# M5 Junction 10 Improvements Scheme

**Environmental Statement** 

**Appendix 11.4 Evaluation trenching report** 

TR001063 - APP 6.15

Regulation 5 (2) (a)

Planning Act 2008

Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009



Volume 6
December 2023



### Infrastructure Planning Planning Act 2008

# The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

### **M5 Junction 10 Improvements Scheme**

Development Consent Order 202[x]

### 6.15 Environmental Statement:

### **Appendix 11.4 Evaluation trenching report**

Regulation Number:	Regulation 5(2)(a)
Planning Inspectorate Scheme Reference	TR010063
Application Document Reference	TR010063/APP/6.15
Author:	M5 Junction 10 Improvements Scheme Project Team

Version	Date	Status of Version
Rev 0	December 2023	DCO Application

## M5 Junction 10, Cheltenham, Gloucestershire: An Archaeological Evaluation Report

National Grid Reference: SO 90933 25460 to SO 90568 23795

AOC Project: 80003

Event HER Identifier: AOC M521

Date: August 2022





### M5 Junction 10, Cheltenham, Gloucestershire: An Archaeological Evaluation Report

On Behalf of: AtkinsGlobal

The Axis

10 Holliday Street Birmingham

**B1 1TF** 

National Grid Reference (NGR): SO 90933 25460 to SO 90568 23795

AOC Project No: 80003

Oasis No: aocarch1-501768

HER Event No: AOC M521

Date: August 2022

This document has been prepared in accordance with AOC standard operating procedures.

Enquiries to: AOC Archaeology Group

Unit 3 Goulds Close

Chancerygate Business Centre

Denbigh West Milton Keynes MK1 1EQ

### NON-TECHNICAL SUMMARY

This report details the results of archaeological trial trenching at the site of a proposed link road to the west of Cheltenham, Gloucestershire (NGR SO 90933 25460 to SO 90568 23795). AOC Archaeology Group conducted the evaluation between the 1st of June and the 30th of July 2021. The works were undertaken to assess the potential for the survival of sub-surface archaeological remains within the site that may be affected by the proposed development.

The proposed development lies within the administrative area of Tewkesbury Borough Council to whom archaeological advice is provided by the Archaeology Dept at Gloucestershire County Council (AGCC). A general Archaeological Brief was provided by AGCC.

The evaluation comprised the excavation of 85 trenches across the development area, of a proposed 89. The four unexcavated trenches were due to constraints imposed by ecology and electrical OHL services. A further eight trenches were foreshortened, and two other trenches were repositioned to accommodate these same constraints.

The evaluation uncovered two areas of dense archaeological features dating primarily from the Middle Iron Age (BC) until the Mid Romano-British period (3rd century AD). The archaeology comprised numerous ditches, many showing multiple phases of activity. The features broadly correlated to anomalies shown on the geophysical survey. Some features uncovered in the trial trenches were not detected in the geophysical survey suggesting the archaeological remains could be more extensive than indicated. The archaeological features investigated during this phase of works showed good levels of preservation despite being located in an active agricultural landscape.

### **CONTENTS**

Non-Technical Summary			
Contents	vi		
1. INTRODUCTION	8		
2. PLANNING BACKGROUND	8		
3. GEOLOGY AND TOPOGRAPHY	9		
4. ARCHAEOLOGICAL AND HISTORICAL BACKGROUND			
5. AIMS OF THE INVESTIGATION			
6. METHODOLOGY			
7. RESULTS			
8. FINDS AND MACROPLANT			
9. CONCLUSIONS			
10. PUBLICATION AND ARCHIVE DEPOSITION			
11. BIBLIOGRAPHY			
Appendix A – Context Registers			
•			
Appendix B – Specialist Reports			
Appendix C - OASIS			
Appendix D – Figures	81		
DI L A O UI D'UTEOET	4.4		
Plate 1: Small Pit [505]			
Plate 3: North facing section of [2214]			
Plate 4: Post excavation of [2216]			
Plate 5: Post excavation of ditch [2212]			
Plate 6: Post excavation of ditch [2205]			
Plate 7: NW facing section of ditch [2208]			
Plate 8: Post excavation of ditch [2229]			
Plate 9: South facing section of ditch [2308]			
Plate 10: Post excavation of [2307]			
Plate 11: SE facing section of ditch [2405]			
Plate 12: SE facing section of ditch [2407]	20		
Plate 13: Post excavation of ditch [1905]	20		
Plate 14: North facing section of ditch [20004]	21		
Plate 15: SE facing section of ditch [1910]			
Plate 16: SE facing section of ditches [1915] & [1918]	22		
Plate 17: North facing section of ditches [20009] & [20023]			
Plate 18: East facing section of ditch [20011]			
Plate 19: SE facing section of ditch [2105]			
Plate 20: SE facing section of ditch [2906]			
Plate 21: SW facing section of features [3406] and [3409]			
Plate 22 : South facing section of ditch [3412]			
Plate 23: East facing section of ditch [4205]			
Plate 24: North facing section of feature [3505]			
Plate 25: Post excavation of ditches [3704], [3706], [3708], & [3710]			
Plate 26: Post-excavation of ditch [3805]			
Plate 27: NE facing section of ditch [3809]			
Plate 28: South facing section of ditch [4807]			
Plate 30: Post excavation of ditch [4005]			
Plate 31: Post excavation of [4010]			
Plate 32: Post excavation of ditches [4206] & [4209]			
Plate 33: South facing section of ditch [4606]			

Plate 34: Post excavation of sondage across [4707]	33
Plate 35: NE facing section of ditch [5205]	
Plate 36: NE facing section of ditch [5308]	35
Plate 37: South facing section of ditch [5311]	35
Plate 38: North facing section of ditch [5315]	36
Plate 39: Google Earth © extract, from 2006 aerial imagery, clearly showing crop marks and the lar	ge palaeo-
channel	41
Plate 40: Suggested former route of River Chelt (in black). Google Earth © 2006 aerial imagery	42

### **List of Figures**

All figures are presented in Appendix D.

### **List of Tables**

Table 1 Heritage assets within 1km of the Site boundary	10
Table 2 Summary of artefact material	57
Table 3 Summary of assemblage by area of excavation (excluding unstratified)	60
Table 4 Summary data of all artefacts	64
Table 5 Pottery summary by area. Quantification as number of sherds (NOSH) and weight	70
Table 6 Pottery fabrics summary. Quantification as number of sherds (NOSH) and weight	70
Table 7 Roman vessel forms summary	71
Table 8 Preservation and bone modifications observed on the bones for each context	74
Table 9 Number of fragments recorded for the major domesticates, birds and other taxa	75
Table 10 Taxa identified from environmental samples (NISP)	75
Table 11 Summary of shell remains (NISP), hand-collected and sieved samples	75
Table 12 Number of bones and teeth likely to provide ageing and metrical data for the major domesticates	. TWS=
wear from mandibles and individual teeth; fus= bone fusion; meas= metrical data	76
Table 13 Results of the environmental processing	79

### INTRODUCTION 1.

- 1.1 This document details the results of an archaeological evaluation undertaken by AOC Archaeology Group between 1st June to the 30th July 2021 at M5 Junction 10, Cheltenham, Gloucestershire; NGR SO 90933 25460 to SO 90568 23795 (Figure 1).
- 1.2 The works related to the development of a proposed link road to the west of Cheltenham, Gloucestershire. The proposed development site (hereafter 'the Site') is located c.500m west of the M5 motorway within the parishes of Uckington and Boddington (Figure 1). The Site measures approximately 22.30 hectares (ha) and consists of a linear strip of fields in pasture and arable use, approximately 1.7km in length on a north to south alignment from NGR SO 90933 25460 to SO 90568 23795.
- 1.3 The evaluation comprised the excavation of 85 trenches across the Site, of a proposed 89 within the approved WSI. The four unexcavated trenches were due to constraints imposed by ecology and electrical OHL services. A further eight trenches were foreshortened, and two other trenches were repositioned to accommodate these same constraints.

### 2. PLANNING BACKGROUND

- 2.1 The scheme lies within the administrative area of Tewkesbury Borough Council to whom archaeological advice is provided by the Archaeology Department at Gloucestershire County Council (AGCC). A general Archaeological Brief was been provided by AGCC. In September 2020, Magnitude Surveys were commissioned by Atkins to undertake a geophysical survey of the site, which stated that the survey 'identified a number of archaeological anomalies which require targeted trenching to assess their significance and condition and to inform the Environmental Assessments being conducted in advance of an application for a Development Consent Order'.
- 2.2 AOC Archaeology Group conducted the evaluation according to the 'Written Scheme of Investigation' (WSI) approved by AGCC prior to the evaluation being undertaken.
- 2.3 The works were undertaken to assess the potential for the survival of sub-surface archaeological remains within the site that may be affected by the proposed development and overseen by AGCC.
- 2.4 The full methodology of the archaeological investigation was detailed in the WSI for the site (AOC 2021). It was undertaken and designed in accordance with the current best archaeological practice and local and national standards and guidelines:
  - ADS Practice, (2011)Guides to Good http://guides.archaeologydataservice.ac.uk/g2gp/Main
  - Historic England Management of Archaeological Projects (HE 2015a).
  - Historic England Archaeological Guidance Paper 4: Standards and Practices in Archaeological Fieldwork (HE 2015b).
  - Historic England Environmental Archaeology: A guide to the theory and practice of methods, from sampling and recovery to post-excavation (HE 2015c).
  - Chartered Institute for Archaeologists (2019). Code of Conduct.
  - Chartered Institute for Archaeologists (2014a) Standard and Guidance for an Archaeological Watching Brief.

- Chartered Institute for Archaeologists (2014b) Standard and Guidance for the Creation, Compilation, Transfer and Deposition of Archaeological Archives.
- Chartered Institute for Institute for Archaeologists (2014c) Standard and Guidance for the Collection, Documentation, Conservation and Research of Archaeological Materials.
- Museum of London Archaeological Site Manual (MoL 1994) National Planning Policy Framework (MHLG 2019; updated 2021)
- RESCUE & ICON First Aid for Finds (RESCUE & ICON 2001).
- United Kingdom Institute for Conservation (UKIC 1983) Conservation Guidelines No.2.
- United Kingdom Institute for Conservation (UKIC 1990) Guidance for Archaeological Conservation Practice.
- Society of Museum Archaeologists (1993) Selection, Retention and Dispersal of Archaeological Collections: Guidelines for use in England, Wales and Northern Ireland.
- Brown, D.H. (2011) Archaeological Archives: A guide to best practice in creation, compilation, transfer and curation (Second Edition).

### 3. **GEOLOGY AND TOPOGRAPHY**

- 3.1 The Site lies within an agricultural landscape, between the farmsteads of Millhouse Farm and Hayden Hill Farm, and is bounded by further fields with a section of the northwest site boundary being formed by Withybridge Lane. The Site is bisected by the A4019 to the north and B4634 to the south, and the River Chelt crosses the centre of the site from east to west.
- 3.2 The Site geology consists of Charmouth Mudstone Formation bedrock (formed approximately 183 to 199 million years ago in the Jurassic Period). In the northern part of the site this is overlain by superficial deposits of Cheltenham Sand and Gravel, formed up to 3 million years ago in the Quaternary Period in a local environment previously dominated by subaerial slopes. A band of alluvial clay, silt, sand and gravel, formed up to 2 million years ago in the Quaternary Period in a local environment dominated by rivers, crosses the central part of the Site. There are no superficial deposits recorded in the southern half of the Site (BGS 2021).
- 3.3 The Magnitude Surveys geophysical survey report notes that soils in the north part of the Site consist of freely draining, lime-rich, loamy soils, with a band of loamy and clayey floodplain soils and naturally high groundwater across the centre and lime-rich, loamy and clayey soils with impeded drainage elsewhere (Beck & Cantarano Ingeniéur 2021, p7).

### 4. ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

4.1 The following represents an extract from the WSI (AOC, 2021). Initial examination of the National Heritage List for England website (NHLE 2021) has identified thirteen designated heritage assets within 1km of the Site boundary (Table 1, below). These include a single Scheduled Monument and twelve Listed Buildings of post-medieval date, as shown in Table 1 below. There are no designated assets within the Site, the closest being situated c.200m from the west and southern boundaries.

Table 1 Heritage assets within 1km of the Site boundary

NHLE	NHLE Name Type & Grade Location Summary			
Ref		7,000		,
1088722	Cottages by drive to Butler's Court	Listed Building. Grade II	SO 90466 24716, c.250m w of Site	17 <sup>th</sup> century semi-detached cottages
1088725	Barn, about 15 metres west of Hayden Farmhouse	Listed Building. Grade II	SO 90346 23631, c.200m S of Site	17 <sup>th</sup> century barn
1091874	Moat House	Listed Building. Grade II	SO 91623 24696, c.650m E of Site	Large detached house of early 17 <sup>th</sup> century date and extensively altered in the early 19 <sup>th</sup> century. Within the Scheduled moated site.
1091875	Stableblock and open fronted cart store, circa 10 metres north of uckington farmhouse	Listed Building. Grade II	SO 91764 25090, c.650m E of Site	Stableblock (dated 1818) and open fronted cart store
1154528	Bridge and attached pair of Lodges Moat House	Listed Building. Grade II	SO 91635 24769, c.600m E of Site	Cast iron bridge over moat and attached pair of lodges. Inscription on bridge 'CAST AT COALBROOKDALE 1851'.
1016835	Moat House moated site	Scheduled Monument	SO 91608 24691, c.600m E of Site	A rectangular moat enclosing an island measuring 120m north-south and 68m eastwest.  Subsidiary enclosure on eastern side.
1172272	Butler's Court Farmhouse	Listed Building. Grade II	SO 90181 24845, c.500m W of Site	Early 18 <sup>th</sup> and early 19 <sup>th</sup> century farmhouse.
1172346	Hayden Farmhouse	Listed Building. Grade II	SO 90367 23623, c.200m S of Site	Early 17 <sup>th</sup> century farmhouse, with later alterations
1172363	The Old Forge	Listed Building. Grade II	SO 90162 23686, c.300m SW of Site	16 <sup>th</sup> century house, altered and extended in 19 <sup>th</sup> century
1303770	Uckington Farmhouse	Listed Building. Grade II	SO 91749 25044, c.650m E of Site	Early 17 <sup>th</sup> century farmhouse with early 19 <sup>th</sup> century extensions
1303797	Moat Cottage	Listed Building. Grade II	SO 91679 24623 , c.700m E of Site	17 <sup>th</sup> century detached cottage, to east of the Scheduled moated site.
1305182	Withybridge Mill and adjoining barn	Listed Building. Grade II	SO 90521 24647, c.200m W of site	17 <sup>th</sup> – 19 <sup>th</sup> century barn and corn mill
1340069	Barn circa 30 metres north west of the Moat House	Listed Building. Grade II	SO 91596 24746, c.600m E of Site	Late 17 <sup>th</sup> – mid 18 <sup>th</sup> century barn, within the Scheduled moated site.

4.2 Initial examination of the Gloucestershire Historic Environment Record (GHER, https://maps.bristol.gov.uk/kyp/?edition=glos & https://www.heritagegateway.org.uk) has identified one local asset within the Site and several others in the immediate vicinity of Prehistoric to Modern date.

### Prehistoric (8000BC-AD43) & Roman (AD43 - AD410)

- 4.3 The GHER asset within the Site (Ref. 8637) is a series of cropmarks of apparent enclosures, round house, gully and field system boundary ditches, which are thought to indicate the presence of a Later Prehistoric or Romano-British enclosed settlement, lying across the two fields to the south of the A4019.
- 4.4 Further cropmarks of various linear features, including possible enclosures and trackways, have been identified in the field immediately to the north of the site (48029).
- 4.5 A bronze Roman coin findspot is located c.300m east of the site (17965) at Uckington.
- 4.6 Looking further afield, a series of probable Middle Bronze Age pits containing pottery were identified during excavations at Kingsmead School/All Saints Academy (38085), located approximately 2km south-east of the Site. Late Iron Age features suggestive of settlement and agricultural use were also identified in the parish of Elmstone Hardwicke (48010), which is located approximately 1.6km northeast of the Site.
- 4.7 Romano-British archaeological remains identified in the wider vicinity of the Site include agricultural features and field systems at Uckington (27596, 29641) and possible settlement features at Kingsmead School/All Saints Academy (35022), Coombe Hill (49475) and 'Land northwest of Cheltenham' (44923).

### Early Historic and Medieval (AD410-AD1600)

- 4.8 Early medieval activity was recorded at Kingsmead School/All Saints Academy, located approximately 2km south-east of the Site. Early medieval buildings pits and an enclosure were excavated here (38084, 38086), in addition to a pair of crouched burials, with one burial producing a radiocarbon date in the 7th century (38087).
- 4.9 A number of medieval moated sites, documented settlements and sites mapped as part of the Severn Vale NMP Project (Crowther and Dickson 2016) have also been identified in the area around the Site and are recorded in the GHER. A possible moated site at Manor Farm, now consisting of three ponds (7469), is recorded c.300m to the east between the Site and the Scheduled Monument of Moat House moated site (5143). Another moated site, that of Withy Bridge Manor (6473, 7470) lies at Butlers Court, c.500m to the west.
- 4.10 Settlements in the area with early medieval origins include the hamlet of Stoke Orchard, located approximately 3.5km north-east of the site (5370), being first documented in 967 as 'aet Stoce' and in 1086 as 'Stoches. A medieval moated site has also been recorded here, with remains dating to the 13th-14th centuries (44477).
- 4.11 Withybridge Mill (6474), 200m to the west, is cited as being the probable site of Uckington Mill which was recorded in the Domesday Book, with further historic references in 1575 and 1719. Further afield, a slate mill was recorded on the River Chelt in the 14th century, continuing in use until the 20th century (6476) and a corn mill (6991) was present in Stoke Orchard from the 14th century, with later iterations of this mill continuing in use until the 20th century.

### Post-medieval (AD1600-AD1900) & Modern (AD1900-present)

The twelve Listed buildings discussed above are all recorded on the GHER. No further buildings 4.12 of similar date are noted in the immediate vicinity of the Site.

- 4.13 Other post-medieval evidence documented in the wider area includes infrastructure such as the Coombe Hill canal (5548), which operated from 1795 – 1876; the Turnpike road from Gloucester to North (41800), established in 1756; and the route of the 1785 Cheltenham Turnpike (41838).
- 4.14 The possible location of a WW2 searchlight battery (27105) lies c.400m to the west of the Site. A WW2 heavy anti-aircraft battery (27052) is recorded c.300m west of the southern end of the Site.

### **Previous Archaeological Site Investigations**

Magnitude Surveys carried out a fluxgate gradiometer survey across the Site in late 2020. 4.15 Approximately 5.5ha of the full area, to the south of the B4634 and across the centre (immediately north of the River Chelt) was excluded due to unsuitable ground conditions. The report (Beck & Cantarano Ingeniéur 2021) states that 'anomalies of probable and possible archaeological origin have been identified across the northern part of the survey area, interpreted as a potential enclosed multiphase settlement complex of possible Romano-British date, with potential Late Prehistoric origins' and that 'the ability of the geophysical survey to determine the full extent of the potential complex may have been affected by fluvial processes'. The complex is centred at SO 9096 2495 and corresponds to the GHER entry 8637. Other anomalies, thought to be related to activities such as extraction, are recorded along the bank of the River Chelt and evidence of agricultural activity was noted throughout.

### 5. AIMS OF THE INVESTIGATION

- 5.1 The aims of the archaeological evaluation were:
  - To establish the presence/absence of archaeological remains within the site and test the results of the geophysical survey.
  - To determine the location, extent, date, condition, nature, character, significance and quality of any archaeological remains encountered (GCC Brief Section 2).
  - To determine the relationship of any above ground structures to the surviving archaeological deposits below ground and their character, condition, significance and quality.
  - To record and sample excavate any archaeological remains encountered.
  - To assess the ecofactual and environmental potential of any archaeological features and deposits.
  - To determine the extent of previous truncations of the archaeological deposits and clarify the extent of existing disturbance and intrusion.
  - To enable the Archaeological Advisors to the Local Planning Authority (LPA) Tewkesbury Borough Council to make an informed decision on the archaeological response to a future planning application and any requirement for mitigation.
- 5.2 The specific aims of investigation were to investigate:
  - The nature and chronology of the archaeological anomalies recorded in the geophysical survey:
    - A complex of enclosures was identified in the northern part of the geophysical survey area. These were interpreted as a possible Late Prehistoric/Romano-British enclosed multiphase settlement. Further investigation in the evaluation

would address regional research aim 29 'Improve understanding of non-villa Roman rural settlement' and address more general questions of prehistoric and Roman transitions in the landscape and local economy (aim 10). It may (aim 40) 'Improve understanding of agricultural intensification and diversification in later prehistory' and (41) 'the impact of the Roman empire on farming' (Grove J, Croft B, 2012).

- In the centre of the survey area were anomalies interpreted as possible 0 extraction activity. The evaluation will aim to characterise and date these features and confirm if they are contemporary with the historical field boundaries close to the River Chelt.
- Across the survey area were several geophysical anomalies possibly related to 0 agricultural activities, boundaries and landscapes. The evaluation will aim to confirm their character and date. This would relate to the very general development of Medieval and Post-Medieval agriculture and the local landscape.
- Assess the "confidence" factor in the geophysical survey and presence of remains not recorded by that survey.
  - To define the presence/absence of palaeosols and old land surface soils/deposits;
  - The character of deposits and their contents within negative features;
  - Paleaochannels; and
  - Site formation processes generally.
- 5.3 The final aim was to make public the results of the investigation, subject to any confidentiality restrictions, through the Archaeological Data Service (ADS) OASIS website.

### 6. **METHODOLOGY**

6.1 The fieldwork was undertaken from 1st June to 30th July 2021 by two teams, lead by Project Officer Petra Glew. The site was managed by AOC project manager Ross Murray MCIFA and Antony Walsh MCIFA, AOC Operations Manager.

### 7. **RESULTS**

- 7.1 A total of 85 trenches (8010 m2) were excavated as part of the evaluation works (Figure 2). Four of the planned trenches were not excavated due to unforeseen constraints, see section on 'Variations to Trench plan'. Of the trenches excavated 49 were found to contain archaeological features, including nine trenches that only contained furrows (Trenches 8, 10, 14, 16-17, 25-27, and 55). 36 trenches (1-3, 7, 30-31, 57-61, 64-84, 86-89) contained no archaeological features.
- 7.2 The site has been divided in to seven areas for reference (1A - 1C; 2-5), based upon topographical and archaeological similarities/differences (Figure 2).

### Area 1A (Trenches 4-29, Figure 3)

- 7.3 The trenches in the northern and western part of Area 1A to the south of the road (Tr4-17, and 25-28) were relatively void of archaeological features, though most contained furrows and land drains as recorded on the geophysical survey (Beck & Cantarano Ingénieur 2021).
- 7.4 Trenches 4-6, 9, 11-13, and 15 had shallow remains of furrows, some containing later land drains. Linear features in Tr 4, 9 and 11 were undated, interpreted as possible drainage gullies

7.5 Trench 5 had a small pit located near the centre of the trench [505], 1.08m diameter, 0.12m deep, filled with grey, silty clay with occasional CBM and charcoal (Plate 1). Trenches 12-13, and 15 contained more substantial ditches and a possible rectangular pit, respectively. None of these contained artefacts or other dating evidence.



Plate 1: Small Pit [505]

7.6 A concentration of archaeological features crossed Areas 1A – 1C, and were present in Trenches 18-24, and 34-53. The features present in trenches on the southern edge of Area 1A (Trenches 18-24 and 29) corresponded to the anomalies recorded by the geophysical survey (ibid.).



Plate 2: NNE facing section of [1805]

7.7 A single large pit [1805], located halfway along Trench 18 (Figure 25, Section 7.4), extended beyond the limit of excavation (Plate 2). The pit measured c. 3 m NE-SW x 1.15 m NW – SE. x 0.8 m deep (Figure 25, Section 7.4). The lower fill (1806) contained a concentration of charcoal

and yielded a few sherds of possibly Iron Age pottery (see section 8.7). The upper fill (1804) had no finds.

### Rectilinear Enclosure(s)

7.8 To the southeast of Trench 18, the geophysics indicated the presence of a rectilinear enclosure. This was revealed in Trenches 22 and 23 as ditches [2214], [2216] and [2308] (Figure 11 & 12). The western side of the enclosure [2214] was a relatively small ditch (Plate 3), which was 1.4 m wide by 0.7 m deep (Figure 24, Section 12.1). A small assemblage of Romano-British pottery was recovered from its single fill.



Plate 3: North facing section of [2214]

7.9 By contrast, at the eastern end of Trench 22 the enclosure was revealed to be a substantial ditch [2216] measuring 5.15 m wide by 1.05 m deep (Figure 24, Section 15.1). This segment of ditch was originally thought to be a double ditch. There were multiple reasonably complex fills, made more difficult to define due to the presence of an earlier pit [2226], cut by [2216], and a modern, ceramic drain which truncated [2226] (Plate 4). The pit [2226] was only partially excavated due to its depth below ground level. Second century AD pottery was recovered from the upper levels of the pit and second to third century pottery from the ditch. Animal bone was also present from the fill of the ditch (M Holmes, below, p76).



Plate 4: Post excavation of [2216]

7.10 An extension to the enclosure might be represented by ditch segment [2212] found at the southern end of Trench 22 (Plate 5). This was a circa 1.55m wide by 0.6 m deep (Figure 24, Section 7.5). Its sole fill (2211) contained a single fragment of corroded iron (see Section 8).



Plate 5: Post excavation of ditch [2212]

7.11 Toward the western end of Trench 22 another north-south segment of ditch [2205] (Plate 6) was identified just to the west of [2214]. This ditch was badly truncated by a redundant modern (plastic) irrigation system encountered across the field but was found to survive to 1.53 m wide by 0.5 m deep (Figure 24, Section 8.2). The single fill (2204) produced second century Romano-British pottery. This corresponds to the ditch seen in the geophysics data that runs parallel to the western side of the rectilinear enclosure.



Plate 6: Post excavation of ditch [2205]

7.12 Near the middle of Trench 22, were a pair of ditches [2208] (Plate 7) and [2229] (Plate 8) that did not appear on the geophysics, nor do they align with any of the other features in the immediate vicinity. These two features, if contemporary with most of the other features in Trench 22, would be internal features associated with the rectilinear enclosure. The western of the two [2208] was circa 0.7 m wide by 0.3 m deep (Figure 24, Section 8.3). Two fills were identified, although neither contained any artefacts. The other [2229] was 0.75 m wide by 0.2 m deep (Figure 24, Section 12.3). The single fill produced sherds of Romano-British pottery.



Plate 7: NW facing section of ditch [2208]



Plate 8: Post excavation of ditch [2229]

- 7.13 A small pit [2210] was found to contain a single fill with charcoal inclusions and a few fragments of Romano-British pottery. This appears to be an isolated feature as it cannot be linked directly to the rest of the features in the trench or the immediate vicinity.
- 7.14 The eastern side of the enclosure was uncovered at the southern end of Trench 23 as a large ditch [2308] which was found to have a broad U-shaped profile 2.7 m wide by 0.75 m deep (Figure 24, Section 17.2). The lower fill (2305) was a light brown silty sand with second-third century pottery and animal bone, and the upper fill was a dark greyish-brown sandy silt which produced small finds (sf8 and sf9); a decorated Iron Age glass bead and a fragment of Roman respectively vessel glass.



Plate 9: South facing section of ditch [2308]

7.15 In addition to ditch [2308], a further two features were sampled in Trench 23. A small V-shaped ditch in the middle of the trench [2307] corresponded with the longer geophysical anomaly in this area (Plate 10). It was 0.8 m wide and 0.4 m deep with a single fill (Figure 24, Section 19.1) that contained animal bone. Adjacent to this, on the north side was a shallow pit, thought to

relate to the cluster of three anomalies just to the north of [2307]. This proved to be c. 1.4 m across by 0.1 m deep, with inclusions of animal bone and yielded 15 sherds of second century pottery.



Plate 10: Post excavation of [2307]

7.16 Trench 24 lay to the southeast of Trench 23 and was intended to target several geophysical anomalies that relate directly or indirectly to the rectilinear enclosure (Figure 12). Two features were identified [2405] (Plate 11) and [2407] (Plate 12) (Figure 24, Sections 16.1 & 16.3). Both were interpreted as Romano-British in date, although pottery was only recovered from [2405]. While the eastern one may correspond to a geophysical anomaly, the western one did not. Further potential geophysical anomalies at the western and eastern ends respectively were not excavated as they were heavily disturbed by furrows and modern field drains.



Plate 11: SE facing section of ditch [2405]



Plate 12: SE facing section of ditch [2407]

### **Ditches**

- 7.17 Several large ditches were present in Trenches 19-21 and 29 to the west of the rectilinear enclosure in Trenches 22-24. These were shown on the geophysical survey.
- 7.18 A section was cut through a large ditch [1905] near the middle of Trench 19 (Figure 9). The ditch proved to have a V-shaped profile (Plate 13) with multiple fills (Figure 23, Section 9.1). The fills of [1905] produced a relatively small amount of second century pottery.



Plate 13: Post excavation of ditch [1905]

7.19 This ditch was also present in Trench 20 [20004] to the south (Figure 9) toward the eastern end of the trench and contained similar deposits. Based on the interpretation of the geophysical survey this feature should have been somewhat smaller than it proved to be at 2.86 m wide x 0.9 m deep, at limit of excavation (Figure 23, Section 10.1). The feature was not bottomed due to safe depth limitations and the water table (Plate 14). There were clear indications of waterlogged deposits just below the surface of the water, including wood with bark intact. The

upper fills yielded a sizeable assemblage of Romano-British artefacts including pottery, CBM, animal bone and metal object.



Plate 14: North facing section of ditch [20004]

7.20 At the eastern end of Trench 19 (Figure 9) an intervention was excavated across a deposit that was thought to relate to the northeast-southwest geophysics anomaly but instead revealed a remnant skim of subsoil over a well-defined northwest to southeast aligned ditch [1910] (Figure 23, Section 13.1). A small, late Iron Age/early Romano-British, copper-alloy penannular brooch (sf7) was recovered from the bottom of the subsoil, directly above the ditch fill (Plate 15). A fragment of copper-alloy strip (sf12) was also recovered from the subsoil during machining in the same trench.



Plate 15: SE facing section of ditch [1910]

- 7.21 A small gully [2107], 0.86 m wide by 0.1 m deep, was present c. 5 m from the southern end of Trench 21 (Figure 10). This yielded a single sherd of modern pottery during excavation, but this could be seen as intrusive, as the feature may be an extension or terminus of ditch [1910].
- 7.22 At the western end of Trench 19 a thin layer of furrow fill/remnant subsoil was removed to reveal the small terminus of an undated shallow gulley [1912] (Figure 9) circa 0.83m by 0.8 m by 0.13 m deep.
- 7.23 To the east of this a large geophysical anomaly crossed this trench on a northwest to southeast alignment (Figure 9). This corresponded to two ditches, [1915] & [1918], and the overlaying/cutting furrow material (Plate 16).



Plate 16: SE facing section of ditches [1915] & [1918]

- 7.24 At the western end of the intervention, ditch [1915] was seen to extend beyond the limit of excavation (Figure 9). Excavation of this feature was halted due to a second furrow and a field drain masking the western side of the ditch. The full depth of [1915] was therefore not determined. Two fills contained Romano-British pottery sherds.
- 7.25 Two ditches were present at the west end of Trench 20 (Figure 9). Ditch [20009] was identified on a north-northeast to south-southwest alignment, that did not seem to correlate to the geophysical survey data. On excavation, [20009] proved to be 2.4 m wide by 0.8 m deep with two fills (Figure 23, Section 25.1), the lower of which produced a small assemblage of animal bone and mid to late Romano-British ceramic. The ditch was recut by [20023] on the same alignment; the same width but half the depth of ditch [20009] (Figure 23, Section 25.1), the upper fill produced artefacts including a signet style finger ring with an inset, oval glass intaglio (sf11) dated to the 1st to mid 3rd century A.D.



Plate 17: North facing section of ditches [20009] & [20023]

7.26 A U-shaped ditch [20011] was identified just to the east of [20009] correlating with the second large geophysical anomaly in this area (Figure 9 & 23, Section 21.1). It was 1.3 m wide by 0.72 m deep (Plate 18) with a single fill containing Romano-British pottery and animal bone.



Plate 18: East facing section of ditch [20011]

7.27 Near the centre of Trench 20, a broad U-shaped ditch [20015] on a roughly north-south orientation was uncovered just to the west of [20004] (Figure 9 & 23, Section 21.2). This measured 2.7 m wide by 0.68 m deep to the water table when excavation was halted (Plate 19). It's three fills produced no artefactual material, but their character was consistent with the surrounding features.



7.28 At the eastern end in Trench 20 was ditch [20017] (Figure 9). This was partially excavated revealing a broad U-shaped profile, 2.38 m wide by more than 0.58 m deep (Figure 23, Section 22.1). Excavation was limited due to maintain a safe working depth adjacent to the baulk. The same feature was sampled close by at the north end of Trench 21, ditch [2105] (Plate 20). In Trench 21 it measured 1.9 m wide x 0.8 m deep, with multiple fills within an even U-shaped cut with straight sides (Figure 23, Section 14.1). This produced a piece of flint, several sherds of 2<sup>nd</sup> to 4<sup>th</sup> century pottery, and some animal bone. This ditch corresponds to a geophysical anomaly tested by Trenches 20 and 21.



Plate 19: SE facing section of ditch [2105]

7.29 Trench 29 lay approximately forty metres to the east of Trench 21. Several possible features were tested, but only one proved to be archaeological in nature. At the eastern end of the trench, on a northwest-southeast alignment was a small ditch [2906] with steep sides and a concave base (Figure 25, Section 17.1; Plate 21). No inclusions or artefacts were present and no direct correlation to other features or geophysical anomalies was apparent.



Plate 20: SE facing section of ditch [2906]

### Area 1B (Trenches 34-52, Figure 4)

7.30 Area 1A and 1B were separated by a field boundary and a Badger Exclusion Zone (Figure 3 & 4). A total of seven trenches opened in Area 1B contained archaeological features that were recorded in plan but not investigated (Trenches 41, 43-45, 49-51). The archaeological features in Area 1B were selected for excavation on the basis of clarity of definition in plan, to avoid those with relationships with other features, complicated or otherwise, and to not dig multiple interventions in the same feature(s).



Plate 21: SW facing section of features [3406] and [3409]

7.31 The northern side of Area 1B is notable for the very shallow soil profile that was particularly seen in trench 39. At this point a low ridge in the under laying natural deposits, raises up to circa 0.35 m below the surface of the ground. Combined with extensive modern agricultural practice this has led to truncation of the soil profile to the extent that no subsoil is present across most of the northern half of this field. A localised dip was noted in Trench 41, but a very pronounced

- drop in the natural topography was present across the southern half of the field with increasingly thick deposits of topsoil and subsoil overlaying archaeological features.
- 7.32 Toward the northern end of Trench 34 were two intercut ditches with a furrow truncating them on the east side (Figure 14) (Plate 22). The earlier ditch [3409] was 1.6 m wide by 0.7 m deep with a smooth, U-shaped profile (Figure 26a, Section 28.1). The lower fill (3408) may represent a collapse or tip deposit on the north-western side of the ditch. The eastern side of the feature was truncated slightly, but the shoulder of the cut could still be seen in section.
- 7.33 Ditch [3409] corresponded with a geophysical anomaly which extends to the northeast and southwest and, therefore, may be an extension of a linear seen running through the western end of Trench 37. The upper fill (3407) produced a small assemblage of various mid to late second century ceramics.
- 7.34 A shallow ditch [3406] on the eastern side of the intervention seemed to follow the same northeast-southwest alignment. This was very shallow, circa 0.23 m deep by 1.57 m wide, in marked contrast to much of the archaeological features in the immediate vicinity (Figure 26a, Section 27.1). The small number of pottery sherds recovered were all second century in date. A field drain truncated the eastern side of [3406].
- 7.35 At the southern end of Trench 34, another ditch [3412] was identified orientated northwest to southeast (Plate 23 & Figure 26b, Section 38.1). The U-shaped ditch was 1.8 m wide by 0.6 m deep. The upper of the two fills (3410) produced early Romano-British pottery and some a flint. The ditch aligned with a broken geophysical linear anomaly trending northwest to southeast and extended through and beyond Trench 37 intersecting with the north-eastern continuation of linear feature [4205].



Plate 22: South facing section of ditch [3412]

7.36 At the northern end of Trench 42 was a large ditch [4205] (Figure 17) (Plate 24). The ditch was orientated northeast-southwest and 3 m wide by 0.8 m deep in section (Figure 26b, Section 36.1). The upper fill contained no artefacts, whereas the lower fill contained late third to fourth century Romano-British pottery and animal bone, similar to other nearby features. It is probable that this is the same ditch seen in plan near the middle of Trench 47, where it is truncated by a furrow and land drain.



Plate 23: East facing section of ditch [4205]

7.37 Toward the eastern end of Trench 35 (Figure 13), proved to be a small U-shaped ditch [3505] running northeast-southwest (Plate 25), c. 1.1 m wide by 0.6 m deep (Figure 26b, Section 39.2). The ditch produced a small selection of late Romano-British ceramics, some fragments of metal objects, and possible slag. It is possible that this is also a continuation of the narrow linear feature seen at the centre of Trench 36 to the southwest.



Plate 24: North facing section of feature [3505]

- 7.38 At the western end of Trench 35, a very shallow and broad pit [3507] was cut by the ditch [3505] (Figure 26b, Section 39.2). The fill contained frequent animal bone and mid to late fourth century Romano-British pottery.
- 7.39 Near the middle of Trench 37 (Figure 14 & 26a, Section 31.1) were a series of four intercutting ditches of varying sizes, on variable alignments (Plate 26).
- 7.40 The earliest ditch [3710] was a narrow ditch present at the base of the intervention. Orientated northwest-southeast, it was only 0.28 m deep by 1.28 m wide. The fill (3709) contained animal bone and Romano-British Ceramic Building Material (CBM). The feature was low in the overall

soil profile and quickly became waterlogged, which suggests relatively good potential for preservation of organic material within the fill(s).



Plate 25: Post excavation of ditches [3704], [3706], [3708], & [3710]

- 7.41 This was cut by ditch [3708] a broader, U-shaped ditch orientated north-northwest to south-southeast, which was 2.2 m wide by 0.62 m deep (Figure 26a, Section 31.1). Second to third century pottery and a fragment of Romano-British CBM were recovered from the single fill (3707).
- 7.42 Ditch [3708] may be a recut of the underlaying ditch [3710] (Figure 26a, Section 31.1). One or both of these ditches were also seen upon the geophysical survey to continue in Trench 38 as ditch [3812]. This latter ditch was circa 1.58 m wide by 0.59 m deep with a U-shaped profile (Figure 26b, Section 34.2).
- 7.43 Central to Trench 37 was ditch [3706] on a north-northeast to south-southwest alignment which cut [3708] and was truncated by [3704] (Figure 26a, Section 31.1). This appeared to have a broad U-shaped profile, 2.39 m wide by 0.74 m deep, with a chamfered upper edge on the east side but the top edge had been truncated by [3704] on the west. The base was flat and truncated feature [3710] which was directly underneath. The fill (3705) of [3706] contained late first century Romano-British pottery, and animal bone.
- 7.44 At the west another wide ditch [3704] was orientated north-south cutting [3706] and truncating [3708] (Figure 26a, Section 31.1). The full width of this ditch was not clear as it was obscured by a furrow and a ceramic field drain at the western end. Approximately 2.4 m of the ditch was excavated, east of the drain, where it was seen to have a smooth, concave profile. These latter two ditches do not seem to correlate to the geophysical data.
- 7.45 At the northern end of Trench 38 (Figure 15) was an extremely large ditch [3805], circa 3.8 m wide by 0.7 m deep, with silting deposits in the base and two episodes of backfill (Plate 27 & Figure 26b, Section 33.1). In the base of the ditch was an organic rich fill (3806) that contained charcoal fragments and cereal grain. A sizeable assemblage of mid to late Iron Age pottery totalling 211 sherds was recovered from this feature. Of this 113 were recovered from the upper fill (3803) and the remaining 98 from the lower deposit (3813). This is probably the only feature

sampled that can be dated solely to the Iron Age. This feature correlates with a distinct geophysical anomaly.



Plate 26: Post-excavation of ditch [3805]

7.46 Just to the north of ditch [3812], was ditch [3809] of similar shape and size (Plate 28) with U-shaped cut and steep sides, 1.42 m wide (to the baulk) by 0.57 m deep (Figure 26b, Section 34.1). This ditch coincided with a north-south geophysical anomaly that extended south through Trench 41, Trench 42, and the western end of Trench 48.



Plate 27: NE facing section of ditch [3809]

7.47 Near the western end of Trench 48 the feature present on the geophysical survey data (Figure 19) had relationships between two, possibly three features. The principal ditch [4807] was clearly visible and well defined as a northwest to southeast oriented ditch at the western end of the trench (Figure 27, Section 38.2). The fill of this cut (4804) produced mid to late third century pottery.



Plate 28: South facing section of ditch [4807]

- 7.48 To the east was another ditch [4810] on a north-northeast to south-southwest alignment. At the bottom of the stratigraphic sequence, a sizeable deposit (4805) was seen in both north and south facing sections, which was initially thought to be a lower fill of the main ditch, but on reflection may well represent a heavily truncated ditch below [4807] and [4810].
- 7.49 Ditch [4810] excavated in Trench 48 is thought to be part of a linear geophysical anomaly that extends in a (broken) line from just east of Trench 52, to the northern end of Trench 47. The possible ditch recorded at the very western end of Trench 50 may be part of the same feature.
- 7.50 One ditch [3904] was excavated in Trench 39 (Figure 15 & 26a, Section 30.1). Ditch [3904] was 2.2 m wide by 1.82 m deep with a U-shaped profile (Plate 30). The fill (3903) contained animal bone, and snails, (Tables 11 and 12). Two intercutting features to the west were clearly seen on the geophysical survey data but were difficult to distinguish in the field due to the presence of furrows and field drains.



Plate 29: NW facing section of ditch [3904]

7.51 In Trench 40, two archaeological features were sample excavated (Figure 16). At the northern end of the trench was a northwest to southeast oriented ditch [4005], which corresponds with a geophysical anomaly (Plate 31). This proved to be c. 1.7 m wide by 1.2 m deep with a broad U-shaped profile (Figure 26a, Section 25.2). Silting and collapse deposits were seen on the cut edges, a thick deposit of clay sand (4004) produced a modest assemblage of animal bone, consistent with animal bone from elsewhere on site.



Plate 30: Post excavation of ditch [4005]

7.52 At the southern end of the trench, another northwest to southeast aligned ditch [4010] was found to be 1.4 m wide by 0.6 m deep (Figure 26a, Section 30.2). This had a more rectangular profile, with two shallow channels along the base (Plate 32). The upper fill (4011) produced a small assemblage of mid Iron Age – first century pottery.



Plate 31: Post excavation of [4010]

7.53 Near the middle of Trench 42 was an area of poorly defined features that roughly correlated with two geophysical anomalies (Figure 17). Excavation revealed two relatively small ditches [4206] and [4209], both orientated northeast to southwest (Plate 33). The southern of the two

[4206] was 0.9 m wide by 0.4 m deep, the northern [4209] was slightly larger at 1.62 m by 0.5 m deep (Figure 26b, Sections 36.1 & 36.2). Both were U-shaped, but somewhat irregular along their length. No direct relationship survived between the two, as furrows had truncated them between and on the southern limit of [4206]. Both fills of [4209] contained Romano-British pottery.



Plate 32: Post excavation of ditches [4206] & [4209]

7.54 At the western end of Trench 46, was a single amorphous feature with poorly defined edges in plan (Figure 18). Excavation halted when two ceramic field drains were encountered on a north-northwest to south-southeast alignment (Plate 34). It is unclear whether [4606] was a discrete feature but was recorded as a cut with two fills which contained a substantial amount of ceramic and animal bone, including a large number of fragments from what must be a single, decorated Romano-British Black Burnished Ware vessel. The limits of the feature lay beyond the limit of excavation (Figure 27, Section 40.1).



Plate 33: South facing section of ditch [4606]

7.55 Toward the southern end of Trench 47 was initially thought to be a large ditch (Figure 19). Measuring 7.2 m long by 0.8 m deep there was no signs of any cut edges or similar (Figure 27, Section 41.2). The type of deposits and the scale of the 'feature' suggest that this is part of a very large palaeo-channel [4707], potentially related to the course of the nearby River Chelt (Plate 35). Two of the fills yielded Romano-British pottery. The excavated deposits within the intervention were particularly rich in ceramic and animal bone fragments and may be the result of standing pools or bogs that have received rubbish as backfill. There were similarities in character between this feature and several unexcavated examples in the southern portions of Trenches 51 and 52. Together these form part of the lowest laying portion of the site above Ordnance Datum.



Plate 34: Post excavation of sondage across [4707]

7.56 One intervention was excavated at the northern end of Trench 52, through a feature that corresponded neatly with a geophysical anomaly (Figure 20). The ditch [5205], was aligned northeast-southwest c. 2.1 m wide by 0.39-0.59 m deep (Figure 27, Section 39.1). The base appeared to have a heaped deposit of gravel rich material down the middle creating a small ridge aligned along the ditch, but the fill produced no finds (Plate 36). The geophysics results suggest that this is the same feature that is seen at the eastern end of Trench 50. This was not excavated due to its proximity to the end of the trench and such a good sample in Trench 52.



Plate 35: NE facing section of ditch [5205]

### Area 1C (Trenches 53, 55, 56, Figure 4)

- 7.57 Area 1C comprised the small field with Trenches 53, 55 and 56. Excavation of these trenches revealed shallow topsoil across the field, but the subsoil varied in depth from more than 0.4 m deep at the southern end of the field, to as little as 0.15 m in Trench 55, to 0.2-0.35 m in Trench 53.
- 7.58 Trench 53 was located at a low point, between the low ridge in Area 1A and the next very low rise in Area 1C, before the River Chelt to the south. The water table was relatively high in the trench. No geophysical data was available for most of this area.
- 7.59 Within Trench 53 (Figure 21) four features were excavated, cut by furrows and drains. While the north-western most [5305] was poorly defined and of relatively small size (Figure 28, Section 32.1), the other three were very large ditches similar to the archaeological features in Area 1B.
- 7.60 Near the south end of the trench, ditch [5308] was U-shaped, c. 2.2 m wide x 0.6 m deep (Plate 37 & Figure 28, Section 19.5). A number of very well-preserved animal bones, including a large cattle mandible were recovered from the lower fill, and a small amount of Romano-British pottery. The feature was not bottomed due to the water table.



Plate 36: NE facing section of ditch [5308]

7.61 At the middle of the trench was a large ditch [5311] greater than 2.3 m wide. it was at least 1.2 m deep (Plate 38), and was not bottomed (Figure 28, Section 27.2). Late Romano-British pottery was recovered from both of its fills.



Plate 37: South facing section of ditch [5311]

7.62 Toward the northern end of the trench, ditch [5315] was the western edge of another large ditch, 2.48 m wide by 0.66 m deep (Figure 28, Section 27.3). The top edge of the cut was identified on its western edge, the east side lay beyond the limit of excavation (Plate 39). The base of [5315] appeared to form a recut to [5316] below. Excavation ceased due to reaching the water table; however mid to late Romano-British pottery was present in both fills.



Plate 38: North facing section of ditch [5315]

7.63 A tree throw (5604) was partially excavated near the middle of Trench 56 (Figure 22). This was identified as a patch of apparently burnt material, and proved to be very shallow. This corresponds with one of the few geophysical anomalies in the field.

### **Area 2 (Trenches 57-62, Figure 4 & 5)**

- 7.64 Area 2 comprised a narrow strip of ground across two fields on the north bank of the River Chelt. The evaluation took place while these fields were covered in a semi-mature barley crop. The topsoil across all these trenches was found to be quite shallow, varying from 0.1 0.4 m, and the subsoil was generally even shallower at circa 0.1 0.25 m (no subsoil was present in Trench 57.
- 7.65 No archaeological features were found in any of the trenches in these fields, with the exception of Trench 62 where a modern field drain/channel [6204] was identified near the southern end.

### **Area 3 (Trenches 63-71, Figure 5 & 6)**

- 7.66 The two fields immediately south of the River Chelt that comprised Area 3 were under a semi-mature maize crop during the evaluation. The topsoil depths across this area were quite deep adjacent to the river and gradually reduced across the northern of the two fields from circa 0.5 m to 0.3 m. The subsoil across the same area gradually became shallower and was noticeably absent across the southern of the two fields (Trenches 67-71).
- 7.67 Trenches 63 and 64, nearest the river, were the only trenches with any potential archaeological features. Four narrow, linear features were identified in the northern half of Trench 63. These corresponded with anomalies identified in the geophysical data. Two of them [6305] and [6307] were found to be modern agricultural features related to drainage or ploughing. They were both reasonably ephemeral at 0.9 m wide by 0.12 m deep and 0.7 m wide by 0.08 m deep, respectively.
- 7.68 While no archaeological features were discovered in Trench 64, a ceramic field drain was present at the southern end. This caused a large amount of water to quickly issue from the pipe suggesting that the large amorphous geophysical anomalies in this area are most likely hydrological in nature.

7.69 Trenches 63 and 65 had deeper test pits excavated circa 1.2 m deep at either end to test the natural deposits. This soil profile proved to be the same as elsewhere if a little deeper, with the natural deposit (63003) overlaying the greyish-blue alluvial material seen underlaying the whole study area.

# **Area 4 (Trenches 72-89, Figure 6 & 7)**

7.70 Area 4 comprised the two southern most fields within the red line boundary, immediately north of Old Gloucester Road. The trenches excavated across these two fields were relatively shallow, between 0.2 m and 0.4 m deep. There was no subsoil present, like the field to the north in Area 3 and there was a noticeable quantity of modern debris and rubbish throughout the topsoil and pushed in to the under laying natural. No archaeology features were found in any of these trenches other than occasional field drains.

### Area 5 (Trenches 1-3, Figure 3)

7.71 Area 5 comprised a small field to the northeast of Area 1 and the A4019. Trenches 1-3 were between 0.3 m and 0.4 m deep. No archaeological features were present.

### **Variations to Trench plan**

- 7.72 A number of constraints across the site meant that several of the planned trenches were either modified, or not excavated.
- 7.73 The field boundary between areas 1A and 1B had a very large badger sett(s) located along the hedge line, extending approximately to the width of the red line boundary at this point (Figure 3 & 4). This meant that Trenches 21, 29, 34, 35 and 38 had to be truncated and Trenches 32-33 were not excavated in order to respect the exclusion zone.
- 7.74 A second Badger exclusion zone was in place across the field boundary between areas 1C and 2, where a smaller Badger sett prevented work (Figure 4). In this case two trenches were repositioned, Trenches 53 and 55, and a third was not excavated, Trench 54.
- 7.75 Overhead electricity cables in areas 1A and 4 meant that Trenches 7, 87 and 88 (Figure 3 & 7) had to be shortened at their northern ends. Trenches 87 and 88 were reduced at their southern end to respect the large hedgerow at the southern edge of the field.
- 7.76 Also in Area 4, Trench 85 had been intended to be excavated in between the two 132 kV OHLs that spanned the field - however the proximity of the lines and the absence of archaeology across the rest of the area, meant this trench was not opened (Figure 7).

# 8. FINDS AND MACROPLANT

- 8.1 Finds from the site range in date from the prehistoric, Roman, medieval and post-medieval periods. Most of the finds date to the Iron Age and Roman period. The finds assemblage was dominated by pottery and animal bones along with fragments of individual artefacts reflecting domestic activities. Where the finds could be attributed dates these are all typical finds of rural Late Iron Age and Romano-British settlement.
- Early prehistoric finds were two pieces of struck flint recovered from two separate contexts: from context (2108) (fill of ditch [2105]) in Area 1A; and from context [3412] (cut of ditch) in Area 1B. Both appear to comprise flint obtained from the local alluvial gravels. The first piece from [2108] comprises the distal tip of a narrow, parallel-sided blade of mottled yellow-brown flint with smooth, thin buff cortex. The piece has been steeply retouched at the tip, along one margin, and at the truncation, and appears to have functioned as an awl or piercer. L 56mm, W 15mm, Th 5.5mm. The second piece from [3412] comprises a small narrow flake/blade of yellow-brown flint. It has a faceted butt and a shallow notch worked on one edge of the ventral face. Traces of use-wear along the opposite margin were noted at x10 magnification. L 39mm, W 15mm, Th 5mm.
- 8.3 Individual flints are often difficult to date with confidence, although here the blade-like proportions of both pieces suggest Mesolithic-Earlier Neolithic affinities. Both pieces appear to have been recovered from ditches likely to be of later prehistoric or Romano-British date (eg ditch [3412] contained sherds of Roman pottery), which suggests that they comprise individual lithics accidentally incorporated in features of much later origin and as such are residual rather than in situ. The lithics suggest low level prehistoric activity in the locality probably connected with the exploitation of resources associated with the River Chelt.
- The small finds assemblage of metal and glass included a broad range of finds. Three of the objects could be dated to the Iron Age or Roman periods, which included the glass bead fragment (SF 8 from Trench 23), finger-ring (SF 11 from Trench 20), and Roman brooch (SF 7 from Trench 19). Although the brooch was found in the subsoil, all three likely reflect the later prehistoric and Romano-British activity at the site. The Medieval horse bit from the subsoil (802) over Trench 8, indicates later activity in the area. Other identifiable iron objects consisted of a section of chain and nail fragments. There was also a high proportion of unidentifiable iron objects that could not be closely dated, not unusual for Iron Age or Roman period deposits. The remaining glass assemblage was very small and generally lacked diagnostic features to confidently assign date, but most were likely Roman. The small assemblage of ferrous slag indicated that iron working, including perhaps iron smelting, took place in the vicinity and the debris had perhaps been cleared to the ditches, although the deposits recovered were not especially large.
- 8.5 The small finds assemblage of metal and glass was concentrated in Trenches 20, 22, 23 in Area 1A and Trenches 42 and 46 in Area 1B supporting an Iron Age and Romano-British date for these features. The finds assemblage of metal and glass can be interpreted as reflecting domestic activity and some possible light manufacturing or craft activity.
- 8.6 The pottery assemblage amounted to 1194 sherds (11.92kg) recovered from 73 separate deposits. Most material was recovered from hand-excavated archaeological deposits, with an additional 80 sherds (168g) retrieved from bulk soil samples. A moderately large proportion (291

sherds; 1336g) is made up of handmade fabrics, with their origins in the Middle or earlier Iron Age. The Iron Age types occur predominantly from Areas 1A-1C, a small proportion coming from Roman-dated deposits. The Roman component makes up by far the largest part of the assemblage; 895 sherds (10.4kg). Coarse ware types dominate the Roman assemblage and are entirely typically for the area. In descending quantities these included Severn Valley ware (63.7%), Southeast Dorset Black-burnished ware (19.3%), Malvernian greyware types (7.4%) with other local grey ware types making up the remainder. The much lesser amounts of fineware included 17 sherds of samian ware with sherds from central and southern Gaul present. Other fineware included a few sherds of Oxfordshire red slipped ware as well as four sherds of imported amphora. A small quantity of post-medieval or later pottery was found (8 sherds; 131g). Almost all was recorded from topsoil/subsoil deposits from Areas 1A/1B, with 1 sherd (42g) from a modern drain in Area 3.

- 8.7 Although modest in size and well-fragmented, the pottery assemblage provides coherent evidence for activity in the Middle Iron Age and earlier/Middle Roman periods. Although, the Iron Age component is limited largely to a single feature (Area 1B ditch 3805), it represents good evidence for activity preceding the Roman period. The Roman assemblage in most aspects of its composition corelates to groups from excavations in the locality, including from Tewkesbury town (MacRobert 1993) and in the area of Walton Cardiff to the south (Timby 2004; McSloy 2008). In common with the Tewksbury town group, the focus of activity pre-dates the mid-3rd century. The samian component is significantly smaller, although alike in its overall composition preponderance of plain forms of the mid or later Antonine period (c. AD 150-200). The pottery is of significance at a local level, providing dating contributory to understanding the development of the site. In common with Roman groups previously studied from the area, the pottery appears to be largely utilitarian and consistent with what would be expected for a smaller rural settlement.
- A total of 74 fragments (2001g) of Ceramic Building Material (CBM) was recorded from 22 deposits and all material was recovered by hand excavation. The majority of the assemblage, 65 fragments (1503g), dates to the Roman period and the identifiable forms were of roofing classes: tegula (2) and imbrex (1) and brick (1). All were from Areas 1A-C, primarily from ditch deposits and in association with Roman-dated pottery. In view of the small size and their fragmentary condition, it seems likely to represent material in secondary use, possibly as hardcore, rather than as evidence for a Romanised structure in the near vicinity of the site. The small post-Roman assemblage (8 fragments; 417g) was recorded mainly from ditch deposits in Area 3, with further material from topsoil/subsoil deposits in Area 1B or unstratified. These were mostly tile fragments, the earliest piece present from the group dating from the Late Medieval or early post-medieval period (c. 14th to 16th centuries) with the rest no earlier than the 18th century. A perforated 'air brick' fragment from Area 1B topsoil probably dates to the 19th or 20th centuries.
- 8.9 A total of 22 fragments (167g) of fired or burnt clay was hand-recovered from 12 deposits, mainly ditch fills from Areas 1A–1C. Fired clay from Area 1A pit fill (1806) and Area 1B ditch fill (3803) (7 fragments; 55g) was associated with Iron Age pottery. The remainder was recorded from Roman-dated deposits or was unstratified.
- 8.10 A total of 183 hand-collected animal bones and teeth could be identified to taxon; (of 512 bones from 50 contexts). The bones were generally in good to poor condition with some mixing of deposits and visible gnawed animal remains. There was no evidence of primary butchery or

craft working, although one sheep metatarsal from ditch [4807] had been shaped. Cattle was the most common, then sheep/goats and horse, pig and dog. Small bones were also found in ditch fills, including vole, bird, frogs and shell from shellfish and snails. The range of species was normal for the period, and for a rural agricultural landscape.

8.11 A total of 14 environmental samples and a single charcoal spot sample were assessed. The ditch and pit features in 1A contained small amounts of charcoal together with trace finds of cereal grain indicating low levels of burning activity probably associated with domestic settlement in the vicinity. Quite well preserved barley and wheat with some oak charcoal was present in Area 1B. Limited burning evidence was present in Area 1C with abundant snail shell, indicating disturbance occurring. The grain and burning suggests that low levels of domestic burning was taking place in the vicinity.

### 9. CONCLUSIONS

- 9.1 The evaluation successfully characterised the nature and date of the surviving archaeology within the development area and confirmed the results of the geophysical survey. Of the five areas evaluated, Area 1 contained significant archaeological features and deposits. The remainder were largely blank or contained modern drainage. The majority of features recorded represent a distinct area of activity between the Mid Iron Age and Mid Roman period.
- 9.2 The archaeology encountered in Area 1 can broadly be grouped in to three locations.
  - 1 The Rectilinear Enclosure in Trenches 22-24. This correlated well with the geophysical survey.
  - 2 Ditches identified across Trenches 19, 20 and 21.
  - 3 Linear features in Area 1B.
- 9.3 A number of features encountered in trenches 19, 20 and 21 did not appear on the geophysical results. These features also showed the potential of the site for well-preserved organic material including unburnt round wood samples, as well as other flora and faunal evidence.
- 9.4 The features at the southern side of Area 1B were generally large and well defined. These also showed the most variation in their character, in terms of size and complexity, compared to elsewhere on site. The area was relatively low lying and the features were affected by the presence of ground water. The low lying nature of this area can be seen in an aerial photograph from 2006, available on Google Earth (Plate 40) which shows a meandering palaeo-channel through this part of the site. It can be traced on the current map to the west side of the motorway, fossilised in the landscape as a winding field boundary, before meeting the River Chelt adjacent to the village of Boddington (Plate 41).
- 9.5 The pottery and artefacts suggest that the main period of activity on site ranges in date from the middle Iron Age through to the third century AD. The earliest dated features were in Area 1B, (ditch 3805) and a pit. The majority of the pottery was from the Romano-British period and was typical of that found locally; utilitarian and consistent with what would be expected for a smaller rural settlement. The presence of a small amount of imported Samian ware indicates regional and wider market links.
- 9.6 The recovery of a small number of copper-alloy small finds suggests the site to be potentially artefact rich. All three of these finds (SF 7, 11 and 12) came from just two trenches, 19 and 20. Three glass finds (SF8, 9 and 10) were recovered from Trench 23, a little to the northeast. All 6

- of these finds were recovered from the upper fills of their respective features, or in the case of SF7 and 12, from the base of the overlaying subsoil.
- 9.7 The presence of Roman roof tile and brick and fired clay including wattle and daub, was suggestive of nearby settlement structures, however, no features found in the trenches were thought to be structural. The items represent disposal into surrounding fields or manuring scatter.
- 9.8 The small amount of later material, primarily Medieval and post-Medieval/Modern from ditches in Area 3, and subsoil or topsoil in Area 1B and is consistent with the presence of Medieval/post Medieval ridge and furrow and more modern agricultural activity, manuring and soil improvement.
- 9.9 In summary, the evaluation uncovered two areas of dense archaeological features dating to the late Iron Age/Romano British period. These comprised numerous ditches, many showing multiple phases of activity. The ditches likely formed enclosures and boundaries delineating a settlement site, although settlement structures were not recorded. The archaeological features correlated to anomalies shown on the geophysical survey. Some features uncovered in the trial trenches were not detected in the geophysical survey suggesting the archaeological remains could be more extensive.
- 9.10 The archaeological features investigated during this phase of works showed good levels of preservation despite being located in an active agricultural landscape. There are potentially waterlogged remains in the fills of some of the deeper ditches.



Plate 39: Google Earth © extract, from 2006 aerial imagery, clearly showing crop marks and the large palaeo-channel

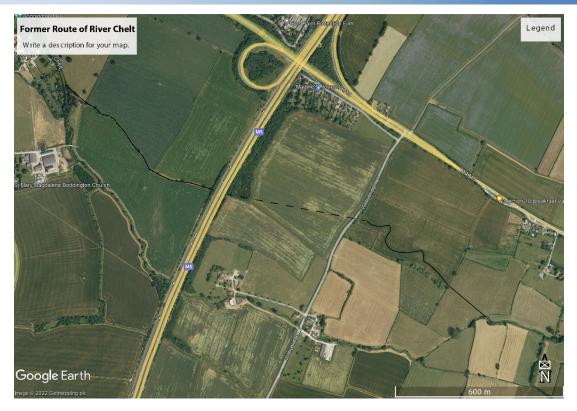


Plate 40: Suggested former route of River Chelt (in black). Google Earth © 2006 aerial imagery

### **Research Potential**

- 9.11 The WSI contained several specific aims which may be considered in the light of the findings of the evaluation:
  - The nature and chronology of the archaeological anomalies recorded in the geophysical survey:
- 9.12 The evaluation confirmed the evidence of the geophysical survey. Many of the anomalies identified were proved to be archaeological:
  - A complex of enclosures was identified in the northern part of the geophysical survey area. These were interpreted as a possible Late Prehistoric/Romano-British enclosed multiphase settlement. Further investigation in the evaluation would address regional research aim 29 'Improve understanding of non-villa Roman rural settlement' and address more general questions of prehistoric and Roman transitions in the landscape and local economy (aim 10). It may (aim 40) 'Improve understanding of agricultural intensification and diversification in later prehistory' and (41) 'the impact of the Roman empire on farming' (Grove J, Croft B, 2012).
- 9.13 The presence of a multiphase Romano-British settlement with possible very late Iron Age origins and possible mid Iron Age features below has been confirmed, but the exact sequence of Romano-British activities as discussed above remains fragmentary. The position of the site fits well with the settlements of Bishops Cleeve, Cheltenham, and Gloucester, referred to by research aim 29 of the regional research agenda (SWARF 2022), between the Roman road (now the A38) to the west.

- 9.14 The site can further add to the evidence for the 'prehistoric and Roman transitions in the landscape and local economy', although the evidence for the Iron Age on site was very limited; just one ditch and one pit. The site continues to have good potential to address changes in agricultural practice and the impact of the Roman empire on farming.
- 9.15 Further excavation may consider the relationship of the site to the former river channel of the River Chelt (Plate 41), and whether this was utilised as transport with in the local and regional context as part of the agricultural and economic exploitation of the area.
  - In the centre of the survey area were anomalies interpreted as possible extraction activity. The evaluation will aim to characterise and date these features and confirm if they are contemporary with the historical field boundaries close to the River Chelt.
- 9.16 The anomalies previously interpreted as extraction activities are those investigated by Trench 64. The evaluation strongly suggests that these are much more likely to be the result of fluvial activity and changes relating to the course of the River Chelt and are therefore hydrological in origin.
  - Assess the "confidence" factor in the geophysical survey and presence of remains not recorded by that survey.
- 9.17 The presence of so much ridge and furrow, later land drains, and other agricultural activity have clearly had more of a negative affect on the clarity of the geophysics than previously thought. The lack of clearly defined structures across Areas 1A and 1B may also be due to the density of features, although the variable depth of subsoils in Area 1A has clearly also played a part.
  - The presence/absence of palaeosols and old land surface soils/deposits;
  - Paleaochannels;
- 9.18 Generally, there was a lack of palaeosols and/or buried soils across the site. With the exception of Area 1A there was very little subsoil. This would appear to be due to post Medieval and modern farming practice. The depth of subsoil across Area 1A varied markedly, and this may indicate the broader process of ground level homogenisation caused by ploughing and other more recent processes.
- 9.19 In Area 1A and 1B were the presence of Palaeochannels. Some of the deeper channels and ditches in Area 1A, such as those in Trench 19 and 20, may originally have been fluvial in nature, but later either backfilled or altered for another use. The large palaeochannel seen across the southern edge of Area 1B, investigated in Trench 47, can clearly be seen from the aerial imagery to be a former river channel or the Chelt, and further investigation could yield important relationships for the rest of the site as well as the wider local area.

# 10. PUBLICATION AND ARCHIVE DEPOSITION

- 10.1 Copies of the evaluation report will be issued to the client and the archaeology advisor to the local Planning Authority on the understanding that it will become a public document after an appropriate period of time. A digital copy of the report will also be submitted to the HER and ADS. A summary of the findings will be submitted to the local archaeological journal fieldwork round-up and to the Archaeological Data Service (ADS) (Appendix C, OASIS ID: aocarcha1-501768
- 10.2 The site archive will comprise all artefacts, environmental samples and written and drawn records. It is to be consolidated after completion of the whole project, with records and finds collated and ordered as a permanent record. Archaeological finds rarely have any monetary value, but they are an important source of information for future research, included in museum exhibits and teaching collections. The Chartered Institute for Archaeologists (CIfA 2015) and the Society of Museum Archaeologists (SMA 1993) recommend that finds are publicly accessible and that landowners donate archaeological finds to a local museum.
- 10.3 On completion of the project AOC will discuss arrangements with the developer/landowner for the archive to be deposited with The Wilson, Cheltenham Art Gallery and Museum (HER Event No. AOC M521). Following completion of each stage or the full extent of the fieldwork (as appropriate) the site archive will be prepared in the format agreed with the recipient archive.
- 10.4 In the case where finds are retained, landowner consent will be required to allow transfer of the finds to The Wilson, Cheltenham Art Gallery and Museum. This will require the completion of a Deed of Transfer form accompanied by a Legal Title Consent Request Letter from the landowner. A complete finds inventory and further finds information can be provided to the landowner on request.
- 10.5 The site archive will be deposited with The Wilson, Cheltenham Art Gallery and Museum within one year of the completion of fieldwork (if no further work is required). It will then become publicly accessible.

# 11. BIBLIOGRAPHY

ADS (Archaeology Data Service), 2011, *Guides to Good Practice*. http://guides.archaeologydataservice.ac.uk/g2gp/Main

AOC 2021 Land near to M5 J10, Tewkesbury, Gloucestershire: A Written Scheme of Investigation for an Archaeological Trial Trench Evaluation. AOC Archaeology Group, Unpublished client report, AOC80002

Beck & Cantarano Ingeniéur 2021, *Geophysical Survey Report of M5 J10,Tewkesbury, Gloucestershire*. Magnitude Surveys Report. MSSO739.

BGS (British Geological Survey) 2021, Geology of Britain Viewer. URL: http://mapapps.bgs.ac.uk/geologyofbritain/home.html [Accessed April 2021].

Brown, D.H., 2011, Archaeological Archives: A guide to best practice in creation, compilation, transfer and curation (Second Edition).

ClfA (Chartered Institute for Archaeologists), 2014. Standards and Guidance and Guidelines for the collection, documentation, conservation and research of archaeological materials.

ClfA (Chartered Institute for Archaeologists), 2019. Code of Conduct.

ClfA (Chartered Institute for Archaeologists), 2020a, *Standard and Guidance for Archaeological Field Evaluation*.

ClfA (Chartered Institute for Archaeologists), 2020b). Standards and Guidance for the Creation, Compilation, Transfer and Deposition of Archaeological Archives.

ClfA (Chartered Institute for Archaeologists), 2020c, Standard and guidance for the collection, documentation, conservation and research of archaeological materials.

Crowther, S. and Dickson, A. 2016. *An Archaeological Survey in the Severn Vale, Gloucestershire: Report for the National Mapping Programme.* Swindon: Historic England and Gloucestershire County Council.

Gloucestershire Archaeological Archives Standards (Jan 2018). A Countywide Standard for the Creation, Compilation and Transfer of Archaeological Archives in Gloucestershire. South West Museum Development Programme. Version 1b.

Gloucestershire County Council 2020 *Brief for an Archaeological Field Evaluation*, Archaeology Service, Gloucestershire County Council.

Grove J, Croft B, 2012 South West Archaeological Research Framework, Research Strategy 2012-2017 Somerset County Council.

HE (Historic England), 2011, Environmental Archaeology. A Guide to the Theory and Practice of Methods, from Sampling and Recovery to Post-excavation (second edition).

HE (Historic England), 2015, *Management of Research Projects in the Historic Environment: The MoRPHE Project Managers' Guide.* 

HE (Historic England, 2018a, *The Role of the Human Osteologist in an Archaeological Fieldwork Project*.

HE (Historic England), 2018b, *Waterlogged Organic Artefacts: Guidelines on their Recovery, Analysis and Conservation.* 

MacRobert, E. 1993 'Discussion of the Coarse Pottery', in Hannan 1993, 62-63

McSloy, E. 2008 'The Late Iron Age and Roman pottery' in Hart and McSloy 2008, 29-40

MoL (Museum of London), 1994, Archaeological Site Manual (3rd ed).

RESCUE & ICON (Institute of Conservation), 2001, First Aid for Finds. (3rd ed).

SMA (Society of Museum Archaeologists), 1993, Selection, Retention and Dispersal of Archaeological Collections: Guidelines for use in England, Wales and Northern Ireland.

Timby, J. 2004 'Romano-British Pottery', in Walker et al. 2004, 66-75

UKIC (United Kingdom Institute for Conservation), 1983, Conservation Guidelines No 2.

UKIC (United Kingdom Institute for Conservation), 1990, Guidance for Archaeological Conservation Practice.

### Websites:

https://maps.bristol.gov.uk/kyp/?edition=glos & https://www.heritagegateway.org.uk

Archaeological planning advice - Gloucestershire County Council

For museums guidance and process.

Historic England Research Agenda. 2022 http://researchframeworks.org/hera/

South West England Research Framework 2022 http://researchframeworks.org/swarf/a-research-agenda-for-archaeology-in-south-west-england/

# **APPENDIX A – CONTEXT REGISTERS**

Context	Area	Context Description	Context Interpretation	Depth (m)	Length (m)	Width (m)
[101]	5	Deposit	Topsoil	0.3	-	<u>-</u>
[102]	5	Deposit	Natural	-	-	-
[201]	5	Deposit	Topsoil	0.35	-	-
[202]	5	Deposit	Natural	-	-	-
[301]	5	Deposit	Topsoil	0.3	-	-
[302]	5	Deposit	Natural	_	-	-
[401]	1A	Deposit	Topsoil	0.25	-	-
[402]	1A	Deposit	Subsoil	0.3	-	-
[403]	1A	Deposit	Natural	_	-	-
[404]	1A	Fill	Fill of Ditch	0.3	0.78	
[405]	1A	Cut	Cut of Ditch	0.3	0.78	
[501]	1A	Deposit	Topsoil	0.3	-	-
[502]	1A	Deposit	Subsoil	0.3	-	-
[503]	1A	Deposit	Natural	-	-	-
[504]	1A	Fill	Fill of Pit	0.12	1.15	1.08
[505]	1A	Cut	Cut of Pit	0.12	1.15	1.08
[601]	1A	Deposit	Topsoil	0.25	-	-
[602]	1A	Deposit	Subsoil	0.3	-	-
[603]	1A	Deposit	Natural	-	-	
[604]	1A	Fill	Fill of Furrow	0.34	1.5	-
[605]	1A	Cut	Cut of Furrow	0.34	1.5	_
[701]	1A	Deposit	Topsoil	0.3	-	-
[702]	1A	Deposit	Subsoil	0.4	_	
[703]	1A	Deposit	Natural	-	_	-
[704]	1A	Deposit	Upper Natural	0.3	-	_
[801]	1A	Deposit	Topsoil	0.31	-	-
[802]	1A	Deposit	Subsoil	0.22	_	-
[803]	1A	Deposit	Natural	-	-	
[901]	1A	Deposit	Topsoil	0.3	_	
[902]	1A	Deposit	Subsoil	0.3	-	_
[903]	1A	Deposit	Natural	-	-	-
[904]	1A	Fill	Fill of Gully	0.24	1.1	0.53
[905]	1A	Cut	Cut of Gully	0.24	1.1	0.53
[1001]	1A	Deposit	Topsoil	0.3	-	-
[1002]	1A	Deposit	Subsoil	0.5	_	_
[1003]	1A	Deposit	Natural	-	-	-
[1101]	1A	Deposit	Topsoil	0.3	-	-
[1102]	1A	Deposit	Subsoil	0.15	_	_
[1103]	1A	Deposit	Natural	-	-	-
[1104]	1A	Fill	Fill of Gully	0.12	1.1	0.42
[1105]	1A	Cut	Cut of Gully			0.42
[1201]	1A	Deposit	Topsoil	,		-
[1202]	1A	Deposit	Subsoil	0.25	_	_
[1202]	1A	Deposit	Natural	-	_	-
[1203]	1A	Fill	Fill of Ditch	0.3	1.52	0.88
[1204]	1A	Cut	Cut of Ditch	0.3	1.52	0.88

[1301]	1A	Deposit	Topsoil	0.16	_	_
[1301]	1A	Deposit	Subsoil	0.3	-	_
[1303]	1A	Deposit	Natural	-	_	_
[1304]	1A	Fill	Fill of Linear	0.14	_	0.49
[1304]	1A	Cut	Cut of Linear	0.14	_	0.49
[1306]	1A	Fill	Fill of Pit	0.13	-	>0.45
[1307]	1A	Cut	Cut of Pit	1.13	_	>0.54
[1401]	1A	Deposit	Topsoil	0.3	_	- 0.04
[1401]	1A	Deposit	Subsoil	0.3	_	
[1403]	1A	Deposit	Natural	- 0.5	_	
[1501]	1A	Deposit	Topsoil	0.28	-	-
[1501]	1A	Deposit	Subsoil	0.32	-	-
[1503]	1A	Deposit	Natural	-	_	_
[1504]	1A	Fill	Fill of Pit	0.16	0.68	0.6
[1504]	1A	Cut	Cut of Pit	0.16	0.68	0.6
[1601]	1A	Deposit	Topsoil	0.10	-	-
[1602]	1A	Deposit	Subsoil	0.3	_	_
[1602]	1A	Deposit	Natural	0.2	-	-
[1604]	1A	Fill	Fill of Ditch	0.21	_	0.7
[1604]	1A	Cut	Cut of Ditch	0.21		0.7
[1606]	1A 1A	Deposit	Lower Natural	0.21	-	-
[1701]	1A 1A	Deposit	Topsoil	0.21	-	-
[1701]	1A 1A	Deposit	Subsoil	0.42	-	-
	1A 1A	Deposit	Natural	0.42	-	-
[1703]	1A 1A	Deposit	Topsoil	0.3	-	-
[1801]		· ·	Subsoil		-	-
[1802]	1A 1A	Deposit	Natural	0.3	-	-
[1803]		Deposit Fill			- 1.5	- 4 4 5
[1804]	1A 1A	Cut	Upper fill of Pit Cut of Pit	0.68	1.5 1.5	1.15 1.15
[1805]				0.76		
[1806]	1A	Fill	Lower fill of Pit	0.21	8.0	0.77
[1807]	1A	Deposit	Furrow Deposit	0.5	-	-
[1901]	1A	Deposit	Topsoil	0.23	-	-
[1902]	1A	Deposit	Subsoil	0.48	-	-
[1903]	1A	Deposit	Natural	-	-	-
[1904]	1A	Fill	Fill of Ditch	0.83	-	2.86
[1905]	1A	Cut	Cut of Ditch	0.98	-	2.86
[1906]	1A	Fill	Fill of Ditch	0.09	-	0.75
[1907]	1A	Fill	Fill of Ditch	0.08	-	0.9
[1908]	1A	Fill	Fill of Ditch	0.06	-	0.42
[1909]	1A	Fill	Fill of Ditch	0.3	0.75	1.8
[1910]	1A	Cut	Cut of Ditch	0.3	0.75	1.8
[1911]	1A	Fill	Fill of Ditch	0.13	8.0	0.83
[1912]	1A	Cut	Cut of Ditch	0.13	0.8	0.83
[1913]	1A	Fill	Upper fill of Ditch	0.27	-	2.22
[1914]	1A	Fill	Middle fill of Ditch	0.3	-	2.01
[1915]	1A	Cut	Cut of Ditch	0.52	-	2.39
[1916]	1A	Fill	Lower fill of Ditch	0.2	-	0.9
[1917]	1A	Fill	Fill of Ditch	0.53	-	1.3
[1918]	1A	Cut	Cut of Ditch	?	-	0.9
[2101]	1A	Deposit	Topsoil	0.3	-	-
[2102]	1A	Deposit	Subsoil	0.2	-	-
[2103]	1A	Deposit	Natural	_	-	-

[2104]	1A	Fill	Fill of Ditch	0.83	-	1.89
[2105]	1A	Cut	Cut of Ditch	0.83	-	1.89
[2106]	1A	Fill	Fill of Gully	0.12	-	0.86
[2107]	1A	Cut	Cut of Gully	0.12	-	0.86
[2108]	1A	Fill	Fill of Ditch	0.12	-	0.38
[2109]	1A	Fill	Fill of Ditch	0.11	-	0.1
[2110]	1A	Fill	Fill of Ditch	0.8	-	0.8
[2111]	1A	Fill	Fill of Ditch	0.22	-	0.34
[2112]	1A	Fill	Fill of Ditch	0.21	_	1.26
[2113]	1A	Fill	Fill of Ditch	0.27	_	1.91
[2201]	1A	Deposit	Topsoil	0.3	_	-
[2202]	1A	Deposit	Subsoil	0.2	-	-
[2203]	1A	Deposit	Natural	-	_	_
[2204]	1A	Fill	Fill of Ditch	0.5	-	1.53
[2204]	1A	Cut	Cut of Ditch	0.5		1.89
	1A 1A	Fill	Fill of Ditch	0.3	-	1.65
[2206]					-	
[2207]	1A	Fill	Fill of Ditch	0.3	-	0.72
[2208]	1A	Cut	Cut of Ditch	0.63	-	1.65
[2209]	1A	Fill	Fill of Pit	0.1	-	0.4
[2210]	1A	Cut	Cut of Pit	0.1	-	0.4
[2211]	1A	Fill	Fill of Ditch	0.34	1.56	0.6
[2212]	1A	Cut	Cut of Ditch	0.34	1.56	0.6
[2213]	1A	Fill	Fill of Ditch	0.71	-	1.38
[2214]	1A	Cut	Cut of Ditch	0.71	-	1.38
[2215]	1A	Fill	Fill of Ditch	0.36	-	5.15
[2216]	1A	Cut	Cut of Ditch	1.03	-	5.15
[2217]	1A	Fill	Fill of Ditch	0.36	-	0.9
[2218]	1A	Fill	Fill of Ditch	0.6	-	2.8
[2219]	1A	Fill	Fill of Ditch	0.06	-	0.4
[2220]	1A	Fill	Fill of Ditch	0.65	-	1
[2221]	1A	Fill	Fill of Ditch	0.2	-	0.66
[2222]	1A	Fill	Fill of Ditch	0.25	-	0.35
[2223]	1A	Fill	Fill of Pit	0.21	-	0.5
[2224]	1A	Fill	Fill of Pit	0.2	-	0.53
[2225]	1A	Fill	Fill of Pit	0.06	-	0.25
[2226]	1A	Cut	Cut of Ditch	0.25	-	Unknown
[2227]	1A	Fill	Fill of Ditch	0.4	-	2.2
[2228]	1A	Fill	Fill of Ditch	0.4	-	0.75
[2229]	1A	Cut	Cut of Ditch	0.75	-	0.2
[2301]	1A	Deposit	Topsoil	0.3	-	_
[2302]	1A	Deposit	Subsoil	0.1	-	-
[2303]	1A	Deposit	Natural	-	_	-
[2304]	1A	Fill	Fill of Ditch	0.6	_	2.7
[2305]	1A	Fill	Fill of Ditch	0.48	-	1.18
[2306]	1A	Fill	Fill of Ditch	0.4	-	0.79
[2307]	1A	Cut	Cut of Ditch	0.4	-	0.79
[2308]	1A	Cut	Cut of Ditch	0.72	-	2.7
[2309]	1A	Fill	Fill of Pit	0.1	-	1.37
[2310]	1A	Cut	Cut of Pit	0.1	_	1.37
[2401]	1A	Deposit	Topsoil	0.3	-	-
[2402]	1A	Deposit	Subsoil	0.1	_	_
[2403]	1A	Deposit	Natural	-	-	-
[2700]	173	Doposit	Huturur			_

[2404]	1A	Fill	Fill of Ditch	0.27		1.05
[2404]	1A 1A	Cut	Cut of Ditch	0.27	-	1.05
[2405]	1A 1A	Fill	Fill of Ditch	0.27	<u>-</u>	1.03
[2400]	1A	Cut	Cut of Ditch	0.35	_	1.03
[2501]	1A 1A	Deposit	Topsoil	0.33	-	
	1A 1A	· ·	Subsoil	0.27	-	-
[2502]	1A 1A	Deposit	Natural	0.3	-	-
[2503]		Deposit		- 0.47	-	-
[2601]	1A	Deposit	Topsoil	0.17	-	-
[2602]	1A	Deposit	Subsoil	0.25	-	-
[2603]	1A	Deposit	Natural	-	-	-
[2701]	1A	Deposit	Topsoil	0.25	-	-
[2702]	1A	Deposit	Subsoil	0.17	-	-
[2703]	1A	Deposit	Natural	-	-	-
[2801]	1A	Deposit	Topsoil	0.15-0.23	-	-
[2802]	1A	Deposit	Subsoil	0.11-0.22	-	-
[2803]	1A	Deposit	Natural	-	-	-
[2804]	1A	Fill	Fill of Ditch	0.18	-	0.84
[2805]	1A	Cut	Cut of Ditch	0.18	-	0.84
[2901]	1A	Deposit	Topsoil	0.33	-	-
[2902]	1A	Deposit	Subsoil	0.38	-	-
[2903]	1A	Deposit	Natural	-	-	-
[2904]	1A	Deposit	Fill of Furrow	-	-	-
[2905]	1A	Fill	Fill of Ditch	0.32	-	0.75
[2906]	1A	Cut	Cut of Ditch	Cut of Ditch 0.32		0.75
[3001]	1A	Deposit	Topsoil	0.3	-	-
[3002]	1A	Deposit	Subsoil	0.4-0.8	-	-
[3003]	1A	Deposit	Natural	-	-	-
[3004]	1A	Deposit	Fill of Furrow	-	-	-
[3101]	1A	Deposit	Topsoil	0.3	-	-
[3102]	1A	Deposit	Subsoil	0.1	-	-
[3103]	1A	Deposit	Natural	-	-	-
[3104]	1A	Deposit	Fill of Furrow	-	-	-
[3401]	1B	Deposit	Topsoil	0.35	-	-
[3402]	1B	Deposit	Natural	-	-	-
[3403]	1B	Fill	Fill of Furrow	0.14	-	2.62
[3404]	1B	Cut	Cut of Furrow	0.14	-	2.62
[3405]	1B	Fill	Fill of Ditch	0.23	-	1.57
[3406]	1B	Cut	Cut of Ditch	0.23	-	1.57
[3407]	1B	Fill	Fill of Ditch	0.64	-	1.55
[3408]	1B	Fill	Fill of Ditch	0.24	-	0.26
[3409]	1B	Cut	Cut of Ditch	0.71	-	1.57
[3410]	1B	Fill	Fill of Ditch	0.48	-	1.78
[3411]	1B	Fill	Fill of Ditch	0.17	_	1.06
[3412]	1B	Cut	Cut of Ditch	0.63	-	1.78
[3501]	1B	Deposit	Topsoil	0.4	-	-
[3502]	1B	2000011	VOID	-	-	_
[3502]	1B	Deposit	Natural	_	_	_
[3504]	1B	Fill	Fill of Ditch	0.57		1.08
[3504]	1B	Cut	Cut of Ditch	0.57	_	1.08
[3506]	1B	Fill	Fill of Pit	0.28		3.05
[3500]	1B	Cut	Cut of Pit	0.28	_	3.05
[3601]	1B	Deposit	Topsoil	0.26		
[3001]	טו	Dehosir	I ohsoli	0.02	-	-

[2602]	1B	Donasit	National			
[3602]		Deposit	Natural	0.3	-	-
[3701]	1B	Deposit	Topsoil		-	-
[3702]	1B	Deposit	Natural	-	-	- 2.40
[3703]	1B	Fill	Fill of Ditch	0.88	-	3.19
[3704]	1B	Cut	Cut of Ditch	0.88	-	3.19
[3705]	1B	Fill	Fill of Ditch	0.74	-	2.39
[3706]	1B	Cut	Cut of Ditch	0.74	-	2.39
[3707]	1B	Fill	Fill of Ditch	0.62	-	2.2
[3708]	1B	Cut	Cut of Ditch	0.62	-	2.2
[3709]	1B	Fill	Fill of Ditch	0.28	-	1.28
[3710]	1B	Cut	Cut of Ditch	0.28	-	1.28
[3801]	1B	Deposit	Topsoil	0.45	-	-
[3802]	1B	Deposit	Natural	-	-	-
[3803]	1B	Fill	Fill of ditch	0.38	-	3.78
[3804]	1B	Fill	Fill of ditch	0.34	-	3.78
[3805]	1B	Cut	Cut of Ditch	0.72	-	3.78
[3806]	1B	Fill	Fill of ditch	0.14	-	1.11
[3807]	1B	Fill	Fill of ditch	0.16	-	0.69
[3808]	1B	Fill	Fill of ditch	0.57	-	1.42
[3809]	1B	Cut	Cut of Ditch	0.57	-	1.42
[3810]	1B	Fill	Fill of ditch	0.51	-	1.19
[3811]	1B	Fill	Fill of ditch	0.31	-	0.39
[3812]	1B	Cut	Cut of Ditch	0.59	-	1.58
[3813]	1B	Fill	Fill of ditch	0.14	-	0.91
[3901]	1B	Deposit	Topsoil	0.3	-	-
[3902]	1B	Deposit	Natural	-	-	-
[3903]	1B	Fill	Fill of Ditch	0.62	-	1.82
[3904]	1B	Cut	Cut of Ditch	0.62	-	1.82
[4001]	1B	Deposit	Topsoil	0.18	-	-
[4002]	1B	Deposit	Subsoil	0.1	-	-
[4003]	1B	Deposit	Natural	-	-	-
[4004]	1B	Fill	Fill of Ditch	0.6	_	1.2
[4005]	1B	Cut	Cut of Ditch	1.22	-	1.68
[4006]	1B	Fill	Fill of Ditch	0.67	-	0.77
[4007]	1B	Fill	Fill of Ditch	0.48	_	0.27
[4008]	1B	Fill	Fill of Ditch	0.11	-	0.77
[4009]	1B	Fill	Fill of Ditch	0.09	-	0.44
[4010]	1B	Cut	Cut of Ditch	0.58	-	1.42
[4011]	1B	Fill	Fill of Ditch	0.25	-	1.42
[4012]	1B	Fill	Fill of Ditch	0.14	_	1.42
[4013]	1B	Fill	Fill of Ditch	0.19	_	1.42
[4101]	1B	Deposit	Topsoil	0.62	-	1.72
[4101]	1B	Deposit	Natural			_
[4201]	1B	Deposit	Topsoil	0.4	-	-
	1B	· ·	Natural	-	-	-
[4202]	1B	Deposit Fill	Fill of Ditch	0.46	-	3
[4203]		Fill	Fill of Ditch		-	3
[4204]	1B			0.34	-	3
[4205]	1B	Cut	Cut of Ditch	0.8	-	
[4206]	1B	Cut	Cut of Ditch	0.9	-	Unknown
[4207]	1B	Fill	Fill of Ditch	0.46	-	1.12
[4208]	1B	Fill	Fill of Ditch	0.44	-	1.12
[4209]	1B	Cut	Cut of Ditch	0.9	-	1.12

[4210]	1B	Fill	Fill of Ditch	0.4	-	Unknown
[4301]	1B	Deposit	Topsoil	0.5	-	-
[4302]	1B	Deposit	Natural	-	-	_
[4401]	1B	Deposit	Topsoil	0.3	_	_
[4402]	1B	Deposit	Subsoil	0.2	_	_
[4403]	1B	Deposit	Natural	-	_	_
[4501]	1B	Deposit	Topsoil	0.3	_	_
[4502]	1B	Deposit	Subsoil	0.3	-	_
[4503]	1B	Deposit	Natural	-	_	_
[4601]	1B	Deposit	Topsoil	0.25	_	_
[4602]	1B	Deposit	Subsoil	0.15	_	_
[4603]	1B	Deposit	Natural	-	-	_
[4604]	1B	Fill	Fill of Ditch	0.42	-	2.8
[4605]	1B	Fill	Fill of Ditch	0.42	<u>-</u>	0.91
[4606]	1B	Cut	Cut of Ditch	0.10	-	3.25
[4701]	1B			0.71	-	
	1B	Deposit	Topsoil Subsoil		-	-
[4702]		Deposit		0.1	-	-
[4703]	1B	Deposit	Natural	-	-	-
[4704]	1B	Fill	Fill of Palaeo-channel	0.26	-	5.8
[4705]	1B	Fill	Fill of Palaeo-channel	0.23	-	7.2
[4706]	1B	Fill	Fill of Palaeo-channel	0.13	-	7.2
[4707]	1B	Cut	Cut of Palaeo-channel	0.81	-	7.2
[4801]	1B	Deposit	Topsoil	0.18	-	-
[4802]	1B	Deposit	Subsoil	0.12	-	-
[4803]	1B	Deposit	Natural	-	-	-
[4804]	1B	Fill	Fill of Ditch	0.58	-	2.8
[4805]	1B	Fill	Fill of Ditch	0.23	-	1.3
[4806]	1B	Fill	Fill of Ditch	0.17	-	2.17
[4807]	1B	Cut	Cut of Ditch	0.66	-	2.83
[4808]	1B	Fill	Fill of Ditch	0.24	-	0.98
[4809]	1B	Fill	Fill of Ditch	0.3	-	0.29
[4810]	1B	Cut	Cut of Ditch	0.51	-	0.98
[4901]	1B	Deposit	Topsoil	<0.7	-	-
[4902]	1B	Deposit	Natural	-	-	-
[5001]	1B	Deposit	Topsoil	0.2	-	-
[5002]	1B	Deposit	Subsoil	0.3	-	-
[5003]	1B	Deposit	Natural	-	-	-
[5101]	1B	Deposit	Topsoil	0.16	-	-
[5102]	1B	Deposit	Subsoil	0.14	-	-
[5103]	1B	Deposit	Natural	-	-	-
[5201]	1B	Deposit	Topsoil	0.18	-	-
[5202]	1B	Deposit	Subsoil	0.12	-	-
[5203]	1B	Deposit	Natural	-	-	-
[5204]	1B	Fill	Fill of Ditch	0.37-0.59	-	2.1
[5205]	1B	Cut	Cut of Ditch	0.37-0.59	-	2.1
[5301]	1C	Deposit	Topsoil	0.3	-	-
[5302]	1C	Deposit	Subsoil	0.2-0.35	-	-
[5303]	1C	Deposit	Natural	-	-	-
[5304]	1C	Fill	Fill of Ditch	0.48	-	1.32
[5305]	1C	Cut	Cut of Ditch	0.48	-	1.32
[5306]	1C	Fill	Fill of Ditch	0.29	-	1.4
[5307]	1C	Fill	Fill of Ditch	0.3	-	2.16
		•	•			

[5308]	1C	Cut	Cut of Ditch	0.58	-	2.16
[5309]	1C	Fill	Fill of Ditch	0.48	-	2.3
[5310]	1C	Fill	Fill of Ditch	0.27	-	2.3
[5311]	1C	Cut	Cut of Ditch	0.65	-	2.3
[5312]	1C	Fill	Fill of Ditch	0.16	-	2.31
[5313]	1C	Fill	Fill of Ditch	0.12	-	1.32
[5314]	1C	Fill	Fill of Ditch	0.16	-	0.98
[5315]	1C	Cut	Cut of Ditch	0.66	-	2.48
[5501]	1C	Deposit	Topsoil	0.25-0.3	-	-
[5502]	1C	Deposit	Subsoil	0.15-0.25	-	-
[5503]	1C	Deposit	Natural	-	-	-
[5601]	1C	Deposit	Topsoil	<0.3	-	-
[5602]	1C	Deposit	Subsoil	<0.4	-	-
[5603]	1C	Deposit	Natural	-	-	-
[5604]	1C	Deposit	Tree Bole	0.12	-	0.5
[5701]	2	Deposit	Topsoil	0.33	-	-
[5702]	2	Deposit	Natural	-	-	-
[5801]	2	Deposit	Topsoil	0.2-0.25	-	-
[5802]	2	Deposit	Subsoil	0.18-0.25	-	-
[5803]	2	Deposit	Natural	-	-	-
[5901]	2	Deposit	Topsoil	0.3	-	-
[5902]	2	Deposit	Subsoil	0.15	-	-
[5903]	2	Deposit	Natural	-	_	-
[6001]	2	Deposit	Topsoil			-
[6002]	2	Deposit	Subsoil			-
[6003]	2	Deposit	Natural	-	_	-
[6101]	2	Deposit	Topsoil	0.25-0.31	_	-
[6102]	2	Deposit	Subsoil	0.12-0.15	_	-
[6103]	2	Deposit	Natural	-	_	-
[6201]	2	Deposit	Topsoil	0.33-0.37	-	-
[6202]	2	Deposit	Subsoil	0.11-0.14	_	-
[6203]	2	Deposit	Natural	-	-	-
[6204]	3	Fill	Modern Drain	-	-	0.98
[6301]	3	Deposit	Topsoil	0.22-0.5	-	-
[6302]	3	Deposit	Subsoil	0.52-0.61	-	-
[6303]	3	Deposit	Natural	-	-	-
[6304]	3	Fill	Fill of Linear	0.11	-	0.91
[6305]	3	Cut	Cut of Linear	0.11	-	0.91
[6306]	3	Fill	Fill of Ditch	0.08	-	0.74
[6307]	3	Cut	Cut of Ditch	0.08	-	0.74
[6401]	3	Deposit	Topsoil	0.3-0.4	-	-
[6402]	3	Deposit	Subsoil	0.47-0.51	-	-
[6403]	3	Deposit	Natural	-	-	-
[6501]	3	Deposit	Topsoil	0.43-0.47	-	-
[6502]	3	Deposit	Subsoil	0.2-0.3	-	-
[6503]	3	Deposit	Natural	-	-	-
[6601]	3	Deposit	Topsoil	0.23-0.25	-	-
[6602]	3	Deposit	Subsoil	0.26-0.43	-	-
[6603]	3	Deposit	Natural	-	_	_
[6701]	3	Deposit	Topsoil	0.4-0.45	_	-
[6702]	3	Deposit	Natural	-	-	-
[6801]	3	Deposit	Topsoil	0.51-0.55	_	_
[0001]	<u> </u>	Dehosir	Lobsoil	0.51-0.55	-	-

[0000]	_	Damasit	Nietowal	T		
[6802]	3	Deposit	Natural	-	-	-
[6901]	3	Deposit	Topsoil	0.39-0.49	-	-
[6902]	3	Deposit	Natural	- 0.44	-	-
[7001]	3	Deposit	Topsoil	0.41	-	-
[7002]	3	Deposit	Natural	-	-	-
[7101]	3	Deposit	Topsoil	0.3-0.41	-	-
[7102]	3	Deposit	Natural	-	-	-
[7201]	4	Deposit	Topsoil	0.25-0.31	-	-
[7202]	4	Deposit	Natural	-	-	-
[7301]	4	Deposit	Topsoil	0.28-0.41	-	-
[7302]	4	Deposit	Natural	-	-	-
[7401]	4	Deposit	Topsoil	0.27-0.34	-	-
[7402]	4	Deposit	Natural	-	-	-
[7501]	4	Deposit	Topsoil	0.25-0.38	-	-
[7502]	4	Deposit	Natural	-	-	-
[7601]	4	Deposit	Topsoil	0.28-0.31	-	-
[7602]	4	Deposit	Natural	-	-	-
[7701]	4	Deposit	Topsoil	0.21-0.35	-	-
[7702]	4	Deposit	Natural	-	-	-
[7801]	4	Deposit	Topsoil	0.27-0.38	-	-
[7802]	4	Deposit	Natural	-	-	-
[7901]	4	Deposit	Topsoil	0.31-0.37	-	-
[7902]	4	Deposit	Natural	-	-	-
[8001]	4	Deposit	Topsoil	Topsoil 0.28-0.32		-
[8002]	4	Deposit	Natural	-	-	-
[8101]	4	Deposit	Topsoil	0.3-0.38	-	-
[8102]	4	Deposit	Natural	-	-	-
[8201]	4	Deposit	Topsoil	0.3-0.39	-	-
[8202]	4	Deposit	Natural	-	-	-
[8301]	4	Deposit	Topsoil	0.38-0.41	-	-
[8302]	4	Deposit	Natural	-	-	-
[8401]	4	Deposit	Topsoil	0.36-0.38	-	-
[8402]	4	Deposit	Natural	-	-	-
[8601]	4	Deposit	Topsoil	0.21-0.42	-	-
[8602]	4	Deposit	Natural	-	-	-
[8701]	4	Deposit	Topsoil	0.29-0.33	-	-
[8702]	4	Deposit	Natural	-	-	-
[8801]	4	Deposit	Topsoil	0.25-0.32	-	-
[8802]	4	Deposit	Natural	-	-	-
[8901]	4	Deposit	Topsoil	0.3-0.4	-	-
[8902]	4	Deposit	Natural	-	-	-
[20000]	1A	Deposit	Topsoil	0.26-0.4	-	-
[20001]	1A	Deposit	Subsoil	0.3-0.55	-	-
[20002]	1A	Deposit	Natural	-	-	_
[20003]	1A	Fill	Fill of Ditch	0.61	-	2.86
[20004]	1A	Cut	Cut of Ditch	0.9	_	2.86
[20005]	1A	Fill	Fill of Ditch	0.37	-	2.86
[20006]	1A	Fill	Fill of Ditch	Unknown	-	<2.86
[20007]	1A	Fill	Fill of Ditch	Unknown	_	<2.86
[20008]	1A	Fill	Fill of Ditch	0.28	-	2.4
[20000]	1A	Cut	Cut of Ditch	0.20	_	2.4
[20010]	1A	Fill	Fill of Ditch	0.72	-	1.32
[20010]	171	· · · · ·	I III OI DILOII	0.12		1.02

[20011]	1A	Cut	Cut of Ditch	0.72	-	1.32
[20012]	1A	Fill	Fill of Ditch	0.17	-	2.7
[20013]	1A	Fill	Fill of Ditch	0.42	-	2.7
[20014]	1A	Fill	Fill of Ditch	0.14	-	2.7
[20015]	1A	Cut	Cut of Ditch	0.68	-	2.7
[20016]	1A	Fill	Fill of Ditch	0.36	-	2.38
[20017]	1A	Cut	Cut of Ditch	0.58	-	2.38
[20018]	1A	Fill	Fill of Ditch	0.31	-	1.26
[20019]	1A	Fill	Fill of Ditch	0.17	-	1.16
[20020]	1A	Fill	Fill of Ditch	0.39	-	1.46
[20021]	1A	Fill	Fill of Ditch	0.36	-	1.4
[20022]	1A	Fill	Fill of Ditch	0.2	-	1.46
[20023]	1A	Cut	Cut of Ditch	0.39	-	1.46

# APPENDIX B - SPECIALIST REPORTS

### **Small Finds Assessment**

#### Dr. Elizabeth Foulds

### Introduction

An assemblage of metal, glass and other materials was recovered during trial trenching excavations on the M5 Junction 10, Cheltenham, Gloucestershire (NGR: SO 90933 25460 to SO 90568 23795). The archaeological works were conducted between 1 June and 30 July 2022 by AOC Archaeology Group on behalf of Atkins Global in advanced of a proposed link road. The site was located within a rich archaeological landscape with known activity from the prehistoric through to the historic periods in the immediately vicinity. The results of a gradiometer survey in 2020 revealed a potential for a late prehistoric and Romano-British settlement complex. The subsequent trial trenching phase uncovered dense archaeological features in two areas, that were likely Iron Age and/or Romano-British in date.

An assemblage of 123 artefacts was recovered over the course of the excavations and included iron, copper-alloy, glass and other finds. Most of the assemblage was hand collected during the excavation (72 artefacts), while 51 artefacts were recovered during environmental sample processing. Where artefacts were indicative of date, they could be attributed to the Iron Age, Roman, medieval or potentially post-medieval periods. This report includes identification of all artefacts where possible, discussion of findings, an assessment of significance and recommendations for further work.

#### Method

The finds were recorded on 21 April 2022 in a Microsoft Access database. Where possible, all objects were identified by material and type using the FISH Thesaurus for materials, archaeological objects and periods.

All objects and fragments were described, counted, weighed and recorded in a single data table. Copper-alloy, glass, (excluding vessels) and lead objects were measured. The iron objects were x-rayed in advance of specialist recording. and were only measured when identifiable and dimensions were taken from x-rays where possible. This excludes measurements of object thickness. Iron nail count is based on extant nail heads, which is reported separately from the assemblage fragment count. All other nail fragments were counted and weighed. Complete nail length was recorded where possible. Detailed data for glass vessels fragments was recorded separately.

The specialist finds recording and reporting was completed in accordance with the national finds standards and guidance (English Heritage 2008, Chartered Institute for Archaeologists (ClfA) 2014; Chartered Institute for Archaeologists (ClfA) 2021). This report was prepared with reference to documents supplied by AOC Archaeology, including: a Written Scheme of Investigation (Craven 2021), an Interim Report (Glew 2021), and a context list.

References are made in text to 'SF' numbers and ID numbers, which correspond to the data supplied in an accompanying spreadsheet (All\_Finds and Glass tabs). Separate tabs include metadata for all fields. Dates given in the data spreadsheet should be read as 'circa'. A summary of all finds data is available in *Table 3* of this report.

#### Results

In total, 123 objects (2,050.1g) were submitted for assessment. The majority of the assemblage was made up of iron finds, but there was a small number of other objects made from copper alloy, lead,

glass and other materials (*Table 2*). Where artefacts were indicative of date, they could be attributed to the Iron Age, Roman, medieval, or post-medieval periods. The following sub-sections will discuss the artefacts by material type followed by the results by area and trench.

**Table 2 Summary of artefact material** 

Material	Count	Weight (g)
Iron	45	482.2
Copper alloy	3	13.6
Lead	2	46.8
Glass	6	14.5
Ferrous slag	14	1441.4
Coal	52	11.2
Fuel ash slag	1	40.3
TOTAL	123	2,050.1

### **Assemblage by Material**

#### Iron

In total, there were 45 iron artefacts. As is common for iron objects found during excavation, much of the assemblage (73.3%) could be described as being in poor condition due to the levels of corrosion, fragmentation and laminating observed. The remainder of the assemblage was described as being in in fair condition.

Identifiable iron artefacts were limited to a horse bit, a short section of chain, and nails. Only half of the horse bit remained (ID 21), which consisted of half of a snaffle and one remaining cheekpiece. It was a medieval type consisting of Ward Perkins Type C cheekpiece and probably either Type II or III mouthpiece (London Museum 1993, Clark et al. 2004).

The short section of chain (ID 33) consisted of two partial figure-of-eight links made from square cross-section wire that were entwined together. There was a third fragment (ID 34), which was similar but did not refit. They were similar to lengths of chain from Roman contexts recorded by Manning (1985, 139).

There were 19 fragments from nails or possibly from nails. At least 12 nails were represented in the assemblage by intact nail heads. Complete and near complete nails ranged between 30mm and 67mm in length. Where nail shafts were not obscured by corrosion, they were roughly square in cross-section.

### Copper alloy

There were three copper-alloy objects within the assemblage, which included a brooch (SF 7), a finger-ring (SF 11) and a copper-alloy strip (SF 12). Both the finger-ring and brooch were in good condition, while the strip was in fair condition.

The brooch (SF 7) was a complete penannular type with intact pin. Patches of purple on the copperalloy wire suggested it may have been silver plated. The terminals of the hoop were folded back with possible decorative constrictions. It is a Booth (2014) Type D, possibly D2 if the terminals were in fact decorated (conservation work may be able to confirm this). This style of brooch first appeared around the Late Iron Age and early Roman periods and was used throughout the Roman period until the fifth century when deposition declined and then reappeared again in the sixth century AD (Booth, 2014, 158–159).

The complete finger-ring had a thin narrow hoop that expanded to broad shoulders. The bezel was flat and contained an oval glass intaglio. The intaglio was made from a dark coloured glass (possibly blue) and the design was not very clear. It was a Guiraud (1989, 181) Type 2 finger-ring, which date from the 1st century AD to about the middle of the 3rd century AD.

The length of copper-alloy strip (SF 12) was plano-convex in section but was not decorated. The surface had several areas of heavy damaged. It is possible that this was from a bracelet, but there were no features, such as closure and/or decoration that could assist in confirming this identification.

#### Lead

There were two fragments of lead in the assemblage that were in good condition. SF 5 consisted of a lead sheet folded in half with cut marks along the edge. The second fragment (ID 11) was a long strip of lead sheet that had been folded roughly in half and was distorted. There were also knife marks along the edges. Neither of these fragments was indicative of date.

#### Glass

A small number of glass fragments were collected during the excavation. All fragments were in good condition and there was very little weathering observed on the surfaces. Four of the glass fragments were from vessels. One of the fragments (ID 5) was from a rim and may have been from a post-medieval jar or lid. The remaining vessel fragments were all very small, including a base fragment from a blown vessel (SF 9), lacked clear diagnostic features and were not closely identifiable, but were not out of character for the Roman period.

There was a single glass bead fragment in the assemblage (SF 8). It was made from dark translucent blue glass and was roughly cylindrical in shape. The circumference was decorated with slight protrusions with spirals made from opaque white glass. Although only about a third remains, these were normally large beads and this example would have measured around 25mm in diameter and measured 17.6mm in height. This type of bead is known from the Iron Age and is a Guido Class 6/Foulds Class 6 Type 1407 (Guido 1978, Foulds 2014).

#### Industrial debris

There was a small amount of material within the assemblage related to industrial processes, or hot temperature activity. This included 14 fragments of ferrous slag (1441,4g), 52 fragments of coal (11.2g) and a fragment of fuel ash slag (40.3g).

#### Assemblage by Trench

In total, 85 trenches were excavated as part of the evaluation phase. The artefacts discussed in this report came from 16 of the trenches. The majority of the finds came from areas 1A and 1B (Table 3). One nail (SF 3) was unstratified and a fragment of ferrous slag (ID 41) could not be tied to a specific context.

### Area 1A

Area 1A included excavated trenches that had little or no excavated features. There was a noted concentration of features in an area covered by trenches 18–24. The largest number and greatest diversity of finds came from this area. Finds were recovered across 8 excavated trenches.

### Trench 8

No archaeological features were recorded in this trench. The medieval horse bit (ID 21) was recovered from the subsoil (802).

#### Trench 18

Two refitting fragments of iron strip (SF 6) in poor condition were recovered from the topsoil (1801).

#### Trench 19

A fragment of lead sheet (SF 5) was recovered from the topsoil (1901) while the Roman penannular brooch (SF 7) and copper-alloy strip (ID 12) were found in the subsoil (1902).

#### Trench 20

A small number of finds came from Trench 20. The Roman finger-ring (SF 11) was found in the fill (20008) of a ditch (20023) along with coal crumbs (ID 51) and two nail fragments (ID 22). Other finds included additional possible nail fragments (ID 12) from the fill (20005) of another ditch (20004) and a possible nail fragment (SF 4) from the subsoil (20001).

#### Trench 21

A fragment of lead sheet (ID 11) was found in the fill (2106) of a gully (2107).

#### Trench 22

A small collection of artefacts came from Trench 22. They included an iron strip fragment (ID 24) from the topsoil (2201) and a fragment of ferrous slag from the subsoil (2202). From the fill (2211) of a ditch (2212) came an unidentifiable fragment of iron (ID). From the fill (2218) of another ditch (2216) came an iron concretion with stones that was not further identifiable (ID 26).

### Trench 23

A small collection of artefacts came from Trench 23. Most objects were found in the fill (2304) of a single ditch (2308). This included the Iron Age glass bead fragment (SF 8) and a glass vessel fragment (SF 9), as well as fragments from iron nails, a partial chain (ID 33) and other unidentifiable fragments of iron. A second glass vessel fragment (ID 6) was found in the fill (2306) of another ditch (2307). Both glass vessel fragments may be Roman in date.

#### Trench 28

Four fragments of iron strip (SF 1, SF 2) were recovered from the topsoil (2801) of Trench 28. These were not closely identifiable or datable.

#### Area 1B

Directly to the south of Area 1A was Area 1B, which was separated by a field boundary. Finds from Area 1B came from seven trenches.

### Trench 34

Three fragments of ferrous slag (ID 47) were recovered from the fill (3405) of a ditch (3406). These were not closely datable.

#### Trench 35

Two fragments of iron (ID 13, ID 14) were recovered from the fill (3504) of a ditch (3505) along with four fragments of ferrous slag (ID 44).

#### Trench 37

Finds were limited to two heavily corroded fragments of iron that may have come from nails (ID 17) and fragments of possible coal (ID 53). These were recovered from the fill (3707) of ditch (3708). An additional fragment of possible coal (ID 49) was recovered from the fill (3705) or ditch (3706).

#### Trench 38

A single fragment of fuel ash slag (ID 45) was the only find from Trench 38. It came from the fill (3803) of ditch (3805).

#### Trench 40

A single rim fragment of vessel glass (ID 5) came from the subsoil (4002) of Trench 40. This fragment was not closely datable but may be post-medieval.

#### Trench 42

A small collection of finds came from Trench 42, all of which came from the fill (4204) of ditch (4205). This included a glass vessel fragment (ID 3) and fragments of coal (ID 50, ID 53). The glass vessel fragment may be Roman in date.

#### Trench 46

All of the finds from Trench 46 came from ditch (4606). This included a fragment of vessel glass (ID 4) and a fragment of ferrous slag (ID 46) from fill (4605), as well as further fragments of ferrous slag (ID 40), iron nail fragments, and additional unidentifiable iron fragments from fill (4604).

### Area 1C

To the south of Area 1B lay Area 1C. A single artefact discussed in this report was recovered from this area. This consisted of an unidentified fragment of iron (ID 42) from the fill (5309) of a ditch (5311) in Trench 53.

Table 3 summary of assemblage by area of excavation (excluding unstratified)

Material	1A	1B	1C	Total
Iron	26	17	1	45
Copper alloy	3	-	-	3
Lead	2	-	-	2
Glass	3	3	-	6
Ferrous slag	2	11	-	13
Coal	27	25	-	52
Fuel ash slag	-	1	-	1
Total	63	57	1	121

#### 11.1 Discussion

The assemblage included a broad range of finds from activity at the M5 Junction 10 at Cheltenham. Three of the objects could be dated to the Iron Age or Roman periods, which included the glass bead fragment (SF 8), finger-ring (SF 11), and Roman brooch (SF 7). Although the brooch was found in the subsoil, all three likely reflect the later prehistoric and Romano-British activity at the site. The medieval horse bit (ID 21) may reflect the later activity in the area, such as the use of the land for agricultural fields. Other identifiable iron objects consisted of a section of chain and nail fragments. There was also a high proportion of unidentifiable iron objects that could not be closely identified or dated. This is not unusual for Iron Age or Roman period deposits. The remaining glass assemblage was very small and generally lacked diagnostic features to confidently assign date, but most were likely Roman. The small

assemblage of ferrous slag indicated that iron working, including perhaps iron smelting, took place in the vicinity and the debris had perhaps been cleared to the ditches, although the deposits recovered were not especially large.

The archaeological excavations encountered an area of dense archaeological features during the trial trenching. The artefactual evidence discussed in this report is archaeologically significant and supports an Iron Age and Romano-British date for these features. A particularly large number of artefacts came from Trenches 20, 22, 23 in Area 1A and Trenches 42 and 46 in Area 1B, which were located in areas of dense archaeology. The finds assemblage reflected domestic activity and some possible light manufacturing or craft activity.

#### Conclusion

The archaeological trial trenching excavations at the M5 Junction 10 at Cheltenham revealed a small assemblage of finds. Where artefacts could be dated, they were Iron Age, Roman, medieval, and possibly post-medieval in date. The artefacts reflected objects related to dress and adornment, as well as structural evidence from the nails, and manufacturing evidence (e.g. iron working). There was a noted concentration of objects from trenches located over areas with dense features in areas 1A and 1B where a comparatively large number of both glass and iron finds were recovered. The finds generally support a later prehistoric and Romano-British date for the excavated features.

#### Recommendations

#### Further work needed

The assemblage is significant for understanding the development of activity at the site from the Iron Age to Romano-British period. The assemblage should be included in an analysis level report and the following is suggested further work to be completed prior to the commencement:

- Conservation of the penannular brooch (SF 7) around the terminals to confirm sub-type.
- XRF analysis of the penannular brooch (SF 7) to confirm if silver plated.
- Conservation of the finger ring (SF 11) especially around the glass intaglio.
- Conservation of the partial chain links (ID 33) may be needed to aid illustration.

The following recommendations are made for analysis reporting:

- Further research on the finger-ring intaglio to include full description.
- The industrial related debris should be sent to an industrial specialist for an analysis level report.

# Storage and condition and preservation of the archive

The finds arrived suitably packaged in grip seal bags and were correctly labelled with site code and context information. The bags were packed in air-tight Stewart boxes suitable for travel with plenty of tissue paper along with large bags of silica gel and humidity indicator strips.

Much of the iron artefacts are in very poor condition with fragments laminating, blistering and falling apart. Active corrosion was present in many bags, which will increase the speed of artefact decay. These should be monitored closely and the silica gel changed out regularly.

### Retention

Due to the significance of the site the assemblage should be retained and deposition should be discussed with the appropriate local museum or collections repository.

### References

Booth, A. 2014. Reassessing the Long Chronology of the Penannular Brooch in Britain: exploring changing styles, use and meaning across a millennium. Unpublished PhD Thesis: University of Leicester.

Chartered Institute for Archaeologists (CIfA), 2014. Standard and guidance for the collection, documentation, conservation, and research of archaeological materials. Reading: Chartered Institute for Archaeologists.

Chartered Institute for Archaeologists (CIfA), 2021. Toolkit for Specialist Reporting. Reading: Chartered Institute for Archaeologists.

Clark, J., Egan, G., Griffiths, N. 2004. 'Harness fittings', in Clark, J. (ed.). The Medieval Horse and its Equipment. C.1150–c.1450. Woodbridge: The Boydell Press.

Craven, J. 2021. Land near to M5 J10, Tewkesbury, Gloucestershire: A written scheme of investigation for an archaeological trial trench evaluation. AOC Archaeology Group Unpublished Report.

English Heritage, 2008. MoRPHE Project Planning Note 3: Archaeological Excavations. London: English Heritage.

Foulds, E.M. 2017. Dress and Identity in Iron Age Britain. A study of glass beads and other objects of personal adornment. Oxford: Archaeopress.

Glew, P. 2021. M5 Junction 10, Cheltenham, Gloucestershire: Interim Report: Trial Trenching. AOC Archaeology Group Unpublished Report.

Guido, M. 1978. The Glass Beads of the Prehistoric and Roman Periods in Britain and Ireland. Reports of the Research Committee of the Society of Antiquaries of London no. 35.

Guiraud, H. 1989. Bagues et anneaux à époque Romaine en Gaule, Gallia 46, 173–211.

London Museum. 1993. London Museum Medieval Catalogue 1940. Ipswich: Anglia Publishing.

Manning, W.H. 1985. Catalogue of Romano-British Iron Tools, Fittings and Weapons in the British Museum. London: British Museum Press.

ID	Trench	Context	Sample no.	SF no.	Material	Object	Count	Weight (g)	Period
1	23	2304		8	Glass	BEAD	1	4.58	Iron Age
2	23	2304		9	Glass	VESSEL	1	3	Roman
3	42	4204			Glass	VESSEL	1	1.21	Roman?
4	46	4605			Glass	UNASSIGNED	1	0.26	Uncertain
5	40	4002			Glass	VESSEL	1	2.68	Post-medieval?
6	23	2306			Glass	VESSEL	1	2.77	Roman?
7	19	1902		12	Copper alloy	Strip	1	5	Uncertain
									Late Iron Age/Early Roman -
8	19	1902		7	Copper alloy	PENANNULAR BROOCH	1	4.06	Roman
9	20	20008		11	Copper alloy	FINGER RING	1	4.58	Roman
10	19	1901		5	Lead	SHEET	1	7.28	Uncertain
11	21	2106			Lead	SHEET	1	39.56	Uncertain
12	20	20005			Iron	NAIL?	2	4.1	Uncertain
13	35	3504			Iron	NAIL	1	32.3	Uncertain
14	35	3504			Iron	NAIL?	1	17.2	Uncertain
15	20	20001		4	Iron	NAIL?	1	17.2	Uncertain
16	20	0		3	Iron	NAIL	1	6.9	Uncertain
17	37	3707			Iron	NAIL?	2	10.6	Uncertain
18	28	2801		1	Iron	UNASSIGNED	1	3	Uncertain
19	22	2211			Iron	UNASSIGNED	1	15.2	Uncertain
20	18	1801		6	Iron	UNASSIGNED	2	52.5	Uncertain
21	8	802			Iron	Horse Bit	1	59.7	Medieval
22	20	20008	28		Iron	NAIL	2	1.1	Uncertain
23	46	4604			Iron	UNASSIGNED	8	2.9	Uncertain
24	22	2201			Iron	UNASSIGNED	1	1.9	Uncertain
25	28	2801		2	Iron	UNASSIGNED	3	5.3	Uncertain
26	22	2218			Iron?	UNASSIGNED	1	1.4	Uncertain
27	23	2301			Iron	WIRE	1	62.8	Uncertain
28	46	4604			Iron	UNASSIGNED	2	4.4	Uncertain
29	46	4604			Iron	NAIL	1	2.8	Uncertain
30	46	4604			Iron	NAIL	2	24.4	Uncertain
31	23	2304			Iron	NAIL	1	13.6	Uncertain
32	23	2304			Iron	UNASSIGNED	1	42.4	Uncertain
33	23	2304			Iron	CHAIN	2	19.3	Uncertain
34	23	2304			Iron	UNASSIGNED	1	6.3	Uncertain
35	23	2304			Iron	NAIL	1	11.4	Uncertain
36	23	2304			Iron	NAIL	1	21	Uncertain
37	23	2304			Iron	NAIL	1	10	Uncertain
38	23	2304			Iron	NAIL	1	5	Uncertain

ID	Trench	Context	Sample no.	SF no.	Material	Object	Count	Weight (g)	Period
39	23	2304			Iron	NAIL	1	7.5	Uncertain
40	46	4604			Iron	SLAG	3	92.5	Uncertain
41	54	5407			Iron	SLAG	1	180	Uncertain
42	53	5309			Iron	UNASSIGNED	1	20	Uncertain
43	22	2202			Iron	SLAG	1	18.1	Uncertain
44	35	3504			Iron	SLAG	4	465	Uncertain
45	38	3803				SLAG	1	40.3	Uncertain
46	46	4605			Iron	SLAG	1	23.5	Uncertain
47	34	3405			Iron	SLAG	3	254.2	Uncertain
48	23	2305			Iron	SLAG?	1	408.1	Uncertain
49	37	3705			Coal?		1	1.4	Uncertain
50	42	4204			Coal		1	2.6	Uncertain
51	20	20008	28		Coal		27	2.7	Uncertain
52	42	4204	48		Coal		6	0.5	Uncertain
53	37	3707	36		Coal?		16	0.9	Uncertain
54	34	3412			Coal?		1	3.1	Uncertain

Table 4 Summary data of all artefacts

### **Lithics Assessment**

#### Jon Cotton

#### Introduction

Two pieces of struck flint were presented for identification and assessment. These had been recovered from a trench evaluation undertaken by AOC Archaeology Group in 2021 on land close to Junction 10 of the M5 near Tewkesbury, Gloucestershire.

#### Location

The site is located c.500m east of the M5 motorway within the parishes of Uckington and Boddington, south of Tewkesbury and immediately north-west of Cheltenham. The area of the evaluation measures approximately 22.30 hectares (ha) and consists of a linear strip of fields in pasture and arable use, approximately 1.7km in length on a north to south alignment from NGR SO 90933 25460 to SO 90568 23795.

# **Geology**

The site is situated on relatively flat ground. The geology consists of Charmouth Mudstone Formation bedrock (formed approximately 183 to 199 million years ago in the Jurassic Period). In the northern part of the site this is overlain by superficial deposits of Cheltenham Sand and Gravel, formed up to 3 million years ago in the Quaternary Period in a local environment previously dominated by subaerial slopes. A band of alluvial clay, silt, sand, and gravel, formed up to 2 million years ago in the Quaternary Period in a local environment dominated by rivers, crosses the central part of the site, as does the River Chelt, a tributary of the Severn which here flows from east to west.

# **Background**

The GHER asset (Ref. 8637) within the site comprises a series of cropmarks of apparent enclosures, round houses, and gully and field system boundary ditches, which are thought to indicate the presence of a later prehistoric or Romano-British enclosed settlement, lying across the two fields to the south of the A4109. Further cropmarks of various linear features, including possible enclosures and trackways, have been identified in the field immediately to the north of the site.

#### The Flints

Two pieces of struck flint were recovered from two separate contexts: from context (2108) (fill of ditch [2105]) in Area 1A; and from context (3410) the upper fill of ditch [3412] in Area 1B. Both appear to comprise flint obtained from the local alluvial gravels.

The first piece from [2108] comprises the distal tip of a narrow, parallel-sided blade of mottled yellow-brown flint with smooth, thin buff cortex. The piece has been steeply retouched at the tip, along one margin, and at the truncation, and appears to have functioned as an awl or piercer. L 56mm, W 15mm, Th 5.5mm.

The second piece from [3412] comprises a small narrow flake/blade of yellow-brown flint. It has a faceted butt and a shallow notch worked on one edge of the ventral face. Traces of use-wear along the opposite margin were noted at x10 magnification. L 39mm, W 15mm, Th 5mm.

# **Dating and Affinities**

Individual flints are often difficult to date with confidence, although here the blade-like proportions of both pieces suggest Mesolithic-Earlier Neolithic affinities. A larger sample of material would allow more certainty.

Both pieces appear to have been recovered from ditches likely to be of later prehistoric or Romano-British date (eg ditch [3412] contained sherds of Roman pottery), which suggests that they comprise individual lithics accidentally incorporated in features of much later origin.

### Significance of the Assemblage

The lithics suggest low level prehistoric activity in the locality probably connected with the exploitation of resources associated with the River Chelt. Further work may produce a larger assemblage which would help to clarify the issue.

# **Potential for Analysis**

There is little need or potential for further analysis at this stage.

# **Pottery**

### E. McSloy

### Introduction & Methodology

Pottery amounting to 1194 sherds (11.92kg) was recovered from 73 separate deposits (Table 5 & 6). Most material was recovered from hand-excavated archaeological deposits, with an additional 80 sherds (168g) coming from bulk soil samples.

Recording for the assessment has matched standards recommended for the archaeological material at assessment level (Barclay et al. 2016). This has included quantification by fabric and according to sherd count/weight, and rim EVEs (estimated vessel equivalents), recording of vessel form, rim morphology and evidence for use (residues etc). Codes used for recording of pottery fabrics are set out in Table 4.

Wherever possible for the Roman component, equivalent codes of the National Roman Fabric Reference Collection are used (Tomber and Dore 1998).

#### **Condition and Provenance**

The assemblage is for the most part heavily fragmented, the mean sherd weight (10g) on the low side for a predominantly Roman assemblage. A measure (1-4) made of abrasion, indicates that the majority sherds exhibited moderate (473 sherds; 39.6%) or high levels (562 sherds or 47.1%). Certain fabrics were more susceptible to surface loss, these including the common Severn Valley Ware types (SVW OX2; SVW Oxo; SVW RE) and slipped fabrics such as Oxfordshire type OXF RS. This is a common feature of Roman assemblages from the area and is a usually a factor of the burial environment. An effect of poor surface survival may be that fineware types such as OXF RS, the fabric of which can appear similar to oxidised coarse wares such as Severn Valley ware, are under-represented.

The overall distribution by area is set out in Table 4, which shows that the bulk of material relates to excavation areas 1A and 1B. Substantially the largest proportion of the pottery assemblage was recovered from ditches/gullies (984 sherds or 82.4%); with only small quantities coming from pits (66 sherds or 5.5%) and the remainder from subsoil/topsoil deposits (113 sherds; 9.6%), a palaeo -channel(14 sherds; 1.2%) and a modern drain (1 sherd). Context group size is generally low, some 46 deposits productive of fewer than 10 sherds. Seven deposits, all ditch fills from Area 1A and 1B,

groups of 59–129 sherds (Area 1A deposit 2304 and Area 1B deposits 3803, 3806, 4604, 4804, 4605 and 3707).

### Prehistoric: Iron Age/'native' wares

A moderately large proportion of the assemblage (291 sherds; 1336g) is made up of handmade fabrics, with their origins in the Middle or earlier Iron Age. The majority occurs in palaeozoic limestone (MAL REB) or igneous/metamorphic rock-tempered types (MAL REA) known to be produced in the Malvern or the May or Woolhope Hills of Herefordshire (Peacock 1967). Use of handmade 'native' fabrics is known to continue well into the Roman period, type MAL REB no later than c. 70/100 AD and type MAL REA as late as the mid-2nd century AD. Determination of dating is largely dependent on vessel form/decoration and associations. In addition to the Malvernian types was one sherd (14g) in a coarse fossil shell-tempered fabric (SH), recorded from Area 1A Pit 1805 (fill 1806). The fabric compares to types of the Early or Middle Iron Age from the Cotswolds area to the south.

The Iron Age types occur predominantly from Areas 1A-1C, a small proportion coming from Romandated deposits. The large majority of type MAL REB (210 sherds; 1013g) was recorded from the fills of Area 1B ditch 3805. This material is highly fragmented but may represent sherds from as few as three vessels in that fabric, which consist of jars of barrel-shaped or ovoid form and simple pulled-put or upright rims. The single vessel in fabric MAL REA from this deposit is represented by a rim sherd from a jar with slack profile and upright, simple rim. It was the only vessel from the group to feature decoration, which consists of a row of paired circular impressions below its rim. The decoration to this vessel is characteristic of Middle Iron Age (c. 4th/3rd to 1st centuries BC) assemblages from the area (ibid.; Cunliffe 2005, 105–106).

#### Roman

The Roman component makes up by far the largest part of the assemblage; 895 sherds (10.4kg), its overall composition of the assemblage is set out in *Table 4*.

Coarse ware types dominate the assemblage and entirely typically for the area. Severn Valley ware, including variant types (SVW OX2; SVW Oxo, SVW RE, SVW OXc), is the most common type, making up 63.7% of the total, according to number of sherds (NOSH) and 61.8% by weight. Other prominent types are Southeast Dorset Black-burnished ware (DOR BB1), which makes up 19.3% of the group (NOSH; 14.5% by weight); and Malvernian greyware types (MAL REg), which accounts for 7.4% of the total NOSH (6.4% by weight). Other greyware types, probably of relatively local manufacture (GW1–3), make up the bulk of the remainder. Coarse wares of certainly non-local origin, excepting the Southeast Dorset Black-burnished ware, comprise the small number of sherds from south Midlands (ROB SH; PNK GT) and Oxfordshire sources (OXF WH), the latter present as mortaria. Other mortaria sources are limited to Gloucester (GLO MOR) and the south Gloucestershire/north Wiltshire area (SOW WS).

Fineware types, other than the imported Gaulish samian (below) are limited to a few sherds of Oxfordshire red slipped ware (OXF RS) and a sherd in a colour-coated fabric of uncertain, but possibly local provenance (LOC CC). The samian amounts to 17 sherds (211g), equivalent to 1.9% of the total NOSH (2% by weight). Products from each of the Gaulish manufacturing regions are represented, although with Central Gaulish (LEZ SA2) material is most common. The presence of South Gaulish material (LGF SA) is notable; such material being generally uncommon away from military or urban sites. The forms present include a platter of typically pre-Flavian type (form 15/17) from Area 1A ditch 1915 and, from Area 1B ditch 4615, a sherd from a form 37 bowl, the only decorated vessel from the

group. Forms among the majority Central Gaulish group comprise mainly plain dishes (forms 31, 18/31R, 31R) and cups (form 33).

Other imported material is present as amphora types BAT AM and GAL AM, present as body or base sherds only. Both are types imported across the mid-1st to 3rd centuries, and the most commonly recorded types among Romano-British assemblages.

### **Vessel form/function**

A breakdown of vessel form is given in *Table 7*. In common with the large majority of Romano-British assemblages, jars and other utilitarian forms are strongly dominant, demonstrating the primarily utilitarian use of pottery for cooking and storage. Severn Valley ware forms account for the majority of jars, these a mix of narrow or medium-mouth of Webster's 'storage jar' Type A and Type C wide-mouthed forms (Webster 1976). Neckless 'cooking pot' styles predominate among the Black-burnished ware and Malvernian types. Direct evidence for vessel use from carbonaceous and other residues is relatively uncommon, probably as the result of poor surface preservation. External carbonaceous residues (sooting) was noted on only 15 sherds and internal limey deposits, probably from the heating or storage of water, on a single sherd.

The dishes/bowls among the assemblage similarly comprise mainly utilitarian types among the Black-burnished ware and Severn Valley ware (Webster's types F/G and K), together with a few samian vessels already described. Drinking vessel forms are strongly represented by tankards (Websters Type E), a feature very characteristic of Severn-Valley ware dominated assemblages. Two substantially complete Severn Valley ware tankards of near identical size and form were among the material from Area 1B ditch fill 4604. Aside from the tankards, drinking forms are present uncommonly, as a small number of samian cups and beakers among the local/unsourced greywares. Notable among the latter are vessels from Area 1B ditches 3412 and 3706 representing much devolved butt beaker copies and as such probably dating no earlier than the first decades of the 2nd century. Flagons are similarly uncommon, present as a single disc-necked vessel of later Roman type from Area 1B ditch 3505.

Mortaria are relatively represented as vessels from mainly regional sources. Identifiable forms are limited to among the Oxfordshire whiteware (OXF WH) as Young's types M3 and M17 and a vessel in Southwest white slipped ware with hammerhead rim (see chronology section, below).

#### Chronology

Dating within the assemblage is inhibited by the dominance of the commonly long-lived coarse wares which form the bulk of the pottery assemblage. The scarcity of larger context groups from 'closed' deposits such as pits or other discrete features is a further factor limiting the usefulness of the pottery for purposes of dating.

As noted, the few sherds of South Gaulish samian demonstrate some activity in the mid or later 1st century AD. The plain dish and cup forms predominating among the Central Gaulish samian are however predominantly of the second half of the 2nd century. Date 'markers' among the mortaria include Oxfordshire vessels of form M3 (Area 1B ditch 3409) datable c. AD 140–200, and c. AD 240–300 (Area 1B ditch 4807) (Young 1977). The hammerhead-rimmed mortarium in Southwest white-slipped fabric SOW WS (Area 1A ditch 2216) is close to forms elsewhere dated to the period c. AD 160–250 (Hartley 2001, 224–225).

Dating derived from the common coarse wares is commonly broad, with refinement possible based on a limited number of more diagnostic vessel forms. Most useful in this respect is the abundant Southeast Dorset Black-burnished ware; in particular the dish and jar forms, which are largely composed of types

no later than the earlier 3rd century. Among the large Severn Valley ware group, some refinement of dating is possible from the tankard, bowls, and dish/platter classes, which similarly demonstrate a preponderance of 2nd or 3rd century classes. Types characteristic of the period after c. AD 270/300 are present infrequently as 'late' forms among the Black-burnished ware and the few sherds of Oxford red slipped ware (OXF RS), Midland's shell-tempered ware (ROB SH) and pink grog-tempered ware (PNK GT). Incidence of the Late Roman 'date markers' is confined to a small number of ditch and pit fills in Areas 1A (feature 20004) and 1B (features 3507, 4606 and 4807). The identifiable forms among the Oxfordshire red slipped ware are bowl types (Young's C45 and C51) broadly of the period after c. 240/270. Perhaps most notable is the single sherd, from a flanged bowl, in Midland's shell-tempered ware (ROB SH) from Area 1 pit 3507. Presence of this type in the area is usually regarded as an indication of dating after c. AD 350/360.

In summary, the larger part of the pottery assemblage appears to relate to activity spanning the later 1st to later 2nd or earlier 3rd centuries AD, with only limited evidence for activity dating after c. AD 250.

#### Post-medieval/modern

A small quantity of post-medieval or later pottery was recorded (8 sherds; 131g). Almost all was recorded from topsoil/subsoil deposits from Areas 1A/1B, with 1 sherd (42g) recovered from a modern drain in Area 3. The composition of this small group is shown in *Table 5*, the majority comprising glazed earthenware's probably of the 16th to 18th centuries period.

In view of the small size of the group and its mostly unstratified character, its significance is very limited and further analysis (or retention) is not warranted.

### Statement of potential and recommendations for further analysis

Although modest in size and well-fragmented, the pottery assemblage provides coherent evidence for activity in the Middle Iron Age and earlier/Middle Roman periods. Albeit that the Iron Age component is limited largely to from a single feature (Area 1B ditch 3805), it represents good evidence for activity preceding the Roman period. The Roman assemblage compares in most aspects of its composition to groups from excavations in the locality, including from Tewkesbury town (MacRobert 1993) and in the area of Walton Cardiff to the south (Timby 2004; McSloy 2008). In common with the Tewksbury town group, the focus of activity pre-dates the mid-3rd century. The samian component is significantly smaller, although alike in its overall composition preponderance of plain forms of the mid or later Antonine period (c. AD 150-200).

The pottery is of significance at a local level, providing dating contributory to understanding the development of the site. In common with Roman groups previously studied from the area, the pottery appears to be largely utilitarian and consistent with what would be expected for a smaller rural settlement. The Iron Age and Roman assemblage warrants publication and retention in full, its reporting contributing to the understanding of patterns of pottery supply and use in the area informing aspects of the site, its chronology and 'status'. Recording undertaken for this assessment is adequate for the purposes of further analysis, although reporting would benefit from consideration of structural analysis/site phasing to better understand patterns of supply through time. The final report should be accompanied by an illustrated catalogue (up to 25 drawings) of selected context/phase groups and vessels of intrinsic interest.

Table 5 Pottery summary by area. Quantification as number of sherds (NOSH) and weight.

Area>	Us.		1A		1B		1C		3		Total	
Date	Ct.	Wt.(g	Ct.	Wt.(g)								
IA/'native'	3	13	12	87	259	1209	17	26			291	1336
Roman	13	156	370	3362	458	6656	54	281			1135	113501135 ( 0
Post-med.			5	29	2	60			1	42	8	51
Total	16	169	387	3478	719	7925	71	307	1	42	1311	1135012737

Table 6 Pottery fabrics summary. Quantification as number of sherds (NOSH) and weight.

\*types in bold correspond to NRFRC codings (Tomber and Dore 1998)

Period	Fabric*	Description	Ct.	Wt.(g)
IA/'Native'	SH	Coarse shell-tempered	1	14
	MAL REA	Malvernian rock-tempered	64	224
	MAL REB	Malvernian Palaeozoic limestone-tempered	226	1097
Sub-total			291	1336
Roman	SVW OX2	Severn Valley Ware 'standard' oxidised	530	5985
(local/	SVW Oxc	SVW; coarser with rock inclusions	1	76
unsourced)	SVW OXo	Severn Valley Ware charcoal inclusions	28	285
	SVW RE	Severn Valley Ware reduced	11	120
	GW1	medium sandy greyware	26	310
	GW1a	Fine sandy, grey-firing	1	17
	GW2	micaceous greyware	6	54
	GW3	fine sandy; dark-firing	7	31
	MAL REAg	Malvernian rock-tempered greywares	66	673
	MAL REAs	Malvernian rock-tempered 'slab-built'	1	59
	GLO MOR	Gloucester white-slipped mortaria	1	5
	LOC CC	Local colour-coated ware	1	19
	OX2	soft, pale orange;	4	40
	WH1	fine sandy whiteware (prob. Oxford)	3	13
	WS1	White-slipped fine oxidised	1	11
	sow ws	Southwest white slipped ware	2	109
(regional)	DOR BB1	Southeast Dorset Black-burnished ware	173	1513
	OXF WH	Oxfordshire whiteware mortaria	4	340
	OXF RS	Oxfordshire red slipped ware	6	92
	PNK GT	Pink grog-tempered ware	1	168
	ROB SH	Late (Midlands) shell-tempered ware	1	36
Imports	LGF SA	South Gaulish (La Graufesenque) samian	4	21
(samian)	LEZ SA2	Central Gaulish (Lezoux) samian	12	189
	EG SA	East Gaulish samian (probably Trier)	1	1
(amphorae)	BAT AM	Baetican amphorae	2	273
	GAL AM	South Gaulish (flat-based) amphorae	2	15
Sub-total			1477	13126
Post-med/	BBAST	Black basalt stoneware	1	14
modern	CIST	black-glazed 'Cistercian' type wares	1	11
	GRE	Glazed red earthenware	4	59
	REFW	Refined whitewares	1	1
	YSW	Yellow slipware	1	46
Sub-total			2962	26383
Total			5924	11922

Table 7 Roman vessel forms summary

\*minimum number vessels

Form (generic)	MNV*	%MNV	EVEs	%EVEs
flagon	1	<1	-	-
beaker	3	2.5	.08	<1
cup	2	1.7	.04	<1
tankard	12	10	1.30	12.5
jar	62	51.7	5.75	55.4
bowl	15	12.5	.89	8.6
bowl/dish	2	1.7	.07	<1
dish	15	12.5	1.28	12.3
platter	4	3.4	.43	4.1
mortarium	3	2.5	.51	4.9
uncertain	1	<1	.03	<1
Total	120		10.38	

### References

Anderson, A.S., Wacher, J.S. and Fitzpatrick, A.P. 2001 The Romano-British 'Small Town' at Wanborough, Wiltshire, London, Society for the Promotion of Roman Studies, Britannia Monograph No. 19

Barclay, A., Knight, D., Booth, P., Evans, J., Brown, D.H. and Wood, I. 2016 A Standard for Pottery Studies in Archaeology, Historic England

Cunliffe, B. 2005 Iron Age Communities in Britain: An Account of England, Scotland and Wales from the Seventh Century BC until the Roman Conquest. Abingdon. Routledge

Hannan, A. 1993 'Excavations in Tewkesbury, 1972-1974' Trans. Bristol and Gloucestershire Archaeol. Soc. 111, 21–75

Hart, J. and McSloy, E. 2008 'Prehistoric and Early Historic Activity, Settlement and Burial at Walton Cardiff, Near Tewkesbury: Excavations at Rudgeway Lane in 2004-2005', Bristol and Glos. Archaeol. Report 6, 1–84

Hartley, K., 2001 'Mortaria', in Anderson et al. 2001, 220-231

MacRobert, E. 1993 'Discussion of the Coarse Pottery', in Hannan 1993, 62-63

McSloy, E. 2008 'The Late Iron Age and Roman pottery' in Hart and McSloy 2008, 29-40

Peacock, D.P.S. 1968 'A Petrological study of certain Iron Age Pottery from western England' Proc. Prehistoric Soc. 34, 414-26

Timby, J. 2004 'Romano-British Pottery', in Walker et al. 2004, 66-75

Tomber. R. and Dore. J. 1998 The National Roman Fabric Reference Collection: A Handbook. London. MOLaS Monograph 2

Walker, G., Thomas, A. and Bateman, C. 2004 Bronze Age and Romano-British sites south-east of Tewkesbury: evaluations and excavations 1991-7' Trans. Bristol and Gloucestershire Archaeol. Soc. 122, 29–94

Webster, P.V. 1976 'Severn Valley Ware: A Preliminary Study', Trans. Bristol and Gloucestershire Archaeol. Soc. 94, 18-46

Young, C.J. 1977 Oxfordshire Roman Pottery. British Archaeological Reports. 43. Oxford

### **Ceramic Building Material (CBM)**

### **Ed McSloy**

### Introduction

A total of 74 fragments of CBM (2001g) was recorded from 22 deposits. All material was recovered by hand.

The CBM has been recorded direct to a Microsoft Access database. The assemblage has been scanned by context, sorted by broad class and fabric and quantified according to fragment count and weight. Codes for the two Roman and three post-Roman fabric groupings used in recording are defined below.

### **Fabrics**

### Roman

R1: Fine sandy. Pale orange fabric containing silt-sized quartz. Smooth feel. 57 fr.; 1221g.

Forms: brick (1); tegula (1); imbrex (1).

R2: Coarser sandy. Orange, commonly with grey core. Contains sparse quartz sand and common unhomogenised clay pellets. Sandy feel. 9 fr.; 363g. Forms: tegula (1)

### Post-Roman

P1: Hard, red sandy. Common quartz. Sandy feel. 5 fr,; 149g.

P2: Dense, red, inclusionless. Smooth feel. 2 fr.; 216g. Forms: perforated 'air' brick.

P3: Malvernian. Red orange with sparse rock inclusions. 1 fr.; 52g. Forms: ?ridge tile

#### **Discussion**

# Roman

The majority of the assemblage, 65 fragments (1503g), dates to this period. All was recorded from Areas 1A-C, primarily from ditch deposits and in association with Roman-dated pottery. Two fabrics (above) have been defined, the majority of fragments occurring in sine 'silty' fabric R1. The material is well broken up and fragments commonly abraded. Identified forms are limited to roofing classes: tegula (2) and imbrex (1) and brick (1). Signatures/other marks or features of form such as tegula cutaways were not observed.

In view of the small size and fragmentary condition of the Roman group, it seems likely to represent material in secondary use, possibly as hardcore, rather than as evidence for a Romanised structure in the near vicinity of the site.

### Post-Roman

The small post-Roman assemblage (8 fragments; 417g) was recorded mainly from ditch deposits in Area 3, with further material from topsoil/subsoil deposits in Area 1B or unstratified.

A ridge tile fragment (52g) in Malvernian fabric P3, which was recorded from Area 1B subsoil 4702, probably dates to the Late Medieval or early post-medieval period (c. 14th to 16th centuries) and is likely the earliest piece present from the group. The small tile fragments in hard, dense fabrics recorded from Area 3 deposits are probably no earlier than the 18th century. A perforated 'air brick' fragment from Area 1B topsoil 4301 probably dates to the 19th or 20th centuries.

## Statement of Potential and Recommendations for Further Analysis

The small Roman and later CBM assemblage is of limited significance. Recording/reporting undertaken for assessment are sufficient for the purposes of the archive. Further analysis is not warranted, however a short note characterising the assemblage should be included in any future publication for the site, which can be adapted from the report presented here.

#### Fired/Burnt Clay

#### **Ed McSloy**

## **Introduction & Summary**

A total of 22 fragments (167g) of fired or burnt clay was recorded. In addition, a small fragment (5g) of vitrified clay or fuel ash was recovered. The assemblage has been scanned by context, according to the fabric types defined below and quantified according to fragment count and weight.

The material was hand-recovered from 12 deposits, mainly ditch fills from Areas 1A-1C. Fired clay from Area 1A pit fill 1806 and Area 1B ditch fill 3803 (7 fragments; 55g) was associated with Iron Age pottery. The remainder was recorded from Roman-dated deposits or was unstratified.

Three fired clay fabrics were identified, which are described in summary below. All of the recovered material is heavily fragmented. Most consists of fully amorphous fragments or fragments preserving one smoothed surface. As such the original mode of use is unclear for most material. One fragment from Area 1B topsoil deposit 3701 in organic-rich fabric fc2 exhibits a probable wattle impression and is likely to represent structural daub. The vitrified clay/fuel ash has resulted from an unidentified hightemperature process.

#### **Fabrics**

FC1 Buff/brown, soft, inclusionless fabric. 9 fr.; 61g

FC2 Brown/red brown, soft, fine sandy fabric. 11 fr.; 57g

FC2 Buff/grey, soft fabric containing voids from burnt-out organics. 2 fr.; 49g

## Statement of potential and recommendations for further analysis

The small fired/burnt clay assemblage is of limited archaeological significance. Recording/reporting undertaken for assessment are sufficient for the purposes of the archive. Further analysis is not warranted, however a short note characterising the assemblage should be included in any future publication for the site, which can be adapted from the report presented here.

#### **Archaeozoology Assessment**

**Matilda Holmes** 

Introduction

A small assemblage of 512 hand-collected animal bones and teeth was recovered from 50 contexts, of which 183 fragments could be identified to taxon. Provisional phasing suggests that the material is of Iron Age and Roman date. This report aims to characterise the archaeozoology, assess the potential for understanding human-animal interactions at the site, and its significance on a local, regional, and national level.

#### **Methods**

All bones and teeth were scanned and recorded, although for some elements a restricted count was employed to reduce fragmentation bias: vertebrae were recorded when the vertebral body was present, and maxilla, zygomatic arch and occipital areas of the skull were identified from skull fragments. A basic recording method was undertaken to assess the potential of the animal bone assemblage. The number of bones and teeth that could be identified to taxon were noted, as well as those used to age the major domesticates (tooth wear and bone fusion). The quantity of bones likely to be useful for metrical data were also recorded. Other information included condition and the incidence of burning, gnawing and butchery marks. All hand-collected fragments were recorded by context including those that could not be identified to taxon. Material from environmental samples was scanned and fragments that could be identified to taxon or group (bird, fish, micro-mammal, or frog/ toad) were counted. Recording methods and analysis are based on guidelines from Baker and Worley (2014).

## **Summary of Findings**

Bones were generally in good to fair condition (Table 8), although those from Iron/ Age Roman contexts 4604 (ditch 4606) and 20005 (ditch 20004) included bone in good and poor condition, implying mixing of deposits from different origins. A few contexts contained gnawed animal remains, suggesting that some material was not buried immediately following discard. There was very little evidence for butchery or burning (Table 8).

Table 8 Preservation and bone modifications observed on the bones for each context

				Prese	rvation	Total no	Bone	ation			
Phase	Features	Good	Good-fair	Fair	Fair-poor	Poor	Good- poor	Contexts	Gnawed	Butchered	Burnt
Undated	Ditches	5		7	1			13			
Iron Age	Ditch [3805]	1		1				2	2	1	
Iron Age/ Roman	Ditches, pit, palaeo-channel	9		3		1	2	15	6	1	
Roman	Ditches, pits, palaeo-channel	10	2	7	1			20	4		2

There were no obvious deposits of associated bone groups, primary butchery, skin-processing, or craftworking waste, although a worked sheep/ goat metatarsal was recovered from ditch [4807] (context 4804) that had been shaped at the proximal end.

Iron Age

Cattle, sheep/ goat and pig remains were recovered from this period, coming from Iron Age ditch [3805] (Table 9), and a few further finds of frog/ toad came from the samples (Table 10).

Table 9 Number of fragments recorded for the major domesticates, birds and other taxa

		Cat	Cattle		Sheep/ goat		Pig		Equid	Total
Period	Unidentified	Bones	Teeth	Bones	Teeth	Bones	Teeth			identified
Undated	43	7	3	4		4		1	3	22
Iron Age	20	9	1	4		1	1			16
Iron Age/ Roman	127	33	4	18	9	3	2	3	12	84
Roman	139	29	7	15	2		2	3	3	61

Table 10 Taxa identified from environmental samples (NISP)

Context	Period	Sample	Cattle	Sheep/	Micro-mammal	Bird	Frog/ toad	Comment
				goat				S
[1904]	Undated	13					1	
[3806]	Iron Age	41		1				
[5310]	Iron Age	44					6	
[3707]	Iron Age/ Roman	36				1		
[4204]	Iron Age/ Roman	48			3			
[20008]	Roman	28	1	1	12	1	14	Vole

## Iron Age/ Roman

The largest assemblage was recovered from various Iron Age/ Roman ditches, pit [3507] and palaeochannel [4704] (Table 9). Cattle were most common, followed by sheep/ goats with fewer equids (horse or donkey), pigs and canids (dog or fox). Micro-mammal and bird remains came from the samples (Table 10), and oyster, discoidal, banded and wetland snails and gryphaea fossils from the shell assemblage (Table 11)

		Ma	rine	Т	Fossil		
Period	Unidentified	Oyster	Cockle	Discoidal	Banded	Wetland	Gryphaea
Undated	7		1	14			4
Iron Age	1						
Iron Age/ Roman		1		31	1	3	3
Roman		2	5	13		1	

Table 11 Summary of shell remains (NISP), hand-collected and sieved samples

### Roman

Animal remains were recovered from various ditches, pits [2226] and [2310] and palaeo-channel [4704]. Cattle were most common, with relatively high numbers of sheep/ goats and a few pigs, canids, and equids (Table 9). Further finds of micro-mammals (including vole), bird and frogs/ toads came from the samples (Table 10) and shells from marine shellfish (oyster and cockle), terrestrial snails (discoidal and wetland species) (Table 11).

## **Potential and Significance**

This is a small assemblage, and although the condition of bones was good, the sample size meant that minimal mortality or fusion data were available (Table 12). The wetland snails imply a source of freshwater in the immediate area, but beyond this observation there is nothing unusual in the type of taxa recorded or nature of the archaeozoology for the period. The assemblage is therefore of limited significance.

Table 12 Number of bones and teeth likely to provide ageing and metrical data for the major domesticates. TWS= wear from mandibles and individual teeth; fus= bone fusion; meas= metrical data

		Cattle		SI	neep/ go	at	Pig			
Period	TWS	Fus	Meas	TWS	Fus	Meas	TWS	Fus	Meas	
Undated	1	7	3		2			3		
Iron Age		6	4		2	3				
Iron Age/ Roman	4	28	16	2	4	2		2	2	
Roman	3	26	23	1	3	1	1			

#### Recommendations

No further work is recommended, although a list of taxa should be made available in any published material from the site to be used as comparanda for future work in the area.

## References

Baker, P and Worley, F (2014). Animal Bones and Archaeology: Guidelines for Best Practice. Portsmouth: English Heritage

### **Environmental Samples; Carbonised Plant Macrofossils and Charcoal**

#### **Diane Alldritt**

#### Introduction

A total of fourteen environmental sample flots taken during archaeological excavation work at M5 Junction 10, Warwickshire (AOC80003) were assessed for carbonised plant remains and charcoal. Material sorted from ten of the sample residues plus charcoal taken from a single spot sample was also examined for identifiable charred remains.

The bulk environmental samples were processed using a Siraf style water flotation system (French 1971). The samples were from 10litres up to 40litres in volume. The flots were dried before examination under a low power binocular microscope typically at x10 magnification. All identified plant remains including charcoal were removed and bagged separately by type.

Wood charcoal was examined using a high-powered Vickers M10 metallurgical microscope at magnifications up to x200. The reference photographs of Schweingruber (1990) were consulted for charcoal identification. Plant nomenclature utilised in the text follows Stace (1997) for all vascular plants apart from cereals, which follow Zohary and Hopf (2000).

#### Results

The environmental samples produced small quantities of carbonised remains <2.5ml up to 30ml in volume consisting of charcoal fragments 0.5cm to 2.0cm in size together with trace finds of cereal grain mostly in degraded condition. Modern material was present <2.5ml up to 100ml mainly root detritus with a few finds of modern seeds and earthworm egg capsules indicating bioturbation was taking place. Snail shell, both burrowing and non-burrowing types were found throughout the deposits and were a further potential source of disturbance.

Results are given in Table 13 and discussed below.

#### **Discussion**

#### Area 1A

The ditch and pit features in 1A contained small amounts of charcoal together with trace finds of cereal grain indicating low levels of burning activity probably associated with domestic settlement in the vicinity.

Pit [1805] (1806) contained a small concentration of degraded Quercus (oak) charcoal and was probably a fire pit or waste disposal pit. Ditch [2308] (2304) produced a few fragments of Corylus (hazel) charcoal in good condition and suitable for radiocarbon dating, probably fuel waste from nearby burning. Fill (2305) from ditch [2308] was sterile.

Trace quantities of degraded cereal grain were recorded in some of the ditch features and these were probably sweepings and residual material from nearby activity. Ditches [20004] (20006) and [20023] (20008) produced small amounts of Triticum sp. (wheat) probably emmer or spelt type. Ditch [2205] (2204) had a single Hordeum vulgare sl. (barley) and some indeterminate grain whilst ditch [1905] (1904) also contained degraded grain, possibly oat type.

Ditch [2105] (2108) contained trace charred detritus with nothing identifiable. Ditch [2208] (2207) was sterile.

#### Area 1B

Ditches [3710] (3709) and [3805] (3806) both produced charcoal fragments and cereal grain, with the remains in [3805] quite well-preserved. Ditch [3805] contained a few grains of Hordeum vulgare var. vulgare (six row hulled barley), together with oak charcoal, whilst ditch [3710] held slightly more degraded barley grains along with indeterminate grains and heavily degraded indeterminate charcoal. Ditch [4205] (4204) contained mostly indeterminate cereal with a small number of wheat grains likely to be emmer or spelt type.

Ditch [3708] (3707) contained trace charred remains with nothing identifiable from here.

#### Area 1C

Limited evidence for burning activity was found in 1C. Ditch [5311] (5310) had a single 0.5cm fragment of hazel charcoal mixed with coal fragments, whilst ditch [5308] (5307) contained trace charred detritus and abundant snail shell, indicating some probable disturbance taking place in this area.

#### Conclusion

The environmental samples from Areas 1A and 1B produced small quantities of carbonised remains consisting of charcoal with trace finds of cereal grain indicating low levels of domestic burning activity taking place in the vicinity. Area 1C produced only trace finds of charcoal and no cereal grain and was possibly at the periphery of any settlement. The cereal grain from 1A and 1B suggested Iron Age or Romano-British agricultural activity, with a mixture of emmer or spelt wheat, and hulled barley identified.

Further excavation work has potential to continue to produce small quantities of carbonised plant remains related to rural settlement of Iron Age or Romano-British date.

#### References

French, D. H. 1971 An Experiment in Water Sieving. Anatolian Studies 21 59-64.

Schweingruber, F. H. 1990 Anatomy of European Woods. Paul Haupt Publishers Berne and Stuttgart.

Stace, C. 1997 New Flora of the British Isles. 2nd Edition Cambridge University Press.

Zohary, D. and Hopf, M. 2000 *Domestication of Plants in the Old World*. 3<sup>rd</sup> Edition Oxford University Press.

Table 13 Results of the environmental processing

					•											
	Context	180 6	190 4	210 8	220 4	220 7	230 4	230 5	370 7	370 9	380 6	420 4	530 7	531 0	2000	2000
	Sample	11	13	22	16	17	spot	30	36	39	41	48	43	44	15	28
	Feature	pit [18 05]	ditch [190 5]	ditch [210 5]	ditch [220 5]	ditch [220 8]	ditch [230 8]	ditch [230 8]	ditch [370 8]	ditch [371 0]	ditch [380 5]	ditch [420 5]	ditch [530 8]	ditch [531 1]	ditch [200 04]	ditch [200 23]
	Area	1A	1A	1A	1A	1A	1A	1A	1B	1B	1B	1B	1C	1C	1A	1A
	Radiocar bon Y/N	N	N	N	N	N	Y ch	N	N	N	Y cer	Y cer	N	Y ch	Y cer	Y cer
	Sample Volume (litres)	10	40	10	40	10	N/a	40	40	40	40	40	40	40	40	40
	Total CV	30 ml	<2.5 ml	<2.5 ml	<2.5 ml	0	5ml	0	<2.5 ml	5ml	10ml	<2.5 ml	<2.5 ml	<2.5 ml	<2.5 ml	<2.5 ml
	Modern	<2. 5ml	10ml	<2.5 ml	30ml	<2.5 ml	0	10ml	20ml	<2.5 ml	<2.5 ml	50ml	50ml	100 ml	5ml	40ml
Carbonised Cereal Grain	Common Name															
Triticum sp.	wheat											3			4	5
Hordeum vulgare var. vulgare	six row hulled barley										4					
Hordeum vulgare sl.	barley				1					1						
Indeterminate cereal grain (+embryo)			1		4					2		12				7
Charcoal																
Quercus	oak	7 (0.9 6g)								2 (0.48 g)						
Corylus	hazel						3 (0.60 g)							1 (0.07 g)		
Indeterminate											2 (0.46 g)					
Other Remains																
Coal				1										4		
Non-marine mollusc (snail) shell		2	20+	5+	50+			5+	10+	10+	3	20+	100+	3		50+
Modern seeds				1		1		2			2				1	
Earthworm egg capsules					5	1		1					1	2		6

## **APPENDIX C - OASIS**

## Summary for aocarcha1-501768

OASIS ID (UID)	aocarcha1-501768							
Project Name:	Evaluation at Land near to M5 J10, Tewkesbury,							
	Gloucestershire							
Activity type	Evaluation							
Project Identifier(s)	80003							
Planning Id	No data							
Reason for Investigation	Planning: Pre application							
Organisation Responsible for work	AOC Archaeology Group							
Project Dates	01-Jun-2021 - 30-Jul-2021							
Location	Land near to M5 J10, Tewkesbury, Gloucestershire NGR: SO 90831 24825 LL: 51.9218675354222, -2.13472611496665 12 Fig: 390831,224825							
Administrative Areas	Country: England							
	County: Gloucestershire							
	District: Tewkesbury							
	Parish: Boddington							
НЕВ	Parish: Uckington							
HER Identifiers	Gloucester City Council No data							
Project Methodology	A targeted evaluation following geophysical survey in 2020							
	comprised the excavation of 85 trenches across the development area, of a proposed 89. The four unexcavated trenches were due to constraints imposed by ecology and electrical OHL services. A further eight trenches were foreshortened, and two other trenches were repositioned to accommodate these same constraints.							
Project Results	The evaluation uncovered two areas of dense archaeological features dating primarily to the Romano British period with some scarce evidence for mid-late Iror Age activity. These comprised numerous ditches, many showing multiple phases of activity. The ditches likely formed enclosures and boundaries delineating a settlemen site. The archaeological features broadly correlated to anomalies shown on the geophysical survey. Some features uncovered in the trial trenches were not detected in the geophysical survey suggesting the archaeological remains could be more extensive. The archaeological features investigated during this phase of works showed good levels of preservation despite being located in an active agricultural landscape.							
Keywords	Ditches							
Subject/Period	Linear Earthwork: IRON AGE							
HER	Gloucester City Council							
HER Identifier	HER Event No. AOC M521							
Person Responsible for work	Antony Walsh & Peta Glew							
Archive	Physical Archive - to be deposited with Cheltenham Art							
	Gallery & Museum;							

# **APPENDIX D - FIGURES**

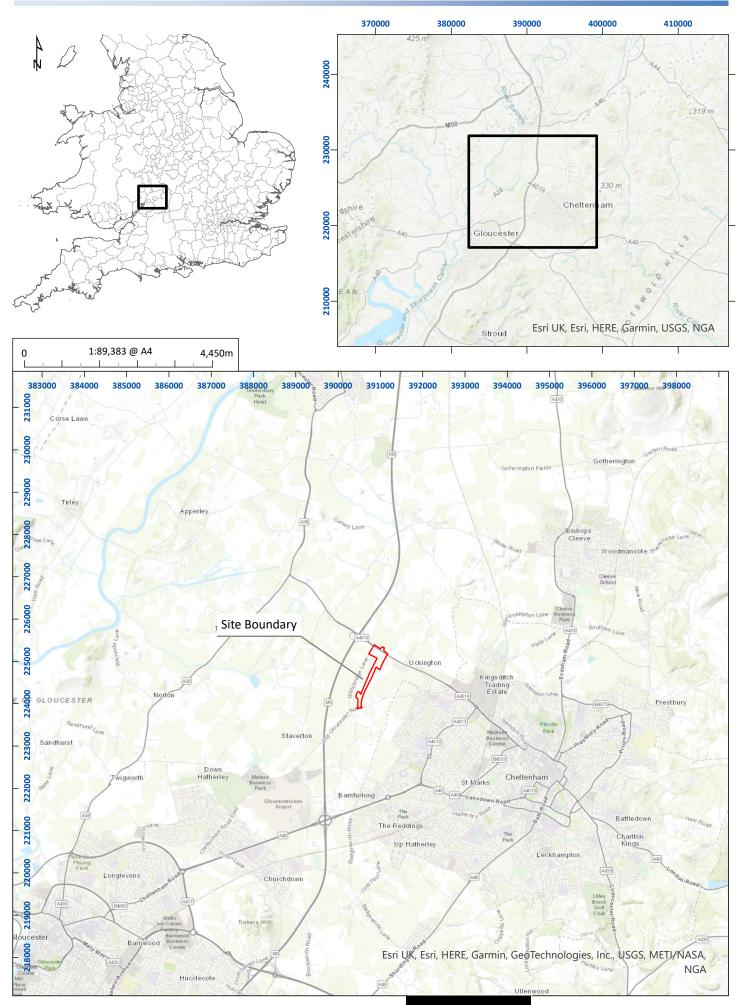
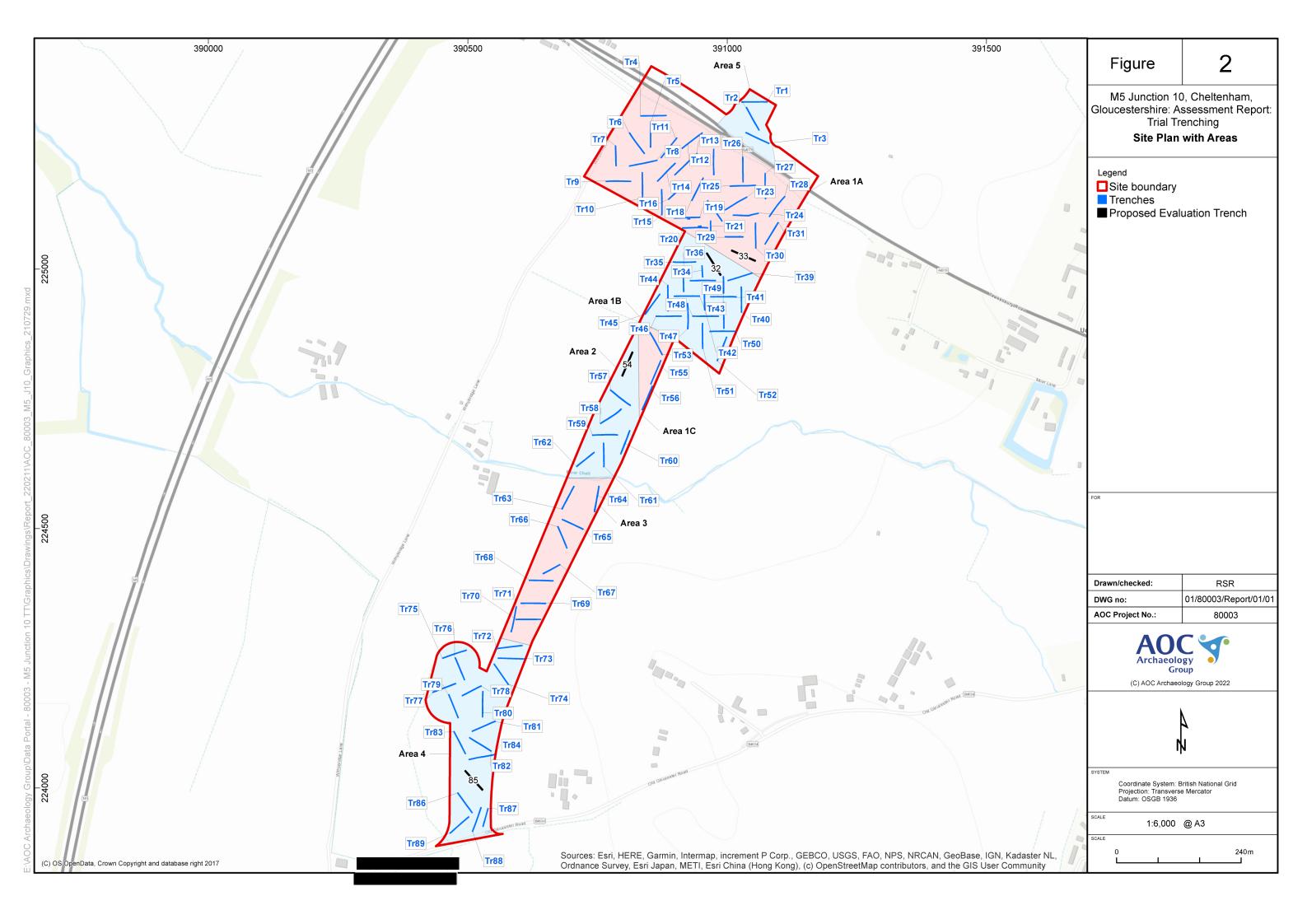
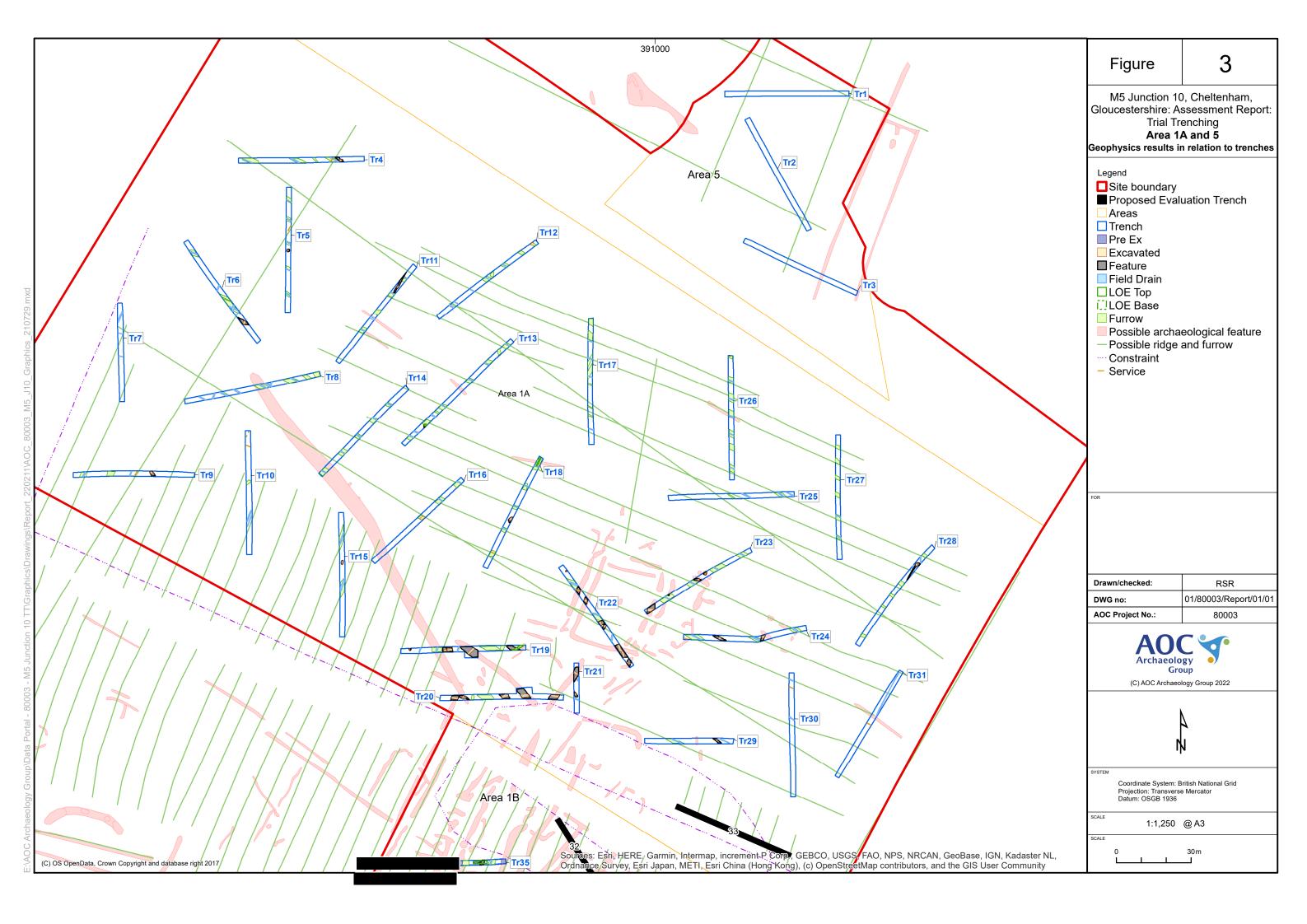
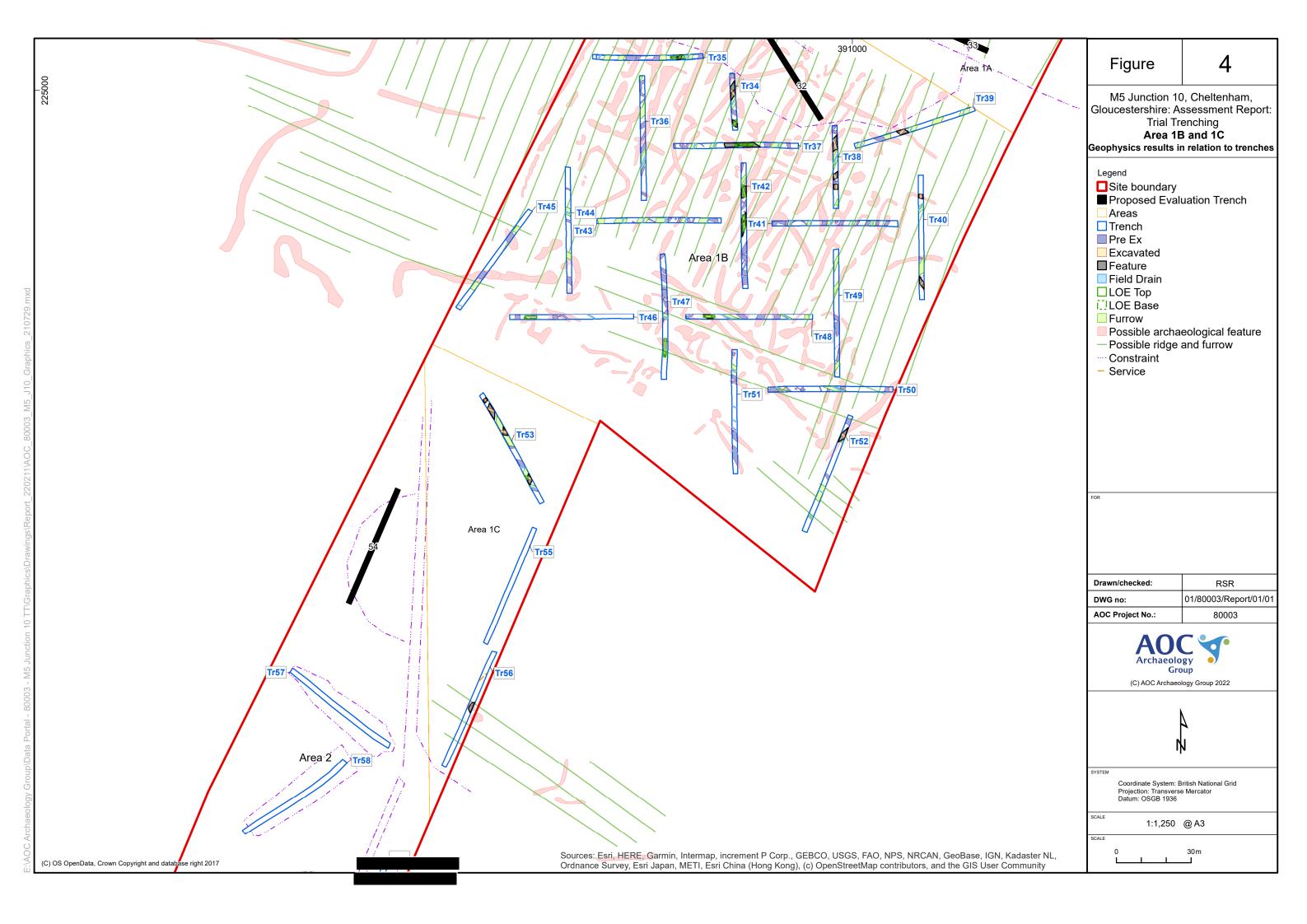
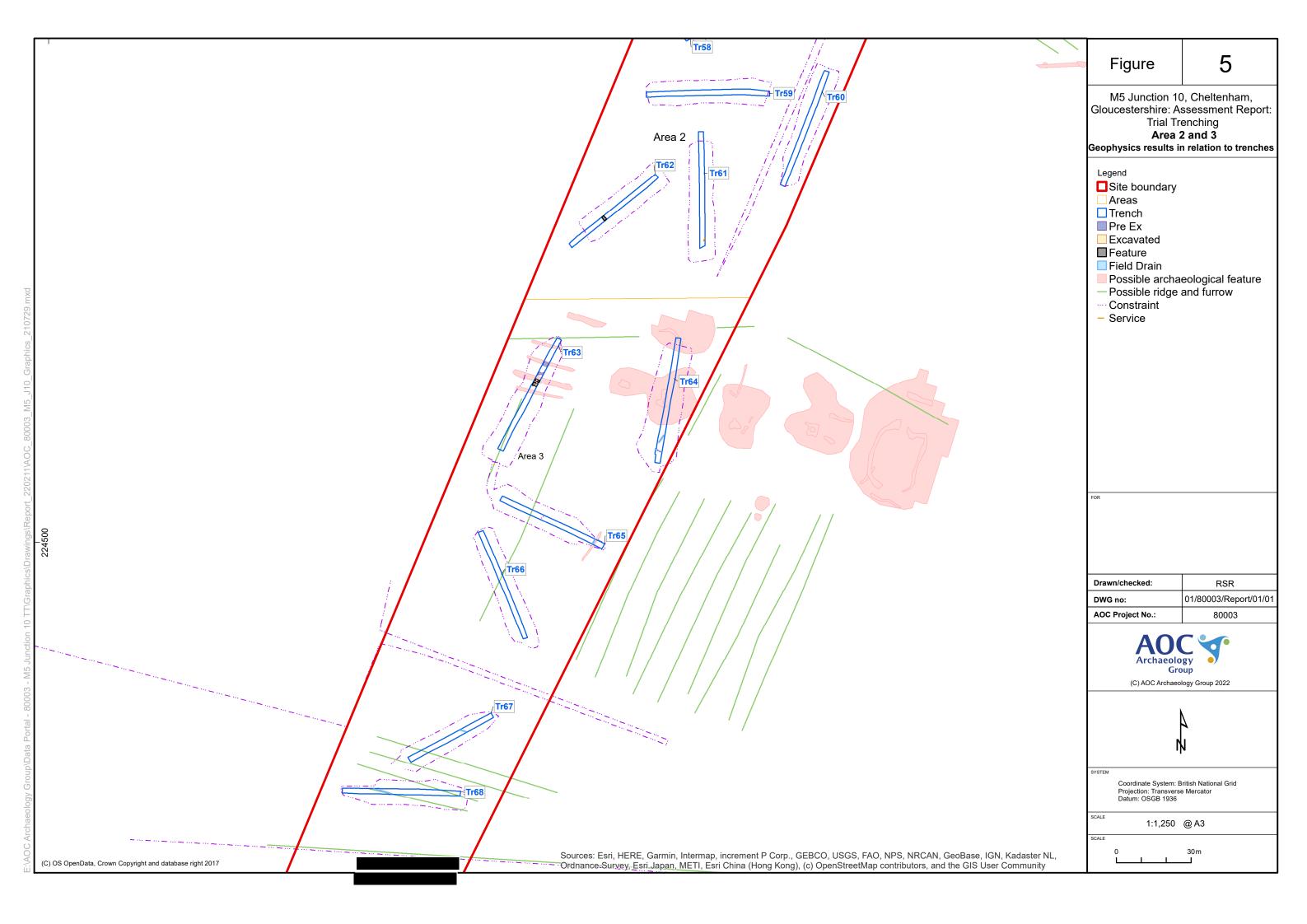


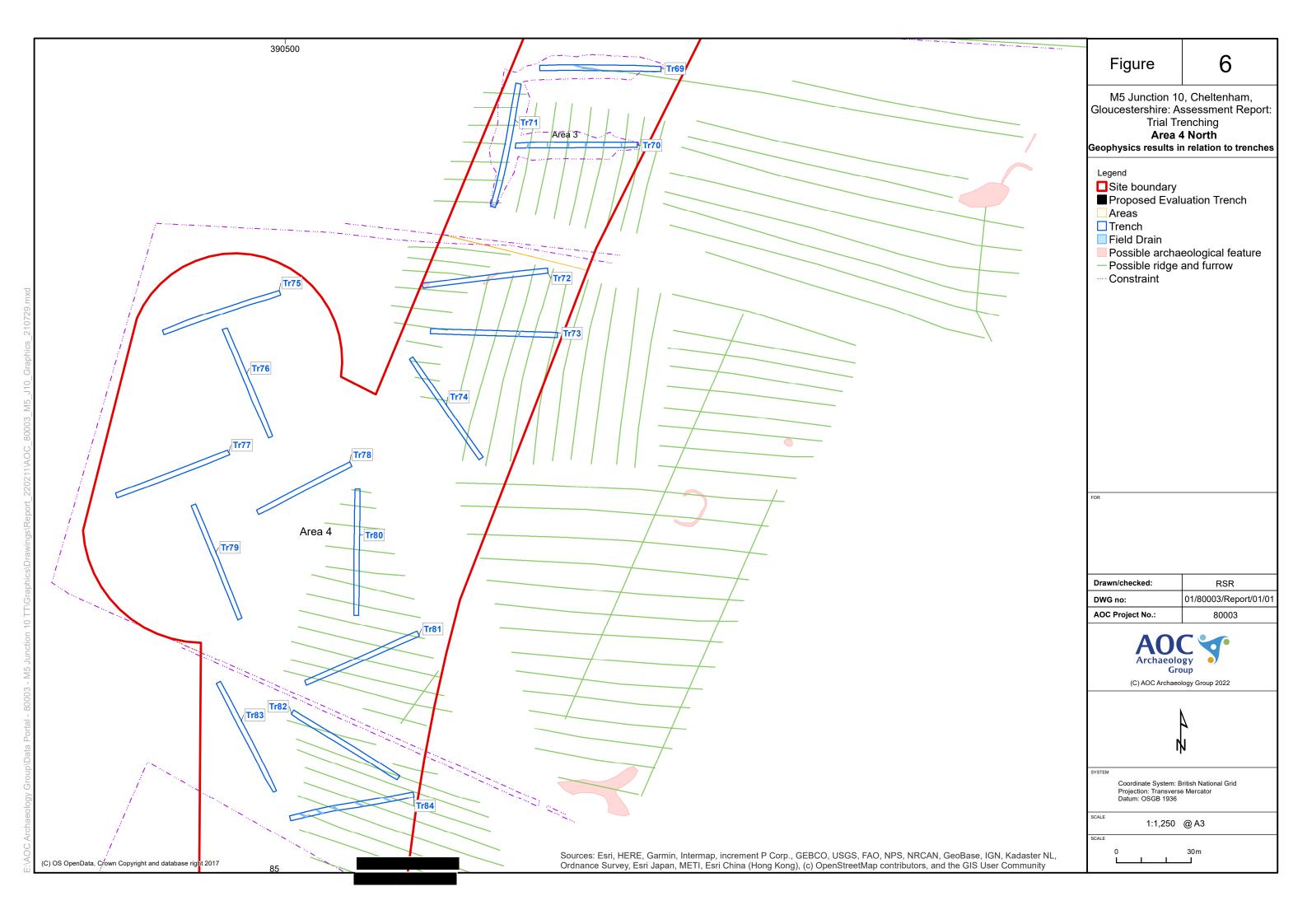
Figure 1: Site loca

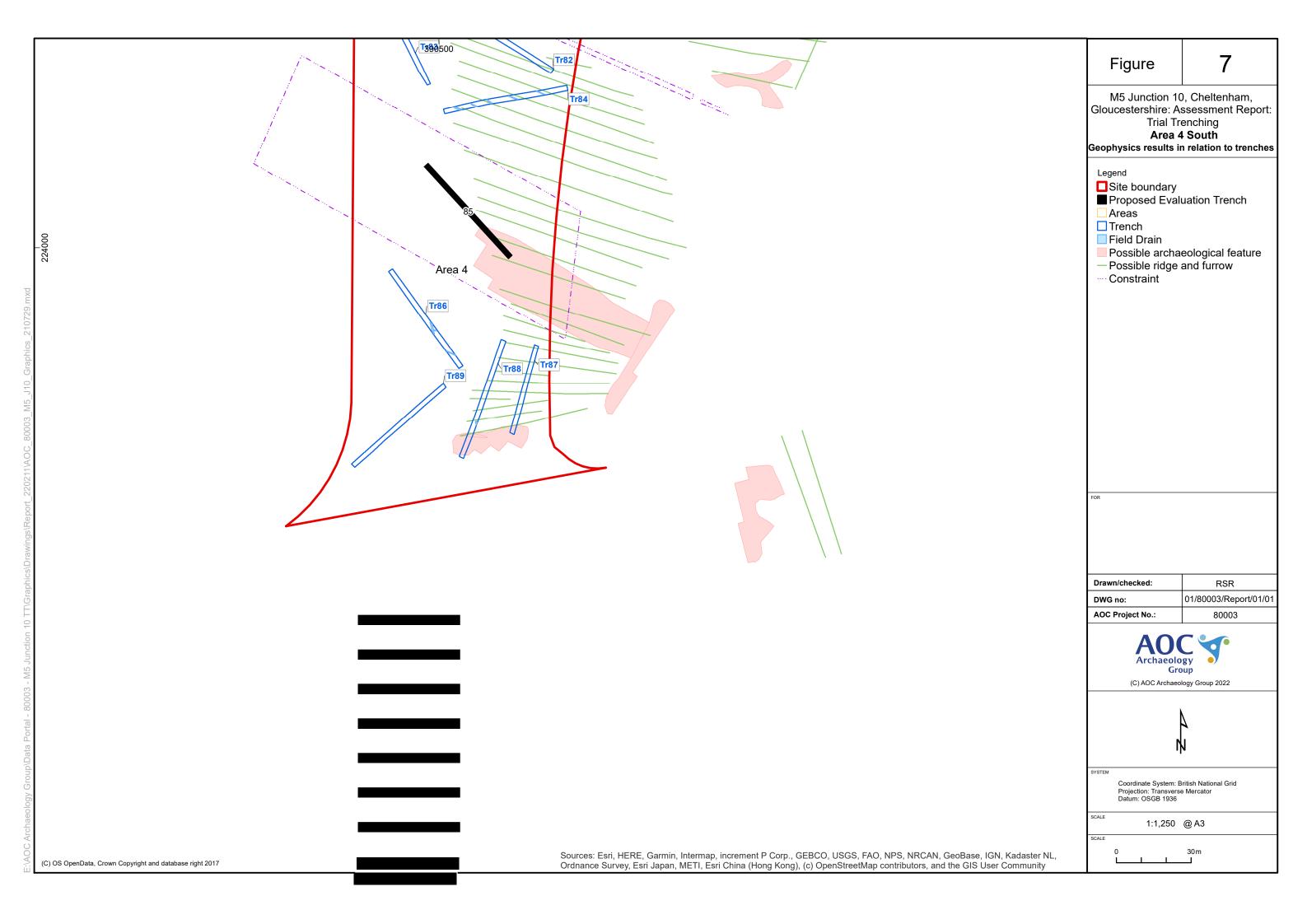


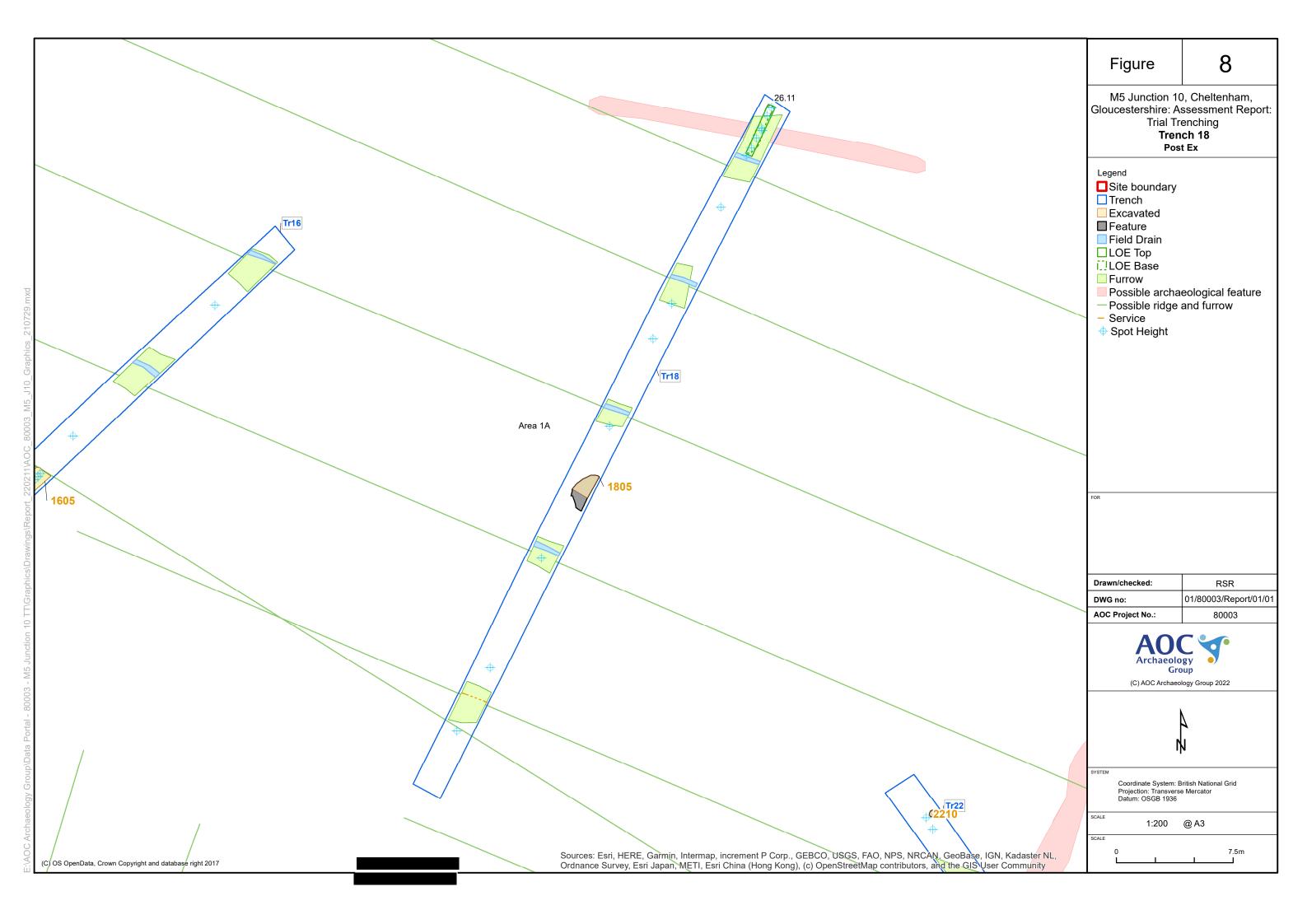


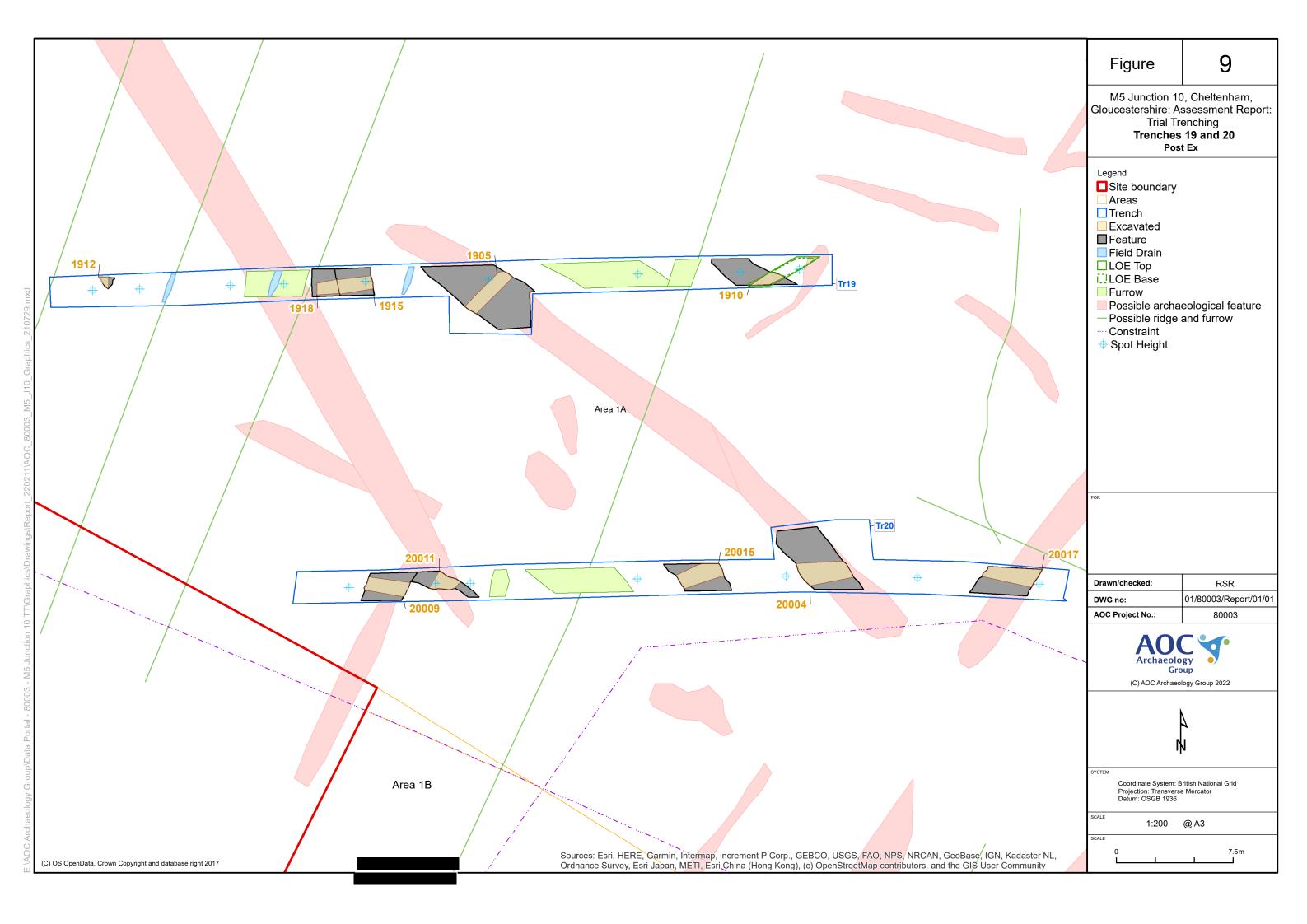


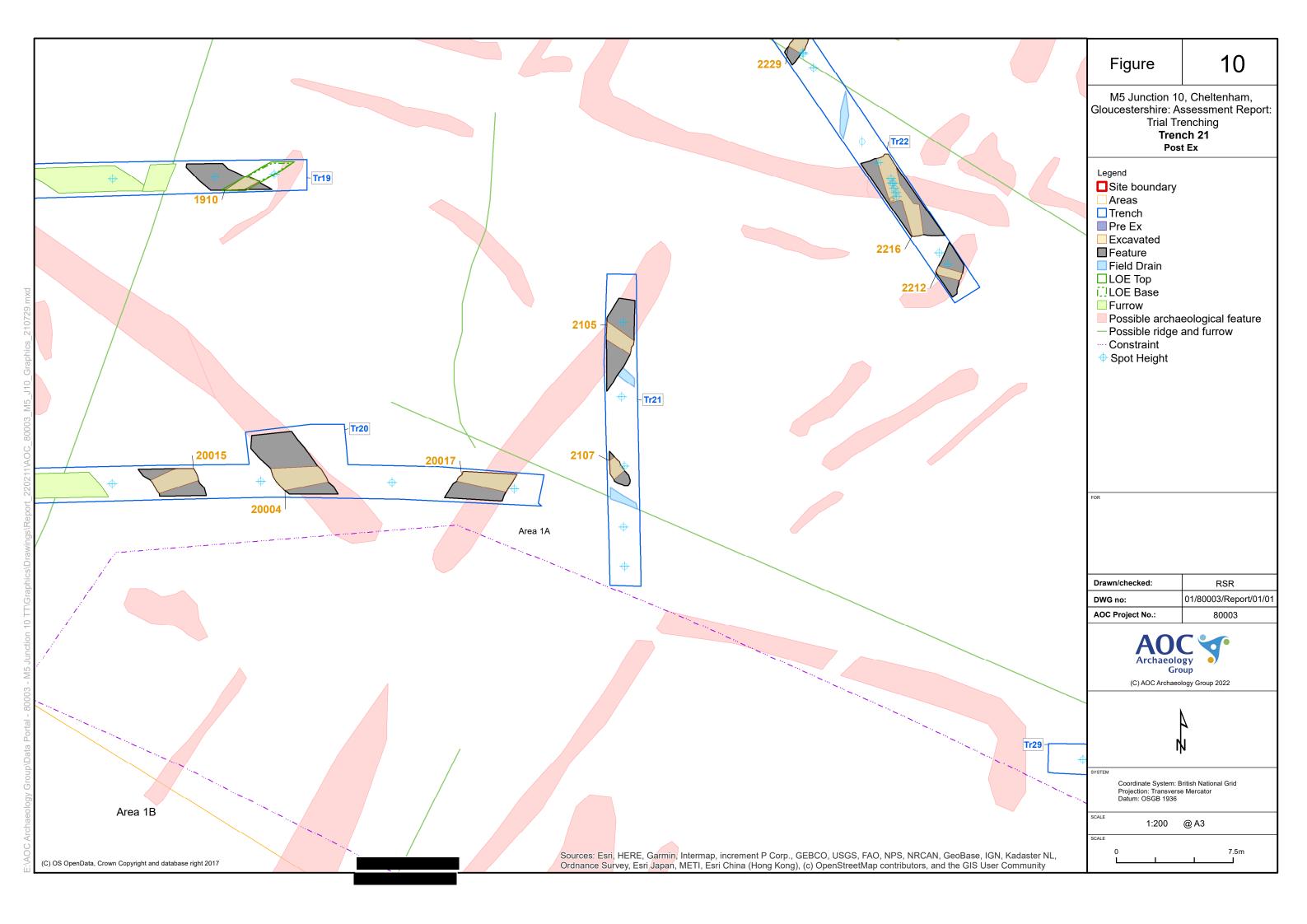


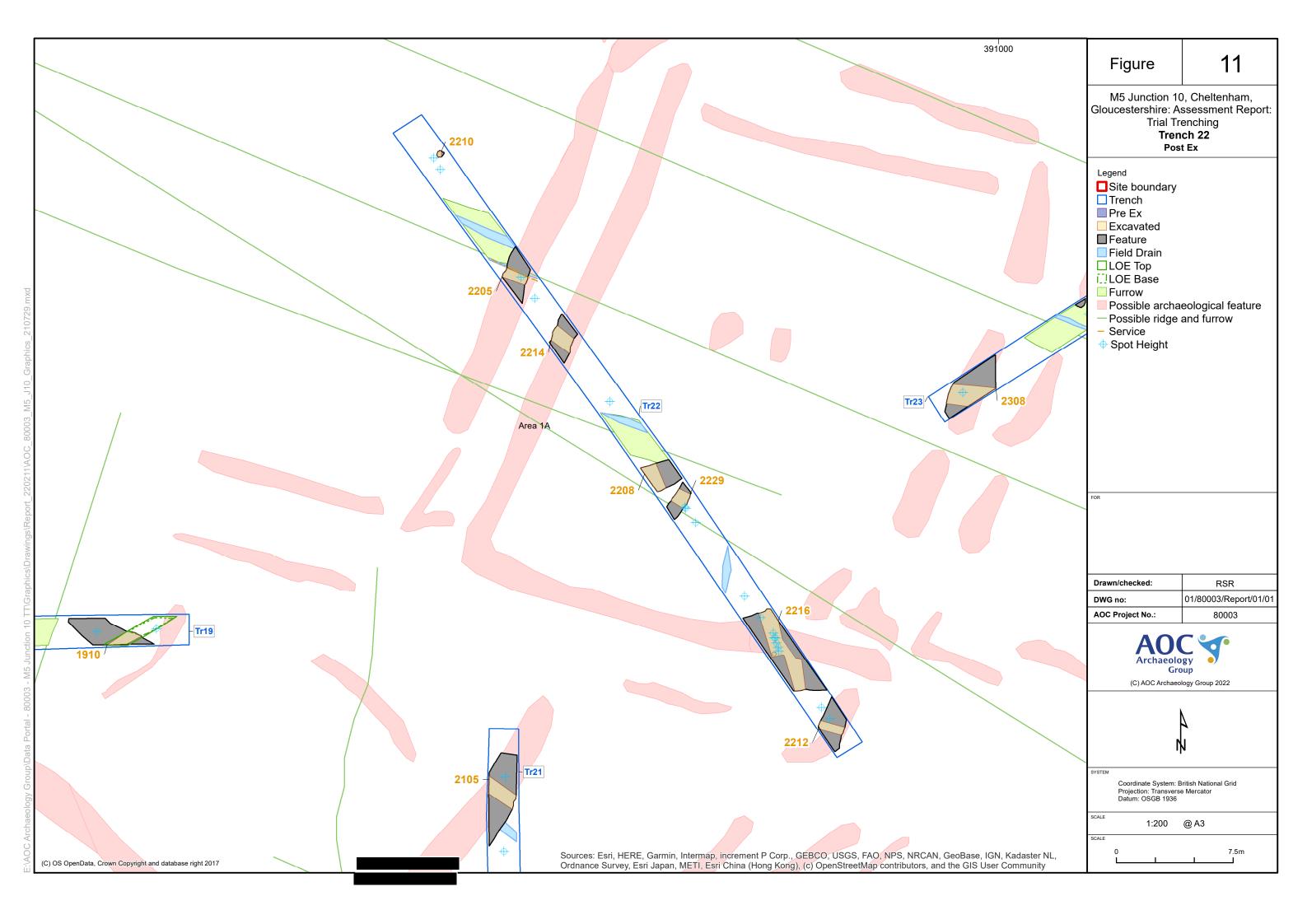


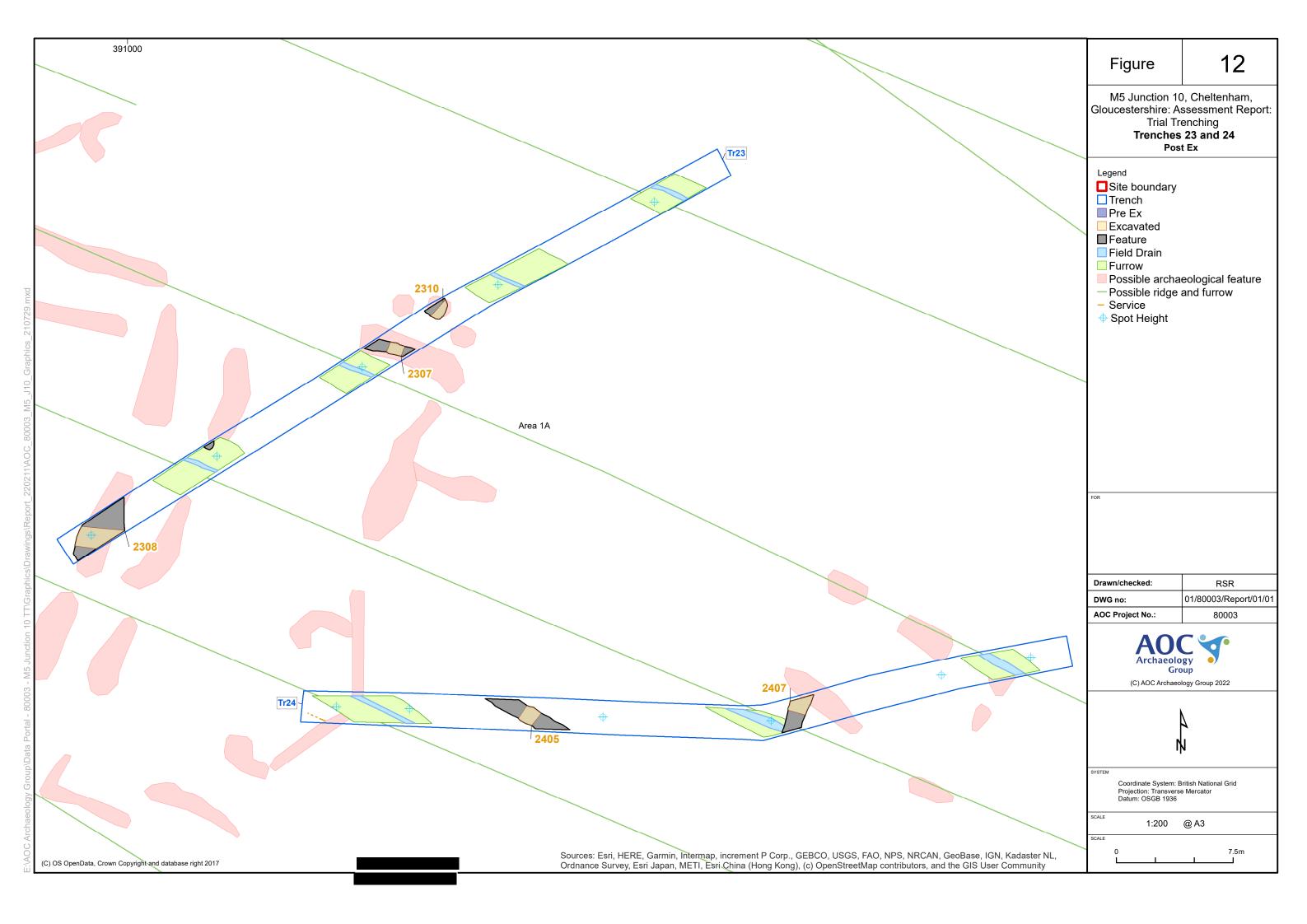


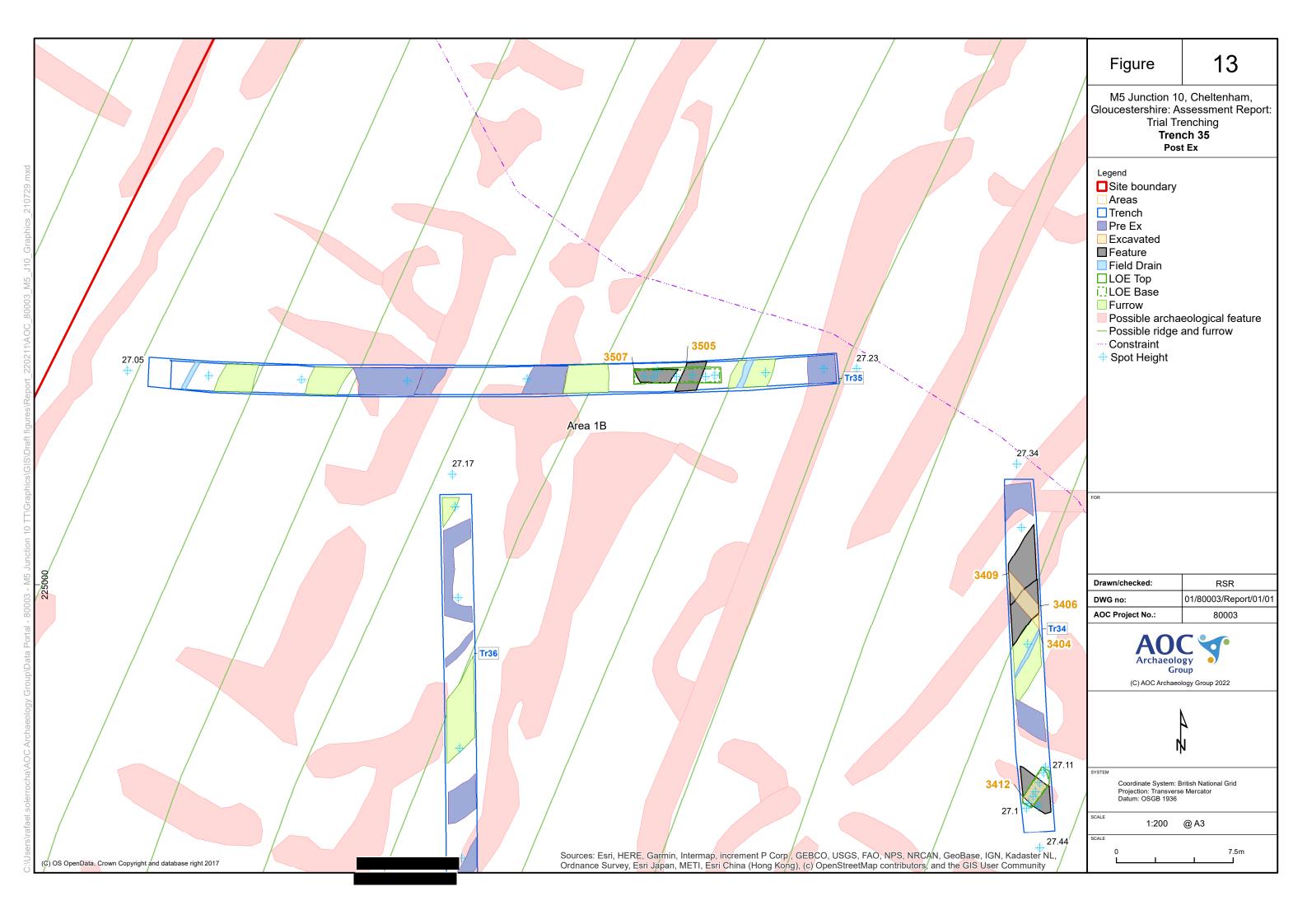


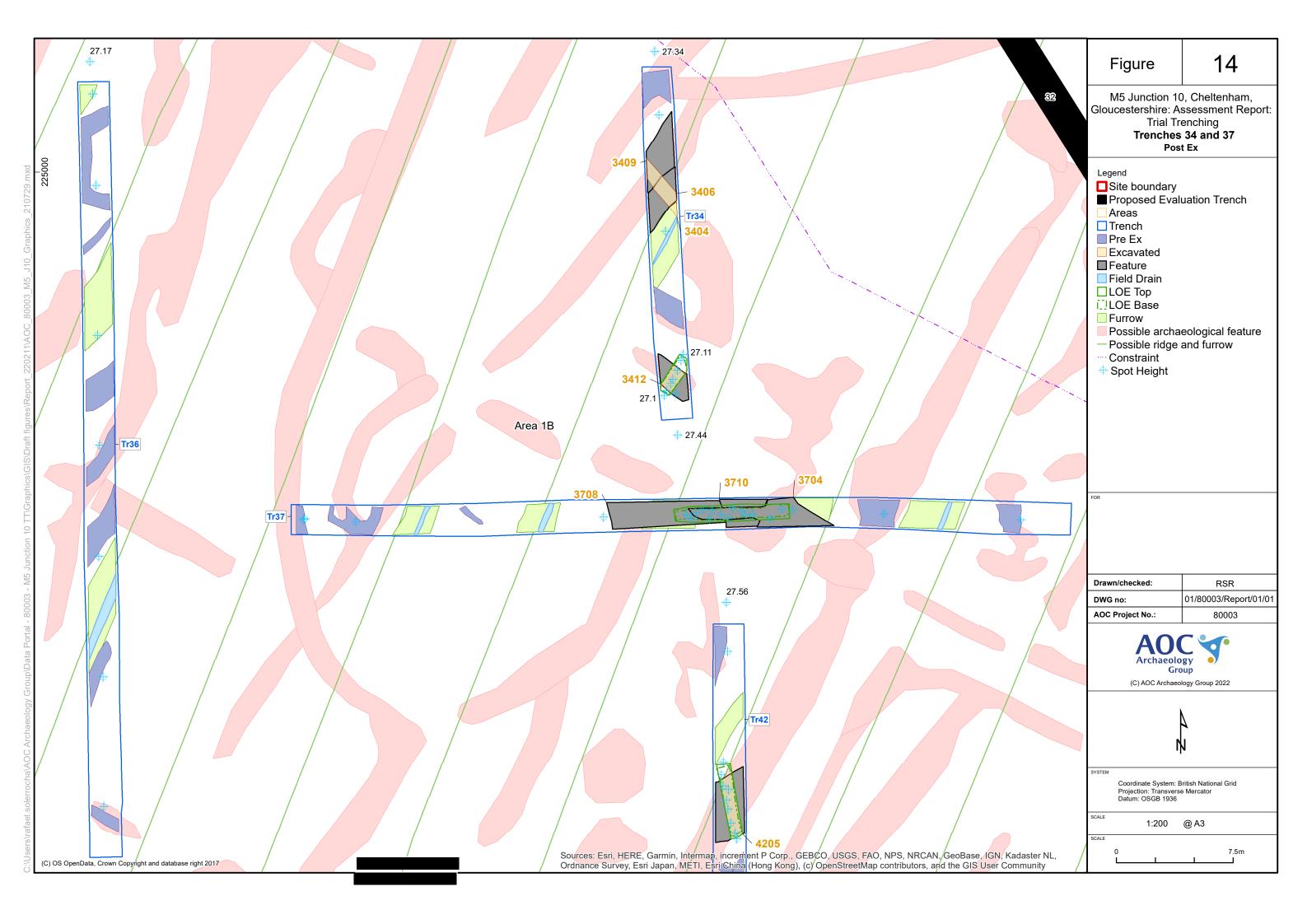


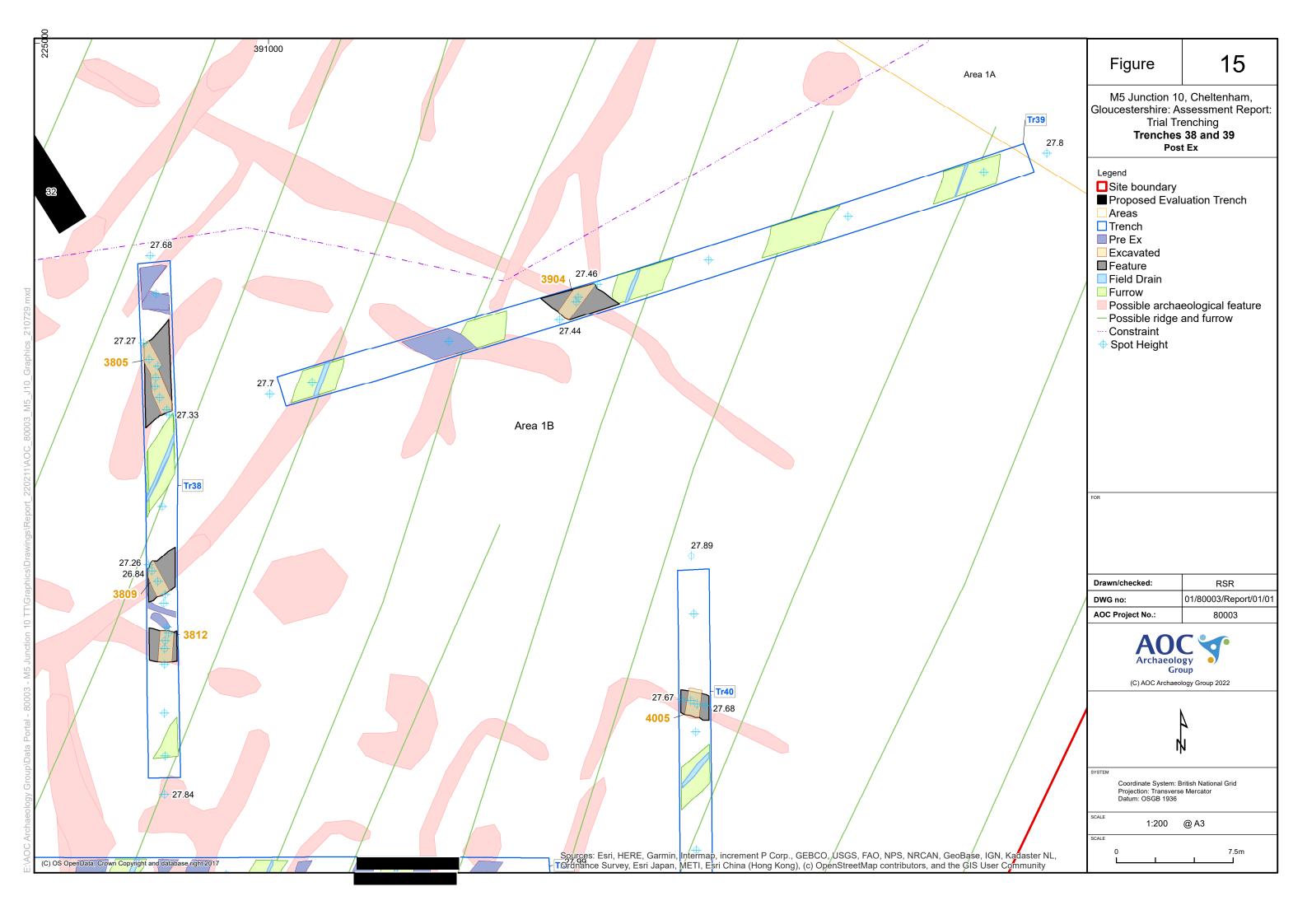


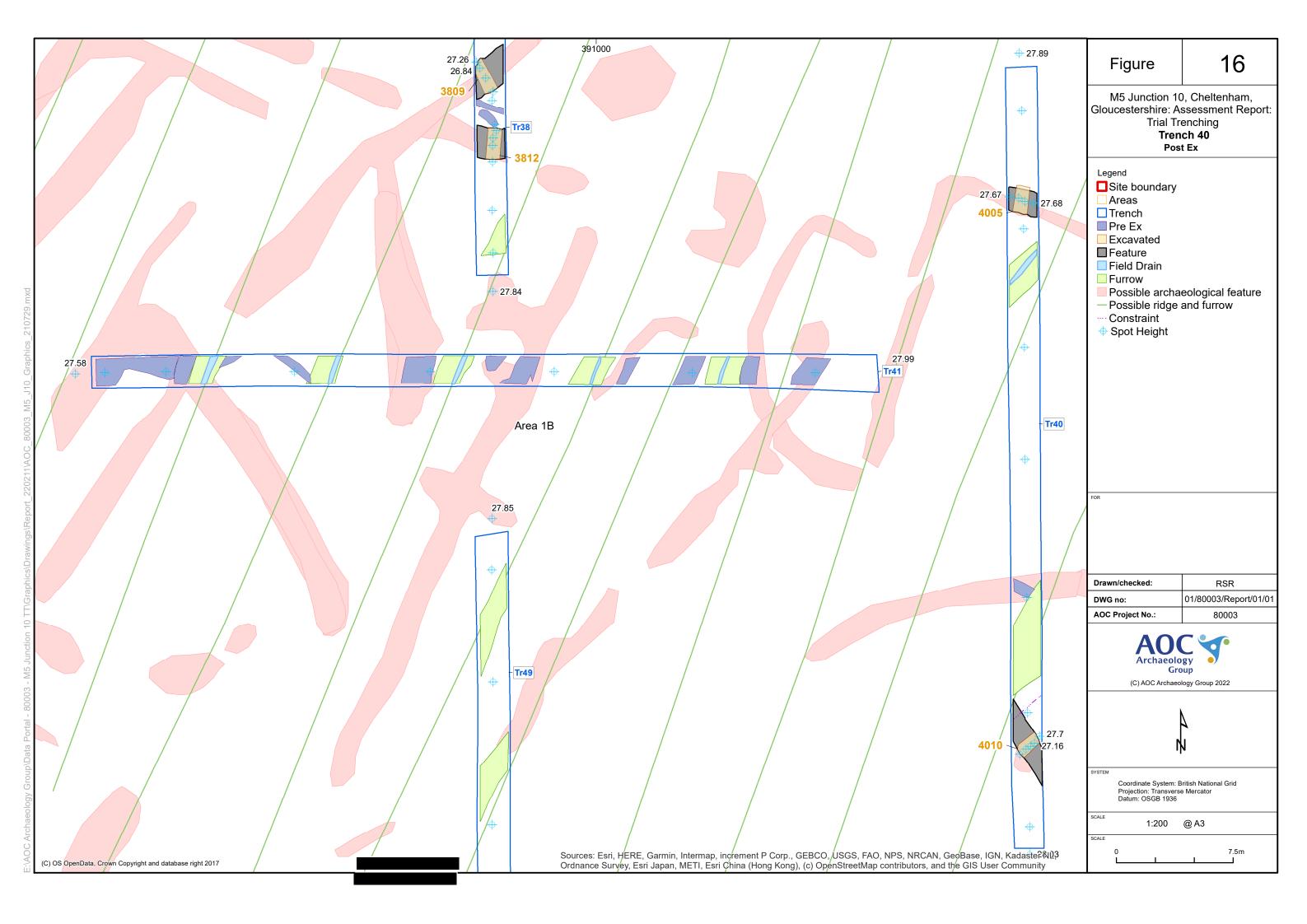


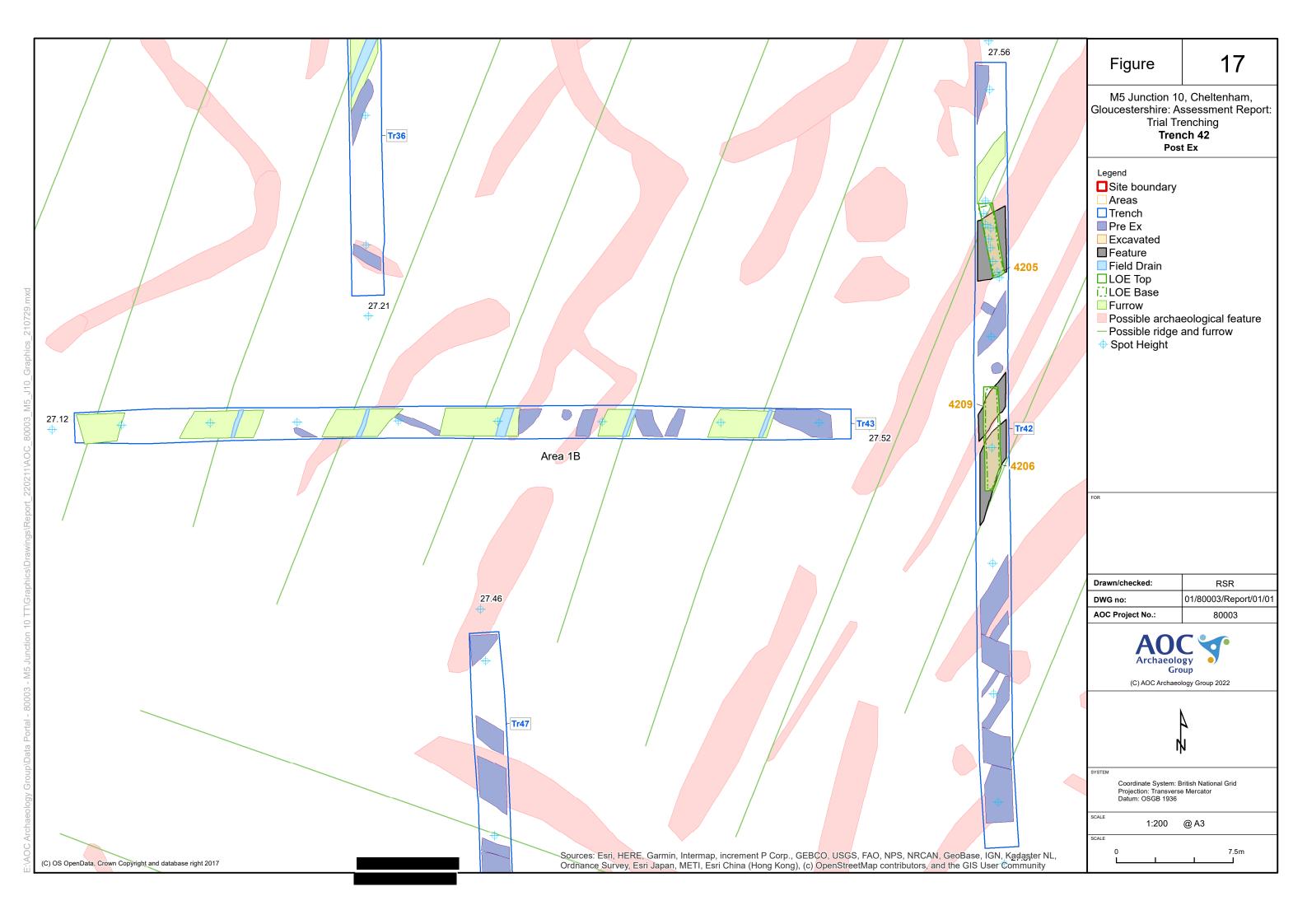


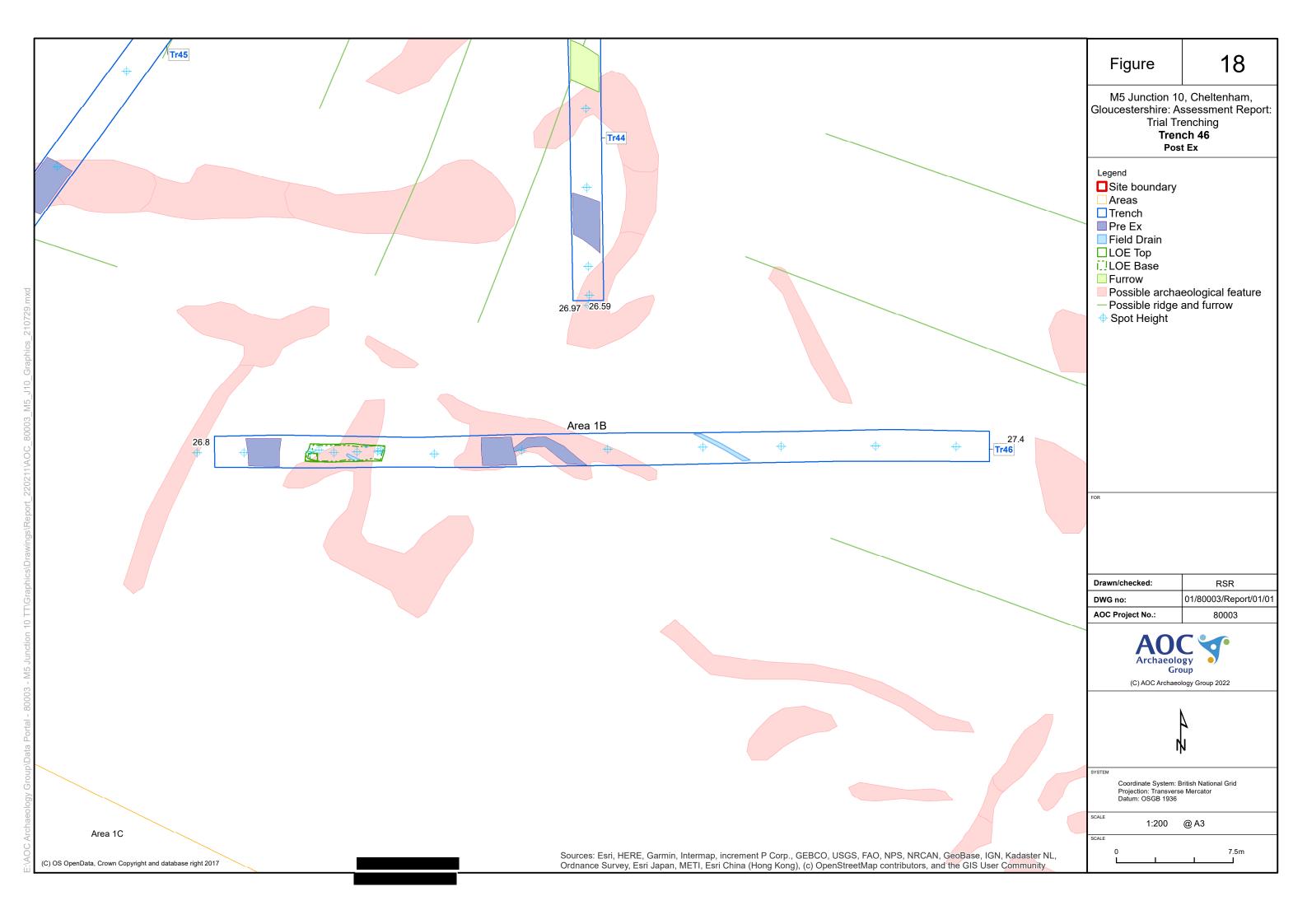


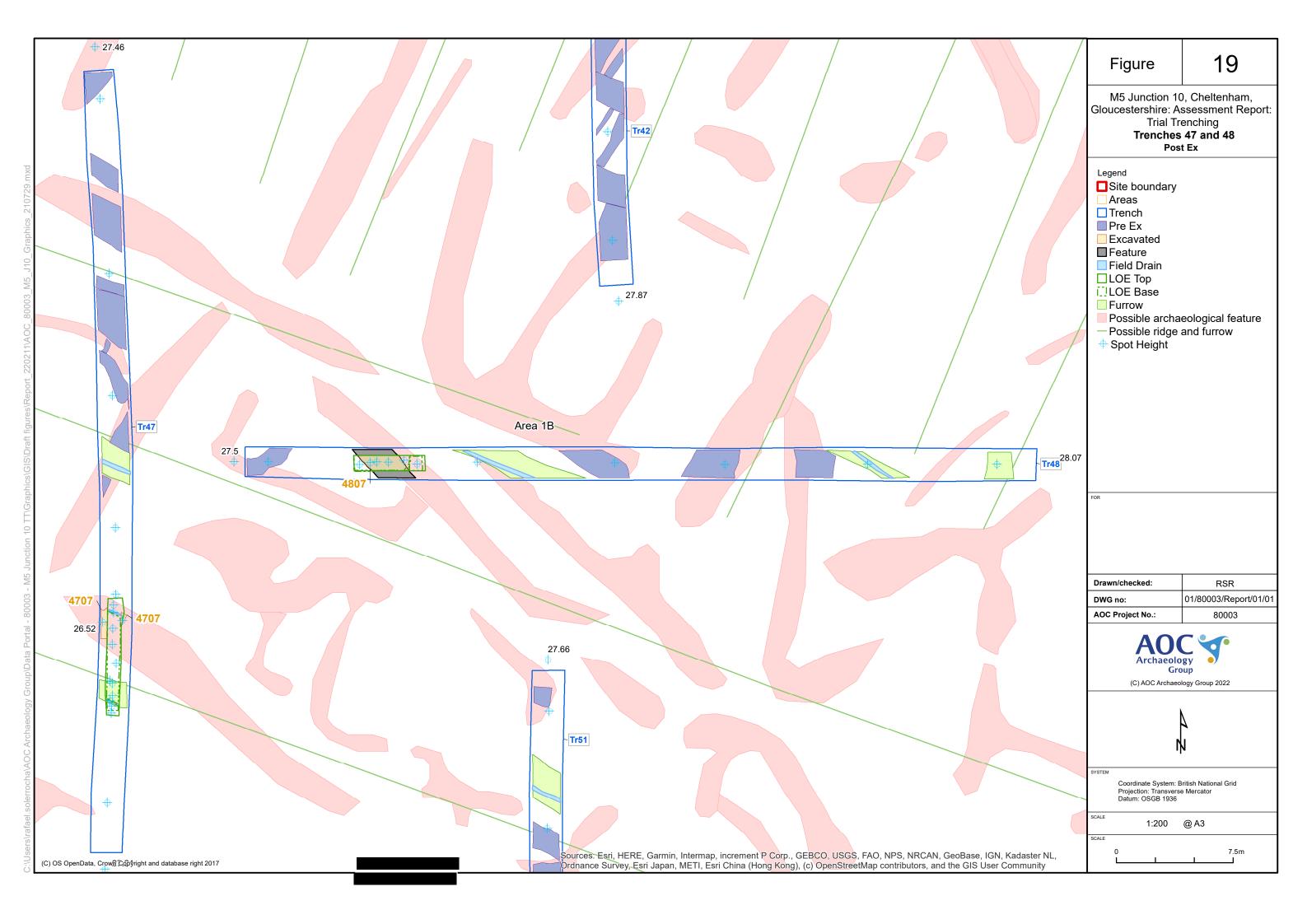


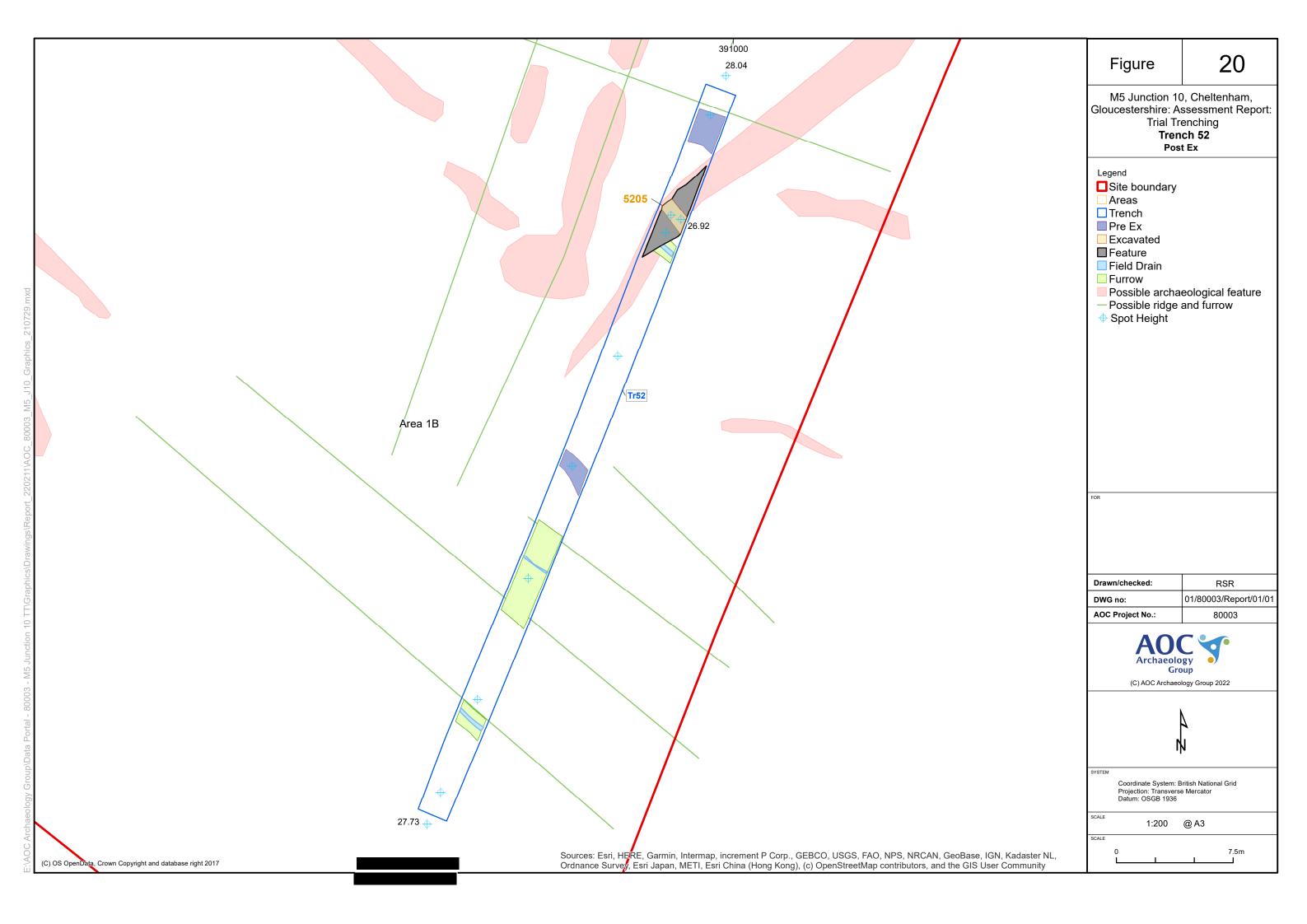


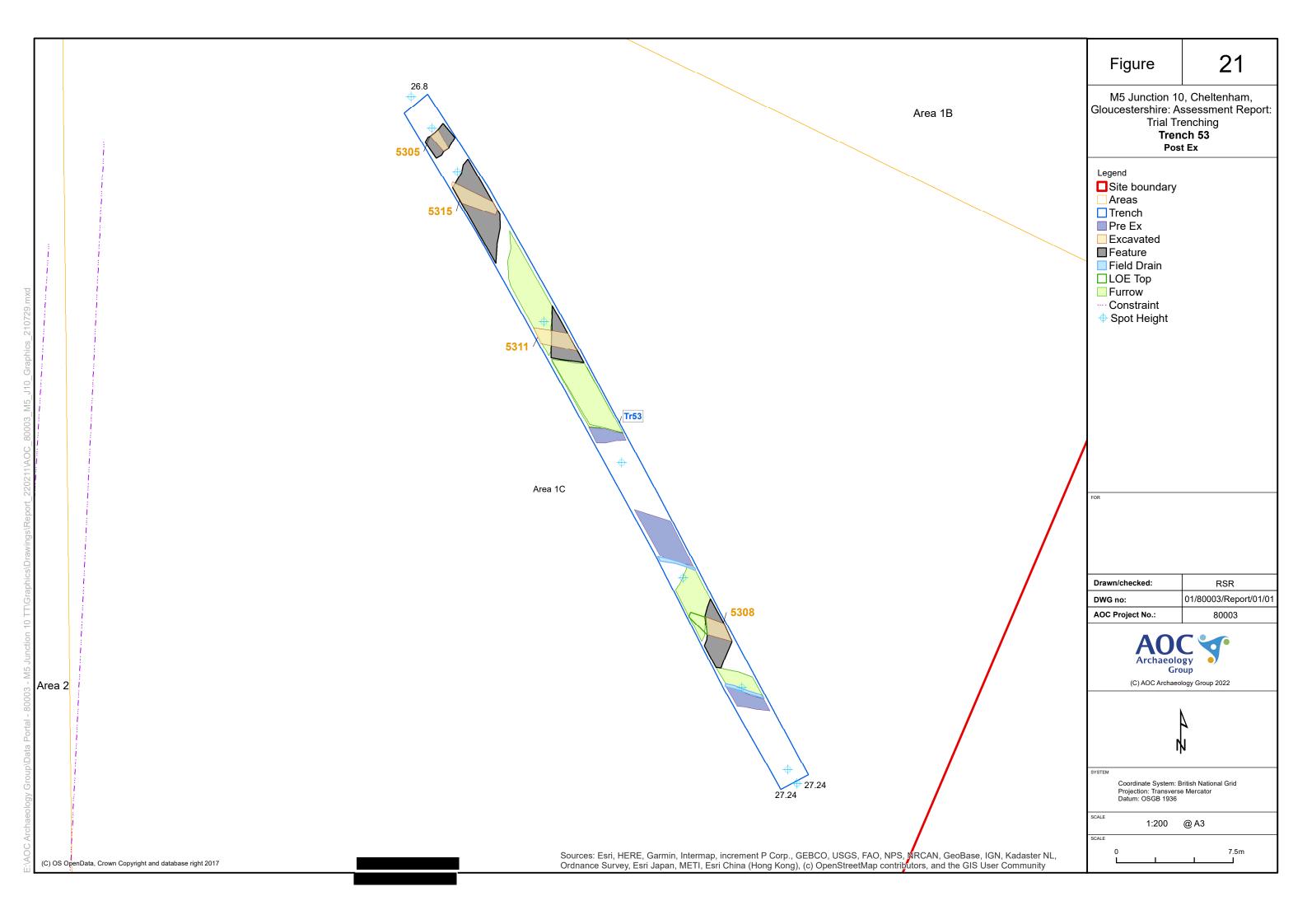


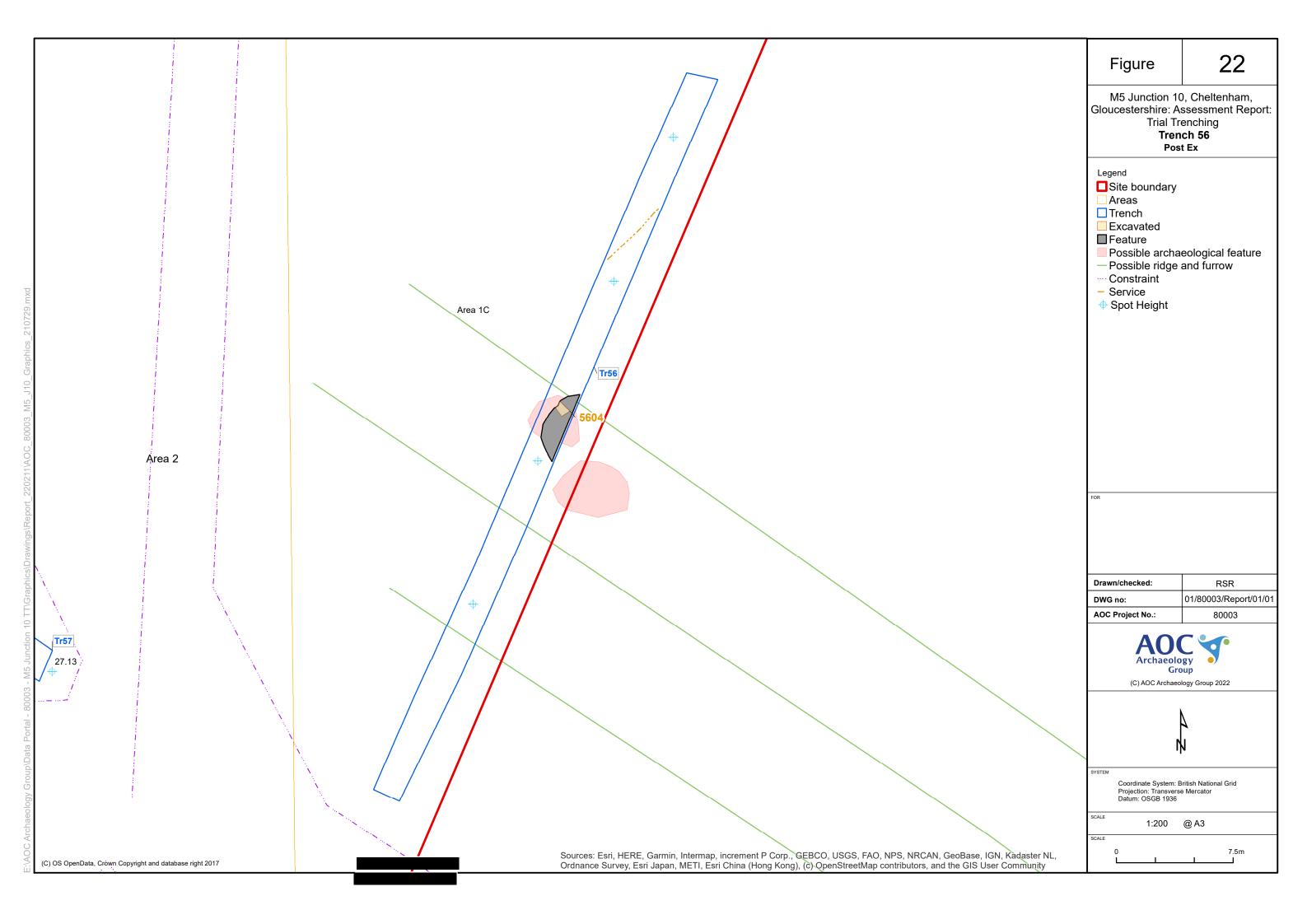


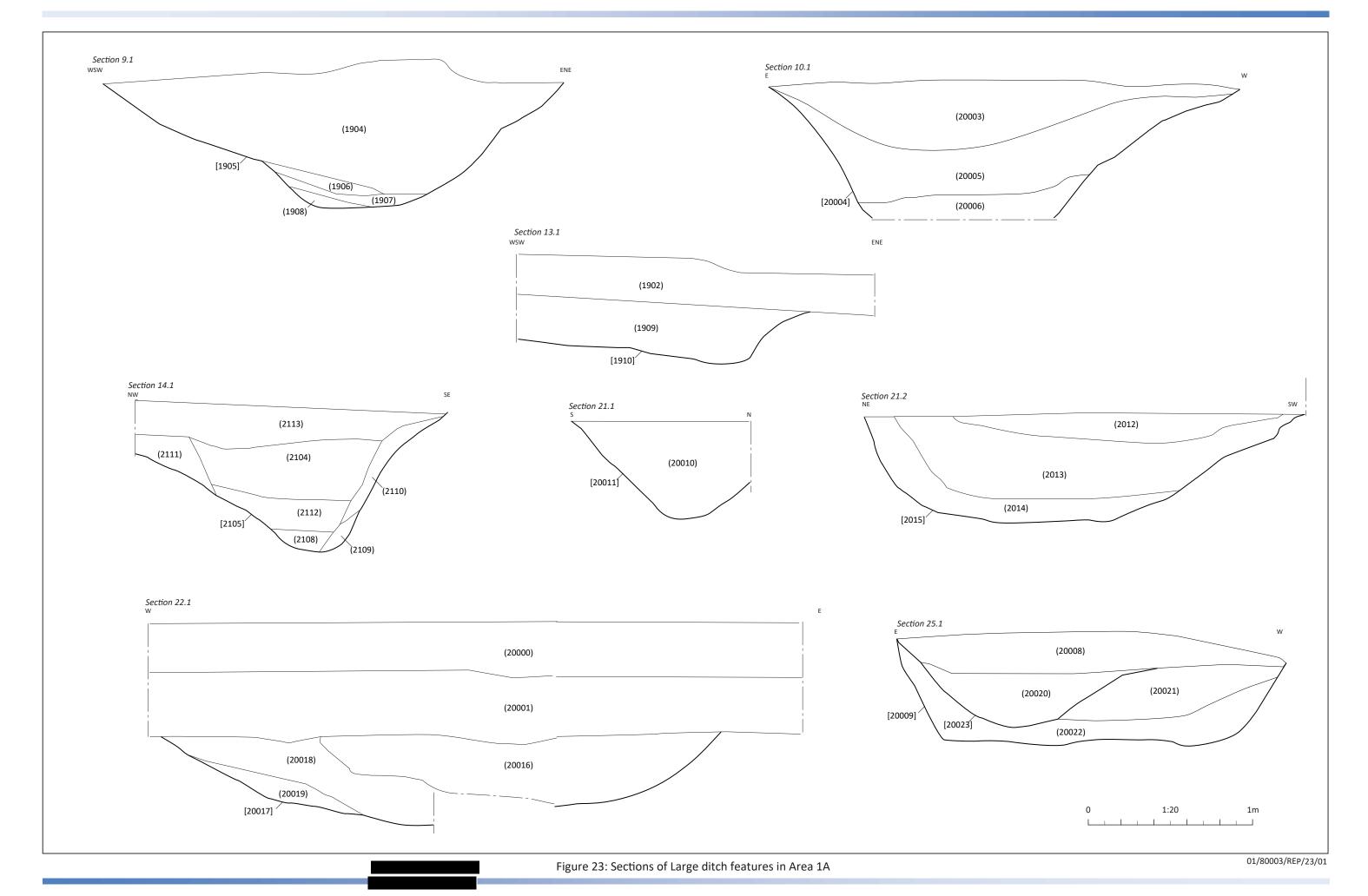












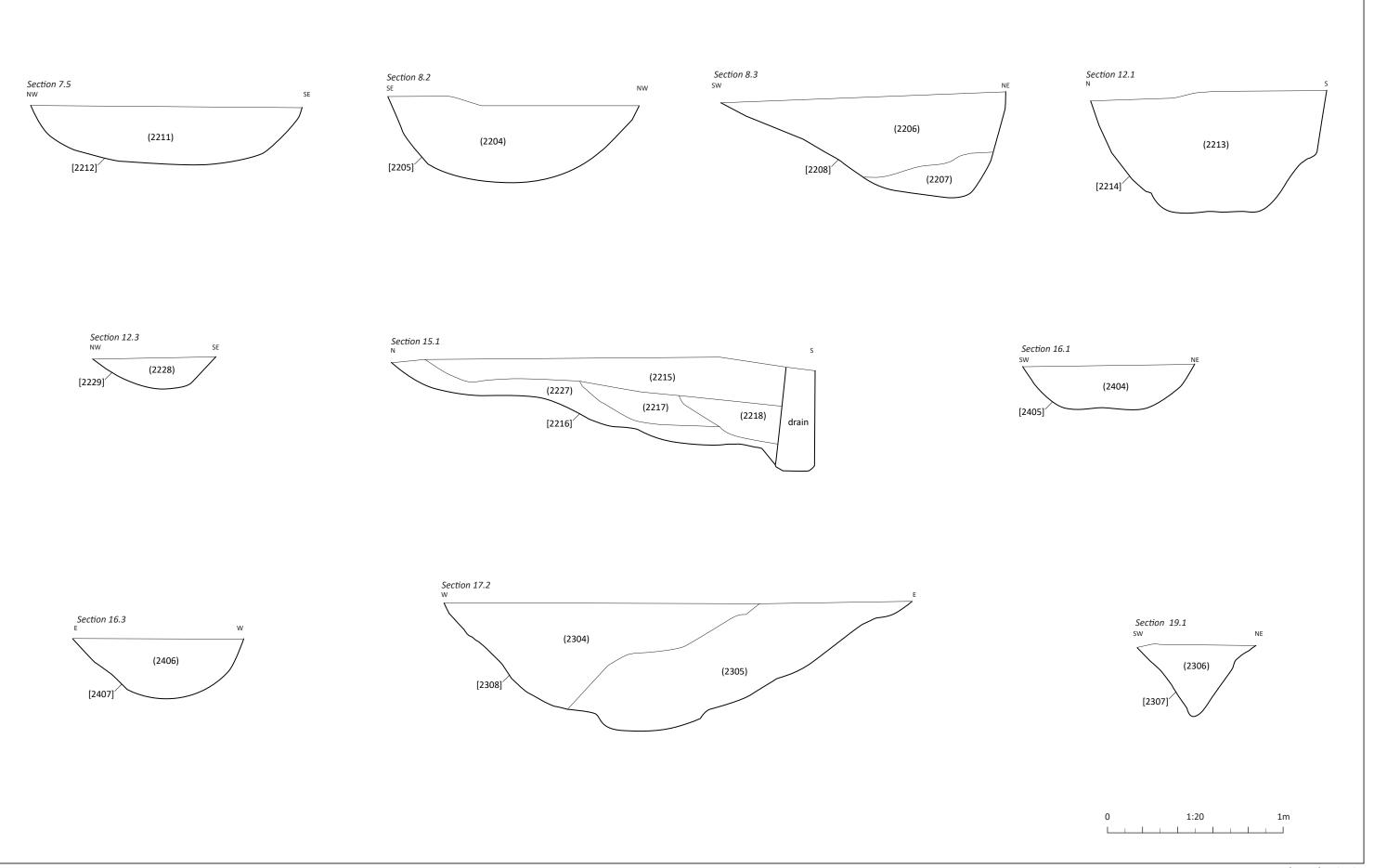
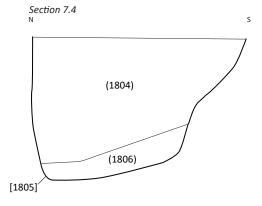


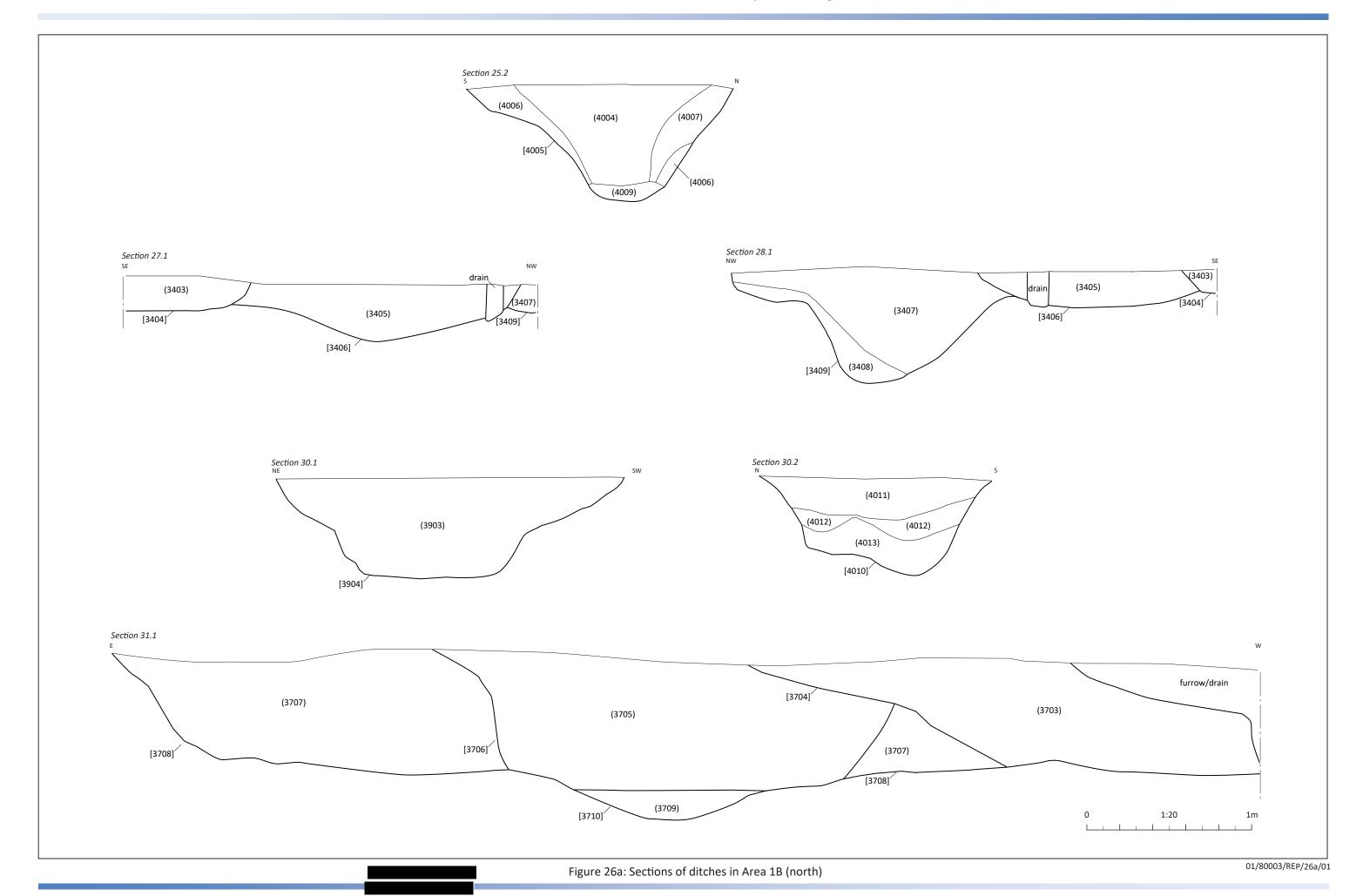
Figure 24: Sections of rectangular enclosure in Area 1A

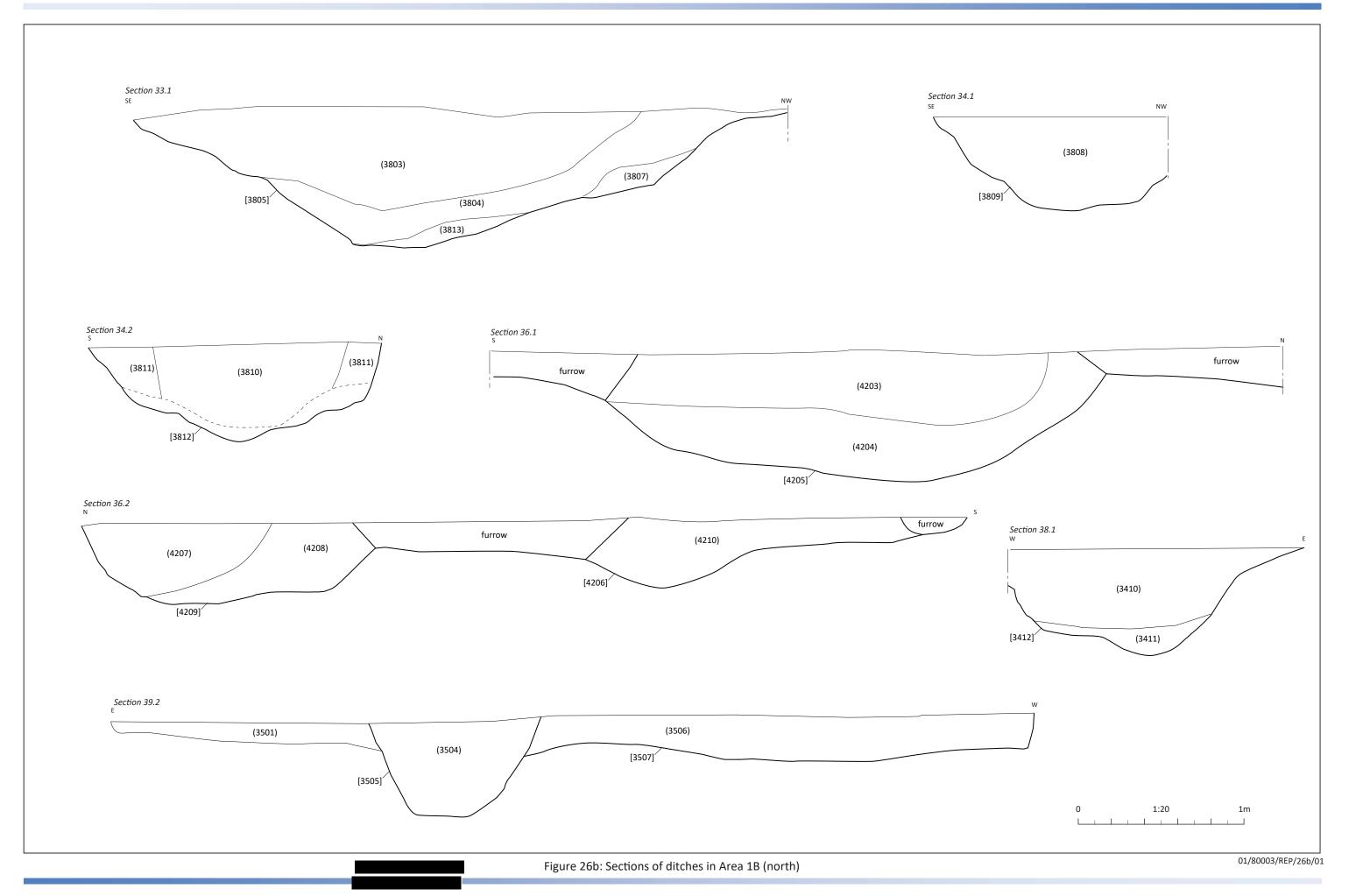


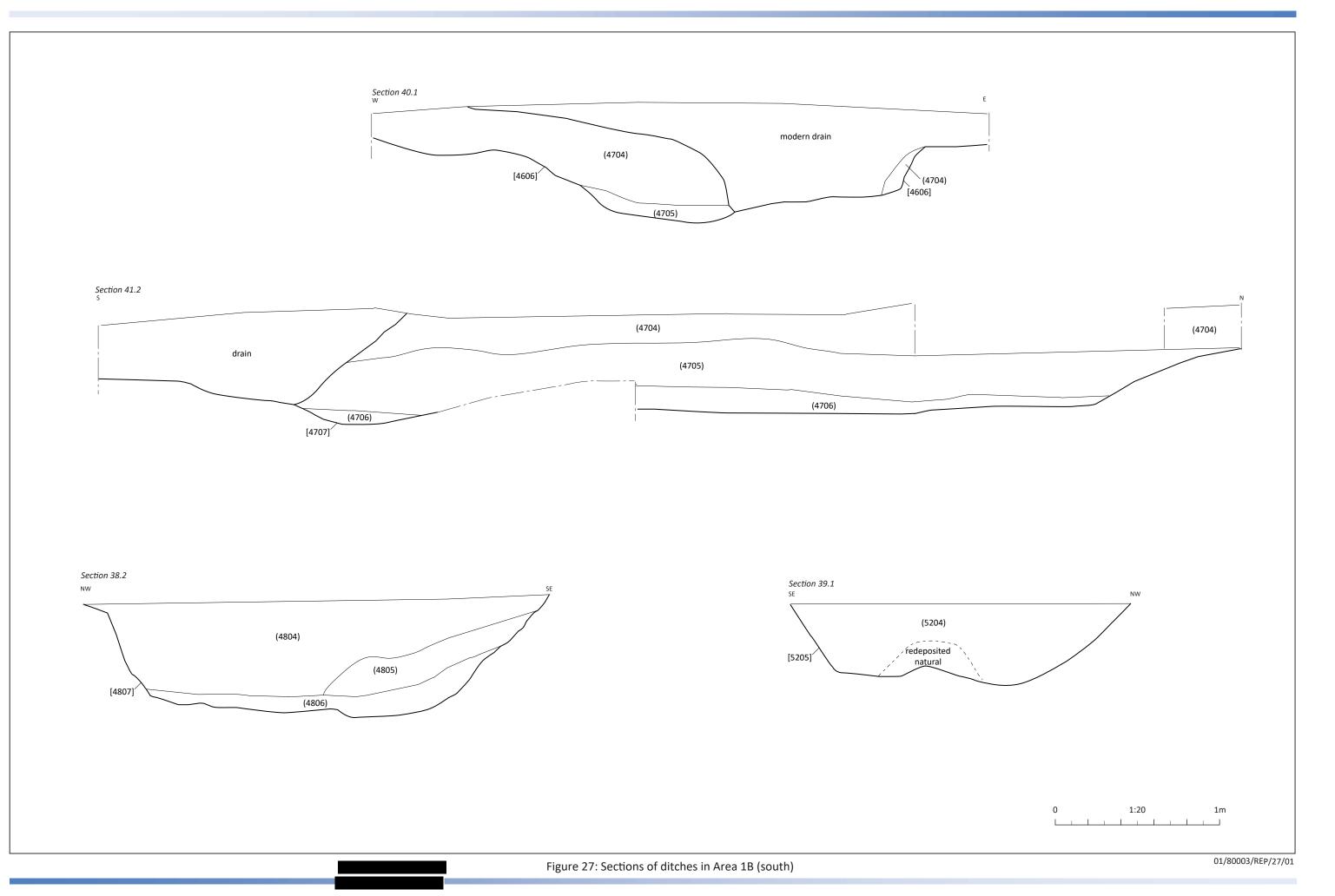


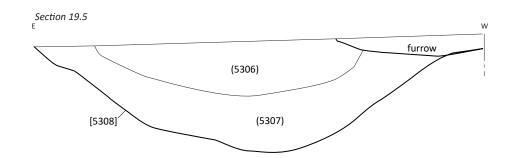
0 1:20 1m

Figure 25: Sections of miscellaneous features in Area 1A

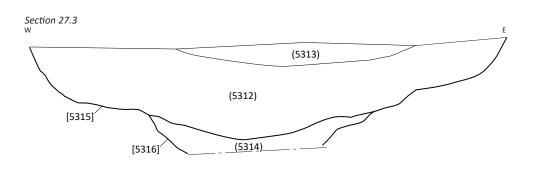








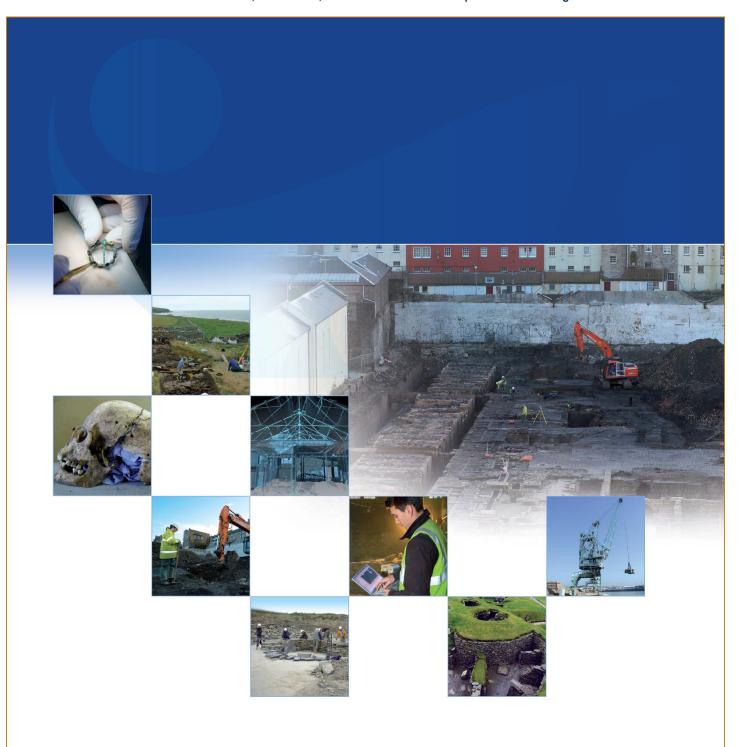






0 1:20 1m

Figure 28: Sections of ditches in Area 1C





AOC Archaeology Group, Unit 7, St Margarets Business Centre, Moor Mead Road, Twickenham TW1 1JS tel: 020 8842 7380 fax: 020 8892 0549 e-mail: london@aocarchaeology.com



5th Floor, Block 5 Shire Hall Bearland Gloucester GL1 2TH

Tel: +44 (0) 8000 514 514