GROOMBRIDGE TO LANGTON GREEN

WATER MAIN

Archaeological Evaluation, Controlled Strip & Watching Brief

Prepared by

NETWORK ARCHAEOLOGY LTD

For

BLACK & VEATCH

On behalf of

SOUTH EAST WATER

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Network Archaeology delivers a complete consultancy and field service nationwide. The company's particular expertise is linear infrastructure, such as pipelines, roads, rail and cables. Its emphasis is upon good communication and recognition of client's individual needs and priorities. Network is known for delivering professional support, taking care of the archaeology and enabling projects to keep moving forward.

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NON-TECHNICAL SUMMARY

This report represents the results of the archaeological watching brief, controlled strip excavations and evaluation undertaken by Network Archaeology Limited between 6th May 2008 and July 23rd 2008 during the construction of a new water main between Groombridge Water Treatment Works in East Sussex (NGR 552862 136510) and Langton Green Reservoir in Kent (NGR554066 139068). The new water main is designed to reinforce the strategic distribution network.

The archaeological investigations were undertaken to identify, appropriately manage and fully mitigate the archaeological resource affected by the construction of the water main.

Previous archaeological evaluation, undertaken in March and April 2008, revealed a number of archaeological features, including ditches, pits, former boundaries and features associated with a former farm, within plots 3, 14, 16 and 22.

Controlled strip under archaeological supervision was undertaken within those plots where archaeology had been previously identified (plots 3, 14, 16 and 22) and a watching brief was undertaken during topsoil stripping and pipe-trench excavation across the remainder of the pipeline route.

A series of Medieval pits and possible hearths were located within plot 14. These may have been related to a spread of later Medieval material previously identified to the southeast of the pipeline and Groombridge Place which occupies the site of a former Medieval moated manor.

A possible prehistoric enclosure along with several other undated features such as pits and former field boundaries were found in plot 16. Controlled strip within plot 22 relocated a ditch which had been dated to the Bronze Age during the first phase evaluation, and demonstrated that it was in fact Medieval.

Further pits, ditches, quarries, boundaries and plant holes were identified during topsoil stripping and pipe trench excavation along the remainder of the pipeline route.

A large volume of unstratified finds were recovered during topsoil stripping including pottery, ceramic building material, post-production residue, worked flint, burnt flint, clay pipe, glass, fired clay, mortar, shell, stone and metalwork.

Potentially, the most significant find was a flint end scraper, recovered from the subsoil within plot 11. Initially thought to be Upper Palaeolithic and of potentially national importance, further research has been unable to corroborate this possibility. Significant densities of worked flint and burnt flint indicated short-term or transient late Neolithic/ early Bronze Age activity on the lower south-facing slope above the floodplain of the River Grom. There are few comparable prehistoric sites in the immediate region and the only Neolithic/ Bronze Age flint scatters previously identified were found at Langton Park to the northwest of the pipeline and close to Eridge Station to the south of the pipeline.

1 INTRODUCTION

1.1 Purpose of this Report

This report presents the results of archaeological investigations, including supplementary evaluation, controlled strip excavations and a watching brief, conducted during construction of a new water main (Figure 1).

1.2 Commissioning bodies

The archaeological works were commissioned by Black & Veatch on behalf of South East Water. The archaeological contractor was Network Archaeology Ltd.

1.3 The pipeline

1.3.1 Pipeline route

The pipeline was built between Groombridge Water Treatment Works (NGR 552862 136510) and Langton Green Reservoir (NGR 554066 139068) in the counties of East Sussex and Kent. The route was 3.74 km long, ran roughly north-east to south-west, and 71% was cross-country with the remaining 29% being street-works.

The pipeline route started at Groombridge WTW and ran north along Corseley Road (passing under the East Grinstead and Groombridge Railway) before turning west along Florence Lane to Withyham Road. The route then headed north (crossing the River Grom) and east across open-country towards Langton Green. At the north-east end, the pipeline ran along the A264 up to the point where it turned into Langton Reservoir (Figure 1).

1.3.2 Physical environment of the pipeline

The route was situated on high and undulating ground with steep hills, ranging from 50 to 130m OD.

A full description of the soils, solid geology and hydrology of the pipeline route can be found in the Written Scheme of Investigation (Network Archaeology Ltd, 2008iii).

1.3.3 Reasons for building the pipeline

South East Water constructed the new pipeline for the transportation of water between an existing water treatment works at Groombridge in East Sussex and the reservoir at Langton Green in Kent. The new water main will reinforce the strategic distribution network.

1.3.4 Pipeline specifications

The pipeline was a 300mm diameter gravity fed potable water scheme.

1.3.5 Pipeline construction

The Principle Contractor was C.J.Thornes. The pipeline was built using the ‘spread’

technique, where all the personnel and equipment necessary were contained within a strip of land known as the working width. The working width for the main was typically 15m in cross-country sections which was reduced to 6m where necessary. Construction activities included:

- Right of Way activities, these being hedge removal, cleaning, fluming and temporary bridging of ditches and temporary fencing of the working width;
- Topsoil stripping of the working width and ancillary areas in cross-country sections;
- Trench excavation and pipe laying in cross-country sections
- Trench excavation and pipe laying in streetworks sections;
- Excavation of launch and reception pits for Horizontal Directional Drill (HDD), and
- Reinstatement, involving the replacement of topsoil and where necessary, the installation of post-construction drainage.

1.3.6 Construction programme

The construction of the pipeline took place between 6th May and 23rd July 2008.

1.4 Legislation, regulations and guidance

The proposed pipeline crosses High Weald, an Area of Outstanding Natural Beauty (AONB). As a consequence Black & Veatch requested an EIA screening opinion from the relevant Local Planning Authorities (Tunbridge Wells District Council and Wealden District Council). It was determined that a statutory Environmental Impact Assessment was required for the pipeline and hence SEW's permitted development rights were removed and a planning application required. Wealden approved the application on the 21st of January 2008 and planning permission was granted by Tunbridge Wells Borough Council on the 18th of Feb 2008. The planning reference for East Sussex was WD/2007/3146 whilst the planning reference for Kent was TW/07/03625/EIAMJ.

The granting of planning consent also covered the requirements of the Hedgerow Regulations (1997) which define a set of archaeological and historical criteria used for determining whether hedges are 'important'.

The project was monitored by the county archaeological teams on behalf of the two planning authorities.

1.5 Archaeological background

1.5.1 Staged approach to archaeological investigation

SEW adopted a staged, multi-discipline approach to archaeological investigation. There had been three previous stages of archaeological investigation (see Table 1.1). The additional evaluation, controlled strip excavations and watching brief formed the final element of archaeological fieldwork.

Table 1.1 Previous archaeological work

Type of work	Areas covered	Organisation	Date
Desk-based assessment and Reconnaissance survey	1km wide study corridor	Network Archaeology	August 2007
Geophysical survey	Pipeline working width	Bartlett Clarke Consultancy	September 2007
Archaeological evaluation, palaeo-environmental assessment and metal detector survey	Pipeline working width	Network Archaeology	April 2008

1.5.2 Desk-based assessment

The route of the pipeline was the subject of an archaeological assessment and field reconnaissance survey the combined results of which were presented in a single report (Network Archaeology Ltd, 2007).

The desk-based assessment of published archaeological information in the public domain, lying within 1km of the proposed pipeline route, identified 243 sites of archaeological importance. Two conservation areas and 70 listed buildings/ structures benefited from statutory protection; three sites, including a possible prehistoric rock shelter, a county boundary and a park, were regionally important; and 168 sites, including buildings, pillboxes, roads/ tracks, parks, woodland, boundaries, drains, ponds, pits, quarries, ridge & furrow, possible enclosures, possible ring ditches, finds scatters and a former farm, were locally important.

At the time of assessment, the proposed pipeline had a direct impact on 27 sites of local importance, these mostly being former or extant field boundaries and also a former farm identified on the 1842 tithe map (DBA:DB) and an enclosure or building (DBA:BH). A possible ring ditch (DBA:BD) which lay on the course of the original route had been avoided by a minor re-route by the time that geophysical survey took place

1.5.3 Reconnaissance survey

A field reconnaissance survey was conducted within 36 of the 39 plots through which the pipeline passed in April 2007 (Network Archaeology Ltd 2007).

A total of 13 observations accounting for 9 sites types were recorded during the field reconnaissance survey and these corroborated 23 of the sites identified by the desk-based assessment. The identified sites comprised three banks, spreads of ceramic building material and pottery, a ditch, an area of ridge and furrow, a lamp post, a quarry, two railways and a sunken lane.

The reconnaissance identified Important Hedges on ten of the eleven historic field boundaries which had been identified through historic map research during the desk-based assessment.

1.5.4 Geophysical survey

A geophysical survey was conducted along a 20m wide strip along the route of the proposed pipeline by Bartlett-Clark consultancy in two phases in August and December 2007. Three sections of the route (Plot 1: 700m, Plot 19: 100m, and Plot 23: 50 m) were not surveyed:

Anomalies of possible archaeological origin were identified in plots 3, 4, 13, 14/15, 16, 18, 18-19, 21 and 22. The survey revealed possible pit-like anomalies, a possible former boundary and anomalies associated with former cultivation.

1.5.5 Archaeological evaluation, palaeo-environmental assessment and metal-detector survey

A total of 19 evaluation trenches were excavated across twelve plots (3, 4, 5, 9, 13, 14, 16, 18, 19, 21, 22, 27), in two phases during March and April 2008.

Evidence of possible prehistoric activity was identified in plots 04, 05, 14 and 22 and evidence of Post-medieval/ early modern activity was identified adjacent to the location of a former farm in plot 03. Other areas of archaeological activity, including former field boundaries, pits, plant holes, and ditches, were also found.

In addition to undertaking trench evaluation for archaeological purposes, preliminary palaeo-environmental assessment was undertaken in the form of four test-pits in plots 05, 07 and 08 within the floodplain of the River Grom. This proved alluvium and some colluvium within the floodplain but no former river channels or peat deposits were found and so no further palaeo-environmentalist or geo-archaeologist work was considered necessary in advance of construction.

A metal detector survey was also undertaken along the route of the pipeline in tandem with the evaluation. This located a low density of background metal finds with no concentrations.

1.6 Recent archaeological investigations

1.6.1 Supplementary trench evaluation

Following previous evaluation (Network Archaeology Ltd, 2008), a supplementary trench was proposed, in order to evaluate a compound which was to be located close to an area of positive findings in plot 03. The exact location of the compound was not determined until construction began and this is why the evaluation trench was excavated at this time.

The purpose of the evaluation trench was;

- To gather sufficient information to establish the presence or absence, extent, condition, character, quality and date of any archaeological, ecofactual, environmental and organic remains;
- To provide a preliminary assessment of the importance of any such remains;
- To assess the potential impact of the proposed compound upon any such remains, and
- To determine any need for further evaluation and mitigation prior to construction.

1.6.2 Watching brief and controlled strip excavations

The watching brief and controlled strip excavations were intended to mitigate the impact of the pipeline on the identified sites (described in sections 1.6.2 to 1.6.5)

and suspected archaeological remains.

The objectives of the programme of archaeological works were:

- To identify, appropriately manage and fully mitigate the archaeological resource affected by construction of the Groombridge to Langton Green Water Main;
- To consider, in all cases of archaeological discovery, whether preservation *in situ* was desirable or achievable as the foremost response;
- To determine, where preservation *in situ* was not desirable or achievable, an appropriate strategy for preservation by record;
- To develop, where possible, knowledge and understanding of the historic landscape and archaeological resource through recording of threatened remains;
- To determine and understand the nature, function and character of any archaeological remains in their cultural and environmental setting;
- To obtain a chronological sequence for the human activity along the pipeline and to place it within its regional context;
- To establish the ecofactual and environmental sequence and context of archaeological deposits and features;
- To engage in a programme of post excavation, archiving, synthesis and study, leading to publication and dissemination of results, and
- To ensure the long-term survival of the information through deposition of a project archive.

1.6.3 Scope of works

The scope of work for East Sussex presented in this report includes evaluation, controlled strip excavations and a watching brief covering:

- Cross-country sections of the pipeline's working width, measuring *c.* 590m x 15m (*c.* 0.89Ha), and
- Compound, measuring 40m x 40m (*c*. 0.32 Ha).

The scope of work for Kent presented in this report includes controlled strip excavations and a watching brief covering:

- Cross-country sections of the pipeline's working width within the county of Kent, measuring *c*. 2460m x 15m (*c*. 3.7Ha), and
- Compound, measuring 40m x 40m (*c*. 0.32 Ha).

1.6.4 Archaeological resourcing

Evaluation in plot 03 was undertaken by one archaeologist over four days between the 6th and 17th May 2008

The controlled strip excavations in plots 03, 14, 16 and 22 were undertaken by two archaeologists over 20 days between the 9th May and 14th July 2008. The watching

brief was undertaken by one archaeologist over five weeks between 7th May and 22nd July and 2008.

Report writing was undertaken by one person over three weeks. Use was made of MapInfo GIS and AutoCAD to manage and present the data. Nine sub-contractors provided the technical assessment reports.

1.6.5 Regional Research Frameworks

All archaeological works considered existing and developing research frameworks from the surrounding regions, including the South East Regional Framework (in prep), Buckinghamshire County Council 2007, Nixon, T. et al. 2002 (eds.), MoLAS 2000, Nixon, T. 2002, Glazebrook, J. 2002, Glazebrook, J. 2000, University of Leicester Archaeological Services 2006, ALGAO (in prep) and Oake, M (in prep).

1.7 Distribution of this report

Copies of this report will be distributed to the following people:

- Chris Philipson, James Fuller and James Twohig, Black & Veatch;
- Graham Webb, Infrastructure Manager and Graeme Mellor, Project Manager, South East Water;
- Casper Johnson, Principal archaeologist and Greg Chuter, Archaeologist, East Sussex County Council (ESCC) - Transport and Environment; and
- Adam Single, Principal archaeologist Kent County Council Heritage Conservation (KCCHC).

1.8 Structure of this Report

This report is divided into five main chapters followed by seven appendices:

Chapter 1 serves to introduce the parties involved, the pipeline route and construction methods, the aims and scope of the watching brief, and the layout of this report.

Chapters 2 deals with the archaeological standards and methods applied in the field and for reporting.

Chapter 3 provides the results of the archaeological fieldwork, a summary of specialist reports and a confidence rating of the results.

Chapter 4 presents the discussions and interpretations of the results.

Chapter 5 draws on conclusions inferred from the fieldwork

1.9 Publication

A summary of the findings made during the archaeological works and associated illustrations will be submitted to either Archaeologia Cantiana or Sussex Archaeological Collections for publication.

2 PROCEDURES

2.1 Standards

All archaeological work was undertaken in accordance with:

- Professional codes, standards and guidance documents (English Heritage 1991ii; IfA 2008);
- The methodology laid out in the Written Scheme of Investigation (Network Archaeology 2008)
- Standards for archaeological fieldwork, recording and post-excavation work in East Sussex, 2008
- County guidance documents (KCC undated)
- Relevant H&S legislation and guidance (Allen & Holt 1986; HSE 1974, 1994, 2002; Network Archaeology 2008, SCAUM 1991).

2.2 Fieldwork

2.2.1 Archaeological trench evaluation

One 30m long trench was excavated in plot 03. Machinery was under the direct and continuous control of the attending archaeologist.

2.2.2 Controlled strip excavations

Five sections of the pipeline's working width in four plots were subject to controlled strip excavation (see Table 2.1) (Figure 2). In areas of controlled strip, machinery was under the direct and continuous control of the attending archaeologist.

Contingency to extend the length of the controlled strip excavations in the event of positive findings resulted in the area in plot 14 being extended from 150m by 22m, and the area in plot 22 being extended from 100m by 34m.

Table 2.1 Areas of controlled strip

Plot	NGR 1	NGR 2	Length (approx) (m)	Width (approx) (m)	Area (approx) (m^2)
03	552526 136914	552528 136937	22.6	1.5	33.9
14	552573 137893	552702 137971	172	15	1500
16	552784 138042	552848 138119	100	15	1500
16	552897 138177	552960 138254	100	15	1500
22	553634 138714	553711 138821	134	15	1500

2.2.3 Topsoil stripping and pipe-trench excavation in cross-country areas

Prior to construction, it was agreed with ESCC and KCCHC that an archaeological watching brief was required in principle along the entire pipeline route throughout construction. Plots 01 and 02 were excluded on the basis that they were a road and verge, plot 23 was excluded as the area was a series of allotments which were under-passed by horizontal directional drill, plots 32 and 33 were excluded as they were within streetworks areas and minimal observation took place within plot 39, Langton Green WTW. In the event, opportunistic monitoring of the pipe-trench took place within plot 02 and an intermittent watching brief was conducted in plot 03

(excluding the controlled strip area), and in plots 04 and 05.

2.2.4 Pipe-trench excavation in streetworks areas

An opportunistic watching brief was proposed to target plots 25 (Groombridge Road), 30 (Groombridge Hill) and 31 (Langton Road).

2.2.5 Historic boundaries

An opportunistic recording survey, including a combination of surface profiling and recording of exposed sections within the pipe-trench, was proposed for all boundaries crossed by the pipeline including ten historic boundaries identified by field reconnaissance (Network Archaeology 2007).

2.2.6 Survey

Archaeological features and finds were recorded to sub-metre accuracy using GPS technology by the attending archaeologist.

2.2.7 Hand-excavation, recording and sampling

Archaeological excavation and recording was undertaken in accordance with the methodology laid out in the Written Scheme of Investigation (Network Archaeology Ltd, 2008iii).

2.3 Project codes and number allocations

Network Archaeology's project code for the archaeological investigations was GRL56.

Each plot of land (field, garden, track, road etc.) crossed by the pipeline had previously been allocated a unique plot number (01 – 32).

Each plot was allocated a unique block of 100 context numbers for recording purposes during the watching brief. The first digit corresponded to the plot number. For example, plot 01 was allocated 100-199, plot 02 was allocated 200-299 and so on to plot 32 which was allocated 3200-3299. This ensured that each context number could be recognised as being from a specific plot.

Digital images were numbered sequentially from 001 and GPS location identifiers were given a unique seven digit number generated from the GPS reading.

2.4 Assessment of archive, finds and soil samples

Upon completion of the fieldwork, the finds, soil samples and stratigraphic information were assessed by appropriate specialists as to their potential and significance for further analyses (Table 2.4 and Appendix D).

Table 2.2 Summary of material types and specialists

Material type	Assessment by
Animal Bone	Jen Wood
Cbm	Rachel Hall
Clay pipe	Susie White
Glass	Andrew Richmond
Metalwork	Kevin Leahy
Post-Roman pottery	Luke Barber
Production residues	Roderick Mackenzie
Shell	Janey Brant
Soil samples	Gemma Martin
Worked and burnt Flint	Hugo Lamdin-Whymark
Worked stone	Luke Barber

2.5 Data management and presentation

2.5.1 Plot summary table

Summary plot data is presented in Appendix A.

2.5.2 Context summary table

Summary context data is presented in Appendix B.

2.5.3 Figures

Eighteen figures are presented in Appendix I. There is one overall location plan, showing the route of the pipeline in its geographical context (Figure 1), a plan showing the discovered archaeological sites along the pipeline in relation to the applied mitigation (Figure 2), four figures presenting the distribution of discovered archaeological sites in the context of previous findings in the locale (Figures 3 to 6) and a further four figures presenting the distribution of findspots in the context of previous findings in the locale (Figures 7 to 10). Archaeological plans of the four areas of controlled strip (plots 03, 14, 16 and 22) and a selection of sections of excavated archaeological features are also presented (Figures 11 to 18).

2.5.4 Accuracy of displayed data

Data was captured from two sources: 1:2500 OS base plan provided by the client and permatrace drawings at 1:50 and 1:20 and 1:10 scale. The figures have a positional accuracy of *c*. ± 0.1m and the archaeological remains within them the same level of *c*. ± 0.1m.

3 RESULTS

3.1 Introduction

The watching brief revealed a combination of negative cut features, soil layers and finds, a summary of which is provided in Table 3.1 below. The cross-country results are described by plot number in Section 3.3 and the streetworks are described in Section 3.4. A summary of the historic boundaries is given in section 3.5. The finds are described by find type in Section 3.6 and the palaeo-environmental data is described in Section 3.7.

A summary of findings by plot can be found in Appendix A, a summary of contexts in Appendix B, context matrices in Appendix C, specialist finds reports in Appendix D, a summary table of all finds in Appendix E, a summary table of GPS finds in Appendix F, a summary table of boundaries in Appendix G, selected plates in Appendix H and the figures in Appendix I.

In this chapter, the term ‘subsoil’ refers to any naturally-developed, non-anthropogenic layer which is located below topsoil and above natural substrate.

Subsoil, may therefore constitute:

- A naturally-developed 'B' horizon directly below topsoil ('A' horizon) and directly above parent material ('C' horizon);
- A naturally-developed 'B' horizon below topsoil ('A' horizon) and above an archaeological deposit (surrogate ‘C’ horizon), or
- Any other naturally-developed deposit below the topsoil ('A' horizon) such as alluvium or colluvium, which may or may not contain an anthropogenic component

3.2 Summary of findings

A summary quantification of findings by site type is presented in Table 3.1 below. A detailed breakdown by plot is presented in Appendix A.

Table 3.1 Summary quantification of site types

Findings	Count
Alluvium	2
Area of burning	3
Bank	1
Colluvium	4
Construction layer	1
Ditches	9
Field boundaries	8
Drainage ditches	2
Road surfaces	3
Springline	1
Furrow	3
Hollow	1
Land drains	2
Metalling	1

Findings	Count
Service trench	1
Pits	27
Plant holes	32
Ponds or quarry pits	4
Roadside gulleys	2
Postholes	3
Quarry pits	3
Stakehole	1
Trackway	2

3.3 Cross-country results by plot

3.3.1 Plot 02

Location

This plot was the roadside verge at the point where Florance Lane, Withyham Road and the B2188 converge to the southeast of Old Farm (NGR 552547 136925 centre, figure 2).

Soil profile

The topsoil (200) comprised 0.35m of pale grey-brown soft friable silt which overlay up to 0.20m of pale grey-orange friable silt (201). Directly below this was a layer of pale grey-ginger calcerous silt (202), the depth of which was not visible within the pipe-trench.

Archaeological features seen in the pipe-trench

This plot was only monitored during excavation of the pipe-trench.

Within the eastern half of the plot were three large inter-cutting pit-like features (**203**, **207** and **208**) (figure 3). All of the features cut the subsoil (201) and were sealed by the topsoil (200).

Pit **203** had indeterminable sides and a flat base (2.3m wide and 0.12m+ deep). The sole visible fill (204) was pale grey fine calcerous silt which contained fragments of Post-medieval ceramic building material. The fill of Pit **203** was cut by Pit **207**.

Pit **207** had steep concave sides and a flat base (5m wide and 0.68m+ deep). The sole fill (205) was pale grey fine friable calcerous silt which contained no finds. Pit **207** cut the fill of Pit **208** on its western side.

Pit **208** had a gradual concave edge and a concave base (2.70m wide and 0.44m+ deep). The sole fill (206) was pale grey fine friable calcerous silt which contained no finds. Pit **208** cut the fill of Pit **203** on its eastern side and was cut by Pit **207**.

Surface finds

A single flint flake was recovered from the stripped subsoil surface (201)of the working width (figure 7).

3.3.2 Plot 03

Location

This plot was located on flat ground to the southeast of Old Farm (NGR 552518 137039 centre, figure 3).

Archaeological background

The desk-based assessment identified two former field (DBA:DH and DBA:DE), an historical boundary and important hedge (DBA:DN) and a former farm (DBA:DB) marked on the 1842 tithe map boundaries (Network Archaeology Ltd 2007) (figure 3).

A single evaluation trench, excavated during the first evaluation phase, revealed a number of archaeological features including pits, ditches, a brick-structure and a brick post-pad (Network Archaeology Ltd 2008i). One of the ditches (3114) correlated with one of the field boundaries (DBA:FC), identified by the desk-based assessment.

The recent archaeological investigations in this plot comprised four phases of work (archaeological trench evaluation, controlled strip, watching brief during topsoil stripping and watching brief during pipe-trench excavation). These are described below in chronological order:

Archaeological trench evaluation

Trench location

The evaluation trench, oriented approximately north to south, was centred within a proposed compound located on the west side of the working width towards the south end of the plot (figures 2). The trench was intended to determine whether archaeology identified in an evaluation trench on the pipeline route extended west into the compound area.

Soil profile

The topsoil (3200) comprised 0.30m of pale grey-brown fine friable silt which overlay 0.20m of pale red-brown fine friable silty subsoil (3201). Directly below this was the natural calcerous silt substrate (3202).

Archaeological features

A total of four archaeological features, comprising three ditch-like features (**3203**, **3205** and **3209**) and a pit-like feature (**3213**) which contained burnt material were identified in the north half of the trench (figure 11b). Two of the ditches (**3203** and **3205**) cut the subsoil (3201) and were sealed by the topsoil (3200), whilst the third ditch was cut into the natural substrate (3202) and sealed by the subsoil (3201).

Ditch **3203**, oriented west-northwest by east-southeast, had moderate concave sides and a flat base (2m wide x 0.18m deep). The sole fill (3204) was pale brown-grey friable calcareous silt which contained no finds.

Ditch **3205**, oriented northwest to southeast, had gradual concave sides and a

concave base (2m wide and 0.36m deep) and contained three fills (figure 11c, plate 05). The primary fill (3211) comprised 0.09m of pale yellow-grey fine calcerous silt. The secondary fill (3206) comprised 0.17m of pale brown-grey friable calcerous silt whilst the tertiary fill (3205) comprised 0.10m of pale grey-brown fine friable silt. No finds were recovered from any of the fills.

Ditch **3209**, oriented east to west, had an irregular profile and base (1.40m wide and 0.12m deep). The sole fill (3210) was pale grey fine calcerous silt which contained fragments of burnt sandstone.

Pit-like feature **3213** had an irregular profile and base (1m diameter and 0.12m deep) and was filled by pale grey fine calcerous silt which contained fragments of burnt sandstone (3208). The pit-like feature was cut into the upper fill of ditch **3209**.

Natural features

An outcrop of natural bedrock (3207) was also identified at the north end of the trench.

Controlled strip

Location

The controlled strip took place along the proposed centreline of the pipe-trench in advance of topsoil stripping and comprised an area 22.6m long and 1.50m wide located within the southern half of the plot (figure 11a).

The controlled strip was undertaken to establish the southern extent of the archaeology revealed during the previous phase of evaluation.

Soil profile

The soil profile was the same as that recorded above. As this was a separate phase of works the topsoil, subsoil and natural substrate were allocated context numbers (300 to 301) taken from number blocks assigned to the watching brief.

Archaeological features

No archaeological features were revealed during the controlled strip.

Watching brief during topsoil stripping

Soil profile

The soil profile was the same as that identified during trench evaluation (see above).

Archaeological features

No archaeological features were identified during topsoil stripping.

Watching brief during pipe-trench excavation

Soil profile

The soil profile was the same as that identified previously (3.3.2), apart from a 27m stretch of the pipe-trench to the northeast of the compound area. Within this area the subsoil (301) changed to pale grey fine friable silt with dark brown flecks (310).

Archaeological features

A ditch (**307**), a pit-like feature (**305**) and a broad feature (**303**) were identified within the sides of the pipe-trench (figure 11a). All of these features cut the natural substrate (302) and were sealed by the subsoil (301).

Feature **303**, located close to the southern boundary of the plot, appeared to be oriented west-northwest to east-southeast and had very gradual sides and a concave base (5m wide and 0.29m deep). The sole fill (304) was pale red-brown fine friable silt which contained no finds.

Ditch **307**, located close to the centre of the plot was also oriented west-northwest to east-southeast and had well defined steep concave sides and a concave base (1.90m wide and 0.70m deep). The primary fill (308) comprised 0.30m of pale grey soft calcerous fine silt. The secondary fill (308) comprised 0.40m of pale brown-grey fine friable silt. Neither fill contained any finds.

Pit **305**, located close to the centre of the plot, had moderate concave sides and a concave base (1m wide and 0.30m deep). The sole fill (306) was pale brown-grey friable calcerous silt which contained no finds.

Surface finds

Small quantities of Post-medieval and late Post-medieval pottery were recovered from the topsoil (300) whilst fragments of worked flint and burnt flint, Post-medieval pottery and ceramic building material, late Post-medieval pottery, a 17th century pewter buckle, a 19th century copper-alloy buckle, early modern glass and fragments of post-production residues were recovered from the stripped surface of the subsoil (301) (figure 7).

3.3.3 Plot 04

Location

This plot was located on a gentle north facing slope between Withyham Road and the River Grom (NGR 552464 137233 centre, figure 3).

Archaeological background

The desk-based assessment identified a possible trackway within this plot (Network Archaeology Ltd 2007, DBA:BZ) (figure 3) and the geophysical survey identified two possible anomalies within the southern half of the plot (Bartlett Clarke Consultancy 2007). A single trench was excavated during the first phase evaluation

but no archaeological features were located (Network Archaeology Ltd 2008i).

Soil profile

The topsoil (400) comprised up to 0.34m of pale grey-brown soft friable silt which overlay 0.20m of pale yellow-brown friable silty subsoil (401). Directly below this was the pale grey-brown calcerous silt substrate (402).

Archaeological features identified during topsoil stripping

No archaeological features were identified during topsoil stripping.

Archaeological features identified during pipe-trench excavation

A total of six archaeological features, comprising three pits (**403, 407** and **409**), a ditch (**405**) and another ditch (**417**) which had been recut several times (**412, 415** and **416**), were identified during excavation of the pipe-trench (figure 3).

Pit **403**, located at the northern end of the plot, cut the subsoil (401), had steep concave sides and a concave base (0.43m wide and 0.20m deep). The sole fill (404) was friable mixed brown-grey orange silt which contained occasional charcoal flecks.

Ditch **405**, located in the northern half of the plot, had gradual concave sides and a concave base (0.90m wide and 0.12m deep). The sole fill (406) was pale yellow-grey friable silt which contained sandstone fragments.

Pit **407**, also located within the northern half of the plot, had gradual concave sides and a concave base (1m wide and 0.16m deep). The sole fill (408) was pale yellow-grey friable silt with dark brown mottles which contained no finds.

Pit **409**, located towards the centre of the plot, had steep concave sides (3.20m wide and up to 0.73m deep) and contained two fills (410 and 411). The primary fill (410) comprised 0.36m of pale grey calcareous silt with ginger mottling which contained a fragment of burnt sandstone. The secondary fill (411) comprised 0.37m of pale grey calcareous friable silt which contained no finds.

Ditch **417** was oriented east to west at the southern end of the plot close to the boundary between plots 03 and 04. The ditch had moderate concave sides and a flat base (0.35m wide and 0.12m deep) and cut the natural substrate (402). The sole fill (418) was pale grey fine silt which contained no finds. The ditch (**417**) had been recut three times:

- The first re-cut (**412**) had near vertical sides and a concave base (0.70m wide and 0.52m deep). The sole visible fill (413) was pale grey fine silt with orange mottling which contained no finds.
- The second re-cut (**416**) had steep concave sides and a flat base (0.60m wide and 0.45m deep). The sole fill (414) was mid brown friable clayey silt which contained no finds.
- The third re-cut (**415**) had steep concave sides and a concave base (1.90m wide and 1m deep). The primary fill (420) comprised 0.20m of pale grey

calcareous silt with ginger mottling. The secondary fill (419) comprised 0.80m of pale grey fine silt with orange mottling and this was overlain by the subsoil (401). No finds were recovered from either fill.

Surface finds

The topsoil (400) and subsoil (401) both contained fragments of Medieval and late Post-medieval pottery, worked flint and burnt flint and early modern glass. Fragments of Post-medieval ceramic building material were found exclusively within the subsoil (401) (figure 7).

3.3.4 Plot 05

Location

This plot was located at the foot of a slope on the southern edge of the floodplain of the River Grom (NGR 562467 137387, figure 3).

Archaeological background

The northern boundary of this plot was marked by the River Grom, which formed the county boundary between Kent and East Sussex (Network Archaeology Ltd 2007, DBA:AG). Two other sites had been identified in this plot by the desk-based assessment. These included a possible trackway (DBA:BZ) and a former field boundary (DBA:DG) (figure 3).

The geophysical survey produced a dispersed number of anomalies and one possible concentration of such, but due to re-alignment of the pipeline across this plot (after the survey took place) these now fell outside the working width (Bartlett Clarke Consultancy 2007).

A single trench, targeting the trackway and the former boundary, identified two ditches (5105 and 5107) which were thought to represent the desk-based sites. Geotechnical pits excavated during the first phase evaluation revealed only layers of alluvium and colluvium (Network Archaeology Ltd, 2008i).

Soil profile

The topsoil (500) comprised 0.30m of pale brown-grey fine powdery silt which overlay 0.25m of fine yellow-brown silty subsoil (501) which becomes brighter within the southern half of the plot (506). Directly below this was the natural substrate (502).

Archaeological features identified during topsoil stripping

No archaeological features were identified during topsoil stripping.

Archaeological features identified during pipe-trench excavation

This plot contained a single northeast to southwest oriented ditch (**503**) which had steep concave sides and a concave base (2.40m wide and 0.60m deep). The primary fill (504) comprised 0.23m of pale yellow-grey friable silt. The secondary fill (505) comprised 0.37m of pale grey friable slightly clayey silt. Neither fill contained any

finds (figure 3).

Archaeological features identified during excavation of HDD pit

A thrust pit for the horizontal directional drill (HDD) was excavated within the northern half of this plot. However, archaeological visibility was reduced to zero due to the high water table.

Surface finds

The topsoil (500) contained fragments of ceramic building material, early modern glass, late Post-medieval pottery and fragments of burnt flint. The subsoil also contained fragments of late Post-medieval pottery along with fragments of early modern clay pipe, post-production residues, fragments of burnt flint and worked flint as well as a single fragment of oyster shell (figure 7).

3.3.5 Plot 06

Location

This plot was the River Grom which formed the county boundary between Kent and East Sussex (Network Archaeology Ltd 2007, DBA:AG) (figure 3). The river was under-passed by HDD and not, therefore, subject to an archaeological watching brief.

3.3.6 Plot 07

Location

This plot was located on a gentle south facing slope on the north side of the River Grom (NGR 552415 137458 centre, figure 3).

Archaeological background

The River Grom, representing the county boundary between Kent and East Sussex (DBA:AG), formed the southern boundary of this plot, whilst the northern boundary correlated with an historic boundary which was marked by an important hedge (DBA:EJ) (Network Archaeology Ltd 2007) (figure 3).

The geophysical survey did not identify any anomalies within this plot (Bartlett Clarke Consultancy 2007). Geotechnical pits excavated during the first phase evaluation revealed only layers of alluvium and colluvium (Network Archaeology Ltd, 2008i).

Soil profile

In general the soil profile consisted of topsoil (700) overlying subsoil (701) which overlay the natural substrate (702).

Archaeological features identified during topsoil stripping

No archaeological features were identified during topsoil stripping.

Archaeological features identified during pipe-trench excavation

No archaeological features were identified during excavation of the pipe-trench.

Archaeological features identified during excavation of HDD pit

A reception pit for the HDD, excavated to a depth of 1.70m within the southern half of the plot, revealed the following stratigraphic sequence: The topsoil (700) was 0.17m deep and overlay 0.10m of made ground (705). Below the made ground was 0.12m of pale grey friable silt (706) which overlay 0.15m of very pale friable fine silt (707). This overlay 0.20m of powdery pale blue clay (708) which overlay 0.30m of mixed orange firm clayey silt (709). Directly below this was 0.12m of compact brown-orange clay (710) which overlay a thin lens of pale orange-brown fine silt (711). Below this was a layer of compact grey-blue clay which extended to the bottom of the pit. No archaeological features were seen within the HDD pit.

Surface finds

The topsoil (700) contained fragments of Post-medieval and undated ceramic building material, Post-medieval and early modern clay pipe, animal bone and fragments of worked and burnt flint. A set of wrought iron pincers was also recovered from the subsoil (701) (figure 7).

3.3.7 Plot 08

Location

This plot was located on a gentle south-facing slope on the south side of Burrswood Drive (NGR 552411 137555 centre, figure 4).

Archaeological background

The northern boundary of this plot, where it joined Burrswood Drive, was an historic boundary marked by an important hedge (Network Archaeology Ltd 2007, DBA:EJ) (figure 4).

A single palaeo-environmental trench was excavated within the northern half of the plot during the first phase of evaluation and this identified a layer of colluvial silt (8102) directly the subsoil (Network Archaeology 2008i).

Soil profile

The topsoil (800) comprised 0.40m of pale to mid grey red-brown friable silt which overlay 0.36m of pale red-brown fine clayey silt subsoil (801). Directly below the subsoil was 0.55m of pale grey-red brown slightly clayey silt (807) which overlay 0.36m of mottled orange and grey clayey silt (808).

Archaeological features identified during topsoil stripping

A circular depression (**803**), with gradual concave sides and a flat base (1.10m wide and 0.10m deep) was located close to the centre of the plot (figure 4). The sole fill (804) was pale orange-brown fine friable silt which contained fragments of burnt stone and charcoal.

Archaeological features identified during pipe-trench excavation

A ditch (**805**), a plant-hole (**811**) and a defunct electricity cable trench were identified during pipe-trench excavation (figure 4). All of the archaeology and the cable trench cut the subsoil.

Ditch **805**, located at the north end of the plot, had steep concave sides and a concave base (1m wide and 0.75m deep) and cut the plant-hole (**811**). The primary fill (806) comprised 0.35m of pale red-brown fine clayey silt. The secondary fill (809) comprised 0.40m of mid orange-brown fine humic silt. No finds were recovered from either of the fills.

Surface finds

The topsoil (800) contained fragments of Post-medieval and late Post-medieval pottery (figure 8).

3.3.8 Plot 09

Location

This plot was located on a steep, south facing slope to the north of Burrswood Drive (NGR 552395 137699, figure 4).

Archaeological background

The desk-based assessment identified two former field boundaries (DBA:ED and DBA:EE), an historic boundary and associated hedge (DBA:EK) and a possible spring line within this plot (Network Archaeology Ltd 2007).

Two archaeological trenches were excavated during the first phase evaluation, one (trench 9.01) within the southern half of the plot and the other (9.02) within the northern half. No archaeological features were revealed within the southern trench whilst the northern trench contained a pit (9204) and a ditch (9206) (Network Archaeology Ltd 2008i). Environmental analysis of a sample recovered from the fill of pit 9204 indicated that this may have been a hearth or cooking pit (Giorgi, appendix D), whilst pottery also recovered from the sample indicated that it may have been in use between the 12th and 13th centuries (Barber, appendix D). Neither of these features correlated with the features identified by the desk-based assessment.

Soil profile

The topsoil (900) comprised 0.35m of mid grey-brown soft silt. Towards the north end of the plot, the topsoil overlay 0.15m of mid red-brown soft silty subsoil (901). Within the remainder of the plot, the subsoil changed to pale yellow-brown firm friable silt (902). Directly below the subsoil(s) throughout the whole plot was the natural silty substrate (903).

Archaeological features identified during topsoil stripping

Topsoil stripping revealed two archaeological features, a possible stone-filled drain (**904**) and a ditch (**905**) (figure 4).

The stone drain (**904**) was oriented roughly east to west and comprised jumbled sandstone blocks up to 350mm in size and abundant small fragments of sandstone within a soil matrix comprising mid red-brown friable silt (0.36m deep). No cut for the drain could be discerned. It is assumed that the stone drain cut the subsoil (901) and it was sealed by the topsoil (900).

The ditch (**905**) was oriented east to west and had near vertical sides and a concave base (2.10m wide and 0.81m deep). The primary fill (907) comprised 0.20m of pale brown-orange fine clayey silt. The secondary fill (908) comprised 0.61m of pale grey-red brown friable soft silt. No finds were recovered from either of the fills. Ditch 905 cut the natural substrate (903) and was sealed by the subsoil (901).

Archaeological features identified during pipe-trench excavation

A ditch (**909**), oriented east to west, with steep concave sides and a flat base (3m wide and 0.76m deep) was located close to the centre of the plot (figure 3). The primary fill (911) comprised 0.50m of pale grey mottled brown-orange silt and the secondary fill (910) comprised 0.23m of pale grey yellow-brown fine clayey silt. No finds were recovered from either of the fills.

Surface finds

A possible Mesolithic flint blade and a single flint flake were recovered from the subsoil (902) at the northern end of the plot. Further worked and burnt flint, fragments of Post-medieval and late Post-medieval pottery, Post-medieval and early modern clay pipe, early modern production residue and undated ceramic building material were recovered from the subsoil (902) over the remainder of the plot (figure 8).

3.3.9 Plot 10

Location

This plot was a 5m wide east to west oriented footpath linking Burrswood and Groombridge (plate 06). The topsoil was not removed within this plot and the pipe-trench crossed the track in a north to south alignment (NGR 552388 137812, figure 4, plate 6).

Archaeological background

The field survey identified the plot to be a possible sunken lane (FSU:004) with historic boundaries and Important hedges on either side (DBA:EL and DBA:EM) (Network Archaeology Ltd 2007) (figure 4).

Soil profile

None of the natural soil stratigraphy, apart from the natural substrate, was evident within the pipe-trench, as the upper soil layers appeared to have been replaced by make-up for the existing trackway. The natural substrate (1002) comprised pale yellow-brown stoney silt.

Archaeological features identified during pipe-trench excavation

The upper surface of the trackway (1006) comprised 0.08m of mid red grey-brown

fine silt which contained abundant small stones. Directly below this was up to 0.30m of pale brown-yellow fine silt (1007) which contained abundant sandstone fragments.

A ditch (**1003**), oriented east to west, was visible on the northern side of the trackway (1006), sealed below layer 1007.This ditch had steep concave sides and a concave base (1.60m wide and 0.80m deep) and contained two fills (1004 and 1005). The primary fill (1004) comprised 0.25m of pale red-brown friable silt which contained no finds. The secondary fill (1005) comprised 0.55m of pale brown-yellow friable silt which contained six fragments of Post-medieval ceramic building material.

Surface finds

The topsoil (1000) contained two fragments of late Post-medieval pottery (figure 8).

3.3.10 Plot 11

Location

This plot was located on a steep south-facing slope between the trackway (plot 10) and Groombridge Road (plot 30) (NGR 552342 137914, figure 4).

Archaeological background

No archaeological features were identified within this plot by the desk-based assessment or geophysical survey and no trench evaluation was undertaken here.

Soil profile

The topsoil (1100) was a pale to mid grey-red brown friable silt (0.33m to 0.45m deep). The subsoil (1101) comprised 0.15m of pale red-brown fine friable silt. Subsoil was only identifiable over a *c*.5m^2 area on a plateau at the northern end of the plot where it overlay the natural degraded sandstone (1102). No subsoil was discernable throughout the remainder of the plot, where the topsoil appeared to directly overlay the natural substrate.

Archaeological features identified during topsoil stripping

A curvilinear gulley (**1103**), which cut the natural substrate (1102) and was sealed by the topsoil (1100), was located within the northern half of the plot (figure 4). The gulley had near vertical sides and a flat base (2.70m long, 0.55m wide and 0.18m deep). The sole fill (1104) was pale red-brown fine clayey silt which contained no finds.

Archaeological features identified during pipe-trench excavation

A plant hole (**1105**) was located within the southern half of the plot.

Surface finds

The topsoil (1100) contained burnt and worked flints, early 15th to mid 16th century pottery, Post-medieval ceramic building material, pottery and clay pipe, early modern pottery, clay pipe, and post-production residues and a 19th century copper

alloy buckle.

The subsoil (1101) contained a prehistoric flint end scraper (figure 19a) as well as fragments of Medieval pottery, Post-medieval pottery and a single fragment of Post-medieval clay pipe (figure 8).

3.3.11 Plot 12

Location

This plot was a wooded roadside verge on the south side of Groombridge Road (NGR 552402 137929, figure 4).

Archaeological background

The desk-based assessment identified the northern boundary of this plot to be an historic boundary (Network Archaeology Ltd 2007, DBA:EN) (figure 4).

Soil profile

The topsoil (1200) was pale grey red-brown friable silt (0.15m to 0.22m deep) which overlay pale red-brown friable silty subsoil (0.26m to 0.30m deep) (1201). Directly below this was the fine silty natural substrate.

Archaeological features identified during topsoil stripping

No archaeological features were identified during topsoil stripping.

Archaeological features identified during pipe-trench excavation

No archaeological features were identified during excavation of the pipe-trench.

Surface finds

The topsoil (1200) contained fragments of late Post-medieval pottery and early modern glass (figure 8).

3.3.12 Plot 13

Location

This plot was located on level ground at the base of a slope overlooking the valley of the River Grom (NGR 552450 138036 centre, figure 4).

Archaeological background

The desk-based assessment identified the southern boundary of the plot to be an historic boundary and important hedge (Network Archaeology Ltd 2007, DBA:EO).

The geophysical survey identified a small number of anomalies which were targeted by an evaluation trench and proved to be caused by variations in the natural substrate (Bartlett Clarke Consultancy 2007).

Soil profile

The topsoil (1300) comprised 0.35m of pale to mid red-grey brown friable silt overlying up to 0.52m of pale red-brown friable silt subsoil (1301). Directly below this was the pale grey natural substrate (1302).

Archaeological features identified during topsoil stripping

No archaeological features were identified during topsoil stripping.

Archaeological features identified during pipe-trench excavation

Two pit-like features (**1306** and **1311**) and a plant hole (**1304**) were identified within this plot (figure 3), all of which cut the natural substrate (1302) and were sealed by the topsoil (1300).

Pit **1306** had steep irregular sides and an irregular base (7m+ wide and 1m deep). The primary fill (1307) comprised 0.42m of pale grey-yellow brown friable silt which contained a single fragment of clay pipe. The secondary fill (1308) comprised 0.50m of pale red-brown friable silt which contained no finds.

Pit **1311**, located close to the centre of the plot had poorly-defined sides and an undulating base (0.88m deep). The primary fill (1310) comprised 0.43m of pale orange-brown fine friable silt. The secondary fill (1309) comprised 0.45m of pale yellow-red friable silt. Neither of the fills contained any finds.

Surface finds

The topsoil (1300) contained worked and burnt flint, Medieval, Post-medieval and late Post-medieval pottery, Post-medieval ceramic building material, and fragments of early modern post-production residues.

The subsoil (1301) contained worked and burnt flint, Post-medieval and late Post-medieval pottery, Post-medieval ceramic building material, and fragments of early modern post-production residues and glass.

3.3.13 Plot 14

Location

This plot was located on a moderate slope close to the base of a hill overlooking the valley of the River Grom to the north of Groombridge Road (NGR 552653 137939, figure 4).

Archaeological background

The desk-based assessment identified former field boundaries (DBA:EF and DBA:EG) at either end of the plot and a possible enclosure (DBA:BH) (Network Archaeology Ltd 2007).

The geophysical survey identified four possible linear anomalies within the northeastern half of the plot, three linear and two pit-like anomalies in the southwestern half and a single linear anomaly close to the centre of the plot (Bartlett

Clarke Consultancy 2007).

Two evaluation trenches, which targeted the geophysical anomalies, revealed a large, undated pit (14103) and a tree bole (14107) which contained Iron Age pottery within the southwestern half of the plot, and a large pit-like feature (14202), probably a relatively recent quarry, within the northeastern half (Network Archaeology Ltd 2008i).

Soil profile

The topsoil (1400) comprised 0.32m of pale to mid red grey-brown friable silt which overlay 0.17m of pale brown-yellow friable silty subsoil (1401). Across the majority of this plot the subsoil directly overlay the natural yellow silt substrate (1402), however; close to the northeastern end of the plot the subsoil overlay 0.06m of dark grey friable clayey silt (1428 and 1436) which then overlay the natural substrate.

Archaeological features identified during controlled strip excavation

The determined mitigation to address the archaeological potential of this plot was a controlled strip. The area of controlled strip was 172m long and 15m wide and was located at the southwest end of the plot (figure 4).

Eight archaeological features, comprising a segment of ditch (**1403**), a ditch terminal (**1420**), five pits (**1407, 1410, 1418, 1424** and **1432**) and a stakehole (**1434**), were identified during the controlled strip and these are described below. In addition, five plant-holes (**1405, 1416, 1422, 1426** and **1430**) and a land drain were also recorded (figure 12).

All of the features cut the natural substrate and were sealed by the subsoil (1401 and 1402) with the exception of two pits (**1424, 1432**) and the stakehole (**1434**) which were sealed by layer 1428.

Ditches

Ditch segment **1403**, located close to the centre of the plot, was oriented east to west and had steep concave sides, a flat base and a rounded terminal at each end (3.80m long, 0.78m wide and 0.15m deep) (figure 13a). The sole fill (1404) was dark grey brown friable clayey silt which contained burnt sandstone.

Ditch terminal **1420**, located close to the centre of the plot, was visible within a natural depression protruding southeast from the northwestern baulk (1.90m visible length, 0.90m wide and 0.15m deep). This ditch had a rounded terminal with moderate concave sides and a concave base (figure 13b). The sole fill (1421) was dark grey-brown friable clayey silt which contained occasional charcoal flecks but no finds.

Pits and stakehole

Pit **1407**, located with the northeastern half of the plot, was ovoid in plan and had gradual sides and a slightly concave base (1.14m wide, 2m long and 0.16m deep) (figure 13d). The primary fill (1409) comprised 0.10m of pale orange brown silt. The secondary fill (1408) comprised 0.06m of pale brown-yellow friable silt.

Neither fill contained any finds.

Pit **1410**, located close to the centre of the plot, was ovoid in plan and had steep concave sides with an uneven base (0.75m long, 0.85m wide and 0.18m deep) (figure 13c). The sole fill (1415) was pale brown loose silt which contained frequent fragments of burnt sandstone and moderate charcoal flecks.

Pit **1418** located close to the northeastern boundary, was amorphous in plan and had shallow irregular sides and an irregular base (1.17m long, 1.70m wide and 0.10m deep, figure 13g, plate 02). The primary fill (1431) comprised 0.10m of pale to mid red-brown friable silt, which contained frequent burnt sandstone fragments, 13th to 14th century pottery and a 13th century silver coin. The upper fill (1419) comprised 0.10m of pale grey red-browns soft friable silt which also contained frequent fragments of 13th to 14th century pottery.

Pit **1424**, located close to the northeast boundary of the plot, was ovoid in plan and had steep concave sides and a flat base (0.40m long, 0.56m wide and 0.12m deep) (figure 13e). The sole fill (1425) was dark grey brown compact silt which contained fragments of 12th to 13th century pottery and a single iron nail.

Pit **1432**, located close to the northeastern boundary of the plot, was sub-circular in plan and had moderate concave sides and a flat base (0.34m diameter and 0.06m deep) (figure 13f). The sole fill (1433) was pale grey red-brown friable silt which contained fragments of 12th to 14th century pottery. This pit cut the fill of stakehole **1434**.

Stakehole **1434** had vertical sides and a concave base (0.07m wide and 0.10m deep). The sole fill (1435) was pale grey red-brown friable silt which contained fragments of 13th century pottery. The fill of the stakehole was cut by pit **1432**.

Archaeological features identified during topsoil stripping

No further archaeological features were identified during topsoil stripping.

Archaeological features identified during pipe-trench excavation

No further archaeological features were identified during excavation of the pipe-trench.

Surface finds

The topsoil (1400) contained fragments of burnt and worked flint. The subsoil (1401) contained fragments of burnt and worked flint, a single fragment of Medieval pottery and a single fragment of undated post-production residue. The subsoil layer (1436), observed at the northeast end of the plot, contained a small quantity of 13th to 14th century pottery (figure 8).

3.3.14 Plot 15

Location

This plot was located on a gentle southwest facing slope immediately to the west of Beech Wood (NGR 552656 138081 centre, figure 4).

Archaeological background

An area of re-planted ancient woodland (DBA:AK) and a former field boundary (DBA:EG) were identified by the desk-based assessment (Network Archaeology Ltd 2007) (figure 4), whilst the geophysical survey identified a north to south oriented linear anomaly crossing both this plot and plot 14 to the south (Bartlett Clarke Consultancy 2007).

No archaeological trench evaluation was undertaken within this plot.

Soil profile

The topsoil (1500) comprised 0.32m of pale to mid red grey-brown friable silt which overlay 0.17m of pale brown-yellow friable silty subsoil (1501). Directly below the subsoil was the natural silty substrate (1502).

Archaeological features identified during topsoil stripping

No archaeological features were identified during topsoil stripping.

Archaeological features identified during pipe-trench excavation

A ditch (**1503**) with steep concave sides and a concave base (1.10m wide and 0.42m deep) cut the natural substrate (1502) and was sealed by the subsoil (1501). The ditch's sole fill (1504) was fine pale red-brown silt which contained no finds (figure 4).

Spoil from the trenching contained a patch of pale red-brown friable silt (1506), which contained three flint flakes, and was thought to be the fill of an unidentified feature (**1505**).

Surface finds

Two struck flints were recovered from the subsoil (1501) (figure 8).

3.3.15 Plot 16

Location

This plot was a steep, southwest facing slope which levelled out to a plateau at the northern end to the west of Top Hill Farm (NGR 552861 138151 centre, figure 4).

Archaeological background

Three sites including a possible pond (DBA:BE), an historic boundary and associated Important hedge (DBA:EP) and a former field boundary (DBA:EH) were identified by the desk-based assessment (Network Archaeology Ltd 2007) (figure 5).

A low density of linear and pit-like anomalies, with a slight concentration in the southwest half of the plot, was identified by geophysical survey (Bartlett Clarke Consultancy 2007).

Two archaeological evaluation trenches were excavated, one at each end of the plot

(Network Archaeology Ltd, 2008i). The southwestern evaluation trench (16.01) located a ditch (**16103**) and a furrow (**16105**) and the northeastern evaluation trench (16.02) located a possible hearth or fire-pit (**16203**). Both of these trenches also contained plant holes.

Soil profile

The topsoil (1600) comprised 0.32m of pale to mid red-brown fine friable silt which overlay 0.17m of pale red-brown friable silt (1601). Directly below this was the natural silt substrate (1602).

Area 16a: Archaeological features identified during controlled strip excavations

The determined mitigation to address the archaeological potential of plot 16 was two areas of controlled strip (Area 16a and Area 16b). Area 16a, within which evaluation trench 16.01 was located, was 100m long and 15m wide and was located at the southwest end of the plot (figure 4).

A possible enclosure ditch (**1621**), a group of segmented ditches/ elongated pits (**1675**), four ditches (**1627, 1631, 1641** and **1686**), six pits (**1610, 1612, 1614, 1624** and **1684**), two postholes (**1643** and **1688**), and an area of burning (1603) were identified within Area 16a (figure 14) and these are described below. All of the features cut the natural substrate (1602) and were sealed by the topsoil (1601). A large number of plant holes were also identified and two (**1656** and **1629)** recorded but these are not described below.

Area 16a –Possible enclosure ditch and associated posthole

Possible enclosure ditch **1621** was formed by four segmented ditches (**1604, 1633/ 1639, 1635** and **1637**) (figure 14).

- Ditch segment **1604** was oriented east to west and had a rounded terminal at its eastern end. This ditch had steep concave sides and a flat base (2m long, 0.60m wide and 0.16m deep) (figure 15n). The sole fill (1605) was a mid to pale grey-brown soft silt which contained no finds.
- Ditch segment **1633**/ **1639** was oriented north to south and had a rounded terminal at either end. This ditch segment (**1633/ 1639**) had steep concave sides and a flat base (4m long, 0.50m wide and 0.20m deep) (figure 15k). Both of the excavated sections (1634 and 1640) were filled with mid orange-grey soft silt which contained no finds.
- Ditch segment **1635** was oriented east to west with a rounded terminal at its eastern end. This ditch had gradual concave sides and a flat base (2.85m long, 0.50m wide and 0.09m deep) (figure 15l). The sole fill (1636) was a mid to pale grey-brown soft silt which contained no finds.
- Ditch segment **1637** was also oriented east to west and had a rounded terminal at either end. This ditch had steep concave sides and a flat base (2m long, 0.35m wide and 0.09m deep) (figure 15m). The sole fill (1638) was a mid to pale grey-brown soft silt which contained no finds.
- Posthole **1643** was located immediately south of the southern terminal of enclosure ditch **1621**. The posthole was ovoid in plan and had steep concave sides and a flat base (0.60m long, 0.40m wide and 0.09m deep) (figure 15j). Its sole fill was a pale orange-brown soft silty soil matrix (1645),

which contained a concentration of angular sandstone pebbles (1644) towards the centre of the posthole. No finds were recovered.

Area 16a – Feature Group 1675

Feature group **1675** comprised seven ditch segments/ elongated pits (**1606, 1616, 1646, 1648, 1650, 1652** and **1654**) and a posthole (**1608**) (plate 03 and figures 14, 15b, 15c, 15d and 15e).

- Ditch/ pit **1606** was oriented southwest to northeast and had a tapered terminal at its northeast end. This ditch had steep concave sides and the base sloped gradually to the terminal (1.35m long, 1.28m wide and 0.35m deep). The sole fill (1607) was dark grey-brown friable clayey silt which contained charcoal flecks and a fragment of polished stone.
- Posthole **1608**, located within terminal 1606, was circular in plan and had gradual concave sides and a concave base (0.35m diameter and 0.15m deep). The sole fill (1609) was dark grey-brown friable clayey silt which contained charcoal flecks. Due to the similarity of the fills it was not possible to establish the relationship between the posthole and pit **1606**.
- Ditch/ pit **1616** was oriented northeast to southwest with a terminal at its western end. It had gradual sides and a flat base (1.35m long, 0.45m wide and 0.17m deep). The sole fill (1617) was dark grey-brown slightly clayey friable silt which contained no finds.
- Ditch/ pit **1646** was oriented east to west and had near vertical sides and a concave base (2m long, 1.30m wide and 0.12m deep). The sole fill (1647) was dark grey-brown friable clayey silt which contained no finds.
- Pit **1648** was amorphous in plan and had a gradual concave edge and a flat base (1.20m diameter and 0.12m deep). The sole fill (1649) dark grey-brown friable clayey silt which contained charcoal flecks. The pit cut the fill of pit **1650**.
- Ditch/ pit **1650** was ovoid in plan and had near vertical sides and a flat base (1.45m long, 0.70m wide and 0.24m deep). The sole fill (1651) was dark grey-brown friable clayey silt which contained charcoal flecks. The pit was truncated on its southwest edge by pit **1648**.
- Ditch/ pit **1652** was oriented southwest to northeast and had steep concave sides and a stepped base (1.40m long, 0.80m wide and 0.22m deep). The sole fill (1653) was dark grey-brown friable clayey silt which contained charcoal flecks.
- Pit **1654** was ovoid in plan and had a steep concave edge and a flat base (0.70m diameter and 0.20m deep). The sole fill (1655) was dark grey-brown friable clayey silt which contained charcoal flecks.

Area 16a – Ditches

Ditch **1627** was oriented northwest to southeast and had a rounded terminal at either end (figure 15f). This ditch had irregular concave sides and a flat base (2.12m long, 0.60m wide and 0.14m deep) and contained a single dark brown-grey friable silty fill (1628) which contained no finds.

Ditch **1631** was oriented east to west and had steep, concave sides and a flat base

(0.70m wide and 0.17m deep, figure 15p). The sole fill (1632) was a compact mid orange-brown clayey silt which contained no finds. A small patch of *in-situ* scorching (1603) was evident on the surface of the ditch fill.

Ditch **1641** was oriented broadly north to south and had moderate concave sides and a flat base (0.48m wide and 0.14m deep, figure 15g). The sole fill (1642) was dark grey-brown friable clayey silt which contained charcoal flecks.

Ditch **1686** was oriented northwest to southeast and had shallow concave sides and a flat base (1.30m wide and 0.25m deep). The sole fill (1687) was mid red-brown fine friable silt which contained no finds.

Area 16a – Pits and postholes

Pit **1610**, located slightly south of posthole 1643, was ovoid in plan and had irregular concave sides and an irregular base (0.90m long, 0.80m wide and 0.25m deep) (figure 15i). The sole fill (1611) was dark orange brown silty clay which contained no finds.

Pit **1612** was ovoid in plan, and had near vertical sides and an irregular base (2.60m long, 0.92m wide and 0.32m deep) (figure 15h). The sole fill (1613) was a compact mid to dark grey clayey silt which contained no finds. This pit cut pit **1614.**

Pit **1614** was amorphous in plan and had near vertical sides and a flat base (0.50m diameter and 0.21m deep) (figure 15h). The sole fill (1615) was mid grey soft clayey silt which contained no finds. This pit appeared to be truncated by pit **1612**.

Pit **1624** was ovoid in plan and had irregular concave sides and a flat base (2m long, 1.40m wide and 0.36m deep) (figure 15a). The primary fill (1625) comprised up to 0.36m of pale orange-brown soft clayey silt which contained sandstone fragments. The secondary fill (1626) was visible only against the southern edge and comprised up to 0.10m of dark grey-brown soft clayey sandy silt. No finds were recovered from either of the fills.

Pit **1684** was sub-circular in plan and had steep concave sides and a concave base (1.30m wide and 0.70m deep) (figure 15o). The sole fill (1685) was pale yellow-brown fine friable silt which contained charcoal flecks.

Posthole **1688**, located at the far northeastern end of the controlled strip area, was circular in plan and had steep concave sides and a concave base (0.27m diameter and 0.20m deep). The sole fill (1689) was mid red-brown fine friable silt which contained no finds.

Area 16b: Archaeological features identified during controlled strip excavations

The determined mitigation to address the archaeological potential of this plot was two areas of controlled strip (Area 16a and Area 16b). Area 16b, within which evaluation trench 16.02 was located, was 100m long and 15m wide and was located at the northeast end of the plot (figure 16).

Two inter-cutting pits (**1658** and **1660/ 1662**) and three other pits (**1664, 1666** and **167**) were identified within Area 16b and these are described below (figure 16). All of the features cut the natural substrate (1602) and were sealed by the topsoil (1601). A number of plant holes were also identified and two (**1669** and **1671)** recorded but

these are not described below.

Pit **1658** was slightly ovoid in plan and had moderate sides and a flat base (1.50m long, 1.20m wide and 0.24m deep) (figure 17b). The sole fill (1659) dark grey-brown friable clayey silt which contained no finds. Pits **1658** and **1660/ 1662** were inter-cutting but their relationship could not be discerned due to the similarity of their fill type.

Pit **1660/ 1662** had an elongated ovoid shape in plan and had steep concave sides and a concave base (2.20m long, 0.90m wide and 0.16m deep) (figure 17b, 13c). Both excavated sections contained the same dark grey-brown friable clayey silty fill (1661 and 1663) which contained no finds. Pits **1660/ 1662** and **1658** were inter-cutting but their relationship could not be discerned due to the similarity of their fill type.

Pit **1664** was slightly ovoid in plan and had steep concave sides and a concave base (0.75m long, 0.70m wide and 0.25m deep) (figure 17a). The sole fill (1665) was dark grey-brown friable clayey silt which contained occasional burnt sandstone and charcoal flecks.

Pit **1666** was circular in plan and had near vertical sides and a flat base (1.30m diameter and 0.51m deep, figure 17e). The primary fill (1667) comprised 0.05m of loose pale grey-brown sandy silt which contained fragments of charcoal. The secondary fill (1668) comprised 0.46m of dark brown soft sandy silt which also contained charcoal fragments. No finds were recovered from either fill.

Pit **1673** was ovoid in plan and had shallow concave sides and an irregular base (1.10m long, 0.70m wide and 0.12m deep) (figure 17d). The sole fill (1674) was a mid to dark brown friable clayey silt which contained burnt sandstone fragments and charcoal.

The remaining pit-like features (1669 and 1671) were also excavated but proved to be plant holes.

Archaeological features identified during topsoil stripping

No further archaeological features were identified during topsoil stripping.

Archaeological features identified during pipe-trench excavation

Nine further archaeological features, comprising three ditches (**1677, 1678** and **1694**) and six pits (**1680, 1690** and **1692**) were located in plot 16 during excavation of the pipe trench (figure 5) and these are described below. Three plant holes (**1682, 1697** and **1699**) were also identified but these are not described below.

Ditches

Ditch **1677**, located at the boundary between plots 15 and 16, was oriented north north-west to south south-east and had moderate concave sides and a concave base (1.20m wide and 0.33m deep). The sole fill (1678) was pale red-brown fine silt which contained no finds.

Ditch **1678**, located within the southeastern half of the plot, was oriented east to west and had steep concave sides and a concave base (1.20m wide and 0.40m deep).

The sole fill (1679) was a pale mid red-brown fine friable silt which contained no finds.

Ditch **1694**, located close to the centre of the plot, was oriented east to west and had steep concave sides and a concave base (1.30m wide and 0.55m deep). The sole fill (1695) was pale red-brown soft friable silt which contained no finds.

Pits

Pit **1680**, located within the southeastern half of the plot, had steep concave sides and a concave base (1.15m wide and 0.30m deep). The sole fill (1681) was mid red-brown fine friable silt which contained no finds.

Pit **1690**, located close to the centre of the plot, had irregular, concave sides and an irregular base (2.15m wide and 0.50m deep). The sole fill (1691) was mid red-brown fine soft silt which contained no finds.

Pit **1692**, located close to the centre of the plot, had steep concave sides and a generally flat base (2m wide and 0.45m deep). The sole fill (1693) was mid red-brown fine soft silt which contained no finds.

Surface finds

A large number of worked and burnt flint was recovered from the topsoil (1600) and the subsoil (1601) as was a single fragment of Medieval pottery, late Post-medieval pottery, fragments of Post-medieval clay pipe, early modern post-production residues, undated ceramic building material and a 19th century copper alloy buckle (figure 9).

3.3.16 Plot 18

Location

This plot was located on a very gentle southwest facing slope directly to the west of Top Hill Farm (NGR 553083 138461 centre, figure 5).

Archaeological background

A former field boundary (DBA:BP) had been identified to the north of the pipeline route by the desk-based assessment (Network Archaeology Ltd 2007) (figure 5) and a number of possible linear and pit-like anomalies had been recorded by the geophysical survey (Bartlett Clarke Consultancy 2007).

A single archaeological trench, excavated during the first phase evaluation, revealed a former plough furrow (**18109**) and two plant holes (**18104** and **18106**).

Soil profile

The topsoil (1800) comprised 0.32m of pale red-brown loose friable silt which overlay up to 0.33m of pale to mid red-brown friable silty subsoil (1801). Directly below the subsoil was the natural substrate (1802).

Archaeological features identified during topsoil stripping

No archaeological features were identified during topsoil stripping.

Archaeological features identified during pipe-trench excavation

Five further archaeological features, comprising three ditches (**1805** and inter-cutting ditches **1818** and **1820**), two pits (**1803** and **1815**) and a patch of rubble (1807) were identified during excavation of the pipe trench in plot 18 and these are described below (figure 5). Three plant holes (**1809, 1811** and **1813**) and a natural depression (**1808**) cutting subsoil (1801) were also identified but these are not described below.

Ditches

Ditch 1805 and pit-like features 1809 and 1811 were all sealed by the topsoil (1800) and cut the subsoil (1801). The remaining features cut the natural substrate (1802) and were sealed by the subsoil (1801)

Ditch **1805**, located at the boundary of plots 17 and 18, was oriented north to south and had steep concave sides and a concave base (0.60m wide and 0.56m deep). The sole fill (1806) was pale grey brown friable clayey silt which contained no finds. The ditch 1805 cut the subsoil (1801) and was sealed by the topsoil (1800). Overlying the topsoil above the ditch was a layer of mixed brick and concrete rubble (1807) which was 3m long, 7m wide and 0.24m deep.

Ditch **1818**, oriented north to south, had steep concave sides and a flat base (1.50m wide and 0.50m deep). The sole fill (1819) was pale red-brown fine soft friable silt which contained no finds and was truncated by ditch 1820. The ditch cut the natural substrate (1802) and was sealed by the subsoil (1801).

Recut **1820**, oriented north to south, had steep concave sides and a concave base (0.90m wide and 0.60m deep) and cut ditch 1818. The sole fill (1821) was pale red grey-brown fine friable silt which contained no finds. The ditch cut the natural substrate (1802) and was sealed by the subsoil (1801).

Pits

Pit **1803**, located within the southwestern half of the plot, had steep concave sides and a concave base (0.86m wide and 0.42m deep). The sole fill (1804) was pale red yellow-brown fine friable silt which contained no finds.

Pit **1815**, located close to the centre of the plot, had steep concave sides and a concave base (0.95m wide and 0.50m deep). The primary fill (1816) comprised 0.10m of mid red-brown fine soft friable silt which contained charcoal fragments. The secondary fill (1817) comprised 0.40m of pale red-brown fine soft friable silt which contained occasional charcoal flecks.

Surface finds

A number of burnt and worked flints, including a late Neolithic chisel arrowhead (figure 19b), an early Bronze Age barbed-and-tanged arrowhead (figure 19c) and an unfinished late Neolithic or early Bronze Age barbed-and-tanged arrowhead (figure 19e), were recovered from the topsoil (1800) and the subsoil (1801) as was a small amount of Medieval, Post-medieval and late Post-medieval pottery, undated ceramic

building material and early modern post-production residue (figure 9).

3.3.17 Plot 19

Location

This plot was located on top a hill overlooking the Weald to the northwest of Top Hill Farm (NGR 553291 138466 centre, figure 5).

Archaeological background

Two former field boundaries (DBA:BP and DBA:EI), an area of ridge and furrow ploughing (DBA:BR) and potential ring ditches (DBA:BD) were identified by the desk-based assessment (Network Archaeology Ltd 2007) (figure 5), whilst a number of linear and pit-like anomalies were detected by the geophysical survey (Bartlett Clarke Consultancy 2007). Two archaeological trenches, excavated during the first phase evaluation, revealed only plant holes and variations within the natural geology (Network Archaeology, 2008i).

Soil profile

The topsoil (1900) comprised 0.32m of pale red grey-brown fine friable loose silt which overlay up to 0.20m of pale to mid red-brown fine friable silty subsoil. Directly below this was the natural sandstone substrate (1902).

Archaeological features identified during topsoil stripping

No archaeological features were identified during topsoil stripping.

Archaeological features identified during pipe-trench excavation

A ditch (**1916**), four pit-like features (**1918, 1920, 1922** and **1924**), a depression (**1907**) which contained a burnt deposit (1908) were identified during excavation of the pipe trench in plot 19 and these are described below (figure 5). Four plant holes (**1903**, **1905, 1912** and **1914**) were also identified but these are not described below.

All of the features cut the natural substrate (1901) and were sealed by the subsoil (1901) with the exception of the burnt layer (1908), pits 1920 and 1922 and the ditch (1916) which cut the subsoil (1901) and were sealed by the topsoil (1900).

Depression **1907** had irregular sides and an irregular base (0.70m wide and 0.10m deep). The sole fill (1908) was bright red-brown scorched silt which contained occasional charcoal fragments.

Ditch/ furrow **1916**, located within the northeast half of the plot, was oriented east to west and had shallow concave sides and a flat base (1.90m wide and 0.25n deep). The sole fill (1917) was pale red-brown fine friable silt which contained no finds.

Pit **1918** had steep concave sides, a flat base (0.90m wide and 0.40m deep) and the sole fill (1919) was bright red-brown fine soft friable silt.

Pit **1920** had irregular concave sides, a concave base (2.30m wide and 0.54m deep) and the sole fill (1921) was drab grey-red-brown fine soft friable silt.

Pit **1922** had steep concave sides, a flat base (1.06m wide and 0.50m deep and the sole fill (1923) was drab red-brown fine friable silt which contained charcoal flecks.

Pit **1924** had moderate concave sides, a flat base (1.05m wide and 0.28m deep and the sole fill (1925) was a mixed grey red-brown and pale brown-orange fine friable silt which contained fragments of burnt sandstone.

Surface finds

A small number of finds, including animal bone, burnt flint, worked flint, ceramic building material, clay pipe, glass and pottery fragments dating from the 15th–19th century were recovered from the topsoil (1900) and the subsoil (1901) (figure 9).

3.3.18 Plot 20

Location

This plot was an extant bridleway oriented roughly north to south which runs between Crockers Hatch Corner to the north and Top Hill Farm to the south (NGR 553424 138553 centre, figure 6).

Archaeological background

The desk-based assessment identified the west boundary of plot 20 to be an historic boundary and Important hedge (Network Archaeology Ltd 2007, DBA:EQ), and this was found to be a sunken trackway by field survey (Network Archaeology Ltd 2007, FSU:009) (figure 5).

Soil profile

The topsoil (2000) comprised 0.15m of fine mid brown-grey silt which contained fragments of chalk rubble and ceramic building material. Directly below the topsoil was 0.20m of pale red-brown fine friable silt (2001) which contained ironstone and sandstone fragments. This directly overlay the natural sandstone substrate (2002).

Archaeological features identified during topsoil stripping

No topsoil stripping was undertaken in this plot.

Archaeological features identified during pipe-trench excavation

Two ditches (**2003** and **2007**) located to either side of a large holloway (**2005**) were recorded during excavation of the pipe-trench in plot 20 and these are described below (figure 5).

Holloway **2005** cut the natural substrate (2002) and was sealed by the subsoil (2001), whilst the two ditches (**2003** and **2007**) cut the subsoil (2001) and were sealed by the topsoil (2000).

Ditch **2003**, located on the west side of holloway **2005**, was oriented roughly north to south and had steep concave sides and a flat base (1.50m wide and 0.40m deep). The sole fill (2004) was pale red-brown fine friable silt which contained no finds.

Ditch **2007**, located on the west side of holloway **2005**, was oriented roughly north

to south and had steep concave sides and a concave base (1.60m wide and 0.60m deep). The sole fill (2008) was pale orange-brown fine silt which contained no finds.

Holloway **2005** was oriented north to south and had gradual concave sides and a flat base (6.20m wide and 0.70m deep). The sole fill (2006) was very pale yellow grey-brown fine soft friable silt which contained no finds.

Surface finds

No surface finds were located.

3.3.19 Plot 21

Location

This plot was located on level ground to the south of Crockers Hatch Corner and immediately west of the B2110 Groombridge Road (NGR 553515 138597 centre, figure 6).

Archaeological background

The desk-based assessment identified that the boundary between plot 21 and the B2110 (Groombridge Hill) was an historic boundary with an Important hedge (Network Archaeology Ltd 2007, DBA:ER) (figure 6). The geophysical survey identified a small quantity of pit-like anomalies in the plot (Bartlett Clarke Consultancy 2007).

An archaeological trench, excavated during the first phase evaluation, identified an undated north to south oriented ditch (21103).

Soil profile

The topsoil (2100) comprised up to 0.35m of pale grey-brown fine moderately soft silt which overlay 0.12m of bright mid-brown fine soft silty subsoil (2101). Directly below this was the natural sandstone substrate (2102)

Archaeological features identified during topsoil stripping

No archaeological features were identified during topsoil stripping.

Archaeological features identified during pipe-trench excavation

Two pits (**2109** and **2111**) were located during excavation of the pipe-trench in plot 21 and these are described below (figure 6). Three plant holes (**2103, 2105** and **2107**) were also identified but these are not described below.

Pit **2109**, located close to the centre of the plot, had gradual concave sides and a concave base (3.30m wide and 1m deep). The sole fill (2110) was pale orange-brown fine silt which contained no finds. The pit cut the subsoil (2101) and was sealed by the topsoil (2100).

Pit **2111**, located within the northwest half of the plot, had steep concave sides and a concave base (0.61m wide and 0.40m deep). The sole fill (2112) was fine friable silt which contained no finds. The pit cut the subsoil (2101) and was sealed by the

topsoil (2100).

Surface finds

A large number of burnt flints and worked flints, including an early Bronze Age barbed-and-tanged arrowhead (figure 19d), Post-medieval and early modern clay pipe, undated ceramic building material, fired clay and small amounts of pottery ranging from the Medieval through to the late Post-medieval period were recovered from the topsoil (2100) and subsoil (2101) (figure 10).

3.3.20 Plot 22

Location

This plot was located on a very gentle west-facing slope immediately east of the B2110 Groombridge Hill east of Crockers Hatch Corner (NGR 553757 138642 centre, figure 6).

Archaeological background

The desk-based assessment identified historic field boundaries with associated Important hedges (DBA:ES and DBA:EW), a possible deserted Medieval village (DBA:BC) and a former field boundary (DBA:EV), whilst field survey also revealed a possible furrow (FSU:010) (Network Archaeology Ltd 2007) (figure 6). Geophysical survey identified a number of pit-like anomalies (Bartlett Clarke Consultancy 2007).

Two archaeological trenches, excavated during the first phase evaluation, located a northwest to southeast oriented ditch (trench 22.02, context **22203**) which contained a single abraded sherd of Bronze Age pottery and plant holes (Network Archaeology Ltd, 2008i).

Soil profile

The topsoil (2200) comprised between 0.25m and 0.40m of pale yellow green-brown fine soft friable silt with occasional sandstone and ironstone fragments which overlay between 0.06m and 0.20m of pale yellow-brown fine soft friable silty subsoil (2201). Directly below this was the natural sandstone silt substrate (2202).

Archaeological features identified during controlled strip excavation

The determined mitigation to address the archaeological potential of plot 22 was an area of controlled strip measuring 134m long and 15m wide, located at the northeast end of the plot (figure 6).

A furrow (**2218**) and a ditch (**2243**) were identified within the area of controlled strip and these are described below (figure 18a). A large number of plant holes were also identified and six (**2203, 2205, 2207, 2209, 2213** and **2220**) recorded but these are not described below. The fill (2209) of one plant hole (**2210**) contained a fragment of worked flint.

The ditch (**2243**) and one plant-hole (**2220**) cut the subsoil (2201) and were sealed by the topsoil (2200). The furrow and other plant holes cut the natural substrate

(2202) and were sealed by the subsoil (2201).

Furrow **2218**, located within the northeast half of the plot, was oriented northwest to southeast and had gradual concave sides and a flat base (1m wide and 0.60m deep) (figure 14b). The sole fill (2219) was a pale brown-orange with yellow flecks and mottling which contained no finds.

Ditch **2243** located within the northeast half of the plot, was oriented northwest to southeast and excavated with two 1m sections (**2211** and **2215**) (plate 04). Both the sections showed that this ditch had steep concave sides, a concave base (0.75m wide and 0.42m max depth) (figure 18b) and contained two fills. The primary fill (2217/ 2222) comprised up to 0.10m of pale brown-yellow silt with pale grey mottles and occasional tabular ironstone fragments. The secondary fill (2212) comprised 0.36m of pale to mid red-brown fine soft friable silt with occasional sandstone and ironstone inclusions. A single fragment of 12th to 13th century pottery and four fragments of fired clay were all recovered from the secondary fill (2216) of section **2215** and a further two sherds of 13th century pottery were recovered from the secondary fill (2212) of section **2211**.

Archaeological features identified during topsoil stripping

No further archaeological features were identified during topsoil stripping.

Archaeological features identified during pipe-trench excavation

The pipe trench afforded the opportunity to record another section (**2239**) across ditch **2243** (figure 18c). Ten plant-holes (**2223, 2225, 2227, 2229, 2231, 2233, 2235, 2237** and **2241**) were also recorded.

Archaeological features identified during excavation of HDD pit

A thrust pit for a horizontal directional drill was excavated at the northeast end of the plot, however; no archaeological features were discovered.

Surface finds

A number of finds, including burnt flint and worked flint, Post-medieval and late Post-medieval pottery, ceramic building material, glass and post-production residues were recovered from both the topsoil (2200) and subsoil (2201) (figure 10).

3.3.21 Plot 24

Location

This plot was located on the eastern side of the allotments adjacent to the junction of Groombridge Hill and Ashurst Road (NGR 553815 138814, figure 6).

The plot comprised a bank and shallow linear depression (2400), oriented northwest to southeast. The feature could not be investigated as the plot was under-passed by HDD.

3.3.22 Plot 27

Location

This plot was located on level ground on the south side of the A264 Langton Road to the southwest of Langton Green reservoir (NGR553930 138883 centre, figure 6).

Archaeological background

The desk-based assessment identified the northern boundary to be an historic boundary and Important hedge (Network Archaeology Ltd 2007, DBA:EW) (figure 6). Geophysical survey identified no anomalies.

Two archaeological trenches, excavated during the first phase evaluation, located a small, undated pit (trench 27.02, context **27205**) and a former path or area of hardstanding (thought to be fairly recent in date) (Network Archaeology Ltd, 2008i).

Soil profile

The topsoil (2700) comprised 0.30m of mid grey-brown fine friable silt which overlay 0.14m of mid orange-brown slightly plastic fine friable silty subsoil (2701). Within the centre of the plot was a 10m long and 0.80m deep layer of drab mid grey red-brown fine silt (2708) which directly overlay the natural sandstone substrate (2702). Across the rest of the plot, the subsoil directly overlay the natural substrate.

Archaeological features identified during topsoil stripping

The only feature identified during topsoil stripping was an 11m wide sub-circular natural hollow (**2703**) which had been filled in with gravel and ceramic building material (2704) and was sealed by the subsoil (2701) (figure 6).

Archaeological features identified during pipe-trench excavation

A pit (**2710**), natural hollow (**2706**), layer of stone hardcore (2709) and a steel water main (2712) were recorded during excavation of the pipe trench in plot 27 (figure 6).

Pit **2710**, located within the northeast half of the plot, had irregular concave sides and a flat base (1.3m wide and 0.48m deep). The sole fill (2711) was mixed pale yellow-brown and drab reddish brown fine soft friable silt which contained no finds.

Surface finds

A number of finds, including worked flint and burnt flint, late Post-medieval pottery, ceramic building material, glass and post-production residues were recovered from the topsoil (2700), whilst the subsoil (2701) contained fragments of worked flint and early modern clay pipe (figure 10).

3.3.23 Plot 39

Location

This plot contained the Langton Green water treatment plant and was located at the

northeast end of the pipeline (NGR554091 139035 centre, figure 6).

Soil profile

The topsoil (3900) comprised 0.40m of mid brown-grey fine friable silt which overlay 0.10m of bright red-brown fine soft friable silty subsoil (3901). Directly below this was the natural sandstone substrate (3902).

Archaeological features identified during topsoil stripping

No topsoil stripping took place within this plot.

Archaeological features identified during pipe-trench excavation

No archaeological features were located within this plot.

Surface finds

Single fragments of Post-medieval glass and late Post-medieval pottery were recovered from the topsoil (3900).

3.4 Streetworks results by plot

3.4.1 Plot 28

Location

This plot was Florance Lane in Crowborough (NGR552859 136707 centre).

The pipe-trench ran for approximately 50m along Florance lane, across Withyham Road and into plot 02 (figure 3).

Road profile

The modern tarmac surface (2801) was 0.21m deep and overlay 0.16m of pale grey clay (2800) which contained frequent semi-rounded stones.

3.4.2 Plot 29

Location

This plot was Burrswood Drive, a private road between the Burrswood Estate to the west and Groombridge Place to the east (NGR552470 137571).

The pipe-trench cut through the road from plot 08 to the south into plot 09 to the north (figure 4).

Road profile

The current road surface (2952) comprised 0.20m of tarmac which overlay 0.08m of pale to mid grey-brown silt (2951). Directly below this was 0.16m of pale brown-yellow coarse clayey silt (2950) which, on the southern side of the road, overlay layer 807.

3.4.3 Plot 30

Location

This plot was Groombridge Road, a narrow lane between Groombridge to the east and Stone Cross to the west (NGR552435 137928).

The pipeline crossed the lane from plot 12 to the southwest to plot 13 to the northeast (figure 4).

Lane profile

The upper surface of the lane (3000) comprised up to 0.10m of tarmac and aggregate which overlay a layer of crushed tarmac (3001). Directly below this was 0.10m of pale brown-yellow friable silt and angular stones (3002) which contained two fragments of undated ceramic building material.

Archaeological features identified during pipe-trench excavation

Two ditches (**3005** and **3009**) were recorded on the north side of the lane and a wide depression (**3007**) and ditch (**3003**) were recorded on the south side of the lane (figure 4). All of the ditches and the depression were oriented northwest to southeast. Ditch **3009** cut subsoil (3001) and was sealed by topsoil (3000) whilst the remaining ditches and depression were sealed by the subsoil (3001) and cut the natural substrate (3002).

Ditch **3003** had steep concave sides and a concave base (0.58m wide and 0.35m deep). The sole fill (3004) was mixed pale brown grey-orange fine friable silt which contained no finds.

Ditch **3005** had steep concave sides and a flat base (0.40m wide and 0.20m deep) and cut ditch 3007. The sole fill (3006) was mid brown-yellow friable silt which contained no finds.

Depression **3007** had steep concave sides and a flat base (1.90m wide and 0.20m deep). The sole fill (3008) was pale brown-yellow friable silt which contained no finds. The depression's fill was truncated on its northern side by ditch **3009**.

Ditch **3009** had steep concave sides and a concave base (1m wide and 0.45m deep) and cut ditch 3005. The sole fill (3010) was a pale to mid grey red-brown fine very friable humic silt which contained no finds. The ditch truncated the fill of depression **3007**.

3.5 Boundaries

The recent archaeological investigations afforded an opportunity to supplement field boundary data recovered during previous reconnaissance survey (Network Archaeology Ltd, 2007). A total of twenty-four boundaries, including nine historic boundaries, had been previously identified along the route of the pipeline. Thirteen of the boundaries had single banks whilst only one (plots 2/3) had a double bank. A total of sixteen hedges, twelve fences, a single drystone wall and a single ditch were also recorded during the previous phase of works.

New data has been recorded for nine boundaries, five of which are historic. The

combined results of previous and recent survey are presented in Appendix G. Pipe-trench excavation revealed previously unidentified buried ditches at the boundaries of plots 3/4, 8/29, 10/11, 30/13, 15/16, 16/18, 18/19, 19/20 and 20/21. Re-cuts were identified at two boundaries (3/4 and 18/19) and the boundary between plots 15/16 appeared to have migrated slightly, all of this indicating a degree of longevity for these boundaries.

3.6 Finds

3.6.1 Introduction

This section provides a summary description and quantification of the finds by material type.

3.6.2 Finds quantifications

Thirteen find types were recovered. A summary count and weight of all finds appears in appendix E and a table of all unstratified finds recorded by GPS can be found in appendix F.

A brief summary of each find type can be found below. The full technical reports appear in appendix D. An overlap exists in the dating terms used by the finds specialists in this report. The technical pottery report uses the term “later Post-medieval” to apply to material dating to the late 18th and 19th centuries. The other technical finds reports use the term “early modern” to apply to material dating to the 19th and early 20th centuries. Both these terms are retained in the main body text where they refer to the relevant material.

3.6.3 Animal bone (Jennifer Wood)

A total of four fragments of animal bone, weighing 15gms, were recovered from the topsoil in plots 07 and 21 and the subsoil within plot 16. The assemblage was exclusively teeth fragments.

3.6.4 Burnt flint (Hugo Lamdin-Whymark)

A total of 270 fragments of burnt, non-worked flint, weighing almost 5.9 kg, were recovered from the topsoil and subsoil within plots 3-5, 7, 9, 11, 13-14, 16, 18-19, 21-22 and 27.

Much of the flint had been subject to very high temperature heating suggesting that some might represent Post-medieval agricultural practices (e.g. spreading from lime kilns), rather than prehistoric activity.

3.6.5 Ceramic building material (Rachel Hall)

A total of 79 fragments of ceramic building material, weighing 6,520gms, was recovered from either the topsoil or subsoil within plots 03, 05, 07, 09, 16, 18, 19, 21, 22 and 27.

The assemblage comprised mainly undated brick and tile although a few Post-medieval fragments were recovered from plots 03, 04, 10, 11, 13 and 14.

Some of the undated ceramic building material from the topsoil and subsoil within

plots 03, 05, 07, 09, 16, 18, 19, 21 and 22 was found in spatial proximity to late Post-medieval material and might be attributed to this period.

3.6.6 Clay pipe (Dr Susie White)

A total of 47 fragments of clay pipe, weighing 141gms, were recovered from the topsoil or subsoil within plots 03, 05, 07, 09, 11, 13, 16, 19, 21, 22 and 27. The assemblage included bowl and stem fragments dating from the early 17th century to the 19th centuries.

3.6.7 Fired clay (Rachel Hall)

A total of two fragments of undiagnostic fired clay, weighing 28gms, were recovered from topsoil within plot 21.

3.6.8 Glass (Hugh Willmott)

A total of 19 fragments of glass, weighing 386gms, were recovered from topsoil or subsoil in plots 03, 04, 05, 12, 13, 14, 16, 19, 22, 27 and 29. The assemblage was dominated by utilitarian bottle glass and ranged in date from mid 18th to early 20th century.

3.6.9 Metalwork (Kevin Leahy)

A total of nine metal objects, weighing 676gms, were recovered. The metalwork included an iron nail, a set of wrought iron pincers, a pewter buckle, a brass label, two copper alloy buckles, a copper alloy name plate, a copper alloy button and a bullet, all of which dated from the 17th to 20th centuries. A significant additional find was a clipped silver long cross halfpenny of Henry III (1216-1272). Three fragments of slag, assessed with the metalwork, are included in the production process residues summary below.

3.6.10 Mortar (Rachel Hall)

A single fragment of undiagnostic mortar was recovered from the subsoil in plot 16.

3.6.11 Post-Roman pottery (Luke Barber)

A total of 589 sherds of post-Roman pottery, weighing 2,864gms, were recovered. The assemblage comprised Medieval, transitional, Post-medieval and late Post-medieval pottery.

The Medieval pottery (294 sherds, weighing 1065gms) accounted for 50% of the total pottery assemblage and dated from the 12th to 14th centuries. The Medieval pottery came predominantly from the pits within plot 14. The Medieval component of the assemblage is considered significant due to the scarcity of excavated Medieval pottery from this part of the Weald.

The transitional pottery (five sherds, weighing 31gms), accounted for less than 1% of the total pottery assemblage, and dated from the late 14th to mid 16th centuries.

The Post-medieval material (23 sherds, weighing 149gms), accounted for just 4% of the total pottery assemblage and dated from the mid 16th to late 18th centuries.

The late Post-medieval material (267 sherds, weighing 1,619gms), accounted for 45% of the total pottery assemblage and dated from the mid 18th to late 20th centuries.

3.6.12 Production process residues (Dr Roderick Mackenzie)

A total of 39 fragments of production process residue, weighing 1,113gms, were recovered from the topsoil or subsoil within plots 03, 04, 05, 09, 10, 13, 16, 18, 21 and 22. All of the fragments appeared to be bulk iron or steel making residue probably dating from the late 19th to mid 20th century. Three fragments of slag were assessed with the metalwork by Kevin Leahy.

3.6.13 Shell (Janey Brant)

A total of two fragments of oyster shell were recovered from the subsoil within plot 05 and the topsoil in plot 27.

3.6.14 Stone (Luke Barber)

A total of six stone objects, weighing 466gms, were submitted for assessment, of which four pieces were found to be natural whilst the remaining stones were considered to be polishing or rubbing stones. One of these stones was a quartzite cobble found within the subsoil (1101) in plot 11. This type of stone is normally found further south and is foreign to this area.

3.6.15 Worked flint (Hugo Lamdin-Whymark)

A total of 218 worked flints were recovered, the vast majority of which were came from topsoil or subsoil. The assemblage, therefore, was essentially derived from surface collection and has the potential to identify broad periods and areas of prehistoric activity only.

The assemblage includes a possible Upper Palaeolithic end scraper, a small number of Mesolithic and Mesolithic/ early Neolithic artefacts and a large number dating to the late Neolithic/ early Bronze Age (plate 01).

3.6.16 Distribution of watching brief finds

Pottery, ceramic building material, clay pipe, post-production residue, worked flint and burnt flint were recovered from most plots along the route whilst the remaining find types were significantly less common. Finds collection was not, however, undertaken in a formal structured manner and none of the find types were found in sufficient quantity to undertake statistical analysis of their distribution. Instead, subjective identification of potentially significant densities has been made and these are presented below in Table 3.2.

Table 3.2 Potentially significant find densities

Material type	Plots	Density (fragments per 100 m^2)
Ceramic building material	2, 10	5-10
Clay pipe	7	7
Flint - burnt	11, 13, 16, 21	1-2
Flint - worked	13, 15, 18	0.5-1
Pottery - Medieval	14	8
Pottery – late Post-medieval	4-5, 10-12, 21	1-2

3.7 Palaeo-environmental material

Seven soil samples were sent for processing and assessment. These included five samples (001 to 005) taken during excavation in plot 16, one sample (006) taken during excavation in plot 14 and one sample (50,001) taken during the first phase evaluation (plot 09, trench 9.02, context 9205) which was not processed at the time due to reporting deadlines.

Sample 50,001 recovered from plot 09 contained evidence of domestic activity in the form of some oat-like grains and possible hazelnut shells, as well as 6 fragments of Medieval pottery.

Sample 006 recovered from plot 14 was taken from the primary fill of pit **1418** and contained some cereal residues including wheat and oat as well as a relatively rich charred seed assemblage, notable due to the presence of hazelnut and probable hawthorn as well as 65 sherds of Medieval pottery.

The samples from plot 16 were all taken from the possible enclosure ditch (**1612**), but these revealed little evidence of anthropogenic activity indicating that this feature had been naturally filled and was located away from any focus of human activity.

An additional sample, originally taken during the evaluation, from a pit (**9204**) in plot 09 also contained grains of oat as well as charred hazelnut shells and seeds of vetch and tare. The presence of corn marigold and sheep's sorrel (*Rumex acetosella*), both of which are often found in acid sandy soils and loams, is worthy of note given the acidic nature of the Weald clay. All of the material recovered indicated that this feature was likely to be a hearth, although it was not possible to determine if the cereal grains represented food waste or tinder material used to light the hearth.

3.8 Summary of specialist recommendations

Recommendations made by specialists are summarised in Table 3.3.

Table 3.3 Specialist recommendations

Material type	Recommendations
Animal bone	None
Burnt Flint	None
Ceramic building material	None
Clay pipe	Illustration of the two complete bowl profiles
	Catalogue of diagnostic material
Environmental samples	None
Fired clay	None
Glass	None
Metalwork	None
Mortar	None
Post-Roman pottery	None
Production process residue	None
Shell	None
Stone	None
Worked flint	None

3.9 Confidence rating of the results

A confidence rating in the reliability of the results of the watching brief has been undertaken. There is a moderate to high confidence in the descriptions, interpretations and relationships of the deposits and features recorded within all of the plots. Some uncertainty remains over the interpretation of some of the pit-like features as it was unclear whether some, which were interpreted as pits, were in fact plant holes and vice-versa.

4 INTERPRETATION AND DISCUSSION

4.1 Plot 02

The large, intercutting pits (**203, 207** and **208**) located within this plot were most likely successive quarry pits excavated to extract local clay or sandstone. Pit **203**, which was heavily truncated by the two later pits, contained fragments of Post-medieval ceramic building material indicating that these pits were backfilled sometime during or after this period.

4.2 Plot 03

The previous archaeological investigations in this plot identified evidence of two phases of inter-cutting pits, backfilled during or soon after the 18th century, which were probably associated with a nearby farm, marked on the 1842 tithe map (figure 2). A brick structure (and associated burning events) and two ditches were evidence of continuing archaeological activity in this field in the late nineteenth century, after the farm was no longer extant (Network Archaeology 2008i).

The four ditches (**307, 3203, 3205** and **3209**) and feature **303**, identified during the recent evaluation, controlled strip and watching brief, most likely represent Post-medieval or early modern field boundaries and a furrow (figure 5). All of these features followed a broadly parallel alignment to the existing field boundary between plots 3 and 4 (DBA:DN), which was marked on the 1842 tithe map (Network Archaeology Ltd 2007) (figure 2). Two of the ditches recorded during the recent phase of evaluation correlated with ditches recorded during the first phase evaluation (Network Archaeology Ltd 2008i). Ditch **3209** was a continuation of ditch **3124**, and ditch **3203** was a continuation of ditch **3114**, which correlated with a boundary marked on the first edition Ordnance Survey map of 1869 (DBA:FC). Ditch **307**, which was identified in the pipe-trench, correlated with a former field boundary marked on the 1842 tithe map (DBA:DE).

The shallow 'burnt' feature (3213) seen within the top of ditch **3209** is considered to be the result of localised clearance/ burning along the line of a former hedge ditch (figure 5).

4.3 Plot 04

The ditches and pits recorded in this plot are mostly considered agricultural. The northernmost ditch (**405**) was located close to, and parallel with the current boundary between plots 4 and 5 and was most likely a former component of the existing system of enclosure.

The inter-cutting ditches (**412, 415, 416** and **417**), located close to the boundary between plots 3 and 4, were also likely to be the remnants of an earlier boundary and the presence of multiple re-cuts indicated a degree of longevity and re-definition of this boundary.

The large pit (**409**) is considered to be an extraction pit, possibly for the local clay and/ or sandstone. Although no quarries are marked on any of the historic maps it is possible that this pit was associated with a former brick and tile works seen on the 1878 Ordnance Survey map (figure 2).

The purpose of the two smaller pits (**403** and **407**) remains ambiguous. Their isolated context and absence of any domestic refuse such as pottery indicated that they were unlikely to be rubbish pits and it is possible that they were smaller extraction pits, possibly excavated to test the underlying geology.

The small quantity of worked flint recovered from this plot may be indicative of short-term or transient human activity during the Mesolithic / early Neolithic periods (Lamdin-Whymark, Appendix D).

4.4 Plot 05

The possible ditch (**503**) may have been a former field boundary marked on the 1842 tithe map (Network Archaeology Ltd 2007, DBA:DG) (figure 2). There is some doubt, however, over this interpretation as the spatial correlation was not precise and their orientations differed slightly.

The small quantity of worked flint recovered from this plot may be indicative of short -term or transient human activity during the Mesolithic / early Neolithic periods (Lamdin-Whymark, Appendix D).

4.5 Plot 07

Although no archaeological features were identified within this plot the excavation of the HDD pit confirmed the presence of alluvial and colluvial soils within the floodplain of the River Grom which had been identified during the first phase evaluation (Network Archaeology Ltd, 2008i).

4.6 Plot 08

The shallow burnt depression (**803**) most likely represented the remnant of a small-scale burning event such as a fire-pit or bonfire which, given that the feature was seen directly below the topsoil, was likely to have been relatively recent in date.

Ditch **805** was probably a former component of the existing system of enclosure as it was located close to the current boundary between plot 08 and Burswood Drive and had a similar alignment. This boundary was marked on the 1840 tithe map (Network Archaeology Ltd 2007, DBA:EJ) (figure 3).

The clayey silt layer 808, seen at the bottom of the pipe trench, was an alluvial deposit, resulting from overbank spill of the River Grom. The overlying clayey silt layer 807 was colluvium.

4.7 Plot 09

Ditch **909**, seen during excavation of the pipe trench, appeared to correlate with a former field boundary seen on the 1840 tithe map (Network Archaeology Ltd 2007, DBA:EE) (figure 3). Ditch **905** did not, however, correlate with any of the ditches identified by the desk-based assessment or the previous evaluation, however; it did follow a similar east to west orientation as the current and former field boundaries suggesting that it too was a former component of the existing system of enclosure.

The stone drain (**904**) was also oriented east to west and appeared to run from a small hollow caused by the spring to the east of the plot. Although no dating

evidence was recovered it is likely that, due its stone construction, it was no later than the early 19th century, as ceramic drains were more common after this date.

The small quantity of worked flint recovered from this plot may be indicative of short-term or transient human activity during the Mesolithic / early Neolithic periods (Lamdin-Whymark, Appendix D).

4.8 Plot 10

This plot was identified during the field reconnaissance as a sunken lane (Network Archaeology 2007, FSU:004) and incorporated an historic boundary marked on the1840 tithe map (Network Archaeology 2007, DBA:EM) (figure 3). It was probably built to transport labour and materials to the quarry located at its east end.

The ditch (**1003**), which ran parallel with the lane, was an old 'side' ditch, to facilitate drainage from the surface of the former track. Multiple fills within the ditch are testimony to a long period of use during which the ditch was not cleaned out. The presence of Post-medieval ceramic building material (Appendix D, Hall) within the upper fill (1005) indicated that it was finally backfilled during the 19th century, possibly to allow the track to be widened. The layer (1007) appeared to be make-up for the construction of the overlying track (1006). As this layer (1007) overlay the upper fill of the ditch (**1003**), which contained Post-medieval material, this make-up must have been deposited sometime after this date.

4.9 Plot 11

The nature and purpose of the curvilinear gulley (**1103**) remains enigmatic. The upper 1 to 2cm of the fill was similar to the topsoil and the feature was seen to be cutting the subsoil, indicating that it was, most likely, relatively recent. The possibility remains that this was a well-defined plant hole and not a cut archaeological feature.

The possible upper-Palaeolithic end scraper (find number 6114290, figure 15), recovered from the subsoil (1101) was technologically different to the rest of the flint assemblage but remains enigmatic as it has not been possible to date this artefact with confidence. The proportions of the artefact indicate affinities with Late Upper Palaeolithic industries, but clearly technological attributes were notably absent. It is therefore possible that this flint represents a novel Neolithic tool form and therefore broadly contemporary with many of the other worked flints recovered along the route of the pipeline (Lamdin-Whymark, Appendix D).

4.10 Plot 13

Both of the pits (**1306** and **1311**) are thought to be clay extraction pits, the easternmost of which (**1311**) correlated with an anomaly identified by the geophysical survey (Network Archaeology 2007).

Historic maps show a quarry to the south of this plot which existed from at least 1878 and continued in use until sometime in the early 20th century. The house which now occupies the site of the old quarry is called Quarry House (figure 3).

The small quantity of worked flint recovered from this plot may be indicative of short term or transient human activity during the Mesolithic/ early Neolithic periods

(Lamdin-Whymark, Appendix D).

4.11 Plot 14

This plot produced positive evidence of Medieval settlement in the form of pits and one ditch (figures 6 and 7), and although no structures were identified, the volume of domestic material recovered from the pits indicates that a settlement of this date was located immediately outside the working width of the pipeline.

Four pits (**1418, 1424, 1432** and **1434**) contained finds dating from the mid 13th century through to the early 14th century. The upper fill of pit **1418** contained the largest assemblage of Medieval pottery (78 sherds) and also a silver, long cross halfpenny of Henry III (1251 to 1272) (Lyne, Appendix D, Barber, Appendix D)..

An environmental sample (sample 006, context 1431) taken from the same pit (**1418)** produced the strongest economic and environmental evidence from the entire sample group. Evidence of wheat consumption and the gathering of wild resources, such as hawthorn and hazel were identified although further analysis could not definitely identify whether the cereal grains or oats were from wild or cultivated species as diagnostic elements were not evident. Weed seeds, also recovered from the environmental sample, may have been the by-product of crop-processing and used as tinder. The remains of the woody and shrubby species may have been food debris thrown into the feature or the preserved residues of these plants collected as firewood and used as tinder. The presence of wild fruit seeds suggests the existence of woodland, scrub and hedgerow vegetation close-by. All of these residues showed evidence of being heat-affected, indicating that the pit may have been a domestic hearth or cooking pit (Girogi, Appendix D).

It is likely that these pits and the hearth were indicative of low-density Medieval activity, probably associated with an as-yet unidentified domestic settlement which appears to have been in existence between the mid 13th and early 14th centuries. However, these dates were not consistent with the cereals recovered from the environmental sample which suggest a late Iron Age or Roman date for the hearth (James Rackham *pers comm*).

The absence of any domestic material post-dating the 14th century from this plot further indicated that any settlement activity may have been short-lived. This theory is supported by a spread of domestic material located to the south-east (KSMR TQ53NW38) which contained no pottery pre-dating the mid 15th century. It is possible that these two sites were related and were indicative of either a shift in or contraction of settlement.

The purpose and date of the remaining features identified within this plot is uncertain (**1407, 1410, 1410** and **1420**). They may be associated with the Medieval activity described above, or the possibility remains that some are non-archaeological, considering the density of plant-holes and root-disturbed ground in this plot.

The only site of a comparative age close to plot 14 was Groombridge Place, now a scheduled ancient monument (KE12728) located approximately 750m southeast of the pipeline. The current 17th century building replaced a 13th century moated manor which is believed to have occupied the site of a Saxon fort. A 14th century farmhouse, known as Blackham Court, with an associated moat and fishponds

(MON409217) occupies the site of a former priory, approximately 2km to the west of the pipeline.

In addition to Medieval activity, evidence of low level prehistoric activity was also found within plot 14 in the form of residual flints contained within the backfills of two pits (**1424** and **1434**).

4.12 Plot 15

The ditch (**1503**) appeared to correlate with a former field boundary identified on the 1840 tithe map (Network Archaeology Ltd 2007, DBA:EG) and was likely to be a former component of the current system of enclosure (figure 4).

The postulated feature relating to the patch of pale red-brown soil (1506) found during pipe-trench excavation may be evidence of small-scale prehistoric activity, although the abraded flint flakes might be residual.

4.13 Plot 16

The majority of archaeology was identified at the northern end of area 16a where the consistent orientation, straightness and configuration of several ditches (**1603/ 1631, 1641** and **1686**) indicated that they were components of an earlier field system following a slightly different alignment (oriented north-northwest to south-south-east) to the current system of enclosure (figures 8 and 9). Ditch **1686** appeared to correlate with the location of a former boundary marked on the 1840 tithe map (Network Archaeology 2007, DBA:EH) although their orientations differed (figure 4).

The rectilinear array of ditches segments/ pits (**1621**) located immediately south of ditch **1603/ 1631** also appeared to represent part of a former enclosure (figures 8 and 9). The absence of any bulk finds combined with the environmental results, which showed only minimal evidence of anthropogenic activity, supported the interpretation that the ditches were removed from settlement (Appendix D, Martin). The slight arc and segmented nature of this enclosure (**1621**) contrasted with the straight continuous nature of the enclosure described above (**1603/ 1631, 1641** and **1686**), but this apparent difference may be due to truncation. Their similar alignment and close proximity suggests that they may be broadly contemporary.

The date and purpose of the intercutting pits (**1675**) was uncertain as their form was not consistent with any obvious interpretation and no datable material was recovered, apart from the fragment of polishing stone (from terminal **1606**), which although not specifically datable, may have been prehistoric (Luke Barber, *pers comm)* (figures 8 and 9).

The two heat-affected pit-like features in area 16b (**1664** and **1673**) are probably fire-pits/ hearths (figures 10 and 11).

Interpretation of the remaining excavated features in area 16a and area 16b is problematic as many were amorphous with ill-defined sides and none contained any finds suggesting that the features did not represent settlement. Given the density of plant-holes and root-disturbed ground in this plot, the possibility exists that at least some of the pit-like features are non-archaeological.

The abundance of worked flint recovered from the topsoil (1600) and subsoil (1601) in plot 16 tentatively points towards a possible late Neolithic or early Bronze Age date for the activity in this plot.

No comparative sites are known in the immediate region although features marked on aerial photographs to the southwest of this plot (DBA:BH), might represent a series of rectilinear enclosures of possible Iron Age or Roman date.

4.14 Plot 18

The ditches (**1805** and **1818**) located at the northeast and southwest ends of plot 18, represent former components of the current system of enclosure. The former ditch appeared to correlate with an historic boundary marked on the 1840 tithe map (Network Archaeology 2007, DBA:EP) (figure 4). The recut (**1820**) of the latter indicated a degree of longevity and reconfiguration of the northeastern boundary. The absence of any dateable finds from both ditches, however, prevented establishment of the date of construction and disuse.

The two pits (**1803** and **1815**) both contained charcoal and burnt sandstone originating from a nearby heat source such as a fire-pit/ hearth.

The rubble layer (**1807**) seen overlying ditch **1818** was evidently modern in date and was probably laid down to facilitate access through the gate into the field.

The worked flint recovered from the topsoil (1800) and subsoil (1801) may have been indicative of short term or transient activity during the late Neolithic and early Bronze Age.

4.15 Plot 19

Ditch/ furrow **1916** was located within an area of ridge and furrow visible on aerial photographs (Network Archaeology 2007, DBA:BR) and followed the same east to west orientation indicating that it too was either a former ditch or furrow of Medieval or Post-medieval date.

The nature and purpose of the pit-like features seen in the pipe-trench (**1912, 1914, 1918, 1920, 1922** and **1924**) is uncertain as no dating evidence was recovered from any of them. The only pit to contain any material was pit **1924** which contained small fragments of charcoal and burnt sandstone, which may have originated from a nearby fire pit/ hearth.

The worked flint recovered from the topsoil (1800) and subsoil (1801) may have been indicative of short term or transient activity during the late Mesolithic and early Bronze Age periods.

4.16 Plot 20

The sunken lane and bridleway which form plot 20, identified by the field reconnaissance (Network Archaeology Ltd 2007, FSU:009), were marked as a track leading east to a quarry, called “Old Quarry” on the Ordnance Survey map of 1898.

The archaeological investigations in this plot identified a wide bowl-shaped linear feature (**2205**) beneath the current bridleway surface. This may have been an earlier

holloway which was later superseded by the present bridleway.

The name Old Quarry indicates that the quarry was of some antiquity at the time the map was made and this suggests that the holloway (**2205**) represented a long-established trackway. The ditches (**2003** and **2007**) on either side of the current bridleway appeared to cut the subsoil (2001) and the earlier holloway (**2005**). These ditches were probably used to facilitate drainage from the surface of the bridleway.

4.17 Plot 21

The large pit (**2109**), located close to the centre of the plot, is thought to be an old quarry pit and if this interpretation is correct, it is quite likely that it was associated with the 19th century quarry, Old Quarry referred to above.

The function and date of the other pit (**2111**) is uncertain. As this pit appeared to cut the subsoil (2101) it is possible that it was relatively recent in date.

The worked flint recovered from the topsoil (1800) and subsoil (1801) may have been indicative of short term or transient activity during the late Mesolithic and early Bronze Age periods.

4.18 Plot 22

The recent archaeological work afforded an opportunity to further investigate the possible Bronze Age ditch (**22203**) identified during the first phase evaluation and demonstrate that it is in fact significantly later in date. Unabraded 12th to 13th century pottery was recovered from both fills of the ditch (**2243**) demonstrating that it went into disuse during the Medieval period (figure 12).

The worked flint recovered from the topsoil (1800) and subsoil (1801) may have been indicative of short term or transient activity during the late Mesolithic and early Bronze Age periods.

4.19 Plot 24

The bank and hollow appear to represent a former droveway, which corresponds to a trackway leading from Langton Lodge, past Crockershatch Corner and south towards “The Hollonds” marked on the Ordnance Survey map of 1870. The track appears to have been in use until at least 1936, possibly providing access to some nearby allotments which had developed by 1918.

4.20 Plot 27

The purpose and date of the pit (**2710**) is uncertain and the possibility remains that it might be a plant-hole

The area of hardcore (2709) and the dump of stone (2704) within hollow **2703** were probably laid down recently to facilitate access/ egress from the A264, and along with the water pipe trench (**2712**) were probably associated with the nearby Langton Green Reservoir.

4.21 Plot 28

The layer of pale grey clay (2800) is considered to be make-up for the current road surface (2801). The 1878 Ordnance Survey map shows a road or trackway following the same orientation as Florance Road, indicating that the current road system is of some antiquity (figure 4). Florence House, which stands on the corner of Florance Road and Withyham Road, dates from the late 16th century.

4.22 Plot 29

The two layers of clayey silt (2951 and 2950) are thought to represent make-up layers for the present road. This road is marked on the 1878 map linking Burrswood with Groombridge.

4.23 Plot 30

The recent archaeological investigations identified a relatively complex history for the road which constituted plot 30. The narrow ditches (**3003** and **3005**) were roadside ditches, to facilitate drainage from the road surface. The northern ditch (**3005**) appeared to have fallen into disuse and was subsequently truncated possibly as a result of the road being widened (**3007**). This truncation event appeared to have been short-lived as a layer of colluvium (1301) later accumulated at this location.

Ditch **3009** is not thought to be directly related to the road. The ditch, which was located below the current boundary between the road and plot 13, correlated with an historic field boundary identified on the 1840 tithe map (Network Archaeology Ltd 2007, DBA:EO). The ditch provides a *terminus ante quem* for the widening of the road, which it cuts.

4.24 Boundaries

Previous research on this project indicated that most boundaries were marked by banks, fences and walls with only one boundary incorporating a ditch. The recent investigations, however, have shown that many more boundaries once included ditch components and that in some cases the ditch had been scoured out or re-cut. The fact that most ditches along this particular scheme have now been backfilled or allowed to fill naturally reflects a change in agricultural land practice with less concern about drainage and more emphasis upon fencing to demarcate land parcels.

4.25 Distribution of watching brief finds

The highest densities of worked flint and burnt flint are recorded in plots 11-21, indicating a potentially significant focus of prehistoric activity on the lower south-facing slope above the floodplain of the River Grom. The worked flint assemblages comprised mainly flakes but also included a small number of blades, cores and scrapers, and indicated short-term or transient prehistoric human activity (Lamdin-Whymark, Appendix D). Specifically, late Neolithic/ early Bronze Age flints found in plot 16 might tentatively date the enclosure and associated archaeology found in this plot to this period.

No Palaeolithic finds have been previously recorded within the immediate area of the pipeline although a Palaeolithic end scraper was recovered from Eynsford in Kent (MON 410201) and a production site has been identified at Swanscombe

(MON 413949). In East Sussex, Palaeolithic flints have been fond at Failight (MON 417392), Telscombe (MON 406353) and Newhaven (MON 618561).

Few Neolithic/ Bronze Age flint scatters have been previously identified although a number of Mesolithic flints were found at Langton Park (MON 409208) and 80 prehistoric worked flints were found close to Eridge Station (MON 970496), within a few kilometres of the pipeline.

The concentration of Medieval pottery in plot 14 relates to the buried archaeology discussed above (4.19). The ceramic building material, clay pipe and late Post-medieval pottery were probably the result of agricultural manuring practices.

5 CONCLUSIONS

The watching brief has proved helpful in locating a low to moderate density of archaeological remains along the route of the pipeline. It corroborated some of the sites identified by the archaeological assessment, field reconnaissance, geophysical survey and first phase evaluation, whilst demonstrating that others were spurious. This programme of archaeological works has also ensured the long-term survival of those discovered remains which were investigated in the form of the project archive and this report.

The recent investigations have enhanced our understanding of the local archaeological record from early prehistory to the present-day. Specifically, the discovery of a potentially nationally important Palaeolithic flint scraper in plot 11, demonstrates the value of undertaking monitoring during topsoil stripping on cross-country schemes of this kind.

Low level prehistoric activity of a short-term or transient nature has been identified in the form of dispersed worked flint (and possibly burnt flint) assemblages along the route of the pipeline with the likelihood that some of the undated cut features also date to this period. Collectively, the previous and recent investigations identified both late Mesolithic/ early Neolithic and late Neolithic/ early Bronze Age activity, with notable bias towards plots 4-5, 16, 18-19 and 21-22. Prehistoric peoples it seems placed an emphasis upon exploiting the resources of the River Grom floodplain and also the surrounding more elevated landscapes.

There may be benefit to reassessing burnt flints recovered on other schemes in light of this report which raises the possibility that high temperature burnt flints may be the product of Post-medieval or early modern agricultural practice rather than prehistoric activity.

The discovery of pits and possible hearths dating to the 12th and 14th centuries in plot 14 is significant positive evidence of Medieval activity in the Weald. The archaeology might be settlement related, in which case, the silver hammered coin recovered from one of the pits might be evidence that the postulated settlement was high status.

Evidence of small-scale quarrying in four plots (2, 4, 13 and 21) was unsurprising given the availability of local resources (clay, sandstone, timber and water) and frequency of local place-names which testify to quarrying and pottery/ tile production.

Map evidence suggests that the local landscape has changed little since the early 19th century and this view was supported by the recent archaeological investigations which identified twelve former field boundary ditches, most of which corroborated boundaries marked on historic maps.

The overall confidence rating for the reliability of the interpretation of results is moderate to high, the only ambiguity being with the interpretation of some of the pit-like features which may have been plant holes or *vice-versa*.

6 ARCHIVE

The documentary archive comprises:

- a copy of this report
- relevant and non confidential documents and correspondence relating to the site held by Network Archaeology
- original notes relating to the finds or post excavation assessments
- site records, as detailed in the table below:

Table 6.1 Archive summary

Item	Count
Number Record	2
Context Registers	27
Context Sheets	400
Drawing Registers	4
Permatrace drawing Sheets	18
Sample Registers	1
Sample Sheets	5
Plot Sheets	22
Level Registers	1
Photographic Registers	9
Colour contact prints and transparencies	124
B&W contact prints and negatives	148
Digital Photographs	308

Tunbridge Wells Museum and Art Gallery, Civic Centre, Mount Pleasant, Royal Tunbridge Wells, Kent, TN1 1JN Telephone number 01892 554171, will receive the archive generated from the archaeological work and will allocate an Accessions Number upon receipt.

Prior to the deposition of the archive, the necessary arrangements will be made with the site owners regarding the transfer of ownership of any archaeological finds to the Tunbridge Wells Museum.

In the event that deposition of the archive cannot be concluded, Network Archaeology will store the archive to a suitable standard until deposition can be arranged. In this event, Network Archaeology will retain ownership of the document archive until the document archive and its ownership are passed to Tunbridge Museum, or until an alternatively suitable museum can be found.

7 ACKNOWLEDGMENTS

Network Archaeology Ltd would like to thank the following for their contribution to the project:

Organisation	Name	Position	Contribution
East Sussex County Council	Greg Chuter	Archaeological Officer	External monitoring
Kent County Council	Adam Single	Archaeological Officer	External monitoring
Black & Veatch	James Twohig	Project Manager	Client liaison
Black & Veatch	James Fuller		
South East Water	Graham Webb	Infrastructure Manager	
Independent	Rachel Hall	Finds specialist	CBM assessment
Independent	Jennifer Wood	Finds specialist	Animal bone assessment
Independent	Hugo Lamdin-Whymark	Finds specialist	Flint assessment
Independent	Andrew Richmond	Finds specialist	Glass assessment
Independent	Luke Barber	Finds specialist	Pottery assessment
Independent	Kevin Leahy	Finds specialist	Metalwork assessment
Independent	Susie White	Finds specialist	Clay pipe assessment
The environmental Archaeology consultancy	Gemma Martin	Environmental Specialist	Environmental samples assessment
The environmental Archaeology consultancy	John Girogi	Environmental Specialist	Environmental samples assessment
Network Archaeology Ltd	David Bonner	Company Director and Project Manager	Project management
	Andrew Hunn	Senior Project Officer	Fieldwork Archive checking
	Steve Thorpe	Project Officer	Fieldwork Archive checking Report writing
	Jim O'Brien	Project Archaeologist	Fieldwork
	Janey Brant	Finds Officer	Finds processing and management Shell assessment
	Susan Freebrey	GIS Officer	Report figures (GIS)
	Chris Morley	Project Archaeologist	Archive checking
	Dave Watt	Illustrations	Report figures (CAD)
	Jacqueline Harding	Illustration Officer	Report figures (CAD)

8 REFERENCES

Organization	Date	Title	Publisher
ACAO	1993	Model briefs and Specifications for Archaeological Assessments and Field Evaluations	
ADS		Archaeology Data Service	
ALGAO	1997	Analysis and Recording for the Conservation and Control of works to Historic Buildings: Advice to Local Authorities and Applicants	
ALGAO	In prep	South East England Archaeological Framework	
Allen J L & Holt A St J	1986 (with later updates)	Health & Safety in Field Archaeology	Standing Conference of Unit Managers, London
Association for Environmental Archaeology	1995	Environmental Archaeology and Archaeological Evaluations. Recommendations concerning the environmental archaeology component of archaeological evaluations in England	Working Papers of the Association for Environmental Archaeology 2, 8 pp. York
Bartlett Clarke Consultancy	2007	Groombridge to Langton Green Archaeo-geophysical Survey of Proposed Water Pipeline 2007	Unpublished report on behalf Network Archaeology 2007
Blackham Court		Blackham Court	www.Blackhamcourt.co.uk
British Geological Survey	2005	British Geological Survey 'Geology of Britain'	http://www.bgs.ac.uk/ accessed 27/04/05
Brown, N. and Glazebrook, J.	2000	Research and Archaeology: A Framework for the Eastern Counties – 2 Research Agenda and Strategy	East Anglian Archaeology Occasional Paper 8
Buckinghamshire County Archaeological Service	2007	The Solent Thames Archaeological Research Framework, covering the counties of Berkshire, Buckinghamshire, Oxfordshire, Hampshire and the Isle of Wight	STRF's web pages, hosted by Bucks CC
Watkinson, D. & Neal, A.V.	1998	First Aid for Finds	Rescue Publications, Hertford
Department of the Environment	1990	Archaeology and Planning, Planning Policy Guidance Note 16	
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Organization	Date	Title	Publisher
EAA	2005	Standards for Field Archaeology in the East of England	Occasional Paper 14
East Sussex County Council	2003	Recommended standards for archaeological fieldwork, recording and post-excavation work in East Sussex	
English Heritage	1991	Exploring Our Past. Strategies for the Archaeology of England,	
English Heritage	1991	The Management of Archaeological Projects, 2nd edition	London
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Ferguson L.M. & Murray D.M.	1997	Archaeological Documentary Archives: Preparation, Curation and Storage, Paper 1,	Institute of Field Archaeologists' Manchester
Groombridge Place		The Groombridge timeline	www.Groombridge.co.uk
Harris E	1993	Principles of Archaeological Stratigraphy	
HSE	2002 (As amended)	Control of Substances Hazardous to Health Regulations (COSHH)	
HSE	1994	Construction (Design and Management) Regulations	
HSE	1974	Health and Safety at Work Act	
IFA	2008 (194, revised 2001)	Standard and guidance for the collection, documentation, conservation and research of archaeological material	
IFA	2008 (194, revised 2001)	Standard & Guidance documents (Desk-Based Assessments, Watching Briefs, Evaluations, Excavations, Investigation and Recording of Standing Buildings, Finds, Waterlogged Wood)	
IFA	2008 (194, revised 2001)	Code of Conduct	

Organization	Date	Title	Publisher
IFA	2000b	Code of Approved Practice for the Regulation of Contractual Arrangements in Field Archaeology.	
Kent County Council		Reporting specifications	
MGC	1992	Standards in the Museum Care of Archaeological Collections	Museums and Galleries Commission London
MoLAS (Museum of London Archaeological Service)	2001	Standards for the Preparation of Finds	
Network Archaeology	2006(2003, revised 2004, 2005, 2006)	Health, Safety and Welfare Policy	
Network Archaeology Ltd	2007	Groombridge to Langton Green. Archaeological desk-based assessment and field survey	Unpublished client report no. 393, for Black & Veatch
Network Archaeology Ltd	2008i	Groombridge to Langton Green. Archaeological trench evaluation	Unpublished client report no. 406 for Black & Veatch
Network Archaeology Ltd	2008ii	Written scheme of investigation for an archaeological watching brief and controlled strip in the county of East Sussex	Unpublished client document
Network Archaeology Ltd	2008iii	Written scheme of investigation for an archaeological watching brief and controlled strip in the county of Kent	Unpublished client document
Nixon, T. *et al* (eds.)	2002	A Research Framework for London Archaeology	
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Slowikowski, A, Nenk, B. & Pearce, J	2001	Minimum Standards for the Processing, Recording Analysis and Publication of Post Roman Ceramics	Medieval Pottery Research Group, Occasional Paper No2
SMPE and SEW	1983	1:250,000 Soil Survey of England and Wales	
Society of Museum Archaeologists	1993	Selection, retention and dispersal of archaeological collections	
Society of Museum Archaeologists	1995	Towards an accessible archaeological archive - the transfer of archaeological archives to museums: guidelines for use in England, Northern Ireland, Scotland and Wales	Society for Museum Archaeologists, London

Organization	Date	Title	Publisher
United Kingdom Institute for Conservation Archaeology Section	2001	Conservation Guidelines No. 2, Packaging and Storage of Freshly Excavated Artefacts from Archaeological Sites	
Walker, K.	1990	Guidelines for the preparation of excavation archives for long-term storage.	UK Institute for Conservation, London
Old maps	2009		www.old-maps.co.uk
Langton Green allotments association	2009		www.langtonallotments.googlepages.com/
The Weald on-line directory	2009		www.theweald.org/

APPENDIX A

Summary table of plots

Plot	Artefacts	Contexts	Findings
1	No	None issued	None
2	Yes	200-208	Possible ponds or quarry pits
3	Yes	300-310	1 x Former field boundary 1 x Pit 1 x Furrow
3	Yes	3200-3213	1 x Former field boundary 1 x ditch Eroded topsoil layer
4	Yes	400-420	2 x Pits 1 x Ditch 1 x Quarry pit Re-cut field boundary Plant hole
5	Yes	500-507	1 x Pit Colluvium
6	No	None issued	None
7	Yes	700-712	Alluvium
8	Yes	800-811	1 x Former field boundary 1 x Area of burnt subsoil Alluvium Colluvium Plant hole
9	Yes	900-911	1 x Field boundary Former springline Land drains
10	Yes	1000-1007	1 x Former field boundary Trackway for former quarry
11	Yes	1100-1106	Plant holes and root runs
12	Yes	1200-1202	None
13	Yes	1300-1311	2 x Quarry pits Plant hole
14	Yes	1400-1436	2 x Ditches 5 x Pits 2 x Postholes 2 x Plant holes 1 x Land drain Colluvium
15	Yes	1500-1506	1 x Ditch
16	Yes	1600-1699	1 x Segmented ditch 2 x Ditches 12 x Pits 4 x Former field boundaries 14 x Plant holes Colluvium
17	No	None issued	None
18	Yes	1800-1821	2 x Pits 4 x Former field boundaries 3 x Postholes Mettling layer
19	Yes	1900-1925	3 x Pits 1 x Furrow or ditch Area of burning Plant holes
20	No	2000-2008	Trackway 2 x Former drainage ditches Plant hole
21	Yes	2100-2112	1 x Possible quarry pit 1 x Possible pit 3 x Plant holes

Plot	Artefacts	Contexts	Findings
22	Yes	2200-2243	2 x Ditches 1 x Furrow 15 x Plant holes
23	No	None issued	None
24	No	2400	1 x Bank
25	No	None issued	None
26	No	None issued	None
27	Yes	2700-2713	1 x Modern service trench Construction layer Natural variations
28	No	None issued	Former road surface
29	No	2800	Former road surfaces
30	Yes	3000-3010	1 x Former field boundary 2 x Possible roadside gulleys Former road surfaces
31	No	None issued	None
32	No	None issued	None
33	No	None issued	None
39	Yes	3900-3902	None

APPENDIX B

Summary table of contexts

Plot	Context	Type	Fill of	Dimensions	Depth BGS	Height AOD (m)	Description	Interpretation
2	200	Layer		0.35m depth	0		Pale grey fine soft friable silt	Topsoil
2	201	Layer		0.10-0.20m depth	0.35m		Pale grey-orange fine friable silt	Subsoil
2	202	Layer		N/A	0.45-0.55m		Very pale grey-ginger mottled fine calcerous silt	Drift geology
2	203	Cut		5m wide x 0.12m depth	0.58m to 0.82m		Undeterminable edges with a flat base	Possible pond or quarry
2	204	Fill	**203**	0.07m to 0.12m depth	0.58m to 0.82m		Pale grey fine friable calcerous silt	Sole fill of possible quarry 203
2	205	Fill	**207**	0.68m depth	0.16m		Pale grey fine calcerous silt	Sole fill of possible quarry 207
2	206	Fill	**208**	0.40m depth	0.08m min		Pale grey fine friable calcerous silt	Sole fill of possible quarry 208
2	207	Cut		5m+ wide x 0.68m deep	0.16m		Steep concave edges with a flat base	Possible quarry
2	208	Cut		2.70m wide x 0.44m deep	0.08m min		Gradual concave edges with a slightly concave base	Possible earlier quarry
3	300	Layer		0.27m depth	0		Light mid grey-brown friable silt with occ sandstone	Topsoil
3	301	Layer		0.18m max depth	0.27m		Light red-brown friable calcerous silt	Subsoil
3	302	Layer		N/A	0.45m		Light grey-orange soft calcerous silt	Natural substrate
3	303	Cut		5m wide x 0.29m deep	0.27m		WNW-ESE oriented linear with gradual edges and a concave base	Possible furrow
3	304	Fill	303	0.29m depth			Light red-brown friable calcerous silt	Sole fill of furrow 303
3	305	Cut		1m wide x 0.30m deep	0.27m		Moderate concave edges with a concave base	Possible pit
3	306	Fill	**305**	0.30m depth	0.27m		Pale brown-grey friable calcerous silt	Sole fill of pit 305
3	307	Cut		1.90m wide x 0.70m deep	0.57m		ENE-WSW oriented linear with steep edges and a concave base	Extinct field boundary
3	308	Fill	**307**	0.30m depth	0.96m		Pale grey soft calcerous fine silt	Primary fill of field boundary 307
3	309	Fill	**307**	0.40m depth	0.57m		Pale brown-grey fine friable silt	Secondary fill of boundary 307
3	310	Layer		0.40m depth	0.27m		Pale grey fine friable silt	Subsoil variation caused by standing water
3	3200	Layer		0.35m depth	0		Light grey brown fine friable silt	Topsoil
3	3201	Layer		0.20m depth	0.35m		Light red-brown fine friable silt	Subsoil
3	3202	Layer		N/A	0.55m		Pale grey fine calcerous silt with sandstone	Natural substrate
3	3203	Cut		2m wide	0.35m		WNW-ESE oriented linear	Unexcavated field boundary
3	3204	Fill	**3203**	N/A	0.35m		Pale brown-grey friable calcerous silt	Visible fill of boundary 3203
3	3205	Cut		2m wide x 0.36m depth	0.35m		Gradual concave edges with a concave base	Shallow pit or ditch
3	3206	Fill	**3205**	0.17m depth	0.45m		Pale brown-grey friable calcerous silt	Upper fill of feature 3205
3	3207	Layer		1.60m wide	0.55m		Pale grey and yellow sandstone	Geological outcrop
3	3208	Fill	**3213**	1.10m wide x 0.12m deep	0.55m		Pale grey fine calcerous silt with burnt sandstone	Burning within plant hole 3213
3	3209	Cut		1.40m wide x 0.12m deep	0.55m		E-W oriented linear with an irregular profile	Probable former hedge. Contains 3213
3	3210	Fill	**3209**	0.12m deep	0.55m		Pale grey fine calcerous silt with burnt sandstone	Fill of former hedgeline
3	3211	Fill	**3205**	0.09m depth	0.62m		Pale yellow-grey fine calcerous silt	Primary fill of feature 3205
3	3212	Fill	**3205**	0.10m depth	0.35m		Pale grey-brown fine friable silt	Eroded subsoil within the top of 3205
3	3213	Cut		1.4m wide x 0.12m depth	0.55m		Circular feature with an irregular profile	Burnt vegetation patch within 3209
4	400	Layer		0.34m max depth	0		Light grey brown soft friable silt	Topsoil
4	401	Layer		0.20m depth	0.34m		Light yellow brown fine friable silt	Subsoil
4	402	Layer		N/A	0.54m		Pale grey brown friable calcerous silt	Natural substrate
4	403	Cut		0.43m wide x 0.20m deep	0.54m		Steep concave edges with a concave base	Pit
4	404	Fill	**403**	0.20m depth	0.54m		Mixed brown-grey orange friable silt	Sole fill of pit 403
4	405	Cut		0.90m wide x 0.12m deep	0.54m		NW-SE oriented linear with gradual concave edges and a concave base	Ditch
4	406	Fill	**405**	0.12m depth	0.54m		Light yellow-grey friable silt with sandstone fragments	Sole fill of ditch 405
4	407	Cut		1m wide x 0.16m deep	0.54m		Gradual concave edges with a concave base	Pit

Plot	Context	Type	Fill of	Dimensions	Depth BGS	Height AOD (m)	Description	Interpretation
4	408	Fill	**407**	0.16m deep	0.54m		Light yellow-grey friable silt with dark brown mottles	Sole fill of pit 407
4	409	Cut		3.2m wide x 0.73m D	0.34m		Steep concave edges. Base not seen	Quarry pit
4	410	Fill	**409**	0.36m depth	0.71m		Light grey calcerous silt with ginger mottling	Primary fill of quarry pit 409
4	411	Fill	**409**	0.37m depth	0.34m		Light grey friable calcerous silt	Secondary fill of quarry pit 409
4	412	Cut		0.70m wide x 0.52m deep	0.34m		E-W oriented ditch with steep edges and a concave base	Re-cut of field boundary ditch
4	413	Fill	**412**	0.52m depth	0.67m		Pale grey fine silt with orange mottling	Sole fill of re-cut field boundary
4	414	Fill	**416**	0.33m depth	0.34m		Mid brown friable clayey silt	Sole fill of re-cut field boundary 416
4	415	Cut		1.90m wide x 1m deep	0.34m		E-W oriented ditch with Steep edges and a concave base	Re-cut of field boundary ditch
4	416	Cut		0.60m wide x 0.45m deep			E/W oriented linear with steep concave edges and a flat base	Re-cut of boundary 412
4	417	Cut		0.35m wide x 0.12m deep			E-W oriented linear with gradual concave edges and a flat base	Primary boundary ditch
4	418	Fill	**417**	0.12m depth			Pale grey fine silt with orange mottling	Sole fill of ditch 417
4	419	Fill	**415**	0.80m depth			Pale grey fine silt with orange mottling	Upper fill of re-cut boundary 415
4	420	Fill	**415**	0.20m depth			Light grey calcerous silt with ginger mottling	Primary fill of boundary 415
5	500	Layer		0.30m depth	0		Light grey brown fine powdery silt	Topsoil
5	501	Layer		0.17m depth	0.30m		Buff yellow-brown fine silt	Subsoil
5	502	Layer		N/A			Pale grey brown friable calcerous silt	Natural substrate
5	503	Cut		2.40m wide x 0.60m deep	0.47m		Steep concave edges with a concave base	Pit
5	504	Fill	**503**	0.23m depth	0.85m		Pale yellow grey soft powdery silt	Primary fill of pit 503
5	505	Fill	**503**	0.37m depth	0.47m		Pale grey friable slightly clayey silt	Secondary fill of pit 503
5	506	Layer		3.5m long x 0.35m deep	0.47m		Buff yellow-brown grey soft friable silt	Colluvium. Only seen to South of 503
7	700	Layer		0.17m Deep			Light to mid grey red-brown friable silt	Topsoil
7	701	Layer		0.10m Deep	0.27m		Pale brown-grey friable silt	Subsoil
7	702	Layer		N/A	0.37m		Pale grey brown friable calcerous silt	Natural substrate
7	705	Layer		0.10m Deep			No detail recorded	Made ground
7	706	Layer		0.12m deep	0.10m		Pale brownish-grey friable silt	Soft unconsolidated alluvial deposit
7	707	Layer		0.15m deep	0.22m		Very pale grey finely flecked and mottled light ginger fine silt (moderately cohesive, friable)	Soft unconsolidated alluvial deposit
7	708	Layer		0.20m deep	0.37m		Very pale slightly blue-grey very soft powdery silt	Soft unconsolidated alluvial deposit
7	709	Layer		0.30m deep	0.57m		Mixed patchy mainly oxidised with moderate very pale blue-grey patches and frequent very dark brown Fe sandstone pellets	Oxidised consolidated silt layer
7	710	Layer		0.12m deep	0.87m		Moderately clayey firm-compact-friable very fine powdery silt, very pale	Oxidised consolidated silt layer
7	711	Layer		0.05m deep	0.99m		Moderately fine pale orangey-brown silt with frequent gritty Fe material and frequent small s/a sandstone pellets	Oxidised consolidated silt layer
7	712	Layer		N/A	1.04m		Very pale blue-grey very fine powdery compact friable silt frequent pale orange very pale buff veining and mottling	Oxidised consolidated silt layer
8	800	Layer		0.40m depth			Light to mid grey red-brown friable silt	Topsoil
8	801	Layer		0.36m	0.40m		Light red-brown fine clayey silt	Subsoil
8	803	Cut		1.10m diam x 0.10m deep	0.40m		Circular cut with shallow edges and a flat base	Possible bonfire or burnt patch
8	804	Fill	**803**	0.10m depth	0.40m		Pale orange brownish red fine friable silt	Patch of burning 803
8	805	Cut		1m wide x 0.75m depth	0.40m		E-W oriented linear with steep edges and a concave base	Extinct field boundary
8	806	Fill	**805**	0.35m depth	0.80m		Light red-brown fine clayey silt	Primary fill of boundary 805
8	807	Layer		0.55m depth			Pale grey-red brown slightly clayey silt	Colluvium
8	808	Layer		N/A			Mottled orange and grey clayey silt	Alluvium
8	809	Fill	**805**	0.40m depth	0.40m		Mid grey brown fine humic silt	Secondary fill of boundary 805
8	810	Fill	**811**	0.40m depth	0.40m		Light brown fine friable silt	Sole fill of plant hole 811

Plot	Context	Type	Fill of	Dimensions	Depth BGS	Height AOD (m)	Description	Interpretation
8	811	Cut		0.80m wide x 0.40m deep	0.40m		Steep concave edges with a concave base	plant hole
9	900	Layer		0.35m depth	0		Mid grey brown soft silt	Topsoil
9	901	Layer		0.15m depth	0.35m		Mid red-brown soft silt	Subsoil within northern quarter
9	902	Layer		0.15m depth	0.35m		Light yellow-brown moderately firm friable silt	Subsoil within southern quarter
9	903	Layer		N/A	0.50m		Brown-yellow fine silt	Natural substrate
9	904	masonry		0.30m D x 0.50m W x 9m+ L	0.35m		Coarse sandstone linear aligned east to west	Possible drain or wall
9	905	Cut		2.10m wide x 0.81m deep	0.50m		E-W oriented ditch with steep edges and a concave base	Extinct field boundary
9	906	Fill	**904**	0.30m depth	0.35m		Sandstone fragments	Fill of wall cut or drain 904
9	907	Fill	**905**	0.20m depth	1.06m		Pale brown-orange fine clayey silt	Primary fill of boundary 905
9	908	Fill	**905**	0.61m depth	0.46m		Pale grey-red brown friable soft silt	Secondary fill of boundary 905
9	909	Cut		3m W x 0.73m D	0.35m		E-W oriented linear with steep edges and a flat base	Possible former boundary
9	910	Fill	**909**	0.50m depth	0.50m		Light greyish yellow brown fine clayey silt	Secondary fill of boundary 909
9	911	Fill	**909**	0.23m depth	0.23m		Light grey mottled brown-orange silt	Primary fill of boundary 909
10	1000			**NOT USED**				
10	1001			**NOT USED**				
10	1002	Layer		1.40m depth	0		Light yellow-brown silt with sandstone frags	Natural substrate
10	1003	Cut		1.6m wide x 0.80m depth	0.38m		E-W oriented linear with steep edges and a concave base	Former field boundary
10	1004	Fill	**1003**	0.25m depth	0.38m		Light red-brown fine friable silt	Primary fill of former boundary 1003
10	1005	Fill	**1003**	0.55m depth	0.63m		Pale brown-yellow friable silt	Backfill of ditch / make up for trackway
10	1006	Layer		0.08m depth	0		Mid red-brown silt with abundant stones	Trackway mettling
10	1007			0.30m depth	0.08m min		Light yellow-brown fine silt with frequent stone	Trackway make up layer
11	1100	Layer		0.33m to 0.45m depth	0		Light to mid grey-red brown friable silt	Topsoil
11	1101	Layer		0.15m depth	0.45m		Light red-brown friable silt	Subsoil. Only visible in north of plot
11	1102	Layer		N/A	0.60m		Light yellow-brown degraded sandstone	Natural substrate
11	1103	Cut		2.7m L x 0.55m W x 0.18m D	0.45m		WNW-ESE oriented slightly curvilinear with near vertical edges and a flat base	Possible ditch or root hole
11	1104	Fill	**1103**	0.18m depth	0.45m		Light red-brown fine clayey silt	Sole fill of feature 1103
11	1105	Cut		1m wide x 0.62m Deep	0.45m		Irregular cut with irregular edges and a concave base	Plant hole
11	1106	Fill	**1105**	0.63m depth	0.45m		Mid red-brown soft friable silt	Sole fill of plant hole 1105
12	1200	Layer		0.22m max depth	0		Light grey-red brown friable silt	Topsoil
12	1201	Layer		0.26m depth	0.22m		Light red-brown cohesive friable silt	Subsoil
12	1202	Layer		N/A	0.48m		Light brown-yellow powdery silt	Natural substrate
13	1300	Layer		0.35m depth	0		Light to mid reddish grey brown friable silt	Topsoil
13	1301	Layer		0.52m max depth	0.35m		Light red-brown friable silt	Subsoil
13	1302	Layer		N/A	0.87m		Light grey powdery silt	Natural substrate
13	1303	Layer		0.23m depth	0.87m		Light reddish grey brown fine silt	Colluvium
13	1304	Cut		1.9m wide x 0.40m Deep	0.87m		Only one edge visible	Plant hole
13	1305	Fill	**1304**	0.40m depth	0.87m		Light yellow-brown friable silt	Sole visible fill of plant hole 1304
13	1306	Cut		7m+ wide x 1m deep	0.42m		Irregular cut with irregular edges and an uneven base	Quarry pit
13	1307	Fill	**1306**	0.42m depth	0.42m		Light greyish yellow brown friable silt	Primary fill of quarry pit 1306
13	1308	Fill	**1306**	0.50m max depth	0.50m		Light red-brown friable silt	Redeposited subsoil in quarry pit 1306
13	1309	Fill	**1311**	0.45m depth	0.35m		Light yellow-red friable silt	layer generated by quarrying within 1311
13	1310	Fill	**1311**	0.43m depth	0.80m		Light orange brown fine friable silt	layer generated by quarrying within 1311
13	1311	Cut		0.88m depth	0.35m		Irregular cut with no defined edges and an undulating base	Quarrying activity
14	1400	Layer		0.32m depth	0		Light to mid reddish grey brown friable silt	Topsoil
14	1401	Layer		0.17m depth	0.32m		Light red-brown friable silt	Subsoil
14	1402	Layer		1.20m depth	0.49m		Light brown-yellow calcerous silt	Natural substrate or drift geology
14	1403	Cut		3.80m L x 0.78m W x 0.15m D	0.49m	97.82	E-W oriented ditch segment with steep edges and a flat base	Short length of ditch

Plot	Context	Type	Fill of	Dimensions	Depth BGS	Height AOD (m)	Description	Interpretation
14	1404	Fill	**1403**	0.15m depth	0.49m		Dark grey brown friable clayey silt with burnt sandstone	Sole fill of ditch segment 1403
14	1405	Cut		1.28m diameter x 0.36m max depth	0.49m		Amorphous cut with steep edges and a flat base	Plant hole
14	1406	Fill	**1405**	0.15m depth	0.49m		Mid orange grey moderately compacted silty clay with sandstone fragments	Sole fill of plant hole 1405
14	1407	Cut		1.14m W x 2m L x 0.16m D	0.49m	98.42	Ovoid cut with irregular edges and an uneven base	Plant hole
14	1408	Fill	**1407**	0.10m depth			Pale orange brown silt	Primary fill of pit 1407
14	1409	Fill	**1407**	0.06m depth			Light red-brown friable silt	Secondary fill or remnant subsoil
14	1410	Cut		0.75m L x 0.85m W x 0.18m D	0.49m	94.25	Circular cut with steep edges and an uneven base	Possible plant hole or pit
14	1411	Fill	**1410**	0.18m depth			Light brown loose silt	Sole fill of plant hole or pit 1410
14	1412	Cut		0.30m wide x 0.10m deep	0.49m		Linear cut oriented NW/SE with steep edges and a flat base	Land drain
14	1413	Fill	**1412**	0.10m depth	0.49m		Loose sandstone blocks	Fill of land drain 1412
14	1414	Fill	**1412**	0.10m depth	0.49m		Yellow-brown compacted sand	Soil fill of land drain 1412
14	1415	Fill	**1410**	0.18m depth	0.49m		Light brown loose silt with burnt sandstone	Sole fill of possible pit 1410
14	1416	Cut		1.10m wide x 0.05m deep	0.49m		Amorphous with an indeterminable profile	Plant hole
14	1417	Fill	**1416**	0.05m depth	0.49m		Light red-brown soft friable silt	Sole fill of plant hole 1416
14	1418	Cut		1.17m L x 1.70m W x 0.10m D	0.55m	104.43	Amorphous cut with an irregular profile and base	Possible burnt pit or re-used plant hole
14	1419	Layer		0.10m depth	0.49m		Light grey-red brown fine friable silt	Eroded or ploughed layer over pit 1418
14	1420	Cut		1.90m L x 0.90m W x 0.15m D	0.49m	96.74	Butt ending ditch oriented NW-SE with moderate edges and a concave base	Ditch terminal
14	1421	Fill	**1420**	0.15m depth	0.49m		Dark grey brown friable clayey silt with occasional charcoal flecks	Sole fill of ditch terminal 1420
14	1422	Cut		0.46m diameter x 0.04m depth	0.49m		Circular cut with shallow near vertical edges and a flat base	Plant hole
14	1423	Fill	**1422**	0.04m depth	0.49m		Very loose dark grey clayey silt	Sole fill of plant hole 1422
14	1424	Cut		0.40m L x 0.56m W x 0.12m D	0.49m	104.2	Ovoid cut with steep edges and a flat base	Pit
14	1425	Fill	**1424**	0.12m Depth	0.55m		Dark grey brown compacted silt	Sole fill of pit 1424
14	1426	Cut		1.60m W x 1.40m D	0.49m		Amorphous cut with steep irregular edges and an irregular base	Plant hole
14	1427	Fill	**1426**	1.40m depth	0.49m		Mixed light brown-yellow / grey-brown friable silt	Sole fill of plant hole 1426
14	1428	Layer		20m L x 0.06m D	0.49m		Dark grey friable clayey silt	Colluvium
14	1429	Fill	**1430**	0.45m depth	0.49m		Light red-brown friable silt	Sole fill of plant hole 1430
14	1430	Cut		1.20m Wide x 0.45m Deep	0.49m		Moderate concave edges with a concave base	Plant hole
14	1431	Fill	**1418**	0.10m depth	0.59m		Light mid red-brown friable silt with frequent burnt sandstone	Fill of feature 1418
14	1432	Cut		0.34m diameter x 0.06m depth	0.55m	104.3	Circular cut with moderate edges and a flat base	Small pit
14	1433	Fill	**1432**	0.06m depth	0.55m		Light grey red-brown friable silt	Sole fill of pit 1432
14	1434	Cut		0.07m wide x 0.10m Deep	0.61m	104.3	Circular cut with vertical edges and a concave base. Angled slightly from east to west	Stakehole
14	1435	Fill	**1434**	0.10m depth	0.61m		Light grey red-brown friable silt	Sole fill of stakehole 1434
14	1436	Layer		20m L x 0.06m D	0.49m		Dark grey friable clayey silt	Same as (1428)
15	1500	Layer		0.32m depth	0		Light to mid reddish grey brown friable silt	Topsoil
15	1501	Layer		0.17m depth	0.32m		Light red-brown friable silt	Subsoil
15	1502	Layer		1.20m depth	0.49m		Light brown-yellow calcerous silt	Natural substrate or drift geology
15	1503	Cut		1.10m Wide x 0.42m Deep	0.49m		NW-SE oriented ditch with steep concave edges and a concave base	Former field boundary
15	1504	Fill	**1503**	0.42m depth	0.49m		Light red-brown fine silt with sandstone frags	Sole visible fill of former boundary 1503
15	1505	Cut					Feature not seen.	Unseen feature which produced 3 worked flints

Plot	Context	Type	Fill of	Dimensions	Depth BGS	Height AOD (m)	Description	Interpretation
15	1506	Fill	**1505**				Not seen	Fill of unseen feature
16a	1600	Layer		0.32m depth	0		Light to mid red-brown friable silt	Topsoil
16a	1601	Layer		0.17m depth	0.32m		Light red-brown friable silt	Subsoil
16a	1602	Layer		N/A	0.49m		Light brown-yellow fine silt with pockets of sandstone	Natural substrate or drift geology
16a	1603	Deposit		c0.65m diameter	0.49m		Burnt silt	Burnt silt which appears to be within ditch 1631. Not seen in section
16a	1604	Cut		2m L x 0.60m W x 0.16m D	0.49m	115.67	Butt ending ditch oriented ENE-WSW with steep edges and a flat base	Ditch terminal. Part of segmented ditch 1621
16a	1605	Fill	**1604**	0.16m deep	0.49m		Mid to light grey brown soft silt with occasional charcoal flecks	Sole fill of ditch 1604
16a	1606	Cut		1.35m L x 1.28m W x 0.35m D	0.49m	111.94	Butt ending terminal with a steep slope to terminus	Possible segmented ditch. Part of group 1675
16a	1607	Fill	**1606**	0.35m depth	0.49m		Dark grey brown friable clayey silt with charcoal flecks	Sole fill of ditch 1606
16a	1608	Cut		0.35m diameter x 0.15m depth	0.84m		Circular cut with near vertical edges and a concave base	Posthole. Appears to be cut by ditch 1606
16a	1609	Fill	**1608**	0.15m depth	0.84m		Dark grey brown friable clayey silt with frequent charcoal flecks	Sole fill of posthole 1608
16a	1610	Cut		0.90m L x 0.80m W x 0.25m D	0.49m	115.02	Ovoid cut with steep, irregular edges and a concave base	Probable plant hole
16a	1611	Fill	**1610**	0.25m depth	0.49m		Dark orange brown compacted silty clay with frequent sandstone fragments	Sole fill of plant hole 1610
16a	1612	Cut		2.60m L x 0.92m W x 0.32m D	0.49m	113.97	Elongated ovoid cut with near vertical edges and a flat base	Pit
16a	1613	Fill	**1612**	0.32m depth	0.49m		Compacted mid to dark grey clayey silt	Sole fill of pit 1612
16a	1614	Cut		0.50m wide x 0.20m deep	0.81m		Truncated cut with near vertical edges and a slightly concave base	Earlier pit. Cut by 1612
16a	1615	Fill	**1614**	0.20m depth	0.81m		Mid grey soft clayey silt	Sole fill of pit 1614
16a	1616	Cut		1.35m L x 0.45m W x 0.17m D	0.49m	111.66	Butt ending terminal with a gradual slope to terminus	Possible segmented ditch. Part of group 1675
16a	1617	Fill	**1616**	0.17m depth	0.49m		Dark grey brown friable clayey silt	Sole fill of ditch 1616
16a	1618	Cut		0.90m L x 0.56m W x 0.30m D	0.49m	114.61	Amorphous cut with near vertical edges and an irregular base	Plant hole
16a	1619	Fill	**1618**	0.30m depth	0.49m		Mid orange brow compacted silty clay	Sole fill of plant hole 1618
16a	1620	Group		2.20m L x 0.90m W x 0.19m D	0.49m		1660 1662	Pit. Assigned group as more than one section excavated
16a	1621	Group		8m ENE-WSW, 4m N-S x c0.50m W x c0.16m D	0.49m		1604 1637 1635 1633 1639	Rectilinear segmented ditch
16a	1622	Cut		1.8m L x 0.34m W x 0.13m D	0.49m		NW-SE oriented irregular linear	Root run
16a	1623	Fill	**1622**	0.13m D	0.49m		Mid yellow-brown friable silt	Sole fill of root run 1622
16a	1624	Cut		2m L x 1.40m W x 0.36m D	0.49m	111.58	Ovoid cut with irregular edges and a flat base	Pit
16a	1625	Fill	**1624**	0.65m wide x 0.10m Depth	0.49m		Light orange brown soft clayey silt with sandstone fragments	Primary fill of pit 1624. Silting against downslope edge
16a	1626	Fill	**1624**	1.35m wide x 0.36m depth	0.49m		Dark grey brown soft clayey sandy silt	Secondary / main fill of pit 1624
16a	1627	Cut		2.12m L x 0.60m W x 0.14m D	0.49m	112.85	Ovoid cut with a steep northern edge and a gradual southern edge and a flat base	Possible ditch segment
16a	1628	Fill	**1627**	0.14m Depth	0.49m		Dark brown-grey friable clayey silt	Sole fill of ditch 1627
16a	1629	Cut		0.80m Diameter x 0.20m deep	0.49m		Amorphous cut with irregular edged and base	Plant hole
16a	1630	Fill	**1629**	0.20m depth	0.49m		Mid orange brown compacted clayey silt	Sole fill of plant hole 1629
16a	1631	Cut		9m+ L x 0.70m W x 0.17m D	0.49m		E-W oriented ditch with steep southern edge and gradual northern edge and a flat base	Former field boundary
16a	1632	Fill	**1631**	0.17m depth	0.49m		Compacted mid orange brown clayey silt	Sole fill of former boundary 1631

Plot	Context	Type	Fill of	Dimensions	Depth BGS	Height AOD (m)	Description	Interpretation
16a	1633	Cut		4m+ L x 0.50m W x 0.20m D	0.49m	115.21	N-S oriented butt ending linear with steep edges and a slightly concave base	Ditch segment. Part of group 1621
16a	1634	Fill	**1633**	0.20m depth	0.49m		Mid orange brown-grey soft silt	Sole fill of ditch segment 1633
16a	1635	Cut		2.85m L x 0.50m W x 0.09m D	0.49m	115.48	Sub-linear oriented E-W with steep edges and a flat base	Ditch segment. Part of group 1621
16a	1636	Fill	**1635**	0.09m depth	0.49m		Light grey brown soft clayey silt	Sole fill of ditch segment 1635
16a	1637	Cut		2m L x 0.35m W x 0.09m D	0.49m	115.47	Sub-linear oriented E-W with steep edges and a flat base	Ditch segment. Part of group 1621
16a	1638	Fill	**1637**	0.09m depth	0.49m		Mid to light grey brown soft silt with occasional charcoal flecks	Sole fill of ditch segment 1637
16a	1639	Cut		1.20m L section x 0.10m depth	0.49m	115.14	Butt ending ditch with a flat base and a gradual slope to the terminal	Ditch segment. Part of group 1621
16a	1640	Fill	**1639**	0.10m depth	0.49m		Mid orange grey soft silt with sparse charcoal flecks	Sole fill of ditch segment 1639
16a	1641	Cut		6m+ L x 0.48m W x 0.14m max D	0.49m	113.98	N-S oriented ditch with moderate edges and a flat base	Ditch. Possible former field boundary
16a	1642	Fill	**1641**	0.14m max depth	0.49m		Dark grey brown friable clayey silt with charcoal flecks	Sole fill of ditch 1641
16a	1643	Cut		0.60m L x 0.40m W x 0.09m D	0.49m	115.06	Ovoid cut with gradual edges and a flat base	Posthole
16a	1644	Fill	**1643**	N/A			Angular sandstone pebbles	Post packing
16a	1645	Fill	**1643**	0.09m depth	0.49m		Light orange brown soft silt	Fill of posthole 1643
16a	1646	Cut		possibly 2m long x 1.30m wide x 0.12m deep	0.49m	111.65	E-W oriented ovoid feature with a near vertical edge and a flat base	Possible ditch segment or elongated pit. Part of group 1675. Possibly continuation of 1616. Relationship with 1648 unclear
16a	1647	Fill	**1646**	0.12m depth	0.49m		Dark grey-brown friable clayey silt	Sole fill of feature 1646
16a	1648	Cut		Possibly 1.20m L x 1.20m W x 0.12m D	0.49m		Irregular ovoid cut with a gradual edge and a flat base	Pit. Part of group 1675. Relationship with 1646 uncertain. Cuts 1650
16a	1649	Fill	**1648**	0.12m D	0.49m		Dark grey brown friable clayey silt with charcoal flecks	Sole fill of pit 1648
16a	1650	Cut		1.45m L x 0.70m W x 0.24m D	0.49m		NE-SW oriented possibly ovoid feature with a near vertical edge and a flat base	Ditch segment or pit. Cut by 1648
16a	1651	Fill	**1650**	0.24m depth	0.49m		Dark grey brown friable clayey silt with charcoal flecks	Sole fill of feature 1650
16a	1652	Cut		1.40m L x 0.80m W x 0.22m D	0.49m	111.79	Ne-SW oriented ovoid feature with steep edges and a flat stepped base	Possible segmented ditch or elongated pit. Part of group 1675. Relationship with 1654 unclear
16a	1653	Fill	**1652**	0.22m Deep	0.49m		Dark grey brown friable clayey silt with charcoal flecks	Sole fill of feature 1652
16a	1654	Cut		0.70m Wide x 0.20m Deep	0.49m		Possibly ovoid cut with a steep visible edge and a flat base	Segmented ditch or pit. Part of group 1675. Relationship with 1652 uncertain
16a	1655	Fill	**1654**	0.20m depth	0.49m		Dark grey brown friable clayey silt with charcoal flecks	Sole fill of feature 1654
16a	1656	Cut		1.10m L x 0.66m W x 0.40m D	0.49m	112.33	Rectangular cut with steep edges and an irregular base	Plant hole
16a	1657	Fill	**1656**	0.40m depth	0.49m		Light grey brown friable silt	Sole fill of plant hole 1656
16b	1658	Cut		1.20m L x 1.50m W x 0.24m D	0.49m	118.06	Circular cut with steep edges and a flat base	Pit. Relationship with 1660 unclear
16b	1659	Fill	**1658**	0.24m depth	0.49m		Dark grey brown friable clayey silt	Sole fill of pit 1658
16b	1660	Cut		2.20m L x 0.90m W x 0.16m D	0.49m		Elongated ovoid cut with steep edges and a flat base	Pit. Part of group 1620 Relationship with 1658 unclear
16b	1661	Fill	**1660**	0.16m deep	0.49m		Dark grey brown friable clayey silt	Sole fill of pit 1660
16b	1662	Cut		2.20m L x 0.90m W x 0.19m D	0.49m	118.05	Elongated ovoid cut with steep edges and a flat base	Pit. Part of group 1620
16b	1663	Fill	**1662**	0.19m Depth	0.49m		Dark grey brown friable clayey silt with charcoal flecks	Sole fill of pit 1662
16b	1664	Cut		0.75m L x 0.70m W x 0.25m D	0.49m	118.12	Ovoid cut with steep edges and a sloping base	Pit

Plot	Context	Type	Fill of	Dimensions	Depth BGS	Height AOD (m)	Description	Interpretation
16b	1665	Fill	**1664**	0.25m depth	0.49m		Dark grey brown friable clayey silt with occasional burnt sandstone and charcoal	Sole fill of pit 1664
16b	1666	Cut		1.30m diameter x 0.51m depth	0.49m	118.82	Circular cut with near vertical edges and a flat base	Pit or plant hole
16b	1667	Fill	**1666**	0.05m depth	0.95m		Very loose light grey brown mixed sandy silt	Primary fill of feature 1666
16b	1668	Fill	**1666**	0.46m depth	0.49m		Dark brown soft sandy silt with charcoal flecks	Secondary fill of feature 1666
16b	1669	Cut		0.40m diam x 0.10m depth			Amorphous cut with steep, irregular edges and an irregular base	Plant hole
16b	1670	Fill	**1669**	0.10m depth			Very friable soft dark brown sandy silt	Sole fill of plant hole
16b	1671	Cut		0.50m L x 0.30m W x 0.20m D			Ovoid cut with steep concave edges and a sloping base	Plant hole
16b	1672	Fill	**1671**	0.20m depth			Very friable dark brown sandy silt	Sole fill of plant hole
16b	1673	Cut		1.10m L x 0.70m W 0.12m D	0.49m	118.39	Irregular ovoid cut with irregular edges and an uneven base	Possible plant hole or pit
16b	1674	Fill	**1673**	0.12m Depth	0.49m		Mid to dark brown friable clayey silt with charcoal and burnt sandstone fragments	Sole fill of feature 1673
16a	1675	Group		7.50m long	0.49m		1606 1616 1646 1648 1652 1654	Group of intercutting pits
16b	1676	Fill	**1677**	0.33m Depth			Light drab red-brown fine silt with occasional sandstone and ironstone fragments	Sole fill of field boundary ditch 1677
16b	1677	Cut		0.33m Depth	0.49m		Linear in plan, rounded v-shape in section	Linear field boundary
16b	1678	Cut		1.20m W x 0.40m D	0.49m		Linear in plan, vague in section	Field boundary ditch
16b	1679	Fill	**1678**	0.40m Depth			Light mid red brown fine friable silt with occasional sandstone and ironstone fragments	Fill of field boundary ditch 1678
16b	1680	Cut		1.15m W x 0.30m D	0.49m		Gradual concave edges with a concave base	Possible pit
16b	1681	Fill	**1680**	0.30m depth			Mid red brown fine friable silt	Sole fill of 1680
16b	1682	Cut		1.50m W x 0.60m D	0.49m		Amorphous profile	Plant hole
16b	1683	Fill	**1682**	0.60m Depth			Light brown red fine friable silt	Sole fill of plant hole
16b	1684	Cut		1.30m wide x 0.70m deep	0.49m	110.96	Steep concave edges and a concave base	Possible pit
16b	1685	Fill	**1684**	0.35m depth			Pale yellow brown fine friable silt with charcoal flecks	Sole fill of possible pit 1684
16b	1686	Cut		1.30m wide x 0.25m deep	0.49m		Shallow concave edges with a flat base	Extinct field boundary
16b	1687	Fill	**1686**	0.25m depth			Mid red brown friable silt	Sole fill of field boundary ditch 1686
16b	1688	Cut		0.27m wide x 0.20m deep	0.49m		Steep concave edges with a concave base	possible posthole
16b	1689	Fill	**1688**	0.20m depth			Mid red brown friable silt	Sole fill of possible posthole 1688
16b	1690	Cut		2.15m wide x 0.50m deep	0.49m		Steep concave edges with a stepped base	Pit
16b	1691	Fill	**1690**	0.50m depth			Mid red brown fine soft silt	Sole fill of pit 1690
16b	1692	Cut		2m wide x 0.45m depth	0.49m		Steep concave edges with a broad flat base	Pit
16b	1693	Fill	**1692**	0.45m depth			Mid red brown friable silt	Sole fill of pit 1692
16b	1694	Cut		1.30m wide x 0.55m deep	0.49m		E-W oriented linear with steep concave edges and a concave base	Extinct field boundary
16b	1695	Fill	**1694**	0.35m depth			Light red brown soft friable silt	Secondary fill of field boundary 1694
16b	1696	Fill	**1694**	0.20m depth			Pale brown yellow fine soft silt	Primary fill of field boundary 1694
16b	1697	Cut		0.42m wide x 0.29m deep	0.49m		Amorphous cut with irregular edges and base	Plant hole
16b	1698	Fill	**1697**	0.29m depth			Light brown red fine friable silt	Sole fill of plant hole 1697
16b	1699	Cut		2.40m wide x 0.35m deep	0.49m		Gradual concave edges and a flat base	Plant hole
18	1800	Layer		0.32m deep	0		Light red-brown fine friable silt	Topsoil
18	1801	Layer		0.33m deep	0.32m		Light-mid bright red-brown fine friable silt with ironstone and sandstone fragments	Subsoil
18	1802	Layer		N/A	0.55m		Pale yellow or yellow brownish or shaley sandstone silt	Natural
18	1803	Cut		0.86m W x 0.42m D	0.55m		Possible sub-circular cut with steepening sides and rounded base	Possible plant hole or pit

Plot	Context	Type	Fill of	Dimensions	Depth BGS	Height AOD (m)	Description	Interpretation
18	1804	Fill	**1803**	0.42m deep			Pale reddish yellow-brown fine friable silt	Sole fill of pit/plant hole 1803
18	1805	Cut		0.60m W x 0.56m D	0.32m		Possible linear with a steep E side, indiscernible W and pointed base	Possible extinct field boundary ditch
18	1806	Fill	**1805**	0.56m deep			light grey-brown fine friable silt	Sole fill of possible extinct field boundary ditch 1805
18	1807	Layer		7.0m L x 3.0m W x 0.24m D	0		Spread of silt and frequent CBM and concrete rubble	Rubble Mettling in field gateway
18	1808	Cut		0.60m W x 0.14m D	0.55m		Possible linear, shallow and with rounded base	Possible field boundary ditch perhaps preceding 1805 or otherwise a natural fluctuation in 1801
18	1809	Cut		1.30m W x 0.32m D	0.32m		Sub-circular/amorphous cut with irregular steep sides and a pointed base	Probable plant hole
18	1810	Fill	**1809**	0.32m deep			Drab light red-grey brown silt with frequent pockets of natural sandstone	Sole fill of probable plant hole 1809
18	1811	Cut		1.10m W x 0.40m D	0.32m		Rounded V-shaped cut	Probable plant hole
18	1812	Fill	**1811**	0.40m deep			Drab grey-red-brown fine friable silt	Sole fill of probable plant hole 1811
18	1813	Cut		1.10m W x 0.56m D	0.55m		Cut with rounded V-shaped sides and an extended tail extending from point of V	Plant hole
18	1814	Fill	**1813**	0.56m deep			Bright brownish-orange sandy fine powdery silt	Sole fill of plant hole 1813
18	1815	Cut		0.95m W x 0.50m D	0.55m		Sub-circular cut with steep rounded sides	Pit
18	1816	Fill	**1815**	0.60m W x 0.10m D			Mid red-brown fine soft friable silt containing charcoal fragments	Primary layer of fill in pit 1815
18	1817	Fill	**1815**	0.75m W x 0.40m D			light moderately bright red-brown fine soft friable silt with occasional sandstone pellets	Second and final layer of fill within cut 1815
18	1818	Cut		1.5m W x 0.50m D	0.55m		Linear cut with gradual gently rounding sides	Earlier field boundary ditch
18	1819	Fill	**1818**	0.50m deep			Pale red-brown friable silt	Sole fill of field boundary ditch 1818
18	1820	Cut		0.90m W x 0.60m D	0.55m		Linear cut with relatively steep sides gently rounding into base	Extinct, deliberately infilled field boundary ditch
18	1821	Fill	**1820**	0.60m deep			Drab pale red-grey brown fine friable silt with sandstone and ironstone pellets	Sole fill of extinct field boundary ditch 1820
19	1900	Layer		0.32m deep			Light red-grey brown fine friable loose silt with occasional sandstone and ironstone fragments	Topsoil
19	1901	Layer		0.10-0.20m deep			Light-mid red-brown fine friable silt with sandstone flecks and mottles	Subsoil
19	1902	Layer					Pale yellow or yellow brownish or shaley sandstone silt	Natural
19	1903	Cut		1.2m W x 0.85m D	0.42-0.52m		Amorphous cut with steep V-shaped profile	Plant hole/solution hollow
19	1904	Fill	**1903**	0.85m deep	0.42-0.52m		Light drab red-brown finely mottled pale brownish-orange moderately frequent fine soft friable silt with occasional sandstone fragments and charcoal flecks	Sole fill of plant hole/solution hollow 1903
19	1905	Cut		1.5m W x 0.80m D	0.42-0.52m		Amorphous cut with vague irregular sides	Plant hole/solution hollow
19	1906	Fill	**1905**	0.80m deep	0.42-0.52m		Pale yellow-brown fine soft loose sandy silt	Sole fill of plant hole/solution hollow 1905
19	1907	Cut		0.70m W x 0.10m D	0.32m		Shallow, sub-circular cut with flatish base	Plant hole/camp hearth
19	1908	Fill	**1907**	0.10m deep	0.32m		Light mid-brown-red scorched silt	Sole burnt fill of plant hole/pit/hearth 1907
19	1909	Cut		0.96m W x 0.47m D	0.42-0.52m		Amorphous cut with a vertical irregular west side, a rounded eastside and an irregular flatish base	Plant hole
19	1910	Fill	**1909**	0.47m deep	0.42-0.52m		light moderately bright red-brown fine soft friable silt	Sole fill of plant hole 1909
19	1911	Layer		0.20m deep	0.32m		Light-mid red-brown fine soft friable silt	Subsoil layer similar/related to (1901)
19	1912	Cut		0.90m W x 0.39m D	0.42-0.52m		Amorphous cut with V-shaped sides and rounded base	Plant hole
19	1913	Fill	**1912**	0.39m deep	0.42-0.52m		Light-mid red-brown fine soft friable silt with occasional ironstone and sandstone fragments	Sole fill of plant hole
19	1914	Cut		0.88m W x 0.36m D	0.42-0.52m		Amorphous cut with steep sides and gently rounded base	Plant hole
19	1915	Fill	**1914**	0.36m deep	0.42-0.52m		Light-mid red-brown fine soft friable silt with occasional ironstone and sandstone fragments	Sole fill of plant hole

Plot	Context	Type	Fill of	Dimensions	Depth BGS	Height AOD (m)	Description	Interpretation
19	1916	Cut		1.90m W x 0.25m D	0.32m		SE-NW elongated pit/linear, shallow and with flatish base	Furrow/ elongated pit/ Field boundary ditch
19	1917	Fill	**1916**	0.25m deep	0.32m		Light red-brown fine friable silt	Sole fill of probable linear 1916
19	1918	Cut		0.90m W x 0.40m D	0.42-0.52m		Amorphous in plan, with uneven sides and sloping flatish base	Plant hole/pit
19	1919	Fill	**1918**	0.40m deep	0.42-0.52m		Bright red-brown fine soft friable silt	Sole fill of plant hole
19	1920	Cut		2.30m W x 0.54m D	0.32m		Sub-circular in plan, with gradual V-shaped profile	Pit
19	1921	Fill	**1920**	0.54m deep	0.32m		Drab grey-red-brown fine soft friable silt	Sole fill of pit 1920
19	1922	Cut		1.06m W x 0.50m D	0.32m		Amorphous in plan, with uneven sides and rounded base	Pit
19	1923	Fill	**1922**	0.50m deep	0.32m		Drab red-brown fine friable silt	Sole fill of pit 1922
19	1924	Cut		1.05m W x 0.28m D	0.32m		Amorphous in plan with rounded profile	Pit
19	1925	Fill	**1924**	0.28m deep	0.32m		mixed grey-red-brown and pale brownish-orange fine friable silt	Sole fill of pit 1924
20	2000	Layer		0.15m deep			Fine mid-brownish-grey silt containing chalk rubble and CBM	Topsoil
20	2001	Layer		0.20m deep	0.15m		Drab light red-brown fine friable silt with occasional ironstone and sandstone fragments	Subsoil
20	2002	Layer			0.35m		Mainly shaley sandstone and silt	Natural
20	2003	Cut		1.5m W x 0.40m D	0.15m		Linear with steep sides and flatish base	Green Lane internal drainage ditch
20	2004	Fill	**2003**	0.40m deep	0.15m		Drab pale red-brown fine friable silt	Sole fill of ditch 2003
20	2005	Cut		1.5m W x 0.70m D	0.35		Possible linear with flatish base made clear through mineralisation	Early hollow-way/ tree-throw
20	2006	Fill	**2005**	0.70m deep	0.35		Very pale yellow-grey-brown fine soft friable silt	Sole fill of linear/tree-throw 2005
20	2007	Cut		1.60m W x 0.60m D	0.15m		Linear in plan, U-shaped in profile	Extinct bridleway/Green Lane ditch
20	2008	Fill	**2007**	0.60m deep	0.15m		Pale orangey-brown fine silt	Sole fill of extinct bridleway/Green Lane ditch 2007
21	2100	Layer		0.30m-0.35m deep			Pale greyish-brown fine moderately soft silt	Topsoil
21	2101	Layer		0.12m deep	0.30-0.35m		Bright mid-gingery brown fine soft silt	Subsoil
21	2102	Layer			0.42-0.47m		Very pale brownish-yellow fine silt	Natural
21	2103	Cut		0.68m W x 0.55m D	0.42-0.47m		Sub rectangular in profile with flat base and vague sides	Plant hole
21	2104	Fill	**2103**	0.55m deep	0.42-0.47m		Light-mid orange-brown cohesive fine silt	Sole fill of plant hole 2103
21	2105	Cut		0.85m W x 0.20m D	0.42-0.47m		Gently rounded dish-shaped profile	Plant hole
21	2106	Fill	**2105**	0.20m deep	0.42-0.47m		Mottled light-red-brown/light orange brown fine silt with occasional sandstone pellets	Sole fill of plant hole 2105
21	2107	Cut		1.90m W x 0.21m D	0.42-0.47m		Gradual sides, overall dished shape in profile	Plant hole/natural depression
21	2108	Fill	**2107**	0.21m deep	0.42-0.47m		Pale bright orangey-brown fine soft silt with occasional soft sandstone pellets	Sole fill of plant hole/fill of natural depression 2107
21	2109	Cut		3.30m W x 1.0m D	0.30-0.35m		Broad, rounded V-shape in profile	Quarry pit/large pit
21	2110	Fill	**2109**	1.0m deep	0.30-0.35m		Light orangey brown fine silt	Sole fill of quarry pit/large pit 2109
21	2111	Cut		0.61m W x 0.40m D	0.30-0.35m		Rounded V-shape in profile	Pit/plant hole
21	2112	Fill	**2112**	0.40m deep	0.30-0.35m		Bright fine soft friable silt	Sole fill of pit/plant hole 2112
22	2200	Layer		0.25-0.40m deep			Light yellowish green-brown fine soft friable silt with occasional sandstone and ironstone fragments	Topsoil
22	2201	Layer		0.06m-0.20m deep	0.25-0.40m		Light yellow brown fine soft friable silt	Subsoil
22	2202	Layer			0.31m-0.60m		Very light bright brown yellow fine soft friable silt with occasional sandstone and ironstone fragments	Natural
22	2203	Cut		0.95m W x 0.13m D	0.60m		Shallow in profile with gradually tapering sides and uneven base	Plant hole
22	2204	Fill	**2203**	0.13m deep	0.60m		Pale drab yellow-brown fine soft friable silt with occasional ironstone fragments	Sole fill of plant hole 2203
22	2205	Cut		2.4m L x 0.49m W x 0.24m D	0.30m		Irregular linear in plan with vertical sides and irregular slightly rounded base in profile	Root run/plant hole
22	2206	Fill	**2205**	0.24m deep	0.30m		Pale brown-yellow fine soft friable silt with occasional sandstone and ironstone fragments	Sole mixed fill of root run/plant hole 2205

Plot	Context	Type	Fill of	Dimensions	Depth BGS	Height AOD (m)	Description	Interpretation
22	2207	Cut		2.40m L x 1.15m W x 0.20m D	0.31m-0.60m		Sub-oval in plan, shallow and with irregular sides in profile	Plant hole
22	2208	Fill	**2207**	0.20m deep	0.31m-0.60m		Very mixed and mottled grey-brown brown-grey fine friable silt with Fe flecking	Sole fill of plant hole 2207
22	2209	Cut		2.70m L x 2.5m W x 0.26m D	0.31m-0.60m		Very irregular U-shape in plan, steep sometimes even undercut sides in profile	Plant hole
22	2210	Fill	**2209**	0.26m deep	0.31m-0.60m		Pale yellow -brown mixed and mottled fine soft friable silt with occasional Fe flecks	Sole fill of plant hole 2209
22	2211	Cut		0.75m W x 0.42m D	0.20m		Straight NW-SE running linear with gradually tapering sides and rounded base	Ditch/gully (med?)
22	2212	Fill	**2211**	0.42m deep	0.20m		Light-mid red-brown fine soft friable silt with occasional sandstone and ironstone inclusions, concretions, concentrations etc	Second fill of ditch/gully 2211
22	2213	Cut		2.0m L x 0.90m W x 0.13m D	0.31m-0.60m		Kidney shaped in plan with roughly 45 degree irregular sides sloping into a flatish base	Plant hole
22	2214	Fill	**2213**	0.13m deep	0.31m-0.60m		Drab pale yellow-brown fine silt with occasional tabular sandstone fragments	Sole fill of plant hole 2213
22	2215	Cut		9.5m L x 0.47m W x 0.10m D	0.20m		Linear in plan, shallow in profile with sides sloping into flatish base	Linear ditch/gully; same as 2211
22	2216	Fill	**2215**	0.10m deep	0.20m		No detail recorded but presumably fairly similar to fill of 2211	Second fill of linear 2215
22	2217	Fill	**2211**	0.06m deep	0.20m		Pale brown-yellow with pale grey mottles and occasional tabular ironstone fragments	Primary fill of 2211, considered weathering of sides/slump
22	2218	Cut		1.0m W x 0.20m D	0.31m-0.60m		Gently sloping sides and rounded base in profile	Possible furrow remaining from a ridge and furrow arrangement/plant hole
22	2219	Fill		0.20m deep	0.31m-0.60m		Pale brown-orange with yellow flecks and mottles and occasional ironstone and sandstone fragments	Sole fill of 2218
22	2220	Cut		0.93m W x 0.20m D	0.25-0.40m		Irregular sides and flatish base in profile	Plant hole/part of subsoil
22	2221	Fill	**2220**	0.20m deep	0.25-0.40m		Pale yellow brown fine friable silt with occasional tabular ironstone fragments	Sole fill of 2220
22	2222	Fill	**2215**	0.10m deep	c.0.25-0.50m		Drab pale grey-brown fine friable silt with occasional ironstone inclusions	Natural primary build up of sediment/primary fill within ditch 2215
22	2223	Cut		1.70m W x 0.50m D	0.31m-0.60m		U-shaped with rounded base in profile	Plant hole
22	2224	Fill	**2223**	0.50m deep	0.31m-0.60m		Pale yellow-brown fine soft very powdery friable silt with occasional sandstone and ironstone fragments	Fill of plant hole 2223
22	2225	Cut		2.5m W x 0.85m D	0.31m-0.60m		Irregular and rounded in profile	Plant hole/pit?
22	2226	Fill	**2225**	0.85m deep	0.31m-0.60m		Pale yellow-brown fine soft powdery very friable silt with frequent sandstone and ironstone inclusions	Sole fill of what excavator records as 'very large feature' 2225
22	2227	Cut		1.25m W x 0.50m D	0.31m-0.60m		Rounded V-shape in profile	Plant hole/pit
22	2228	Fill	**2227**	0.50m deep	0.31m-0.60m		Pale red-brown fine soft silt with ironstone and sandstone fragments	Sole fill of plant hole/pit 2227
22	2229	Cut		1.25m W x 0.30m D	0.25-0.40m		Rounded and asymmetrical in profile	Plant hole/pit
22	2230	Fill	**2229**	0.30m deep	0.25-0.40m		Mixed patchy pale brown-yellow friable silt	Sole fill of plant hole/pit 2229
22	2231	Cut		1.40m W x 0.45m D	0.31m-0.60m		Uneven sides + base in profile	No interpretation offered - pit?
22	2232	Fill	**2231**	0.45m deep	0.31m-0.60m		Mixed patchy pale brown-yellow friable silt	Sole fill of 2231
22	2233	Cut		1.10m W x 0.70m D	0.31m-0.60m		U-shaped with rounded base in profile	No interpretation offered - pit?
22	2234	Fill	**2233**	0.70m deep	0.31m-0.60m		Mixed patchy pale brown-yellow friable silt	Sole fill of 2233
22	2235	Cut		0.65m W x 0.29m D	0.31m-0.60m		Steep uneven sides and irregular base	Plant hole/pit

Plot	Context	Type	Fill of	Dimensions	Depth BGS	Height AOD (m)	Description	Interpretation
22	2236	Fill	**2235**	0.29m deep	0.31m-0.60m		Very pale yellow-grey and pale brown-orange fine friable silt mottled and mixed and containing occasional sandstone and ironstone fragments	Sole fill of plant hole/pit 2235
22	2237	Cut		0.90m W x 0.63m D	0.31m-0.60m		U-shaped	Plant hole/pit
22	2238	Fill	**2237**	0.63m deep	0.31m-0.60m		Light bright red brown fine friable silt with occasional sandstone and ironstone tabular fragments	Sole fill of plant hole/pit 2237
22	2239	Cut		0.53m W x 0.20m D	0.20m		Sides of medium steepness and flatish base in profile	Linear ditch/gully; same as 2211
22	2240	Fill	**2239**	0.20m deep	0.20m		Pale drab greyish yellow brown fine friable silt with occasional ironstone and sandstone fragments	Sole fill of linear 2239
22	2241	Cut		0.67m W x 0.31m D	0.31m-0.60m		Amorphous feature with irregular sides and uneven base in profile	Plant hole
22	2242	Fill	**2241**	0.31m deep	0.31m-0.60m		Very pale brown-grey fine friable silt with occasional tabular ironstone and sandstone inclusions	Sole fill of plant hole 2241
24	2400	Layer					Not excavated	Bank
27	2700	Layer		0.30m deep			Mid grey-brown fine friable silt	Topsoil
27	2701	Layer		0.14m deep	0.30m		Mid Orange-brown slightly plastic fine friable silt	Subsoil
27	2702	Layer			0.77m		Very pale brown-yellow fine powdery loose silt overlying pale brown-yellow sandstone with occasional Fe rich bands	Natural
27	2703	Cut		11.0m W x 0.30m D	0.44m		Sub-circular in plan, gradual profile	Natural depression
27	2704	Fill	**2703**	0.30m deep	0.44m		Mid brown grey fine friable silt	Sole fill of natural depression 2703
27	2705	Layer		20.0m W x 0.33m D	0.44m		Mid red brown fine friable silt	Natural geological deposit/natural subsoil
27	2706	Cut		15.0m W x 0.20m D	0.30m		Gradual and shallow in profile	Natural depression
27	2707	Fill	**2706**	0.20m deep	0.30m		Drab light mid brown fine friable silt	Sole fill of natural depression 2706
27	2708	Layer		10.0m W x 0.80m D	0.44m		Drab mid grey-red-brown fine silt	Natural Fe rich deposit
27	2709	Layer		0.15-0.50m W	0.30m		Mid grey-red-brown fine silt	Ballast filled rut from construction trackway for water tower works?
27	2710	Cut		1.3m W x 0.48m D	0.77m		Uneven sides - near vertical western side and flatish base in profile	Plant hole or possible pit
27	2711	Fill	**2710**	0.48m deep	0.77m		mixed patchy light yellow-brown mid drab red-brown fine soft friable silt	Fill of plant hole/possible pit 2710
27	2712	Cut		1.24m W x 0.95m D	0.30m		Steep sides and flat base in profile	NW-SE water main trench + spoil spread
27	2713	Fill	**2712**	0.95m deep	0.30m		Very pale yellow fine loose powdery silt	Fill of water main trench 2712
28	2800	Layer		0.73m W x 0.76m D			Pale grey soil + semi-rounded stone	Stone road surface makeup
29	2950	Layer		3.5m Wide X 0.16m Deep			Very pale brown-yellow and pale brown-orange clayey coarse silt; mod plastic, friable	Mettled surface (modern)
29	2951	Layer		3.5m Wide X 0.08m Deep	0.16m		Light to mid-brown-grey silt	Mettled surface (modern)
29	2952	Layer		0.20m depth	0.24m		Tarmac + elements of underlying make-up	Modern tarmac surface of driveway
30	3000	Layer		4.10m Wide X 0.08-0.10m Deep			Mid to dark-grey tarmac containing very pale blue-grey angular aggregate	Tarmac road surface
30	3001	Layer		Not recorded	0.08-0.10m		Tarmac	Modern Tarmac make-up layer
30	3002	Layer		3.2m Wide X 0.05-0.10m Deep	at least c.0.10m		Pale brown and brown-yellow fine friable silt	Road surface layer
30	3003	Cut		0.58m Wide X 0.35m Deep	at least c.0.10m		Probable linear revealed in section; appears steep-sided U-shaped in sketch but no detail recorded	Road-side drainage ditch/old service trench
30	3004	Fill		0.58m Wide X 0.35m Deep presumably but no detail recorded	at least c.0.10m		Mixed recent looking light brown and brownish-grey orangey modern fine friable silt	Fill of road-side drainage ditch
30	3005	Cut		0.40m Wide X 0.20m Deep	at least c.0.10m		No detail recorded but presumably fairly similar to 3003	Road-side drainage gully/erosion feature

Plot	Context	Type	Fill of	Dimensions	Depth BGS	Height AOD (m)	Description	Interpretation
30	3006	Fill		0.40m Wide X 0.20m Deep presumably but no detail recorded	at least c.0.10m		Mid brownish-yellow fine soft friable silt	Fill of road-side drainage gully/erosion feature
30	3007	Cut		1.90m Wide X 0.20m Deep	0.18m		flat, gently sloping base; c.45 degree poorly defined south side; c.35 degree north side	Widening of roadway/passing place
30	3008	Fill		1.90m Wide X 0.20m Deep			Pale brownish-yellow fine soft friable silt	Sole fill of undefined feature 3007
30	3009	Cut		1.0m Wide X 0.45m Deep	0.10m		Linear in plan; rounded in profile	Probable extinct field boundary ditch
30	3010	Fill		1.0m Wide X 0.45m Deep			Light to mid-grey-red-brown fine very friable (humic) silt	Fill of extinct field boundary ditch 3009
39	3900	Layer		0.40m depth			Mid brown grey fine friable silt	Topsoil
39	3901	Layer		0.10m depth	0.40m		Bright red-brown fine soft friable silt	Subsoil
39	3902	Layer		N/A	0.50m		Loose sandstone blocks	Natural substrate

APPENDIX C

Plot matricies

Plot 02

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Plot 3 watching brief

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Trench 3.2

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Plot 4

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Plot 5

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Plot 8

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Plot 9

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Plot 10

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Plot 11

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Plot 12

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Plot 13

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Plot 14

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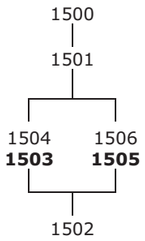
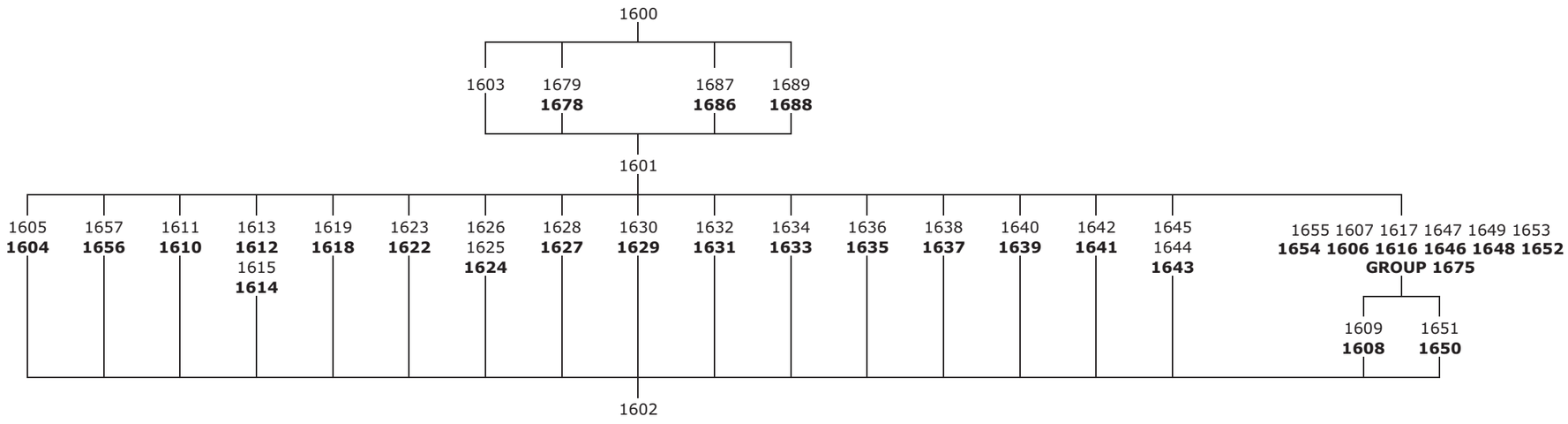
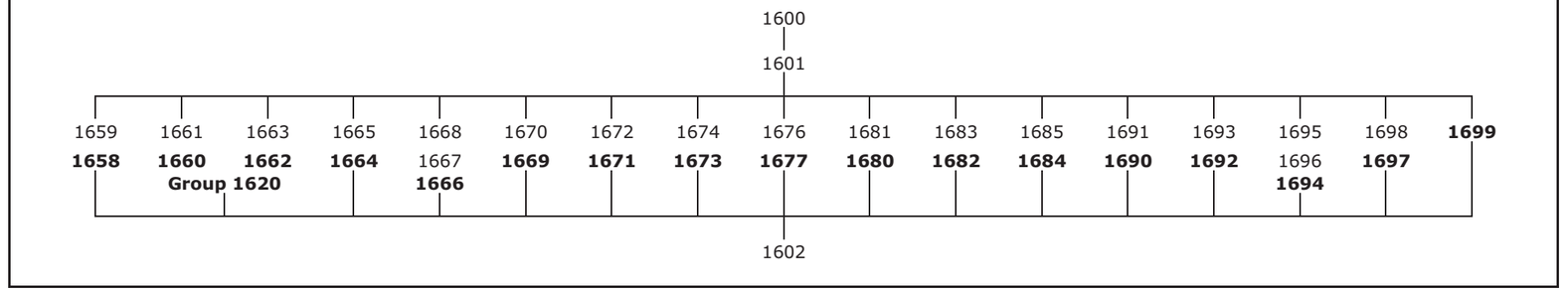
Plot 15



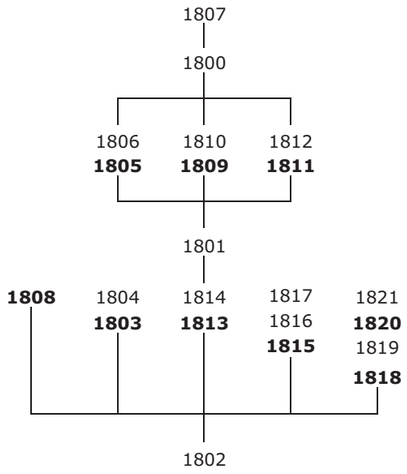
Plot 16a



Plot 16b



Plot 18



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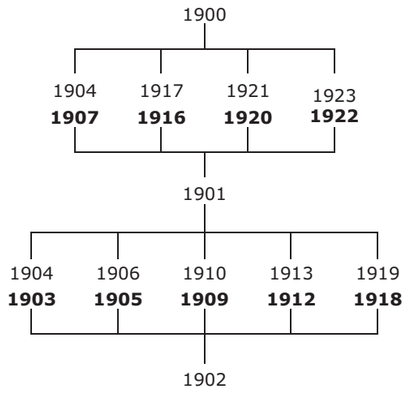

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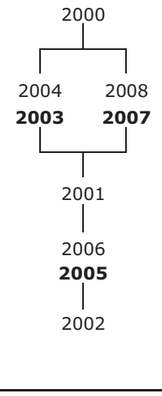

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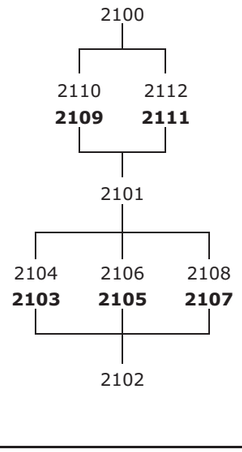

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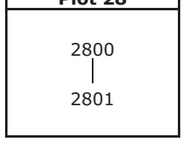

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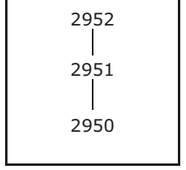

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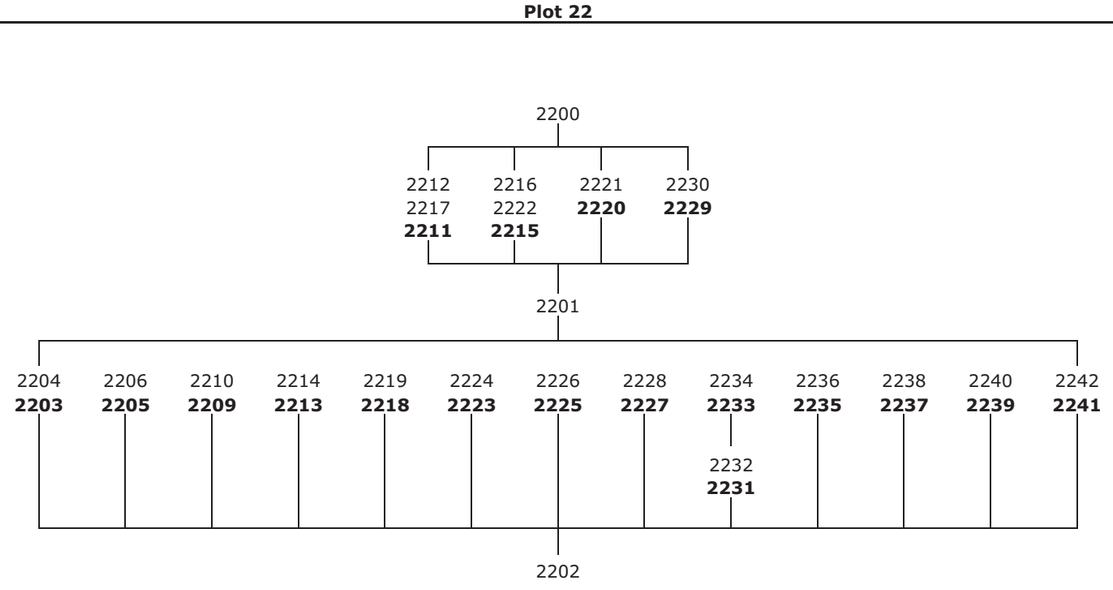

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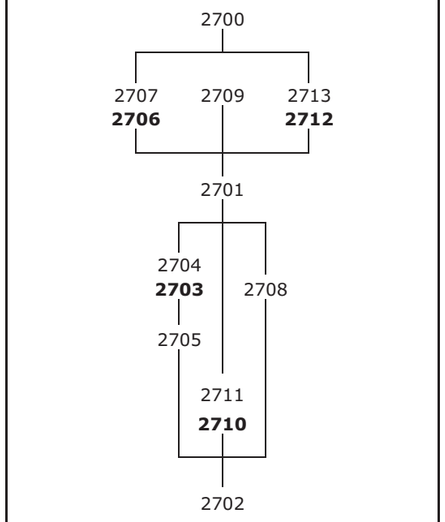

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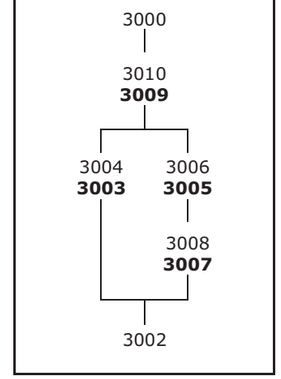

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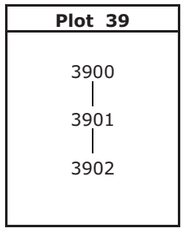

APPENDIX D

Specialist finds reports

CONTENTS

APPENDIX D1
ANIMAL BONE

By Jennifer Wood

Client: Network Archaeology on behalf of Black and Veatch Ltd for South East Water

Introduction

A total of 4 (15g) fragments of animal bone were recovered during archaeological works undertaken by Network Archaeology. The remains were recovered from topsoil and subsoil layers.

D1.1 RESULTS

The remains were generally of a moderate overall condition, averaging grade 3 on the Lyman criteria (1996).

No evidence of butchery, gnawing, pathology or burning was noted on any of the remains.

D1.2 Recommendations

The assemblage is too small to provide meaningful information on animal husbandry and utilisation on site, save the presence on site.

No further work is recommended for this small assemblage.

D1.3 Bibliography

Lyman, R L, 1996 *Vertebrate Taphonomy*, Cambridge Manuals in Archaeology, Cambridge University Press, Cambridge.

Table 1-1 Catalogue of identified animal bone

GPS	Context	Taxon	Element	Side	Number	Weight (g)	Notes
6114403	700	Cattle	Tooth	L	1	13	Upper molar
6114206	1601	Cattle	Tooth	X	1	1	Enamel fragment
6114219	1601	Cattle	Tooth	X	1	1	Enamel fragment
6114372	2100	Unidentified	Unidentified	X	1	0	Possible tooth fragment

APPENDIX D2
CERAMIC BUILDING MATERIAL, FIRED CLAY AND MORTAR

By Rachel Hall

Client: Network Archaeology on behalf of Dalcour Maclaren for South East Water

Introduction

A total of 79 fragments of CBM, weighing 6520g were recovered from twenty-two contexts (see Table 2). The assemblage comprises 62 tile fragments and 17 brick fragments. The fabrics are all coarse sandy and oxidised. The condition of the assemblage ranges from fair to poor. There is little potential for further work on this assemblage due to the lack of diagnostic material.

D2.1 Results

The majority of the tile fragments were recovered from topsoil and subsoil layers across the watching brief area. A single tile fragment was also recovered from a possible quarry 203 and had a partial square perforation. Four other tile fragments were recovered from ditch 1003. One fragment has a splash of glaze and can be dated to the post-medieval period. The fragments are largely undiagnostic but based on form and fabric a small number can be assigned a post-medieval date. These were recovered from topsoil (700), (1300) and ditch 1003. A small number of fragments with partial square perforations were also recovered from possible quarry 203 and subsoil layers (401) and (2201).

The small brick assemblage was recovered from four contexts. An incomplete brick was recovered from possible quarry 203, measuring 105mm wide x 55mm deep and is Unfrogged. Other larger brick fragments were recovered from ditch 1003. The larger brick measured 110mm wide x 65mm deep and has one slight frogged surface. A glazed brick fragment came from subsoil (301) and can be dated to the post-medieval period. The remaining assemblage comprises abraded fragments, which were recovered from road surface layer (3002).

Two fragments of fired clay were recovered from topsoil (2100) and ditch 2215. These were both abraded and undiagnostic. One fragment of mortar was also recovered from topsoil (1601) and was heavily abraded.

D2.2 Recommendations for further work

The small amount of material offers little potential for further research. No further work is required.

Table 2-1 Catalogue of ceramic building material, fired clay and mortar

Context	Material Type	GPS	Form	Assigned Date	Count	Weight
204	CBM	-	Tile	Pmed	8	335
204	CBM	-	Brick	Unassigned	12	2544
301	CBM	6114304	Tile	Unassigned	1	26
301	CBM	6114304	Brick	Pmed	1	333
401	CBM	6114261	Tile	Pmed	1	3

Context	Material Type	GPS	Form	Assigned Date	Count	Weight
401	CBM	6114363	Tile	Pmed	1	24
500	CBM	6114258	Tile	Unassigned	1	28
700	CBM	6114403	Tile	Unassigned	2	22
700	CBM	6114404	Tile	Pmed	1	27
901	CBM	6114266	Tile	Unassigned	1	8
902	CBM	6114278	Tile	Unassigned	4	62
1005	CBM	-	Brick	Pmed	2	1917
1005	CBM	-	Tile	Pmed	4	32
1100	CBM	6114251	Tile	Pmed	1	100
1300	CBM	6114502	Tile	Pmed	1	27
1300	CBM	6114503	Tile	Pmed	1	38
1301	CBM	6114245	Tile	Pmed	4	76
1400	CBM	6114208	Tile	Pmed	1	88
1600	CBM	-	Tile	Unassigned	1	3
1601	CBM	6114206	Tile	Unassigned	1	8
1601	CBM	6114207	Tile	Unassigned	1	26
1601	CBM	6114226	Tile	Unassigned	1	22
1601	CBM	6114237	Tile	Unassigned	1	20
1801	CBM	6114330	Tile	Unassigned	1	41
1900	CBM	-	Tile	Unassigned	2	64
1901	CBM	6114230	Tile	Unassigned	1	16
2101	CBM	-	Tile	Unassigned	6	147
2101	CBM	6114213	Tile	Unassigned	1	21
2101	CBM	6114215	Tile	Unassigned	1	33
2200	CBM	6114173	Tile	Unassigned	2	47
2201	CBM	-	Tile	Unassigned	8	194
2700	CBM	-	Tile	Unassigned	3	178
3002	CBM	-	Brick	Unassigned	2	10
2100	Fired Clay	6114183	U/D	Unassigned	1	11
2216	Fired Clay	-	U/D	Unassigned	1	7
1601	Mortar	6114287	U/D	UND	1	14
TOTAL	**82**	**6542**				

APPENDIX D3
CLAY PIPES

By Dr Susie White

Client: Network Archaeology on behalf of Dalcour Maclaren for South East Water

Introduction

In their Research Priorities for Post-Medieval Archaeology, the Society for Post-Medieval Archaeology have identified the systematic collection of clay tobacco pipes as an area of particular importance where more work is needed (Anon 1988, 6).

The fieldwork produced a total of 47 clay tobacco pipe fragments comprising 10 bowls and 37 stems, from a total of 19 different pipe bearing contexts. No mouthpiece fragments were recovered.

D3.1 Assessment of assemblage

Most of the clay tobacco pipe fragment have abraded surfaces and appear to be water rolled. All periods of pipe production and consumption are represented in this assemblage.

There are two marked fragments within the assemblage both of which are typical London bowl forms. The first is a transitional period bowl c1680-1710 with the moulded initials IH on the sides of the heel. The second is an eighteenth century bowl form c1700-1770 with the moulded initials IM, also on the side of the heel.

In addition to the marked fragments there are two mould-decorated pieces amongst the assemblage. The first is part of an eighteenth-century armorial bowl bearing the Royal Coat of Arms. The second is a small fragment of a nineteenth-century pipe with a large moulded leaf on, what would have been the underside of the bowl.

Table 3 presents a summary of the finds by context. For each context the number of bowls, stems and mouthpieces is recorded. A count of any marked or decorated/modified fragments is also given together with a brief description. This is followed by a broad date range by century and finally any general comments about the group are note.

D3.2 Results

The clay tobacco pipes recovered from water pipeline represent a small but interesting assemblage. The two complete bowl forms that have been recovered are typical London forms and it is no surprise that these should turn up in Sussex. Although both sets of initials are fairly common it may be possible to suggest possible makers that these pipes can be attributed to. On the whole the fragments, from the site are rather small and abraded, but the two complete bowl profiles would be worthy of illustration for future reference.

The group includes a number of plain stems and for the most part further analysis of this material will add little to that which has already been presented in the summary above.

D3.2.1 Recommendations for Further Work

A detailed catalogue of the diagnostic fragments should be prepared. This catalogue would include all the bowl fragments, together with any marked or decorated fragments and would provide better dating for these diagnostic pieces. The bowl forms should be illustrated at life size, to publication standard.

Further analysis of the plain stems is not considered necessary, but a short report describing the nature of the marked and decorated fragments recovered from the site should be prepared, setting the pipes in context.

Table 3-1 Catalogue of clay pipes

GPS	Ctx	B	S	M	Tot	Mkd	Dec or modified	Date Range	Comments
6114300	300		1		1			1790-1860	Plain stem from close to bowl/stem junction.
6114364	501		1		1			1800-1900	Plain C19th stem.
6114403	700	3	7		10			1680-1900	Mixed group of water rolled fragments, all with abraded surfaces. Plain stems and bowl fragments of C17th, C18th and C19th type.
6114404	700		3		3			1800-1900	Plain C19th stems; two fragments join (fresh break).
6114418	902	1	3		4		Armorial (x1)	1660-1900	Small mixed group. Plain stems of C17th, C18th and C19th together with a bowl fragment from a C18th Armorial bowl.
6114427	902		2		2			1800-1900	Two joining C19th stems (fresh break).
6114250	1100		1		1			1780-1850	Plain stem late C18th or early C19th.
6114251	1100		1		1			1800-1900	Plain C19th stem.
6114252	1101		1		1			1700-1800	Plain C18th stem; appears to be water rolled.
6114282	1301		2		2			1800-1900	C19th stems; appear to be water rolled.
6114328	1301		1		1			1800-1900	Plain C19th stem.
6114365	1301	1			1			1660-1680	Heel fragment only; likely to be mid to late C17th
	1307	1			1	IM (x1)		1700-1770	London Type 25 with moulded IM mark.
6114320	1600		1		1			1640-1700	Heavily abraded C17th stem fragment.
6114207	1601		1		1			1730-1830	Plain stem.

GPS	Ctx	B	S	M	Tot	Mkd	Dec or modified	Date Range	Comments
6114238	1601	1			1			1700-1800	Rim fragment most likely C18th type.
6114217	1602		1		1			1800-1900	C19th stems; appear to be water rolled.
6114337	1801	1			1		Leaf	1800-1880	Small bowl fragment with moulded decoration of C19th type.
6114344	1900		1		1			1680-1800	Small bowl fragment that could be either C17th or C18th.
6114230	1901		1		1			1800-1900	Plain C19th stem.
6114231	1901		1		1			1730-1830	Plain stem.
6114353	2100		2		2			1650-1750	Two plain stems one appears to be C17th type, the other late C17th or early C18th.
6114375	2100	1			1			1800-1900	Small C19th bowl fragment.
6114215	2101		1		1			1620-1700	Plain C17th stem; appears to be water rolled.
6114182	2200	1			1	IH (x1)		1680-1710	London Type 22 with moulded IH mark.
6114395	2200		1		1			1800-1900	Plain C19th stem.
6114423	2700		3		3			1650-1900	Single abraded C17th stem fragment and two C19th types.
6114440	2701		1		1			1800-1900	Plain C19th stem.
Totals:		**10**	**37**	**0**	**47**				

Appendix D
Specialist finds reports

APPENDIX D4
ENVIRONMENTAL REMAINS

By Gemma Martin

Client: Network Archaeology on behalf of Black and Veatch Ltd for South East Water

Introduction

During the construction of a new water main between Groombridge Water Treatment Works in East Sussex and Langton Green Reservoir in Kent, Network Archaeology Ltd undertook an archaeological watching brief, a controlled strip and excavations as part of the archaeological mitigation strategy. The archaeological features encountered during the investigations included a possible prehistoric enclosure, pits, ditches, quarries, former boundaries and plant holes. Six environmental bulk-soil samples were taken for palaeo-environmental investigation from features from within Plots 9.2, 14 and 16a, and which have been submitted to the Environmental Archaeology Consultancy for processing and assessment (Table 4).

Table 4-1: Catalogue of samples

Site Code	Plot	Sample no.	Context no.	Sample vol. (l)	Sample wt. (Kg)	Description	Prov. period
GRL44	9.2	50.001	9205	13	24	Sole fill of hearth 9204	?
GRL56	16a	1	1634	26	38	Sole fill of ditch segment 1633, part of segmented ditch 1621.	?
GRL56	16a	2	1640	12	20	Sole fill of ditch segment 1639, part of segmented ditch 1621.	?
GRL56	16a	3	1636	14	21	Sole fill of ditch segment 1635, part of segmented ditch 1621.	?
GRL56	16a	4	1605	14	20	Sole fill of ditch terminal 1604, part of segmented ditch 1621.	?
GRL56	14	6	1431	38*	40*	Fill of cut 1418, an 'amorphous' feature with an irregular profile and base.	?

*Processed volume and weight - 15 litres not processed (reserved).

D4.1 Methodology

The soil samples were processed in the following manner. Sample volume and weight was measured prior to processing. The samples were washed in a 'Siraf' tank

(Williams 1973) using a flotation sieve with a 0.5mm mesh and an internal wet sieve of 1mm mesh for the residue. The residues and flots were dried and the residues subsequently re-floated to ensure the efficient recovery of charred material. The dry volume of the flots was measured and the volume and weight of the residue recorded. A total of 117 litres of soil was processed in this way.

The residue was sorted by eye, and environmental and archaeological finds picked out, noted on the assessment sheet and bagged independently. A magnet was run through each residue in order to recover magnetised material such as hammerscale and prill and a count made of the number of any flakes or spheroids of hammerscale collected. The residue was then discarded. The flot of each sample was studied using x10 magnifications and the presence of environmental finds (i.e. snails, charcoal, carbonised seeds, bones etc) was noted and their abundance and species diversity recorded on the assessment sheet. The flots were then bagged and along with the finds from the sorted residue, constitute the material archive of the samples.

The individual components of the samples were then preliminarily identified and the results are summarised below in Tables 5 and 6. Botanical nomenclature follows Stace (1997).

D4.2 Results

The samples washed down to produce residues ranging in volume between 1500 and 5600 millilitres, and predominantly consisting of varying proportions of buff coloured, plate/sub-angular, sub-rounded and sometimes angular limestone, with some reddish (heated) limestone brash and fire-cracked stone in the finer fractions. The exceptions are the residues of two samples (those from Plots 9.2 and 14), which were red in colour and all of the fractions of limestone gravel from these samples appears to be completely heat affected. The archaeological finds recovered from the samples include 18 sherds of pottery from two disparate samples, varying quantities of fire-cracked and heat affected stone, magnetised stone crumb, a single piece of plate hammerscale and two tiny fragments of calcined tooth root (Table 5).

The corresponding flots are generally small (between 2 and 82ml and only one exceeding 14ml) with low charcoal abundances (Table 6). The overall state of preservation of the charred botanical remains is fair, although a degree of abrasion and fragmentation will prevent identification to species of the cereal and weed seeds in some instances. Small numbers of charred grain are present in two samples with the provisional identifications being Triticum (wheat), Avena (oat) and Avena/Poaceae (oat/grass). A single wheat spikelet base fragment akin to that of a free-threshing wheat species has been recorded in one sample, as well as an indeterminate basal rachis node. Other charred remains of potential economic value include Vicia/Lathyrus (vetch/vetchling), fragmented legume cotyledons, a fragment of Corylus avellana (hazelnut) shell and several remains provisionally identified as Crataegus (hawthorn) fruits. The accompanying weed seed assemblages are also small and include species commonly associated with cultivated ground such as Anthemis cotula (stinking chamomile), Chrysanthemum segetum (corn marigold), as well as several small indeterminate Poaceae (small-seeded grasses).

Other finds are small quantities of un-charred roots and also seeds of Fumaria officinalis (common fumitory), Urtica (nettle), Chenopodiaceae (goosefoot/orache), Polygonaceae (knotgrasses) and Rubus (bramble). In addition, small numbers of snails of the genus Vitrea and intact insect remains are present in three samples.

Together with the un-charred plant remains these have been treated as intrusive on this occasion.

The results will be discussed by Plot.

D4.2.1 Plot 9.2 (GRL44)

The single sample from hearth deposit (9205) contains evidence for domestic activity, with several sherds of pot, a little burnt bone and charred botanical remains of economic value including some grain and possible hazelnut shell. The grain appears to consist of oat and oat-like grains that have been provisionally identified as oat/grass, and given the domestic character of the context it is possible that oat was consumed at this site. Conversely, the oat and oat/grasses may have been a contaminant that persisted in the crop, only to be removed by hand at the final stages of processing prior to being prepared for consumption, with any unwanted remains being discarded onto the hearth. Unfortunately it is difficult to investigate the scenarios proposed here on the strength of the evidence from a single sample; there is no corresponding chaff to ascertain whether the oat is a wild or cultivated species, although the cultivation of oats is typically associated with the medieval period onwards (Greig 1991, 315) so obtaining a date from the grain may enable some further comment to be made.

D4.2.2 Plot 14 (GRL56)

The sample is taken from feature 1418, which is described as an amorphous cut with an irregular profile and base. The residue is similar to that from hearth deposit (9205), being composed of heat affected stone and gravel with a large magnetic component. The deposit also produced quite a large quantity of pottery sherds, some cereal residues and a relatively rich charred seed assemblage, which is notable due to the presence of several remains of economic value including hazelnut and probable hawthorn. Deposit (1431) clearly contains domestic residues and on the strength of the evidence gained from the sample, the feature may be a hearth or fire pit of some kind.

This sample has produced the strongest economic and environmental evidence from the entire sample group; there is evidence for the consumption of wheat (and possibly oat?) and further identification of the cereal grains should provide some resolution on the species consumed, and there is also evidence for the gathering of wild resources, namely hazel and very likely hawthorn, which are shrubby/hedgerow species that may have been locally available.

D4.2.3 Plot 16a (GRL56)

The samples are from four ditch segments that are in relatively close proximity and which are each part of segmented ditch group 1621. Together this group of samples yielded nominal quantities of fire-cracked stone (<2cm), magnetised stone crumb, comminuted charcoal, a single charred weed seed (stinking chamomile-type) and several snails. In addition, small (<1mm), black spherical objects identified as ‘spores’ are present in these samples, often in high abundance, but which do not appear to be charred and are therefore likely to be recent intrusions. Other than the low levels of fired stone and comminuted charcoal there is little direct evidence for anthropogenic activity associated with ditch group 1621, suggesting that these may be field boundaries that were located away from any contemporary settlement site.

D4.3 Conclusions

The samples from the series of ditch segments associated with group 1621 are practically devoid of archaeological and environmental evidence suggesting that the features are not associated with occupation activity. Further interpretation regarding group 1621 is beyond the scope of the archaeological and biological evidence. Only the two samples from Plots 9.2 and 14 are worth particular attention; both are associated with heating events and while the deposit from Plot 9.2 has been identified as a hearth deposit, the feature sampled from Plot 14 might be something like a hearth or fire pit due to the entire residue appearing to be heat affected. Both of these deposits yielded some crop processing residues/domestic debris such as pot, cereals and non-cereal remains of economic value. Together the two samples from Plots 9.2 and 14 provide tangible environmental and economic evidence, notably for gathered wild resources, including hazel and potentially hawthorn, which suggests that these species were locally available, as well as for the consumption of wheat and possibly oats.

Establishing dates for the inferred domestic activities associated with the two features in Plots 9.2 and 14 should be possible through analysis of the pottery or by radiocarbon dating suitable (and identified) charred botanical material, which on this occasion would be the cereal grain.

D4.4 Recommendations for further work

No further work on the four samples from Plot 16a is recommended.

The sample from Plot 9.2 should be dateable on the basis of the ceramics and therefore full identification and counts of the charred plant assemblages would be useful with confirmation of the provisional cereal identifications. This would allow some comment to be made on the cereals consumed on the site. In addition, the sample from hearth deposit (9205) also yielded the largest charcoal assemblage, some of which may be suitable for identification (twenty fragments >6.7mm), which will afford some insight into fuel selection and in turn give a broad indication of the resources locally available for exploitation.

The sample from Plot 14 also produced several sherds of pottery and should therefore be dateable. Confirmation of the provisional charred botanical identifications is therefore recommended. The results from these two relatively rich samples from Plots 9.2 and 14 could then be compared within a known timeframe, as well as feed into existing bodies of evidence gathered from previously known sites of the same period(s) in the region.

D4.5 BIBLIOGRAPHY

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D4.6 Acknowledgements

I should like to thank Angela Bain for processing and sorting the samples and James Rackham for commenting on the faunal remains, the snails and the fire-cracked stone.

Table 4-2: Groombridge to Langton Green Water Main – GRL44 and GRL56. Finds from the processed samples

Site code	Plot	Sample no.	Context no.	Sample vol. (L)	Residue vol. (ml)	Pot no/ wt. g.	Heat affected stone wt. g.	Mag. wt. g.	Hammer scale no.	Fired earth wt. g.	Bone wt. g.	Comment
GRL44	9.2	50.001	9205	13	2000	5/17	2605	8	1		<1	Pot very worn with one ?rim sherd; all of fractions of the residue appear to be heat affected with some fire-cracked stone present.
GRL56	16a	1	1634	26	5600		63.5	2				Fire-cracked stone <2cm.
GRL56	16a	2	1640	12	3400		94	2				Fire-cracked stone <2cm.
GRL56	16a	3	1636	14	1500		6	<1				Fire-cracked stone <2cm.
GRL56	16a	4	1605	14	2300			<1				
GRL56	14	6	1431	38	3600	13/21	4828	12				Pot very worn; little slag/prill in magnetic component (score 1); all fractions of residue appear to be heat affected with some fire-cracked stone present.

Table 4-3: Groombridge to Langton Green Water Main – GRL44 and GRL56. Environmental finds from the processed samples

Site code	Plot	Sample no.	Context no.	Sample vol. (L).	Flot vol. (ml)	Char - coal */<2*	Char'd grain *	Char'd chaff *	Char'd seed *	Snail */#	Comment
GRL44	9.2	50.001	9205	13	82	5/5	2		2	1/1	Charred *Avena*, *Avena*/Poaceae, cf. *Corylus avellana*, Chenopodiaceae, *Vicia/Lathyrus, Chrysanthemum segetum*, small indet. Poaceae; small indet. calcined fragments; *Vitrea* sp. modern?
GRL56	16a	1	1634	26	8	2/5			1	1/1	Charred *Anthemis* cf. *cotula*; *Vitrea* sp. modern?; 'spores' <1mm (score 5).
GRL56	16a	2	1640	12	2	2/3					'Spores' <1mm (score 1).
GRL56	16a	3	1636	14	2	1/2				1/1	*Vitrea* sp. modern?; 'spores' <1mm (score 5).
GRL56	16a	4	1605	14	2	1/2					'Spores' <1mm (score 5).
GRL56	14	6	1431	38	14	4/5	2	1	3		Charred *Triticum* sp(p)., *Avena*/Poaceae, *Triticum* sp. chaff, indet. chaff, cf. *Corylus avellana, Crataegus* sp(p)., cf. legume cotyledon fragments, small leguminous seed, *Anthemis cotula,* small Poaceae; charcoal incl. very occasional bud.

* = abundance: 1=1-10, 2=11-50, 3=51-150, 4=151-250, 5=250+ */<2* = abundance>2mm nightshade-type, /abundance + = present*/# = abundant snails/species diversity NFI = Not formally identified

APPENDIX D5
THE CHARRED PLANT REMAINS

By John Giorgi

Client: Network Archaeology on behalf of Black and Veatch Ltd for South East Water

D5.1 Introduction and Methodology

During excavations along the proposed route for the new Groombridge to Langton Green Water Main, six environmental bulk soil samples from three plots (9.2, 14, 16.1), associated with locations GRL44 and GRL56, were collected for the potential recovery of biological remains. The samples were from four ditch fills, a hearth deposit and the fill of an undefined feature; none of these contexts have yet been dated. Soil quantities of between 12 and 26 litres were processed by flotation and wet-sieving, with the flots then being dried and assessed for environmental material including plant remains. On the basis of the assessment, two samples were selected for detailed analysis of the charred botanical remains, from hearth [9204] deposit [9205] Plot 9.2 (GRL44) and the fill [1431] of an irregular cut feature [1418] from Plot 14 (GRL56). It was hoped that the plant material would be able to provide information on economic activities (cereals and wild food resources) and the character of the local environment at these locations, while material suitable for radiocarbon dating could be used to establish an internal site chronology (Martin 2009).

The flots from the two selected samples were divided into fractions using a stack of sieves to facilitate sorting of plant material. Once sorted, the botanical remains were identified using a binocular microscope with a magnification of up to 40x together with seed reference material (both modern and charred) and manuals (eg Cappers et al, 2006). Identifiable charred plant material was quantified in absolute numbers with the exception of charcoal fragments, hazel nut (Corylus avellana) shell fragments, small cereal fragments (less than 2mm) and indeterminate items. The amounts of these remains were estimated using the following codes: + = 1-10; ++ = 11-50; +++ = 51-150; ++++ = 151-250; +++++ = 250+ items.

D5.2 The Results

Both samples produced fairly small flots (14 and 82ml). The charred plant assemblages consisted mainly of fragmented charcoal and relatively smaller amounts of cereal grain and weed seeds with a density of quantified plant items per litre of processed soil of 7.2 and 5.8 for fills [1431] and [9205] respectively. The preservation of the remains was not particularly good, with abrasion and fragmentation limiting identification of much of the material. There were also small numbers of un-charred seeds in the two samples, including goosefoots/oraches (Chenopodium/Atriplex spp.), docks (Rumex spp.), fumitory (Fumaria sp.), and brambles (Rubus spp.); this material is probably intrusive, together with occasional mollusc and insect (beetle) fragments, with many rootlets being noted in both flots. The charred plant remains in the two sampled features are listed in Table 1 and shall be discussed by plot number. Nomenclature follows Stace (2005).

D5.3 1.3 Discussion

D5.3.1 Plot 9.2 (GRL44)

Hearth deposit [9205] (sample 50.001)

The charred plant remains in the hearth deposit [9205] consisted mainly of fragmented charcoal, with a large number of identifiable fragments including oak (Quercus sp.), together with cereal grains (many of which were too poorly preserved or fragmented for identification) and small numbers of wild plant/weed seeds.

All the identifiable grains belonged to oat (Avena spp.) although it was not possible to establish whether these were from wild or cultivated species because of the absence of diagnostic oat floret bases. Other potential economic plants were represented by occasional charred hazelnut shell fragments and seeds of vetch/tare/vetchling (Vicia/Lathyrus spp.), although the latter may be from arable weeds and/or wild plants. Several characteristic cereal weeds were identified in the assemblage, including docks, corn marigold (Chrysanthemum segetum) and bromes (Bromus spp.); the presence of indeterminate small and large grass seeds was also noted.

The oats in this sample may have been cultivated and used on site as human food and/or animal fodder, although as noted above, it is not possible to establish whether they were deliberately grown or were simply arable weeds; current archaeobotanical research suggests that oats were only extensively cultivated in southern Britain from the post-Roman period onwards (Greig 1991, 315). Thus, the radiocarbon dating of the oat grains may provide a possible indication as to whether they are from cultivated or wild species. Oats grow well in acidic sandy soils not suitable for wheat and it is interesting to note the presence of corn marigold and sheep's sorrel (Rumex acetosella) in the same assemblage, both of which are often found in acid sandy soils and loams (Hanf 1983).

If cultivated, the oat grains may have been accidentally burnt while being cooked over the hearth; on the one hand, if from wild species, they may simply represent arable weeds, used together with the other weed seeds, by-products of crop-processing, as tinder for lighting the hearth.

D5.3.2 Plot 14 (GRL56)

Fill [1431] (sample 6)

The charred botanical material from the fill [1431] of an unknown feature [1418] comprised fragmented charcoal and a moderate quantity of cereal remains and wild plant/weed seeds.

The majority of the cereal grains were too poorly preserved to be identified, with a large number of small fragments remaining unsorted. Identifiable cereals consisted of wheat (Triticum spp.) and oat. The morphology of several of the better preserved wheat grains suggest the presence of the hulled wheats, emmer (Triticum dicoccum) and spelt (T. spelta), although it is not possible to confirm the definite presence of either species because of the absence of diagnostic chaff fragments. In addition, the upper part of a wheat rachis segment, with the glumes broken off, may be tentatively identified as belonging to hexaploid free-threshing wheat which includes bread wheat (T. aestivum). Again, it was not possible to determine whether the oats

were from wild or cultivated species because of the absence of diagnostic oat floret bases.

There were also the charred remains of several other potential economic plants including seeds of vetch/tare/vetchling and cotyledons of indeterminate pulses although these remains may be from cereal weeds and/or wild plants. Occasional charred hazelnut shell fragments, an elder (Sambucus nigra) seed and several hawthorn (Crateagus monogyna) fruits in this sample may represent the residues of gathered and consumed foodstuffs.

Other wild plant/weed seeds were mainly from small and large seeded grasses, including bromes and meadow grass (Poa spp.), plus medicks/clovers (Medicago/Trifoilum spp.), goosefoots (Chenopodium spp.) and black bindweed (Fallopia convolvulus), the latter an arable weed, particularly of spring cereals, which is common in acidic soils.

The wheat grains would have probably been used exclusively for human food while the oats, if from cultivated species, may have been grown for a similar use and/or as animal feed; spelt and to a lesser extent emmer, are the main wheat grains represented in the archaeobotanical record until the end of the Roman period, with free-threshing wheat being the main wheat grain in subsequent periods. Radiocarbon dating of the wheat grain and rachis fragments may provide a date for the sampled deposit and establish whether the hulled and free-threshing wheat remains are of a similar date.

The presence of fire-cracked stone in this sampled feature suggests that it may have had a cooking function (possibly a hearth or fire pit) and as such, the grains may have been accidentally burnt while being cooked, or as a result of an accident during the advanced stages of crop cleaning. The weed seeds may be a by-product of crop-processing, used as tinder, while the remains of the woody/shrubby species may be food debris thrown into the feature or the preserved residues of these plants collected as firewood and also used as tinder. These wild fruits suggest the presence of woodland/scrub/hedgerow vegetation close-by.

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Table 5-1 Groombridge to Langton Green Water Main: The Charred Plant Remains

	site code	GRL56	GRL44
	Plot	14	9.2
	feature type	fill	hearth fill
	feature number	1418	9204
	context	1431	9205
	sample	6	50.001
	vol soil (L)	15	13
	vol (ml)	14	82
LATIN NAME	**ENGLISH**		
Grains			
Triticum cf. *dicoccum*	?emmer	2	
T. cf. spelta L.	?spelt	1	
T. dicoccum/spelta	emmer/spelt wheat	2	
Triticum spp.	wheat	6	
Avena spp.	oat	3	16
cf. *Avena* spp.	?oat	4	14
Cerealia	Indet. cereal (estimate)	48	27
Cerealia	Indet. cereal fragments <2mm	+++	++
Chaff			
Triticum cf. *aestivum*	?hexaploid free-threshing wheat rachis	1	
Cerealia/Poaceae indet	indet basal rachis node	1	
Weed seeds			
Corylus avellana L.	hazel nut shell fragments	+	+
Chenopodium spp.	goosefoots etc.	2	
Fallopia convulvulus (L.) A Love	black bindweed	2	
Rumex acetosella agg.	sheep's sorrel		1
Rumex spp.	dock		2
Crateagus monogyna Jacq.	hawthorn	3	
Vicia/Lathyrus spp.	vetch/tare/vetchling	3	4
Medicago/Trifolium spp.	medicks/clovers	4	
Fabaceae indet.	indet legume fragments (cotyledons)	4	
Sambucus nigra L.	elder	1	
Chrysanthemum segetum L.	corn marigold		1
Asteraceae indet		1	
Poa spp.	meadow-grass	3	
Bromus spp.	brome	6	4
Poaceae indet.	indeterminate large grass seeds	7	5
Poaceae indet	indeterminate small grass seeds	5	1
indeterminate	seeds	+	+
Charcoal	fragments including oak	+++++	+++++
	Total no's quantified items	**109**	**76**
	Density of plant items (per litre of processed soil)	**7.3**	**5.8**
key: item frequency: + = 1-10; ++ = 11-50; +++ = >50 items			

APPENDIX D6
FLINT

By Hugo Lamdin-Whymark

Client: Network Archaeology on behalf of Black and Veatch Ltd for South East Water

Introduction

Excavations and a watching brief along the route of the water main recovered 218 struck flints (Table 1). The majority of the struck flint was recovered from the topsoil or subsoil (211 flints) and only seven flints were recovered from cut features. Single flints were recovered from the fills of features 1425, 1435, 2210 and 2240, while the fill of feature 1506 produced three flints. The flints from these fills were in poor condition and they are not contemporary with the features.

The lithic assemblage therefore essentially derives from surface collection and has the potential to identify broad periods and areas of prehistoric activity. The lithics from this project include a possible Late Upper Palaeolithic or Neolithic end scraper (Area 11), a small number of Mesolithic and Mesolithic/early Neolithic artefacts and a more extensive scatter dating from the late Neolithic/early Bronze Age. A particular focus of late Neolithic/early Bronze Age (Beaker) activity was noted in Areas 16, 18, 19 and 21. The majority of sites yielded as small number of flints, typically fewer than 15 artefacts, but Areas 16, 18, 19 and 21 yielded assemblages of between 26 and 62 artefacts.

In addition, 270 fragments (5.897 kg) of burnt unworked flint were recovered from the topsoil and subsoil along the route of the water main. The burnt flint was white, heavily calcined, and numerous pieces exhibited glossy vitrified surfaces. This condition is typical of flints accidentally burnt alongside chalk in lime kilns and indicates the burnt flint reflects post medieval agricultural practices rather than prehistoric activity.

D6.1 Methodology

The flints were catalogued according to broad artefact/debitage type and retouched pieces were classified following standard morphological descriptions (Bamford 1985; Healy 1988; Bradley 1999; Butler 2005). Additional information was recorded on condition of the artefacts including, burning, breakage, the degree of edge-damage and the degree of cortication. Unworked burnt flint was quantified by weight and number. The assemblage was catalogued directly onto a Microsoft Access database and data manipulated in Microsoft Excel.

D6.2 Provenance

The lithics were recovered predominately recovered from the topsoil and subsoil. Seven lithics were recovered from cut features, but these were clearly residual. The majority of sites yielded as small number of flints, typically fewer than 15 artefacts, but plots 16, 18, 19 and 21 yielded assemblages of between 26 and 62 artefacts. The latter areas clearly represent foci for prehistoric activity, but as the artefacts were not collected under controlled conditions, e.g. as a fieldwalking exercise, it is not possible to ascertain the character or size of the artefact scatters.

Raw material and condition

Flint from various different sources was exploited as the raw material for the lithic artefacts. The raw materials are dominated by an opaque mottled mid grey flint with white of cream coloured cherty inclusions and a translucent mid brown flint with occasional white cherty inclusions. The cortex on both of these raw materials, where present, was abraded indicating the flint was collected from a secondary source. In addition, occasional flakes of an opaque orange flint and a single flake of Bullhead Bed flint, which exhibits an olive green cortex and an underlying orange band (Shepherd 1972), were noted.

The flint assemblage exhibited moderate to heavy edge-damage; this is typical for material recovered from agricultural horizons. The majority of the assemblage was free surface cortication, but occasional pieces exhibited either a light speckled bluish-white surface or a moderate to heavy white cortication. Two flints were corticated, but exhibited retouch free from cortication, indicating two episodes of use.

D6.3 The assemblage

The flint assemblage contains a single Late Upper Palaeolithic or Neolithic end scraper and a small number of Mesolithic and Mesolithic/early Neolithic flints, but the majority of the artefacts date from the late Neolithic/early Bronze Age. The assemblage will be considered by chronological period below.

D6.3.1 Late Upper Palaeolithic or Neolithic

An end scraper from Area 11 (topsoil 1100, GPS 6114290) was manufactured on a large blade-like flake that was significantly larger than other flakes in the assemblage raising the possibility that it derives from an earlier industry, such as the Late Upper Palaeolithic long blade tradition (Ill. 1). The tool was manufactured from a mottled mid grey flint with white cherty inclusions that had an abraded cortex with an underlying white band. The blade-like flake exhibits a cortical platform with minimal edge-preparation and a strong dorsal ridge created by earlier removals; the distal end exhibits flake scars that were struck from a second platform located to the left hand side or distal end. The bulb appears to be large and diffuse, but a secondary scar has removed some of the surface features. The artefact measures, 145 mm long by 46 mm wide and 17 mm thick, but following Saville (1980) the length would be 123 mm as the removal twists to one side. The tool exhibits regular unifacial semi-invasive to semi-abrupt edge retouch along the entire length of right hand side and the majority of the left hand side, and curving semi-abrupt to abrupt retouch around the distal end. On the ventral surface, a small area of post-depositional edge-damage is present on the proximal left hand side and possible use-damage is present further along the same edge.

The size of the blade-like flake and technology of manufacture is comparable to products of the late Upper Palaeolithic long blade industry (Barton, R. N. E. & Roberts 1996; Barton, N. 1998; Barton, R. N. E. 1999), but the flake was struck from a core in the early stages of working and the platform was not prepared. In the absence of distinctive platform preparation, such as faceting, or opposed dorsal blade scars typical of well developed long blade cores, the reduction strategy is ambiguous and it is not possible to confidently assign this flake to an Upper Palaeolithic industry (R. Jacobi and N. Barton pers. comm.). Moreover, while end scrapers represent typical elements of long blade industries, the regular and semi-

invasive retouch along the left and right hand sides of the flake cannot be paralleled in long blade assemblages and is more characteristic of Neolithic traditions of flint-working (F. Healy pers. comm.). Therefore, while the technology of this artefact differs from the rest of the assemblage, it is not possible to date it with confidence.

D6.3.2 Mesolithic and Mesolithic/early Neolithic

A small number of Mesolithic artefacts and Mesolithic or early Neolithic blades were recovered. Two medial segments of blades with sight backing retouch along one side found in Areas 14 and 16 probably date from the Mesolithic, although they cannot be accurately dated. In addition, a blade-like flake from Area 19 exhibits a small area of retouch on a proximal break and a blade from Area 21 exhibits a partial truncation to create a distal point. These minimal areas of edge retouch may also be tentatively assigned to the Mesolithic.

In addition to the retouched artefacts, a small number of blades and flakes (c. 9) from Areas 4, 5, 9, 13, 16, 19, 21 and 22, and a blade core from Area 13, were the product of a careful blade-orientated reduction strategy and probably date from the Mesolithic or early Neolithic.

The Mesolithic and Mesolithic/early Neolithic artefacts are few in number and widely distributed across the landscape. The pieces recovered demonstrate a presence in the landscape, but no foci of activity were present.

D6.3.3 Late Neolithic/early Bronze Age

The majority of the flint assemblage is composed of relatively regular and broad flakes. A small number of these flakes exhibit platform-edge abrasion, but the majority of flakes were detached from plain platforms without preparation of the platform-edge. The cores further demonstrate a simple reduction strategy with four tested nodules exhibiting only couple flake removals each, while four multi-platform flake cores exhibit irregular removals predominately from simple platforms. Two crudely worked discoidal cores and a core on a flake were also recovered. The morphology of the flakes and simple reduction strategy is characteristic of later Neolithic or early Bronze Age industries (Pitts 1978; Pitts & Jacobi 1979; Ford 1987). Discoidal cores are most commonly recovered from later Neolithic contexts.

Retouched artefacts were comparatively common and 24 artefacts were present, excluding the five artefacts considered to date from earlier periods. Scrapers of various forms were the most common artefact (14 examples) and four of these tools also exhibited spurred edges. Other retouched artefacts comprised four arrowheads, three piercing tools (an awl and two spurred pieces), a notched flake, a broken rod-shaped fabricator (strike-a-light) and flake with irregular miscellaneous edge-retouch. These tools are not particularly chronologically diagnostic, with the exception of the arrowheads, but their form and range of artefacts is consistent with a late Neolithic/early Bronze Age date.

The arrowheads comprise a broken later Neolithic chisel arrowhead from Area 22 (Ill. 2), two early Bronze Age barbed and tanged forms from Areas 18 and 21 and an unfinished barbed and tanged arrowhead from Area 18 (Ills 3-5 respectively). The chisel arrowhead was manufactured transversely on a broad flake and exhibits coarse bifacial retouch on the proximal edge. The front cutting edge of the arrowhead is on the right hand side, but part of the blade edge and distal side are

broken. Chisel arrowheads are most commonly associated with Peterborough Ware and typical date from c. 3300-2800 cal BC. The barbed and tanged arrowheads are chronologically later and are typically associated with Beaker or Food Vessel and date from c. 2500-1500 cal BC. The barbed and tanged arrowhead from Area 21 exhibited a small area of damage to the tip and both barbs were broken (Ill 3). The point was of squat proportions, measuring 19 mm long by 20 mm wide, 4 mm thick and exhibited a pointed tang with notches that measured only 4 mm deep. In the absence of the barbs the form cannot be accurately identified, although it most comparable to Green's Sutton type B or C (1980). The barbed and tanged arrowhead from Area 18 is complete except for slight damage to tip and one missing barb that was broken during manufacture; the arrowhead measures 29 mm long by 24 mm wide and 6 mm thick. This arrowhead exhibits fine bifacial retouch and the notches measure 6-7 mm deep. This point can be classed as Conygar Hill type B due to the squared tanged and barb and is a fine example, despite the pressure flaking error which broke a barb (Ill. 4). The unfinished arrowhead from Area 18 reached an advanced stage before it was abandoned (Ill. 5). The blank is triangular, measuring 27 mm long by 24 mm wide and 5 mm thick, and exhibits bifacial retouch and one partially worked notch; the tip is slightly damaged, but this may represent post-depositional edge-damage rather than use-damage. The partially worked notch measures 4 mm deep and had presented some difficulty during pressure flaking, but it is unclear why the second notch was not attempted and the blank abandoned as the first notch is of comparable size to those of the finished arrowhead on Area 21.

D6.4 Discussion

The flint assemblage from the Groombridge to Langton Green water main was largely contained within agricultural horizons and represents a surface artefact scatter. Surface scatters are an important resource for identifying activity in periods where sub-surface features were infrequently cut, such as the Mesolithic and late Neolithic/early Bronze Age. The artefact scatters on this scheme provide evidence for a human presence in the landscape during the Mesolithic, Mesolithic/early Neolithic and late Neolithic/early Bronze Age. The Mesolithic and Mesolithic/early Neolithic artefact assemblage is comparatively small and dispersed along the entire pipeline route. In contrast, the late Neolithic/early Bronze Age flintwork was concentrated in Areas 16, 18, 19, 21 and 22. The discoidal cores (Area 16 and 22) and the chisel arrowhead (Area 22) indicate some activity in the later Neolithic, but the presence of three barbed and tanged arrowheads (Areas 18 and 21) reflect continued activity in the late Neolithic/early Bronze Age Beaker period. These distributions cannot definitely identify areas of occupation, but assist in providing an indication of landscape zones and areas that witnessed activity, and the differing levels of activity, during these periods.

A single large end scraper of distinctly different technology to the rest of the assemblage remains enigmatic as it has not been possible to date this artefact with confidence. The proportions of the artefact indicate affinities with Late Upper Palaeolithic industries, but clearly technological attributes are notably absent. It is therefore possible that this flint represents a novel Neolithic tool form and is broadly contemporary with many of the other artefacts recovered from the scheme.

D6.5 Recommendations

No further analytical work is recommended, but the possible upper Palaeolithic scraper requires further research to confirm the identification, identify parallels and

place the artefact in its regional context. A publication report of c 2000 words with one table should also be prepared. The possible upper Palaeolithic scraper, chisel arrowhead and three barbed and tanged arrowheads should be illustrated to highlight their form and technology.

D6.6 Storage and curation

The majority of the struck flints are bagged by context, but delicate artefacts are bagged individually. The barbed and tanged arrowheads stored in acrylic boxes with tailor-made mounts. The flintwork is adequately boxed and bagged for long-term storage and curation, but the upper Palaeolithic artefact would benefit from additional packaging to ensure it is protected from any further edge-damage.

D6.7 The burnt unworked flint

In total, 270 fragments (5.897 kg) of burnt unworked flint were recovered from the topsoil and subsoil along the route of the water main (Table 7). The burnt flint was white, heavily calcined, and numerous pieces exhibited glossy vitrified surfaces. This condition suggests that the flint has been heated to an exceptionally high temperature, beyond typical temperatures achieved in domestic hearths and bonfires. A possible explanation is that this flint was burnt alongside chalk in a lime kiln and subsequently spread on the fields to improve soil conditions. The burnt flint therefore reflects post medieval agricultural practices rather than prehistoric activity.

The burnt flint requires no further work and warrants no more than a brief comment in the final publication. Moreover, it is recommended that only a couple of examples of the burnt unworked flint are retained for the archive and that the rest is discarded.

Table 6-1: Catalogue of burnt unworked flint

Plot	Data	Burnt unworked flint
3	Total No.	6
	Weight (g)	15
4	Total No.	20
	Weight (g)	456
5	Total No.	2
	Weight (g)	12
7	Total No.	5
	Weight (g)	63
9	Total No.	11
	Weight (g)	153
11	Total No.	11
	Weight (g)	176
13	Total No.	17
	Weight (g)	356
14	Total No.	5
	Weight (g)	62
16	Total No.	93
	Weight (g)	1318
18	Total No.	17
	Weight (g)	674
19	Total No.	16
	Weight (g)	286
21	Total No.	54
	Weight (g)	1915
22	Total No.	6
	Weight (g)	219
27	Total No.	7
	Weight (g)	192
Total No.		**270**
Total Weight (g)		**5897**

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Table 6-2: Catalogue of worked and burnt flints

	Plot																
CATEGORY TYPE	**2**	**3**	**4**	**5**	**7**	**9**	**11**	**13**	**14**	**15**	**16**	**18**	**19**	**21**	**22**	**27**	**Grand Total**
Flake	1	2	9	2	1	2	1	11	5	3	37	12	16	17	5	6	130
Blade				1		1		1			1	1	1	2			8
Bladelet				1								1					2
Blade-like										1	1	3	2		1	1	9
Irregular waste		2	1					1			9	3	4		2	1	23
Chip											1	1					2
Rejuvenation flake core edge										1							1
Rejuvenation flake tablet													1				1
Crested flake/blade														1			1
Other blade core								1									1
Tested nodule/bashed lump											2	2					4
Multiplatform flake core							1				2	1					4
Levallois/discoidal flake core											1				1		2
Core on a flake					1												1
Chisel arrowhead															1		1
Barbed and tanged arrowhead												1		1			2
Unfinished arrowhead/blank												1					1
U. Pal. End Scraper?							1										1
End scraper							1				2		1	1	1		6
Side scraper												1					1
End and side scraper								1			2			1			4
Scraper on a non-flake blank																1	1
Other scraper						1					1						2
Awl														1			1
Spurred piece											1			1			2
Notch												1					1
Retouched flake													1	1			2
Fabricator														1			1
Backed blade									1		1						2
Misc. retouch											1						1
Grand Total	1	4	10	4	2	4	4	15	6	5	62	28	26	27	11	9	218

No. of burnt flints (%)*			1		1	2		1			5 (8.2)	5 (18.5)	3 (11.5)	3 (11.1)			21 (9.7)
No. of broken flints (%)*	1		6	2	1	2		7	2	2	20 (32.8)	9 (33.3)	10 (38.5)	15 (55.6)	5	4	86 (39.8)
No. of retouched flints (%)*						1	2	1	1		8 (13.1)	4 (14.8)	2 (7.7)	7 (25.9)	2	1	29 (13.4)

APPENDIX D7
GLASS

By Andrew Richmond

Client: Network Archaeology on behalf of Black and Veatch Ltd for South East Water

Introduction

The assemblage comprises entirely early modern glass. In the early modern period glass was mass-produced for three markets: windows, bottles and tableware. Information about the production and use of different types of glass can be gained from historical sources and an examination of the glass itself.

Historical sources suggest that glass was frequently divided into categories based on colour or lack of colour. In the late post-Medieval period the most expensive and prestigious glass was colourless (often called 'crystal') and this was used to manufacture fine tableware, mirrors and coach windows. The most common and cheapest glass was green (often termed 'black-glass' due to the density of colour): a natural dark green colour produced by the impurities in the raw materials used. In the early post-medieval period green glass supplied most markets but from the end of the 17th century it was only used to produce bottle glass. From the mid 17th century to the early 19th century glassmakers also produced glasses which was intermediate between 'crystal' and green glass. This 'ordinary' glass was used for windows and tableware.

D7.1 Assessment of assemblage

The assemblage is dominated by utilitarian bottle glass of mainly 18th and 19th century date.

D7.2 RECOMMENDATIONS AND FURTHER WORK

No further work is recommended on this assemblage. It is characteristic of many such assemblages that one would find scattered in any early Modern settlement or its general environs.

D7.3 BIBLIOGRAPHY

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Table 7-1 Catalogue of glass

Context	Site	Count	Wt (gms)	Comments	Identification	Date
301	GRL 56	3	31	1 fragment of dark turquoise blue glass from a household vessel and two shards from an aqua coffee essence bottle, 2 piece mould embossed.P" (COFFEE & CHICORY.	Bottle and household glass	E. 20th c.
GPS6114265						
400	GRL 56	1	9	1 shard from a three-piece mould ribbed aqua ink well, which will have had a sheared lip for attachment of cork closure.	Bottle glass.	L. 19th c. to E 20th c.
GPS6114368						
401	GRL 56	2	29	1 shard from the lip of an aqua utility and 1 base shard from an aqua mineral water bottle known as an improved ovate or Hamilton1 bottle.	Bottle glass.	L. 19th c.
GPS6114261						
500	GRL 56	2	30	1 black-glass2 fragment, from a probable wine bottle. This shard displays characteristic surface iridescence the result of burial in acid soil conditions. Also 1 rim shard from an aqua applied lipped utility.	Bottle glass.	M.19th to L.19th c.
GPS6114258						
1200	GRL 56	1	20	1 shard from a dark, green-glass wine or beer with pronounced basal kick-up.	Bottle glass.	L. 19th c. to E 20th c.
1301	GRL 56	1	64	1 base fragment of a free-blown3, black-glass wine bottle of probable onion form. The shard displays characteristic pitting and iridescence the result of burial in acid soil conditions. This shard displays an opaline turquoise colour originating from g	Bottle glass.	M.18th to L. 18th c.
GPS6114245						
1301	GRL 56	1	22	1 base fragment of a free-blown, black-glass wine bottle.	Bottle glass.	18th to E. 19th c.
GPS6114293						
1400	GRL 56	2	15	1 fragment from an aqua 'codd' mineral water bottle5, displaying the characteristic lug in the neck chamber that held back the internal glass ball stopper. Also 1 shard of iridescent green glass from the body of a free-blown wine bottle of indeterminate	Bottle glass.	18th to L.19th c.
GPS6114208						
1601	GRL 56	1	6	1 body shard from a green glass bottle of free-blown form.	Bottle glass.	18th c.
GPS6114206						
1900	GRL 56	1	13	1 fragment representing the neck and lip section of a copper blue bottle, two-piece mould with applied lip.	Bottle glass.	L.19th c.
GPS6114345						
2200	GRL 56	1	3	1 body shard from a green glass bottle of free-blown form.	Bottle glass.	18th c.
GPS6114173						
2201	GRL 56	1	17	1 neck shard from a green glass wine bottle.	Bottle glass.	L.19th c.
2700	GRL 56	1	22	1 body shard from a green glass bottle of mould-blown form. A cylinder wine bottle.	Bottle glass.	L.19th c.
3900	GRL 56	1	105	1 large base fragment of a free-blown, black-glass wine bottle of probable mallet form6.	Bottle glass.	M.18th to L. 18th c.
GPS6114441						

APPENDIX D8
METALWORK

By Kevin Leahy FSA, MIFA

Client: Network Archaeology Ltd on behalf of Dalcour Maclaren for South East Water

INTRODUCTION

12 metal objects weighing 698.61gms were found during the archaeological works.

Table 8-1 Summary of metal objects

Context No	Material	Identification	Mass	Dating	Context dating	Significance	Action
301	Ae	Nameplate	67	19C	Subsoil	None	None
701	Fe	Pincers	523.7	?			
902	Ae	Button	1.02	19C	Subsoil	None	None
1100	Ae	Buckle	34.09	19C	Topsoil	None	None
1401	Slag	Slag	0.27	?	Subsoil	None	None
1425	Fe	Nail	10.67	?	Pit 1424	Review	
1431	Ag	Coin	0.23	13C	Feature 1418	Review	
1436	Fe	Concretion	11.98	?	Voided in PX?		
1601	Ae	Buckle	14.16	19C	Subsoil	None	None
1900	Ae + Pb	Bullet	10.57	20C	Topsoil	None	None
3202	Fe	Concretion	14.86	?	Natural	None	None
3202	Sn + Pb	Buckle	10.06	17C	Natural	Review	

D8.1 Methodology

Finds were examined at x10 magnification, sketched and described in detail. Some items were further examined at x35 using a binocular microscope. Materials were identified visually and dimensions were recorded using vernier callipers and a micrometer. Weighs were obtained on an electronic balance with an accuracy of 0.01g. It must be noted that the dating recorded below are internal dates suggested for finds on conventional typological and stylistic grounds which may not agree to the date of the context in which they were found.

D8.2 Summary

The details of this material are summarised in table 10 above and catalogued in table 11 below. Most of the finds were of recent date or are not usefully stratified, the only possible exceptions being the pincers (Context 701, which does not appear on the list) and the Medieval coin (Context 1431). The coin might contribute to our understanding of other material found in its context. While not usefully stratified, the pewter buckle (Context 3202) BCD is a possible Civil War object, might be worthy of consideration if there is any other evidence from the area.

D8.3 RECOMMENDATIONS

There are no recommendations for further work.

Table 8-2: Catalogue of metal finds

Site and Context Number:	**GRL 56 GPS 6114304**	**Context: (301)**
Material	Copper alloy, probably brass	
Condition:	Good.	
Description:	Cast copper alloy plate, rectangular with notches at each corner and bevelled edges. In the central panel is a monogram in copper plate lettering 'RL'. A white substance is present in the incised letters and may represent an inlay, perhaps tin or composition. The underside is hollowed to a depth of 4.3mm around its edges are six corroded rivets (two on each side and one at each end. These appear to be bifurcated which would be appropriate for attachment to leather.	
Dimensions:	Length 62.5mm, Width 50.5, Thickness 6.5mm	
Mass:	67.00g	
Provisional identification:	Personal label from harness, luggage or a box	
Provisional dating of find:	Nineteenth century	
Find context and dating:	Subsoil	
Historical significance:	None	
Recommended action:	No further action required	
Site and Context Number:	**GRL 56 GPS**	**Context: (701)**
Material	Wrought iron	
Condition:	Corroded, good but with some exfoliation	
Description:	Pair of long handled pincers. The two legs are round sectioned, 12.3mm diameter. Towards the nips they assume a wider, flat section to accommodate the rivet which articulated the two legs. This was domed on both sides with a diameter of c. 15.4mm. The nips open to surround a tear shaped opening, they were 18.2mm wide and narrowed to where they met.	
Dimensions:	Length 291.0mm, Width (jaws) 45.9mm	
Mass:	523.70g	
Provisional identification:	While this tool is clearly pincers and not tongs it is still considered it would be better placed in a smith's tool box than that of a joiner.	

Provisional dating of find:	The use of wrought iron rather than steel shows that this tool is not recent but they are otherwise undatable
Find context and dating:	Not recorded on spreadsheet
Historical significance:	This could be historically interesting if it came from a useful context
Recommended action:	Check context

Site and Context Number: (902)	**GRL 56**	**GPS 6114427**	**Context:**

Material	Copper alloy, probably brass
Condition:	Good but with some adhering earth
Description:	Sheet copper alloy disc, one face flat and plain, the other recessed to a depth of 0.4mm, leaving a 1.1mm wide rim around the edge.
Dimensions:	Diameter 16.8mm, Depth 1.3mm
Mass:	1.02g
Provisional identification:	Button cover
Provisional dating of find:	Recent, nineteenth or twentieth century
Find context and dating:	Subsoil
Historical significance:	None
Recommended action:	No further action required

Site and Context Number: (1100)	**GRL 56**	**GPS 6114250**	**Context:**

Material	Copper alloy, probably brass
Condition:	Good, but distorted and earth covered.
Description:	Cast copper alloy buckle frame, D shaped with a deeply (15.9mm) off-set bar standing above the line of the frame. The frame has a flattened D section, 9.5 x 4.4mm at the outer edge narrowing towards the bar. The bar is round sectioned with a diameter of 4.6mm.
Dimensions:	Length 56.6mm, Width 59.9mm, Depth 17.2mm
Mass:	34.09g

Provisional identification:	Harness fitting
Provisional dating of find:	Nineteenth or earlier twentieth century
Find context and dating:	Topsoil
Historical significance:	None
Recommended action:	No further action required
Site and Context Number: (1401)	**GRL 56 GPS 6114443 Context:**
Material	Slag?
Condition:	Poor, powdery and weak
Description:	Amorphous fragment, vesicular and pale green.
Dimensions:	7.2 x 5.9 x 4.4mm
Mass:	0.27g
Provisional identification:	Slag from non-ferrous metal working.
Provisional dating of find:	Not datable
Find context and dating:	Subsoil
Historical significance: interest	None, as an unstratified find this object is of no
Recommended action:	No further action required
Site and Context Number:	**GRL 56 GPS Context: (1425)**
Material	Iron corrosion products
Condition:	Poor, much detail concealed by corrosion
Description:	Iron object, now in two pieces, the break suggesting that it originally had a square section. Magnetic.
Dimensions: corrosion)	Length 66.2mm, Section 7.0 x 6.5mm (recorded over
Mass:	10.67g
Provisional identification:	Nail
Provisional dating of find:	Not datable.
Find context and dating:	'Sole fill of Pit 1424'
Historical significance:	Unless Pit 1424 was of interest this object has little to tell us

Recommended action:	Unless usefully stratified, none required.
Site and Context Number:	**GRL 56 GPS Context: (1431)**
Material	Silver
Condition:	Good, stable
Description:	Cut silver halfpenny, some wear, but heavily clipped making identification difficult.
Dimensions:	13.0 x 7.0mm
Mass:	0.23g
Provisional identification:	This halfpenny was made from a voided long-cross issue of Henry III (1216 - 72). Cutting and clipping has removed the diagnostic lettering and the crown has been lost to wear. However the presence of a sceptre rules out the first three classes and relative neatness of the bust excludes later types. It is likely that this fragment belongs to North (1963), Class 5 a, cf. No. 991.
Provisional dating of find:	AD 1251 - 72
Find context and dating:	Fill of Feature 1418, possible burnt pit or re-used plant hole
Historical significance:	This coin provides a date and might assist with any other finds from this context.
Recommended action:	Consider in relation to other finds from this context
Site and Context Number:	**GRL 56 GPS Context: (1436)**
Material	Iron corrosion products
Condition:	Poor, all detail concealed by corrosion
Description:	Amorphous mass of corrosion products, weakly magnetic.
Dimensions:	45.3 x 22.2 x 16.5mm
Mass:	11.98g
Provisional identification:	Iron object, nail?
Provisional dating of find:	Not datable.
Find context and dating:	'Voided in Post Ex'?
Historical significance:	None
Recommended action:	No further action required

Site and Context Number: (1601)	**GRL 56**	**GPS 6114238**	**Context:**
Material	Copper alloy, probably brass		
Condition:	Good, stable		
Description:	Cast copper alloy double loop buckle frame, rectangular, but slightly skewed, the long sides are parallel but the short sides are angled at 10 degrees. The central bar is set below the line of the frame and bears traces of rust suggesting the use of an iron pin. Both the frame and the bar have a 4.1mm diameter round section. Wrapped around one of the short sides is a strip of sheet copper alloy forming a roller which would have made it easier to slide the strap. Down the length of the roller is an open seam.		
Dimensions:	Length 34.2mm, Width 28.3mm, Depth 8.3mm		
Mass:	14.16g		
Provisional identification:	Harness buckle		
Provisional dating of find:	Nineteenth or early twentieth century		
Find context and dating:	Subsoil		
Historical significance:	None		
Recommended action:	No further action required		
Site and Context Number: (1900)	**GRL 56**	**GPS 6114346**	**Context:**
Material	Copper and lead		
Condition:	Good, some loss of surface		
Description:	Bullet, copper jacket, 1.0mm thick covering a lead core. Cylindrical, tapering to point, around the cylinder is a 1.5mm wide groove where the bullet was crimped into the cartridge. This area also bears oblique grooves left by rifling in the gun barrel.		
Dimensions:	Diameter 7.8mm, Length 32.5mm		
Mass:	10.57g		
Provisional identification:	The diameter of this bullet is 0.303 inches which represents the Enfield rifling system of 1895. The profile of this bullet however suggests that it post dates early production. This ammunition was widely used in the Lee Enfield Rifle, the Bren and Vicker's machine guns and was also employed on board aircraft.		

Provisional dating of find:	1905 - 1957
Find context and dating:	Topsoil
Historical significance:	None
Recommended action:	No further action required
Site and Context Number:	**GRL 56 GPS Context: (3202) A**
Material	Mineralised iron?
Condition:	Heavily corroded, irregular shape, no detail
Description:	Triangular, plate like object covered in concretions. Weak magnetic response.
Dimensions:	Triangular 50.6mm x 34.9mm, Thickness 8.2mm
Mass:	14.86g
Provisional identification:	Natural concretion?
Provisional dating of find:	Not datable
Find context and dating:	Natural substrate
Historical significance:	None
Recommended action:	No further action required
Site and Context Number: BCD	**GRL 56 GPS Context: (3202)**
Material	Pewter/lead alloy
Condition:	Poor, broken (no joining pieces) corroded and decaying
Description:	Pewter buckle, now in three pieces. Frame double looped and elongated, the oval loops being separated by a 48.1mm long oval sectioned (4.3 x 3.8mm) bar its ends marked, on one side, by notches. The surviving loop fragments are flat sectioned (7.8 x 2.8mm) and parallel sided.
Dimensions:	See above
Mass:	10.06g
Provisional identification:	Buckle of a type that is believed to have been used on a sword baldric
Provisional dating of find:	c. 1630 - 1690
Find context and dating:	Natural substrate

Historical significance: limited	As an unstratified find the value of this object is very
Recommended action:	No further action required

APPENDIX D9
POST-PRODUCTION RESIDUE

By Dr Roderick Mackenzie

Client: Network Archaeology Ltd on behalf of Dalcour Maclaren for South East Water

INTRODUCTION

A rapid evaluation of production process residues from the above site has been carried out and individual pieces have been assessed to determine their archaeological potential; as part of the assessment, the archaeological contexts of the pieces has been taken into consideration. The results of the assessment are summarised below. It should be noted that at this stage, no microscopic or chemical analysis has been carried out.

Table 9-1 Summary of post-production residues

Context No.	Number of pieces.	Description	Approx Weight
1601	3	Bulk steelmaking slag	75g
301	2	As above	25g
301	5	As above	84g
401	1	As above	132g
501	2	As above	74g
501	1	As above	12g
902	1	As above	27g
1100	1	As above	11g
1100	2	As above	61g
1300	4	As above	123g
1301	1	As above	40g
1600	1	As above	7g
1601	1	As above	152g
1601	1	As above	18g
1601	1	As above	7g
1800	1	As above	26g
2101	1	As above	28g
2101	1	As above	7g
2200	3	As above	62g
2201	1	As above	67g
2201	1	As above	35g
1301	1	As above	17g

D9.1 Results

All the fragments appear to be bulk iron or steelmaking slag, probably dating from the late 19th to mid 20th century period. In total 1.09kg of process residues were recovered from the site. The contexts of all the pieces all described as topsoil or subsoil.

D9.2 Summary

Before the development of modern fertilisers, slag from bulk steelmaking processes was often used to improve poor grassland. The slag acted as a phosphate rich fertiliser and encouraged the growth of white clover, which in turn enriched the soil and increased the

growth of grass. In experiments conducted during the 1920s in Essex, dressing fields with ground slag yielded dramatic results, ‘slag has improved the yield of hay, raising it from 10cwt per acre on un-manured fields to 20 cwt. per acre on the slagged land in one of the poorest fields’ (Ministry of Agriculture and Fisheries,1922).

The slag fertiliser was sold to farmers as a powder; however, it is worth noting that even the best quality supplies would contain around 10 to 20 percent slag in ‘non-powdered’ form.

D9.3 CONCLUSIONS

The archaeological contexts and type of material in the assemblage suggests that the pieces are the solid remnants of bulk steelmaking slag that was applied to the land as fertiliser, probably between the late 19th to mid 20th century..

D9.4 RECOMMENDATIONS

Apart from noting the presence and use of the slag as fertiliser, no further analysis of the slag is recommended and it can be disposed of in the usual manner.

D9.5 BIBLIOGRAPHY

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APPENDIX D10
POST-ROMAN POTTERY

By Luke Barber

Client: Network Archaeology Ltd on behalf of Dalcour Maclaren for South East Water

INTRODUCTION

The archaeological work recovered a total of 589 sherds of post-Roman pottery, weighing 2,864g, from 38 individually numbered contexts. The pottery is generally in poor condition with small abraded sherds (average sherd size 5.3grams excluding the 71 tiny sherds, weighing 95g, from the environmental residues), frequently affected by acidic ground conditions, dominating the assemblage. A few larger less abraded sherds are present in some features but these are the exception rather than the rule. The majority of the assemblage was recovered from unsealed topsoil or subsoil layers in the different plots though some material was recovered from archaeological features, most notably in plot 14. Context assemblage sizes are always small – by far the largest two groups consisting of 142 and 73 sherds from pit 1418, fill 1431 and layer 1419 over pit 1418 respectively. However, the removal of the tiny residue fragments from 1431 leaves just 77 sherds. Even in these larger groups the hand collected sherds are generally small and show signs of abrasion (average sherd sizes of 3.8g and 3.9g respectively excluding material from the residues).

A number of different periods are represented in the overall assemblage. The chronological breakdown is summarised in Table 13. Archaeological features containing post-Roman pottery were essentially limited to eight medieval features in plots 14 and 22 – the vast majority of the pottery, including all the Transitional and post-medieval material, being derived from 'unstratified' topsoil and subsoil deposits.

Table 10-1 Characterisation of pottery assemblage. (No./weight in grams). NB. Totals include all residual/intrusive and unstratified material. Local equates to Wealden wares; Regional to other English wares.

Period	No./weight	Average sherd size	No. of different fabric groups	No. of contexts
Medieval	223/970g	4.3g	Local -7	9
C12th – mid 14th	*plus 71/95g from residues*	*(excl. residue finds)*		
Transitional	5/31g	6.2g	Local - 1	-
Mid C14th – mid 16th			Imported - 1	
Early post-medieval	23/149g	6.5g	Local - 4	-
Mid C16th – mid 18th			Regional - 5	
			Imported - 2	
Late post-medieval	267/1,619g	6.1g	Local - 3	-
Mid/late C18th – 19th			Regional - 12	
			Imported - 1	

Despite the small size of the assemblage its medieval element is considered to be of some interest due to the scarcity of excavated medieval pottery from this part of the Weald. As such, the aims of the pottery report are to outline the range of fabrics present and to help with dating both individual features and overall activity based on the total assemblage. The pottery was divided into fabric groups based on a visual examination of tempering, inclusions, decoration/finish and form. All the pottery was duly recorded by fabric (number and weight) for each context and recorded on an excel spreadsheet. This information is housed with the archive. Feature sherds are scarce in the assemblage and no suitable groups are present for illustration.

D10.1 Results

D10.1.1 Medieval

The Fabrics (quantifications given are for number and weight of sherds in whole assemblage)

Although the majority of fabrics belong to one general period it should be noted that there is some chronological progression and overlap between a number of them. Unfortunately the current site did not produce large enough context assemblages to analyze changing fabric ratios.

M1: Moderate fine to medium sand with sparse to moderate shell to 2mm (171/672g).
Cooking pots and bowls. Suggested date – c. 1175-1250/75.
M2: Moderate fine to medium sand with rare to sparse shell to 2mm (26/113g)
Cooking pots and bowls. Suggested date – c. 1225-1300/25.
M3: Moderate medium to coarse sand with sparse quartz inclusions to 1mm (16/86g)
Cooking pots and bowls. Suggested date – c. 1225-1300/25.
M4: Moderate fine sand reduced greyware (65/125g)
Cooking pots, some with incised wavy line decoration. Probably Limpsfield products (Ketteringham 1989) though some sherds could be from Winchelsea (Barton 1979). Suggested date – c. 1225-1350.
M5: Shell tempered with no/rare fine sand (2/3g)
Only two abraded and probably residual sherds are present. Suggested date – c. 1100-1200/25.
M6 Moderate fine to medium sand (13/56g)
A mixture of cooking pots and jugs, the latter with external white slip and patchy green glaze. Possibly Rye. Suggested date – c. 1225/50-1350.
M7: Sparse fine/medium sand and moderate red/black rounded iron oxides to 1mm. (1/10g).

A single sherd from a necked cooking pot with everted rim with thumbed external bead was recovered from 1601. Suggested date – c. 1150-1225/50.

The medieval assemblage is predominantly from one of several features in plots 14 and 22 though a few ‘unstratified’ pieces were recovered from the topsoil/subsoil in these and other areas. The wares in plots 14 and 22 are essentially the same and a similar date of activity is likely. The range of medieval fabrics is in keeping with previously excavated Wealden sites such as Lamberhurst, High Hurstwood and Salehurst (Barber forthcoming a and b; Gardiner et. al. 1991) most notably with a

dominance of the sand/shell tempered wares which appear to be common in the later 12th to 13th centuries. The source of most of the fabrics is probably from local, as yet undiscovered, kilns in the Weald. However, jugs possible from Rye (M6) appear to be represented and M4 is very similar to both Limpsfield types (Ketteringham 1989) and 'Winchelsea Black' (Barton 1979, 118-20). This fabric, whether from Limpsfield or Winchelsea was well represented at the aisled hall at Salehurst (Gardiner, Jones and Martin 1991, 92). The total monopoly of locally produced wares and lack of imports is typical for this inaccessible region of the Weald and does not reflect on site status in any way. Indeed excavations on affluent sites in the area have either produced no, or very small quantities, of medieval imports (Streeten 1983, 1985 and Barber 2008).

Although some sherds of 12th-, or early 13th- century date are present (notably the M5 and M7 material) these may well be residual pieces from the earliest medieval activity. The numbers are so small it is difficult to be certain of exact date and it is possible they represent older style vessels still in use alongside the sand/shell tempered wares in the first part of the 13th century. The lack of flint tempered wares is interesting suggesting little activity predating the late 12th century as these wares were common in the 12th- century deposits at Battle Abbey (Streeten 1985) but absent from deposits at Bayham Abbey, founded in the 13th century (Streeten 1983). Certainly the vast majority of the current assemblage could comfortably be placed in the 13th century when the sand/shell tempered wares dominate.

The range of vessels is limited to cooking pots and bowls with developed rectangular club rims with a sparse scattering of relatively plain glazed jugs. Some M4 vessels are better made, sometimes with simple incised line decoration, which would be in keeping with a larger industry such as Limpsfield to the north or Winchelsea to the south-east. The M1 and M2 fabrics, although in the same tradition as the sand/shell tempered wares from Potter's Corner, Ashford (Grove 1952) are likely to have been made in a number of Wealden workshops. The latest material from the site may belong to the first half of the 14th century, a period when sand tempered wares more or less totally replaced the sand/shell tempered wares, even for kitchen vessels. Certainly there is no material from the features suggesting any definite activity after the early 14th century and it is quite possible activity did not extent beyond the end of the 13th century.

D10.1.2 Transitional

Only five unstratified sherds are present which can confidently be placed between the mid/late 14th and mid 16th centuries. The majority of these consist of cooking pots/jars in a medium fired fine sand tempered, almost silty, oxidised ware (T1) which is likely to be of the 15th to mid 16th centuries. A single simple jar rim from plot 19 topsoil 1900 is the only feature sherd. The other fabric type (T2) is represented by a single sherd from the frilled base of a Raeren jug from plot 11 topsoil 1100. All in all there is no marked concentration of material of this date with the assemblage coming from topsoil/subsoil in plots 11 (x2), 19 and 21. It is probably the material represents occasional manuring activity during short periods of arable cultivation.

D10.1.3 Early Post-medieval

The 23 sherds of early post-medieval pottery from the site include a mix of wares spanning the mid 16th to mid 18th centuries. However, most can be placed in a later 17th- to mid 18th- century bracket. All of the material is from topsoil/subsoil

contexts in plots 3, 8, 9, 11, 13, 18, 19 and 21 and as such is widely spread, probably as the result of increased manuring of land during arable spells. All of the material is somewhat abraded which would be in keeping with such a scenario. Local fabrics consist of high-fired unglazed earthenware (HFE: 1/6g), post-medieval glazed redwares (PMR – two types: 6/29g) and green glazed Wealden buff earthenware (WEALD: 1/3g). Regional wares include 17th- to 18th- century London tin-glazed ware (TGW: 1/1g), 18th- century London stoneware (LONS: 2/17g), 18th- century Nottingham stoneware (NOTS: 1/10g), late 17th- to 18th- century Staffordshire combed slipware (STSL 1/14g) and 18th- century white salt-glazed stoneware (SWSG: 6/20g). The imported material consists of a little Frechen (FREC: 3/24g) and Westerwald (WEST: 1/25g) stoneware. Most pieces are too small to be diagnostic of form but a range of domestic wares including jars, bowls, plates, mugs/tankards and, in SWSG, teawares are present.

D10.1.4 Late Post-medieval

This period constituted the largest proportion of the overall site assemblage. Material from the second half of the 18th century, and particularly the mid/late 19th to early 20th centuries are well represented. All of the material is from unstratified topsoil/subsoil contexts suggesting manuring, and thus probably arable agriculture, had increased during this period. Whether this utilised 'nightsoil' brought from towns by rail or purely locally generated waste is uncertain. The material is widespread, being located in most plots, though some contain more than others though numbers are too low to give a reliable insight into these variations. A typical range of domestic wares of the period is present. The earliest material, of mid/late 18th- to early 19th- century date, includes developed post-medieval glazed redware (PMR late: 53/491g)), sometimes with trailed slip (PMR slip: 1/29g) or unglazed in the form of flower pots (PMR fp: 4/25g), creamware plates and teawares (CREA: 24/48g), plain and transfer-printed pearlware plates and teawares (PEAR: 7/10g and PEAR TR 21/68g) and even a single sherd of Chinese porcelain (CHPO: 1/4g). This material was almost certainly deposited prior to the establishment of the rail network in this area and is thus almost certainly of local origin. The mid/later 19th- to early 20th- century material is harder to originate but a full range of material is present. Some of the PMR late and PMR fp sherds probably belong to this period. English stoneware (ENGS: 18/331g), English porcelain (ENPO: 6/30g), Staffordshire brown glazed whiteware (1/7g), Sunderland-type slipware (SUND: 2/46g), yellow ware (YELL: 3/6g), transfer-printed ware with blue (TPW: 35/155g), black/brown (TPW 2: 1/3g) and green/red/purple (TPW 3: 7/14g) decoration as well as plain refined white earthenware (REFW: 83/352g) are all present.

D10.2 Notes on the assemblages

D10.2.1 Plot 3

The topsoil 300 produced a mixed assemblage. The earliest sherds consist of a fragment from a 17th- to early 18th- century Westerwald stoneware tankard with cobalt blue decoration and a sherd of Staffordshire white salt glaze stoneware of early/mid 18th- century date. A post-medieval plate with trailed slip decoration is likely to be of the mid/late 18th century. The remaining 11 sherds of the assemblage from 300 consists of mid/late 19th- to early 20th- century wares. The 35 sherds from the subsoil 301, although including a little later 18th- century London and Nottingham stoneware, are all of the 19th century. Quite intense 19th- century manuring is suggested.

D10.2.2 Plot 4

The topsoil 400 produced a single tiny 13th- century sherd of sand/shell tempered ware (M1). The remaining 19 sherds of this group is composed of material dating to between 1830 and 1930. The earliest sherds amongst the 24 recovered from the underlying subsoil 401 consist of a few creamware and pearlware sherds dating to between 1800 and 1830. The remainder of the sherds can be placed within an 1830/40-1930 date range. Quite intense 19th- century manuring is suggested.

D10.2.3 Plot 5

The earliest of the 11 sherds from the topsoil 500 consist of creamware and transfer-printed pearlware probably dating to between 1790 and 1820. The remaining sherds can be placed in an 1830 to 1930 date range. All of the 15 sherds from the subsoil 501 are of this late date range. Quite intense 19th- century manuring is suggested.

D10.2.4 Plot 7

The two sherds from the topsoil 700 consist of late post-medieval redware and refined white earthenware, both of later 19th- century date.

D10.2.5 Plot 8

Only two sherds were recovered from the topsoil 800 in this area: a Wealden buff earthenware plate fragment of later 16th- to 17th- century date and a refined white earthenware plate of later 19th- to early 20th- century date.

D10.2.6 Plot 9

The earliest pottery from this plot was recovered from the environmental residue of context [925], excavated during the evaluation. Six small (17g) abraded M1 sherds were recovered from this burnt feature suggesting a little activity in the area during the 13th century. The subsoil in the north quarter 901 produced only four sherds, all of which can be placed within an 1830/40 to 1900/20 bracket. The subsoil in the southern quarter 902 contained a much larger assemblage (28 sherds) the earliest of which consist of a few sherds of later 18th- century London stoneware (tankard) and creamware. The remainder of the pottery can be placed in an 1830-1920 bracket. Quite intense 19th- century manuring is suggested.

D10.2.7 Plot 10

The topsoil 1000 produced a fragment of transfer-printed pearlware plate and a purple transfer-printed (TPW 3) sherd of unknown form. Both can be placed in a 1830/40-1900 bracket.

D10.2.8 Plot 11

The earliest pottery from the topsoil 1100 consists of a fine sand tempered sherd (T1) and the frilled base from a Raeren jug (T2), both probably of mid 15th- to mid 16th- century date. Both pieces are heavily abraded but do hint at some early manuring in the area. In addition there is a sherd from a Frechen bottle of mid 16th- to 17th- century date. The remaining 11 sherds consist mainly of creamware and early pearlware dating to between 1770 and 1810/20. No later material is present. Of

the eight sherds from the subsoil 1101, six are of medieval date. These include an unabraded M1 sand/shell cooking pot/bowl with out-turned simple rim, dated late 12th to late 13th century, an abraded M2 sand/sparse shell bowl with wide flat horizontal rim, dated later 13th to early 14th century, three relatively unabraded sherds of M3 medium/coarse sandy ware, dated mid 13th to mid 14th and a sherd from an abraded M4 fine sand cooking pot. In addition 1101 produced a body sherd of mid 16th- to 17th- century Frechen stoneware and an 18th- century post-medieval redware (PMR) bowl rim. All in all this plot has obviously seem some activity from the 13th to the 18th centuries but with no 19th- century manuring.

D10.2.9 Plot 12

The topsoil 1200 produced two sherds from an English stoneware ginger beer bottle of later 19th- to early 20th- century date.

D10.2.10 Plot 13

The topsoil 1300 produced seven sherds, the earliest of which is an unabraded cooking pot bodysherd of M1 sand/shell probably dating to the mid/late 12th to early 13th century. A sherd from a Frechen bellarmine bottle of mid 16th- to 17th-century date is also present. Two sherds of early/mid 18th- century Staffordshire white salt-glazed ware (including a dinner plate rim with moulded barley pattern) and two later 18th- century sherds of creamware are also present together with a single sherd of later 19th- century refined white earthenware. The seven sherds from the subsoil 1301 can all be placed into the 18th century and include post-medieval redwares, Staffordshire white salt-glaze stoneware, Staffordshire combed slipware (a dish with pie-crust rim) and creamware. A moderate amount of 18th- century manuring is suggested.

D10.2.11 Plot 14

The subsoil 1401 produced a single abraded body sherd from an M3 medium/coarse sand cooking pot of early 13th- to early 14th- century date. Despite the lack of material in the topsoil/subsoil this area contained a number of cut features which appear to relate to occupation/activity spanning the 13th to early 14th centuries. Although most of the associated pottery consists of small and often abraded/weathered sherds, the quantities involved are clear evidence that domestic activity was occurring on or very close to the excavated area. The range of fabrics is limited and no large groups are present. In addition very few rim sherds are included in the assemblage. The largest groups are summarised in Table 10-2.

Table 10-2 Quantification of largest medieval groups in plot 14. (MNV – Minimum number of vessels represented; cp – cooking pot, j – jug).

Fabric/	1419	1431	1433	1436
Context	Layer over pit 1418	Fill of pit 1418	Fill of pit 1432	
M1	53/223g (MNV 3 cp)	75/226g	6/36g	10/42g
		(MNV 2 cp)	(MNV 1 cp)	(MNV 2 cp)
M2	14/44g	5/19g	-	3/34g
	(MNV 1 cp)	(MNV 1 cp)		(MNV 2 cp)
M3	2/8g	2/17g	6/26g	-
	(MV 2 cp)	(MNV 1 cp)	(MNV 2 cp)	
M4	4/12g	54/99g	6/9g	-
	(MNV 1 cp)	(MNV 1 cp)	(MNV 1 cp)	
M5	-	-	1/2g	-
			(MNV 1 cp)	

Fabric/	1419	1431	1433	1436
Context	Layer over pit 1418	Fill of pit 1418	Fill of pit 1432	
M6	-	6/12g	-	6/39g
		(MNV 1 cp)		(MNV 2 cp, 3 j)
Date	c. 1225-1300	c. 1225-1300	c. 1200-1275	c. 1225/50-1300

Feature sherds are few in number but include an M1 cooking pot sherd from 1419 with applied thumbed strip and an M4 cooking pot with incised wavy line decoration. Context 1431 unsurprisingly contained more of the same M1 and M4 vessels noted in 1419 but also an out-turned flat-topped cooking pot rim in M1 which could derive from the same vessel with the applied strips. Although 1433 contains no feature sherds context 1436 includes three small sherds from cooking pot rims showing thickened club and down-turned types of 13th- century type.

A few smaller contexts groups are present including 1425, fill of pit 1424 which contained 11 sherds from a spouted M1 cooking pot with simple rim and external sooting as well as a single M2 bodysherd. A late 12th- to mid 13th- century date is suggested. Stakehole 1434, fill 1435, contained three sherds of M1 and a single sherd of M3, suggesting a 13th- century date.

D10.2.12 Plot 16

The topsoil 1600 only contained two sherds of refined white earthenware suggesting a mid 19th- to early 20th- century date. However, 12 sherds were recovered from the subsoil 1601 of which the earliest consists of part of an M7 cooking pot with out-turned rim with thumbed external bead. A later 12th- to early 13th- century date is probable. A few sherds of early pearlware suggest some activity spanning 1790-1820 but the majority of sherds can be placed in the later 19th to early 20th centuries.

D10.2.13 Plot 18

The topsoil 1800 produced just three sherds: abraded M3 and M6 cooking pot bodysherds and a post-medieval redware of 17th- to early 18th- century date. The three sherds from the subsoil 1801 include fragments from a 17th- to 18th- century post-medieval redware jar, a later 18th- century creamware plate and a later 19th- to early 20th- century refined white earthenware vessel.

D10.2.14 Plot 19

The topsoil 1900 produced a mixed group of five sherds, the earliest of which consists of a fine sand tempered (T1) jar fragment of 15th- to mid 16th- century date. An early pearlware saucer fragment, dated 1780-1810, was also recovered together with later 19th- century post-medieval redware and two refined white earthenware fragments. The subsoil 1901 produced a tiny chip of 17th- century tin-glazed earthenware and an early pearlware cup/bowl sherd with blue transfer-print decoration probably dating from between 1790 and 1820.

D10.2.15 Plot 21

The topsoil 2100 produced 25 sherds of pottery, the earliest of which consists of a hard-fired unglazed earthenware bodysherd of mid 16th- to 17th- century date. The remaining sherds are surprising in that they all consist of post-medieval redware

jars, bowls and plates of 18th- to early 19th- century date but no refined industrial wares. The subsoil 2101 produced a single sherd from a 13th- century M2 cooking pot with triangular club rim and two sherds of fine sand tempered (T1) bodysherds of 15th- to mid 16th- century date. An additional seven sherds of 18th- century post-medieval redware were recovered together with a sherd of pearlware and two of 19th- century refined white earthenware.

D10.2.16 Plot 22

The four sherds from the topsoil 2200 consist of late creamware, pearlware and refined white earthenware (x2) suggesting activity only in the 19th century. The subsoil 2201 produced two abraded 13th- century M2 cooking pot bodysherds with the remaining eight sherds being of 19th- century date and including post-medieval redware, Chinese porcelain, late creamware and English porcelain (a toy plate).

This plot also contained ditch 2211, fill 2212 which produced two unabraded/conjoining 13th- century cooking pot base sherds, both externally sooted. Linear 2215, fill 2216 produced a single abraded granule (1g) of M5 shell tempered ware of 12th- to early 13th- century date though it is quite possible the sherd is residual.

D10.2.17 Plot 27

The topsoil 2700 produced a relatively large assemblage (32 sherds) of domestic pottery spanning the mid 19th to early 20th centuries. A full range of wares are in evidence including post-medieval redware, Sunderland-type slipware, English stoneware and various transfer-printed table and tea wares. An intense period of later 19th- century manuring is suggested.

D10.2.18 Plot 39

The topsoil 3900 produced a single abraded ribbed neck sherd from an English stoneware jug of later 18th- to mid 19th- century date.

D10.3 RECOMMENDATIONS FOR FURTHER WORK

No further work is required on this assemblage.

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Table 10-3 Catalogue of Post-Roman pottery

Context	GPS	Fabric	Form	No.	Weight	Date	Period	Comments
300	6114300	REFW	PLATE	2	17	1850-1950	LPM	Plain
300	6114300	TPW	PLATE	1	3	1840-1940	LPM	Blue willow pattern
300	6114300	SWSG	?	1	2	1720-1780	PM	hollow form
300	6114300	PMR slip	PLATE	1	29	1750-1850	LPM	Trailed white slip
300	6114305	WEST	TANK	1	25	1590-1700	PM	Cobalt blue & incised line dec
300	6114369	REFW	?	7	13	1850-1950	LPM	Plain. Inc. ironstone types
300	6114369	ENGS	?	1	5	1800-1900+	LPM	brown salt glaze
301	6114265	PMR late	JAR	2	32	1775-1900	LPM	
301	6114265	PMR late	BOWL	1	62	1775-1900	LPM	abraded
301	6114265	REFW	?	3	4	1850-1950	LPM	
301	6114265	ENPO	?	2	12	1800-1900+	LPM	Plain
301	6114265	LONS	?	1	6	1700-1775	PM	Tankard?
301	6114265	NOTS	?	1	10	1700-1800	PM	Rouletted dec
301	6114265	SUND	BOWL	1	19	1800-1900	LPM	plain slip
301	6114304	ENGS	BOT BL	1	72	1800-1900	LPM	small blacking pot
301	6114249	ENGS	?	2	16	1775-1900	LPM	x1 Brist gl, x1 rouletted
301	6114249	REFW	JAR	8	39	1850-1950	LPM	inc ribbed preserve jar
301	6114249	ENPO	?	1	2	1800-1900	LPM	Plain
301	6114249	PEAR TR	PLATE	3	14	1780-1850	LPM	Blue floral
301	6114249	CREA	PLATE	3	5	1800-1830	LPM	Plain & late/pale
301	6114249	REFW ind	BOWL	1	1	1800-1900	LPM	Blue slip, black line on rim
301	6114249	TPW	PLATE	3	7	1840-1940	LPM	Blue willow pattern
301	6114249	TPW 3	PLATE	2	2	1840-1940	LPM	TP in green & red
400	6114370	PEAR	PLATE	2	4	1780-1830	LPM	blue band
400	6114370	PMR late	JAR	1	4	1775-1900	LPM	abraded
400	6114370	TPW	PLATE	1	1	1840-1940	LPM	Blue willow pattern
400	6114370	TPW 3	PLATE	1	3	1840-1940	LPM	Green foliage
400	6114370	REFW	JAR	3	35	1850-1950	LPM	Preserve jar plain
400	6114370	M1	CP	1	1	1150 - 1300	M	abraded bs
400	6114367	REFW	BOWL	2	14	1850-1950	LPM	
400	6114367	TPW	BOWL	1	17	1840-1940	LPM	Blue floral
400	6114367	YELL	?	1	3	1800-1900	LPM	plain/ribbed
400	6114368	ENGS	BOT	2	16	1800-1900	LPM	
400	6114368	PMR late	BOWL	1	4	1775-1900	LPM	simple rim
400	6114368	REFW	?	2	3	1850-1950	LPM	
400	6114368	TPW	PLATE	2	7	1840-1940	LPM	Blue willow pattern

Context	GPS	Fabric	Form	No.	Weight	Date	Period	Comments
401	6114259	CREA	?	1	4	1760-1839	LPM	prob 1790-1820ish
401	6114259	TPW	PLATE	1	2	1840-1940	LPM	Blue willow pattern
401	6114263	PEAR TR	PLATE	1	3	1780-1830	LPM	Blue willow pattern
401	6114263	TPW	PLATE	1	27	1830-1850	LPM	Blue willow pattern
401	6114263	ENGS	BOT	1	11	1800-1900	LPM	Light grey
401	6114264	TPW	PLATE	1	8	1840-1940	LPM	Blue landscape. Late
401	6114264	YELL	?	1	2	1800-1900	LPM	pale
401	6114264	REFW	?	6	17	1850-1950	LPM	Plain. Inc x1 plate
401	6114262	TPW	CUP	1	1	1830-1900	LPM	Blue landscape. Early
401	6114363	PMR late	?	1	2	1770-1900	LPM	abraded
401	6114363	TPW	PLATE	1	7	1840-1940	LPM	Blue floral. Pale/late
401	6114363	TPW 2	?	1	3	1830-1900	LPM	Grey tp
401	6114261	PEAR TR	PLATE	1	6	1790-1830	LPM	Blue wild rose
401	6114261	TPW	PLATE	1	3	1830-1900	LPM	Blue willow pattern
401	6114261	TPW	CUP	1	2	1830-1900	LPM	Blue Chinese landscape
401	6114261	REFW	?	4	17	1850-1950	LPM	plain
401	6114260	CREA	?	1	1	1760-1830	LPM	prob 1790-1820ish
401	6114260	PEAR TR	PLATE	1	4	1790-1830	LPM	Blue willow pattern
500	6114258	CREA	?	2	1	1760-1830	LPM	Prob 1780-1810 ish
500	6114258	PEAR TR	PLATE	2	2	1790-1830	LPM	Blue willow pattern x1
500	6114258	TPW 3	?	1	1	1840-1940	LPM	Green pattern
500	6114258	REFW	?	5	10	1850-1950	LPM	Plain. X1 could be late creamware
500	6114258	ENPO	PLATE	1	10	1800-1900+	LPM	Plain. Prob post 1850
501	6114358	TPW	PLATE	2	21	1840-1940	LPM	Blue floral
501	6114358	ENGS	BOT	1	32	1800-1900	LPM	Prob 1830-1900. Ink/ging beer
501	6114358	PMR late	?	1	3	1750-1900	LPM	all over glaze
501	6114358	REFW	PLATE	6	47	1850-1950	LPM	plain
501	6114364	REFW	?	4	5	1850-1950	LPM	plain
501	6114364	Staff br gl w	TPOT	1	7	1800-1900	LPM	Brown glazed white ware
700	6114403	PMR late	?	1	11	1800-1900	LPM	
700	6114404	REFW	CUP	1	3	1850-1950	LPM	x3 blue lines on rim
800	6114405	WEALD	?	1	3	1550-1700	PM	Int yell gl, buff body. Abraded
800	6114405	REFW	PLATE	1	15	1850-1950	LPM	ribbed rim
901	6114266	ENGS	BOT	2	13	1840-1940	LPM	
901	6114266	PEAR	?	2	3	1800-1840	LPM	plain & simple blue line with rouletted beading
902	6114427	SWSG	?	2	3	1720-1780	PM	late
902	6114427	PEAR TR	BOWL	1	8	1790-1830	LPM	Blue floral
902	6114427	CREA	PLATE	1	1	1760-1830	LPM	Late prob 1800-1830

Context	GPS	Fabric	Form	No.	Weight	Date	Period	Comments
902	6114427	REFW	BOWL	3	9	1840-1940	LPM	x1 with purple line
902	6114418	CREA	PLATE	3	3	1760-1830	LPM	prob 1780-1820
902	6114418	PMR fp	FLP	1	4	1775-1900+	LPM	
902	6114418	PMR late	JAR	1	4	1750-1850	LPM	Black glaze
902	6114418	TPW	?	1	1	1840-1940	LPM	Blue?
902	6114418	REFW	PLATE	2	3	1850-1950	LPM	Red lines on rim
902	6114286	TPW	?	3	1	1830-1930	LPM	Blue?
902	6114285	PMR fp	FLP	1	10	1775-1900+	LPM	D rim
902	6114277	PEAR TR	PLATE	1	3	1780-1840	LPM	Blue Chinese landscape
902	6114277	REFW	?	1	1	1840-1940	LPM	
902	6114284	REFW	?	1	1	1840-1940	LPM	
902	6114284	PMR late	JAR	2	52	1750-1900	LPM	
902	6114428	ENGS	?	1	3	1800-1900	LPM	Burnt?
902	6114428	LONS	TANK	1	11	1700-1775	PM	Handle
902	6114428	PEAR TR	?	1	1	1780-1830	LPM	Blue floral
902	6114428	REFW	?	1	1	1850-1950	LPM	
1000	6114420	PEAR TR	PLATE	1	8	1800-1840	LPM	Blue floral
1000	6114420	TPW 3	?	1	3	1840-1900+	LPM	Purple foliage
1100	6114251	CREA	PLATE	1	2	1760-1820	LPM	
1100	6114419	fine sand	JAR	1	6	1400-1475/1500	T	Orange core, buff faces. Powdery abraded. Concave rim
1100	6114419	CREA	PLATE	1	2	1760-1830	LPM	
1100	6114419	PEAR TR	SAUC	1	2	1770-1810	LPM	Blue Chinese landscape. Early
1100	6114419	PMR late	JAR	1	4	1750-1900	LPM	
1100	6114419	RAER	?	1	10	1475-1550	T	Frilled base. Abraded. Poss jug
1100	6114250	CREA	PLATE	4	16	1760-1830	LPM	inc x1 cup
1100	6114250	PEAR TR	MUG	3	8	1770-1810	LPM	Blue floral. Early/blue
1100	6114250	FREC	BOT	1	2	1550-1700	PM	bs
1101	6114514	M1	CP	1	23	1150/75-1250/75	M	Simple rim out-turned. Ext sooting. Unabraded
1101	6114514	M3	CP	3	25	1250-1325	M	Oxid & red bs. Slight abrasion
1101	6114425	M1	BOWL	1	25	1250/75-1325	M	buff with wide flat-topped horiz rim
1101	6114425	M4	CP	1	5	1275-1350/75	M	Orange bs. Abraded
1101	6114425	FREC	BOT	1	16	1550-1700	PM	bs
1101	6114425	PMR late	BOWL	1	5	1700-1800	PM	Small club rim
1200		ENGS	BOT	2	89	1875-1930	LPM	Black tp of maker. Incomplete
1300	6114172	M1	CP	1	14	1150-1250	M	Flint sand. Reduced. Slight abrasion
1300	6114411	SWSG	?	1	2	1720-1780	PM	
1300	6114411	CREA	?	1	2	1760-1780	LPM	early/yellow
1300		FREC	BOT	1	6	1550-1700	PM	part of medallion

Context	GPS	Fabric	Form	No.	Weight	Date	Period	Comments
1300	6114503	REFW	?	1	2	1840-1940	LPM	
1300	6114502	SWSG	PLATE	1	4	1720-1780	PM	Barley/seed moulded dec
1300	6114502	CREA	PLATE	1	5	1760-1830	LPM	
1301	6114293	PMR	?	1	3	1700-1800	PM	
1301	6114328	CREA	?	1	1	1760-1800	LPM	early/yellow
1301	6114328	STSL	DISH	1	14	1680-1780	PM	prob C18th
1301	6114245	SWSG	PLATE	1	9	1720-1780	PM	abraded
1301	6114245	PMR	JAR	2	11	1700-1800	PM	all over glaze
1301	6114245	PMR fp	FLP	1	3	1750-1850	LPM	Early flower pot?
1401	6114442	M3	CP	1	4	1225/50-1325	M	abraded bs
1419		M1	CP	53	223	1200-1275	M	MNV x3 CP with applied thumbed strips
1419		M2	CP	14	44	1225-1300	M	MNV x1 CP
1419		M3	CP	2	8	1200-1300	M	MNV x2 CP
1419		M4	?	4	12	1225-1350	M	MNV x1 CP. Wavy combing
1425		M1	CP	11	32	1175-1250	M	MNV x1 simple spout, sooted ext
1425		M2	CP	1	4	1225-1300	M	MNV x1
1431		M4	?	40	83	1225-1350	M	MNV x1. Wavy combing. Same vess in 1419
1431		M1	CP	30	176	1225-1300	M	MNV x2 CP
1431		M2	CP	5	19	1225-1300	M	MNV x1
1431		M3	CP	2	17	1225-1325	M	MNV x1
1433		M1	CP	6	36	1175-1250	M	MNV x1
1433		M3	CP	6	26	1200-1300	M	MNV x1
1433		M4	CP?	6	9	1225-1350	M	MNV x1
1433		M5	CP	1	2	1100-1200	M	MNV x1
1435		M1	CP	4	6	1200-1300	M	MNV x1
1435		M3	CP	1	2	1200-1300	M	MNV x1
1436		M1	CP	10	42	1200-1275	M	MNV x2. Club rims x2
1436		M2	CP	3	34	1225-1300/25	M	MNV x2. Club rim x1
1436		M6	JUG	4	32	1225-1300	M	MNV x3. white slip/gr gl; ungl rod handle
1436		M6	CP	2	7	1225/50-1325/50	M	MNV x2
1600		REFW	?	2	6	1840-1940	LPM	
1601	6114220	PEAR TR	SAUC	1	1	1780-1820	LPM	Blue willow pattern. Early
1601	6114287	ENPO	?	1	1	1800-1900	LPM	blue dec
1601	6114248	M7	CP	1	10	1100-1200	M	Necked cp with everted rim with ext thumbed bead
1601	6114248	PMR late	?	1	5	1775-1900	LPM	
1601	6114241	PEAR	?	1	1	1780-1830	LPM	blue hp
1601	6114240	REFW	BOWL	1	5	1840-1940	LPM	
1601	6114322	PMR late	?	1	6	1775-1900	LPM	

Context	GPS	Fabric	Form	No.	Weight	Date	Period	Comments
1601	6114207	PMR late	?	1	1	1775-1900	LPM	
1601	6114207	CREA	PLATE	1	1	1760-1830	LPM	
1601	6144207	REFW	?	1	1	1840-1940	LPM	
1601	6114219	PEAR TR	SAUC	1	1	1780-1820	LPM	Blue Chinese pattern. Early/blue
1601	6114226	TPW	TURN	1	2	1830-1900	LPM	Blue floral lid edge?
1800	6114336	M3	CP	1	4	1225-1325	M	abraded bs
1800	6114332	M6	CP	1	5	1250-1350/75	M	abraded bs
1800	6114332	PMR late	?	1	6	1700-1850	PM	abraded
1801	6114229	PMR	JAR	1	4	1600-1750	PM	rim
1801	6114330	REFW	?	1	2	1840-1940	LPM	
1801	6114233	CREA	PLATE	1	2	1760-1820	LPM	Yellow/early. 1770-1800
1900	6114334	fine sand	JAR	1	7	1400-1550	T	simple rim, abraded
1900	6114334	REFW	?	1	2	1800-1900	LPM	blue bands - Cornish ware
1900	6114344	PEAR TR	?	1	1	1780-1820	LPM	Blue tp. Early/blue
1900	6114344	REFW	JUG	1	7	1840-1940	LPM	plain handle
1900		PMR late	?	1	6	1775-1900	LPM	
1900		TILE						1/13g peg C18th-19th
1901	6114231	TGW	?	1	1	1620-1700	PM	chip of blue painted glaze
1901	6114231	PEAR TR	BOWL	1	3	1780-1820	LPM	Blue tp. Early/blue
2100	6114217	PMR late	?	1	2	1725-1825	LPM	
2100	6114353	PMR late	PLATE	4	24	1725-1825	LPM	
2100	6114375	PMR late	JAR	4	35	1725-1825	LPM	
2100	6114360	PMR late	JAR	9	41	1725-1825	LPM	
2100	6114355	PMR late	JAR	4	30	1725-1825	LPM	
2100	6114376	PMR late	?	1	2	1725-1825	LPM	
2100	6114372	PMR late	?	1	3	1725-1825	LPM	
2100	6114372	HFE	?	1	6	1550-1700	PM	bs
2101	6114214	M2	CP	1	8	1225-1275	M	Fresh club rim
2101	6114216	fine sand	JAR	2	8	1375/1400-1550	T	Abraded bs
2101	6114215	PMR late	JAR	4	48	1725-1825	LPM	
2101	6114215	REFW	?	2	4	1830-1940	LPM	
2101	6114213	PMR late	JAR	2	33	1750-1850	LPM	Large club rim
2101	plot 21	PMR late	?	1	10	1725-1825	LPM	
2101	plot 21	PEAR	?	1	1	1780-1830	LPM	
2200	6114173	CREA	?	1	1	1760-1830	LPM	
2200	6114173	PEAR	?	1	1	1780-1840	LPM	
2200	6114173	REFW	?	2	3	1840-1940	LPM	
2201	6114174	M2	CP	2	4	1225-1300	M	bs reduced
2201		CREA	?	1	1	1760-1830	LPM	late/pale

Context	GPS	Fabric	Form	No.	Weight	Date	Period	Comments
2201		PMR late	DISH	4	50	1750-1850	LPM	
2201		ENPO	TOY	1	5	1800-1900	LPM	Toy plate
2201		CHPO	LID	1	4	1800-1900	LPM	Vase/urn lid. Blue hp landscape
2201		TPW	PLATE	1	3	1840-1940	LPM	Blue tp
2212	6114198	M1	CP	2	27	1200-1275	M	Cp base unabraded. Sooted
2216		M5	CP	1	1	1100-1225	M	tiny abraded chip
2216		B CLAY						3/5g amorphous lumps
2700	6114421	REFW	?	1	1	1840-1940	LPM	
2700	6114422	PMR late	JAR	1	12	1750-1900	LPM	
2700	6114422	TPW	?	2	3	1840-1940	LPM	Blue floral
2700	6114422	REFW	CUP	1	6	1960-2000	LPM	Modern with floral dec in green/blue
2700	6114424	PMR late	?	1	5	1750-1900	LPM	
2700	6114424	TPW	?	2	6	1840-1900	LPM	Blue landscapes
2700	6114424	TPW 3	?	1	1	1840-1940	LPM	
2700	6114424	REFW	SAUC	1	1	1850-1950	LPM	
2700	plot 27	SUND	BOWL	1	27	1800-1900	LPM	Abraded
2700	plot 27	TPW	PLATE	5	15	1830-1900	LPM	Blue willow pattern
2700	plot 27	REFW	CUP	5	57	1850-2000	LPM	x1 late C20th cup as above
2700	plot 27	ENGS	BOT	4	68	1850-1940	LPM	x1 bottle, x1 lid
2700	61114423	PMR fp	FLP	1	8	1800-1900+	LPM	
2700	61114423	YELL	BOWL	1	1	1800-1900	LPM	blue lines, white panel
2700	61114423	PEAR TR	?	1	3	1790-1830	LPM	Blue tp
2700	61114423	TPW	PLATE	3	18	1830-1940	LPM	Blue floral
2700	61114423	TPW 3	CUP	1	4	1830-1940	LPM	Purple foliage
3900	6114441	ENGS	JUG	1	6	1780-1850	LPM	ribbed neck

APPENDIX D11
SHELL

By Janey Brant

Client: Network Archaeology Ltd on behalf of Dalcour Maclaren for South East Water

INTRODUCTION

An archaeological watching brief, controlled strip and excavations were carried out by Network Archaeology along the line of a new water main constructed between the Groombridge Water Treatment Works in East Sussex and the Langton Green Reservoir in Kent in 2008. A very small amount of hand collected shell (from two contexts) was recovered from the deposits revealed. The shell assemblage is shown in Table 16.

Table 11-1: Catalogue of shell

Plot No.	Context No.	No. of fragments	Description	Approx Weight
5	501	1	Top section of one piece of oyster shell (ostrea edulis).	34g
27	2700	1	Top section of one piece of oyster shell (ostrea edulis).	33g

D11.1 Methodology

Two small bags of hand collected shell were submitted. Brief notes were made on the preservational condition of the shell and the remains identified to species where possible.

D11.2 Discussion

The two pieces of shell recovered during the fieldwork both represent the upper shell of a bivalve mollusc of the genus Ostrea. Through examination of the fragments it can be determined that both shells were at least two years old when they died. It can also be said that, due to the distance of both plot 5 and 27 from the coast, both fragments of shell were imported into the area, probably from somewhere such as Whitstable where oysters have been farmed since the Roman period, and were redeposited during the natural build up of the subsoil and topsoil.

D11.3 Recommendations for further work

No further analysis of this deposit is recommended.

D11.4 Archive

All material is currently stored in the Finds Department, Network Archaeology along with the paper and electronic records pertaining to the work described here.

APPENDIX D12
STONE ARTEFACTS

By Luke Barber

Client: Network Archaeology Ltd on behalf of Dalcour Maclaren for South East Water

INTRODUCTION

Six pieces of stone, weighing 466g, from four individually numbered contexts were recovered during the archaeological work. Virtually all are likely to have been available locally, either from their parent outcrop or through later geological reworking.

D12.1 Results

Unworked pieces of medium-grained sandstone (1/4g) and ferruginous siltstone (2/3g) of Wealden origin were recovered from context 1419. A further piece (11g) of Wealden siltstone was recovered from 2201. This piece is conical in form (22mm tall by 24mm wide at the base) but with a weathered/hollowed out centre and 2mm hole at the top. Visible lines on the exterior are bedding planes rather than turning marks and it is probable the piece is part of a naturally formed nodule rather than a deliberately made spindle whorl.

Context 1607 produced a light grey cobble of cherty flint (345g). The piece has slight signs of polish suggesting it may have been used as a rubbing/grinding stone.

The final piece of stone consists of a fragment of a very polished dull purple quartzite cobble from 1101 (103g). The very smooth surface certainly indicates the cobble has been utilised for rubbing/polishing. Such stones are normally found further south where the majority were collected from the beach though a closer Tertiary Head deposit cannot be ruled out as the possible origin.

D12.2 RECOMMENDATIONS

There are no recommendations for further work.

D12.3 Bibliography

North, J J 1963, *English Hammered Coinage*, Spink and Son, London, 2 vols.

APPENDIX E

Catalogue of finds by plot

Plot	Data	Bone	CBM		Clay pipe		CU alloy		FE	Fired Clay	Flint		Glass		Mortar	Pewter	Pottery				PPR		Shell	Silver	Stone	Grand Total
		Animal	Pmed	U/D	Pmed	Emod	Emod	Mod	U/D	U/D	Burnt	Worked	Pmed	Emod	U/D	Pmed	Med	Trans	Pmed	Lpmed	Emod	U/D	U/D	Med	Polished	
2	Count		8	12								1														21
	Weight		335	2544								50														2929
3	Count		1	1	1		1				6	2		3					4	45	7					71
	Weight		333	26	3		67				15	68		31					43	354	109					1049
4	Count		2								22	7		3			1			45	1					81
	Weight		27								551	183		38			1			231	132					1163
5	Count			1		1					2	3		2						26	3		1			39
	Weight			28		1					12	23		30						139	86		34			353
7	Count	1	1	2	10	3			1		6	1								2						27
	Weight	13	27	22	23	4			524		75	6								14						708
8	Count																		1	1						2
	Weight																		3	15						18
9	Count			5	4	2	1				12	3							3	29	1					60
	Weight			70	10	2	1				154	27							14	122	27					427
10	Count		6																	2						8
	Weight		1949																	11						1960
11	Count		1		2	1	1				11	5					6	2	3	11	3				1	47
	Weight		100		8	1	34				176	162					78	16	23	34	72				104	808
12	Count													1						2						3
	Weight													20						89						109
13	Count		6		2	3					27	11	1	1			1		8	5	6					71
	Weight		141		22	7					520	108	64	22			14		49	13	180					1140
14	Count		1						2		5	2		2			278					1		1		291
	Weight		88						23		62	28		15			914					1		1		1131
15	Count											3														3
	Weight											47														47
16	Count	2		5	3	1	1				92	29	1		1		1			13	7				1	157
	Weight	2		79	10	3	14				855	433	6		14		10			31	259				349	2065
18	Count			1		1					17	12					2		2	2	1					38
	Weight			41		3					674	223					9		10	4	26					990
19	Count		1	3	2	1		1			17	10		1				1	1	5						43
	Weight		13	80	5	2		11			293	141		13				7	1	19						585
21	Count	1		8	3	1				1	53	17					1	2	1	34	2					124
	Weight	1		201	8	3				11	1567	206					8	8	6	233	35					2286
22	Count			10	1	1				4	5	8	1	1			5			12	5					53
	Weight			241	14	1				12	132	145	3	17			32			68	164					829
27	Count			3	3	1					3	6		1						32			1			50
	Weight			178	8	3					89	39		22						236			33			608
30	Count			2																						2
	Weight			10																						10
32	Count								1							1										2
	Weight								15							10										25
39	Count												1							1						2
	Weight												105							6						111
Total Count		**4**	**27**	**53**	**31**	**16**	**5**		**4**	**5**	**278**	**120**	**4**	**15**	**1**	**1**	**294**	**5**	**23**	**267**	**36**	**1**		**1**	**2**	**1195**
Total Weight		**16**	**3013**	**3520**	**111**	**30**	**127**		**562**	**23**	**5175**	**1889**	**178**	**208**	**14**	**10**	**1065**	**31**	**149**	**1619**	**1090**	**1**		**1**	**453**	**19352**

APPENDIX F

Catalogue of GPS finds

Plot	GPS	Data	Bone	CBM		Clay pipe		CU alloy		Fired Clay	Flint			Glass	Mortar	Pottery				PPR		Shell	Grand Total
			Animal	Pmed	U/D	Pmed	Emod	Emod	Mod	U/D	Burnt	Worked	Pmed	Emod	U/D	Med	Trans	Pmed	Lpmed	Emod	U/D	U/D	
2	6114296	Count										1											**1**
		Weight										50											**50**
3	6114249	Count									6								23	2			**31**
		Weight									15								86	25			**126**
	6114265	Count										1		3				2	9	5			**20**
		Weight										61		31				16	129	84			**321**
	6114300	Count				1												1	4				**6**
		Weight				3												2	49				**54**
	6114304	Count		1	1														1				**3**
		Weight		333	26														72				**431**
	6114305	Count																1					**1**
		Weight																25					**25**
	6114306	Count										1											**1**
		Weight										7											**7**
	6114369	Count																	8				**8**
		Weight																	18				**18**
4	6114259	Count									3	1							2				**6**
		Weight									130	3							6				**139**
	6114260	Count										1							2				**3**
		Weight										5							5				**10**
	6114261	Count		1							2	1		2					7				**13**
		Weight		3							41	34		29					28				**135**
	6114262	Count									1	1							1				**3**
		Weight									51	118							1				**170**
	6114263	Count									2								3				**5**
		Weight									97								41				**138**
	6114264	Count																	8	1			**9**
		Weight																	27	132			**159**
	6114363	Count		1							3	1							3				**8**
		Weight		24							109	2							12				**147**
	6114367	Count									3	1							4				**8**
		Weight									80	7							34				**121**
	6114368	Count									3	1		1					7				**12**
		Weight									24	14		9					30				**77**
	6114370	Count									5					1			8				**14**
		Weight									19					1			47				**67**
5	6114258	Count			1							1		2					11				**15**
		Weight			28							15		30					24				**97**
	6114358	Count										1							10	2			**13**
		Weight										3							103	74			**180**
	6114364	Count					1				2	1							5	1		1	**11**
		Weight					1				12	5							12	12		34	**76**
7	6114403	Count	1		2	10					5								1				**19**
		Weight	13		22	23					71								11				**140**
	6114404	Count		1			3				1	1							1				**7**
		Weight		27			4				4	6							3				**44**
8	6114405	Count																1	1				**2**
		Weight																3	15				**18**
9	6114266	Count			1														4				**5**
		Weight			8														16				**24**
	6114273	Count										1											**1**
		Weight										7											**7**
	6114276	Count										1											**1**
		Weight										13											**13**
	6114277	Count																	2				**2**
		Weight																	4				**4**
	6114278	Count			4						2												**6**
		Weight			62						51												**113**
	6114284	Count																	3				**3**
		Weight																	53				**53**
	6114285	Count									1								1				**2**
		Weight									13								10				**23**
	6114286	Count																	3				**3**
		Weight																	1				**1**
9	6114414	Count										1											**1**

Plot	GPS	Data	Bone	CBM		Clay pipe		CU alloy		Fired Clay	Flint			Glass	Mortar	Pottery				PPR		Shell	Grand Total
			Animal	Pmed	U/D	Pmed	Emod	Emod	Mod	U/D	Burnt	Worked	Pmed	Emod	U/D	Med	Trans	Pmed	Lpmed	Emod	U/D	U/D	
		Weight										7											**7**
	6114418	Count				4					3								8				**15**
		Weight				10					38								15				**63**
	6114427	Count					2	1			5							2	5				**15**
		Weight					2	1			9							3	18				**33**
	6114428	Count									1							1	3	1			**6**
		Weight									43							11	5	27			**86**
10	6114420	Count																	2				**2**
		Weight																	11				**11**
11	6114250	Count				1		1			9	1						1	7	1			**21**
		Weight				3		34			122	14						2	24	11			**210**
	6114251	Count		1			1				1	1							1	2			**7**
		Weight		100			1				20	20							2	61			**204**
	6114252	Count				1																	**1**
		Weight				5																	**5**
	6114253	Count										1											**1**
		Weight										11											**11**
	6114290	Count										1											**1**
		Weight										95											**95**
	6114415	Count										1											**1**
		Weight										22											**22**
	6114419	Count									1						2		3				**6**
		Weight									34						16		8				**58**
	6114425	Count														2		2					**4**
		Weight														30		21					**51**
	6114514	Count														4							**4**
		Weight														48							**48**
13	6114172	Count														1							**1**
		Weight														14							**14**
	6114245	Count		4							2	1	1					3	1				**12**
		Weight		76							39	4	64					20	3				**206**
	6114246	Count										1											**1**
		Weight										12											**12**
	6114282	Count					2					1											**3**
		Weight					5					7											**12**
	6114292	Count									1	1											**2**
		Weight									54	6											**60**
	6114293	Count									2	1		1				1		2			**7**
		Weight									61	7		22				3		57			**150**
	6114302	Count										1											**1**
		Weight										2											**2**
	6114328	Count					1				3	1						1	1				**7**
		Weight					2				22	3						14	1				**42**
	6114365	Count				1					2	1											**4**
		Weight				6					53	13											**72**
	6114411	Count									5	1						1	1				**8**
		Weight									59	15						2	2				**78**
	6114412	Count									4												**4**
		Weight									69												**69**
	6114501	Count										1											**1**
		Weight										31											**31**
	6114502	Count		1							2							1	1	4			**9**
		Weight		27							24							4	5	123			**183**
	6114503	Count		1							6	1							1				**9**
		Weight		38							139	8							2				**187**
14	6114208	Count		1							1	1		2									**5**
		Weight		88							7	13		15									**123**
	6114279	Count									1	1											**2**
		Weight									25	15											**40**
	6114280	Count									2												**2**
		Weight									7												**7**
	6114291	Count									1												**1**
		Weight									23												**23**
14	6114442	Count														1							**1**
		Weight														4							**4**

Plot	GPS	Data	Bone	CBM		Clay pipe		CU alloy		Fired Clay	Flint			Glass	Mortar	Pottery				PPR		Shell	Grand Total
			Animal	Pmed	U/D	Pmed	Emod	Emod	Mod	U/D	Burnt	Worked	Pmed	Emod	U/D	Med	Trans	Pmed	Lpmed	Emod	U/D	U/D	
	6114443	Count																			1		**1**
		Weight																			1		**1**
15	6114247	Count										1											**1**
		Weight										12											**12**
	6114289	Count										1											**1**
		Weight										11											**11**
	6114308	Count										1											**1**
		Weight										24											**24**
	6114201	Count										1											**1**
		Weight										36											**36**
	6114206	Count	1		1						15	1	1										**19**
		Weight	1		8						30	7	6										**52**
	6114207	Count			1	1					18	1							2	1			**24**
		Weight			26	2					100	9							2	152			**291**
	6114217	Count					1				2	1											**4**
		Weight					3				12	7											**22**
	6114219	Count	1								7	1							1				**10**
		Weight	1								105	16							1				**123**
	6114220	Count									2	1							1				**4**
		Weight									15	42							1				**58**
	6114226	Count			1						8	1							1				**11**
		Weight			22						47	13							2				**84**
	6114228	Count									9	1											**10**
		Weight									72	17											**89**
	6114235	Count									2	1											**3**
		Weight									36	8											**44**
	6114236	Count									5	1											**6**
		Weight									80	10											**90**
	6114237	Count			1						6	1								1			**9**
		Weight			20						52	4								18			**94**
	6114238	Count				1		1			2	1											**5**
		Weight				3		14			11	14											**42**
	6114239	Count									3	1											**4**
		Weight									39	5											**44**
16	6114240	Count									2	1							1				**4**
		Weight									8	31							5				**44**
	6114241	Count										1							1	3			**5**
		Weight										6							1	75			**82**
	6114242	Count										1											**1**
		Weight										16											**16**
	6114243	Count										1											**1**
		Weight										12											**12**
	6114244	Count										1								1			**2**
		Weight										18								7			**25**
	6114248	Count										1				1			1				**3**
		Weight										10				10			5				**25**
	6114283	Count										1											**1**
		Weight										15											**15**
	6114287	Count									2				1				1				**4**
		Weight									90				14				1				**105**
	6114288	Count										1											**1**
		Weight										13											**13**
	6114294	Count										1											**1**
		Weight										3											**3**
	6114311	Count										1											**1**
		Weight										17											**17**
	6114314	Count										1											**1**
		Weight										11											**11**
	6114316	Count										1											**1**
		Weight										2											**2**
	6114319	Count										1											**1**
		Weight										2											**2**
16	6114320	Count				1					4	1								1			**7**
		Weight				5					45	82								7			**139**
	6114321	Count									4	1											**5**

Plot	GPS	Data	Bone	CBM		Clay pipe		CU alloy		Fired Clay	Flint			Glass	Mortar	Pottery				PPR		Shell	Grand Total
			Animal	Pmed	U/D	Pmed	Emod	Emod	Mod	U/D	Burnt	Worked	Pmed	Emod	U/D	Med	Trans	Pmed	Lpmed	Emod	U/D	U/D	
		Weight									97	4											**101**
	6114322	Count										1							1				**2**
		Weight										3							6				**9**
	6114504	Count									1												**1**
		Weight									16												**16**
	6144207	Count																	1				**1**
		Weight																	1				**1**
18	6114229	Count									5	2						1					**8**
		Weight									13	32						4					**49**
	6114233	Count									1								1				**2**
		Weight									6								2				**8**
	6114234	Count									1	1											**2**
		Weight									15	9											**24**
	6114325	Count										1											**1**
		Weight										8											**8**
	6114326	Count										1											**1**
		Weight										20											**20**
	6114327	Count										1											**1**
		Weight										4											**4**
	6114329	Count										1											**1**
		Weight										4											**4**
	6114330	Count			1						3								1				**5**
		Weight			41						458								2				**501**
	6114331	Count									2	1								1			**4**
		Weight									74	85								26			**185**
	6114332	Count									1	1				1		1					**4**
		Weight									7	7				5		6					**25**
	6114333	Count									1	1											**2**
		Weight									15	19											**34**
	6114335	Count									2	1											**3**
		Weight									43	32											**75**
	6114336	Count									1	1				1							**3**
		Weight									43	3				4							**50**
	6114337	Count					1																**1**
		Weight					3																**3**
19	6114187	Count										1											**1**
		Weight										11											**11**
	6114230	Count			1		1				2	2											**6**
		Weight			16		2				10	21											**49**
	6114231	Count				1					2	1						1	1				**6**
		Weight				2					17	28						1	3				**51**
	6114232	Count										1											**1**
		Weight										9											**9**
	6114334	Count															1		1				**2**
		Weight															7		2				**9**
	6114338	Count									3	1											**4**
		Weight									50	8											**58**
	6114343	Count									3	1											**4**
		Weight									62	21											**83**
	6114344	Count				1					3	1							2				**7**
		Weight				3					20	15							8				**46**
	6114345	Count									2			1									**3**
		Weight									18			13									**31**
	6114346	Count							1		1												**2**
		Weight							11		19												**30**
	6114347	Count										1											**1**
		Weight										4											**4**
	6114348	Count									1												**1**
		Weight									97												**97**
	6114351	Count										1											**1**
		Weight										24											**24**
21	6114183	Count								1		1											**2**
		Weight								11		10											**21**
	6114184	Count										1											**1**
		Weight										21											**21**

Plot	GPS	Data	Bone	CBM		Clay pipe		CU alloy		Fired Clay	Flint			Glass	Mortar	Pottery				PPR		Shell	Grand Total
			Animal	Pmed	U/D	Pmed	Emod	Emod	Mod	U/D	Burnt	Worked	Pmed	Emod	U/D	Med	Trans	Pmed	Lpmed	Emod	U/D	U/D	
	6114202	Count									1	1											**2**
		Weight									46	3											**49**
	6114213	Count			1						3	1							2	1			**8**
		Weight			21						55	10							33	28			**147**
	6114214	Count									1	1				1							**3**
		Weight									4	12				8							**24**
	6114215	Count			1	1					7	1							6				**16**
		Weight			33	3					30	1							52				**119**
	6114216	Count									1	1					2						**4**
		Weight									3	6					8						**17**
	6114217	Count									7								1				**8**
		Weight									191								2				**193**
	6114218	Count									1	1											**2**
		Weight									18	3											**21**
	6114353	Count				2					3	1							4				**10**
		Weight				5					66	36							24				**131**
	6114354	Count										1											**1**
		Weight										16											**16**
	6114355	Count									3	1							4				**8**
		Weight									237	4							30				**271**
	6114356	Count									2												**2**
		Weight									25												**25**
	6114359	Count										1											**1**
		Weight										6											**6**
	6114360	Count									10	1							9				**20**
		Weight									544	39							41				**624**
	6114372	Count	1								5	1						1	1				**9**
		Weight	1								87	2						6	3				**99**
	6114373	Count										1											**1**
		Weight										21											**21**
	6114375	Count					1				7	1							4				**13**
		Weight					3				219	2							35				**259**
	6114376	Count									2	1							1				**4**
		Weight									42	14							2				**58**
	6114173	Count			2						3		1						4	3			**13**
		Weight			47						78		3						5	62			**195**
	6114174	Count														2							**2**
		Weight														4							**4**
	6114178	Count										1											**1**
		Weight										5											**5**
	6114179	Count										1											**1**
		Weight										8											**8**
	6114180	Count										1											**1**
		Weight										5											**5**
	6114182	Count				1																	**1**
		Weight				14																	**14**
22	6114186	Count										1											**1**
		Weight										9											**9**
	6114197	Count										1											**1**
		Weight										35											**35**
	6114198	Count														2							**2**
		Weight														27							**27**
	6114209	Count										1								1			**2**
		Weight										25								67			**92**
	6114210	Count										1											**1**
		Weight										43											**43**
	6114388	Count										1											**1**
		Weight										15											**15**
	6114395	Count					1				2												**3**
		Weight					1				54												**55**
27	6114195	Count										1											**1**
		Weight										7											**7**
	6114421	Count										1							1				**2**
		Weight										9							1				**10**
	6114422	Count										1							4				**5**

Plot	GPS	Data	Bone	CBM		Clay pipe		CU alloy		Fired Clay	Flint			Glass	Mortar	Pottery				PPR		Shell	Grand Total
			Animal	Pmed	U/D	Pmed	Emod	Emod	Mod	U/D	Burnt	Worked	Pmed	Emod	U/D	Med	Trans	Pmed	Lpmed	Emod	U/D	U/D	
		Weight										3							21				**24**
	6114423	Count				3					1	1											**5**
		Weight				8					56	7											**71**
	6114424	Count									2	1							5				**8**
		Weight									33	10							13				**56**
	6114440	Count					1					1											**2**
		Weight					3					3											**6**
	61114423	Count																	7				**7**
		Weight																	34				**34**
39	6114441	Count											1						1				**2**
		Weight											105						6				**111**
Total Count			**4**	**12**	**19**	**30**	**16**	**3**	**1**	**1**	**278**	**120**	**4**	**12**	**1**	**17**	**5**	**22**	**237**	**34**	**1**	**1**	**818**
Total Weight			**16**	**716**	**380**	**95**	**30**	**49**	**11**	**11**	**5175**	**1889**	**178**	**149**	**14**	**155**	**31**	**143**	**1277**	**1048**	**1**	**34**	**11402**

APPENDIX G

Summary table of boundaries

DBA Boundary	Plots	DBA Reference	Extant ditch	Buried ditch	Bank 1	Bank 2	Fence / Wall	Hedge 1	Historic boundary	Important Hedge
2	2/2		None	None	0.15m W x 0.10 H	? X 0.10m H	None	None	No	No
3	2/3		None	None	None	None	post/wire	yes	No	No
4	3/4	DBA:DN	1m W x 0.43m D	Ditch **417** 0.35m W x 0.12m D Recut **412** 0.70m W x 0.52m D Recut **416** 0.60m W x 0.45m D Recut **415** 1.90m W x 1m D	None	None	post/wire	yes	yes	yes
5	4/5		None	None	None	None	post/wire	None	No	No
6	8/9		None	None	None	None	post/wire	None	No	No
7	8/29	DBA:EJ	None	Ditch **805** 1m W x 0.75m D	0.70m W x 0.80-1.0m H	None	post/rail, drystone wall	yes	yes	yes
8	29/9	DBA:EK	None	None	0.60m W x 0.75-0.85m H	None	post/rail	yes	yes	yes
9	9/10	DBA:EM	None	None	4.2m W x 1.75m H	None	None	yes	yes	yes
10	10/11		None	Ditch **1003** 1.60m W x 0.80n D	4.2m-4.6m W x 2.1-2.3m H	None	None	yes		
11	11/12		None	None	0.30-0.60m W x 0.10m H	None	None	None	No	No
12	12/30		None	None	0.42-1.2m W x 0.3-0.6m H	None	None	None	No	No
13	30/13	DBA:EO	None	Ditch **3009** 1m W x 0.45m D	4.2-4.5m W x 2.6-3.0m H	None	post/wire	yes	yes	yes
14	13/14		None	None	None	None	post/wire	yes	No	No
15	14/15		None	None	None	None	electric fence	None	No	No

DBA Boundary	Plots	DBA Reference	Extant ditch	Buried ditch	Bank 1	Bank 2	Fence / Wall	Hedge 1	Historic boundary	Important Hedge
16	15, 16		None	Ditch **1503** 1.10m W x 0.42m D Ditch **1677** 1.20m W x 0.33m D	1.4m W x 0.10-0.55m H	None	post/wire	yes	No	No
17	16/18	DBA:EP	None	Ditch **1805** 0.60m W x 0.56m D	2.4m W x 0.05m H	None	2 x post/wire	yes	yes	yes
18	18, 19		None	Ditch **1818** 1.50m W x 0.50m D Recut **1820** 0.90m W x 0.60m D	None	None	post/wire	None	No	No
20	19/20	DBA:EQ	None	Ditch **2003** 1.50m W x 0.40m D	2.3m W x 0.4-1.0m H	None	post/wire	yes	yes	yes
21	20/21		None	Ditch **2007** 1.60m W x 0.60m D	2.3-2.5m W x 0.50m H	None	post/wire	yes	No	No
22	21/31	DBA:ER	None	None	2.0m W x 0.15m H	None	None	yes	yes	yes
23	31/22	DBA:ES	None	None	None	None	None	yes	yes	yes
24	22/23		None	None	None	None	None	yes	No	No
25	23/24		None	None	1.0m W x 0.6-0.8m H	None	None	yes	No	No
26	24/27		None	None	not recorded	None	post/wire	yes	No	No

APPENDIX H

Plates

Plate 1: Worked flints, including a scraper (top) an upper Palaeolithic end scraper (middle) and three late Neolithic / early Bronze Age barbed and tanged arrowheads (bottom)

Plate 2: Medieval hearth or fire pit 1418, plot 14

Plate 3: Group of intercutting pits 1675, plot 16a

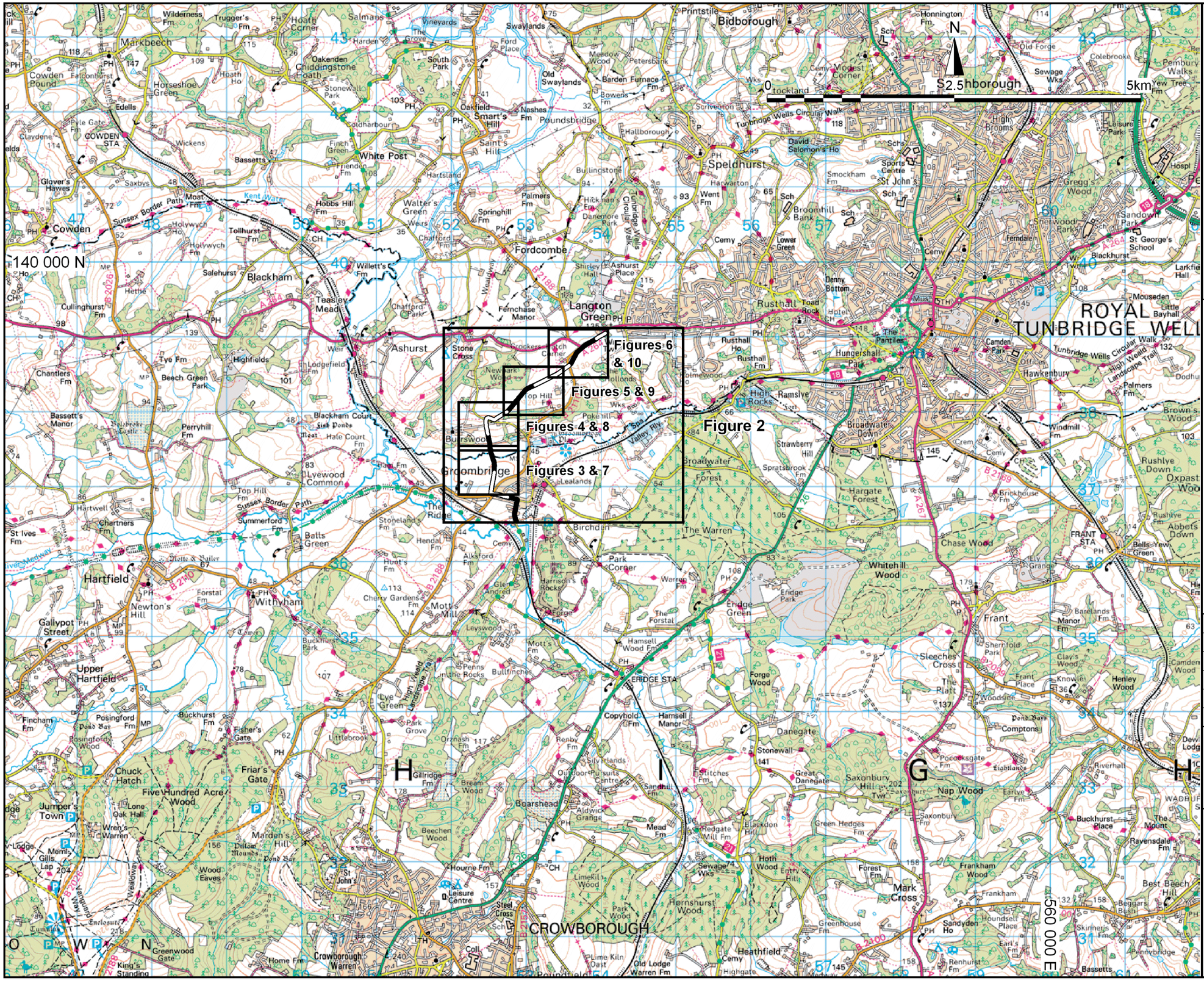
Plate 4: Ditch 2211, group 2243, plot 22

Plate 4: Ditch 3205, evaluation trench 3.02

Plate 6: Former trackway, plot 10

APPENDIX I

Figures



Pipeline

Ver	Date	Description	Drn	Chk	App
1.00	23/06/09	First issue	SAF	-	DB

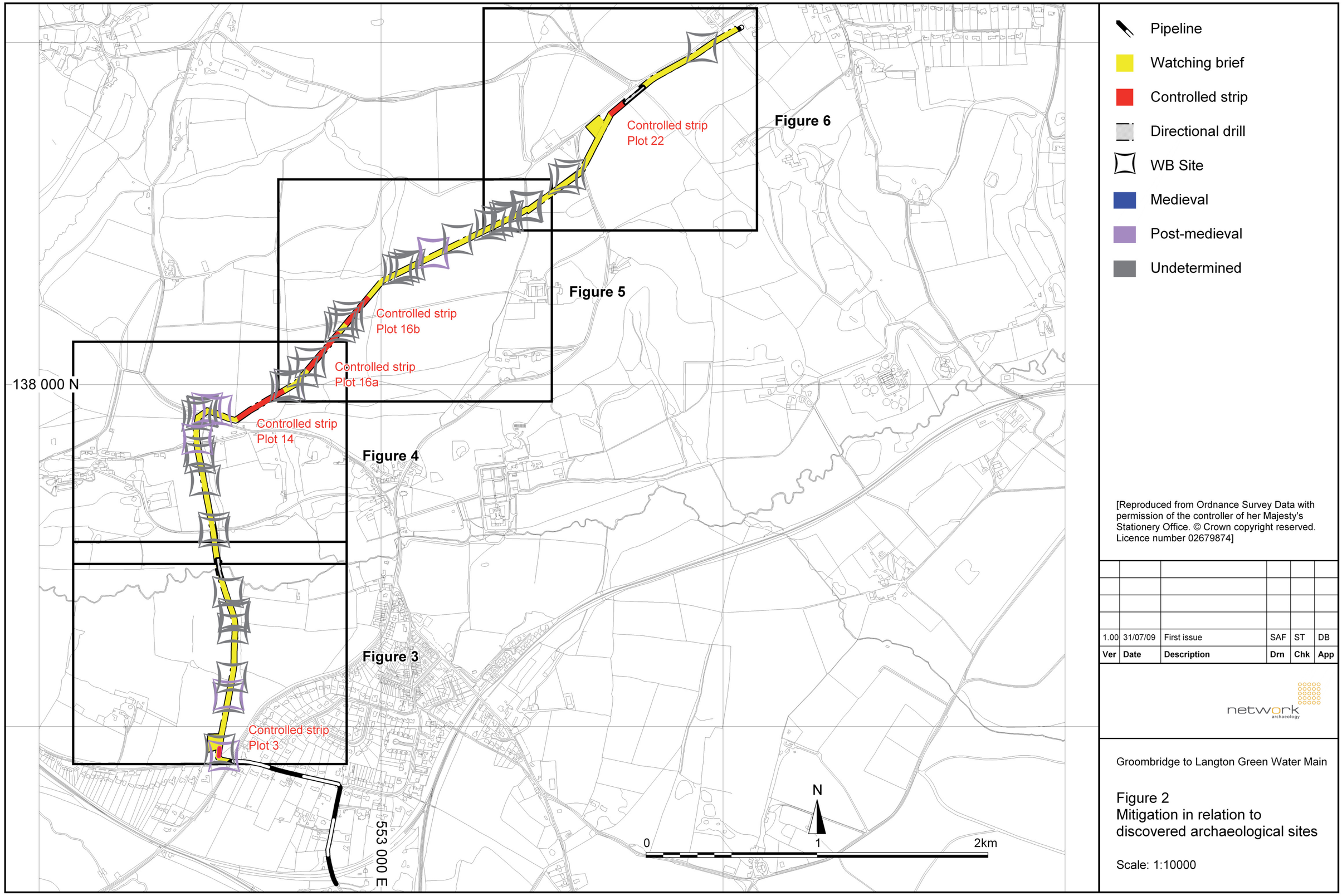
network archaeology

Groombridge to Langton Green Water Main

Figure 1
Location of pipeline

Scale: 1:50 000

FILE NAME: grl\67\report\Figures\gis\workspaces\ver01.00\figure01.wor



Ver	Date	Description	Drn	Chk	App
1.00	31/07/09	First issue	SAF	ST	DB

network archaeology

Groombridge to Langton Green Water Main

Figure 2
Mitigation in relation to discovered archaeological sites

Scale: 1:10000

FILE NAME: grl\67\report\Figures\gis\workspaces\ver01.00\figure02.wor

Plot 8
Plot 7
Plot 6
Plot 5
Plot 4
Plot 3
Plot 2
Plot 28
FSU:002
BANK
FSU:003
DITCH
DBA:AG
KENT AND SUSSEX CB
DBA:FQ
BRICK WORKS
DBA:BZ
?TRACK
DBA:DG
FB
503
PIT
DBA:DF
FB
403
PIT
405
DITCH
407
PIT
409
QUARRY
DBA:DO
HFB
DBA:CH
POND
DBA:CI
?RING DITCH
DBA:CF
?ENCLOSURE
DBA:DN
HFB&IH
417
DITCH
307
FB
305
?PIT
DBA:DE
FB
LS 296949
HOUSE
137 000 N
DBA:CD
POND
DBA:CC
POND
DBA:FC
FB
Trench 3.02
303
?FURROW
203, 207, 208
INTERCUTTING QUARRIES
DBA:DB
FARM
DBA:DJ
HFB
DBA:DK
HFB
552 700 E
N
0
100
200m

Pipeline
Plot
Working width - watching brief area
Controlled strip
Directional drill
Trench

New sites and HER data

Prehistoric
Iron Age
Saxon
Medieval
Post-medieval
Late post-medieval
Early modern
Modern
Undetermined

WB Site
HER data

Ver	Date	Description	Drn	Chk	App
1.00	31/07/09	First issue	SAF	ST	DB

network archaeology

Groombridge to Langton Green Water Main

Figure 3
Distribution of sites in relation to known archaeology

Scale: 1:2500

FILE NAME: grl\67\report\Figures\gis\workspaces\ver01.00\figure03.wor

138 000 N

552 200 E

DBA:BO
?ENCLOSURES

FSU:007
POTTERY

FSU:006
POTTERY, CBM

FSU:007
POTTERY

DBA:BY
?DRAINS

DBA:BG
POND

DBA:EF
FB

FSU:008
BRICK, TILE

Plot 16

1680
?PIT

DBA:EG
FB

Plot 15

1677
FB

1503
FB

1505
FEATURE

1678
BOUNDARY DITCH

DBA:EH
FB

DBA:FM
PILLAR

Plot 13

DBA:BX
POND

DBA:EO
HFB&IH

Plot 30

1306
QUARRY

3009
?BOUNDARY
DITCH

3003
DITCH

1311
QUARRY

DBA:BH
?ENCLOSURES

DBA:AK
WOODLAND

Plot 12

Plot 14

Plot 11

1103
GULLY

3005, 3007, 3009
DITCH

DBA:EN
HFB

KSMR TQ53NW38
POTTERY

1003
FB

DBA:AF
GROOMBRIDGE CA

DBA:FL
QUARRY

DBA:AD
PARK

Plot 10

DBA:EM
HFB&IH

FSU:004
SUNKEN LANE

DBA:FJ
POND

905
FB

904
DRAIN

DBA:DR
ROAD

LS 438769
WALLS

DBA:EL
HFB&IH

LS 438601
HOUSE

DBA:DQ
ROAD

Plot 9

DBA:DS
BUILDINGS

909
?FB

DBA:EE
FB

DBA:ED
FB

DBA:DT
BUILDING

DBA:BQ
?ENCLOSURES

DBA:DP
ROAD

Plot 29

DBA:EK
HFB&IH

805
FB

Plot 8

DBA:EJ
HFB&IH

803
?BONFIRE/ BURNT PATCH

FSU:002
BANK

Plot 7

N

0 100 200m

Pipeline

Plot

Working width - watching brief area

Controlled strip

Directional drill

Trench

New sites and HER data

Prehistoric

Iron Age

Saxon

Medieval

Post-medieval

Late post-medieval

Early modern

Modern

Undetermined

WB Site

HER data

Ver	Date	Description	Drn	Chk	App
1.00	31/07/09	First issue	SAF	ST	DB

network archaeology

Groombridge to Langton Green Water Main

Figure 4
Distribution of sites in relation to known archaeology

Scale: 1:2500

FILE NAME: grl\67\report\Figures\gis\workspaces\ver01.00\figure04.wor

N

0 100 200m

138 300 N

553 000 E

Plot 15
Plot 16
Plot 17
Plot 18
Plot 19
Plot 20
Plot 21

DBA:AI
WOODLAND, ?PARK

DBA:BR
R&F

DBA:BP
FB

DBA:BN
?PITS

DBA:BE
POND

DBA:EH
FB

DBA:EP
HFB&IH

DBA:EI
FB

DBA:BD
?RING DITCHES

DBA:BM
ENCLOSURE

DBA:BI
POND

DBA:BJ
POND

DBA:EG
FB

DBA:EQ
HFB&IH

DBA:AK
WOODLAND

DBA:AF
GROOMBRIDGE CA

DBA:DZ
BUILDINGS

DBA:EB
POND

DBA:EA
BUILDINGS

DBA:DX
BUILDING

DBA:DY
POND

DBA:AC
PARK

FSU:009
SUNKEN TRACK

1916
DITCH/FURROW

1918
PIT

1920
PIT

1922
PIT

1924
PIT

2007
DITCH

2005
?HOLLOW WAY

2003
DRAINAGE DITCH

1818
BOUNDARY DITCH

1820
BOUNDARY
DITCH

1907
?HEARTH

1815
PIT

1803
PIT

1805
?BOUNDARY DITCH

1692
PIT

1690
PIT

1694
FB

1680
?PIT

1503
FB

1677
FB

1505
FEATURE

LS 439226
HOUSE

LS 439225
HOUSE

LS 439224
PIERS, GATES, WALL

LS 439223
HOUSE

Pipeline

Plot

Working width - watching brief area

Controlled strip

Directional drill

Trench

New sites and HER data

Prehistoric

Iron Age

Saxon

Medieval

Post-medieval

Late post-medieval

Early modern

Modern

Undetermined

WB Site

HER data

Ver	Date	Description	Drn	Chk	App
1.00	31/07/09	First issue	SAF	ST	DB

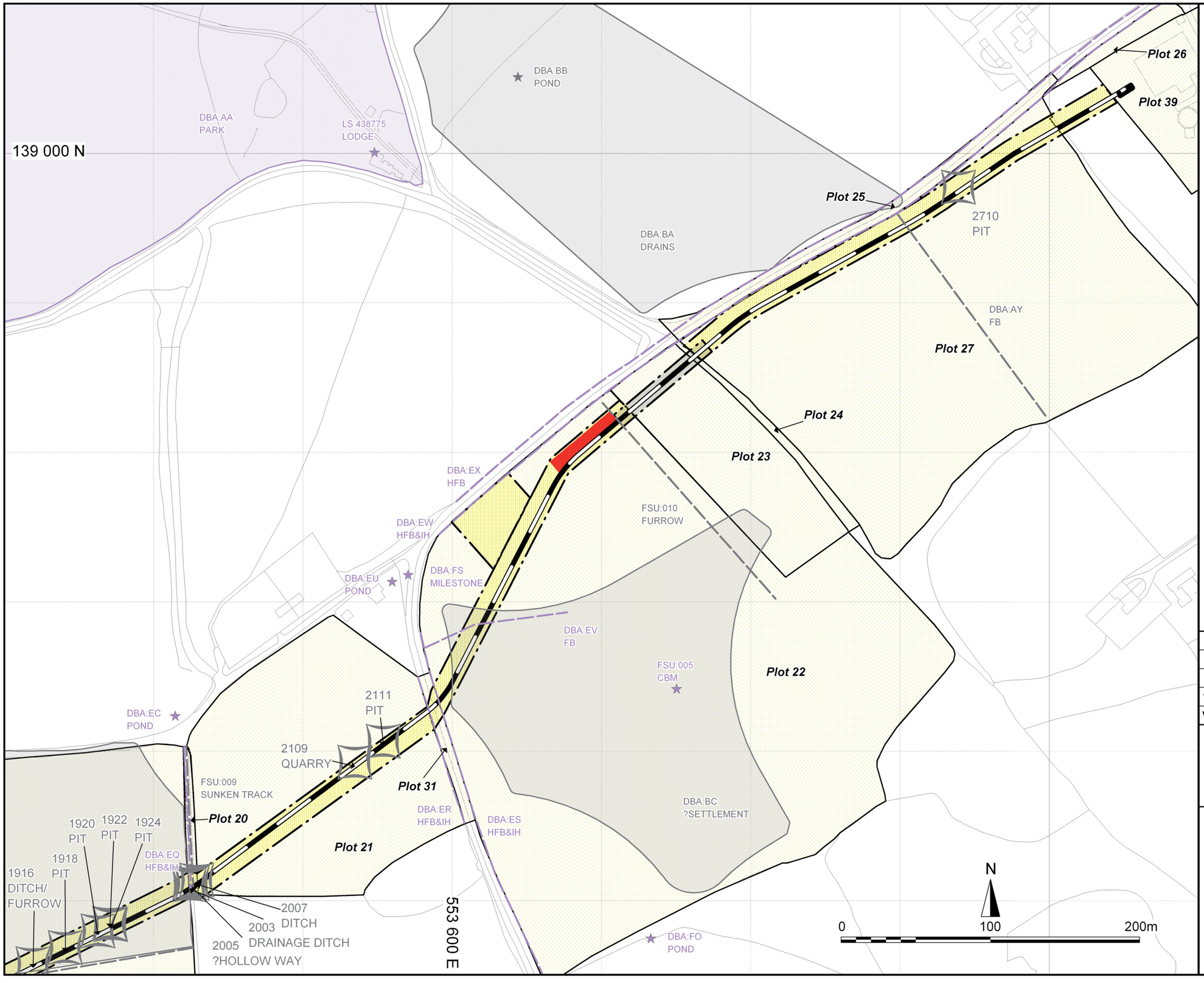
network archaeology

Groombridge to Langton Green Water Main

Figure 5
Distribution of sites in relation to known archaeology

Scale: 1:2500

FILE NAME: grl67\report\Figures\gis\workspaces\ver01.00\figure05.wor



Pipeline

Plot

Working width - watching brief area

Controlled strip

Directional drill

Trench

New sites and HER data

Prehistoric

Iron Age

Saxon

Medieval

Post-medieval

Late post-medieval

Early modern

Modern

Undetermined

WB Site

HER data

Ver	Date	Description	Drn	Chk	App
1.00	31/07/09	First issue	SAF	ST	DB

network archaeology

Groombridge to Langton Green Water Main

Figure 6
Distribution of sites in relation to known archaeology

Scale: 1:2500

FILE NAME: grl67\report\Figures\gis\workspaces\ver01.00\figure06.wor

Plot 8
Plot 7
Plot 6
Plot 5
Plot 4
Plot 3
Plot 2
Plot 28

FSU:002
BANK

FSU:003
DITCH

DBA:AG
KENT AND SUSSEX CB

DBA:FQ
BRICK WORKS

DBA:BZ
?TRACK

DBA:DG
FB

DBA:DF
FB

DBA:DO
HFB

DBA:DN
HFB&IH

DBA:DE
FB

DBA:FC
FB

DBA:CH
POND

DBA:CI
?RING DITCH

DBA:CF
?ENCLOSURE

LS 296949
HOUSE

DBA:CD
POND

DBA:CC
POND

DBA:DB
FARM

DBA:DJ
HFB

DBA:DK
HFB

N

0 100 200m

137 000 N

552 700 E

Pipeline
Plot
Working width - watching brief area
Controlled strip
Directional drill
Trench

New Finds and HER data

Prehistoric
Iron Age
Saxon
Medieval
Post-medieval
Late post-medieval
Early modern
Modern
Undetermined

Bone
CBM
Claypipe
Fired Clay
Flint burnt
Flint knapped
Glass
Metal
Mortar
Pottery
Production waste
Shell

WB Site
HER data

Ver	Date	Description	Drn	Chk	App
1.00	31/07/09	First issue	SAF	ST	DB

network archaeology

Groombridge to Langton Green Water Main

Figure 7
Distribution of findspots in relation to known archaeology

Scale: 1:2500

FILE NAME: grl\67\report\Figures\gis\workspaces\ver01.00\figure07.wor

138 000 N

552 200 E

DBA:BO
?ENCLOSURES

FSU:007
POTTERY

FSU:006
POTTERY, CBM

FSU:007
POTTERY

DBA:BY
?DRAINS

DBA:BG
POND

DBA:EF
FB

FSU:008
BRICK, TILE

Plot 16

Plot 15

DBA:EG
FB

DBA:EH
FB

DBA:FM
PILLAR

DBA:BX
POND

Plot 13

DBA:BH
?ENCLOSURES

DBA:AK
WOODLAND

DBA:EO
HFB&IH

Plot 30

Plot 12

Plot 14

Plot 11

KSMR TQ53NW38
POTTERY

DBA:EN
HFB

DBA:AF
GROOMBRIDGE CA

DBA:FL
QUARRY

DBA:AD
PARK

DBA:EM
HFB&IH

Plot 10

FSU:004
SUNKEN LANE

DBA:FJ
POND

DBA:DR
ROAD

LS 438769
WALLS

DBA:EL
HFB&IH

LS 438601
HOUSE

DBA:DQ
ROAD

Plot 9

DBA:DS
BUILDINGS

DBA:EE
FB

DBA:ED
FB

DBA:DT
BUILDING

DBA:BQ
?ENCLOSURES

DBA:DP
ROAD

DBA:EK
HFB&IH

Plot 29

Plot 8

DBA:EJ
HFB&IH

FSU:002
BANK

Plot 7

N

0 100 200m

Pipeline

Plot

Working width - watching brief area

Controlled strip

Directional drill

Trench

New Finds and HER data

- Prehistoric
- Iron Age
- Saxon
- Medieval
- Post-medieval
- Late post-medieval
- Early modern
- Modern
- Undetermined

- Bone
- CBM
- Claypipe
- Fired Clay
- Flint burnt
- Flint knapped
- Glass
- Metal
- Mortar
- Pottery
- Production waste
- Shell

WB Site

HER data

Ver	Date	Description	Drn	Chk	App
1.00	31/07/09	First issue	SAF	ST	DB

network archaeology

Groombridge to Langton Green Water Main

Figure 8
Distribution of findspots in relation to known archaeology

Scale: 1:2500

FILE NAME: grl\67\report\Figures\gis\workspaces\ver01.00\figure08.wor

N

0 100 200m

DBA:AI
WOODLAND, ?PARK

138 300 N

553 000 E

Plot 14
Plot 15
Plot 16
Plot 17
Plot 18
Plot 19
Plot 20
Plot 21

DBA:BE
POND

DBA:EH
FB

DBA:EP
HFB&IH

DBA:BP
FB

DBA:BR
R&F

DBA:EQ
HFB&IH

FSU:009
SUNKEN TRACK

DBA:BN
?PITS

DBA:EI
FB

DBA:BD
?RING DITCHES

DBA:BM
ENCLOSURE

DBA:DZ
BUILDINGS

DBA:EB
POND

DBA:EA
BUILDINGS

DBA:BI
POND

DBA:BJ
POND

DBA:EG
FB

DBA:AK
WOODLAND

DBA:AF
GROOMBRIDGE CA

LS 439226
HOUSE

LS 439225
HOUSE

LS 439224
PIERS, GATES, WALL

LS 439223
HOUSE

DBA:DX
BUILDING

DBA:DY
POND

DBA:AC
PARK

Pipeline

Plot

Working width - watching brief area

Controlled strip

Directional drill

Trench

New Finds and HER data

- Prehistoric
- Iron Age
- Saxon
- Medieval
- Post-medieval
- Late post-medieval
- Early modern
- Modern
- Undetermined

- Bone
- CBM
- Claypipe
- Fired Clay
- Flint burnt
- Flint knapped
- Glass
- Metal
- Mortar
- Pottery
- Production waste
- Shell

WB Site

HER data

Ver	Date	Description	Drn	Chk	App
1.00	31/07/09	First issue	SAF	-	DB

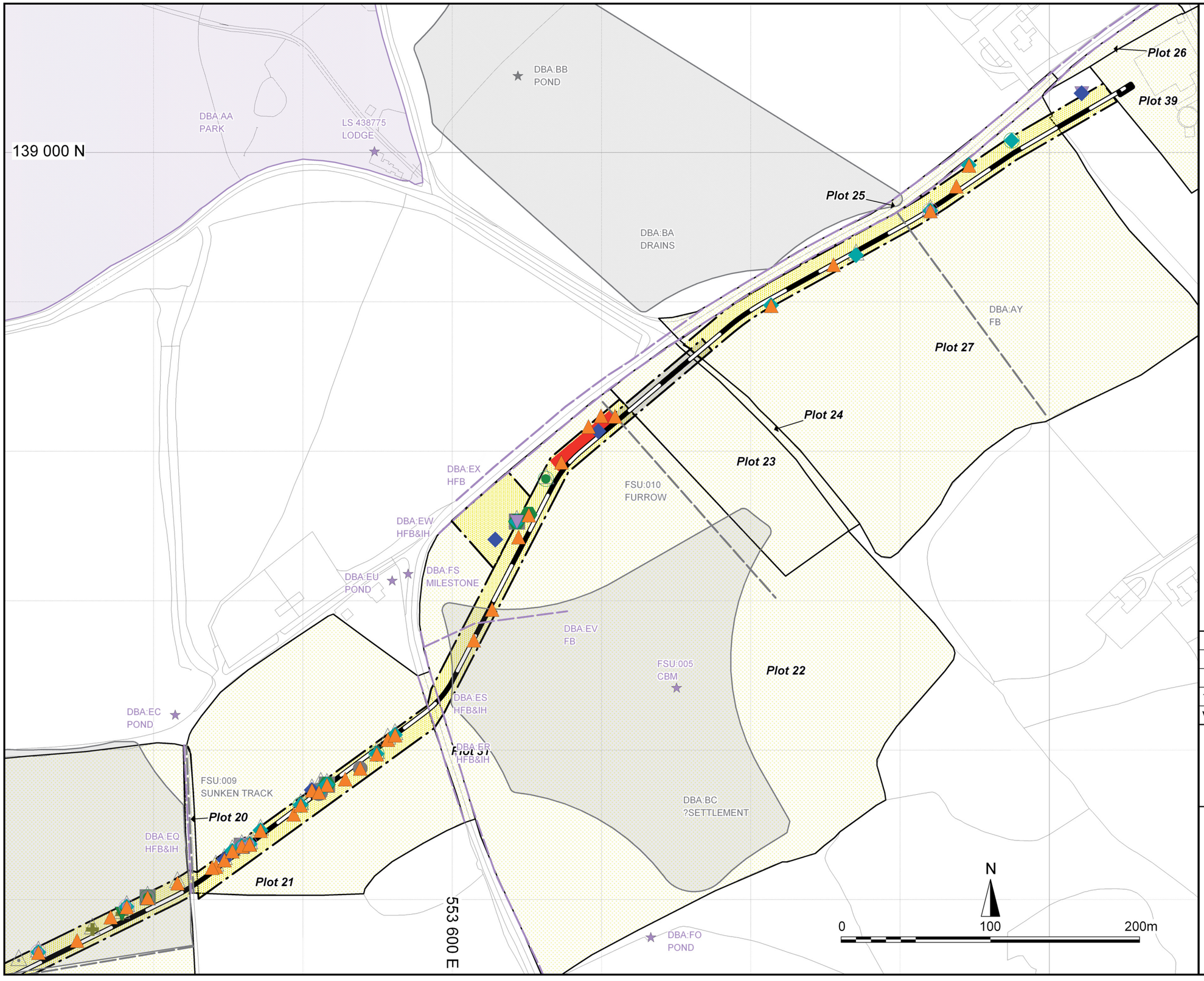
network archaeology

Groombridge to Langton Green Water Main

Figure 9
Distribution of findspots in relation to known archaeology

Scale: 1:2500

FILE NAME: grl\67\report\Figures\gis\workspaces\ver01.00\figure09.wor



Pipeline

Plot

Working width - watching brief area

Controlled strip

Directional drill

Trench

New Finds and HER data

- Prehistoric
- Iron Age
- Saxon
- Medieval
- Post-medieval
- Late post-medieval
- Early modern
- Modern
- Undetermined

- Bone
- CBM
- Claypipe
- Fired Clay
- Flint burnt
- Flint knapped
- Glass
- Metal
- Mortar
- Pottery
- Production waste
- Shell

WB Site

HER data

Ver	Date	Description	Drn	Chk	App
1.00	31/07/09	First issue	SAF	ST	DB

network archaeology

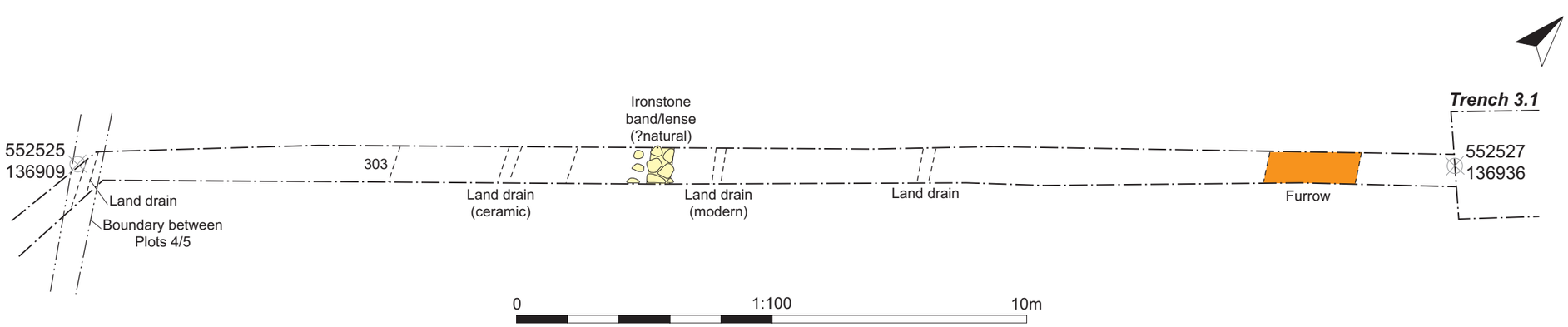
Groombridge to Langton Green Water Main

Figure 10
Distribution of findspots in relation to known archaeology

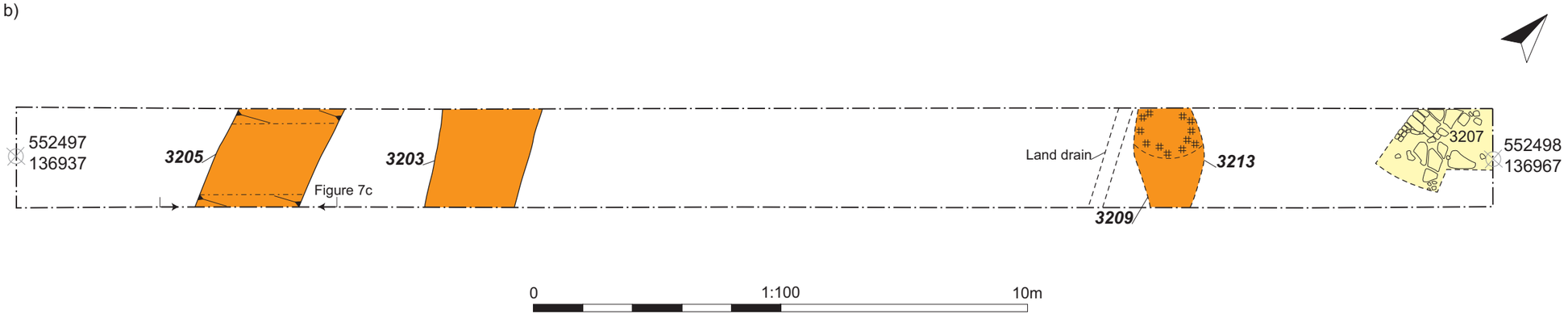
Scale: 1:2500

FILE NAME: grl\67\report\Figures\gis\workspaces\ver01.00\figure10.wor

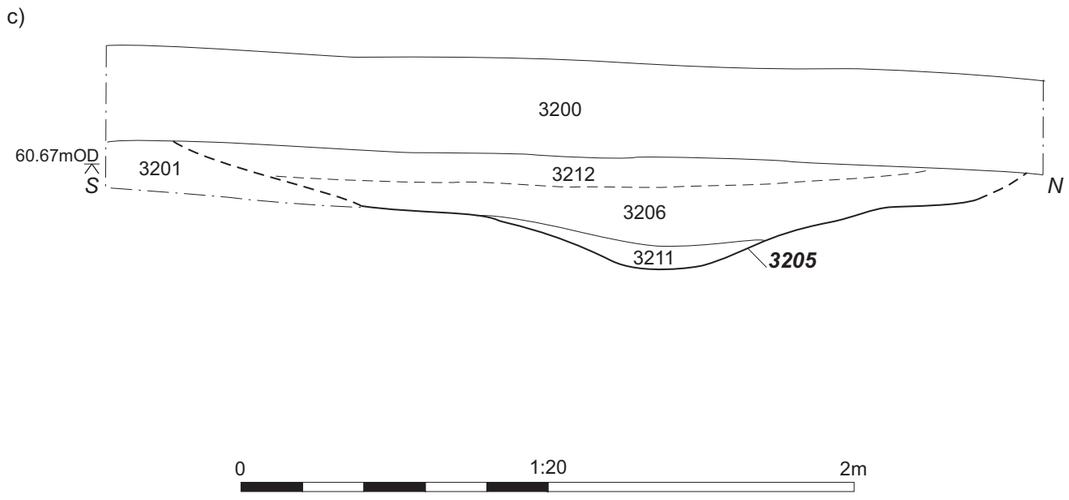
a)



b)



c)



Limit of excavation

Field boundary

1234 Feature number

Archaeology

Natural

Plant hole

Limit of excavation

Cut line

Layer line

1234 Cut number

1233 Layer/fill number

Charcoal

Stones

Burnt stone

Ver	Date	Description	DM	Chk	App
0.4	11/8/09	Plot 3	JLH	ST	DB

network archaeology

Groombridge to Langton Green water main

Figure 11: Plot 3, controlled strip area

a) Plan of controlled strip area, 1:100
b) Plan of trench 3.02, 1:100
c)Ditch 3205, 1:20

Figure a
Figure b
Figure c

0 1:1000 100m

a)

1416
552582
137896
1426

0 1:200 10m

b)

1422
1410
Figure 9c
Figure 9b
1420
1403
Figure 9a

0 1:200 20m

c)

Boundary between Plots 14/15
1434
1432
Figure 9f
552714
137986
1424
Figure 9e
Figure 9g
1418
Figure 9d
1412
1407
Trench 14.2
1405

0 1:200 20m

Limit of excavation
Field boundary
1234 Feature number
Archaeology
Natural
Plant hole

Ver	Date	Description			
0.4	11/8/09	Plot 14	JLH	ST	DB
Ver	Date	Description	DM	Chk	App

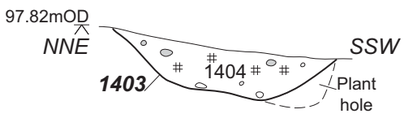
network archaeology

Groombridge to Langton Green water main

Figure 12: Plot 14, plan of excavated area

Scale 1:1000 and 1:200

a)



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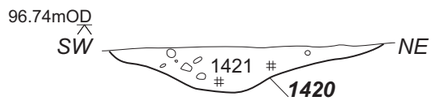

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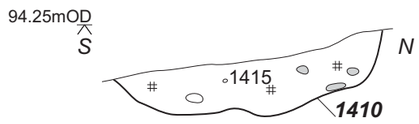

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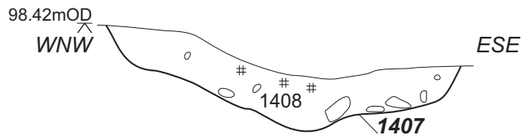

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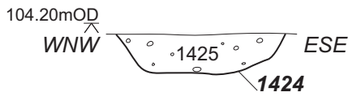

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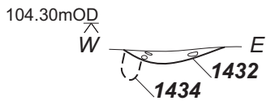
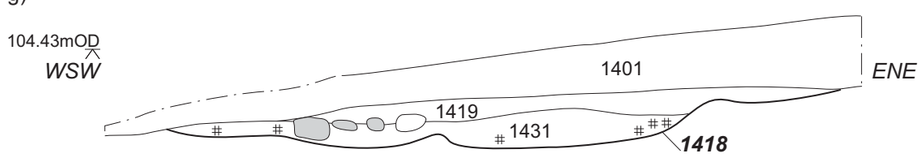


g)



Limit of excavation

Cut line

Layer line

1234 Cut number

1233 Layer/fill number

Charcoal

Stones

Burnt stone

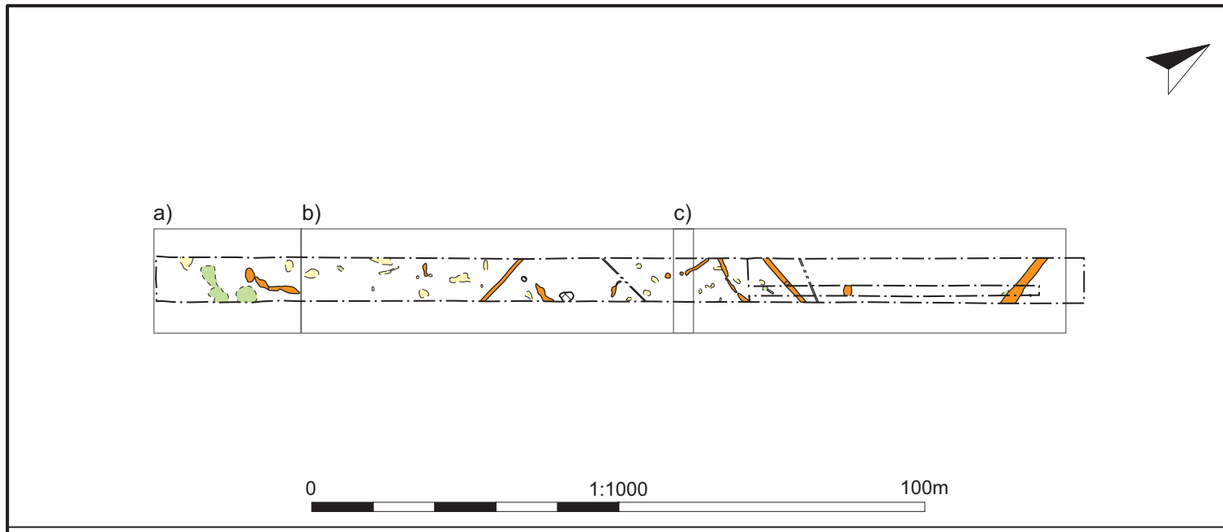
Ver	Date	Description	DM	Chk	App
0.4	11/8/09	Plot 14	JLH	ST	DB

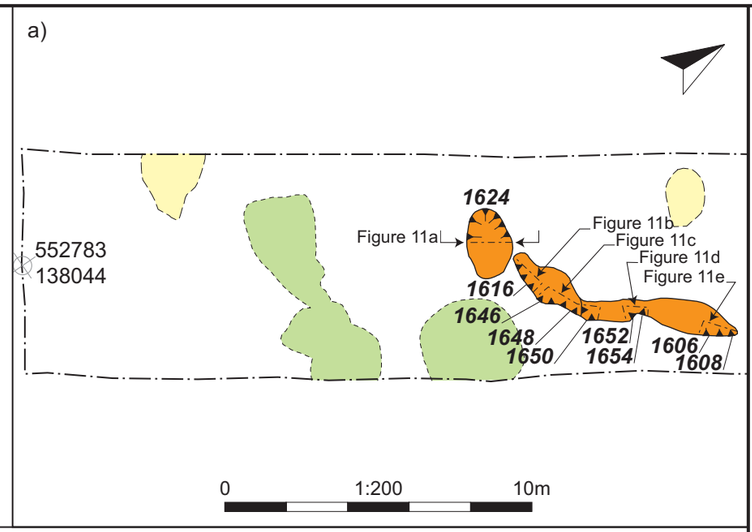
network archaeology

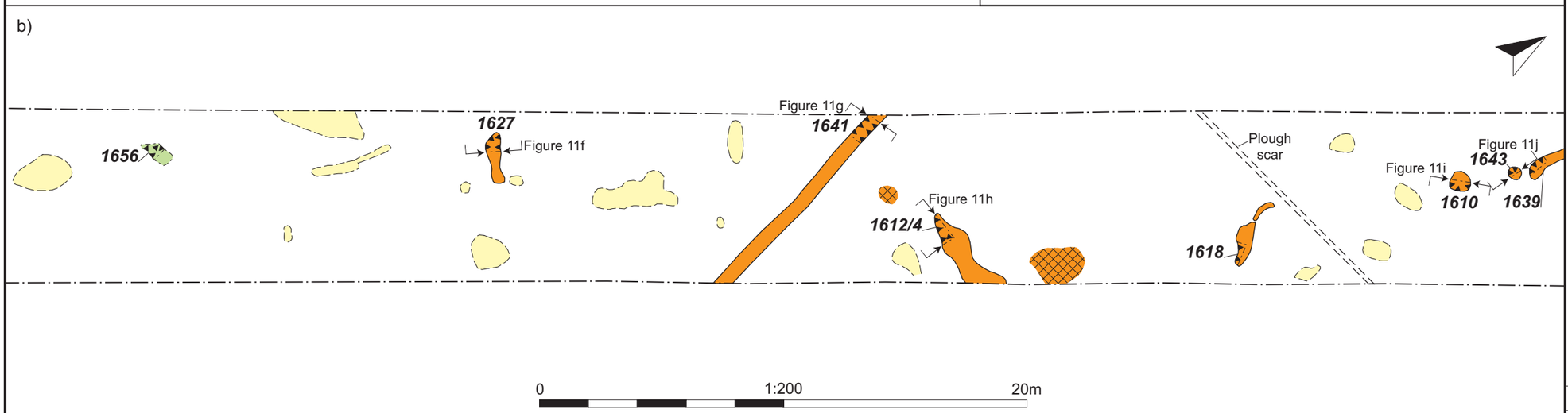
Groombridge to Langton Green water main

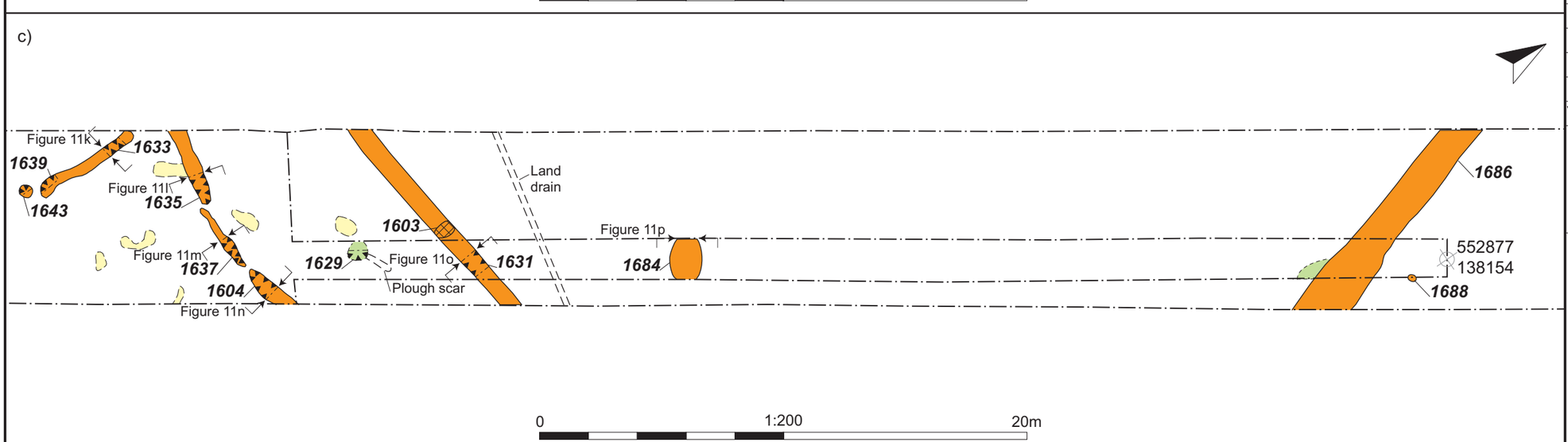
Figure 13: Plot 14
a) Ditch 1403
b) Ditch 1420
c) Pit 1410
d) Pit 1407
e) Pit 1424
f) Pit 1432
g) Pit 1418

Scale 1:20









Limit of excavation

Field boundary

1234 Feature number

Archaeology

Natural

Plant hole

Area of burning

Ver	Date	Description	DM	Chk	App
0.4	11/8/09	Plot 16.1	JLH	ST	DB

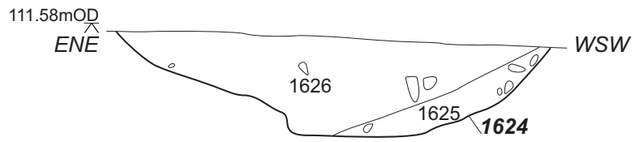
network archaeology

Groombridge to Langton Green water main

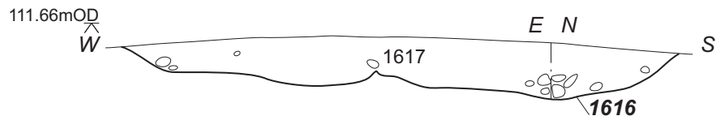
Figure 14: Area 16a, plan of excavated area

Scale 1:1000 and 1:200

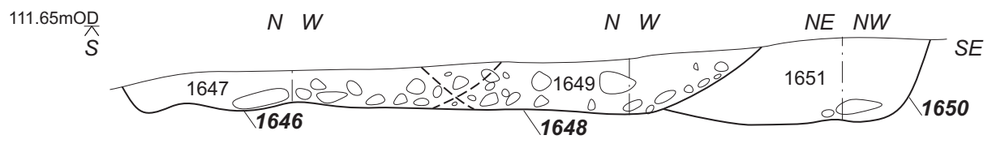
a)



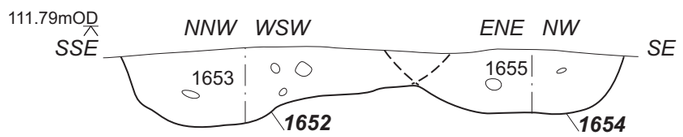
b)



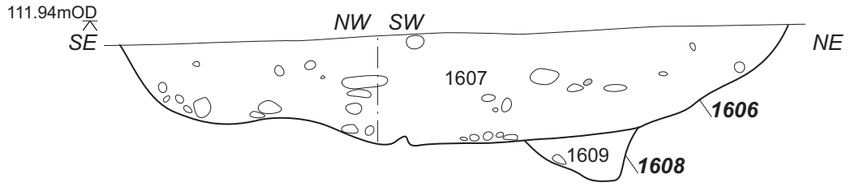
c)



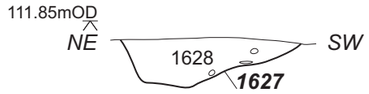
d)



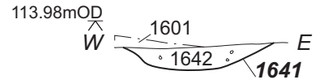
e)



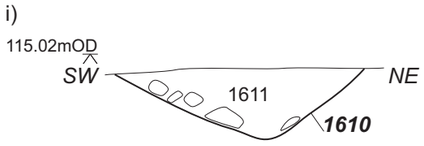
f)



g)

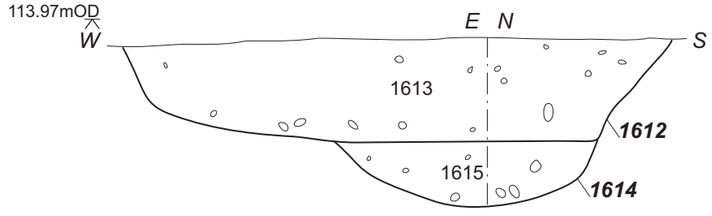


i)

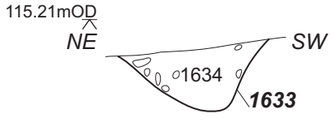


j)

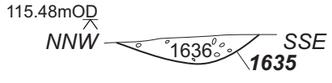
h)



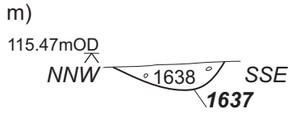
k)



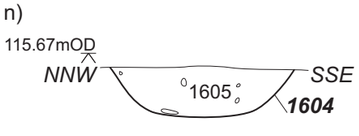
l)



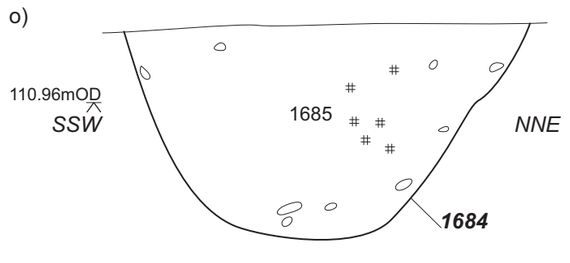
m)



n)



o)



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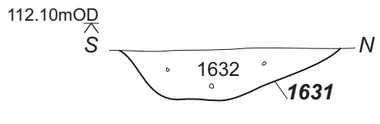


Limit of excavation

Cut line

Layer line

1234 Cut number

1233 Layer/fill number

Charcoal

Stones

Burnt stone

0.4	11/8/09	Plot 16.1	JLH	ST	DB
Ver	Date	Description	DM	Chk	App

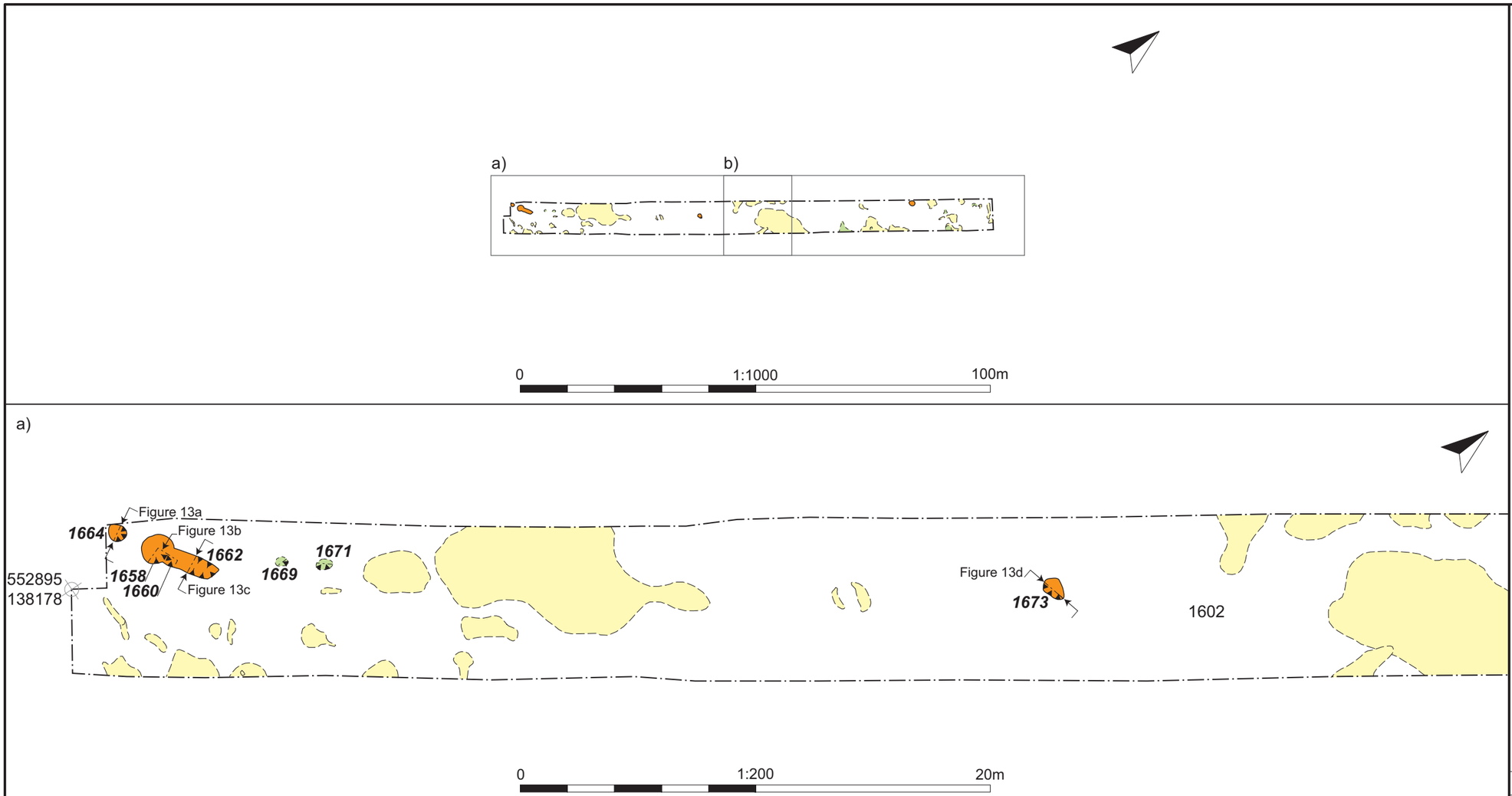
network archaeology

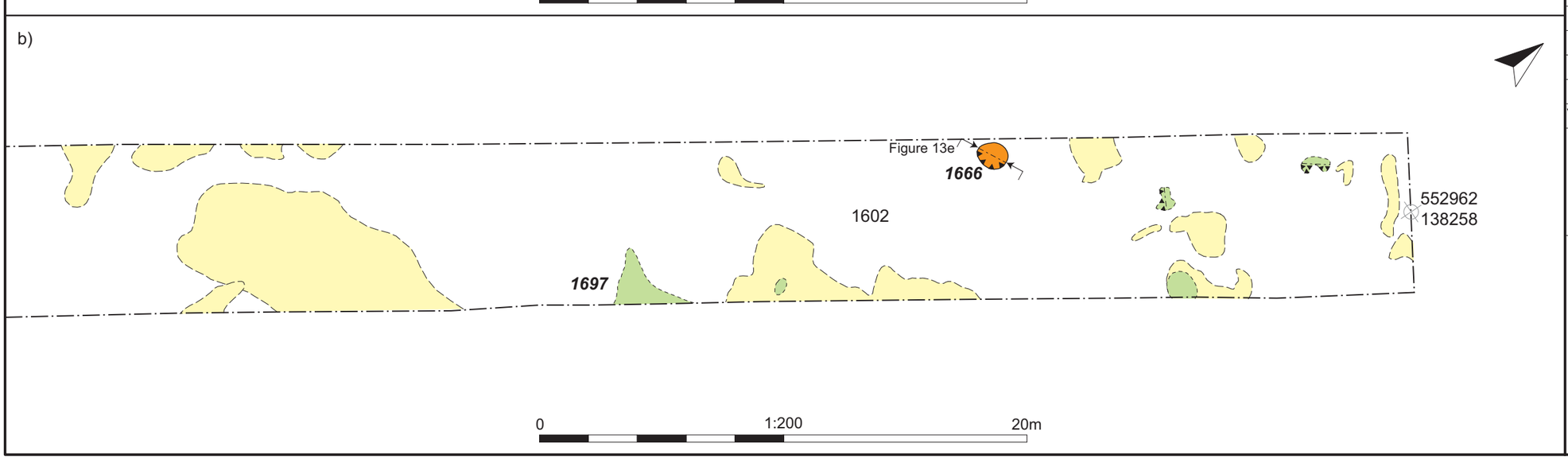
Groombridge to Langton Green water main

Figure 15: Area 16a

a) Pit 1624
b) Pit 1616
c) Pits 1646, 1648, 1650
d) Pits 1652, 1654
e) Ditches 1606, 1608
f) Ditch 1627
g) Ditch 1641
h) Pits 1612, 1614
i) Pit 1610
j) Posthole 1643
k) Ditch 1633
l) Ditch 1635
m) Ditch 1637
n) Ditch 1604
o) Pit 1684
p) Ditch 1631

Scale 1:20





Limit of excavation

Field boundary

1234 Feature number

Archaeology

Natural

Plant hole

Ver	Date	Description	DM	Chk	App
0.4	11/8/09	Plot 16.2	JLH	ST	DB

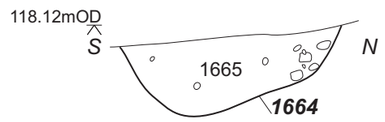
network archaeology

Groombridge to Langton Green water main

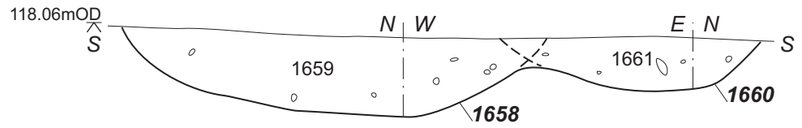
Figure 16: Area 16b, plan of excavated area

Scale 1:1000 and 1:200

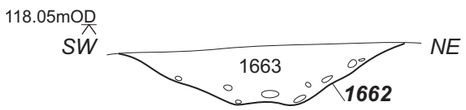
a)



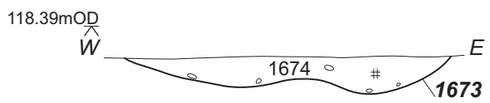
b)



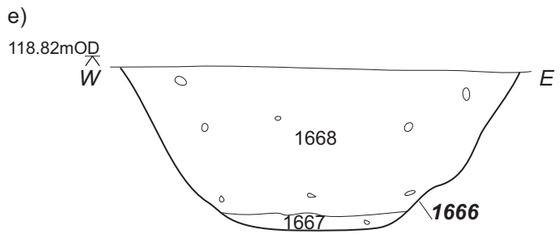
c)



d)



e)



Limit of excavation

Cut line

Layer line

1234 Cut number

1233 Layer/fill number

Charcoal

Stones

Burnt stone

0.4	11/8/09	Plot 16.2	JLH	ST	DB
Ver	Date	Description	DM	Chk	App

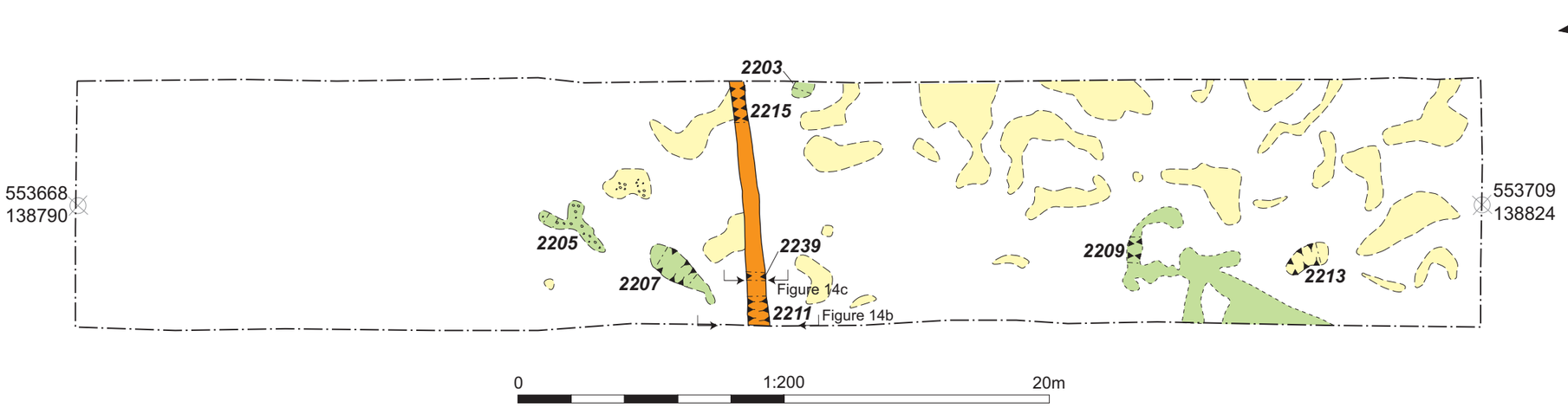
network archaeology

Groombridge to Langton Green water main

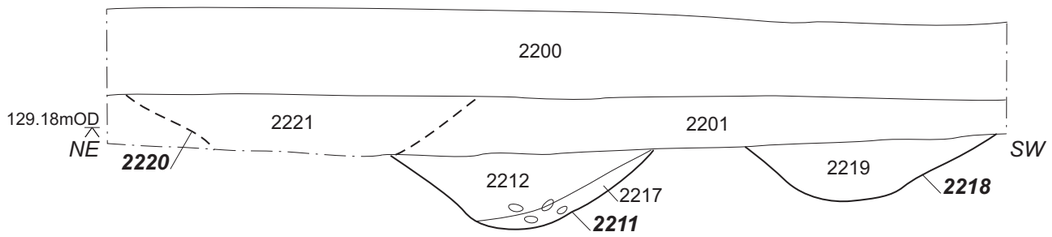
Figure 17: Area 16b
a) Pit 1664
b) Pits 1658, 1660
c) Pit 1662
d) Pit 1673
e) Pit 1666

Scale 1:20

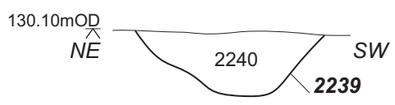
a)



b)



c)



Limit of excavation

Field boundary

1234 Feature number

Archaeology

Natural

Plant hole

Ironstones

Limit of excavation

Cut line

Layer line

1234 Cut number

1233 Layer/fill number

Charcoal

Stones

Burnt stone

Ver	Date	Description	DM	Chk	App
0.4	11/8/09	Plot 22	JLH	ST	DB

network archaeology

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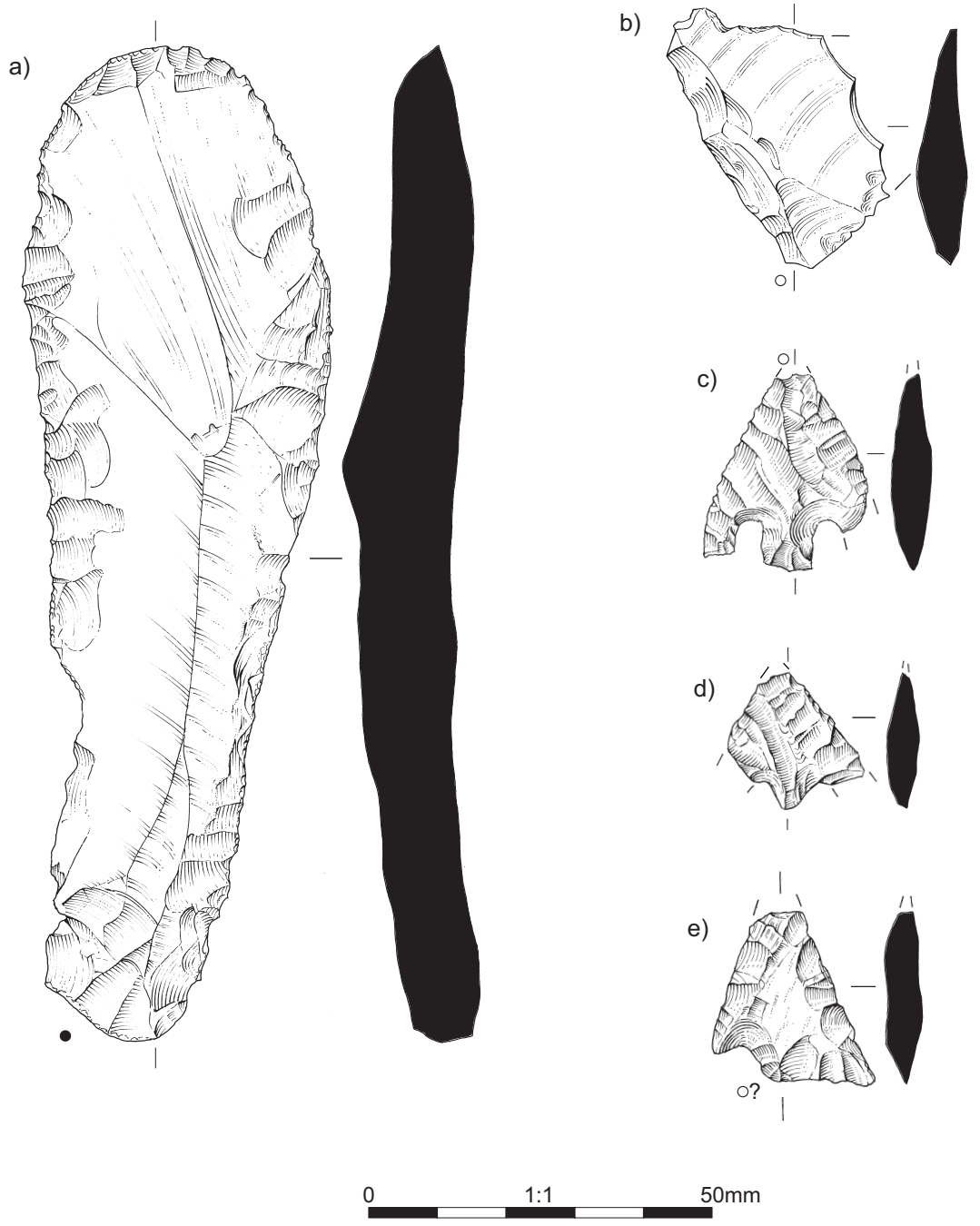
Figure 18: Plot 22, plan and sections of excavated area

a) Plan of controlled strip area, 1:200
b) Ditch 2211 and Furrow 2218
c) Ditch 2239



Key

● Bulb present
○ Bulb absent

1.0	29/01/10	Flint illustrations	DW	ST	DB
Ver	Date	Description	DM	Chk	App

Groombridge to Langton Green

Figure 19: Flint illustrations
a) Possible upper Palaeolithic / Neolithic end scraper from plot 11
b) Late Neolithic chisel arrowhead fom plot 18
c) Early Bronze Age barbed and tanged arrowhead from plot 18
d) Early Bronze Age barbed and tanged arrowhead from plot 21
e) Unfinished late Neolithic / early Bronze Age barbed and tanged arrowhead from plot 18

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