

M1 - Three Valleys Water Pipeline Redirect Hertfordshire



Archaeological Watching Brief Report



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**M1 - Three Valleys Water
Pipeline Redirect,
Hertfordshire
NGR TL 096115 to TL 093128**

ARCHAEOLOGICAL WATCHING BRIEF REPORT

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SUMMARY

In August and September of 2005, Oxford Archaeology (OA) carried out an archaeological watching brief on the western side of the M1, between NGR TL 096 115 and TL 093 128 and between Junctions 8 (the A414, Hemel Hempstead) and 9 (A5 - A5183 interchange) of the motorway. The work was commissioned by Atkins Heritage to monitor the installation of a new pipeline to redirect the water services along the new land take corridor for the M1 roadworks.

The watching brief revealed a sparse amount of archaeological activity along this corridor. This consisted of a substantial boundary ditch and a small pit of Romano-British date near Flandsteadbury Lane, as well as five small ditches, a hedgeline, a large quarry pit and a tree throw near Lybury Lane and a large quarry pit and a small pit near Redding Lane. While the extent of the archaeology found during the watching brief was quite limited, it may indicate further activity nearby.

1 INTRODUCTION

1.1 Location and Scope of Work

1.1.1 The M1 is to be widened by the addition of an extra lane, to relieve congestion along the road corridor from Junction 6a to 10 in south-west Hertfordshire. Prior to the start of the scheme, Three Valleys Water (now named Veolia) needed to re-direct a main water pipeline along the corridor, between NGR TL 096115 to TL 093 128 (Fig. 1). Atkins Heritage, acting on their behalf, commissioned Oxford Archaeology (OA) to undertake an archaeological watching brief to monitor the works. This watching brief was carried out in August and September 2005.

1.1.2 OA prepared a Written Scheme of Investigation (OA 2005) detailing how it would meet the requirements of the brief.

1.2 Geology and Topography

1.2.1 The scheme lies on the western side of the M1, between NGR TL 096 115 and TL 093 128 and between Junctions 8 (the A414, Hemel Hempstead) and 9 (A5 - A5183 interchange) of the motorway.

1.2.2 The geology is predominantly Carstens series clayey soils to the north, frequently flinty with a silty plateau drift; and to the south, flinty and chalky drift, on chalk bedrock.

1.3 Archaeological and Historical Background

1.3.1 The archaeological background to the watching brief was prepared for the Written Scheme of Investigation (WSI) and is reproduced below.

1.3.2 An archaeological statement was produced as part of the Environmental Impact Assessment (EIA) in September 1994 by St Albans Museum in association with

Hertfordshire County Transportation Design Services for the Highway Agency. Within a 500 m corridor of the scheme, approximately 16 sites were identified in the SMR and the records of the St. Albans Museum. In addition, a walk over survey, undertaken as part of the EIA, identified through surface collection and test pits a further 31 sites, indicated by the presence of archaeological finds (mostly medieval and later building materials, prehistoric chipped stone and pottery). Twenty-three of these latter sites are considered to have represented very limited activity. Finally four trenches were excavated at Junction 9 in advance of the construction of a works compound by the developer. A programme of geophysical survey was also undertaken.

- 1.3.3 Only a summary of the archaeological potential is presented below. The reference numbers correspond to Atkins unique numbering system for the scheme as set out in their Archaeological Design (Atkins 2005).
- 1.3.4 Evidence of a Neolithic presence is provided by the discovery of a polished Neolithic axe near Redbourn (A35). Other undated finds suggest a dispersed occupation during the period.
- 1.3.5 The Iron Age earthwork of the Aubreys (A34) lies adjacent to, and has been clipped by, the M1 on its eastern boundary. The Aubreys is a Scheduled Ancient Monument (SAM) formed by a ditch and bank enclosure that has not been conclusively dated. It is commonly referred to as an Iron Age hillfort, though topographically it is positioned in the decline of the River Ver valley. Flint finds from the ditches have been dated to 4000BC, and the site seems to have been abandoned by the Roman era attesting to the multi-period occupation of the site. The results of trial trenching related to the scheme have led to the suggestion that the defences date from approximately 300BC. A minor and inconclusive excavation occurred in the 1930s. Trial trenching and a geophysical survey have taken place in advance of the scheme and have established the continuance of the outer defences of the Aubreys onto site K.
- 1.3.6 The Aubreys covers a total area of 17.5 acres and is enclosed by a double ditch and bank apart from the north-west side where only a single ditch and bank appears to have been constructed. The main entrance opens to the west, at one end of the single defences, and a smaller entrance opens to the north-west, at the other end. The setting of the Aubreys is already compromised by a 1930s hotel, albeit incorporating a Grade II Listed 15th century farmhouse built within the defences. At its closest point, the M1 motorway earthworks are within 20 m of the eastern side of the Aubreys. The scheme will bring the motorway earthworks even closer to the monument.
- 1.3.7 No evidence of Roman or later remains has been found at the site of the Aubreys, but there is some potential in the vicinity as summarised below.
- 1.3.8 The course of the Roman road of Watling Street follows the existing road of the A5183.

- 1.3.9 A Roman settlement has long been thought to exist in the vicinity of Junction 8 and finds of Roman building materials provide evidence of some kind of Roman activity. Other archaeological evidence at the same site suggests a continuity of settlement and reuse of materials.
- 1.3.10 Redbourn was a settlement of medieval origin. The Grade I Listed Church of St Mary in Redbourn retains fabric from its origin around AD 1100. The village of Redbourn has expanded in the post-medieval period and in recent history, this growth characterised by recent housing estates.

2 PROJECT AIMS AND METHODOLOGY

2.1 Aims

The general aims and objectives of the watching brief investigation were:

- To identify and record the presence/absence, extent, condition, quality and date of archaeological remains in the areas affected by the development.
- To determine the extent, condition, nature, character, quality and date of any archaeological remains present.
- To make available the results of the investigation.

Specific aims and objectives were:

- To establish the presence/absence, extent of the archaeological remains associated with the site of the Aubreys across the road.

2.2 Methodology

- 2.2.1 The watching brief supervised the excavation of a single 600 mm wide machine trench slot on the western side of the M1 immediately north of the Aubreys Schedule Ancient Monument (Fig. 1). The trench was excavated by a tracked excavator fitted with a 600 mm toothless bucket along the length of the 3.2 km route, down to either the first archaeological horizon or the natural, whichever was encountered first.
- 2.2.2 Before the trench slot was excavated, a wider easement area (Fig. 2) was stripped of topsoil to allow for better reinstatement of the farmland after the works. Where the works occurred at higher elevations, (i.e. at the top of hills) the topsoil directly overlies the natural clays. When this was the case the natural was cleaned by machine under archaeological supervision and any features encountered in plan were dealt with as explained below. These areas devoid of subsoil are designated as 'geological areas' on the figures (Figs 3-6). When subsoil was present in the easement area, it was left *in situ*, which obscured any potential archaeology. Areas where the subsoil remained are designated as 'subsoil areas'.

2.2.3 Excavation of archaeological features was undertaken to fulfil the basic objective of retrieval of archaeological data affected by the works. Archaeological remains were sampled through hand excavation and recorded by qualified archaeologists.

2.3 Feature/Deposit Recording

2.3.1 Recording was undertaken in accordance with established OA practices as detailed in the OA Fieldwork Manual (OA 1992).

2.3.2 All information identified in the course of the site works was recorded stratigraphically, using the OA *pro-forma* recording system.

2.3.3 Site plans were drawn at an appropriate scale with larger scale plans of features as necessary. Section drawings of features and sample sections of trenches were drawn at a scale of 1:20. All site drawings contain the following information: site name, site number and code, scale, plan or section number, orientation, date and compiler.

2.3.4 A full photographic record was maintained using both colour transparencies and black and white negatives (on 35 mm film).

2.4 Environmental Methodology

2.4.1 Five samples were taken as part of the watching brief. Sample volumes ranged from 10 to 40 litres. The samples were processed by flotation using a modified Siraf-type machine, the flot being collected onto a 250 micron mesh and the residue on a 500 micron mesh. The samples were air-dried and the flots scanned under a binocular microscope at Oxford Archaeology. Samples were taken to assess the preservation of charred plant remains and for the recovery of small bones and artefacts.

2.5 Artefacts

2.5.1 All artefacts were retained from excavated contexts, except from features or deposits undoubtedly of modern date. In these circumstances sufficient artefacts were retained only to elucidate the date and function of the feature or deposit.

3 RESULTS

3.1 Presentation of Results

3.1.1 A general description of the distribution of archaeological features is provided below, followed by a detailed description of the deposits. The detailed descriptions are organised according to the spatial distribution (chainages) as described in section 3.2. Chainage values and locations of Figures 3, 4, 5 and 6 are shown on Figure 2.

3.1.2 Finds and environmental assessments can be found in sections 3.3 and 3.4 below.

3.2 Description of Deposits

Distribution of the Archaeology

- 3.2.1 The archaeology encountered during the watching brief was sparse and thinly distributed over a wide area. To facilitate the presentation of the archaeology, the features are located using chainage values. The chainage values used below correspond to those used on the M1 motorway.
- 3.2.2 The most significant feature encountered was a Romano-British boundary ditch, which, along with a small pit, was located at chainage 9+500 m (Fig. 3). North of this, at chainage 10+150 m, there was a hedge line which may have marked an older field boundary. The area located between chainage 10+600 m and 10+900 m (Figs 4, 5) contained a moderate concentration of archaeology which consisted of five ditches, one large quarry pit and a tree bole. Further north, at chainage 11+150 m, a large quarry pit and a small post were found (Fig. 6).

Detailed Description

Romano-British ditch (Fig. 3)

- 3.2.3 This large boundary ditch was roughly oriented NW-SE and it extended a minimum of 15 m across the easement area. This ditch was V-shaped and steep sided in profile, measuring an average of 2.90 m wide and 1.26 m in depth. Three interventions were excavated into this feature and in each one a different number was assigned to the ditch cut. Group numbers refer to a known phase of archaeological activity (sections 101, 105 and 109). A number of re-cuts were recorded through the original ditch.
- 3.2.4 Group 138 (consists of cuts 103, 135 and 157) was the original cut for the ditch and was visible in all three sections. This ditch measured 2.40 m wide and 1.20 m deep. The presence of a bank on the northern edge of this ditch is implied by the large layer of re-deposited clay, as seen in section 101 (106 and 108) and section 109 (164). The ditch cut was filled by layers of silty clay (contexts 104-108, 133, 134, 142, 158-169). These layers differed from one intervention to another, indicating that their deposition was the result of natural slumping and silting rather than a purposeful back-filling episode. As the ditch filled up, several localised re-cuts were dug. No re-cut was recorded in section 109 to the north-west of the ditch, however it is possible that some may have been present but not obviously visible. All of the fills of this phase contained early Romano-British pottery, with a likely date for the group in the 1st century AD (see 3.3 below, also Appendices 3 and 4).
- 3.2.5 The earliest of these re-cuts was group 139 (cut 125; section 105). It measured 0.18 m deep and was estimated at 1.40 m wide with a shallow profile. It terminated just to the south-east of the middle intervention (section 105). The other end disappeared before the next intervention to the north-west (section 109) where it may have terminated. The fills from this group also contained Romano-British pottery which, while not diagnostic, was consistent with a 1st century date for the group (see 3.3 below, and Appendices 3 and 4).

- 3.2.6 Group 139 was truncated by Group 140 (cuts 132 and 143), which was visible in sections 105 and 101 and which followed the alignment of Group 139 to the north-west, but continued further southwards in section 101. This re-cut was an estimated 1.85 m wide, 0.28 m deep and had a shallow bowl-shaped profile. The fills of this group contained Romano-British pottery with a date range from the 1st to the 4th centuries AD (see 3.3 below, and Appendices 3 and 4). Both of these seem to have been dug to maintain the edge of the ditch.
- 3.2.7 The latest re-cut was group 141 (cuts 122 and 146), visible in sections 101 and 105 and which was located more to the centre of the original ditch cut (Group 138). This re-cut was 2.07 m wide, an average 0.52 m deep and had moderate sides and a flat, slightly irregular base. The finds encountered in this group were of a later date, indicating a 3rd to 4th century date for the group (see 3.3 below, and Appendices 3 and 4).
- 3.2.8 A small, circular pit (120) was cut into the top of fill 133. It measured 0.20 m in diameter and 0.04 m in depth. It was filled by a dark silty clay (121), which contained no finds but was rich in charcoal. Its shape suggests a posthole, however, it was heavily truncated by cut 122 and there was no other evidence of posts anywhere else in groups 138-141. This feature was found in plan and its relationships were observed in plan.
- 3.2.9 Approximately 20 m to the north of the large boundary ditch was a small pit (136), which measured 0.70 m in diameter and 0.12 m deep. It was filled by a dark brown clay/silt (137), which contained early Romano-British pottery (Appendix 3). This was the only feature located in the area other than the large ditch, however, pit 136 was found in a very narrow pipeline trench through the subsoil and other associated features may be located outside the impact area of the watching brief.

The Area located between chainage 10+600 m and 10+900 m

- 3.2.10 This was the only area which contained a moderate concentration of archaeology, which consisted of five ditches, two large quarry pits and a tree bole. The ditches encountered may indicate the presence of a field system; nonetheless the limits of the excavation prevent more meaningful interpretation. Most of the features in this area were prehistoric with the exception of Group 186, which was post-medieval.
- 3.2.11 Group 195 (cuts 191 and 193) was the southern most feature in this area (Fig. 4). This feature was a small, bowl-shaped ditch, aligned roughly north-south and which extended 25 m, from one edge of the excavation to the other. Group 195 averaged 0.64 m in width and 0.10 m deep. Two interventions were dug into Group 195. Cut 191 was filled by a red brown silty clay (192) which contained no pottery, but contained one fragment of flint. Cut 193 was filled by a red brown silty clay (194), which yielded pottery dated to the late Bronze Age.

- 3.2.12 At approximately the centre of the area was a large natural depression, which was filled in by subsoil (101). A 2 m slot was excavated through the subsoil in the future position of the water pipeline, which exposed a tree hole and a small ditch (Fig. 5).
- 3.2.13 The tree bole (198) was highly irregular and filled by a dark brown silty clay (199), which contained residual pottery from the late Bronze Age to the early Iron Age (Figs 5). Only a small portion of the ditch (197) was exposed in the slot. Ditch 197 was bowl-shaped, measured 0.68 m wide by 0.22 m deep and was oriented roughly east-west. This cut was filled by a brown silty clay (196), which contained no finds (Figs 5, section 121).
- 3.2.14 Approximately 10 m to the north there was another depression masking a large quarry pit (Fig. 5). The pit was sealed by a layer of subsoil. The pit (184) measured a minimum of 6 m in diameter and 0.40 m deep in the recorded section. However, the section only sampled the impact of the pipeline and the full depth of the feature would have almost certainly been deeper (Fig. 5, section 111). This cut was filled by a brown silty clay (185), which contained flint and CBM (see 3.3.14 and table 1 below).
- 3.2.15 At the northern end of the area there were three ditches (Groups 186, 187 and 188). Groups 187 and 188 were parallel and orientated NW-SE. Group 186 was roughly orientated NE-SW (Fig. 5). The southernmost ditch, Group 186, seemed to comprise two cuts, 171/173 and 175. Ditch 175 was dug first, and at a later date the boundary was re-cut and extended eastwards with 171 and 173 (Fig. 5; sections 113 and 114). Original ditch 175 had a bowl-shaped cut and measured an estimated 0.75 m wide and 0.23 m deep. It was filled by a dark orange grey silty clay (174), which contained post-medieval pottery. Cut 171/173 was shallow and measured an average 0.73 m wide and 0.12 m deep. Both cuts were filled by a dark grey silty clay (172), which yielded no finds.
- 3.2.16 Group 187 was located approximately 6 m to the north of 186. This feature was a small, bowl-shaped ditch which was exposed for 10.5 m, from one edge of the excavation to the other (Fig. 5). Group 187 averaged 0.73 m in width and 0.24 m in depth. Two sections were dug into this ditch (177 and 179). Both were filled by a brown grey silty clay. Fill 176 contained early Iron Age pottery.
- 3.2.17 Group 188 was located approximately 4 m north of 187. This feature was a small, V-shaped, flat-bottomed ditch, aligned roughly east-west and which was exposed for 15 m, from one edge of the excavation to the other (Fig. 5). Group 188 averaged 0.50 m in width and 0.18 m in depth. Two sections were dug into this ditch (181 and 183). Both were filled by a brown grey silty clay. Fill 180 yielded heavily abraded prehistoric pottery and fill 182 contained late Iron Age pottery.
- 3.2.18 Groups 187 and 188 may have formed a track way or a substantial field boundary. Both were quite heavily truncated by ploughing, which combined with the limited area exposed in plan, makes it difficult to confirm an interpretation. Moreover, while the pottery from these features enabled an Iron Age date, the small size of the

assemblage and the wide date range provided does not allow a determination to be made as to whether they were contemporaneous features or successive boundaries.

Other Features

- 3.2.19 At chainage 10+150 m, there was an isolated hedge line (189), which may have marked an older field boundary. This hedge line was roughly aligned NE-SW, and extended 14 m from one edge of excavation to the other. Its shape was highly irregular and discontinuous; nonetheless it averaged 1 m wide and varied from 0.05 m to 0.30 m in depth. It was filled by a dark brown clay loam (190), which yielded no finds (Fig. 1).
- 3.2.20 The northernmost features were located at chainage 11+150, where a large quarry pit and a small post were found in a narrow trench. Pit 150 measured at least 8 m in diameter and a minimum of 1.25 m deep (excavated depth). This feature could not be fully excavated due to safety concerns over the depth of the excavation. Cut 150 was filled by two brownish grey silty clay layers (151 and 152), which overlaid a dark grey lens (156). The bottom visible layer (153) was a dark grey silty clay, which contained one sherd of early Iron Age pottery (Fig. 6 section 107).
- 3.2.21 Two metres south of 150, a small post was found in the trench for the water pipe. This small post (154) measured 0.10 m in diameter and was 0.10 m deep. It was filled by an orange brown silty clay (155), which contained no finds.

3.3 Finds

The Iron Age and Roman pottery

By Dan Stansbie

Introduction and Methodology

- 3.3.1 A total of 1224 sherds, weighing 11,655 g, were recovered during the watching brief. This material was rapidly scanned to determine context dates and to assess the character of the pottery. Where necessary the pottery was examined under a binocular microscope at x20 magnification to aid in identification of the fabric. A note was made of the most diagnostic pottery using OA's later prehistoric and Roman pottery recording system (Booth 2004). Reference was also made to the City of London corpus (Davies et al. 1994), Hawkes and Hull's report on the pottery from Camulodunum (for 'Belgic' forms)(Hawkes and Hull 1947) and Going's report on the pottery from Chelmsford (Going 1987). The quantification table can be found in Appendix 2.

Condition

- 3.3.2 With an average sherd weight of 10 g the condition of the assemblage is generally good and surfaces are well preserved. Residuality is difficult to assess without full recording. However, groups appear to have a high degree of chronological integrity.

Description

- 3.3.3 Pottery from the watching brief largely comprises material of late Iron Age and Roman date. However, there is a small amount of earlier prehistoric material. Four sherds of late Bronze Age moderate/coarse flint and sand-tempered fabric (AF4) were recovered from ditch 193, a sherd of fine/moderate sandy and micaceous fabric (AM2) of early Iron Age date was recovered from ditch 176, five sherds of early Iron Age material including moderate flint and sand-tempered fabric (FA3) and fine moderate sandy and micaceous fabric (AM2) were recovered from quarry pit 150 and five sherds of fine/moderate sandy and shelly fabric (AS2) were recovered from ditch 181. All these sherds were isolated and are heavily abraded, however, they do attest to prehistoric activity in the area.
- 3.3.4 The bulk of the late Iron Age and Roman material came from a large V-shaped defensive ditch (groups 138, 140 and 141). The material from late Iron Age groups largely comprises grog-tempered wares (E80) in the 'Belgic' tradition, with high-shouldered necked jars dominating in this fabric, alongside several large storage jars, four oval-bodied jars with bead rims (CAM 256), several necked jars with rilling on the shoulder and a lid-seated jar. Also present are several bead rim dishes, a platter and a dish (Going B10). Alongside the grog tempered material there is a necked jar in sandy ware (E20) and a necked jar and two lid-seated jars in shelly ware (C10). Of particular interest among the late Iron Age material is an imported Gallo-Belgic bell-shaped cup (CAM 56) in terra nigra (F11), with a potters stamp inside on the base. Several body sherds from butt-beakers in grog-tempered ware are also present, but no rim sherds survive from these vessels.
- 3.3.5 The early Roman groups are dominated by Verulamium region white wares (W21), along side a fair amount of grog-tempered ware (E80), sandy grey ware (R20) and medium grey ware (R30). Also present though in small amounts are Highgate Wood B grog-tempered ware (E80), Highgate Wood C white-slipped fine grey ware (R10), black-surfaced ware (R50), Fine grey ware (R10), sandy oxidised ware (O20) and one sherd of Nene Valley colour-coated ware (F52) from a late second century AD group (fill of cut 122). Rim sherds are most common in the sandy grey wares, which are dominated by necked jars, with a storage jar, a reeded rim bowl and a dish with an incipient flange also present. Vessels present in grog-tempered ware are much the same as those seen in the late Iron Age groups comprising high-shouldered necked jars. Five necked jars are present in Highgate Wood C ware. Despite its apparent ubiquity within the assemblage Verulamium region white ware only contributes three vessels: a necked jar, a bowl and a wide necked flagon. Also present are three necked jars in medium grey ware, a necked jar in fine grey ware, a necked jar in Highgate Wood B grog-tempered ware and an oval bodied jar with a bead rim in black-surfaced ware.
- 3.3.6 Late Roman pottery was concentrated in two contexts (112 and 113), the fills of cut 122. These groups are dominated like the early Roman groups by sandy grey wares (R20) and medium grey wares (R30). However, late Roman shelly ware (C11),

Hadham Oxidised wares (O57), buff wares (O20) and black-burnished ware type 2 (B20) are also present, along with some residual Verulamium region white ware (W21), central Gaulish samian ware and some unsourced colour coated ware (F50) with a fabric very similar to the Verulamium region white ware. Only three vessels were present within the late Roman assemblage. There is a necked oval bodied jar with rilling on the shoulder (Going G27), a bifid rim jar in sandy grey ware and a flanged dish in BB2.

Conclusions

- 3.3.7 The pottery assemblage is clearly significant and offers excellent potential for further study. It is a relatively large assemblage with a restricted date range. A number of good groups with well preserved datable, diagnostic, material are evident. Such material should provide well-dated sequences, which can inform about pottery supply to the site. The pottery can also help to chart site chronology. The presence of a Gallo-Belgic terra nigra bell-shaped cup in the late Iron Age, along with fragments of butt-beaker suggests high status alcohol consumption and therefore that the defensive ditch may have been part of a site of some status, with wide ranging contacts. The early Roman pottery including Verulamium region white ware and Highgate Wood C wares demonstrates regional contacts in the early Roman period and is suggestive of fairly high status occupation. The unsourced colour-coated ware is paralleled by material from Lower Brockley Hill (Biddulph forthcoming) and is worthy of further study, as it may be related to the Verulamium region industry. The later Roman material similarly demonstrates wide ranging regional contacts, with Hadham oxidised ware and black-burnished ware potentially being brought in from some distance away, although the status of the inhabitants had perhaps declined somewhat relative to their predecessors by this stage. It should however, be remembered that these conclusions are based upon a small sample and further work has the potential to alter this picture significantly.

The Flint

By Rebecca Devaney

- 3.3.8 A total of 10 pieces of worked flint were recovered from eight contexts during the watching brief. A further seven fragments (31 g) of burnt unworked flint were also retrieved from three contexts (see Table 1).

Table 1: Summary of worked and burnt flint by context

Context	101	109	123	124	128	133	153	155	192	Total
Flake	1	1		1	2	1	1	2	1	10
Burnt unworked count			2	4			1			7
Burnt unworked weight (g)			28	3			0			31

- 3.3.9 The flakes are all quite small in size. Ventral ripples and bulbar scars are common, however, the lack of clear striking platforms and dorsal scars suggests that many of the flakes might be naturally, as opposed to intentionally, struck.

3.3.10 The dubious nature of the struck flint and the small assemblage size prevents any comment about the date or representative potential of the material.

3.3.11 No further work is required.

Animal Bone

By Kristopher Poole

3.3.12 A total of 54 animal bone fragments, refitted into 36 fragments (133g), were recovered. Only 8 of these could be identified to species (Table 2). A cattle astragalus, 4 mandibular teeth and 3 maxillary teeth were identified. The rest of the material consisted of unidentifiable fragments, and long bone fragments from large- and medium-sized mammals.

Table 2: Number of identified animal bone specimens

Context	Cattle	Large	Medium	Unidentifiable	Total
104	-	3	1	6	10
109	1	-	-	-	1
112	-	2	-	1	3
113	-	3	-	-	3
123	1	-	-	6	7
133	-	-	-	3	3
155	3	-	-	-	3
161	2	-	-	-	2
168	1	-	-	-	1
U/S	-	2	-	-	2
Total	8	10	1	16	35

Fired Clay

By Cynthia Poole

3.3.13 A total of 31 fragments of fired clay weighing 667 g was recovered from the fills of three ditches (122, 135 and 157) and a posthole (154). Other fragments were unstratified. The quantification table can be found in Appendix 3.

Fabrics

3.3.14 Two fabrics were identified.

3.3.15 Fabric A: This was a silty-fine sandy clay containing fairly low densities of chalk and flint from coarse sand size to grits of 12 mm. It fired to a variety of shades of brown, reddish/yellowish brown and grey. This material was probably obtained from the clay deposits, which are likely to occur as part of the local drift geology.

3.3.16 Fabric B: This was a fine silty laminated clay, which fired to a pinkish brown colour. It contained no coarse inclusions.

Forms and Function

- 3.3.17 All the fired material is likely to derive from or be associated with ovens or similar structures. Whilst three of the samples retained no shaped surfaces, two samples had fragments with remnants of surface and wattle impressions, which are likely to be parts of oven walls or possibly drying floors.
- 3.3.18 The most diagnostic pieces were two fragmentary examples of triangular oven bricks both with evidence of at least one perforation piercing a corner. The larger fragment (from context 161) has a shallow groove c. 25 mm wide over the outer surface of the corner running from side to side. This is not a common feature but examples are known from Thistleton, Cambridgeshire (Poole unpublished) and from Danebury (Poole 1991) and Nettlebank Copse, Hampshire (Poole 2000).
- 3.3.19 Two of the fragments in fabric were carefully shaped with smooth surfaces and one piece had a recessed edge and either a perforation or wattle impression running through it. Its function is unclear, but it is likely to be part of an oven or oven furniture.

Conclusions

- 3.3.20 All the fired clay derives from structures fired to relatively low temperatures, such as domestic ovens, hearths or corn driers. There is no evidence of more intense firing that might occur as a result of industrial processes. The triangular oven bricks often interpreted as loomweights, but regarded as oven furniture by the author (see Poole 1995) are normally of Iron Age date. The other oven material could be either Iron Age or Roman, as no diagnostic features survive to suggest a more precise date. The oven bricks are indicative of Iron Age activity in the area.

Report on the Ceramic Building Material

By Cynthia Poole

- 3.3.21 A total of 35 fragments of ceramic building material weighing 3282 g was recovered. Much of this was effectively unstratified, whilst the remainder came from ditch, pit and posthole fills.
- 3.3.22 See Appendix 3 for table with data relating to the Ceramic Building Material.

Fabrics

- 3.3.23 Five fabrics were provisionally identified. No attempt has been made to tie these into any local fabric type series.
- 3.3.24 Fabric 1: clay mixed with low density of medium - coarse sand.
- 3.3.25 Fabric 2: fine matrix as 1, but with addition of coarser grits of rounded chalk up to 4 mm, quartz 2-5 mm and angular flint up to 12 mm.
- 3.3.26 Fabric 3: Very fine silty clay; no inclusions. Similar to fired clay fabric B.

- 3.3.27 Fabric 4: High density of medium sand and occasional rounded clay pellets up to 7 mm size in a laminated clay.
- 3.3.28 Fabric 5: Fine sandy clay.
- 3.3.29 Several fragments had a distinctive moulding sand of coarse white sand grains on the lower surfaces, whilst one example had a very coarse quartz sand mixed with small quartz grits.

Forms

- 3.3.30 Roman: The majority of fragments were undiagnostic brick or flat tile. No complete dimensions could be obtained other than thickness. The brick/flat tile fragments exhibited a range of 21 to 45 mm thick. Roofing material was represented by two fragments of tegula, both with the flange and one with a lower cutaway present. Some very slightly curved fragments of tile may have been imbrex, though tegulae may also have a slight curve to the surface.

Conclusions

- 3.3.31 The group is very small and merely indicates the presence of a Roman building somewhere in the vicinity utilising these materials in its construction.

Other Finds

By Ruth Shafrey

- 3.3.32 Three small fragments of lava (159), the largest of which retains part of a worked surface, probably from rotary querns of either Roman or Saxon date.

3.4 Palaeo-Environmental Assessment

By Rebecca Nicholson and Seren Griffiths

Charred Plant Remains

- 3.4.1 The samples all produced reasonable sized flots; sample 3 (context 124) was particularly rich in charcoal, much of which would be identifiable to species, and charcoal was frequent or common in all of the flots. Charred cereal grains were present in samples 1 (context 121), 2 (context 123), 3 (context 124) and 4 (context 104), although the specimen in sample 4 was fragmentary and clinkered.
- 3.4.2 Sample 1 (context 121) included a single grain of wild or domestic oats (*Avena* sp.) a single fragment of chaff and two identifiable weed seeds.
- 3.4.3 Sample 2 (context 123) contained three cereal grains, including wheat (*Triticum* sp.) and small numbers of weed seeds as well as several cereal chaff fragments.

3.4.4 Sample 3 (context 124) included both charred and (rarely) mineralised seeds; grain and cereal chaff were present, including both *Triticum* (*wheat*) and *Hordeum* (*barley*) glume bases, and a range of identifiable weed seeds were also observed in the flot.

3.4.5 Small numbers of weed seeds and fragments of cereal chaff were also present in sample 4 (context 104). Mollusca were only present in sample 4 (context 104) and even then were not frequent.

Discussion and Recommendations

3.4.6 The samples were derived from ditch and post/pit fills, therefore the low concentrations of charred remains is unsurprising and the possibility of re-deposition should be borne in mind. However, sample 3 contained abundant charcoal and less frequently seeds and chaff; in this case the deposit seems likely to represent a single burning event, despite the context being a ditch fill and the deposit interpreted as redeposited. In general, the seeds and charcoal were well preserved and the presence of chaff indicates that crop processing activities were taking place locally.

3.4.7 Since the intervention was a watching brief, no further work is recommended on these samples at this stage. However future excavations in the vicinity should adopt an appropriate strategy for the recovery of charred plants from a wide range of contexts, in order to investigate local arable and crop processing practices.

3.4.8 The presence of molluscs in sample 4 indicates that any future excavations should adopt an appropriate sampling strategy to recover snails from fills and any buried surfaces.

Table 3: A summary of the charred plant remains

Sam-ple No	Con-text No	Flot vol. (ml)	Type of context	Char-coal	Grami-neae	Chaff	Weeds	Other charred	Moll-uscs	Vol. floated (litres)	Notes
1	121	100	Fill of post-hole	+++	+, one item of ? <i>Bromus</i> sp (brome grass)					10	
5	153	30	Basal fill of ditch ?LBA/EIA	++						40	
2	123	150	Fill of ditch ?RBA	+++	+	++				30	
4	104	150	Fill of ditch ?RBA	+++	?+	+	+		+	40	
3	124	250	Charcoal layer within ditch fill	++++	++	++	+	+		20	Consid. Identifiable charcoal. Glume bases. Rarely, mineralised seeds.

Key: +=present (up to 5 items), ++=frequent (5-25), +++=common (25-100), ++++= high (100+)

4 DISCUSSION AND CONCLUSIONS

- 4.1.1 The watching brief revealed a sparse amount of archaeological activity along this corridor. This consisted of a substantial boundary ditch and a small pit of Romano-British date near Flandsteadbury Lane, as well as five small ditches, a hedgeline, a large quarry pit and a tree throw near Lybury Lane and a large quarry pit and a small pit near Redding Lane.
- 4.1.2 Evidence of archaeological activity associated with the Aubreys was not encountered during the watching brief. However, the area of the investigation around the Aubreys was limited to a 0.60 m wide slot along the course of the water pipeline, which is not a sufficient sample to firmly establish the presence or absence and extent of the archaeological remains associated with the site of the Aubreys across the road.
- 4.1.3 While the extent of the archaeology found during the watching brief was quite limited given the size of the area sampled, there is potential for activity nearby. This is particularly true in the case of the large Romano-British boundary ditch, which may be affected by the expansion of the M1 motorway. The presence of a mound or bank on the northern edge of this ditch is suggested by the large layer of re-deposited clay (as seen in section 109), which would suggest that the ditch was part of a defensive boundary.
- 4.1.4 This significant feature confirms the presence of Romano-British activity within the M1 Widening area. Once again the limited nature of the investigation makes it difficult to quantify the archaeological potential. Nonetheless the presence of this large ditch makes it much more likely that further associated activity may be present in the surrounding area. The pottery assemblage is clearly significant and offers excellent potential for further study. The ceramic analysis indicates that some high status activity can be inferred from the assemblage collected (see 3.3.7 above) and therefore that the defensive ditch may have been part of a site of some status.
- 4.1.5 The area located between chainage 10+600 m and 10+900 m (Figs 4 and 5) contained a moderate concentration of archaeology, which consisted of five ditches and one large quarry pit. Further north, at chainage 11+150 m, a large quarry pit and a small posthole were found (Fig. 6). Ditches Group 187 and 188 highlighted potential for Iron Age archaeology, suggesting prehistoric activity in the vicinity. The low density and poor pottery assemblage recovered suggest, however, that this potential is limited.

APPENDICES

APPENDIX 1 ARCHAEOLOGICAL CONTEXT INVENTORY

<i>Context</i>	<i>Type</i>	<i>Depth/ Height</i>	<i>Width</i>	<i>Comments</i>	<i>Finds</i>	<i>Date</i>
100	Layer	0.30 m	-	Topsoil	-	Modern
101	Layer	Various	-	Subsoil	Flint flake	?
102	Layer	-	-	Natural clay	-	-
103	Cut	1.20 m	2.40 m	Ditch cut	-	RB
104	Fill	0.50m	-	Fill of 103	Bone, pottery	ERB
105	Fill	0.34 m	-	Fill of 103	-	-
106	Fill	0.45 m	-	Fill of 103	-	-
107	Fill	0.19 m	-	Fill of 103	Pottery	ERB
108	Fill	0.52 m	-	Fill of 103	-	-
109	-	-	-	VOID	-	-
110	-	-	-	VOID	-	-
111	-	-	-	VOID	-	-
112	Fill	0.10 m	-	Fill of 122	Pottery, bone	Mid-late RB
113	Fill	0.29 m	-	Fill of 122	Pottery, bone	Mid-late RB
114	-	-	-	VOID	-	-
115	-	-	-	VOID	-	-
116	-	-	-	VOID	-	-
117	-	-	-	VOID	-	-
118	-	-	-	VOID	-	-
119	-	-	-	VOID	-	-
120	Cut	0.04 m	0.20 m	Shallow post cut	-	-
121	Fill	0.04 m	-	Fill of 120	-	-
122	Cut	0.44 m	2.18 m	Ditch re-cut	-	-
123	Fill	0.32 m	-	Fill of 122	Pottery, bone, flint, CBM	RB?
124	Fill	0.05 m	-	Fill of 132	Flint, pottery	ERB
125	Cut	0.18 m	1.38 m	Ditch re-cut	-	-
126	Fill	0.16 m	-	Fill of 125	-	-

<i>Context</i>	<i>Type</i>	<i>Depth/ Height</i>	<i>Width</i>	<i>Comments</i>	<i> Finds</i>	<i>Date</i>
127	Fill	0.04 m	-	Fill of 125	-	-
128	Fill	0.22 m	-	Fill of 122	Pottery, CBM, flint	ERB
129	Fill	0.32 m	-	Fill of 132	Pottery	Mid-late RB
130	Fill	0.15 m	-	Fill of 132	-	-
131	Fill	0.18 m	-	Fill of 125	Pottery	RB
132	Cut	0.54 m	1.70 m	Ditch cut	-	-
133	Fill	0.40 m	-	Fill of 135	Pottery, metal, flint, bone, CBM	LIA-ERB
134	Fill	0.24 m	-	Fill of 135	Pottery	Late IA- Early RB
135	Cut	1.24 m	2.50 m	Ditch cut	-	-
136	Cut	0.12 m	0.70 m	Pit cut	-	-
137	Fill	0.12 m	-	Fill of 136	Pottery	LIA-ERB
138	Group	-	-	Consists of 135, 103 and 157	-	RB
139	Group	-	-	Consists of 125	-	RB
140	Group	-	-	Consists of 132 and 143	-	RB
141	Group	-	-	Consists of 122 and 146	-	RB
142	Fill	0.40 m	-	Fill of 103	Pottery	LIA-ERB
143	Cut	0.21 m	1.00 m	Ditch cut	-	-
144	Fill	0.13 m	-	Fill of 143	-	-
145	Fill	0.09 m	-	Fill of 143	-	-
146	Cut	0.39 m	1.97 m	Ditch re-cut	-	-
147	Fill	0.09 m	-	Fill of 146	-	-
148	Fill	0.12 m	-	Fill of 146	-	-
149	Fill	0.20 m	1.97 m	Fill of 146	-	-
150	Cut	1.60 m (minimum)	8.00 m	Possible quarry pit	-	-
151	Fill	0.60 m	-	Fill of 150	-	-
152	Fill	0.25 m	-	Fill of 150	-	-
153	Fill	0.38 m	-	Fill of 150	Pottery, flint	LIA-ERB

<i>Context</i>	<i>Type</i>	<i>Depth/ Height</i>	<i>Width</i>	<i>Comments</i>	<i> Finds</i>	<i>Date</i>
154	Cut	0.10 m	0.12 m	Post hole cut	-	-
155	Fill	0.10 m	-	Fill of 154	Flint, bone, CBM, pottery	LIA-ERB
156	Fill	0.05 m	-	Fill of 150	-	-
157	Cut	1.29 m	2.48 m	Ditch cut	-	
158	Fill	0.17 m	-	Fill of 157	Pottery	LIA-ERB
159	Fill	0.05 m	-	Fill of 157	bone, CBM	RB
160	Fill	0.05 m	-	Fill of 157	-	-
161	Fill	0.26 m	-	Fill of 157	Pottery, bone, CBM	LIA-ERB
162	Fill	0.15 m	-	Fill of 157	Pottery	LIA-ERB
163	Fill	0.08 m	-	Fill of 157	Pottery	LIA-ERB
164	Fill	0.20 m	-	Fill of 157	Pottery	LIA-ERB
165	Fill	0.22 m	-	Fill of 157	Pottery	LIA-ERB
166	Fill	0.13 m	-	Fill of 157	Pottery	LIA-ERB
167	Fill	0.07 m	-	Fill of 157	-	-
168	Fill	0.20 m	-	Fill of 157	Pottery, bone	LIA-ERB
169	Fill	0.14 m	-	Fill of 157	-	-
170	Fill	0.11 m	-	Fill of 171	-	-
171	Cut	0.11 m	0.66 m	Cut of gully	-	-
172	Fill	0.18 m	-	Fill of 173	-	-
173	Cut	0.18 m	0.88 m	Pit cut	-	-
174	Fill	0.16 m	-	Fill of 175	Pottery	Post-med
175	Cut	0.16 m	0.62 m	Pit cut	-	-
176	Fill	0.29 m	-	Fill of 177	Pottery	EIA
177	Cut	0.29 m	0.80 m	Pit cut	-	-
178	Fill	0.23 m	-	Fill of 179	-	-
179	Cut	0.23 m	0.62 m	Pit cut	-	-
180	Fill	0.23 m	-	Fill of 181	Pottery	Prehistoric
181	Cut	0.23 m	0.66 m	Cut of gully	-	-
182	Fill	0.14 m	-	Fill of 183	Pottery	LIA-ERB
183	Cut	0.14 m	0.42 m	Cut of gully	-	-

<i>Context</i>	<i>Type</i>	<i>Depth/ Height</i>	<i>Width</i>	<i>Comments</i>	<i>Finds</i>	<i>Date</i>
184	Cut	0.36 m	5.70 m	Cut for quarry pit	-	-
185	Fill	0.36 m	-	Fill of 184	-	-
186	Group	-	-	Consists of 171, 173 and 175	-	Post-med
187	Group	-	-	Consists of 177 and 179	-	EIA
188	Group	-	-	Consists of 181 and 183	-	Prehistoric
189	Cut	0.18 m	Irregular, 1.39 m to 0.39 m	Root disturbance by hedge line	-	-
190	Fill	0.18 m	-	Fill of 189	-	-
191	Cut	0.24 m	0.66 m	Cut of gully	-	-
192	Fill	0.24 m	-	Fill of 191	Pottery, flint	
193	Cut	0.12 m	0.72 m	Cut of gully	-	-
194	Fill	0.12 m	-	Fill of 193	Pottery	LBA
195	Group	-	-	Consists of 191 and 193	-	LBA
196	Fill	0.23 m	-	Fill of 197	-	-
197	Cut	0.23 m	0.70 m	Cut of gully	-	-
198	Cut	0.36 m	1.90 m	Tree throw	-	LBA/EIA
199	Fill	0.36 m	-	Fill of 198	-	LBA/EIA

APPENDIX 2 IRON AGE AND ROMAN POTTERY

Context	No sherds	Wt (g)	Fabric	Spot Date	Comments
104	37	50	E80 (grog-tempered ware), R20 (sandy grey ware) 1 necked jar?, W21 (Verulamium region white ware)	MC1-EC2	
107	35	522	E80 (Highgate Wood B), E80 (grog-tempered ware) 3 necked jars 1 like CAM 267, C10 (shelly ware), R20 (1 large necked jar), W21 (Verulamium Region white ware), R10 (Highgate Wood C) 1 necked jar	LC1	
109	38	253	E80 (grog-tempered ware) 1 necked jar high-shouldered jar with shoulder cordon, R20 (sandy grey ware) 1 necked jar	MC1	Three grog-tempered body sherds from a butt-beaker are decorated with zones of oblique incised lines separated by raised cordons
110	32	169	E80 (grog-tempered ware) 1 necked jar with shoulder cordon, C10 (shelly ware (1 necked jar)	EC1-MC1	
112	14	88	C11 (late Roman shelly ware) 1 necked jar oval bodied jar (Going G27), W21 (Verulamium region white ware), O57 (Hadham Oxidised ware), O20 (buff ware)	MC3-LC4	
113	35	275	E80 (grog-tempered ware), R20 (sandy grey ware) 1 bifid-rim? jar, W21 (Verulamium white ware), F50 (unsourced colour-coated ware), R30 (medium grey ware), O57 (Hadham oxidised ware), B20 (black-burnished ware BB2) 1 flanged-dish, S30 (central Gaulish samian ware)	MC3-LC4	The F50 may be a Verulamium region colour-coated ware. One jar base is present
123	327	2081	E80 (grog-tempered ware), E80 (Highgate Wood B) 1 necked jar, R20 (sandy grey ware) 1 squat jar, 1 large jar, 2 necked jars, 1 needled rim bowl, 1 dish with incipient flange rim (Going G18), R30 (medium greyware), R50 black-surfaced ware (1 oval bodied jar with bead rim, O20 (sandy oxidised ware) W21 (Verulamium region white ware) 1 necked jar, 1 bowl, 1 wide necked flagon, R10 (Highgate Wood C) 4 necked jars, F52 (Nene Valley colour-coated ware)	LC2	One Highgate wood C sherd with a zone of vertical incised lines between two horizontal lines.
124	1	2	R20 (sandy grey ware)	MC1-LC4	
128	36	346	E80 (grog-tempered ware) 1 bead rim jar (CAM 254), 2 necked jars,	LC1	Rilling is present on one body sherd of grog-tempered

Context	No sherds	Wt (g)	Fabric	Context	Spot Date	Comments
			R30 (medium grey ware) 1 necked jar, R10 (Highgate Wood C) 1 necked jar rim jar			ware. A body sherd of Highgate wood C is decorated with painted vertical lines between painted cordons (white slip).
129	1	17	E80 (grog-tempered ware)		EC1-LC4	
131	6	26	E80 (grog-tempered ware) 1 bead rim jar (CAM 256?), 1 platter, R20 (sandy grey ware)		MC1	
133	98	1443	E80 (grog-tempered ware) 1 bead rim jar (CAM 267), 1 bead rim jar, 1 necked jar		EC1-MC1	1 large fragment of oven base is present. 1 repair hole present in a large body sherd.
134	12	134	E80 (grog-tempered ware) 1 everted rim jar (CAM 256), 1 necked high-shouldered jar (CAM 220)		LC1 (BC) - MC1	
137	13	1115	E80 (grog-tempered ware), C10 (shelly ware) 1 lid-seated jar (Going G5)		LC1 (BO)-MC1	
142	42	448	E80 (grog-tempered ware) 1 storage jar, 1 necked jar with shoulder cordon (CAM 220), 1 necked jar		LC1 (BO)-MC1	
153	5	10	FA3 (moderate flint and sand fabric), AM2 (fine/moderate sandy and micaceous fabric)		EIA	
155	25	216	E80 (grog-tempered ware), E20 (sandy ware), W21 (Verulamium region white ware), R30 (medium grey wares) 1 necked jar		LC1-MC2	
158	2	13	R30 (medium grey ware) 1 necked jar?		MC1-EC2	
161	38	638	E80 (grog-tempered ware) 1 storage jar, 1 necked jar, E20 (sandy ware), F11 (terra nigra) 1 Gallo-Belgic bell-shaped cup (CAM 56)		EC1-MC1	Grog-tempered body sherd with rilling
162	121	1249	E80 (grog-tempered ware), 1 storage jar, 2 necked high-shouldered jars with shoulder cordons (CAM 220), R10 (fine grey ware) 1 necked jar		MC1-LC1	
163	51	906	E80 (grog-tempered ware) 2 everted rim jars (CAM 256), 2 necked high-shouldered jars (CAM 220), E20 (sandy fabric) 1 necked jar with shoulder cordon (Going G19), FA3 (moderate flint-tempered ware)		LC1 (BC)-MC1	
164	103	1774	E80 (grog-tempered ware), 1 large storage jar, 1 necked jar with rilling on the shoulder, 1 lid-seated jar; FA3 (moderate flint and sand tempered ware)		LC1(BC)-MC1	
165	71	226	E80 (grog-tempered ware), E20 (sandy ware), C10 (shelly ware) 1 lid-seated jar (Going G5)		LC1(BC)-MC1	1 sherd of grog-tempered ware with rilling on shoulder, 1 sherd with a shoulder cordon.

Context No	No sherds	Wt (g)	Fabric	Spot Date	Comments
166	48	439	E80 (grog-tempered ware) 1 necked high-shouldered jar (CAM 220), 1 dish (Going B10), C10 (shelly ware)	LC1 (BC)-MCI	
168	12	63	E80 (grog-tempered ware)	LC1 (BC)-MCI	
174	1	2	post-medieval	post-med	
176	1	8	AM2 (fine/moderate sandy and micaceous fabric)	EIA	Sherd from the shoulder of a bowl, with incised chevrons
180	6	5	AS2 (fine/moderate sandy and shelly fabric)	Prehistoric	
182	8	121	E80 (grog-tempered ware)	LC1 (BC)-MCI	1 body sherd with rilling
194	4	6	AF4 (moderate/coarse sand and flint fabric)	LBA	
199	1	10	FA4 (moderate/coarse flint and sand fabric)	LBA/EIA	

*prehist= prehistoric, LBA = late Bronze Age, IA= Iron Age, EIA = early Iron Age, MIA = middle Iron Age, LIA = late Iron Age, C1(BC)= first century BC, C1= first century AD, C2 = second century AD, C3 = third century AD, C4 = fourth century AD

E= early, M = middle, L = late

Thus EC1-MCI= early first century AD to middle first century AD

APPENDIX 3 FIRED CLAY AND CBM DATA

Context Nos	Wt (g)	Av size	Thickness	Fabric	Form	Condition	Description	Impressions	Fab colour	Fab description	Comments	Cntx type	Period	Date
110	1	5	5.00	A	Unid	F	Amorphous					?		
123	7	153	21.86	30-35 mm	A	Oven	Some areas of flat or undulating surface; nothing diagnostic.	Two possible wattle imps. c. 10-12 mm diam.	Red, reddish brown, grey; light yellowish brown.	Silty-fine sandy clay matrix with occasional grit: chalk (R) 1-3 mm and flint (A) 3-12 mm	Also 1 frag of ?Fe obj. or nat. Fe covered in concretion; 34g.	Fill of ditch 122 recut	RB?	
133	7	117	16.71	A	TOB	F	Rough irregular surface pierced at an angle by cylindrical perforation c. 13 mm diam. A single fragment with a smooth surface and rounded angle to a second surface at right angles could be part of the same object or a separate piece of oven furniture or oven cover/plate.					Fill of ditch 135	RB?	IA
133	1	10	10.00	B	Util	F	Possible remnant of surface				Very similar to unstrat fragment in this fabric.	Fill of ditch 135	RB?	
155	1	3	3.00	A	Unid	F?	Amorphous					Fill of PH 154	~	
159	2	22	11.00	A	Oven	F	No shaped surfaces.	One wattle imp. c. 10 mm diam.	Reddish brown	Silty-sandy clay with chalk & flint sand.		Fill of ditch 157	RB?	
159	1	34	34.00	>35 mm	B	Oven	Two flat smooth even surfaces at right angles, joined by rounded angle.	~	Light pinkish brown; cream streaks.	Fine silty laminated clay.		Fill of ditch 157	RB?	

Context	Nos	Wt (g)	Av size	Thickness	Fabric	Form	Condition	Description	Impressions	Fab colour	Fab description	Comments	Cntx type	Period	Date
161	8	250	31.25	60-65 mm	A	TOB	F	Corner and side of triangular oven brick. The corner is well rounded with a curved groove of semi-circular cross-section across it from side to side. The groove is c. 25 mm wide. The side surface is pieced by a circular/oval perforation 17 mm diam. A second fragment also retains part of a (second) perforation c. 12-13 mm diam. A number of unshaped frags probably come from the interior of the object.	Possible organic impressions on side surface.	Yellowish brown, red, reddish brown.	Sandy clay with flint grit to 10 mm.	Groove across corner: cf. Thistleton & DA/DA Environs.	Fill of ditch 157	RB?	IA
104 <4>	2	7	3.50		A	Unid	F	Amorphous					Fill of ditch 103	RB?	
U/S	1	66	66.00		B	Util	F	Curious shaped fragment possibly a corner of object/structure with a recessed surface pierced by a perforation c. 16 mm + diam.		Pinkish brown		Looks as though it ought to be part of TOB, but perhaps part of oven structure. Most probably relates to an oven or similar feature.	~	~	?IA

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APPENDIX 5 SUMMARY OF SITE DETAILS

Site name: M1 Three Valleys Water, Pipeline Redirect, Hertfordshire

Site code: M1TVW05

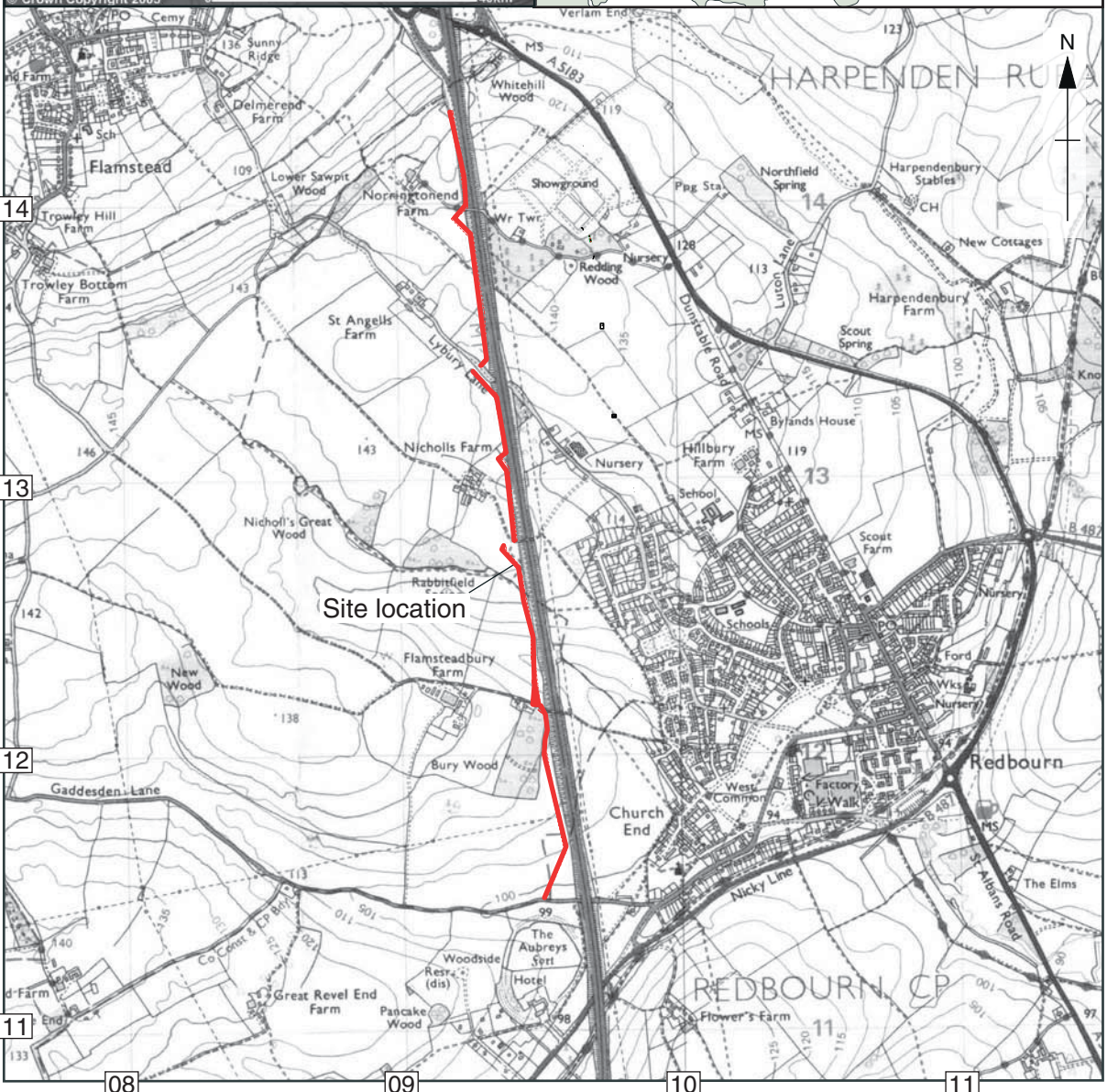
Grid reference: Between TL 096 115 and TL 093 128

Date and duration of project: 15/08/2005 to 09/09/2005

Summary of results: In August and September of 2005, Oxford Archaeology (OA) carried out an archaeological watching brief on the western side of the M1 motorway. The work was commissioned by Atkins Heritage to monitor the installation of a new pipeline to redirect the water services along the corridor of the works. The watching brief revealed a sparse amount of archaeological activity along this corridor. This consisted of a substantial boundary ditch and a small pit of Romano-British date near Flandsteadbury Lane, as well as five small ditches, a hedgeline and a large quarry pit near Lybury Lane and a large quarry pit and a small pit near Redding Lane. While the extent of the archaeology found during the watching brief was quite limited, there is the potential that it may indicate further activity nearby, particularly in the case of the large Romano British boundary ditch, which may be affected by the expansion of the M1 motorway.

Location of archive: The archive is currently held at OA, Janus House, Osney Mead, Oxford, OX2 0ES, and will be deposited with Dacorum Heritage Trust in due course.

servegeo*MITYVWB*MITVW05*M1 Three Valleys*jm*09.06.06



Scale 1:25,000

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Figure 1: Site location

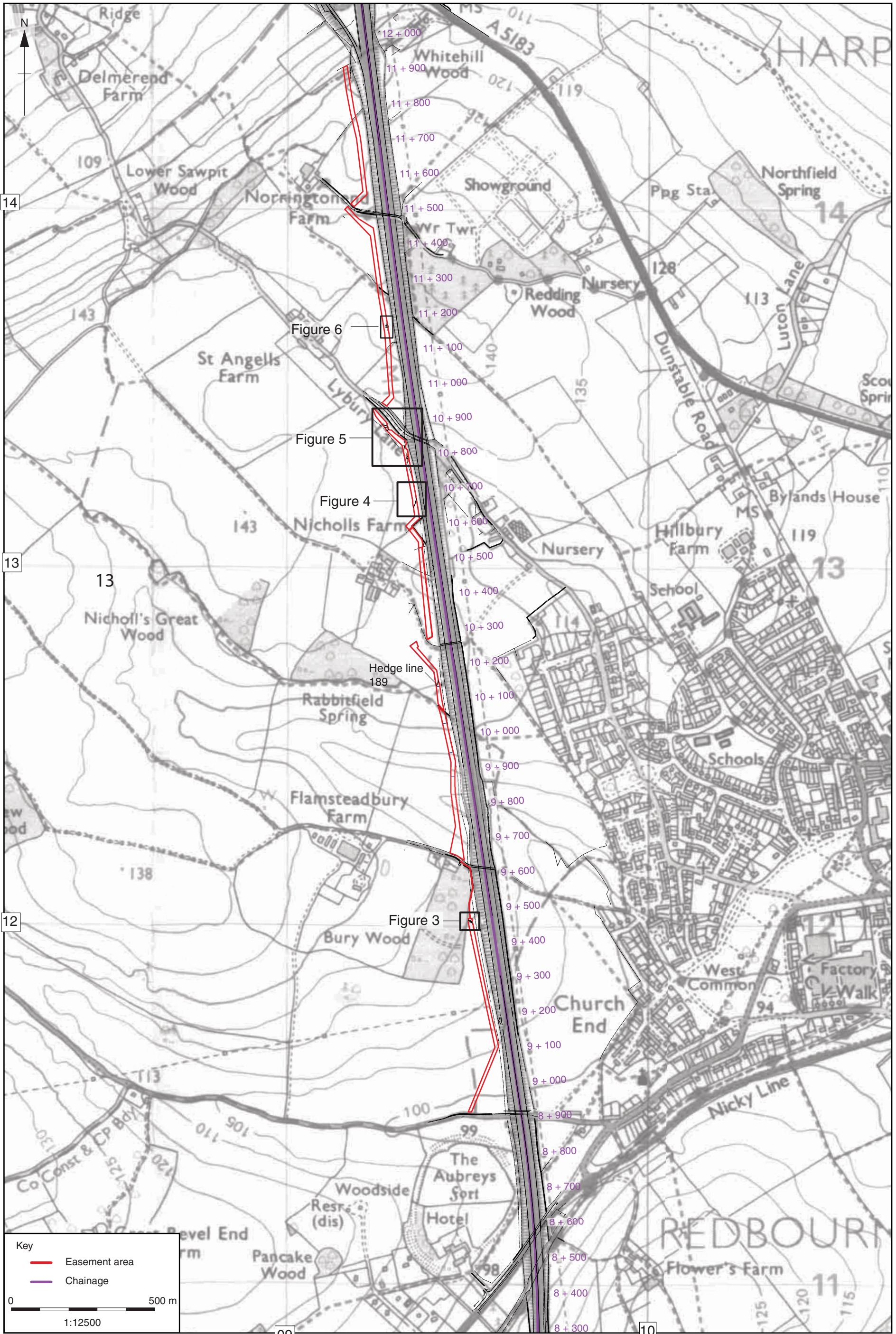


Figure 2: Plan showing chainage and location of figures

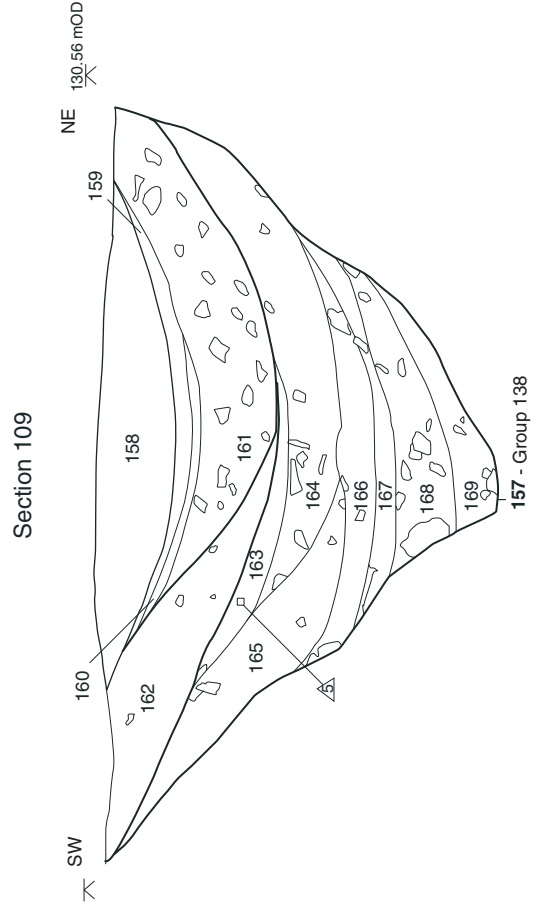
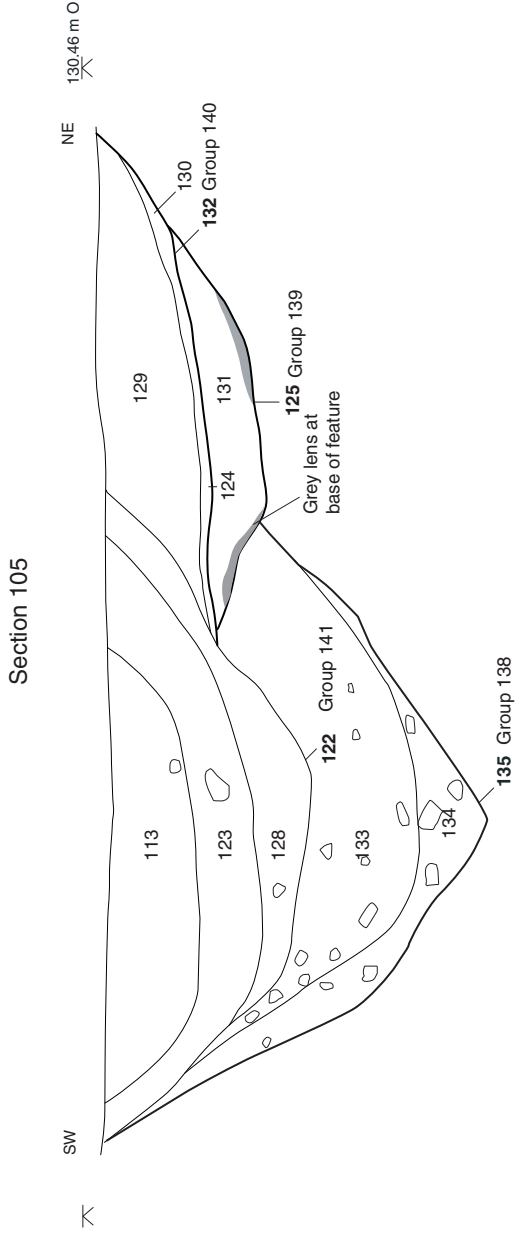
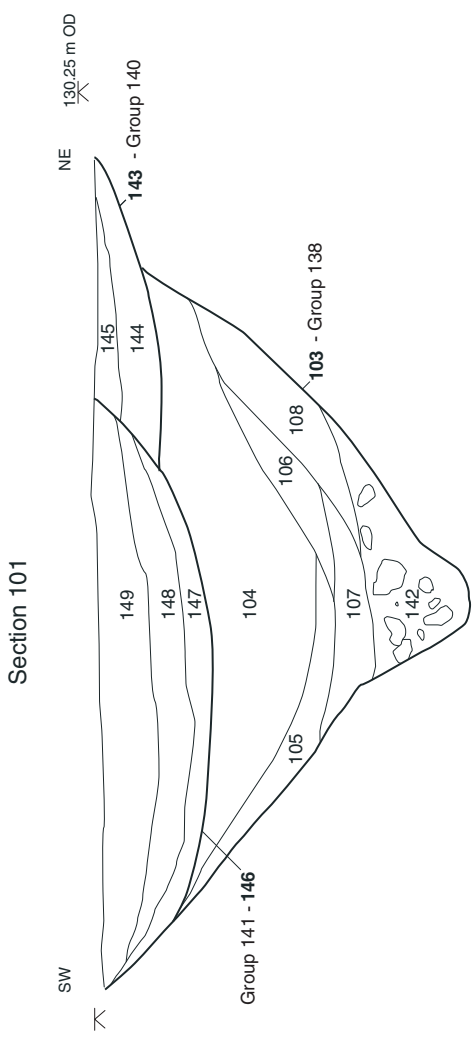
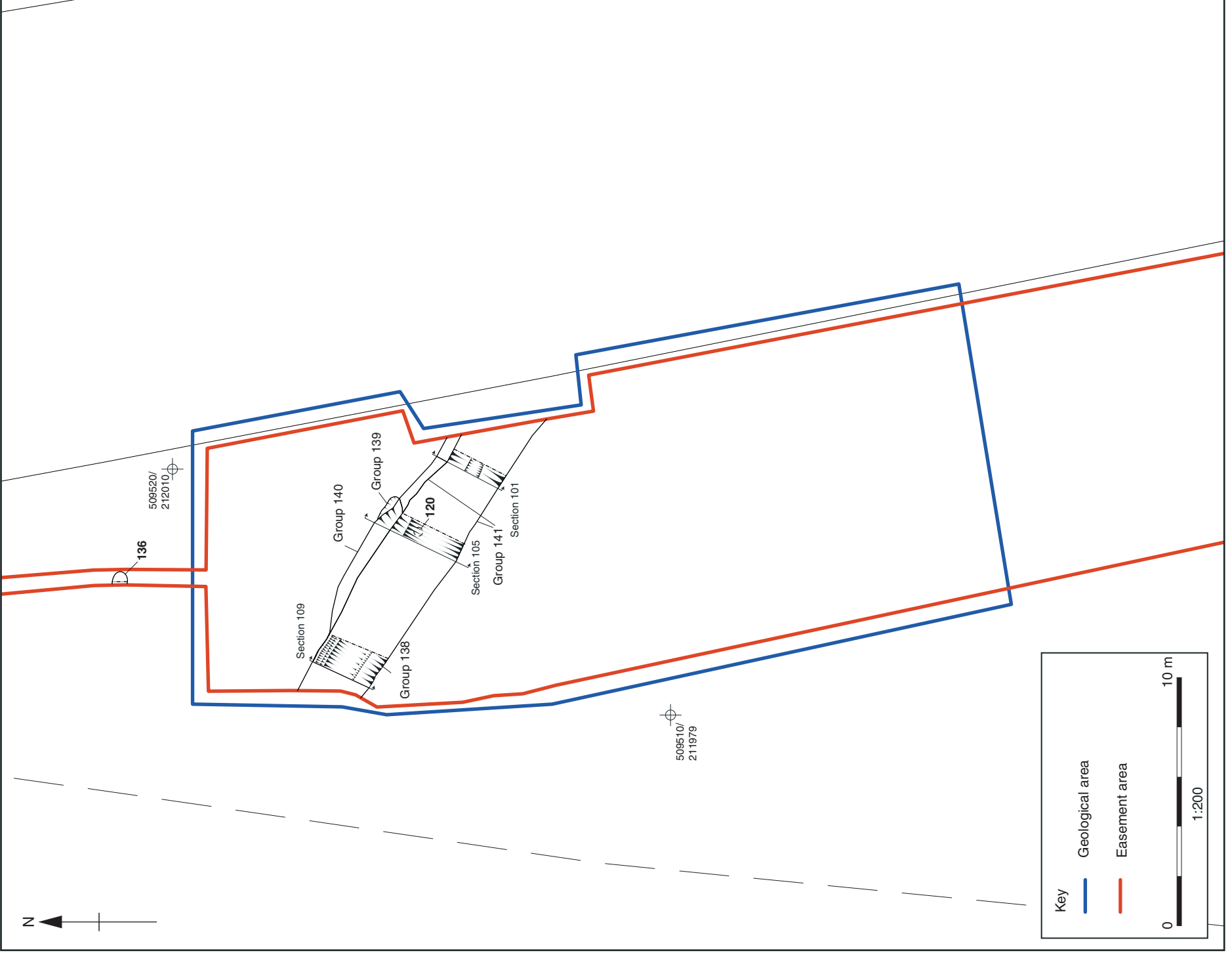


Figure 3: Chainage 9 +450 - 9+500

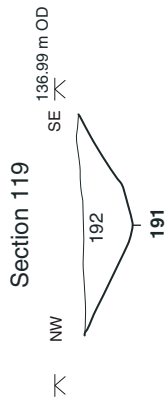
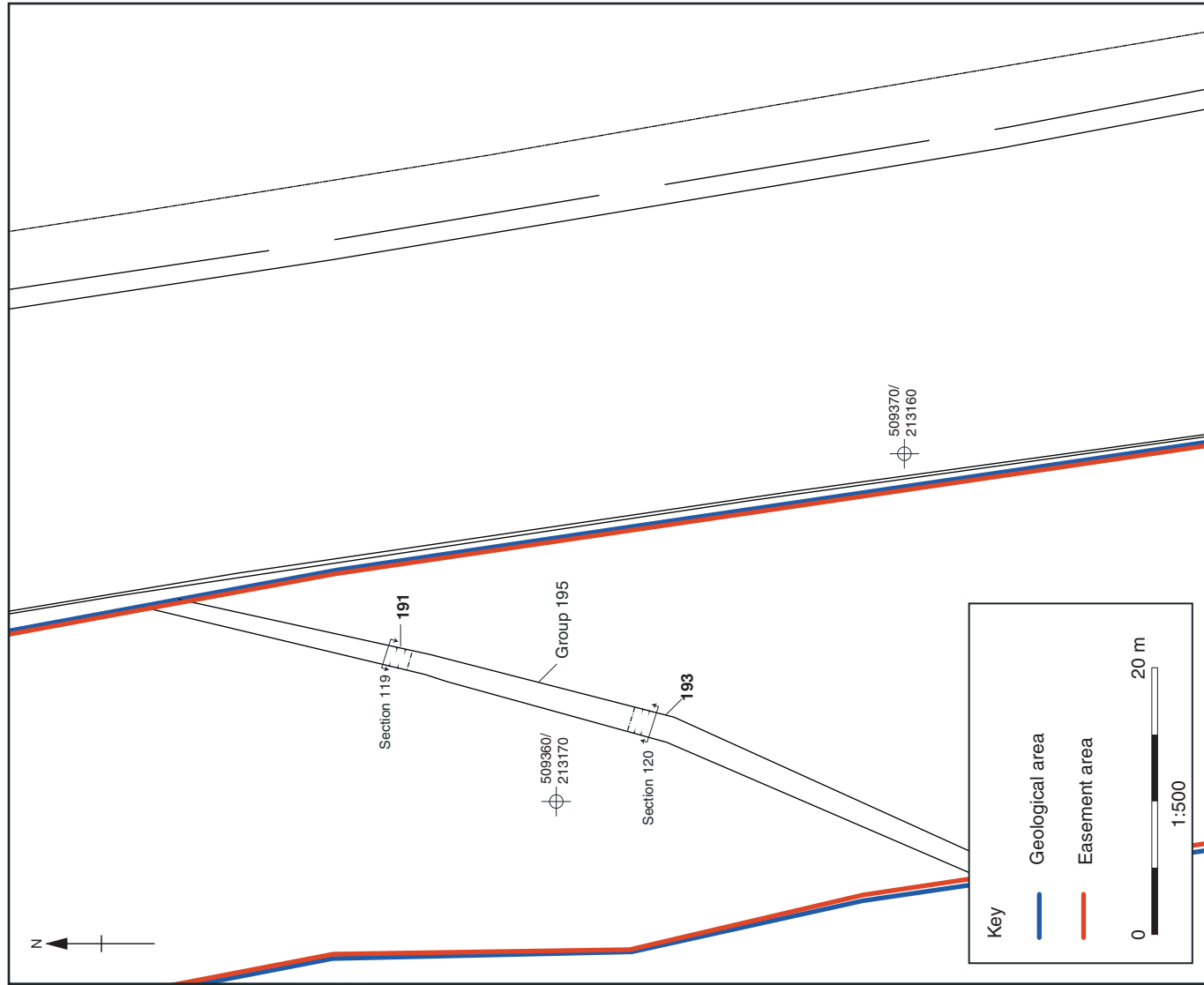
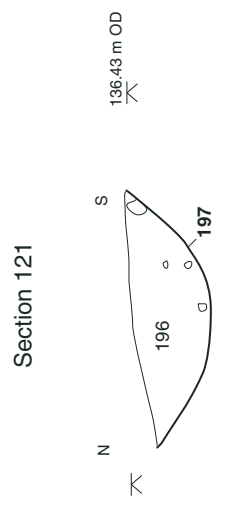
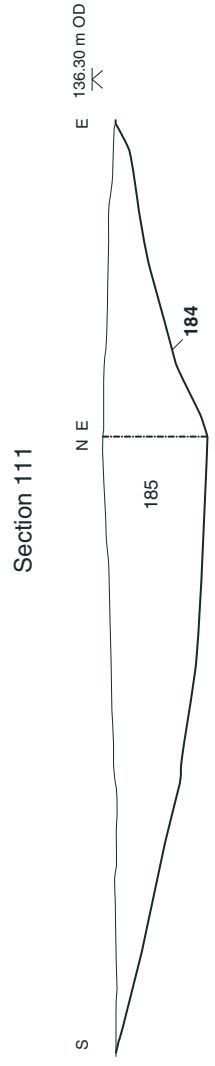
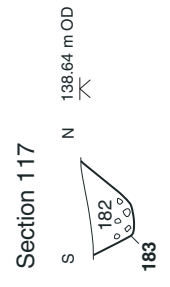
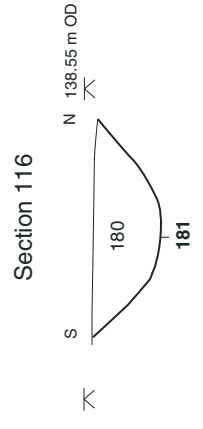
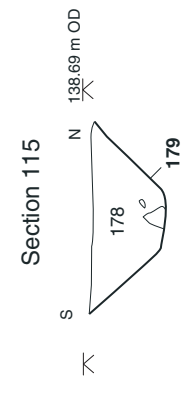
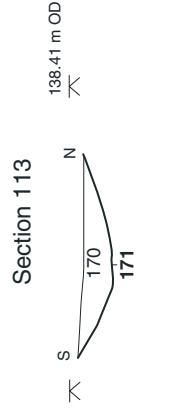
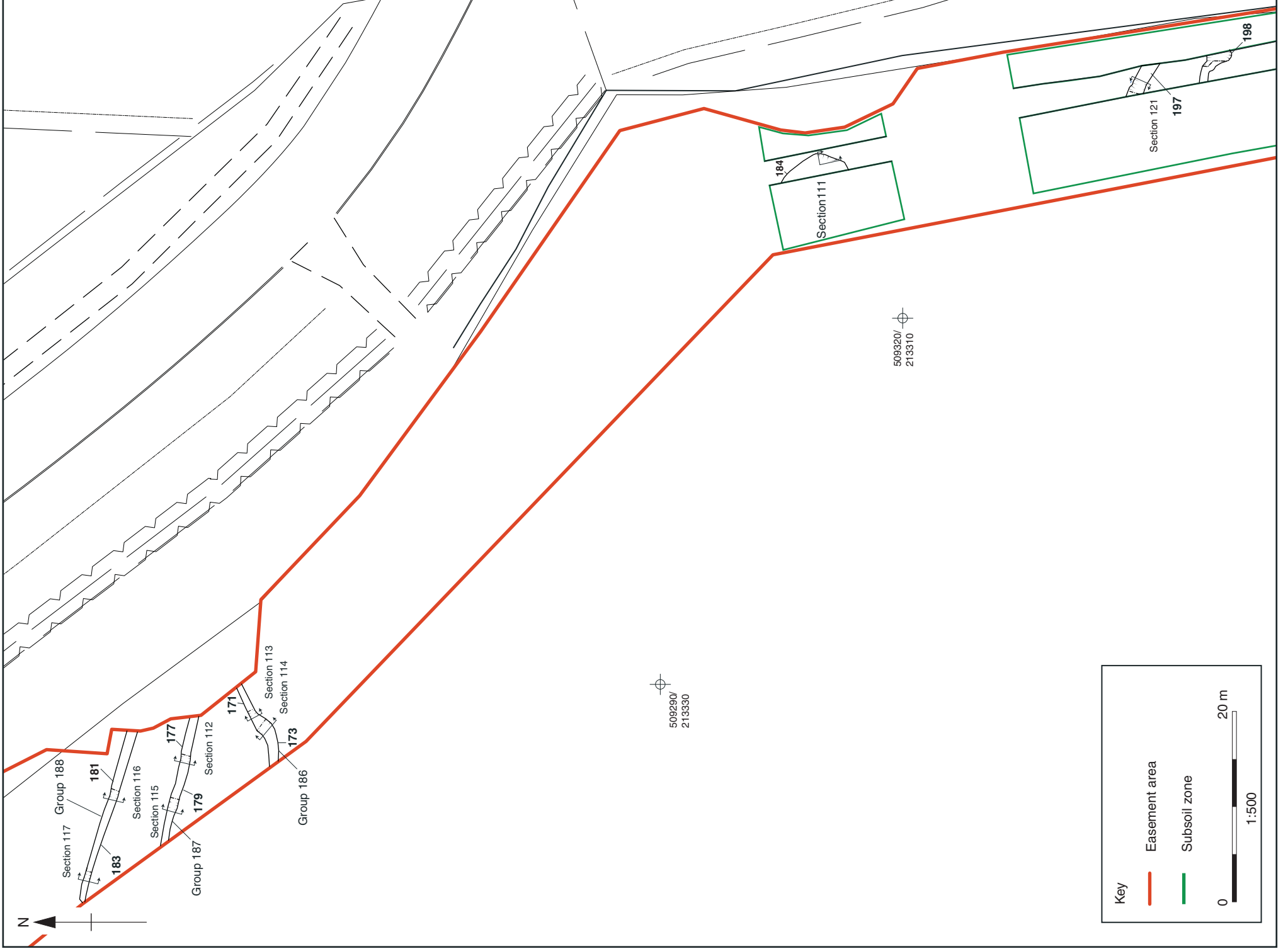


Figure 4: Chainage 10 + 600 - 10 + 700



Key

- Easement area
- Subsoil zone

0 20 m
1:500

Figure 5: Chainage 10 + 750 - 10 + 900

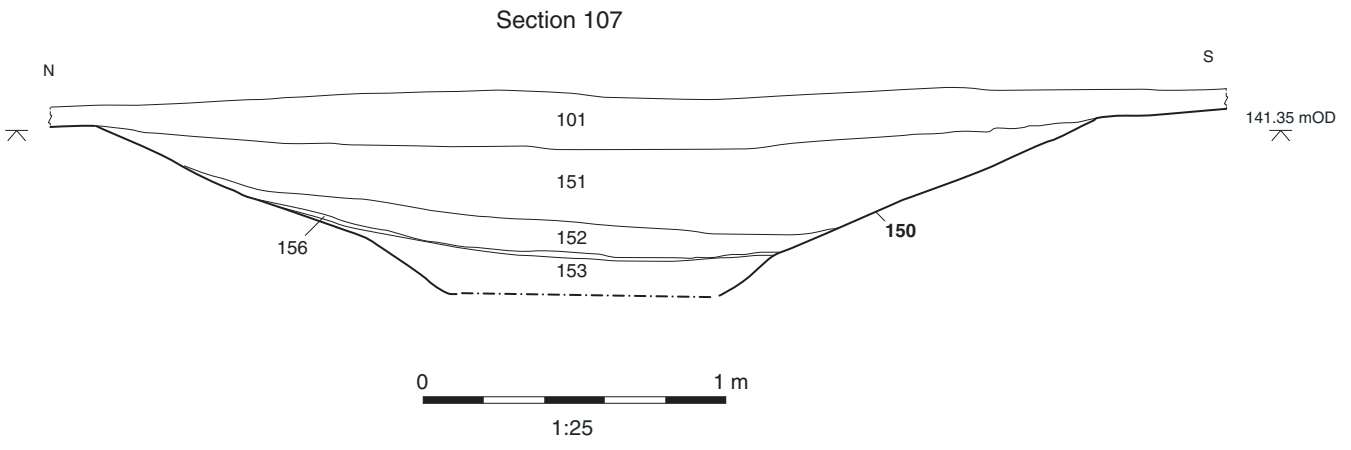
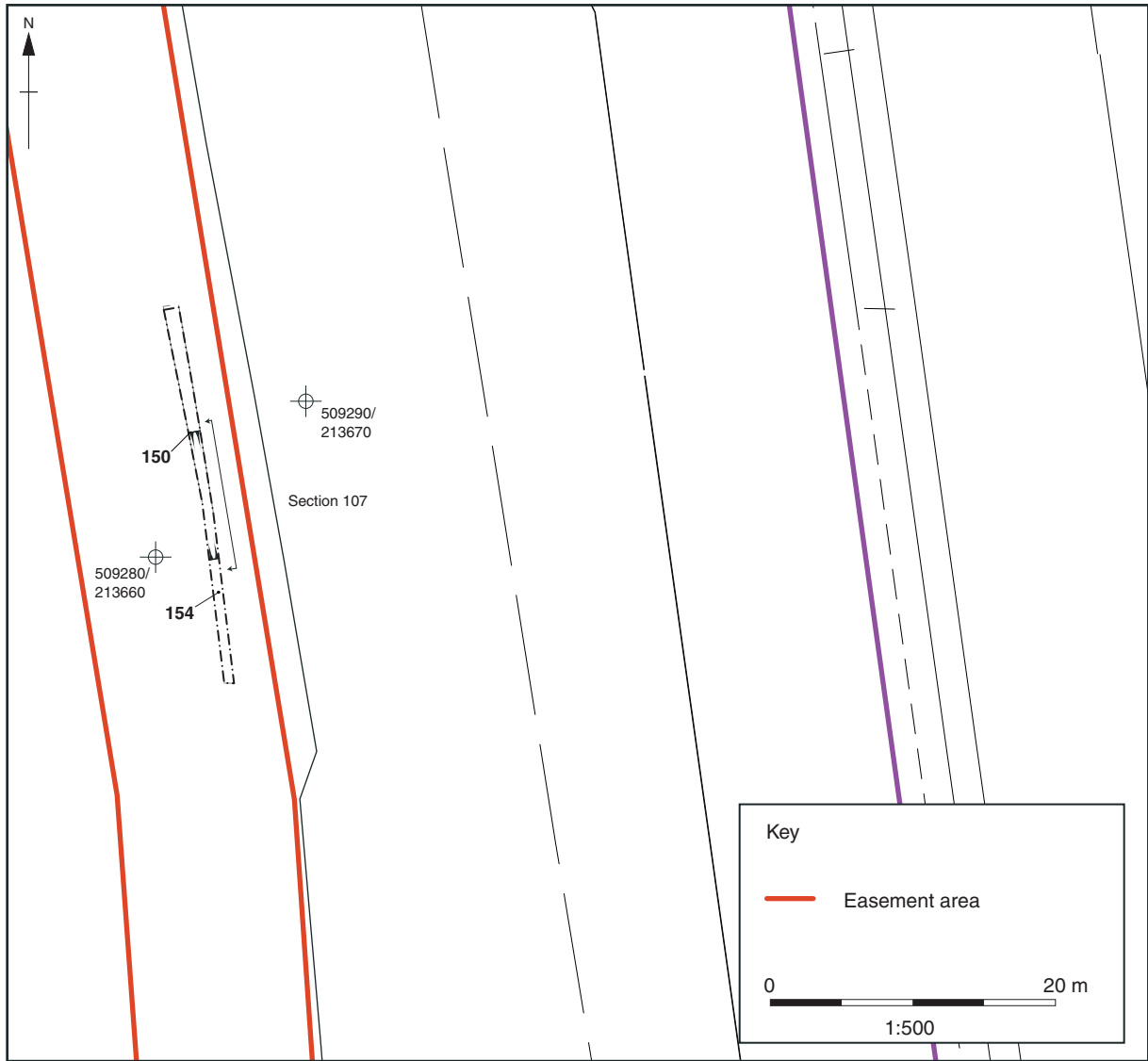


Figure 6: Chainage 11 +100 - 11 + 200



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