The results are summarised below and trench summary tables are presented in Appendix 1.

6.1 Trenches 1 – 8 and 12 – 15

Topsoil was stripped until the natural strata was exposed. A concrete foundation and ferrous post of a relatively modern gate or fence were uncovered in Trench 3. The position of these features corresponded with the location of two targets identified from the geophysical survey. The natural clay in the majority of the trenches contained linear striations of east-west aligned reddish brown sand. Swift examination of a number of these areas revealed that they were archaeologically sterile and contained frequent inclusions of rounded pebbles of diverse lithologies. Cut and infilled features causing the weak linear geophysical targets in Trenches 13 and 5 were not discovered and they may have been caused by the aforementioned sand striations. It is probable that these sandy striations are the remnants of a periglacial or early Holocene surface drainage system. No other finds or features were noted in these trenches.

6.2 Trench 9 (Figs 9 and 10)

Cut into the natural and situated below one of the ridges was an east – west aligned ditch [902]. One sherd of Middle Saxon Maxey-type ware (Blinkhorn, 2005) was recovered from its fill (901).

6.3 Trench 10 (Figs 9 and 10)

A north – south aligned shallow ditch [1007], two pits [1002, 1005] and two possible post holes [1009, 1011] were revealed in Trench 10. Five fragments of animal bone and one sherd of early / middle Saxon hand built ware were recovered from the fill of pit [1002] and four sherds of middle Saxon Maxey type ware from the fill of ditch [1007]. A non-diagnostic cortical flint flake was recovered from the fill of post hole [1009]. A small assemblage of animal bone was recovered from a fill (1003) of pit [1005] and no dateable material was recovered from post hole [1011].

6.4 Trench 11 (Figs 9 and 10)

An east – west aligned shallow ditch [1102] crossed Trench 11. It was located below the same ridge as the ditch [902] discovered in Trench 9 and its profile, location and orientation indicated that it was a continuation of this feature. No dateable artefacts were recovered.

6.5 Trench 16 (Contingency: features unexcavated)

The trench was located to determine if ditch [1007] in Trench 10 continued to the north and to test for the presence of further discrete features. The ditch [1602] was

present, although it appeared to have suffered significant truncation at the base of a furrow. No other features or dateable artefacts were discovered.

6.6 Trench 17 (Contingency; features unexcavated)

The trench was located to determine the relationship between the discovered ditches. The north - south aligned ditch [1702] continued and terminated in this trench *c.* 2m short of the east west aligned ditch [1704], which appeared to return and run north – south [1706]. A small posthole [1708] was also revealed. A piece of residual Romano-British hypocaust tile was recovered from the top fill (1703) of ditch [1704] and one sherd of Middle Saxon Maxey-type ware from the top fill (1705) of ditch [1706].

7. The Finds

7.1 Lithic

One piece of worked flint was recovered from the fill (1008) of posthole [1009]. It is a small (40mm x 30mm) dark brown irregularly shaped flake. Cortex is present along the proximal edge and one lateral margin. The cortical surface was used as the striking platform and a pronounced bulb of percussion with bulbar scar is evident at the proximal end on the ventral side. The dorsal surface exhibits scars indicating three previous flake removals. The flake is steeply retouched along one lateral margin and the distal end. It is probably residual and appears to be a core rejuvenation / preparation flake that has been retouched for use as a scraper.

7.2 Fired Clay

One 170mm x 140mm x 30mm abraded fragment of *Bessalis, Pedalis* or *Lydion* hypocaust tile was recovered from the surface fill (1703) of ditch [1704]. It has a smooth red-orange oxidised outer fabric with a reduced grey core and approximates to Milton Keynes Fabric 2 (R.J. Zeepvat, 1987). Its condition and status as sole R-B find suggests that it is residual.

7.3 The Pottery

The seven early / middle Saxon pottery sherds are generally large (50mm x 50mm +) and unabraded. Four are rimsherds and three of these possess lugs that may have been intended to aid suspension of the pottery vessel over a fire. A detailed description of the pottery fabric is provided in Appendix 2.

7.4 The Environmental Evidence

A small assemblage of animal bone was recovered from the secondary fill (1003) of pit [1005] and the fill of ditch [1007]. It is apparent that all bone fragments derive from large mammals (cattle ?) and that epiphyseal ends of long bones form a disproportionate percentage, 50% and 60% respectively. One epiphyseal end has an obvious “green” fracture on the shaft, which indicates butchery shortly after slaughter.

8. Conclusions

8.1 *Confidence rating*

The confidence rating for the recognition of archaeological deposits discovered during the evaluation trenching was good. The weather was generally kind during fieldwork and the differing strata were easily distinguished.

8.2 *Conclusions*

8.2.1 The well preserved ridge and furrow attests that prior to enclosure this parcel of land was part of a strip field system. The broad earthworks curve to the south near Stoke Road; which suggests that they belonged to a Medieval open field system with a headland situated a short distance to the west. The ridge and furrow was largely undamaged at the time of survey, which suggests that the site was not subject to ploughing after enclosure.

8.2.2 The magnetometer survey failed to locate those archaeological features present due to masking by the strong magnetic anomalies caused by the deeper topsoil of the ridges and significant truncation in the furrows.

8.2.3 Although the residual hypocaust tile could suggest that a Romano-British building existed somewhere in the locality, the lack of other artefacts of this period indicate that it may have been salvaged from *Magiovinium* for later reuse.

8.2.4 The features are concentrated in the northwestern corner of the southern field and are not evident in evaluation trenches located south and north of this location.

8.2.5 The finds recovered from the excavated features suggest middle Saxon settlement activity in the vicinity of SP 88063 32621. The position and orientation of the ditches indicate that the truncated remnants of a small enclosure may lie to the west.

9. Mitigation and Recommendations

To conform with the requirements of the brief (Sections 5.9 and 6.5. Giggins, 2004), and English Heritage guidelines (MAP 2, 1991), it will be necessary to undertake consultation with MKCAO to design a further programme of excavation and recording that will mitigate the effects of the proposed development upon those early / middle Saxon archaeological features and deposits present.

10. Figures (overleaf)

11. Acknowledgements

The author is grateful to Martin Connell of RPS Planning, Transport and Environment for commissioning this work and Brian Giggins the Archaeological Officer of Milton Keynes Council. Thanks are also due to Blaine Wass (360 Operator) and D. Fell (editor). The site team consisted of Nick Crank BSc AIFA and the author.

12. Archive

12.1 The project archive will comprise:

1. Brief
2. Project Design
3. Initial Report
4. Clients site plans
5. 4 Trench record sheets
6. List of photographs
7. CDROM with copies of all digital files.

12.2 The archive will be deposited with *Buckinghamshire County Museum*. The Accession Number for the site is 2005.7 and Event number 936.

12.3 Details of the excavation will be entered in the on-line "OASIS" database maintained by ADS at **http://ads.ahds.ac.uk/project/oasis**

13. Bibliography

Allen J L & Holt A St J, 1986 (with later updates) *Health & Safety in Field Archaeology.* Standing Conference of Unit Managers (London).

Croft RA & Mynard DC 1993 *The Changing Landscape of Milton Keynes.* Buckinghamshire Archaeological Society Monograph **5** (Aylesbury).

DOE 1990 *Planning Policy Guidance 16: Archaeology and Planning.* HMSO

EH 1991 *The Management of Archaeological Projects, 2nd edition.* English Heritage (London).

EH 1995 *Research & Professional Services Guideline No 1: Geophysical survey in archaeological field evaluation.*English Heritage (London).

EH 2002 *Environmental Archaeology: A Guide to the Theory and Practice of Methods, from Sampling and Recovery to Post-Excavation.* English Heritage (London).

Ferguson L.M. & Murray D.M. 1997 *Archaeological Documentary Archives: Preparation, Curation and Storage.* Institute of Field Archaeologists' Paper **1** (Manchester).

Giggins B 2004 *Land at Stoke Road, Water Eaton: Brief for Archaeological Evaluation.* Milton Keynes Council.

Hancock A 2004 *Archaeological Evaluation: Footbridge over Grand Union Canal, Stoke Road, Bletchley, Milton Keynes.* ASC report ref. ASC: 622/BSB/02.

IFA 20000a Institute of Field Archaeologists' *Code of Conduct.*

IFA 2000b Institute of Field Archaeologists' *Code of Approved Practice for the Regulation of Contractual Arrangements in Field Archaeology.*

IFA 2001 Institute of Field Archaeologists' *Standard & Guidance* documents *(Desk-Based Assessments, Watching Briefs, Evaluations, Excavations, Investigation and Recording of Standing Buildings, Finds).*

McKinley J.I. & Roberts C. 1993 *Excavation and Post-Excavation Treatment of Cremated and Inhumed Human Remains.* Institute of Field Archaeologists Technical Paper **13**.

MGC 1992 *Standards in the Museum Care of Archaeological Collections.* Museums and Galleries Commission (London).

Neal DS 1987 'Excavations at Magiovinium, Buckinghamshire, 1978-80' *Records of Buckinghamshire* **29**, 1-124.

Schmidt A. 2003 *Geophysical Data in Archaeology: A Guide to Good Practice.* Arts and Humanities Data Service.

SMA 1995 *Towards an accessible archaeological archive - the transfer of archaeological archives to museums: guidelines for use in England, Northern Ireland, Scotland and Wales.* Society for Museum Archaeologists (London).

Walker, K. 1990: *Guidelines for the preparation of excavation archives for long-term storage.* United Kingdom Institute for Conservation, Archaeology Section (London).

Zeepvat B in Mynard D.C. (Ed.) 1987 Roman Milton Keynes: Excavations and Fieldwork 1971 – 82. *Buckinghamshire Archaeological Society; Monograph Series No.1. pp 118-125*

Zeepvat B 2004 *Land Adjacent to Stoke Road, Water Eaton, Bletchley, Milton Keynes: Project Design for Archaeological Evaluation on behalf of English Partnerships.* Archaeological Services and Consultancy Ltd.

Plate 1. Ditch [902]; Section 1: Trench 9, looking east

Plate 2. Ditch [1102]; Section 2: Trench 11, looking west

Plate 3. Pit [1002]; Section 3: Trench 10, looking northeast

Plate 4. Pit [1005; Section 4: Trench 10 looking northeast

Plate 5. Ditch [1007]; Section 5: Trench 10, looking south

Plate 6. Postholes [1009 and 1011]; Section 6: Trench 10, looking north

Plate 7. Profile through Ridge and Furrow; Trench 11, looking northeast

Appendix 1: Trench Summary Tables

Trench 1

Max Dimensions					
Length	20.0m	**Width**	1.80m	**Depth**	0.80m

Levels	
Trench base north	-
Trench top north	-
Trench base south	-
Trench top south	-

NGR Co-ordinates			
E	SP 88095 32905	**W**	88075 32904
Orientation		E to W	
Reason for Trench		General Evaluation	

Context	Type	Description and Interpretation	Max Width (mm)	Max Thckn (mm)	Depth BGL (mm)
100	Layer	Mid reddish brown humic silt. Topsoil	-	800	-
101	Layer	Mid yellowish brown sandy clay. Natural	-	-	800+

Trench 2

Max Dimensions					
Length	40.0m	**Width**	1.80m	**Depth**	0.80m

Levels	
Trench base north	-
Trench top north	-
Trench base south	-
Trench top south	-

NGR Co-ordinates			
NNW	SP 88113 32914	**SSE**	88124 32876
Orientation		NNW to SSE	
Reason for Trench		General Evaluation	

Context	Type	Description and Interpretation	Max Width (mm)	Max Thckn (mm)	Depth BGL (mm)
200	Layer	Mid reddish brown humic silt. Topsoil	-	800	-
201	Layer	Mid reddish brown sandy clay. Natural	-	-	800+

Trench 3

	Max Dimensions

Max Dimensions					
Length	40.0m	**Width**	1.80m	**Depth**	0.70m

Trench base north	-
Trench top north	-
Trench base south	-
Trench top south	-

NGR Co-ordinates			
NW	SP 88099 32889	**SE**	88119 32854
Orientation	NW to SE		
Reason for Trench	General Evaluation		

Context	Type	Description and Interpretation	Max Width (mm)	Max Thckn (mm)	Depth BGL (mm)
300	Layer	Mid reddish brown humic silt. Topsoil	-	700	-
301	Layer	Mid reddish brown sandy clay. Natural	-	-	700+

Trench 4

Max Dimensions					
Length	30.0m	**Width**	1.80m	**Depth**	0.85m

Levels	
Trench base north	-
Trench top north	-
Trench base south	-
Trench top south	-

NGR Co-ordinates			
E	SP 88123 32831	**W**	88093 32827
Orientation	W to E		
Reason for Trench	General Evaluation		

Context	Type	Description and Interpretation	Max Width (mm)	Max Thckn (mm)	Depth BGL (mm)
400	Layer	Mid reddish brown humic silt. Topsoil	-	850	-
401	Layer	Mid reddish brown sandy clay. Natural	-	-	850+

Trench 5

	Max Dimensions

Max Dimensions					
Length	100.0m	**Width**	1.80m	**Depth**	0.70m
Levels					
Trench base north	-				
Trench top north	-				
Trench base south	-				
Trench top south	-				
NGR Co-ordinates					
NNW	SP 88104 32839	**SSW**	88116 32740		
Orientation	NNW to SSW				
Reason for Trench	General Evaluation				

Context	Type	Description and Interpretation	Max Width (mm)	Max Thckn (mm)	Depth BGL (mm)
500	Layer	Mid reddish brown humic silt. Topsoil	-	700	-
501	Layer	Mid reddish brown sandy clay. Natural	-	-	700+

Trench 6

Max Dimensions					
Length	40.0m	**Width**	1.80m	**Depth**	0.70m
Levels					
Trench base north	-				
Trench top north	-				
Trench base south	-				
Trench top south	-				
NGR Co-ordinates					
N	SP 88108 32734	**S**	88107 32694		
Orientation	N to S				
Reason for Trench	General Evaluation				

Context	Type	Description and Interpretation	Max Width (mm)	Max Thckn (mm)	Depth BGL (mm)
600	Layer	Mid reddish brown humic silt. Topsoil	-	700	-
601	Layer	Mid yellowish brown sandy clay. Natural	-	-	700+

Trench 7

Max Dimensions

Max Dimensions					
Length	20.0m	**Width**	1.80m	**Depth**	0.65m

Trench base north	-
Trench top north	-
Trench base south	-
Trench top south	-

NGR Co-ordinates			
E	SP 88127 32682	**W**	88107 32681
Orientation	E to W		
Reason for Trench	General Evaluation		

Context	Type	Description and Interpretation	Max Width (mm)	Max Thckn (mm)	Depth BGL (mm)
700	Layer	Mid reddish brown humic silt. Topsoil	-	650	-
701	Layer	Mid reddish brown sandy clay. Natural	-	-	650+

Trench 8

Max Dimensions					
Length	20.0m	**Width**	1.80m	**Depth**	0.35m

Levels	
Trench base north	-
Trench top north	-
Trench base south	-
Trench top south	-

NGR Co-ordinates			
E	SP 88120 32642	**W**	88100 32644
Orientation	E to W		
Reason for Trench	General Evaluation		

Context	Type	Description and Interpretation	Max Width (mm)	Max Thckn (mm)	Depth BGL (mm)
800	Layer	Mid reddish brown humic silt. Topsoil	-	350	-
801	Layer	Mid yellowish brown sandy clay. Natural	-	-	350+

Trench 9

Max Dimensions

Max Dimensions					
Length	80.0m	**Width**	1.80m	**Depth**	0.40m
Trench base north		96.78m			
Trench top north		97.34m			
Trench base south		96.68m			
Trench top south		97.02m			
NGR Co-ordinates					
N	SP 88114 32654	**S**	88095 32576		
Orientation		North to South			
Reason for Trench		General Evaluation			

Context	Type	Description and Interpretation	Max Width (mm)	Max Thckn (mm)	Depth BGL (mm)
900	Layer	Mid reddish brown humic silt. Topsoil	-	400	-
901	Layer	Fill of ditch. Mid brownish grey clayey silt. (same as 1101, 1703, 1705 ?). Finds = One sherd of middle Saxon Maxey ware.	-		-
902	Cut	Ditch. Parallel sides aligned E – W, sharp break from top, moderate to steeply sloping sides, gradual break to wide slightly concave base. (same as 1102, 1704, 1706 ?).	-	-	
903	Layer	Mid reddish brown sandy clay. Natural	-	-	400 +

Trench 10	
	Max Dimensions

	Max Dimensions				
	Length	20.0m	**Width**	1.80m	**Depth** 0.33m
	Trench base east		98.94m		
	Trench top east		99.18m		
	Trench base west		100.54m		
	Trench top west		100.87m		
	NGR Co-ordinates				
	E	SP 88085 32625	**W**	88045 32625	
	Orientation		East to West		
	Reason for Trench		General Evaluation		

Levels Arbitrary Thom = 100.00m

Context	Type	Description and Interpretation	Max Width (mm)	Max Thckn (mm)	Depth BGL (mm)
1000	Layer	Mid reddish brown humic silt. Topsoil	-	330	-
1001	Layer	Fill of Pit. Mid brownish grey clayey silt. Finds = one sherd of early / middle Saxon hand built ware	-	-	-
1002	Cut	Pit. Sub circular in plan ? (incompletely revealed by trench). Sharp break from top. Steep, near vertical sides with sharp break onto broad, slightly concave base.	-	-	-
1003	Layer	Secondary fill of pit. Mid yellowish brown silty clay. Finds = eight fragments animal bone.	-	-	-
1004	Layer	Primary fill of pit. Dark grey clayey silt. Finds = none.	-	-	-
1005	Cut	Pit. Sub circular in plan ? (incompletely revealed by trench). Sharp break from top. Steep, near vertical sides, undercut in places with sharp break onto uneven base.	-	-	-
1006	Layer	Fill of ditch. Mid brownish grey clayey silt. Finds = four sherds of middle Saxon Maxey ware and five fragments of animal bone	-	-	-
1007	Cut	Ditch. Parallel sides aligned N – S. Asymmetric profile, both sides have a sharp break from top. Western side is steep, gradual eastern side breaking sharply to steep side, both sides break sharply to a flat base – forms "ankle breaker" slot at base of ditch.	-	-	-
1008	Layer	Fill of posthole. mid brownish grey clayey silt. Finds = one non diagnostic cortical flint flake.	-	-	-
1009	Cut	Posthole ?. Sub rectangular in plan ? (incompletely revealed by trench). Sharp break at top onto steep sides, gradual break onto broad, slightly concave base	-	-	-
1010	Layer	Fill of posthole. mid brownish grey clayey silt. Finds = none.	-	-	-
1011	Cut	Posthole ?. Oval in plan ? (incompletely revealed by trench). Sharp break at top, steep sides, impercebtible break onto concave base	-	-	-

1012	Layer	Mid yellowish brown sandy clay. Natural	-	-	330 +

Trench 11

Max Dimensions					
Length	50.0m	**Width**	1.80m	**Depth**	0.35m

Levels Arbitrary Tbm = 100.00m	
Trench base north	98.87m
Trench top north	99.28m
Trench base south	98.09m
Trench top south	98.53m

NGR Co-ordinates			
N	SP 88070 32621	**S**	88069 32574
Orientation	North to South		
Reason for Trench	General Evaluation		

Context	Type	Description and Interpretation	Max Width (mm)	Max Thckn (mm)	Depth BGL (mm)
1100	Layer	Mid reddish brown humic silt. Topsoil	-	350	-
1101	Layer	Fill of ditch. Mid brownish grey clayey silt. (same as 903, 1703, 1705 ?). No finds	-	-	-
1102	Cut	Ditch. Parallel sides aligned E – W, sharp break from top, moderate to steeply sloping sides, gradual break to wide slightly concave base.	-	-	-
1103	Layer	Mid reddish brown sandy clay. Natural	-		350 +

Trench 12

Max Dimensions					
Length	40.0m	**Width**	1.80m	**Depth**	0.40m

Levels	
Trench base north	-
Trench top north	-
Trench base south	-
Trench top south	-

NGR Co-ordinates			
N	SP 88082 32553	**S**	88080 32513
Orientation	N to S		
Reason for Trench	General Evaluation		

Context	Type	Description and Interpretation	Max Width (mm)	Max Thckn (mm)	Depth BGL (mm)
1200	Layer	Mid reddish brown humic silt. Topsoil	-	400	-
1201	Layer	Mid reddish brown sandy clay. Natural	-	-	400+

Trench 13

Max Dimensions					
Length	80.0m	**Width**	1.80m	**Depth**	0.60m

Levels	
Trench base north	-
Trench top north	-
Trench base south	-
Trench top south	-

NGR Co-ordinates			
N	SP 88056 32558	**S**	88051 32478
Orientation	North to South		
Reason for Trench	General Evaluation		

Context	Type	Description and Interpretation	Max Width (mm)	Max Thckn (mm)	Depth BGL (mm)
1300	Layer	Mid reddish brown humic silt. Topsoil	-	600	-
1301	Layer	Mid reddish brown sandy clay. Natural	-	-	600 +

Trench 14

Max Dimensions					
Length	30.0m	**Width**	1.80m	**Depth**	0.60m

Levels	
Trench base north	-
Trench top north	-
Trench base south	-
Trench top south	-

NGR Co-ordinates			
E	SP 88063 32518	**W**	88033 32519
Orientation	East to West		
Reason for Trench	General Evaluation		

Context	Type	Description and Interpretation	Max Width (mm)	Max Thckn (mm)	Depth BGL (mm)
1400	Layer	Mid reddish brown humic silt. Topsoil	-	600	-
1401	Layer	Mid reddish brown sandy clay. Natural	-	-	600 +

Trench 15

Max Dimensions					
Length	30.0m	**Width**	1.80m	**Depth**	0.35m

Levels	
Trench base north	-
Trench top north	-
Trench base south	-
Trench top south	-

NGR Co-ordinates			
E	SP 88068 32461	**W**	88038 32461
Orientation	East to West		
Reason for Trench	General Evaluation		

Context	Type	Description and Interpretation	Max Width (mm)	Max Thckn (mm)	Depth BGL (mm)
1500	Layer	Mid reddish brown humic silt. Topsoil	-	350	-
1501	Layer	Mid reddish brown sandy clay. Naturall	-	-	350+

Trench 16

Max Dimensions					
Length	30.0m	**Width**	1.80m	**Depth**	0.44m

Levels: Arbitrary Tbm = 100.00m	
Trench base east	100.39m
Trench top east	100.83m
Trench base west	98.99m
Trench top west	99.27m

NGR Co-ordinates			
E	SP 88075 32630	**W**	88045 32631
Orientation	East to West		
Reason for Trench	General Evaluation		

Context	Type	Description and Interpretation	Max Width (mm)	Max Thckn (mm)	Depth BGL (mm)
1600	Layer	Mid reddish brown humic silt. Topsoil	-	280	-
1601	Layer	Fill of Ditch. Dark grey clayey silt, truncated by furrow. Unexcavated (same as 1006 and 1701 ?)	-	-	-
1602	Cut	Ditch. Truncated by furrow. Unexcavated same as (1007 and 1702 ?)	-	-	-
1603	Layer	Mid yellowish brown sandy clay. Natural	-	-	280 +

Trench 17

Max Dimensions			
Width	3.6m	**Depth**	0.39m

Levels Arbitrary Tbm = 100.00m	
Trench base north	99.66m
Trench top north	100.05m
Trench base north	99.28m
Trench top north	99.58m

NGR Co-ordinates			
N	SP 88059 32619	**S**	88058 32608

Orientation	North to South
Reason for Trench	General Evaluation

Context	Type	Description and Interpretation	Max Width (mm)	Max Thckn (mm)	Depth BGL (mm)
1700	Layer	Mid reddish brown humic silt. Topsoil	-	390	-
1701	Layer	Fill of ditch. Mid brownish grey clayey silt. Unexcavated (same as 1006, 1601 ?)	-	-	-
1702	Cut	Ditch. Unexcavated (same as 1007, 1602 ?)	-	-	-
1703	Layer	Fill of ditch. Mid brownish grey clayey silt. Unexcavated (same as 903, 1101, 1601 ?). Finds = One piece of abraded Romano-British hypocaust tile *c.* 0.2m x 0.2m	-	-	-
1704	Cut	Ditch Unexcavated (same as 902, 1102, 1706 ?)	-	-	-
1705	Layer	Fill of ditch. Mid brownish grey clayey silt. Unexcavated (same as 903, 1101, 1703 ?). Finds = One sherd of middle Saxon Maxey ware.	-	-	-
1706	Cut	Ditch. Unexcavated (same as 902, 1102, 1704 ?)	-	-	-
1707	Layer	Fill of posthole. Greyish black clayey silt; frequent charcoal. Unexcavated	-	-	-
1708	Cut	Posthole. Unexcavated	-	-	-
1709	Layer	Mid yellowish brown sandy clay. Natural	-	-	390 +

Appendix 2: Pottery Report by P Blinkhorn

Pottery from Stoke Road, Water Eaton, Bletchley (Site 629WES)

Paul Blinkhorn

The pottery assemblage comprised 7 sherds with a total weight of 356g. It was all early/middle or middle Saxon, and indicates that there was Anglo-Saxon occupation at the site during the period AD650 – 850, and possibly earlier.

Fabric

The following fabric types were noted:

Early-middle Saxon Hand-Built Wares

Sandstone. Sub-angular lumps of sandstone up to 2mm, some with ferrous cement, free quartz grains up to 1mm, rare to sparse sub-rounded calcareous material up to 2mm. One sherd, 17g

Middle Saxon

Maxey-type Ware. Exact chronology uncertain, but generally dated c. AD650-850 (eg. Hurst 1976). Wet-hand finished, reddish-orange to black surfaces. Soft to fairly hard, with abundant fossil shell platelets up to 10mm. Vessels usually straight sided bowls with upright, triangular, rim-mounted pierced lugs. Six sherds, 339g.

The pottery occurrence by number and weight of sherds per context by fabric type is shown in Table 1. Each date should be regarded as a *terminus post quem*.

The early/middle Saxon handmade sherd is in a fabric which is typical of pottery of that date in the Milton Keynes region, and can be paralleled at a number of sites, such as Pennyland (Blinkhorn 1994). The fact that it is undecorated means that it can only be broadly dated, to within the early or middle Saxon periods (c AD450 – 850).

The same can be said of the Maxey ware. Only a single sherd was noted at Pennyland, but it has been noted in quantity at a number of sites in Buckinghamshire, such as Chicheley (Farley 1980). It is a reliable indicator of middle Saxon activity, but can only be broadly dated to within the middle Saxon period (c AD 650 – 850). Three large rimsherds were noted here, all of which had the bar-lugs which are characteristic of the tradition in the region.

The sherds are all in good condition and largely unabraded, suggesting that they are primary deposits.

Bibliography

Blinkhorn, PW, 1994 Early and Middle Saxon Pottery from Pennyland and Hartigans in R. J. Williams, Pennyland and Hartigans. *Two Iron Age and Saxon Sites in Milton Keynes* Bucks Archaeol Soc Mono Ser **4**

Farley, M. 1980 Middle Saxon Occupation at Chicheley, Buckinghamshire *Rec of Bucks* **22**, 92-104

Hurst, JG, 1976 The Pottery in DM Wilson (ed.) *The Archaeology of Anglo-Saxon England*, 283-348. Cambridge

Table 1: Pottery occurrence by number and weight (in g) of sherds per context by fabric type

	E/MS		Maxey		
Context	No	Wt	No	Wt	Date
901			1	138	MS
1001	1	17			E/MS
1006			4	70	MS
1705			1	131	MS
Total	1	17	6	339	

Appendix 3: Magnetic Survey: Technical Information

1. Magnetic Susceptibility and Soil Magnetism

1.1 Iron makes up about 6% of the Earth's crust and is mostly present in soils and rocks as minerals such as maghaemite and haematite. These minerals have a weak, measurable magnetic property termed ***magnetic susceptibility***. Human activities can redistribute these minerals and change (enhance) others into more magnetic forms. These effects are often observable by measuring the magnetic susceptibility of the topsoil, which can enable identification of areas where human occupation or settlement has occurred by virtue of the attendant increase (enhancement) in magnetic susceptibility. If the enhanced material subsequently fills features, such as ditches or pits, localised isolated and linear magnetic anomalies can result whose presence can be detected by a magnetometer (fluxgate gradiometer).

1.2 In general, it is a contrast between the magnetic susceptibility of deposits filling cut features, such as ditches or pits, and the magnetic susceptibility of the surrounding matrix, i.e topsoils, subsoils and rocks, into which these features have been cut that causes the most recognisable archaeological responses. This is primarily because there is a tendency for magnetic ferrous compounds to become concentrated in the topsoil, thereby making it more magnetic than the subsoil or bedrock. Linear features cut into the subsoil or geology, such as ditches, that have been silted up or have been backfilled with topsoil will therefore usually produce a positive magnetic response relative to the background soil levels. Discrete feature, such as pits, can also be detected. Less magnetic material such as masonry or plastic service pipes that intrude into the topsoil may give a negative magnetic response relative to the background level.

1.3 An alternative method of enhancement to the magnetic properties of soil or archaeological features is through sustained heating. This can lead to the detection of features such as hearths, kilns or burnt areas through thermoremanent magnetism.

2. Types of Magnetic Anomaly

2.1 In the majority of instances anomalies are termed ***'positive'***. This means that they have a positive magnetic value relative to the magnetic background on any given site. However some features can manifest themselves as ***'negative'*** anomalies that, conversely, means that the response is negative relative to the mean magnetic background. Such negative anomalies are often very faint and are commonly caused by modern, non-ferrous, features such as plastic water pipes. Infilled natural features may also appear as negative anomalies on some geologies.

2.2 Where it is not possible to give a probable cause of an observed anomaly a '?' is appended.

2.3 It should be noted that anomalies that are interpreted as modern in origin might be caused by features that are present in the topsoil or upper layers of the subsoil. Removal of soil to an archaeological or natural layer can therefore remove the feature causing the anomaly.

2.4 The types of response mentioned above can be divided into five main categories which are used in the graphical interpretation of the magnetic data:

Isolated dipolar anomalies (iron spikes)

These responses are typically caused by ferrous material either on the surface or in the topsoil. They cause a rapid variation in the magnetic response giving a characteristic 'spiky' trace. Although ferrous archaeological artefacts could produce this type of response, unless there is supporting evidence for an archaeological interpretation, little emphasis is normally given to such anomalies, as modern ferrous objects are common on rural sites, often being present as a consequence of manuring.

Areas of magnetic disturbance

These responses can have several causes often being associated with burnt material, such as slag waste or brick rubble or other strongly magnetised/fired material. Ferrous structures such as pylons, mesh or barbed wire fencing and buried pipes can also cause the same disturbed response. This type of anomaly is characterised by very strong, 'spiky' variations in the magnetic background. A modern origin is usually assumed unless there is other supporting information.

Linear trend

This is usually a weak or broad linear anomaly of unknown cause or date. An agricultural origin, either ploughing or land drains is a common cause.

Areas of magnetic enhancement/positive isolated anomalies

Areas of enhanced response are characterised by a general increase in the magnetic background over a localised area whilst discrete anomalies are manifest by an increased response (sometimes only visible on an X–Y trace plot) on two or three successive traverses. In neither instance is there the intense dipolar response characteristic of an area of magnetic disturbance or of an 'iron spike' (see above). These anomalies can be caused by infilled discrete archaeological features such as pits or post holes or by kilns, with the latter often being characterised by a strong, positive double peak response. They can also be caused by pedological variations or by natural infilled features on certain geologies. Ferrous material in the subsoil can also give a similar response. It can often therefore be very difficult to establish an anthropogenic origin without intrusive investigation or other supporting information.

Linear and curvilinear anomalies

Such anomalies have a variety of origins. They may be caused by agricultural practice (recent ploughing trends, earlier ridge and furrow regimes or land drains), natural geomorphological features such as palaeochannels or by infilled archaeological ditches.

3. Methodology

3.1 Gradiometer Survey

3.1.1. There are two main methods of using the fluxgate gradiometer for commercial evaluations. The first of these is referred to as ***scanning*** and requires the operator to visually identify anomalous responses on the instrument display panel whilst covering the site in widely spaced traverses, typically 10-15m apart. The instrument logger is not used and there is therefore no data collection. Once anomalous responses are identified they are marked in the field with bamboo canes and approximately located on a base plan. This method is usually employed as a means of selecting areas for detailed survey when only a percentage sample of the whole site is to be subject to detailed survey. In favourable circumstances scanning may be used to map out the full extent of features located during a detailed survey.

3.1.2. The second method is referred to as ***detailed survey*** and employs the use of a sample trigger to automatically take readings at predetermined points, typically at 0.5m intervals, on zig-zag traverses 1m apart. These readings are stored in the memory of the instrument and are later dumped to computer for processing and interpretation.

3.1.3. The Geoscan FM36 fluxgate gradiometer and ST1 sample trigger were used for the detailed gradiometer survey. Readings were taken, on the 0.1nT range, at 0.5m intervals on zig-zag traverses 1m apart within 20m by 20m square grids.

3.2 Data Processing and Presentation

3.2.1. The detailed gradiometer data has been presented in this report in X-Y trace and greyscale formats. The former option shows the 'raw' data with no processing other than grid biasing whilst in the latter the data has been selectively filtered to remove spurious errors such as striping effects and edge discontinuities caused by instrument drift and inconsistencies in survey technique caused by poor field conditions.

3.2.2. An X-Y plot presents the data logged on each traverse as a single line with each successive traverse incremented on the Y-axis to produce a 'stacked' plot. A hidden line algorithm has been employed to block out lines behind major 'spikes' and the data has been clipped at 5nT. The main advantage of this display option is that the full range of data can be viewed, dependent on the clip, so that the 'shape' of individual anomalies can be discerned and potentially archaeological anomalies differentiated from 'iron spikes'. Geoplot v3 was used to create the X-Y trace plots.

3.2.3. Geoplot v3 was used to process the data and produce the greyscale images and XY trace plots. All greyscale plots are displayed using a linear incremental scale.

Appendix 4: Survey Location Information

1. The survey grid was established using a Trimble TS315 total station theodolite. Points at 60m intervals were set out with the total station theodolite and points at 20m intervals were set out as required using a combination of 100m tapes and the theodolite.

2. The survey grids were then superimposed onto an Ordnance Survey digital map base using common field boundaries and other fixed points. Overall there was a good correlation between the local survey and the digital map base and it is estimated that the average 'best fit' error is better than ±1m. It should be noted that Ordnance Survey 1:2500 mapping data have an error of ±1.9m at 95% confidence. This potential error must be considered if co-ordinates are measured off for relocation purposes from points other than those listed below or if anomalies are relocated using GPS technology.

Reference Object	Easting	Northing
A (metal pin)	488078.40	232907.09
B (metal pin)	488129.15	232909.79
C (metal pin)	488139.12	232852.41
D (metal pin)	488033.24	232635.52
E (metal pin)	488020.17	232462.44
F (metal pin)	488083.04	232466.23

ASC Ltd cannot accept responsibility for errors of fact or opinion resulting from data supplied by a third party or for the removal of any of the survey reference points.

Appendix 5: Geophysical Archive

The geophysical archive comprises:-

- an archive disk containing compressed (WinZip 8) files of the raw data, plot meshes and composites, report text (Word 2000), and graphics files (CorelDraw12 and AutoCAD 2000) files.
- a full copy of the report

At present the archive is held by ASC Ltd although it is anticipated that it may eventually be lodged with the Archaeology Data Service (ADS). Brief details may also be forwarded for inclusion on the English Heritage Geophysical Survey Database after the contents of the report are deemed to be in the public domain (*i.e*. available for consultation in the relevant Sites and Monument Record Office).

Appendix 6: Site Levels

Site Name / Code Stoke Road, Water Eaton (629 WES)					Page 1 of 1	
Number	Details	TBM value	Backsight	Intermediate Sight	Collimation	Reduced level
1	Top T9 (N)			3.64	100.98	97.34
2	Bottom T9 (N)			4.20	100.98	96.78
3	Natural T9			3.93	100.98	97.05
4	Ditch fill (903) T9			4.28	100.98	96.70
5	Base ditch cut (902)			3.90	100.98	97.08
6	Bottom T9 (S)			4.30	100.98	96.68
7	Top T9 (S)			3.96	100.98	97.02
8	Top T11 (S)			2.45	100.98	98.53
9	Bottom T11 (S)			2.89	100.98	98.09
10	Ditch fill (1103) T11			2.18	100.98	98.80
11	Base ditch cut (1102)			2.49	100.98	98.49
12	Bottom T11 (N)			2.11	100.98	98.87
13	Top T11 (N)			1.70	100.98	99.28
14	Top T17 (S)			1.40	100.98	99.58
15	Bottom T17 (S)			1.70	100.98	99.28
16	Top of posthole fill (1708)			1.44	100.98	99.54
17	Top of ditch fill (1707)			1.30	100.98	99.68
18	Top of ditch fill (1705)			1.52	100.98	99.46
19	Top of ditch fill (1703			1.37	100.98	99.61
20	Bottom of T17 (N)			1.32	100.98	99.66
21	Top of T17 (N)			0.93	100.98	100.05
22	Top of T10 (W)			0.11	100.98	100.87
23	Bottom T10(W)			0.44	100.98	100.54
24	Natural T10			0.90	100.98	100.08
25	Base of posthole (1011)			1.00	100.98	99.98
26	Base of posthole (1009			1.05	100.98	99.93
27	Top of ditch fill (1008)			1.05	100.98	99.93
28	Base of ditch cut (1007)			1.41	100.98	99.88
29	Top of pit fill (1006)			1.19	100.98	99.79
30	Base of pit cut (1004			1.89	100.98	99.09
31	Top of pit fill (1003)			1.60	100.98	99.38
32	Base of pit cut (1002)			1.90	100.98	99.08
33	Bottom of T10 (E)			2.04	100.98	98.94
34	Top of T10 (E)			1.80	100.98	99.18
35	TBM 1 and Top of T16 (W)	100 (Abitrary	0.98	1.71	100.98	99.27

		to RO D)				
36	Bottom of T16 (W)			1.99	100.98	98.99
37	Top of ditch fill (1603)			1.04	100.98	99.94
38	Bottom of T16 (E)			0.59	100.98	100.39
39	Top of T16 (E)			0.15	100.98	100.83

Appendix 7: XY Trace Plots of Raw Gradiometer Data (overleaf)