

ARCHAEOLOGICAL MONITORING ASSESSMENT REPORT:

STURTON-LE-STEEPLE QUARRY, NOTTINGHAMSHIRE

Planning Reference: 1/46/06/00014

NGR: SK 811 846

AAL Site Code: SLSQ16

OASIS Reference Number: allenarc1-299917



Report prepared for Phoenix Consulting Archaeology Ltd
on behalf of Tarmac a CRH Company

By
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Report Number AAL 2017166

November 2017



Allenarchaeology



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Document Control

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Version no.:	0.2	

Cover image: General view of site during excavation, looking northwest towards West Burton Power Station

Executive Summary

- Allen Archaeology Limited was commissioned by Phoenix Consulting Archaeology Limited on behalf of Tarmac a CRH Company to undertake an archaeological watching brief of the access route between Gainsborough Road and Sturton-Le-Steeple Quarry, Nottinghamshire in fulfilment of an archaeological condition of planning permission.
- The access route lies between Littleborough Roman town (SM 145), to the south, and the deserted medieval village of West Burton (SM 103), to the north. Previous fieldwork undertaken within the development area revealed some level of prehistoric activity, and Romano-British activity indicative of possible structures and settlement. Medieval and post-medieval finds were also recovered across the area and have been attributed to manuring.
- The groundworks comprised the removal of soil along the route of the access road, with features and finds recorded along the route revealing that the area has been utilised from the Mesolithic to the present day.
- Several worked flints dated to between the Mesolithic and late Neolithic or early Bronze Age were retrieved from the topsoil, representing activity in the vicinity of the site during these periods.
- A pit recorded at the eastern end of the access route was the earliest positively dated feature and has been attributed to the middle-late Iron Age. Containing a near complete jar, this pit was the only conclusively pre-Roman Conquest feature revealed during the archaeological works.
- A concentration of features including an enclosure ditch, pits and post holes at the western end of the access route were revealed and are suggestive of a small farmstead, with pottery dating the features to the late Iron Age to 1st century AD. Daub retrieved from the features suggested the presence of structures, whilst the recovery of cattle and sheep/goat bones from the ditch fills suggested that animal husbandry was carried out at the site.
- At the east end of the access route another group of features dated to the 2nd–4th century AD was revealed. Comprising ditches, pits, post holes and a possible structure, these features appear to be a continuation of a settlement site previously recorded during a geophysical survey of the area to the south and indicate that the settlement was more extensive than previously believed.
- Other isolated features recorded along the route indicated that the landscape had been extensively utilised throughout the past.
- The results of the archaeological monitoring have shown that the landscape had been utilised from the Mesolithic to the present day, with extensive utilisation occurring during the late Iron Age to Roman period. It is likely that archaeological remains of a similar date will be revealed and impacted upon during the further works proposed for the quarry.

1.0 Introduction

- 1.1 Allen Archaeology Limited was commissioned by Phoenix Consulting Archaeology Limited on behalf of Tarmac, a CRH Company, to undertake an archaeological watching brief of the access route between Gainsborough Road and Sturton-Le-Steeple Quarry, Nottinghamshire in fulfilment of an archaeological condition of planning permission.
- 1.2 Archaeological fieldwork had previously been undertaken on the site including fieldwalking, geophysical and geo-archaeological surveys and trial-trenching that revealed features and finds of prehistoric to post-medieval date.
- 1.3 The fieldwork, recording and reporting was carried out in a manner consistent with current national guidelines, as set out in the Chartered Institute for Archaeologists '*Standard and guidance for an archaeological watching brief*' (CIfA 2014), the Historic England document '*Management of Research Projects in the Historic Environment: The MoRPHE Project Managers' Guide*' (Historic England 2015) and a specification produced by Phoenix Consulting Archaeology Limited (Coates and Richmond 2016). All relevant Historic England guidelines on archaeological practice were followed (www.helm.org).

2.0 Site Location and Description

- 2.1 The quarry is located 2km east of Sturton-le-Steeple and c.3.5km to the south of the town of Gainsborough, centred on NGR SK 811 846 and with West Burton power station situated immediately to the northwest (Figure 1). The quarry is located on flat agricultural land on the floodplain of the River Trent, which lies to the east of the site. The main quarry site is connected to the River Trent by a conveyor route to the north, and the access road to which this report refers connects the site (NGR SK 81223 84504) with Gainsborough Road to the west (NGR SK 78515 84832).
- 2.2 The bedrock geology comprises the Mercia Mudstone Group formed in the Triassic period, overlain by alluvial deposits of clay, silt sand and gravel to the east and Mid Pleistocene Diamicton Till in the central area. No superficial geology is recorded to the west (<http://mapapps.bgs.ac.uk/geologyofbritain/home.html>).

3.0 Planning Background

- 3.1 Tarmac a CRH Company has been granted planning permission for a new quarry at Sturton-le-Steeple, Nottinghamshire (Planning Ref. 1/46/06/00014). The quarry covers approximately 110ha with an extraction area of c.61ha. Permission was granted subject to conditions, including condition 38 which states:

No development shall take place in connection with the construction of the access road, plant site, other ancillary site commencement works or the winning and working of mineral until a programme of archaeological work, investigation and recording of finds has been submitted to the MPA and has been approved in writing by the MPA. For the purposes of mineral extraction, the programme or archaeological work will be submitted on a phase by phase basis to take account of the variable archaeology across the site. The development shall thereafter be carried out in accordance with the approved scheme(s).

Reason: To ensure that adequate archaeological investigation and recording is undertaken prior to the development taking place, in accordance with Policy M3.24 of the Nottinghamshire Minerals Local Plan.

- 3.2 The approach adopted is consistent with the recommendations of the National Planning Policy Framework (NPPF), with the particular chapter of relevance being 'Chapter 12: Conserving and enhancing the historic environment' (Department for Communities and Local Government 2012).

4.0 Archaeological and Historical Background

- 4.1 The archaeological and historical background of the area has been covered in several reports (Challis 1999; Elliott 2004 and 2005; Elliott and MacIntosh 2005; SLR 2008 and 2011). These indicate that the site lies between the Littleborough Roman town (SM 145), to the south, and the deserted medieval village of West Burton (SM 103), to the north.
- 4.2 Fieldwork has previously been undertaken within the development area in advance of quarrying and included fieldwalking, geophysical and geo-archaeological surveys and evaluation by trial trenching (Elliot and MacIntosh 2005; Howard in Elliot 2004; Elliott 2004).
- 4.3 These studies revealed alluvial clays measuring up to 2m deep across the flood plain, above up to 4m of peat which has been dated to the late Neolithic to the Iron Age. Prehistoric activity included three truncated posts of Late Bronze Age date recovered in the floodplain deposits, and four areas of Romano-British activity including a recti-linear enclosure, a possible corn dryer or oven and stone post-pads, indicative of a possible structure. Medieval and post-medieval finds were recovered across the area and have been attributed to manuring.

5.0 Aims

- 5.1 The archaeological investigations were carried out with reference to national research agendas (Historic England 1997), the local research framework (Cooper 2006 and Knight *et al.* 2012), and aggregate resource assessment (Knight and Spence 2013).
- 5.2 The general objectives of the archaeological monitoring were to:
- recover a plan of the extent and structure of features and deposits of archaeological interest, in particular possible Romano-British features and the Medieval landscape associated with the deserted village of West Burton
 - investigate the nature of any identified activity, domestic and/or agricultural
 - examine the evidence for palaeo-economy and/or industry
 - expand current knowledge of patterns of landscape exploitation and settlement
 - place the identified features within their local and regional context

6.0 Methodology

- 6.1 The groundworks comprised the removal of soil along the route of the access road. Soils were stripped using a mechanical excavator fitted with a toothless ditching bucket to a depth of 0.5m to 1m depending on the local soils.

- 6.2 Where archaeological remains were encountered all necessary resources were made available to effectively deal with the archaeological discoveries, without causing unnecessary delays to the soil stripping process.
- 6.3 The archaeological monitoring was undertaken between 8th November 2016 and 22nd March 2017.
- 6.4 A full written record of the archaeological deposits was made on standard AAL context recording sheets. Archaeological features were accurately planned using a Leica GS08 RTK NetRover GPS and drawn in section at an appropriate scale (1:20). Digital photography formed an integral part of the recording strategy and were taken with an identification number board, appropriate metric scales and a north arrow. General site shots will also be taken to show the location of the groundworks and the stratigraphic sequence.
- 6.5 Each deposit or layer was allocated a unique identifier (context number), and accorded a written description, a summary of these are included in Appendix 2. Three-digit numbers within square brackets reflect cut features, e.g. ditch [103], and three-digit numbers without brackets denote layers and deposits, e.g. topsoil 100.
- 6.6 All finds of all classes were collected, other than obviously modern finds from topsoil and subsoil contexts. The spoil from the excavated areas were examined for further artefact recovery. Finds collected during the fieldwork were bagged and labelled with the appropriate deposit context number

7.0 Results

- 7.1 Archaeological features were recorded intermittently along the length of the access route (Figure 2). The features encountered were generally isolated ditches and for simplification the route has been split into nine areas for discussion. Two main sites were recorded at either end of the route, Area 1 at the west end and Area 8 to the east, with further scattered features recorded in the remaining seven areas. Due to the distance between the two main sites they have been treated as two separate entities and phased accordingly.
- 7.2 A natural hard reddish brown clay with patches of sandy clay and limestone was recorded along the route and represented the natural geology. Sealing the natural geology were firm mid orangey brown sandy silt subsoils (002/101/356) with occasional sub-angular limestone fragments. These deposits measured c.0.12m thick and contained three pieces of worked flint retrieved at the eastern end of the route (dating from the Mesolithic or earlier Neolithic to the late Neolithic or early Bronze Age); Roman; 13th century and post-medieval pottery; post-medieval clay pipe stem; copper slag, and iron nails. Overlying the whole route was a 0.32–0.34m thick topsoil (001/100/355) comprising a firm dark greyish brown clayey silt with occasional small to medium sub-angular stones. Lead shot and a 13th century silver half-penny was retrieved from the topsoil at the eastern end of the access route, suggesting some activity in the late 12th-early 13th century.

Area 1 (Figure 3 to Figure 8)

- 7.3 Area 1 was located at the western end of the access route in the vicinity of Gainsborough Road and measured c. 120m long.

Phase 1: ?Later Prehistoric

- 7.4 Two features undated by finds were recorded within Area 1, cut by ditches that were dated to the late Iron Age/first century AD. These features have been tentatively assigned to the later prehistoric period, based on their character and stratigraphic associations.
- 7.5 Towards the west end of Area 1 was a steep sided, northwest to southeast orientated linear feature [126], containing two naturally-formed fills, 127 and 128 (Plate 1). Ditch [126] was truncated to the north by a boundary ditch [426] containing 74 sherds of late Iron Age/1st century AD.



Plate 1: Northwest-facing section of ditch [126], scales 0.5m and 0.3m

- 7.6 An elongated pit or truncated ditch or gully [151] was recorded at the southern edge of the access route towards the east end of Area 1 (Plate 2). Measuring 1.3m long by 0.42m wide, [151] contained two silty clay fills 152 and 153 and was truncated at the southern end by late Iron Age/1st century AD ditch [149/195].



Plate 2: South-facing section of ditch [151] (left) truncated by ditch [149/195], scales 1m, 0.3m and 0.2m

Phase 2: Late Iron Age/1st Century AD

- 7.7 The largest feature assigned to Phase 2 was a 38m long, northeast to southwest orientated ditch, [426], with steep, uneven sides and a flat base. The ditch measured up to 3.2m wide and 1.46m deep (Plate 3). At either end the ditch turned to the southeast, forming a probable enclosure that extended beyond the limit of excavation to the southeast.



Plate 3: South-facing section of enclosure ditch [426], scale 2m

- 7.8 Contained within [426] was a sequence of naturally formed sandy silts, clays, sandy and silty clays, and clayey sands with occasional charcoal flecks and limestone fragments, suggesting that the boundary ditch had been abandoned and allowed to backfill naturally over time. Late Iron Age/1st century AD pottery was retrieved from the fills of the ditch along with a quantity of animal bone. A probable rotary quern, and an example of a beehive quern were

also recovered. An abraded tegula fragment and several pieces of daub, one with a wattle impression visible, were also retrieved from the fill.

- 7.9 A re-cut [131] of ditch [426] was recorded in the northeastern arm of the enclosure (Plate 4). Measuring 2.20m wide by 0.78m deep, [131] contained several naturally deposited fills, 134, 135 and 136, at the base of the ditch with two further dumped deposits, 132 and 133, above. This suggests that [131] was intentionally decommissioned, with 13 sherds of pottery and bone suggesting that the back-filling occurred during the late Iron Age/1st century AD.



Plate 4: South-facing section of ditch [131] (right) truncating large enclosure ditch [426], scales 2m and 1m

- 7.10 To the northwest, ditch [426] cut a northwest to southeast orientated linear feature [166], containing two silty clay fills, 167 and 168, from which one sherd of late Iron Age/1st century AD pottery was retrieved.
- 7.11 At the bottom of boundary ditch [426], within a sondage that was excavated to establish the relationship between [426] and [166], two post holes, [169] and [187], were revealed (Plate 5). The post holes were sub-rectangular with rounded corners, vertical sides and concave bases and contained mid grey clayey sand/sandy clay fills, 170/188 respectively. The presence of these two post holes indicates the likelihood of a possible superstructure such as a bridge spanning the boundary ditch or a revetment.



Plate 5: Post hole [169] (top) and [187] (bottom), looking southwest, scales 1m and 0.5m

- 7.12 Cut into boundary ditch [426] was a 3m long by 1.9m wide sub-rectangular pit [114], containing a 0.2m thick mid greyish brown sandy clay fill with occasional charcoal flecks, 115, from which animal bone and four sherds of locally produced Roman coarse ware pottery was retrieved. A similar pit [112] was recorded to the southwest of [114] and was filled with a similar sandy clay fill 113. This pit contained three sherds of locally produced Roman coarse ware pottery and a quantity of large charcoal fragments. Although the dating of the coarse ware retrieved from these features does not provide a narrow date range, it is likely that these features are contemporary with the Late Iron Age/ 1st century AD features, especially as no later Roman dated finds were retrieved from the area.



Plate 6: West-facing section of ditch [103], scales 2m and 1m

- 7.13 Running parallel to boundary ditch [426], to the south, was a 0.76m wide, northwest to southeast orientated ditch [103], containing three naturally formed sandy clay fills: 104, 105

and 106 (Plate 6). Occasional charcoal flecks and small angular limestone fragments were recorded within the fills along with five sherds of late Iron Age/1st century AD pottery.

- 7.14 Twenty meters to the northeast of boundary ditch [426] was a roughly northwest to southeast orientated linear feature [118] containing a sequence of naturally formed fills (119–122) from which seven sherds of locally produced Roman coarse ware pottery was retrieved. Cutting [118] along its western edge was a similarly aligned ditch [123] that is likely to be a re-cut of [118] and contained six sherds of Roman pottery. Another pair of intercutting northwest to southeast orientated linear features [154], that contained five sherds of Roman pottery, and [180] were recorded c.20m to the east and although [180] cut [154] and did not contain any dateable finds, it is assumed that ditch [180] is a re-cut of, and of a similar date to, [154] (Plate 7).



Plate 7: Southeast-facing section of ditches [154] (left) and [180] (right), scales 2m, 0.5m and 0.3m

- 7.15 A series of features were recorded 5m to the east of ditch [180]. Three undated pits/postholes [144], [146] and [189] were recorded adjacent to a later prehistoric elongated pit or truncated ditch/gully [151] and have been assigned to Phase 2 as they appear to form a similar alignment to ditches [154] and [180] to the west. Environmental samples taken from the fills of [144] and [146] revealed a low concentration of waterlogged plant macrofossils commonly associated with fertile disturbed soils, damp soils and the presence of water.
- 7.16 A north-south orientated ditch [149/195], from which 16 sherds of late Iron Age/1st century AD pottery was retrieved, dissected the pit/posthole alignment and in turn was cut by pit [193] at its northern extent (Plate 8).
- 7.17 Immediately to the east of [149/195] was an elongated pit [191] with gently sloping sides and flat base. This feature measured 2.75m long by 0.74m wide and contained a 0.12m thick mid orange brown silty clay dumped deposit, 192, with very occasional charcoal flecks and occasional stone fragments and contained a single sherd of late Iron Age/1st century AD.



Plate 8: South-facing section of ditch [149/195] and ditch [151] (right), scales 1m, 0.3m and 0.2m

Area 2 (Figure 9)

- 7.18 Along the access route to the east of Area 1 were three undated features: [359], [361] and [363]. The first of those to be encountered was [361] located c.250m to the east of Area 1. Interpreted as a ditch terminus, [361] was orientated northeast to southwest with shallow concave sides and a concave base and measured 1.12m long by 0.80m wide and 0.12m deep. Continuing along the access route to the southeast was [359] a sub-circular pit with shallow sides and a flat base and ditch [363] a further 150m along the. All three features contained a grey silty clay 360, 358 and 362 respectively.

Area 3 (Figure 10)

- 7.19 Area 3 contained three undated ditches [364], [366] and [368]. They were orientated southwest to northeast and varied in width from 0.84m to 1.40m and in depth from 0.19m to 0.25m. All three contained very compact clay fills (365, 367 and 368) likely to have been formed by natural silting after they had fallen out of use.

Area 4 (Figure 11)

- 7.20 A series of undated features were revealed within Area 4. A section of southeast to northwest orientated ditch [373], with rounded sides and a concave base was recorded adjacent to the southern edge of the access road. Containing a mid-grey mottled orange brown silty clay 374, ditch [373] was truncated to the northwest by a north to south orientated ditch [375] that had a mid reddish grey silty clay fill, 376. Ditch [375] measured c.4.5m long and appeared to have been truncated by modern ploughing.
- 7.21 At the north-east end of [375] was a shallow circular pit [379], 0.35m in diameter, whilst a series of larger pits [378], [383] and [384] were recorded c.1.5m further to the east.

- 7.22 Further along the access route c.3.5m from pit [384] and located against the southern baulk was a 1.02m wide by 0.44m deep curvilinear ditch [387/397], 5.25m in diameter. With shallow straight sloping sides and a gradual break of slope to a flat base, [387/397] contained naturally formed silty clay/sandy clay fills (388/398 and 389 respectively). Ditch [387/397] appeared to cut an earlier northeast-southwest orientated linear feature, [394], to the north. Ditch [394] measured c.2.1m long, before terminating to the northeast, and 0.73m deep and contained three fills: 395, 396 and 401. Deposit 396 was a redeposited natural silty clay suggesting that the ditch had been intentionally partially backfilled. A quantity of large charcoal fragments was retrieved from the environmental sample taken from deposit 395 and possibly also suggests that it had been deliberately deposited within the ditch.
- 7.23 Directly to the east of [387/397] was a small sub-circular posthole [399] that was truncated by a shallow north-south aligned ditch [390] containing a naturally formed silty clay fill, 391.

Area 5 (Figure 12 and Figure 13)

Roman

- 7.24 To the east of [402] were two truncated broadly east west orientated ditches [405] and [407], both measuring c.0.90m wide by 0.10m deep (Plate 9). Ditch [405] was filled with a mid grey silty clay, 406, with occasional flecks of charcoal, and [407] with a light yellowish brown sandy clay, 408, from which one sherd of Roman pottery was retrieved. The similarity of these two ditches suggests that they were contemporary and may have formed part of a double ditched enclosure or possibly defined the edges of a trackway.



Plate 9: Southeast-facing section of ditch [407], scales 0.5m and 0.2m

Undated

- 7.25 Approximately 160m to the east of Area 4 was an undated northeast to southwest orientated ditch [402]. Measuring 1.34m wide by 0.26m deep, ditch [402] contained a mid brownish grey silty clay, 403.

- 7.26 To the east of [402], was a heavily truncated, shallow, undated east to west orientated linear feature [411] containing a mid brownish grey clayey silt fill 412.

Area 6 (Figure 13 and Figure 14)

- 7.27 Approximately 160m from ditch [411] was a north to south orientated ditch [413] containing two silty clay fills: 414 and 415. An east to west orientated linear feature [416] with very shallow sloping sides and flat base was recorded to the east of [413]. Filled by a mid greyish brown silty clay, 417, with moderate small to medium sub-angular stones and containing iron slag, [416] has been interpreted as a furrow, although a single sherd of, probably residual Roman pottery was retrieved. Two further undated features [418] and [420], also aligned east to west, were recorded to the northeast of [416] and have also been interpreted as furrows. Another undated ditch [422], aligned northeast to southwest, was located immediately to the east of [420] and had been re-cut as [424], suggesting that the ditch had silted up prior to its re-use.

Area 7 (Figure 15)

- 7.28 Ditches [206] and [208] were recorded in Area 7, c.150m apart, with a small group of undated features c.160m further to the east, and comprising pit [262] and three, north to south aligned ditches, [259], [258] and [253]. Approximately 250m to the east of these features were two more undated linear features. Ditch [200] was c.56m long, 2.62m wide and 1.06m deep and orientated east to west. It contained a series of naturally formed fills; 197, 198 and 199. Truncating [200] at the east end was a north to south orientated ditch [205] with concave sides and a rounded base. Measuring at least 32m long by 2.5m wide and 0.76m deep, [205] contained four silty and clayey fills; 201, 202, 203 and 204.

Area 8 (Figure 16 to Figure 19)

Phase 1: Pre 2nd – 4th Century AD

- 7.29 At the centre of Area 8 was a northeast by southwest orientated ditch [247/299], with steep straight sides and a concave base, measuring 2.60m wide by 0.68m deep. Two sections were dug across the ditch and revealed sandy fills 248 and 249 in the northeast and silty sand with lenses of clay 300, peaty sand 301 and sandy silt with occasional patches of compressed sand 302 at the southwest end. A possible gritstone quern fragment was retrieved from 248. A small sub-circular pit [274] with moderately shallow sides and a concave base was recorded at the southwestern end of ditch [247/299] and contained a light brownish grey sand 275 (Plate 10).



Plate 10: East-facing section of ditch [247], scales 2m and 0.5m



Plate 11: North-facing section of ditch [266/326] clearly showing iron stone deposits within the fill, scales 1m and 0.5m

- 7.30 To the southeast of [247/299] was a north to south orientated ditch [266/326] with steep straight sides and flat base. It measured at least 15m long by 1.40m wide and 0.46m deep (Plate 11), with a terminus at its southern end and contained frequent fragments of ironstone within the upper fill, 264.
- 7.31 Running parallel with [266/326] was a similarly aligned ditch [338] that was truncated to the north by later Roman features.

Phase 2: 2nd4th Century AD

- 7.32 A curvilinear ditch, [320], with moderately steep sides and a concave base was recorded at the northern end of Area 8 and measured 2.36m wide by 0.78m deep (Plate 12). A sequence

of naturally formed silty sand fills were recorded within the ditch and contained eleven sherds of Roman pottery, including mortaria from possibly Corbridge or Rossington Bridge and samian ware from Trier, Rheinzabern and Argonne. Abraded pieces of tegula were also retrieved and a slither of leather was found within an environmental sample, along with a high density and diversity of waterlogged plant and invertebrate macrofossils.



Plate 12: Northwest-facing section of ditch [320] looking southeast, scales 2m and 0.5m

- 7.33 Truncating the northern end of ditch [266/326], to the southeast of ditch [320], was a large, northeast-southwest aligned ditch [278/330] that was on a similar alignment to ditch [247/299] to the northwest (Plate 13). Ditch [278/330] measured at least 17.5m long and was recorded as terminating adjacent to the temporary access road. Pottery of 2nd–4th century date, including two sherds of samian ware from Lezoux and a sherd of Mancetter-Hartshill white ware mortaria were retrieved from the fill of ditch. An environmental sample taken from the ditch fill contained a rich and diverse assemblage of plant and invertebrate macrofossils preserved by anoxic waterlogging and suggestive of a fertile disturbed soil and cultivation. A piece of small diameter roundwood measuring 805mm in length with a maximum diameter of 14mm was collected from the fill and was found to be a natural inclusion.



Plate 13: West-facing section of ditch [278/330], scales 2m and 0.5m

- 7.34 To the southeast of ditch [278/330] and orientated north - south were two parallel ditches [283] and [215/313], both containing a sequence of naturally formed fills containing three sherds of 2nd-4th century pottery, including Trier samian ware (Plate 14).



Plate 14: South-facing section of ditch [283], scales 2m and 1m

- 7.35 Adjacent to the undated pits [226] and [281] in the north of Area 8 was another similarly shaped and sized pit, [228], that contained a sherd of locally produced Roman pottery.
- 7.36 Truncating both [247/299] and [274] to the northwest was an east to west orientated ditch, [250/276/303], with steep sides and a narrow concave base. Measuring at least 10m long by 1.38m wide ditch [250/276/303] contained a sequence of fills (251, 252, 277, 304, 305 and 306) 0.38m thick. Five sherds of early to mid 3rd century pottery and four sherds of Rheinzabern samian ware were retrieved from 251 along with a rich assemblage of round wood charcoal fragments and a significant number of charred thorns and leaf buds. Deposit

306 recorded in the centre of the ditch contained nine sherds of Roman pottery and a roof tile fragment.

- 7.37 To the southeast of [250/276/303] and cutting [338] was a sequence of intercutting features containing Roman pottery. Large sub-circular pit [344] truncated [338] to the north (Plate 15). Cutting [344] to the north was a north to south orientated irregular linear feature [339] that contained a sequence of naturally formed fills and is interpreted as a possible ditch terminus. Pottery within the fill included samian ware from Trier. The ditch also contained heat-affected stone and a moderate density and diversity of waterlogged plant and invertebrate macrofossils. A similarly aligned ditch [307] ran adjacent to [339] and also contained a similar sequence of natural fills, with the fill compositions suggesting various episodes of flooding. Seven sherds of locally produced Roman pottery were retrieved from the fills. A small pit, [268], cut the northwest edge of [307]. Although no finds were recovered from the pit it is likely to be contemporary with the adjacent feature group.



Plate 15: Southwest-facing section of pit [344] and ditch [339] (right), scales 2m and 0.5m

Undated

- 7.38 Three undated circular pits [220], [281] and [226], measuring between 0.5m to 1.3m in diameter, were recorded towards the northwest end of Area 8 and contained varied sandy clay and sandy fills; 221, 282 and 227 respectively.
- 7.39 To the southwest of the pits was the remains of a probable structure [427]. The feature was rectangular, measuring 5.89m long by 2.96m wide and comprising a narrow ditch measuring c.0.5m wide by 0.14m deep. The structure was orientated northwest by southeast and was truncated by modern ploughing that had removed the southern and western portions of the ditch.
- 7.40 Two undated pits; [269/272] and [334] were recorded to the west of [339] and east of ditch [266/326] and contained naturally formed fills.
- 7.41 At the southern end of Area 8 was an undated north-south aligned ditch [354]. Although no dating evidence was retrieved from these undated features they are possibly all of Roman date due to the similarity to adjacent features in terms of alignment, form and fills.

Area 9 (Figures 13 and 20)

Phase 1: Late Iron Age/1st Century AD

- 7.42 At the east end of the access route were two sub-circular pits [240] and [243] measuring between 0.38–1.2m in diameter by 0.09–0.28m deep and containing yellowish grey to greyish brown sand/silty sand. Interpreted as dumped deposits, the fills contained burnt stone and charcoal flecks. Pit [243] contained 50 sherds from a scored ware jar of middle to late Iron Age date and included the base and a quarter of the rim (Plate 16). A cattle tooth and the long bone of a large mammal was also retrieved from the pit. Pit [240] contained pottery of late Iron Age/1st century AD date. Heat-affected stone was retrieved from the pits and may have been used as pot boilers, although heated stone is not uncommon on archaeological sites and could have had many uses.



Plate 16: Southeast-facing section of pit [243], scales 1m and 0.3m

Phase 2: Roman

- 7.43 To the northwest of pits [223], [224], [238], [240] and [243] was an east-northeast to west-southwest orientated ditch [244] measuring 2.6m wide by 0.45m deep and containing naturally accumulated clay and sandy clay fills, 245 and 246. A single sherd of Roman pottery and an abraded tegula fragment were retrieved from fill 246.

Undated

- 7.44 Two undated truncated linear features [210] and [213], both orientated east to west with shallow sloping sides and flat bases, were recorded to the northwest, adjacent to Roman dated ditch [244]. Brown silty sand/sandy silts 211 and 212 respectively, filled the features.
- 7.45 At the east end of the access route were three circular and sub-circular pits [223], [224] and [238] measuring between 0.38–1.2m in diameter by 0.09–0.28m deep and containing yellowish grey to greyish brown sand/silty sand. Interpreted as dumped deposits the fills contained burnt stone and charcoal flecks.

8.0 Discussion and Statement of Potential

- 8.1 Features and finds recorded along the access route have revealed that the area has been utilised from the Mesolithic to the present day, with isolated flint finds at the eastern end of the access route suggesting activity in the vicinity of the site during the prehistoric period.
- 8.2 The earliest dated feature recorded from the site was pit [243] that has been dated to the middle-late Iron Age. Containing the remains of a near complete jar, the pit was the only conclusively pre-Roman Conquest feature recorded along the access route. Although other undated pits were recorded within the vicinity of pit [243] there was no evidence of occupation during this period.
- 8.3 The concentration of features within Area 1 is suggestive of settlement activity, with the pottery retrieved from the ditches and pits dating this activity to the late Iron Age to 1st century AD. The full extent of the site lay beyond the limit of excavation, with the form and orientation of the features suggesting that it extends mainly to the southeast, where the land rises to a high point within the landscape, and to the northwest. Small farmsteads dating to this period are known throughout the area and it is possible that the archaeological remains relate to a similar settlement. The characteristic form of the pottery is utilitarian and of Belgic influence. Similar vessels, of a similar date, have been found within the region including at Dragonby (Van der Veen, 1996). Cattle and sheep/goat were the predominant animal bones recovered from the ditch fills, suggesting that animal husbandry was being carried at the site. The recovery of a potential fallow deer bone is significant as only small numbers of fallow deer have been identified from Roman contexts, for example at Fishbourne (Sykes 2010, 55).
- 8.4 No structures were recorded within the area, although the recovery of daub from the enclosure ditch indicates that there may have been structures nearby, associated with either occupation or industrial activity.
- 8.5 Occupation of the settlement in Area 1 appears to have ceased by the 1st century AD and it was not until the 2nd–4th century AD that further occupation was recorded along the access route (Area 8) to the east towards the River Trent. Furthermore, the Roman pottery includes small groups of diagnostic sherds of local coarse wares and samian ware to allow for a relatively narrow chronology in the late 2nd/early 3rd centuries, possibly into the mid 3rd century AD, suggesting that occupation in Areas 1 and 8 was not contemporary. The re-cutting and truncation of several of the ditches may suggest a broader chronology or may reflect that the environmental conditions caused the ditches to become filled in and that they therefore required frequent maintenance.
- 8.6 Area 8 was located to the west of the area of archaeological investigations previously undertaken by Elliot and MacIntosh (2005), which identified four scatters of Romano-British pottery (Figure 21). It has been suggested these areas were associated with the hinterland of the urban activity of the former Romano-British small town of *Segelocurn* (modern Littleborough) that lay to the southeast of the development area (Coates and Richmond 2016). A possible settlement was recorded immediately to the south of Area 8 and contained pits and rectilinear enclosures and has been interpreted as late Iron Age or Romano-British in date (Elliot and MacIntosh 2005). The features recorded within Area 8 are likely to be a continuation of this settlement, with ditches recorded within Area 8 suggesting that it also extended to the north of the current site. Pottery from the sites recorded by Elliot and MacIntosh have been dated to the 2nd- 4th century AD suggesting a

possible group of settlements or farmsteads coexisting in close proximity along the route of the River Trent during this period.

- 8.7 Roman tile was recovered from features within Area 8, suggesting a building existed within the area and the remains of an undated structure were recorded, likely to be timber framed and possibly with a tiled roof.
- 8.8 Environmental samples taken from several of the ditches within Area 8 suggest that they are likely to have held water and that they had damp muddy banks with some woody scrub vegetation nearby to similar to those recorded at Dragonby and Lincoln (Van der Veen 1996; Simmons 2017). The presence of hearth waste suggests possible crop processing of hulled barley, spelt wheat grain and spelt wheat chaff was carried out nearby.
- 8.9 The recovery of a rich assemblage of small diameter round wood, frequent thorns and leaf buds within one of the ditches is uncommon and suggests that a thorny scrub or hedging was present in the vicinity and had been cleared.
- 8.10 Isolated, undated linear features were recorded within Areas 2, 3, 5, 6 and 7. However, Roman pottery was retrieved from some of the ditches and it is therefore possible that several of the undated features are of a similar date, with the features likely representing drainage ditches and field boundaries across the landscape.
- 8.11 The siting of the medieval settlement of West Burton immediately to the north of the central section of the access route will also have had an impact within the landscape and some of the undated linear features, may be furrows attributed to this period. A widespread distribution of medieval and post-medieval finds was recorded during previous investigations within the area (Coates and Richmond 2016), and has been attributed to manuring. This indicates the widespread utilisation of the land during these periods. West Burton was still inhabited up until at least 1750 (Coates and Richmond 2016), therefore indicating that the landscape had likely to have been continuously exploited until that date. These features remain undated although they do suggest that the landscape was extensively used throughout the past.
- 8.12 The small concentration of undated features within Area 4 is intriguing. The close proximity of pits, post holes and linear features is indicative of possible structures and settlement, however, if this is the case it may have been located mostly beyond the limit of excavation to the south. The lack of finds from the features may indicate an early date as it may be expected that the extensive use of the local landscape during the Iron Age, Roman, medieval and post-medieval periods, as has been attested to along the access route, would have left some pottery within the fills of these features. Furthermore, cropmarks of a large rectilinear enclosure of possible late prehistoric date are recorded to the north of the access route and a previous evaluation within the vicinity of the site revealed Bronze Age and earlier activity (Elliott 2004).

9.0 Significance

- 9.1 The groundworks comprised the removal of soil along the route of the access road, with features and finds recorded along the route revealing that the area has been utilised from the Mesolithic to the present day.
- 9.2 The isolated middle-late Iron Age pit [243] recorded at the eastern end of the access route was the earliest positively dated feature along the access route and is significant as it is the

only positively dated feature of this period recorded during the other investigations of the quarry site and surrounding area. Further works are likely to reveal further features assigned to this period, and to clarify whether this is an isolated feature or forms part of a related landscape.

- 9.3 The late Iron Age to 1st century AD farmstead site recorded at the western end of the site is significant in the fact that it corresponds with similarly dated sites in the area that were located further from the river than the later dated sites and adds to the catalogue of known sites dated to that period.
- 9.4 Area 8 at the east end of the access route comprised ditches, pits, post holes and a possible structure and is dated to the 2nd–4th century AD. Probably being a continuation of the settlement site (Area J) previously recorded to the south, it suggests that the settlement was more extensive than previously believed. Further works are intended within this area during the quarrying works and it is possible that these two areas will be tied together forming one large settlement with the additional work potentially enabling the present archaeological sequence to be re-assessed and integrated into the larger site.
- 9.5 Although the potential of the pottery to contribute to further research is reduced by the low quantity and concentration of groups and limited number of diagnostic sherds; the assemblage recovered, notably the samian ware should allow for a small but informative contribution to the understanding of pottery consumption within this landscape.
- 9.6 The possible evidence of the clearance of thorny scrub from the wood charcoal assemblages could be significant when considered in context with evidence from pollen sequences for the clearance of woodland and scrub during the Roman period in the region, whilst the analysis of the waterlogged plant macrofossils and invertebrate analysis, would enable a comparison of the environment and land use local to the site with the wider region during the Roman period.
- 9.7 The bone assemblage retrieved from site is of limited significance although the predominance of cattle throughout the periods rather than the usual transition of sheep/goat to cattle may suggest that the local environment was more conducive to that form of farming. The possible presence of fallow deer may suggest that wild animals were used to supplement the site diet economy and is significant as the likelihood of fallow deer remains being present is relatively small during that period.

10.0 Recommendations for further work

- 10.1 Further work is recommended once the further stages of works at the quarry have been completed and the findings of the archaeological monitoring should be integrated into any final report.

The Archaeological Sequence

- 10.2 Confirmation or amending of the archaeological sequence should be undertaken by re-assessing the grouping of features or stratigraphic relationships. Further information has the potential to alter current thinking on the dating and phasing of the sequence, especially in the vicinity of Area 8 where further work is expected to be undertaken, and any necessary amendments will be made accordingly.

The Prehistoric & Roman Pottery:

- 10.3 No further recording or analysis is recommended due to the constraints and poor preservation of the assemblage, with the commentary above providing sufficient detail to be carried forward into the archive report.

Post-Roman pottery and ceramic building material

- 10.4 The assemblage should be retained for future study.

The flint

- 10.5 There is no potential for further work on the flint.

Other Finds Assessment

- 10.6 The stone requires no further work and the heated material could be discarded or returned to the landowner, while the quern pieces should be retained in the archive. The 13th century silver half-penny coin is in reasonable condition and is not visibly deteriorating, but would benefit from an x-ray and should be retained for the archive. Of the remainder of the material, such a limited assemblage of predominantly post-medieval or later material offers little opportunity for further study, with the material all suitable for discard.

Waterlogged Wood Assessment Report

- 10.7 The item has no further analytical potential and no further work is advised. It is suggested that the material is discarded

Animal Bone

- 10.8 The assemblage is too small to provide detailed data on the dietary economy, animal utilisation or husbandry practices taking place on site.

Plant macrofossils and wood charcoal

- 10.9 Establish which taxa are present in the assemblage of small diameter wood charcoal from ditch fill 251 and potentially identify the assemblage of leaf buds, in order to aid in an interpretation of the likely origin of this material and provide evidence for the environment local to the site.
- 10.10 Fully sort and identify to as high a taxonomic level as possible all the taxa present in the assemblage of waterlogged plant material in ditch fills 279, 232 and 235 in order to provide evidence relating to land use and the local environment.

Publication Proposal

- 10.11 These site works form one of a number of archaeological investigations undertaken in the local area and has the potential to add to our understanding of Late Iron Age and Roman activity and as such the findings are worthy of a summary report on the work for the local journal roundup.

11.0 Conclusions

- 11.1 Archaeological monitoring along the route of the access road revealed evidence of activity dating from the Mesolithic period to the present day.
- 11.2 Several worked flints were retrieved from the topsoil representing activity in the vicinity of the site during the Mesolithic to Bronze Age.
- 11.3 Middle to late Iron Age activity was recorded in the form of a pit containing a near complete jar, whilst late Iron Age or early Roman occupation was recorded at the western end of the route, with the remains probably suggesting a small farmstead. Occupation of the area appears to have moved towards the River Trent in the 2nd–4th century AD with the discovery of a probable larger settlement at the eastern end of the access route, associated with ditches and pits recorded to the south.
- 11.4 Undated features were recorded along the route, some of which are thought to be associated with the deserted medieval village of West Burton.
- 11.5 The archaeological monitoring has shown that the local landscape has been utilised from the Mesolithic to present day. Any future quarrying is likely to reveal and impact upon similarly dated features.

12.0 Acknowledgements

- 12.1 Allen Archaeology Limited would like to thank Phoenix Consulting Archaeology Ltd on behalf Tarmac, a CRH Company for this commission.

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Appendix 1: The Prehistoric and Roman Pottery

By Andrew Peachey

Excavations recovered a total of 282 sherds (4373g) of pottery (Table 1) in a slightly abraded condition, although the fabric of many sherds has also been adversely affected by acidic soil conditions. The assemblage include a middle-late Iron Age scored jar deposited near complete in a pit, a sparse distribution of 1st century BC/AD utilitarian coarse ware vessels in ditches, and small groups of Roman pottery in ditches that includes samian ware and local coarse ware probably dating them to the late 2nd/early 3rd centuries AD, possibly into the mid 3rd century AD, though the concentration of pottery in these deposits is limited.

Pottery date	Sherd Count	Weight (g)	R.EVE
Middle-Late Iron Age to 1st century AD	177	2207	0.45
Late 2 nd to Mid 3rd century AD	60	1734	1.63
Roman (un-differentiated)	38	295	-
Un-stratified Roman (subsoil/furrow)	7	137	-
Total	282	4373	2.08

Table 1: Quantification of pottery by date

Methodology

The pottery was quantified by sherd count and weight (g), with fabrics examined at x20 magnification in accordance with the *Standard for Pottery Studies in Archaeology* (Barclay *et al.* 2016), which complement the guidelines of the Prehistoric Ceramics Research Group (PCRG 1995) and Study Group for Roman Pottery (Darling 1994). Alpha-numeric fabric codes were assigned based, where possible on the National Roman Fabric Reference Collection (Tomber and Dore 1998), or on the basis of principal inclusions/firing and are fully described below. All data has been entered into a Microsoft Excel spreadsheet that forms part of the site archive.

Fabric Code	Fabric description and inclusions	Sherd Count	Weight (g)	R.EVE
IASH1	Iron Age shell-tempered ware. Orange red to black surfaces over a dark grey core. Inclusions comprise common platy shell (generally 0.5-3mm, occasionally to 5mm). Handmade, possibly with some wheel-finished rims.	166	2159	0.45
LEZ SA2	Lezoux samian ware 2 (Tomber & Dore 1998, 32)	2	33	0.10
RHZ SA	Rheinzabern samian ware (Tomber & Dore 1998, 39)	5	35	-
TRI SA	Trier samian ware (Tomber & Dore 1998, 41)	3	187	0.03
ARG SA	Argonne samian ware (Tomber & Dore 1998, 34)	1	19	0.05
LVN CC	Lower Nene Valley colour-coated ware (Tomber & Dore 1998, 118)	1	35	-
GT1	Grog-tempered ware (wheel-made). Red-brown to black surfaces over a mid-dark grey core. Inclusions comprise common grog (0.25-0.75mm) and sparse quartz (<0.5mm). Probably an early product of the Trent Valley industries	7	30	-
GRS1	Sandy grey ware. Mid grey surfaces over a slightly darker core. Inclusions comprise common fine translucent quartz (<0.2mm, occasionally to 0.75mm), with sparse degraded iron oxides or oxide-lined voids (<0.5mm). A hard fabric with an abrasive, almost gritty feel. Kilns at Little London,	37	999	1.3

Fabric Code	Fabric description and inclusions	Sherd Count	Weight (g)	R.EVE
	Torksey are one potential source amongst the Trent Valley kilns			
GRS2	As GRS1 but with abundant quartz and sparse angular grey sandstone (hard argillaceous grains?) and iron stone (2-4mm). A hard and gritty fabric. Possibly from Rossington Bridge, Doncaster area but most likely a Trentside fabric.	9	307	0.05
GRS3	As GRS1 but with common quartz (0.1-0.5mm). Almost certainly produced in the Trentside kilns.	24	172	-
GRS4	Pale grey surfaces with a slightly darker core. A relatively clean, fine matrix with sparse fine quartz (generally <0.1, occasionally to 0.25mm), and occasional black iron rich grains and limestone (<0.25mm). A hard powdery fabric	4	50	-
GRS5	Pale orange surfaces fading to a pale grey core and mid grey internal surfaces. Inclusions comprise well-sorted abundant sub-rounded quartz (c.0.25mm) with sparse black iron rich grains and occasional limestone (both <0.5mm). Slightly hackly, near vitrified fabric, but not quite as much as classic Derbyshire coarse wares, possibly produced in NW Lincolnshire.	1	6	-
GRSSH	Sandy grey ware with shell. Patchy pale brown to dark grey surfaces, pale brown margins and a mid grey core. Inclusions comprise abundant sub-rounded quartz (c.0.5mm), sparse shell/void (<2.5mm) and occasional black iron ore (c.0.5mm). Moderately hard with a hackly fracture/feel.	12	102	-
ROB SH	(Early) Roman shell-tempered ware (Darling & Precious 2014, 89). Pale brown to dark grey-brown/black surfaces over a dark grey core. Inclusions comprise abundant shell and limestone/fossiliferous shell (0.25-2mm, very soft inclusions), with occasional quartz (<0.25mm) and occasional fine mica.	7	158	0.10
MAH WH (M)	Mancetter-Hartshill white ware mortaria (Tomber & Dore 1998, 190)	2	28	-
COR WH (M)?	Pale orange to orange-brown mortaria fabric with inclusions of common black and sparse red iron-rich grains, sometimes as streaks (0.5-2mm) and sparse quartz (<0.5mm), with rare fine mica (no trituration grits are visible). Possibly a Corbridge product (Tomber & Dore 1998, 172), but possibly a coarse product of Rossington Bridge (Hartley 1986, 149: fabric 1) or Doncaster.	1	53	-
Total		282	4373	2.08

Table 2: Description and quantification of Iron Age fabric types

Commentary by fabric group

A significant component of the assemblage (Table 2) is made up of hand-made shell tempered wares (IASH1), albeit with this statistic biased by the presence of a significantly complete vessel. Of the IASH1, only this vessel in pit [243] (50 sherds, 1383g) is conclusively pre-Roman Conquest, with the remainder typically thinner-walled and, where extant possibly with wheel-finished rims, characteristic of Belgic-influenced vessel types of the late Iron Age to 1st century AD, but where only abraded body sherds are present they are indistinguishable by fabric. The vessel contained in pit [243], 242 comprises a medium-size scored ware jar, with approximately 60-75% of the vessel present (much

cross-joining), including the base but only a quarter of the rim. It has an upright rim with finger-tip cabling on top, a weak neck and slack body decorated with a shallow-scored rough lattice, comparable to 'native' vessels that span the middle to late Iron Age ('earlier La Tène') period in the region, including at Aslockton, Notts. (Knight 2002, 129 & fig.12.3.20). The remaining IASH1 is represented by significantly smaller sherds with limited diagnostic value, which include small rim sherds from a large jar with a heavy, short out-turned rim in ditch [137], 139, a small jar with stubby lid-seated rim in ditch [137], 140, and the tip of a small barrel jar with an in-turned plain rim in ditch [172], 173. Although only very limited profiles of these vessels are present, they are characteristic of common utilitarian vessels in assemblages that span the 1st century BC/AD in the region, notably at Dragonby (May 1996, 416–7). It appears highly likely that low quantities of grog-tempered coarse ware (GT1) and possibly sand-and-shell tempered ware (GRSSH) are contemporary with these vessel types around the Roman Conquest-period; however these fabrics are limited to small plain body sherds that occur in relative isolation.

The remainder of the assemblage (Table 2) is Roman, with a strong if not all encompassing focus on the late 2nd to mid 3rd centuries AD, and possibly including small diagnostic ditch groups that can be dated to the late 2nd/early 3rd centuries AD. The strongest indicator of this chronology is samian ware, relatively well-represented in an assemblage of this size and including limited sherds from central Gaul (LEZ SA2), but principally comprised of sherds from east Gaul (RHZ SA, TRI SA & ARG SA). The plain ware includes a LEZ SA2 Dr.33 conical cup in ditch [278], TRI SA Dr.31 dishes in ditches [320] and [339], and an ARG SA Dr.31 dish also in ditch [320]; all with relatively little slip remaining due to adverse soil conditions, but consistent with a date within the late 2nd to mid 3rd century AD. This chronology is further supported by decorated samian ware vessels, including the footring base of a TRI SA Dr.37 bowl in ditch [339] that has no extant decoration; but most notably by four cross-joining body sherds from a RHZ SA Dr.37 bowl in ditch [250] that exhibit a moulded freestyle animal decorative scheme. The figure types include a lion galloping left (*O.1482*), with the hind quarters of a smaller unidentified animal facing right, above. These figure types and the decorative style were notably used by Comitalis and associated potters, principally at Rheinzabern but with branch workshops elsewhere in East Gaul in the period c.AD170-240 (Ludowici 1942: Taf. 095, 001 & 097, 004). Aside from the samian ware, the only other fine ware in the assemblage comprises the base of a beaker, manufactured in Lower Nene Valley colour-coated ware (LNV CC), contained in subsoil 101 and likely contemporary with the samian ware.

With the exception of the Roman shell-tempered ware, the Roman coarse wares (GRS1-5 & GRS SH) exhibit a moderate degree of variability based on fabric inclusion, but are essentially all sandy grey (reduced) wares that are consistent with local production in the Trent Valley region, notably at Knaith c.4km to the east (Samuels 1983, 643), Little London, Torksey c.6km to the south-east (Oswald 1937), and further south at Lea, Newton-on-Trent (Field and Palmer-Brown 1991); while larger industries in the area at Lincoln, Swanpool and Rossington Bridge remain strong candidates to have supplied large volumes of grey wares to their hinterland, including the small town of Littleborough (*Segelocum*) c.3km to the east. The suite of sandy grey ware fabrics is very similar to that recorded in assemblages from Rampton (Leary 2000), Bantycok (Leary 2009) and the *Margidunum* hinterland (McSloy 2014, 161), but more detailed analysis is severely hampered by a relative lack of diagnostic rim sherds or vessel profiles. GRS1 vessels include, in Ditch [250], a tall-necked jar/flagon with and pointed external bead comparable to vessels produced in the early/mid 3rd centuries AD (and possibly earlier) at Little London, Torksey (Oswald 1937, 20: vessels 11A/20A) and from the mid 2nd century AD at Lincoln (Darling & Precious 2014, 128: vessel 959). Ditch [283] contained the short, thick out-turned rim of a large jar with a single groove on the shoulder; a type common in mid Roman groups in the *Margidunum* hinterland (i.e. McSloy 2014, 165: fig.4.64.56). GRS2 vessels were represented by small fragments of rolled bead rims, notable from a large or storage jar in ditch [320], but otherwise the sandy grey wares were only represented by plain body sherds (non-burnished, but possibly affected

by soil conditions). The only other coarse ware vessel occurred in Roman shell-tempered ware (ROB SH) contained in ditch [339] and comprised a near-globular bowl with a short out-turned rim, paralleled in 2nd century AD groups at Rossington Bridge (Buckland et al 2001, 79: fig.52.374), mid Roman groups at Lincoln (Darling & Precious 2014, 91: vessels 694/704), and possibly imitating vessels produced at Roxby in north Lincolnshire.

Specialist wares were represented by low quantities of mortaria, including body sherds from a mortar in Mancetter-Hartshill white ware (MAH WS (M)) in subsoil (101) that exhibit heavily worn trituration grits. No mortaria rim forms were recorded but the outer side of a spout was contained in ditch [320] in an iron-rich pale orange fabric that is superficially similar to products from Corbridge (COR WH (M)), but may actually be a coarse product from the industries at Rossington Bridge and Doncaster c.25km to the north-west, though without further profile detail (or trituration grits) remains inconclusive.

Distribution

The earliest component of the assemblage appears to comprise a single middle to late Iron Age scored jar (fabric IASH1), deposited near complete in pit [243], but the vessel appears in isolation and the cross-joining sherds are not associated with any other prehistoric or Roman pottery. Potentially overlapping with the chronology of this vessel are IASH1 Belgic-influenced vessels dating to the 1st century BC/AD, notably a concentration of 53 sherds (489g) contained in ditch [137], with a sparse scatter of small contemporary sherds in several other ditches. The Roman pottery includes small groups of 11-17 sherds in each of ditches [250], [278], [320] and [339], which while representing only limited concentrations contain sufficient diagnostic sherds of local coarse wares and samian ware to allow for a relatively narrow chronology in the late 2nd/early 3rd centuries, possibly into the mid 3rd century AD to be defined.

Research Potential

Archaeological evidence, in particular ceramics, contributing to the understanding of consumption patterns at middle/late Iron Age and Roman settlements in the east Midlands, and the refinement of pottery typologies for the period have been highlighted in research agendas (Knight *et al.* 2012, 58 and 70; Willis 2006). This assemblage can be placed in the context of the rural economy just outside of a Roman small town: Littleborough; and in the vicinity of local grey ware kilns such as those at Knaith and Torksey. Fieldwalking and excavation has previously recovered a significant assemblage from Sturton-le-Steeple (Leary 2003 & 2004), which contained similar proportions of local grey wares, shell-tempered ware, samian ware, colour-coated ware and mortaria, as did assemblages from Rampton close to the south (Leary 2000) and Hemswell Cliff (Rowlandson 2013), slightly further east, which suggests they form part of the same consumer landscape in this part of the Trent Valley (Nottinghamshire/Lincolnshire border), probably associated with Romanised settlements of moderate economy as opposed to poorer rural dispersed settlement. Unfortunately, the potential of this assemblage to contribute to further research is curtailed by the low quantity and concentration of groups, and limited diagnostic sherds; however that present, notably the samian ware should allow for a small but informative contribution to the understanding of pottery consumption within this landscape. Nonetheless, no further recording or analysis is recommended due to the constraints and poor preservation of the assemblage, with the commentary above providing sufficient detail to be carried forward into the archive report.

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Appendix 2: Post-Roman pottery and ceramic building material

By Jane Young

Introduction

Eight sherds of post-Roman pottery, five fragments of ceramic building material and five pieces of fired clay were presented for examination. The recovered dateable material is of Roman to post-medieval type. The assemblage has been fully archived to the standards for acceptance to a museum archive and within the guidelines laid out in Slowikowski, et al. (2001), the Archaeological Ceramic Building Materials Group (2001) and a Standard for Pottery Studies in Archaeology (2016). Visual fabric identification of the pottery was undertaken by x20 binocular microscope. The assemblage was quantified by three measures: number of sherds/fragments, vessel count and weight and the resulting archive entered onto an Access database using fabric codenames (see Table 3) developed for the Lincoln Ceramic Type Series (Young, Vince and Nailor 2005) and the preliminary Nottingham Type Series (Nailor and Young 2001).

Condition

The material is in a mixed slightly abraded to very abraded condition with individual sherd/fragment size varying wildly. The fired clay/daub is in a friable condition but the tile and pottery is in a stable state.

The pottery

Eight vessels in four post-Roman ware types were examined (Table 3). The identified material is of medieval to post-medieval date. A limited range of vessel forms is represented with most sherds coming from jugs, jars or bowls.

Codename	Full name	Earliest date	Latest date	Total sherds	Total vessels
BERTH	Brown glazed earthenware	1550	1800	3	3
BL	Black-glazed wares	1550	1750	1	1
HUM	Humberware	1250	1550	1	1
LSWV	Lincoln Sandy ware variant	1150	1500	2	1
MEDX	Non Local Medieval Fabrics	1150	1450	1	1

Table 3: Pottery types with total quantities by sherd and vessel count

All of the post-Roman pottery was recovered from layer 356. Two sherds are from a single small 13th century Lincoln-type Glazed ware (LSWV) jug with combed decoration. A very abraded light-firing sherd with traces of a yellow glaze with copper-green spots is from a large jug. The jug is a regional import from an unknown source. The only rim sherd in the group comes from a Humberware jar (HUM) of late 13th to mid 16th century date. The other sherds come from black (BL) or brown-glazed (BERTH) earthenware vessels. These four vessels are all unusual and most probably date to the early part of these types in period between the late 16th and mid 17th centuries. One sherd appears to be from a large internally and externally glazed jar in a coarse Staffordshire/Derbyshire-type fabric. Another internally and externally glazed sherd with shoulder ridging is from a jug in a medium orange fabric. A small sherd is probably from a Cistercian-type cup in a red sandy fabric. The only black-glazed sherd is from a jug or jar.

The ceramic building material and fired clay

In total three Roman tiles (TEG), four pieces of daub and an un-diagnostic fragment of fired clay were recovered from four deposits. Ditch 320 produced four very abraded pieces of Tegula (TEG) from two

tiles (fills 321 and 323). Another abraded Tegula fragment was found in ditch 244 (fill 246). The three pieces of very abraded daub (DAUB) recovered from ditch 172 (fill 177) originally came from a single lump. The edge of a wathy or wattle impression is just visible. Another lump in a similar condition was found in ditch 107 (fill 111). Ditch 151 (fill 158) produced a flake of barely fired clay covered in iron-rich concretions.

Discussion

This is a small mixed group of pottery, tile and fired clay that suggests disposal of material of Roman, medieval and post-medieval period in the area of the site. The tile, fired clay and one piece of pottery appear to have been affected by plough damage. The post-medieval pottery although fragmentary is however unaffected.

The assemblage should be retained for future study.

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Appendix 3: Assessment of the flint,

By Sarah Bates

Methodology

Each flint was examined and recorded by context in an ACCESS database table. The material was classified by *category* and *type* (see archive) with numbers of pieces and numbers of complete, corticated, patinated and hinge fractured pieces being recorded and the condition of the flint being commented on. Additional descriptive comments were made as necessary.

Results

Three pieces of flint were found at the site. All of the flints were from subsoil context [101]. The flints are listed by context and small find number in Table 4.

A neat blade of semi-translucent flint has an abraded platform edge which indicates that it was struck from a carefully prepared core SF 7. It is of likely Mesolithic or earlier Neolithic date. It is slightly edge damaged but has signs of possible slight use of its left lateral edge. The distal tip is missing; damage which also may have occurred during use.

A retouched flake of opaque greyish brown flint with a thin white band running through it was also found SF 8. Part of its right side, towards at its distal end, is missing. There are some blade-like scars on its left side but they are from a previous platform and there is batter of another former platform at a dorsal ridge near the proximal end. There is slight retouch along this edge towards its distal end. The flake is clearly from a previously flaked piece (probably a larger flake but, perhaps, from the side of a core) It has been struck from various sides and in different directions; there are some additional very small scars from what may have been blade-like removals from its ventral face/proximal right face.

A very small quite thin neat flake of black flint is retouched along its right lateral edge and was probably used as a side scraper SF 9. There is also slight bifacial retouch at its distal edge and more irregular slight retouch of the left side. The small piece is most likely to be of LNEBA date.

Discussion

The flints represent activity in the vicinity of the site during the prehistoric period. A small blade from a prepared core is of Mesolithic or earlier Neolithic date, a side scraper is probably LNEBA, and a slightly retouched flake is not closely dateable.

The flint was all found as residual material in the subsoil [101]; Roman pottery also came from the deposit.

Recommendations

There is no potential for further work on the flint. A summary of the above assessment can be included in the final site report.

Ctxt	Small find	Type	No.	Comp.	Cort.	Prim	Pat.	Shar p	E.dam	Hinge	Cortical platform	Prepared platform	Date	Comment
101	8	retouched flake	1	1	0	0	1			0	0	0		?one side of a larger fl, or from core, has some bl type scars but from a previous platform, part of original edge of fl is slightly retouched
101	9	side scraper	1	1	1	0	0			0	0	0	?Ineba	sm, qu thin sub rect fl qu neat, but dors scars not bl-like, right lat edge neatly semi abrupt ret with slight bifacial ret across dist end and irreg? slight ret left lat
101	7	utilised blade	1	0	1	0	0			0	0	1	M/eneo	neat bl from prep core, has very slight prob ut of left lat edge towards dist end and dist tip is missing – so perhaps that cld be thru use....?

Table 4: Flint catalogue

Appendix 4: Other Finds

By Mike Wood

Introduction

A mixed collection of metal, leather, stone, clay tobacco pipe and a single coin was collected during archaeological investigation on land at Sturton-Le-Steeple.

Methodology

The material was counted and weighed in grams, then examined visually to identify any diagnostic pieces and the overall condition of the assemblage. Reference was made to published guidelines (Higgins & Davey 2004). Where no other identification has been possible for the clay pipe, stems have been dated by established stem bore guidelines (Oswald 1975). It should be noted that dates provided by stem-bore size can have an appreciable margin for error and are intended only as a general guide. A summary of the material is recorded in Tables 5-9.

Results

Context	Date range	Stems	Bowls	Mouths	Weight (g)	Stem bore	Comments
356	c.1767-1782	1			1.8	4/64"	Snapped stem, very abraded

Table 5: Clay tobacco pipe

Context	Material	Object	Date	Measurements (mm)	No.	Wt (g)	Comments
100	Pb	Bag seal	Post-med	15.51x15.44x3.13	1	4.1	SF 1: Pressed bag seal marked with a portcullis style stamp
100	Pb	Shot	Post-med	13.88x15.20x14.83	1	20.3	SF 2: lead shot, flattened at one point
100	Pb	Shot	Post-med	12.41x12.3x12.43	1	12.3	SF 3: lead shot
101	Cu?	Slag	undated	-	1	52.9	SF 4: fragment of dense slag. Heavily oxidized and appears to have traces of verdigris bloom forming.
101	Fe	Nail	Post-med	60.88x28.71x29.20	1	96.4	SF 5: large corroded nail
417	Fe	Slag	Undated	-	2	49	Corroded iron slag, fairly undiagnostic.

Table 6: Metal objects

Context	Object	Date	No.	Wt (g)	Comments
323	Unid	Undated	1	0.8	Sliver of leather recovered from sample 22

Table 7: Leather

Context	Object	Date	No.	Wt (g)	Comments
111	natural	undated	5	1401	Heated stone

Context	Object	Date	No.	Wt (g)	Comments
140	Quern	IA-RB	1	1942	Very worn and fractured rotary quern.
159	Quern	IA-RB	1	1050	Fragment of abraded quern formed from quartz rich sandstone
159	Quern	LIA	1	4561	Approximately 40% of a topstone beehive quern formed from gritstone
239	Natural	undated	14	832	Heated stone
241	Natural	undated	2	74	Heated stone
242	Natural	undated	17	1337	Heated stone
248	Quern	IA-RB	1	316	Gritstone possible quern fragment
293	Natural	undated	1	636	Fragment of igneous glacial erratic
306	Tile	undated	1	192	Laminating sedimentary stone, one probable nail hole
343	Natural	undated	4	1260	Heated stone

Table 8: Stone

Context	SF	Diameter (mm)	Wt (g)	Rev	Mint	Obv	Date	Comment
100	1	18.01	0.6	John? Very worn	Unid	Short cross, 4 pellets in each quarter	c.1199-1216	Silver penny split in half to form a half-penny. Very worn.

Table 9: Silver Coin

Discussion

The earliest dateable material all relates to quern stone fragments collected from contexts 140, 159 and possibly 248. Contexts 140 has been spot-dated to the 1st-2nd century AD, while context 159 is thought to be of mid-late Iron Age in date, which would not be out of place for these querns. The example from 140 is only broadly dateable as a probable rotary quern, whereas the larger fragment from 159 is an example of a beehive quern which is thought to have been in use from approximately the 2nd century BC (Walker 1985).

Numerous examples of burnt flint and stone cobbles were collected, none of which seems to have been utilised apart from in heating. These may have been used as potential cooking aids as pot boilers or to slow roast food, although heated stone is not uncommon on archaeological sites and could have had many domestic and industrial uses.

The remainder of the assemblage is largely post-medieval in date comprising a group of items collected from topsoil during metal-detecting and few dateable items recovered from features. The material is all rather abraded and weathered and appears to have been exposed to the elements for some time before reburial and there is a high probability much is residual in nature.

Of interest was the silver medieval half-penny, suggesting some activity in the late 12th-early 13th century on site, although this appears to have been an isolated example from this period in the works.

Recommendations

The stone requires no further work and the heated material could be discarded or returned to the landowner, while the quern pieces should be retained in the archive. The coin is in reasonable condition and is not visibly deteriorating, but would benefit from an x-ray and should be retained for the archive. Of the remainder of the material, such a limited assemblage of predominantly post-medieval or later material offers little opportunity for further study, with the material all suitable for discard.

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Appendix 5: Waterlogged Wood

By Michael Bamforth

Introduction

A single piece of wood (280) / SF10.1, 10.2 and 10.3 was recovered from east / west orientated linear feature [278], lying northeast / southwest within fill (279). The linear feature measured 3.30m wide x 0.60m deep. Several fragments of Romano British pottery were recovered from the feature. The wood was recovered during an archaeological excavation carried out by Allen Archaeology during 2016 under Site Code SLSQ 16 at Sturton-le-Steeple, Nottinghamshire and was recorded off site by M. Bamforth in August 2017. The item was situated in waterlogged deposits which created the anaerobic conditions necessary for organic preservation.

Methodology

This document has been produced in accordance with Historic England guidelines for the treatment of waterlogged wood (Brunning and Watson 2010) and recommendations made by the Society of Museum Archaeologists (1993) for the retention of waterlogged wood. The system of categorisation and interrogation developed by Taylor (1998, 2001) has been adopted within this report.

Range and Variation

Linear [278], fill (279), wood (280)

Although the material was submitted as three potentially different items, labelled as SF10.1, 10.2 and 10.3 the items appear to be part of the same item, a view supported by the context records. The item is a single piece of small diameter roundwood measuring 805mm in length with a maximum diameter of 14mm. No woodworking evidence was noted. The distal end is degraded and the proximal end is charred through. The bark is absent and there is a fine tear in the sapwood running along part of one edge, which does raise the possibility that the item was deliberately debarked. Although the item is very soft, it is in excellent visual condition. The item is a non-ring porous species.

Statement of Potential and Recommendations

No woodworking evidence was noted from this item which most probably represents naturally accumulated material. The item has no further analytical potential and no further work is advised. It is suggested that the material is discarded.

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Appendix 6: Animal Bone

By J Wood

Introduction

A total of 205 (3275g) refitted fragments of animal bone were recovered during a scheme of archaeological works undertaken by Allen Archaeology Ltd on Land at Sturton-le-Steeple Quarry, Sturton-le-Steeple, Nottinghamshire. The remains were recovered from a series of enclosure ditches, boundary ditches and pits, all dated from the mid-late Iron Age to the 2nd century.

Methodology

For the purposes of this assessment the entire assemblage has been fully recorded into a database archive. Identification of the bone was undertaken with access to a reference collection and published guides. All animal remains were counted and weighed, and where possible identified to species, element, side and zone (Serjeantson 1996). Also fusion data, butchery marks (Binford 1981), gnawing, burning and pathological changes were noted when present. Ribs and vertebrae were only recorded to species when they were substantially complete and could accurately be identified. Undiagnostic bones were recorded as micro (rodent size), small (rabbit size), medium (sheep size) or large (cattle size). The separation of sheep and goat bones was done using the criteria of Boessneck (1969) and Prummel and Frisch (1986) in addition to the use of the reference material. Where distinctions could not be made the bone was recorded as sheep/goat (S/G).

The condition of the bone was graded using the criteria stipulated by Lyman (1996). Grade 0 being the best preserved bone and grade 5 indicating that the bone had suffered such structural and attritional damage as to make it unrecognisable.

The quantification of species was carried out using the total fragment count, in which the total number of fragments of bone and teeth was calculated for each taxon. Where fresh breaks were noted, fragments were refitted and counted as one.

Tooth eruption and wear stages were measured using a combination of Halstead (1985), Grant (1982) and Levine (1982), and fusion data was analysed according to Silver (1969). Measurements of adult, that is, fully fused bones were taken according to the methods of von den Driesch (1976), with asterisked (*) measurements indicating bones that were reconstructed or had slight abrasion of the surface.

Results

Condition

The overall condition of the bone was moderate, averaging at grade 3 on the Lyman criteria (1996).

Butchery

A single fragment of cattle femur recovered from mid-late Iron Age-1st Century AD boundary ditch displayed evidence of butchery. The cut mark evidence was consistent with disarticulation of the carcass.

Working

A single cattle humerus recovered from 1st century AD boundary ditch [118], displayed a purposely punctured/drilled hole through the condyles of the distal humerus. The function of the piece is uncertain.

Gnawing

Three fragments of bone recovered from ditches [118], [131] and [137] displayed evidence of carnivore gnawing. There is no further evidence of gnawing observed within the assemblage, which may suggest that the remains were rapidly buried after disposal limiting the access of scavengers.

Burning

Four fragments of burnt bone were recovered from ditches [151], [156] and pit [243], possibly representing incidental burning events or hearth sweepings.

Pathology

No evidence of pathology was noted in the remains.

Species Representation

Table 10 summarises the number of fragments of bone identified to species or taxon from each area.

Taxon	Mid/Late Iron Age	Mid/Late Iron Age-1st Century AD	1st Century AD	2nd Century AD	late 2nd Century AD	Roman	Undated	Total
Equid (Horse Family)		3	2	4	1	2		12
Cattle	1	19	6		2		2	30
Sheep/Goat		12	2			2	1	17
Pig							1	1
Dog (<i>Canis Sp.</i>)			1					1
Deer?		1						1
Large Mammal	1	57	3		1	26		88
Medium Mammal		11					7	18
Unidentified		10	3			23	1	37
Total	2	113	17	4	4	53	12	205

Table 10: Summary of identified Taxa by date/phase

As can be seen from Table 10, cattle were the predominant species identified, followed by sheep/goat, and then *equid* (Horse family) remains. Isolated fragments of pig, dog and possible deer were also identified within the assemblage. The remaining assemblage was only identifiable to size taxa.

Discussion of Potential

The assemblage is too small to provide detailed data on the dietary economy, animal utilisation or husbandry practices taking place on site. However some generalised patterns can be observed.

Cattle were the predominant species identified within the assemblage, followed by sheep/goat. There does not seem to be a variation from sheep/goat to cattle as has been commonly seen transition from many Iron Age – Roman settlements. This may suggest that the local environment was more conducive to cattle farming. The limited tooth wear data suggests that the majority of the animals were of an older age, indicating that the both cattle and sheep/goat were kept to an older age, probably for the production of secondary products such as milk, wool, traction and for breeding purposes. Most skeletal elements are represented within the assemblage which may suggest that the animals were slaughtered and processed on site. The presence of possible deer on site may suggest that wild animals were used to supplement the site diet economy. The identification of the possible deer fragment was not convincing and the suggestion of the species being possible fallow deer was tentative. In the time

period to which the fragment is attributed, the likelihood of fallow deer remains being present is relatively small. Fallow deer are an introduced species to the UK and not widely found until the medieval period. There are records of small numbers of fallow deer being identified from Roman contexts such as at Fishbourne palace, suggesting some small amount of trade of the species (Sykes, 2010:55). Although due to the tentative nature of the identification of the fragment, the significance of this single bone fragment should be viewed with severe caution.

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Appendix 7: Plant macrofossils and Wood Charcoal

By Ellen Simmons

Introduction

Twenty-one bulk sieving (BS) samples, comprising five hundred and seventy litres of soil, were taken during archaeological excavations on land at Sturton-le-Steeple Quarry, Nottinghamshire (NGR SK 811 846). Pottery finds indicate activity at the site primarily during the mid/late Iron Age and Roman periods. The samples were processed for the recovery of charred plant macrofossils and wood charcoal and assessed in order to determine the concentration, diversity, state of preservation and suitability for use in radiocarbon dating, of any archaeobotanical material present. A further aim of assessment was to evaluate the potential of any archaeobotanical material present to provide evidence for the function of the contexts, the economy of the site or for the nature of the local environment.

Methodology

The bulk sieving samples were processed by Bryn Leadbetter of Allen Archaeology, for the recovery of charred plant remains and wood charcoal using a water separation machine. Floating material was collected in a 300µm mesh, and the remaining heavy residue retained in a 1mm mesh. The flots and heavy residues were air dried. Six of the sampled contexts exhibited potential for the preservation of organic material by anoxic waterlogging. Floating material which was collected in the 300µm mesh was therefore kept wet in distilled water. Ethanol was not added at this stage as it would contaminate any material needed for radiocarbon dating. It would be recommended that 70% ethanol be added in accordance with Historic England guidelines for the curation of macroscopic plant and invertebrate remains (Robinson 2008) once any material needed for radiocarbon dating has been removed.

The greater than 4mm fraction of the heavy residues were fully sorted for organic remains and artefacts and then discarded. Where no potential for the recovery of organic remains such as fish bone or Mollusca, or artefacts such as beads less than 4mm in size was noted, the less than 4mm fraction of the heavy residue was then also discarded.

The samples were assessed in accordance with Historic England guidelines for environmental archaeology assessments (Campbell *et al.*, 2011). A preliminary assessment of the samples was made by scanning using a stereo-binocular microscope (x10 - x65) and recording the abundance of the main classes of material present. The charred plant macrofossils were identified and quantified in full due to the low concentrations of material present, with the exception of the abundant thorns in ditch fill 251. Plant macrofossils preserved by anoxic waterlogging were quantified using a scale of abundance (- = < 5 items, + = > 5 items, ++ = > 10 items, +++ = > 50 items, ++++ = > 100 items, +++++ = > 500 items). Identification of plant macrofossils was carried out by comparison with material in the author's own reference collection and various reference works (e.g. Cappers *et al.* 2006). Cereal identifications and nomenclature follow Jacomet (2006). Other plant nomenclature follows Stace (2010). Information relating to the ecology of various plant taxa was sourced from Stace (2006) and Preston *et al.* (2002).

Plant macrofossils preserved by charring is recorded below in table 1 and plant macrofossils preserved by anoxic waterlogging is recorded in table 2. The seed, in the broadest sense, of the plant is always referred to in the tables unless stated otherwise. The abbreviation *cf.* means 'compares with' and denotes that a specimen most closely resembles that particular taxa more than any other.

Results

Preservation conditions

The low-density assemblages of charred cereal grains present in various contexts were generally well preserved with epidermis present and minimal evidence for puffing or distortion.

The rich assemblage of small diameter round wood charcoal present in ditch fill 251 was very well preserved, with bark frequently present along with small thorns and leaf buds. The low-density assemblages of wood charcoal present in various other contexts were also well preserved.

The rich assemblages of waterlogged plant macrofossils present in ditch fill contexts 279, 323, 325 and 341 were generally well preserved although some degradation and fragmentation of seeds was apparent. The moderate density assemblages of waterlogged plant macrofossils present in pit fill 145 and posthole fill 148 were less well preserved with a higher incidence of degradation and fragmentation.

Charred plant macrofossils

Low concentrations of charred cereal grain, cereal chaff and wild or weed plant seeds were present in a number of the sampled features. The crop types represented were oat grain (*Avena* sp.) and hulled barley grain (*Hordeum* sp.), along with grain and glume bases which could only be identified as either emmer or spelt wheat (*Triticum dicocum/ spelta*). No oat floret bases were noted as present so it could not be determined whether the oat grains are representative of weeds or a cultivar. The charred wild or weed plant seed assemblage included taxa commonly associated with fertile disturbed soils and cultivation such as chickweed (*Stellaria media*), goosefoots (*Chenopodium* spp.), oraches (*Atriplex* spp.) and nettle (*Urtica dioica*). Ribwort plantain (*Plantago lanceolata*) and small seeded grasses (<2mm Poaceae) may be representative of grassland or grassy field margins. Many of the species of sedges (*Carex* spp.) potentially represented are commonly associated with damp soils.

Wood charcoal

A rich assemblage of over five hundred small diameter round wood charcoal fragments was present in early to mid 3rd century AD ditch fill 251. A significant number of charred thorns and leaf buds were also present.

Forty-two wood charcoal fragments greater than 2mm in size were present in pit fill 282. Preliminary examination of the wood charcoal fragments using low power microscopy indicated that the majority were of ring porous taxa. Eleven wood charcoal fragments greater than 2mm in size were present in Roman pit fill 113 and seven wood charcoal fragments greater than 2mm in size were present in ditch fill 395 with both ring porous and diffuse porous taxa represented.

The remaining sampled contexts contained no wood charcoal greater than 2mm in size.

Waterlogged plant macrofossils

A rich and diverse assemblage of plant macrofossils preserved by anoxic waterlogging was present in context 279, a late 2nd century AD fill of ditch 278. Most of the taxa represented are plants of fertile disturbed soils and cultivation such as parsley piert (*Aphanes arvensis*), common nettle (*Urtica dioica*), wild radish (*Raphanus raphanistrum*), redshank / pale persicaria (*Persicaria maculosa / lapathifolia*), knotgrass (*Polygonum aviculare* agg.), chickweed (*Stellaria media*), corn spurrey (*Spergula arvensis*), goosefoots (*Chenopodium* spp.), oraches (*Atriplex* spp.), black nightshade (*Solanum nigrum*) and thistles (*Carduus / Cirsium*). The presence of water is indicated by abundant egg cases of water fleas (*Daphnia* spp.) and occasional caddisfly (Trichoptera) larvae cases, along with seeds of celery leaved buttercup (*Ranunculus scleratus*) and pondweed (*Potamogeton* spp.). Marsh yellow cress (*Rorippa palustris*), marsh pennywort (*Hydrocotyle vulgaris*), blinks (*Montia fontana* ssp. *chondrosperma*), rushes (*Juncus* spp.) and bristle club rush (*Isolepis setacea*) are also plants of wet and damp habitats. Herbaceous plant roots or stems were abundant, along with frequent moss fragments and small

diameter roundwood. A low concentration of wood charcoal and charred plant material, which included hulled barley (*Hordeum* sp.) and spelt wheat glume bases (*Triticum spelta*), was also present.

A high density and diversity of waterlogged plant macrofossils was present in context 323 and late 2nd century context 325, which were both fills of ditch 320. A moderate density and diversity of waterlogged plant macrofossils was present in context 341 from ditch 339. A range of taxa representative of fertile disturbed soils and damp soils was also present in these ditch fills, along with water flea egg cases indicating the presence of water.

A low concentration of waterlogged plant macrofossils was also present in pit fill 145 and posthole fill 148. Seeds of plants commonly associated with fertile disturbed soils included parsley piert, nettle and chickweed, with damp soils and the presence of water also indicated by seeds of marsh yellow cress and egg cases of water fleas.

Invertebrate remains

Invertebrate macrofossils (Coleoptera) were particularly abundant in ditch fill 279 with a high concentration also present in ditch fills 323, 235 and 341.

Radiocarbon dating

Material suitable for use in radiocarbon dating was present in ditch fills 279, 323 and 325 in the form of waterlogged round wood fragments greater than 4mm in size.

Context number	113	133	150	242	246	251	255	282
Feature number	112	131	149	243	244	250	253	281
Flotation sample number	2	4	6	12	13	14	15	17
Feature type	pit	ditch	ditch	pit	ditch	ditch	ditch	pit
Spot date	Rom	mid / late IA -1st C AD	1st C AD	mid – late IA	Rom	early / mid 3rd C AD		
Sample volume (litres)	30	30	30	30	30	30	20	30
Flot volume (ml)	20	10	10	1	1	3	50	10
% Intrusive roots	90	90	90	70	20	20	10	5
*key - = < 5 items, + = > 5 items, ++ = > 10 items, +++ = > 30 items, ++++ = > 50 items, +++++ = > 100 items.								
CROP MATERIAL*								
Oat grain (<i>Avena</i> sp.)		1						
Hulled barley (<i>Hordeum</i> sp.) grain		1						
Emmer / spelt wheat (<i>Triticum dicoccum</i> / <i>spelta</i>) grain	1							
Emmer / spelt wheat (<i>Triticum dicoccum</i> / <i>spelta</i>) glume base			1					
Wheat indeterminate (<i>Triticum</i> indet.) grain		1						
Total identifiable crop material								
WILD / WEED PLANT SEEDS*								
Common nettle (<i>Urtica dioica</i>)					1			
Chickweed (<i>Stellaria media</i>)		1						

Context number	113	133	150	242	246	251	255	282
Feature number	112	131	149	243	244	250	253	281
Flotation sample number	2	4	6	12	13	14	15	17
Feature type	pit	ditch	ditch	pit	ditch	ditch	ditch	pit
Spot date	Rom	mid / late IA -1st C AD	1st C AD	mid – late IA	Rom	early / mid 3rd C AD		
Goosefoots (<i>Chenopodium</i> sp.)						1		
Orache (<i>Atriplex</i> spp.)						2		
Ribwort plantain (<i>Plantago lanceolata</i>)		1						
Sedges (<i>Carex</i> spp.)		2						
Small seeded grass seed (< 2mm Poaceae)	2	2						
Unidentified taxa								
Total identifiable wild / weed plant material								
NON SEED PLANT MATERIAL*								
< 2mm culm node / monocot stem fragment	1	1						
Thorns						++++		
Leaf buds						++++		
> 4mm wood charcoal fragments	1					1		2
> 4mm roundwood charcoal fragments						102		
> 2mm wood charcoal fragments	10							40
> 2mm roundwood charcoal fragments						>500		
Charcoal (DP = predominantly diffuse porous. RP = predominantly ring porous)	RP some DP					DP		RP

Table 11: Archaeobotanical sample assessment of charred plant material and wood charcoal

Context number	292	293	306	321	348	385	395
Feature number	283	278	303	320	344	384	394
Flotation sample number	18	19	20	21	25	26	27
Feature type	ditch	ditch	ditch	ditch	pit	pit	ditch
Spot date	2nd-3rd C AD	2nd C AD	Roman	late 2nd- mid 3rd C AD	Roman		
Sample volume (litres)	30	30	30	30	30	30	20
Flot volume (ml)	<1	3	5	10	5	5	10
% Intrusive roots	90	90	90	50	70	90	90
*key - = < 5 items, + = > 5 items, ++ = > 10 items, +++ = > 30 items, ++++ = > 50 items, +++++ = > 100 items.							
CROP MATERIAL*							
Oat grain (<i>Avena</i> sp.)							

Context number	292	293	306	321	348	385	395
Feature number	283	278	303	320	344	384	394
Flotation sample number	18	19	20	21	25	26	27
Feature type	ditch	ditch	ditch	ditch	pit	pit	ditch
Spot date	2nd-3rd C AD	2nd C AD	Roman	late 2nd- mid 3rd C AD	Roman		
Hulled barley (<i>Hordeum</i> sp.) grain							
Emmer / spelt wheat (<i>Triticum dicoccum</i> / <i>spelta</i>) grain							
Emmer / spelt wheat (<i>Triticum dicoccum</i> / <i>spelta</i>) glume base			1				1
Wheat indeterminate (<i>Triticum</i> indet.) grain							
Total identifiable crop material							
WILD / WEED PLANT SEEDS*							
Common nettle (<i>Urtica dioica</i>)							
Chickweed (<i>Stellaria media</i>)							
Goosefoots (<i>Chenopodium</i> sp.)							
Orache (<i>Atriplex</i> spp.)							
Ribwort plantain (<i>Plantago lanceolata</i>)							
Sedges (<i>Carex</i> spp.)							
Small seeded grass seed (< 2mm Poaceae)							
Unidentified taxa							
Total identifiable wild / weed plant material							
NON SEED PLANT MATERIAL*							
< 2mm culm node / monocot stem fragment							
Thorns							
Leaf buds							
> 4mm wood charcoal fragments							1
> 4mm roundwood charcoal fragments							
> 2mm wood charcoal fragments							6
> 2mm roundwood charcoal fragments							
Charcoal (DP = predominantly diffuse porous. RP = predominantly ring porous)							

Table 12 cont.: Archaeobotanical sample assessment of charred plant material and wood charcoal

Context number	145	148	279	323	325	341
Feature number	144	146	278	320	320	339
Flotation sample number	3	5	16	22	23	24
Feature type	pit	posthole	ditch	ditch	ditch	ditch
Spot date			late 2nd C AD		late 2nd C AD	
Sample volume (litres)	10	10	30	30	30	30
Flot volume (ml)	5	10	300	20	50	40
*key - = < 5 items, + = > 5 items, ++ = > 10 items, +++ = > 50 items, ++++ = > 100 items, +++++ = > 500 items. (c) = charred						
CROP MATERIAL*						
Hulled barley grain (<i>Hordeum</i> sp.)			- (c)			
Spelt wheat glume base (<i>Triticum spelta</i>)			+ (c)			
Total identifiable crop material						
WILD / WEED PLANT SEEDS*						
Fumitory (<i>Fumaria</i> sp.)			-		-	
Celery-leaved buttercup (<i>Ranunculus scleratus</i>)			+++		-	
Crowfoot (<i>Ranunculus</i> subg. <i>Batrachium</i>)						++
Meadow / creeping / bulbous buttercup (<i>Ranunculus acris / repens / bulbosus</i>)			++	-	-	++
Hairy buttercup (<i>Ranunculus sardous</i>)			-			
Bramble (<i>Rubus fruticosus</i>)		-	+	-	-	
Parsley piert (<i>Aphanes arvensis</i>)		+	++	-		
Common nettle (<i>Urtica dioica</i>)	++	+++	+++++	+++++	+++	++
Small nettle (<i>Urtica urens</i>)	-		-	++		
Birch (<i>Betula</i> sp.)		-		-		
Violet (<i>Viola</i> sp.)					+	
Marsh yellow cress (<i>Rorippa palustris</i>)	+	++	+++	-	++++	+++
Wild radish (<i>Raphanus raphanistrum</i>) seed pod			+			
Redshank / pale persicaria (<i>Persicaria maculosa / lapathifolia</i>)		-	+++	++	++	+
Knotgrass (<i>Polygonum aviculare</i> agg.)			++	-	-	-
Docks (<i>Rumex</i> spp.)			++++	++	+	+
Pink family (Caryophyllaceae)			++	+		
Chickweed (<i>Stellaria media</i>)	-	+	+++++	++++	+++	

Context number	145	148	279	323	325	341
Feature number	144	146	278	320	320	339
Flotation sample number	3	5	16	22	23	24
Feature type	pit	posthole	ditch	ditch	ditch	ditch
Spot date			late 2nd C AD		late 2nd C AD	
Mouse-ears (<i>Cerastium</i> sp.)				+		
Corn spurrey (<i>Spergula arvensis</i>)			++			
Goosefoots (<i>Chenopodium</i> spp.)	-		+++++	++	+++	
Orache (<i>Atriplex</i> spp.)			+++	-	+	
Blinks (<i>Montia fontana</i> ssp. <i>chondrosperma</i>)			+++		-	
Black nightshade (<i>Solanum nigrum</i>)			++	+	-	-
Greater plantain (<i>Plantago major</i>)	-					
Dead nettle family (Lamiaceae)			+++		-	+
Woundwortrs (<i>Stachys</i> spp.)			++			-
Self heal (<i>Prunella vulgaris</i>)			++			
Thistle (<i>Carduus / Cirsium</i>)			+++++	++	-	
Prickly sowthistle (<i>Sonchus asper</i>)		-				
Hawkbit (<i>Leontodon</i> sp.)				+	-	
Trifid bur-marigold (<i>Bifid tripartita</i>)					++	
Elder (<i>Sambucus nigra</i>)			++	+	++	-
Marsh pennywort (<i>Hydrocotyle vulgaris</i>)			+++	-		
Carrot family (Apiaceae)			+	-	-	
Pondweed (<i>Potamogeton</i> sp.)			++			+
Rushes (<i>Juncus</i> spp.)	++	+++	+++++	+	++	+++++
Bristle club rush (<i>Isolepis setacea</i>)			++			
Sedges (<i>Carex</i> spp.)	-			-		
Small seeded grass seed (<2mm Poaceae)	-			++		
Sweet grass (<i>Glyceria</i> sp.)						++++
Unidentified taxa	-		-	-	-	-
NON SEED PLANT MATERIAL*						
Herbaceous plant roots / stems	+++++	+++++	+++++	++++	++++	+++++
Moss (Bryophyta) fragments			++++			
>4mm wood fragments				+	-	
>4mm round wood			-	-	-	
2-4mm wood fragments			++	+++	++	-
2-4mm round wood			+++	-	+	-

Context number	145	148	279	323	325	341
Feature number	144	146	278	320	320	339
Flotation sample number	3	5	16	22	23	24
Feature type	pit	posthole	ditch	ditch	ditch	ditch
Spot date			late 2nd C AD		late 2nd C AD	
> 4mm wood charcoal fragments			-			
2-4mm wood charcoal fragments			+			
Charcoal (DP = predominantly diffuse porous. RP = predominantly ring porous)						
NON PLANT MATERIAL*						
Invertebrate remains (Coleoptera)	+++	+++	+++++	++++	++++	++++
Water flea (<i>Daphnia</i> spp.) egg cases	++++	++++	+++++	+++++	++++	+++++
Caddisfly (Trichoptera) larvae case			++			+++

Table 13: Archaeobotanical sample assessment of waterlogged plant material

Discussion of Potential

The low concentrations of cereal grains present in a number of contexts are likely to have been charred accidentally during parching or food preparation and discarded as waste from domestic hearths, indicating domestic activity in the vicinity of the sampled features. Glume wheat chaff is likely to represent waste from the later stages of glume wheat processing. Ethnographic evidence suggests that glume wheats are generally put into storage as sheaves in areas with wet summers, with the final stages of processing to remove the chaff and weed seeds carried out as and when needed (Hillman 1981, 155). Spelt wheat glume bases are particularly common in Roman archaeobotanical assemblages (Monckton 2006, 274). The association of the wild or weed plant seeds with charred cereal grain indicates that the majority of the wild or weed plant seeds are likely to have been harvested along with the crops and charred as waste following removal during crop processing although other sources include tinder, fodder and roofing or flooring material.

The crop types represented in the samples are typical of the Roman period in the region. Hulled barley, spelt wheat grain and spelt wheat chaff were the predominant crop types present in rich assemblages of charred plant remains of Roman date from Dunston's Clump, Babworth, Nottinghamshire (Jones 1987) and the North Lincolnshire settlement site of Dragonby (Van der Veen 1996). A small proportion of oat grains were also present in the archaeobotanical assemblage from Dragonby, although no oat floret bases were present and the oat grains were recorded as weeds. Oat grains were also present at Dunston's clump and although oat lemma bases were present, none were identified as the cultivated species. No further analysis of the charred plant macrofossil assemblage from Sturton le Steeple would however be recommended due to the low density of material present.

The rich assemblage of small diameter round wood along with frequent thorns and leaf buds present in context 251, a 3rd century AD fill of ditch 250, would be consistent with thorny scrub or hedging which may have been cleared using fire or collected and burnt to produce a hot, bright, fast burning fire, with the remains dumped in the ditch. The presence of frequent leaf buds indicates that this material was probably burnt in the winter or early spring. Pollen from near the North Lincolnshire settlement site of Dragonby indicated that substantial woodland and scrub clearance occurred during

the Roman period (Holland 1996). Charcoal from Dragonby also provided evidence for an increase in scrub taxa in the Roman period, consistent with the pollen evidence for woodland clearance (Hayes and May 1996). Identification and analysis of the wood charcoal assemblage from ditch fill 251 would therefore provide evidence for the presence and potential clearance of thorny scrub in the vicinity of Sturton le Steeple during the Roman period, which could be compared with the pollen and charcoal evidence from Dragonby.

The rich assemblages of waterlogged plant seeds present in context 279, a 2nd century fill of ditch 279, context 341, an undated fill of ditch 339, context 323, an undated fill of ditch 320 and context 325, a 2nd century fill, also of ditch 320, are likely to be representative of plants growing within the ditches and in the near vicinity as well as possible dumping of plant material from further afield. The most common habitat type represented was waste ground and disturbed, nutrient rich soils. Seeds from a range of aquatic and damp ground taxa, egg cases of water fleas and larvae cases of caddisfly's indicate that the ditches are likely to have held water and had damp muddy banks. Elder seeds and waterlogged wood fragments including round wood, indicate some woody scrub vegetation nearby. The presence of a low concentration of wood charcoal and charred plant remains in ditch fill 279 may indicate that hearth waste was disposed of in or near the ditch fill or possibly that crop processing was carried out nearby.

The waterlogged seed assemblage is comparable to rich assemblages of waterlogged seeds present in pits and wells excavated at Dragonby (Van der Veen 1996) and in a Roman ditch fill excavated at the Sarah Swift Building in Lincoln (Simmons 2017). These assemblages were also dominated by seeds of plant taxa commonly associated with disturbed ground and waste places along with some open grassland taxa and taxa typical of damp soils, ditches and ponds. At Dragonby the mix of habitat types represented in the wild or weed seed assemblage was interpreted as seeds from plants growing in the vicinity of the features, mixed with seeds incorporated into the features as a result of backfilling (Van der Veen 1996, 207). Full sorting, identification and analysis of the waterlogged seed assemblage from Sturton le Steeple would be expected to provide further detail relating to the environment and land use in the vicinity of the ditches during the Roman period. It is likely that additional plant taxa would be identified, which were missed during preliminary scanning, and taxa which could only be identified to genera could be identified to species during full analysis. The invertebrate macrofossil assemblage also has the potential to provide detailed palaeoenvironmental evidence. As no dating evidence is available from context 341, the fill of ditch 339, and no material suitable for radiocarbon dating was present, analysis of the waterlogged plant macrofossils from this deposit would however be of limited archaeological significance.

Significance of the Data

Wood charcoal assemblages consisting primarily of small diameter roundwood with abundant thorns and leaf buds are uncommon. The possibility that this material may be representative of the clearance of thorny scrub could be significant when considered in context with evidence from pollen sequences for the clearance of woodland and scrub during the Roman period in the region as well as evidence from charcoal assemblages for the availability of scrub taxa for use as fuel.

Assemblages of waterlogged remains have been found at other Roman period sites in Lincolnshire and have provided a range of evidence for disturbance and open environments (Monckton 2006, 273). Analysis of the waterlogged plant macrofossils, along with possible invertebrate analysis, would therefore enable a comparison of the environment and land use local to the site with the wider region during the Roman period.

Revised Research Aims

Establish which taxa are present in the assemblage of small diameter wood charcoal from ditch fill 251 and potentially identify the assemblage of leaf buds, in order to aid in an interpretation of the likely origin of this material and provide evidence for the environment local to the site.

Fully sort and identify to as high a taxonomic level as possible all the taxa present in the assemblage of waterlogged plant material in ditch fills 279, 232 and 235 in order to provide evidence relating to land use and the local environment.

Method Statement

Identify a representative sample of one hundred charcoal fragments greater than 2mm in size from ditch fill 251. Fully quantify thorns and potentially identify leaf buds also present in ditch fill 251. Research comparable assemblages of possible charred hedgerow or thorny scrub from Roman period sites. Fully sort and identify the assemblages of waterlogged plant macrofossils present in ditch fills 279, 232 and 235 and further investigate the full range of habitat types represented. Place the results of the wood charcoal and waterlogged plant macrofossil analysis in a regional context by comparison with palaeoenvironmental evidence from contemporary sites.

Task List

Task No.	Task	Person days
1	Full identification, analysis and reporting of the wood charcoal and charred plant macrofossil assemblage present in ditch fill context 251.	1.5
2	Full sorting, identification, analysis and reporting of waterlogged plant macrofossil assemblage present in ditch fill contexts 279, 323 and 325.	5

Table 14: Task list

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Appendix 8: Context Summary List

Context	Type	Description	Length (m)	Width (m)	Thickness/Depth (m)	Interpretation
001	Layer	Firm dark greyish brown clayey silt with occasional rounded pebbles			0.34	Topsoil
002	Layer	Hard light yellowish brown silty clay with occasional flecks of manganese and small sub-angular stones			0.11	Subsoil
003	Layer	Hard reddish brown silty clay with patches of limestone				Natural geology
004	VOID	VOID			VOID	Void
005	VOID	VOID			VOID	Void
100	Layer	Firm dark greyish brown clayey silt with occasional small to medium sub-angular stones			0.32	Plough soil
101	Layer	Firm mid orangey brown sandy silt with occasional sub-angular limestone fragments			0.12	Subsoil
214	Layer	Mid blue grey slightly sandy silt with sporadic iron pan patches			0.30	Alluvial layer
355	Layer	Friable mid brown clayey silt with occasional sub-rounded stones			0.35	Topsoil
356	Layer	Firm but friable mid orange brown silty clay with occasional sub-rounded stones			0.14	Subsoil
357	Layer	Friable mid orange clayey sand with occasional iron pan patches				Natural

Area 1

Context	Type	Description	Length (m)	Width (m)	Thickness/Depth (m)	Interpretation
102	Layer	Hard reddish brown clay with patches of sandy clay and patches of limestone			0.40	Natural geology
103	Cut	Northwest to southeast orientated linear feature with sharp upper edges and fairly steep sides and a sharp break of slope to a flat base		2.40	0.76	Boundary ditch [103]
104	Fill	Hard dark reddish brown sandy clay with occasional charcoal flecks and small angular limestone fragments			0.28	Natural silting in ditch [103]
105	Fill	Hard reddish brown with sparse patches of orange yellow sandy clay with patches of clay with charcoal flecks and small angular limestone fragments			0.32	Natural silting in ditch [103]
106	Fill	Firm mid reddish brown very sandy clay with occasional small angular charcoal flecks and limestone fragments			0.38	Natural silting in base of ditch [103]

Context	Type	Description	Length (m)	Width (m)	Thickness/Depth (m)	Interpretation
107	Cut	Roughly East to west orientated curvilinear curving to the north with sharp upper edges, steep sides and a sharp break of slope base to a flat base		3.10	1.16	Boundary ditch [107] within Group [426]
108	Fill	Hard mid greyish brown sandy silt with occasional charcoal flecks and small to medium angular limestone fragments			0.52	Natural silting at top of ditch [107]
109	Fill	Hard mid reddish brown sandy clay with frequent small to medium angular limestone fragments and charcoal flecks			0.40	Natural silting within ditch [107]
110	Fill	Firm dark reddish brown clay with occasional medium angular limestone fragments			0.26	Redeposited natural within ditch [107]
111	Fill	Firm mid greyish brown sandy silt with occasional small angular limestone fragments and charcoal flecks			0.28	Natural silting within ditch [107]
112	Cut	North to south orientated sub-rectangular with rounded corners and moderately steep sloping sides and flat base	2.60	1.55	0.16	Pit [112]
113	Fill	Firm mid greyish brown sandy clay with moderate flecks of charcoal and occasional sub-angular stones			0.16	Dumped deposit within pit [112]
114	Cut	Sub-rectangular cut with moderately steep sides and an uneven base	3.00	1.90	0.20	Pit [114]
115	Fill	Firm mid greyish brown sandy clay with occasional charcoal flecks and sub-rounded stones and limestone fragments			0.20	Dumped deposit containing animal bone and pottery within pit [114]
116	Cut	North to south orientated curvilinear	>10.00	3.20		Ditch [116] within Group [426]
117	Fill	Firm mid orange brown sandy clay with occasional sub-angular stones and charcoal flecks			Unknown	Natural silting within ditch [116]
118	Cut	Roughly east to west orientated, linear with moderately steep sloping sides and occasional breaks in slope and a sudden break to flat base		2.30	1.00	Ditch [118]
119	Fill	Firm reddish brown sandy clay with occasional limestone and chalk fragments			0.30	Natural silting within base of ditch [118]
120	Fill	Firm reddish brown sandy clay with occasional limestone and chalk fragments and moderate manganese specks			0.50	Natural silting within ditch [118]

Context	Type	Description	Length (m)	Width (m)	Thickness/Depth (m)	Interpretation
121	Fill	Firm reddish brown silty clay with occasional chalk and limestone fragments and specks of manganese			0.20	Natural silting within ditch [118]
122	Fill	Firm reddish brown sandy clay with frequent lime and chalk fragments and moderate manganese specks			0.50	Natural silting at top of ditch [118]
123	Cut	Roughly east to west orientated, linear with steep upper edges, steep sloping sides and a sharp break of slope base to a flat base		1.70	0.70	Boundary ditch [123]
124	Fill	Firm dark reddish brown silty clay with moderate lime and chalk specks and frequent manganese specks			0.60	Natural silting within ditch [123]
125	Fill	Mid to dark brown silty clay with occasional lime and chalk fragments and specks with the occasional speck of manganese			0.24	Natural silting within ditch [123]
126	Cut	Northwest to southeast orientated, linear with steep sloping sides and a sharp break of slope to a flat base		1.00	0.40	Ditch [126]
127	Fill	Firm reddish brown clay with occasional lime and chalk fragments and specks			0.30	Natural silting at base of ditch [126]
128	Fill	Friable reddish brown silty clay with occasional lime and chalk fragments and specks			0.24	Natural silting at top of ditch [126]
129	Cut	Northeast to southwest orientated, linear with a moderately sloping side.			0.36	Dich [129] not fully excavated within Group [426]
130	Fill	Firm reddish brown clay with frequent lime and chalk fragments and specks			0.36	Natural silting within ditch [129]
131	Cut	Northwest to southeast orientated, linear with moderately steep side to the northeast, stepped side to the southwest and a flat base		2.20	2.20m W x 0.78	Boundary ditch [131]
132	Fill	Northwest to southeast orientated, linear with moderately steep side to the northeast and a stepped side to the southwest to a flat base			0.28	Dumped deposit within ditch [131]
133	Fill	Firm mid orange brown sandy clay with occasional sub-angular stones and charcoal flecks			0.60	Dumped deposit with pottery and animal bone within ditch [131]

Context	Type	Description	Length (m)	Width (m)	Thickness/Depth (m)	Interpretation
134	Fill	Hard mid brown sandy clay with occasional limestone fragments and charcoal flecks			0.26	Natural silting within ditch [131]
135	Fill	Hard mid reddish brown sandy clay with occasional rounded stones and charcoal flecks			0.30	Natural silting within ditch [131]
136	Fill	Firm reddish brown sandy clay with limestone fragments and charcoal			0.40	Natural silting within ditch [131]
137	Cut	Northwest to southeast orientated, linear the northeast side is moderately steep with a slight step in it		2.06	0.86	Boundary ditch [137]
138	Fill	Hard mid brown sandy clay with occasional limestone fragments and charcoal flecks			0.28	Natural silting within ditch [137]
139	Fill	Firm mid brown sandy clay with occasional limestone fragments and charcoal flecks			0.42	Deliberate backfill of ditch [137]
140	Fill	Firm mid orange brown sandy clay with occasional charcoal flecks and limestone fragments			0.60	Natural silting within ditch [137]
141	Fill	Firm mid brown sandy clay with occasional limestone fragments and charcoal flecks			0.20	Natural silting within ditch [137]
142	Fill	Firm mid orange brown sandy clay with occasional limestone fragments			0.15	Natural silting within ditch [137]
143	Fill	Firm mid orange brown sandy clay with occasional limestone fragments			0.15	Natural silting within ditch [137]
144	Cut	Sub-circular with sharp upper edges shallow sloping sides a gradual break of slope base to a slightly undulating base	0.40	0.40	0.06	Possible cremation pit cut [144]
145	Fill	Firm mainly black but some reddish brown patches silty clay with occasional white specks of possible burnt bone and occasional limestone and chalk fragments			0.06	Dumped deposit within pit [144]. Charcoal and white specks suggests possibility of cremation
146	Cut	Sub-circular with sharp upper edges and steep sloping sides with a gradual break of slope base to a flat base	0.40	0.40	0.10	Possible post hole [146]
147	Fill	Firm reddish brown silty clay with occasional chalk and limestone specks			0.06	Natural silting of probable post hole [146]
148	Fill	Firm black and dark brown silty clay with occasional specks of limestone and chalk and charcoal flecks			0.10	Deliberate deposit within post hole [146]

Context	Type	Description	Length (m)	Width (m)	Thickness/Depth (m)	Interpretation
149	Cut	North to south orientated, linear with sharp upper edges and steep sides with an imperceptible break of slope base to a concave base	10.00	0.84	0.32	Ditch [149]
150	Fill	Firm dark reddish grey silty clay with frequent charcoal and moderate small rounded stones and occasional burnt stones			0.32	Dumped deposit within ditch [149]
151	Cut	North east to southwest orientated, curvilinear with gradual sloping sides to a concave base	1.30	0.42	0.28	Ditch [151]
152	Fill	Firm dark brownish grey silty clay with frequent charcoal flecks and occasional rounded stones			0.28	Dumped deposit within ditch [151]
153	Fill	Firm dark greyish red silty clay with occasional limestone fragments			0.20	Natural silting within ditch [151]
154	Cut	North to south orientated, curvilinear with sharp upper edges, fairly steep sides and a concave base		0.48	0.40	Ditch [154]
155	Fill	Firm dark grey silty clay with moderate rounded stones and frequent charcoal flecks			0.40	Dumped deposit within ditch [154]
156	Cut	Northeast to southwest orientated, linear with steep stepped sides and a flat base	2.40	3.00	1.46	Ditch [156] within Group [426]
157	Fill	Firm dark brown silty clay with occasional charcoal flecks and limestone fragments			0.24	Dumped deposit within ditch [156]
158	Fill	Firm mid brown silty clay with frequent charcoal flecks and limestone fragments			0.50	Dumped deposit within ditch [156]
159	Fill	Firm mid orange brown silty clay with occasional limestone fragments			0.40	Dumped deposit containing animal bone, pottery and quern stone within ditch [156]
160	Fill	Firm mid orange brown sandy clay with frequent limestone fragments and occasional charcoal flecks			0.40	Natural silting within ditch [156]
161	Fill	Firm mid grey brown sandy clay with occasional limestone fragments			0.30	Natural silting within ditch [156]
162	Fill	Firm mid brown grey sandy clay with occasional mid brown sandy clay with occasional charcoal flecks and limestone fragments			0.38	Natural silting within ditch [156]

Context	Type	Description	Length (m)	Width (m)	Thickness/Depth (m)	Interpretation
163	Fill	Firm mid orange brown sandy clay with occasional charcoal flecks and limestone fragments			0.15	Natural silting within ditch [156]
164	Fill	Moderate mid grey clayey sand with occasional charcoal flecks			0.12	Natural silting within ditch [156]
165	Fill	Firm mid brown with frequent limestone fragments and patches of sandy clay			0.30	Natural silting within ditch [156]
166	Cut	Northwest to southeast orientated, linear with moderately sloping sides to a concave base	1.00	0.70	0.64	Ditch [166]
167	Fill	Firm mid orange brown silty clay with occasional charcoal flecks and limestone fragments			0.50	Natural silting within ditch [166]
168	Fill	Firm mid orange brown silty clay with occasional charcoal flecks and limestone fragments			0.20	Natural silting within ditch [166]
169	Cut	Northeast to southwest orientated sub-rectangular with rounded corners, vertical sides and a concave base	0.60	0.40	0.43	Pit [169] truncated by ditch [156]
170	Fill	Friable mid grey clayey sand with occasional charcoal flecks			0.43	Natural silting within pit [169]
171	Fill	Firm mid orange brown sandy clay with occasional limestone fragments			0.30	Natural silting within ditch [156]
172	Cut	Northeast to southwest orientated, curvilinear with sharp upper edges and steep uneven sides, sharp break of slope to a flat base	2.54	1.02		Enclosure ditch [172] within Group [426]
173	Fill	Hard mid reddish brown sandy clay with occasional limestone fragments and rounded small pebbles and charcoal flecks			0.54	Natural silting within base of ditch [172]
174	Fill	Hard mid grey brown with reddish brown patches sandy clay with patches of re-deposited natural clay with moderate small angular stones and occasional charcoal flecks			0.26	Dumped deposit within ditch [172]
175	Fill	Hard mid reddish brown sandy clay with occasional limestone fragments			0.24	Re-deposited natural within ditch [172]
176	Fill	Hard light greyish brown clayey sand with occasional limestone fragments			0.12	Dumped deposit within ditch [172]
177	Fill	Hard reddish brown sandy clay with occasional charcoal fleck and angular limestone fragments and rounded small pebbles			0.46	Natural silting in upper extent of ditch [172]

Context	Type	Description	Length (m)	Width (m)	Thickness/Depth (m)	Interpretation
178	Fill	Dark reddish brown sandy clay with occasional large rounded stones and charcoal			0.12	Natural silting at base of ditch [154]
179	Fill	Compact mid greyish brown silty clay with occasional rounded stones and charcoal			0.28	Natural silting within ditch [154]
180	Cut	North to south orientated, linear with shallow gradual sloped edges becoming steeper towards the concave base, stepped on the bottom edges	8.00	2.62	0.76	Ditch [180]. Truncates ditch [154]
181	Fill	Firm dark reddish brown sandy clay with occasional rounded stones and iron stone			0.32	Natural silting within base of ditch [180]
182	Fill	Firm light bluish grey silty clay			0.10	Natural silting within ditch [180]
183	Fill	Firm light greyish red clay with moderate small angular stones and chalk			0.32	Re-deposited natural within ditch [180]
184	Fill	Firm light brownish grey silty clay with occasional sub angular stone fragments			0.28	Natural silting within ditch [180]
185	Fill	Firm mid greyish brown sandy clay with occasional small rounded stones and medium sub angular stones and moderate charcoal flecks			0.16	Dumped deposit in upper part of ditch [180]
186	Fill	Mid brown silty clay with occasional sub-angular small stones and occasional flint and charcoal			0.26	Dumped deposit within ditch [154]
187	Cut	Sub-circular in plan with near vertical sides and an un-known base			> 0.85	Possible pit [187]
188	Fill	Friable mid grey sandy clay and clayey sand with occasional fragments of stone			> 0.85	Natural silting within probable pit [187]
189	Cut	Sub-circular with sharp upper edges and shallow concaved sides and base	0.90	0.56	0.10	Shallow pit [189]
190	Fill	Firm mid grey silty clay with very occasional charcoal flecks			0.10	Dumped deposit within pit [189]
191	Cut	Sub-rectangular with sharp upper edges, gently sloping sides and a sharp break of slope to a flat base	2.75	0.74	0.12	Pit [191]
192	Fill	Firm mid orange brown silty clay with very occasional charcoal flecks and occasional stone fragments			0.12	Dumped deposit within pit [191]
193	Cut	Northwest to south east orientated irregular feature with	1.52	0.75	0.12	Pit [193]

Context	Type	Description	Length (m)	Width (m)	Thickness/Depth (m)	Interpretation
		sharp upper edges shallow sides and an undulating base				
194	Fill	Firm mid grey brown silty clay with frequent charcoal flecks and occasional sub-rounded stones			0.12	Dumped deposit within pit [193]
195	Cut	North to south orientated linear with steep sides and a concave base	2.00	0.50	0.24	Ditch/dyke [195]
196	Fill	Firm dark silty clay with frequent charcoal flecks and occasional angular stone fragments			0.24	Natural silting within ditch [195]
426	Group	[107/116/129/137/156/172]				Boundary ditch

Area 2

Context	Type	Description	Length (m)	Width (m)	Thickness/Depth (m)	Interpretation
358	Fill	Firm dark grey silty clay			0.31	Natural silting within pit [359]
359	Cut	Sub-circular with shallow sides and a gradual break of slope to a flat base		1.27	0.31	Pit [359]
360	Fill	Compact mid grey silty clay			0.12	Natural silting within ditch [361]
361	Cut	Northeast to southwest orientated linear with shallow concave sides and a gradual break of slope to a concave base		0.80	0.12	Ditch terminus [361]
362	Fill	Compact dark grey silty clay			0.40	Natural silting within ditch [363]
363	Cut	Northeast to southwest orientated linear with moderately steep sides and a concave base		1.55	0.40	Modern ditch [363]

Area 3

Context	Type	Description	Length (m)	Width (m)	Thickness/Depth (m)	Interpretation
364	Cut	Southwest to northeast orientated linear with concave sides and a gradual break of slope to a concave base		1.40	0.85	Ditch [364]
365	Fill	Very compact clay with frequent mudstone			0.23	Natural silting within ditch [364]
366	Cut	Southwest to northeast linear with concave sides and concave base		0.84	0.25	Ditch [366]

Context	Type	Description	Length (m)	Width (m)	Thickness /Depth (m)	Interpretation
367	Fill	Very compact clay with frequent mudstone			0.25	Natural silting within ditch [366]
368	Cut	Southwest to northeast orientated linear with steep sides and a sharp break of slope to a flat base		1.00	0.19	Ditch [368]
369	Fill	Very compact clay with frequent mudstone			0.07	Natural silting within ditch [368]
370	Fill	Compact clay with frequent mudstone			0.20	Natural silting within ditch [364]
371	Fill	Very compact clay with frequent mudstone			0.18	Natural silting within ditch [366]
372	Fill	Very compact clay with frequent mudstone			0.09	Natural silting within ditch [368]

Area 4

Context	Type	Description	Length (m)	Width (m)	Thickness/Depth (m)	Interpretation
373	Cut	Southeast to northwest orientated linear with rounded sides and concave base		0.60	0.19	Ditch [373]
374	Fill	Very compact mid grey mottled orange brown silty clay			0.19	Natural silting within ditch [373]
375	Cut	North to south orientated linear with concave sides and rounded base		0.60	0.27	Ditch [375]
376	Fill	Very compact mid reddish grey silty clay with frequent mudstone and small flecks of charcoal			0.27	Natural silting within ditch [375]
377	Fill	compact mid reddish grey silty clay with occasional flecks of charcoal and round stones			0.18	Natural silting within pit [378]
378	Cut	East to west orientated oval cut with shallow slightly concave sloping sides and a gentle break of slope to an irregular base		1.42	0.18	Pit [378]
379	Cut	Circular with shallow sides and a gentle break of slope to a flat base		0.35	0.12	Pit [379]
380	Fill	Compact mid greyish brown clay with mudstone			0.12	Natural silting within pit [379]

Context	Type	Description	Length (m)	Width (m)	Thickness/Depth (m)	Interpretation
381	Fill	Firm mid reddish grey silty clay with occasional small to medium rounded stones			0.38	Natural silting within pit [383]
382	Fill	Friable dark grey silty clay			0.18	Natural silting within pit [383]
383	Cut	Northwest to southeast orientated oval cut with irregular sloping sides and a sharp break of slope to a flat base	1.25	1.18	0.38	Pit [383]
384	Cut	East to west orientated amorphous cut with shallow rounded sides and a flat irregular base		0.28	0.15	Pit [384]
385	Fill	Compact mid reddish grey silty clay with frequent mudstone			0.15	Natural silting within pit [384]
386	Fill	Firm mid grey silty clay with moderate charcoal flecks and occasional small-medium rounded stones			0.38	Natural silting within pit [383]
387	Cut	Southeast to northwest orientated curvilinear with shallow straight sloping sides and a gradual break of slope to a flat base		1.02	0.44	Ditch [387]
388	Fill	Compact mid orange grey silty clay with moderate small to medium rounded stones			0.20	Natural silting within ditch [387]
389	Fill	Friable mid grey sandy clay with occasional rounded stones			0.24	Natural silting within ditch [387]
390	Cut	North to south orientated linear with sharp upper edges, shallow concave sides and an imperceptible break of slope to a slightly concaved base		1.00	0.13	Shallow linear [390]
391	Fill	Firm mid grey silty clay with reddish brown mottling and occasional rounded pebbles			0.13	Natural silting within [390]
392	VOID	VOID			VOID	Void
393	VOID	VOID			VOID	Void
394	Cut	Northeast-southwest orientated linear with steep sides and a sharp break of slope to a flat irregular base		1.00	0.73	Ditch [394]
395	Fill	Compact dark grey clay with very frequent charcoal inclusions			0.21	Natural silting at base of ditch [394]
396	Fill	Firm mid orange grey silty clay with small sub-rounded stones			0.18	Redeposited natural in ditch [394]

Context	Type	Description	Length (m)	Width (m)	Thickness/Depth (m)	Interpretation
397	Cut	Southwest to southeast orientated curvilinear with shallow sides and a gentle break of slope to a rounded base		1.58	0.28	Curvilinear ditch [397]
398	Fill	Firm mid grey silty clay with frequent small sub-rounded stones			0.28	Natural silting within ditch [397]
399	Cut	Sub-circular with steep sloping straight sides and a sharp break of slope to a concave base	0.26	0.26	0.18	Possible posthole [399] within ditch [391]
400	Fill	Friable mid grey sandy clay			0.18	Natural silting within possible posthole [399]
401	Fill	Firm mid bluish grey clay			0.22	Natural silting within ditch [394]

Area 5

Context	Type	Description	Length (m)	Width (m)	Thickness/Depth (m)	Interpretation
402	Cut	Northeast to southwest orientated linear with shallow sloping concave sides and a gradual break of slope to a concave base		1.34	0.26	Ditch [402]
403	Fill	Compact mid brownish grey silty clay			0.26	Natural silting within ditch [402]
404	Fill	Compact mid orange grey clay			0.10	Natural silting within ditch [394]
405	Cut	East to west orientated linear with shallow sloping concave sides and gradual break of slope to a flat base		0.85	0.10	Shallow linear [405] truncated by land drain at southern edge
406	Fill	Compact mid grey silty clay with occasional flecks of charcoal			0.10	Natural silting within linear [405]
407	Cut	East to west orientated linear with shallow sides and a gentle break of slope to a flat base		0.90	0.10	Shallow linear feature [407]
408	Fill	Compact light yellowish brown sandy clay			0.10	Natural silting within shallow linear feature [407]
409		Void				
410		Void				

Context	Type	Description	Length (m)	Width (m)	Thickness/Depth (m)	Interpretation
411	Cut	East to west orientated linear with shallow concave sides and a concave base		0.96	0.20	Ditch [411]
412	Fill	Firm mid brownish grey clayey silt with moderate rounded small pebbles and stones and occasional charcoal			0.20	Natural silting within ditch [411]

Area 6

Context	Type	Description	Length (m)	Width (m)	Thickness/Depth (m)	Interpretation
413	Cut	North to south orientated linear with moderately sloping concave sides and a concave base		1.90	0.70	Ditch [413]
414	Fill	Firm dark brown silty clay with occasional rounded stones			0.40	Natural silting within ditch [413]
415	Fill	Firm mid greyish brown silty clay with occasional rounded stones			0.32	Natural silting within ditch [413]
416	Cut	East to west orientated linear with very shallow sloping sides and a gradual break of slope to a flat base cut by land drain		1.15	0.008	Furrow [416]
417	Fill	Compact mid greyish brown silty clay with moderate small to medium sub-angular stones			0.08	Natural silting within furrow [416]
418	Cut	East to west orientated linear with very shallow concave sloping sides and a gradual break of slope to a slightly concave base		1.84	0.16	Furrow [418]
419	Fill	Compact mid grey silty clay with occasional sub-rounded stones			0.16	Natural silting within furrow [418]
420	Cut	East to west orientated linear with straight shallow sloping sides and a gentle break of slope to a flat base		1.50	0.12	Furrow [420]
421	Fill	Compact mid greyish brown silty clay			0.12	Natural silting within furrow [420]
422	Cut	Northeast to southwest orientated linear with moderately steep straight sides and a gentle break of slope to a concave base		0.32	0.14	Ditch [422]
423	Fill	Compact dark brown silty clay with occasional rounded flint			0.14	Natural silting within ditch [422]

Context	Type	Description	Length (m)	Width (m)	Thickness/Depth (m)	Interpretation
424	Cut	Northeast to southwest orientated linear with steep straight west side, moderately steep east side and a gentle break of slope to a concave base		1.20	0.46	Ditch [424]
425	Fill	Compact light brownish grey slightly silty clay with occasional rounded and sub-angular flint			0.46	Natural silting within ditch [424]

Area 7

Context	Type	Description	Length (m)	Width (m)	Thickness/Depth (m)	Interpretation
197	Fill	Hard light yellow medium sand with lenses of bluish grey clay with moderate large fragments of iron panning and very small rounded stones			0.45	Natural silting within ditch [200]
198	Fill	Compact mid greyish brown clayey silt with very occasional small rounded to sub-angular stones			0.64	Natural silting within ditch [200]
199	Fill	Soft mid bluish grey silty sand			0.15	Natural silting within ditch [200]
200	Cut	East to west orientated linear with a moderately stepped side and gentle break of slope to a concaved base		>2.62	1.06	Ditch/dyke [200]
201	Fill	Compact light brownish yellow clayey silt with small to large iron panning fragments and very occasional small stones			0.58	Natural silting within ditches [205]
202	Fill	Compact mid greyish brown sandy clay with very occasional iron panning flecks and small to medium stones			0.66	Natural silting within ditches [205]
203	Fill	Mid grey clayey silt with very occasional small rounded stones			0.23	Natural silting within ditches [205]
204	Fill	Soft dark grey silty sand with common iron panning			0.20	Natural silting within ditches [205]]
205	Cut	North to south orientated T shaped linear junction with moderate sloping concave sides and a moderate break of slope to a rounded base		2.50	0.76	Dyke or drainage ditch [205]
206	Cut	East to west orientated linear with sharp upper edges and	>4.00	1.00	0.28	Drainage ditch/dyke [206]

Context	Type	Description	Length (m)	Width (m)	Thickness/Depth (m)	Interpretation
		steep sloping sides to a concave base				
207	Fill	Firm light grey clayey sand with occasional small rounded pebbles			0.28	Fill of ditch [206]
208	Cut	East to west orientated linear with sharp upper edges and fairly steep straight sides to a narrow concave base		1.70	0.20	Drainage ditch [208]
209	Fill	Firm light grey clayey sand with occasional iron pan fragments and small rounded pebbles		0.80	0.28	Natural silting within ditch [208]
253	Cut	North to south orientated linear with shallow concave sides and a concave base		0.40	0.10	Ditch [253]
254	Fill	Loose orange yellow sand			0.05	Natural silting within base of ditch [253]
282	Fill	Compact black sandy charcoal with occasional small charcoal pieces and small pieces of burnt wood			0.02	Dumped deposit within ditch [253]
256	Fill	Compact mid orange yellow sand			0.03	Natural silting within ditch [253]
257	Fill	Friable mid orange brown sandy silt with occasional charcoal flecks			0.14	Natural silting within ditch [258]
258	Cut	North to south orientated linear with a steep E side, a shallow W side and a concave base		0.45	0.14	Ditch [258]
259	Cut	North to south orientated linear with shallow sides and a concave base		0.75	0.16	Ditch [259]
260	Fill	Firm mid orange brown sandy clay			0.12	Natural silting within base of ditch [259]
261	Fill	Firm mid greyish brown sandy clay			0.08	Natural silting within ditch [259]
262	Cut	East to west orientated sub-circular with concave sides and base		1.60	0.30	Tree bowl [262]
263	Fill	Compact but friable mid orange brown sandy clay			0.30	Natural silting within tree bowl cut [262]

Area 8

Context	Type	Description	Length (m)	Width (m)	Thickness/Depth (m)	Interpretation
215	Cut	North to south orientated linear with sharp upper		1.70	0.75	Ditch [215]

Context	Type	Description	Length (m)	Width (m)	Thickness/Depth (m)	Interpretation
		edges and steep sides the eastern side is stepped and the western side is near vertical with a concave base				
216	Fill	Compact mid bluish grey with light yellow mottling sandy clay with occasional small patches of iron pan			0.20	Natural silting within base of ditch [215]
217	Fill	Very hard mid grey brown clay with frequent iron pan			0.55	Natural silting in upper part of ditch [215]
218	Void	Void			Void	Void
219	Void	Void			Void	Void
220	Cut	North to south orientated sub-circular cut with shallow concave sides and a flat base		1.30	0.25	Pit [220]
221	Fill	Loose mid greyish yellow sandy clay with occasional small iron pan			0.25	Natural silting within pit [220]
222	Fill	Loose mid greyish brown silty sand with occasional charcoal flecks			0.18	Natural silting within pit [223]
226	Cut	Northeast-southwest oriented sub-circular cut with shallow concave sides and a flat base		0.50	0.09	Pit [226]
227	Fill	Loose brownish yellow sand			0.09	Natural silting within pit [226]
228	Cut	Circular cut with steep concave sides and a concave base		0.60	0.34	Pit [228]
229	Fill	Loose yellowish grey sand with occasional charcoal and burnt stones			0.34	Dumped deposit containing pottery and charcoal within pit [228]
230	Fill	Firm mid greyish brown sandy silt with moderate charcoal flecks			0.10	Natural silting within ditch [231]
231	Cut	North-south oriented linear with steep concave sides and a flat base	0.90	0.40	0.10	Ditch [231]. Part of sub-rectangular feature made up of [233], [235] + [237]
232	Fill	Firm mid greyish brown sandy silt with occasional flecks of charcoal			0.08	Natural silting within ditch [233]
233	Cut	Northeast to southwest orientated rectilinear with steep concave sides and a flat base	1.25	0.49	0.08	Ditch [233]. Part of sub-rectangular feature made up

Context	Type	Description	Length (m)	Width (m)	Thickness/Depth (m)	Interpretation
						of [231], [235] + [237]
234	Fill	Firm mid greyish brown sandy silt with occasional charcoal flecks			0.14	Natural silting within ditch [235]
235	Cut	North-south turning east-west orientated linear with steep sides and a flat base	1.50	0.45	0.14	Ditch [235]. Part of sub-rectangular feature made up of [231], [233] + [237]
236	Fill	Firm mid greyish brown sandy silt			0.07	Natural silting within ditch [237]
237	Cut	northeast-southwest orientated rectilinear with shallow sides and a flat base	1.25	0.35	0.06	Ditch [237]. Part of sub-rectangular feature made up of [231], [233] + [235]
247	Cut	East to west orientated linear with steep straight sides and a gradual break of slope to a concave base		2.60	0.68	Ditch [247]
248	Fill	Compact mid greyish blue sandy clay with occasional shale fragments and modern bioturbation			0.32	Natural silting within base of ditch [247]
249	Fill	Loose yellowish orange sand with sandstone, shale and iron pan fragments			0.38	Natural silting within ditch [247]
250	Cut	East to west orientated linear with steep sides and a narrow concave base		1.38	0.38	Re-cut [250] of ditch [247]
251	Fill	Compact mid greyish blue sandy clay with occasional iron pan			0.30	Dumped deposit within ditch [250]
252	Fill	Loose mid yellowish grey sand with occasional iron pan			0.28	Natural silting within ditch [250]
264	Fill	Compact mid brownish grey sandy silt with frequent small-medium iron stone fragments			0.22	Natural silting within ditch [266]
265	Fill	Soft light orange grey clayey sand			0.24	Natural silting within ditch [266]
266	Cut	North to south orientated linear with steep straight sides and a sharp break of slope to a flat base		1.40	0.46	Ditch [266]
267	Fill	Loose light greyish brown silty sand			0.20	Natural silting within pit [268]

Context	Type	Description	Length (m)	Width (m)	Thickness/Depth (m)	Interpretation
268	Cut	Sub-circular with steep sides and a concave base	0.65	0.65	0.20	Pit [268]
269	Cut	Sub-circular with moderately steep sides and a slightly concave base	1.20	0.75	0.40	Pit [269]
270	Fill	Loose light brownish orange sand			0.40	Natural silting within pit [269]
271	Fill	Loose light brownish grey sand			0.30	Natural silting within base of pit [269]
272	Cut	Circular with moderately sloping sides and a concave base	0.60	0.65	0.16	Pit [272]. Truncates pit [269]
273	Fill	Loose light bluish brownish grey sand			0.20	Natural silting within pit [272]
274	Cut	Sub-circular with moderately shallow sides and a concave base	0.50	0.45	0.21	Pit [274]. Truncated by ditch [276]
275	Fill	Loose light brownish grey sand			0.25	Dumped deposit within pit [274]
276	Cut	East to west orientated oval with shallow concave sides and a concave base	1.20	0.25	0.23	Ditch [276]
277	Fill	Loose light brownish grey sand			0.25	Natural silting within ditch [276]
278	Cut	East to west orientated linear with moderately steep irregular sides and a flat base		3.30	0.60	Ditch [278]
279	Fill	Compact mid grey sandy silt with occasional iron pan and charcoal flecks			0.20	Natural silting within ditch [278]
280	Wood	A length of dowel laid northeast to south west	0.80		0.03	Worked wood, all bark has been removed and rough working marks show it has been shaped
281	Cut	Northwest to southeast orientated sub-circular with moderately steep concave sides and a concave base	0.80	0.35	0.19	Pit [281]
282	Fill	Loose mid orange grey sand with charcoal flecks			0.20	Dumped deposit within pit [281]
283	Cut	North to south orientated linear with steep sides and an unexcavated base due to waterlogged conditions		3.20	0.70	Ditch [283]
284	Fill	Loose orange yellow sandy silt			0.60	Slumped natural within ditch [283]

Context	Type	Description	Length (m)	Width (m)	Thickness/Depth (m)	Interpretation
285	Fill	Firm dark grey clay with occasional iron pan			0.18	Natural silting within ditch [283]
286	Fill	Firm dark grey clay with organic inclusions			0.20	Natural silting within ditch [283]
287	Fill	Loose orange yellow sand with compact patches of sand			Unknown	Redeposited natural within ditch [283]
288	Fill	Compact dark grey silty sand with iron pan inclusions			0.16	Natural silting within ditch [283]
289	Fill	Compact dark grey silty sand with iron pan fragments			0.42	Natural silting within ditch [283]
290	Fill	Hard dark greyish blue silty sandy clay with occasional iron stone and limestone fragments			Unknown	Natural silting within ditch [283]
291	Fill	Friable mottled yellow and grey silty clay with very frequent iron pan			Unknown	Natural silting within ditch [283]
292	Fill	Compact mid greyish blue silty sandy clay with occasional iron pan			Unknown	Natural silting within ditch [283]
293	Fill	Friable mid grey silty sand with occasional iron pan and charcoal flecks			0.16	Natural silting within ditch [278]
294	Fill	Friable mid grey silty sand with very occasional iron pan and occasional charcoal flecks			0.30	Natural silting within ditch [278]
295	Fill	Friable mid grey silty sand with frequent iron pan and occasional charcoal flecks			0.38	Natural silting within ditch [278]
296	Fill	Friable mid grey silty sand with occasional charcoal flecks			0.40	Natural silting within ditch [278]
297	Fill	Friable mid grey silt sand with mid grey and orange sand patches and occasional charcoal flecks			0.20	Natural silting within ditch [278]
298	Fill	Friable mid to light grey silty sand with occasional iron pan fragments			0.35	Natural silting within ditch [278]
299	Cut	East to west orientated linear with moderately shallow sides and gradual break of slope to a flat base		1.50	0.60	Ditch terminus [299]
300	Fill	Friable mottled grey blue and yellow silty sand with lenses of clay			0.20	Natural silting within ditch terminus [299]

Context	Type	Description	Length (m)	Width (m)	Thickness/Depth (m)	Interpretation
301	Fill	Firm dark grey peaty sand			0.22	Natural silting within ditch terminus [299]
302	Fill	Loose yellowish grey sandy silt with occasional patches of compressed sand			0.30	Natural silting within ditch terminus [299]
303	Cut	East to west orientated linear with moderately steep concave sides and a flat base		0.60	0.30	Ditch [303]
304	Fill	Loose greyish yellow sand			0.15	Natural silting within ditch [303]
305	Fill	Loose dark greyish yellow sandy silty clay with occasional small patches of compressed sand			0.10	Natural silting within ditch [303]
306	Fill	Firm mottled grey and yellow silty sand with occasional small patches of compressed sand			0.18	Natural silting within ditch [303]
307	Cut	North to south orientated linear with rounded corners with moderately steep concave sides and an unexcavated base due to waterlogging		2.30	0.65	Ditch [307]
308	Fill	Soft mid orange brown sand with grey silty mottling			0.14	Dumped deposit within ditch [307]
309	Fill	Soft mid orange grey sand			0.18	Natural lens within ditch [307]
310	Fill	Soft light grey sand			0.26	Natural silting within ditch [307]
311	Fill	Loose light greyish orange sand			0.17	Natural silting within ditch [307]
312	Fill	Loose very light orange brown sand			0.24	Natural silting within ditch [307]
313	Cut	North to south orientated linear with moderately steep slightly convex sides and a concave base		1.80	0.64	Ditch [313]
314	Fill	Firm mid greyish brown silty clay with occasional iron pan and charcoal flecks			0.16	Natural silting within ditch [313]
315	Fill	Firm mid brownish grey sandy clay with occasional iron pan and charcoal flecks			0.48	Natural silting within ditch [313]

Context	Type	Description	Length (m)	Width (m)	Thickness/Depth (m)	Interpretation
316	Fill	Friable mid bluish grey clayey sand with occasional charcoal flecks			0.20	Natural silting within ditch [313]
317	Fill	Soft light grey sand			0.16	Natural silting within ditch [307]
318	Fill	Friable dark grey sandy silt			0.18	Natural silting within ditch [307]
319	Fill	Soft light orange grey with bluish grey mottles			0.12	Natural silting within ditch [307]
320	Cut	Northwest - southeast orientated curvilinear with moderately steep sides and a concave base		2.36	0.78	Ditch [320]
321	Fill	Compact mid brownish grey silty sand with very occasional iron pan and charcoal flecks			0.38	Natural silting within ditch [320]
322	Fill	Friable mid grey silty sand with occasional iron pan			0.36	Natural silting within ditch [320]
323	Fill	Friable mid to dark grey silty sand with organic inclusions, occasional iron pan and charcoal flecks			0.20	Natural silting within [320]
324	Fill	Loose light grey silty sand with very occasional iron pan			0.20	Natural silting within ditch [320]
325	Fill	Friable dark grey sandy silt with very occasional charcoal flecks and organic material			0.30	Natural silting within ditch [320]
326	Cut	North to south orientated linear with moderately sloping east side and flat base	1.10	0.55	0.42	Ditch [326]
327	Fill	Soft light brownish grey sand with occasional small sub-rounded stone			0.12	Natural silting in upper part of ditch [326]
328	Fill	Soft light brownish grey silty sand with moderate flecks of iron pan			0.12	Natural silting within ditch [326]
329	Fill	Soft mid grey silty sand with occasional poorly sorted small sub-angular stones			0.16	Natural silting in base of ditch [326]
330	Cut	East to west orientated linear with steeply sloping sides and a sharp break of slope to a flat base	1.05	1.00	0.34	Ditch [330]
331	Fill	Soft mid brownish grey silty sand with occasional poorly sorted iron pan			0.12	Natural silting in upper part of ditch [330]

Context	Type	Description	Length (m)	Width (m)	Thickness/Depth (m)	Interpretation
332	Fill	Soft mid brownish grey silty sand with moderate iron pan and occasional small sub-angular stones			0.10	Natural silting within ditch [330]
333	Fill	Soft mid grey silty sand with occasional poorly sorted small sub-angular stones			0.14	Natural silting within base of ditch [330]
334	Cut	North to south orientated sub-circular with steep moderately straight sloping sides and a gradual break of slope to a concave base	1.24	1.05	0.32	Pit [334]
335	Fill	Loose light greyish brown silty sand with clay patches and frequent inclusions of iron pan flecks			0.32	Natural silting within pit [334]
336	Fill	Firm light bluish grey clayey sand			0.08	Natural silting within ditch [338]
337	Fill	Loose light brownish orange silty sand			0.14	Natural silting within base of ditch [338]
338	Cut	North to south orientated linear with very shallow diffuse sides and a flat base		1.85	0.20	Ditch [338] very shallow so only base remains.
339	Cut	North to south orientated irregular linear with steep straight sides and an unexcavated base due to flooding		4.80	> 1.10	Ditch [339] possibly ditch terminus. Pottery within fills suggests roman date
340	Fill	Firm light grey silt			0.10	Natural silting within ditch [339]
341	Fill	Friable dark grey sandy silt			0.25	Natural accumulation of peaty soil within ditch [339]
342	Fill	Firm mid brownish grey silty sand			0.20	Dumped deposit within ditch [339]
343	Fill	Firm mid grey sandy silt			0.30	Dumped deposit within ditch [339]
344	Cut	Northwest to southeast orientated sub-circular cut with steep sides a gradual break of slope with an unexcavated base due to waterlogging		2.30	0.68	Pit [344] truncated by ditch [339]
345	Fill	Friable light bluish grey silty clay			0.20	Dumped deposit within pit [344]
346	Fill	Firm dark grey sandy silt			0.16	Natural silting within pit [344]

Context	Type	Description	Length (m)	Width (m)	Thickness/Depth (m)	Interpretation
347	Fill	Firm mid greyish orange silty sand			0.36	Natural silting within pit [344]
348	Fill	Loose orange brown silty sand with frequent iron pan flecks			0.12	Dumped deposit within pit [344]
349	Fill	Firm mid grey silty sand			0.12	Natural silting within pit [344]
350	Fill	Firm mid brownish grey silty sand with frequent iron pan flecks			0.35	Natural accumulation in upper part of ditch [339]
351	Fill	Friable mid brownish grey clayey sand with moderate iron pan flecks			0.12	Natural silting within ditch [354]
352	Fill	Compact mid grey sandy silt with occasional charcoal flecks			0.18	Natural silting within ditch [354]
353	Fill	Firm orange brown silty sand			0.18	Natural silting at base of ditch [354]
354	Cut	North to south orientated linear with steep straight sides and a gradual break of slope to a flat base		1.75	0.42	Ditch [354]
427	Group	[231/233/235/237]				Structure

Area 9

Context	Type	Description	Length (m)	Width (m)	Thickness/Depth (m)	Interpretation
210	Cut	North west to south east orientated linear with shallow sides and a gradual break of slope to a flat base		0.70	0.05	Ditch [210]
211	Fill	Loose orange yellow brown silty sand with small frequent iron pan			0.05	Natural silting within ditch [210]
212	Fill	Firm mid greyish brown sandy silt with occasional flecks of charcoal			0.08	Natural silting within base of ditch [210]
213	Cut	East to west orientated linear with very shallow sloping sides and gradual break of slope to a flat base		1.20	0.08	Ditch [213]
223	Cut	Circular shape in plan with shallow sides a gradual break of slope and a concave base	0.60	0.60	0.18	Pit [223]
224	Cut	East-west oriented sub-circular with steep concave sides and a concave base	0.60	0.60	0.26	Pit [224]
225	Fill	Firm mid orangey grey clay with blue mottles			0.26	Natural silting within pit [224]

Context	Type	Description	Length (m)	Width (m)	Thickness/Depth (m)	Interpretation
238	Cut	East to west orientated circular cut with steep concave sides and a flat base		0.75	0.18	Pit [238]
239	Fill	Loose dark yellowish grey sand with occasional burnt stones and charcoal flecks			0.18	Dumped deposit containing burnt stone within pit [238]
240	Cut	East to west orientated sub-circular cut with steep concave sides and a flat base		0.38	0.09	Pit [240]
241	Fill	Loose dark greyish yellow sand with occasional burnt stone and charcoal flecks			0.09	Dumped deposit within pit [240]
242	Fill	Loose orange grey sand with occasional charcoal flecks and medium stones			0.28	Dumped deposit containing pottery and heat affected stone within pit [243]
243	Cut	Sub-circular with steep sides a sharp break of slope to a flat base	1.20	1.20	0.28	Pit [243]
244	Cut	Northeast to southwest orientated linear with a steep north side, a moderately shallow south side and a flat but irregular base		2.60	0.45	Ditch [244]
245	Fill	Compact mottled blue, grey and light yellow clay with white sand and iron pan inclusions			0.20	Natural silting within base of ditch [244]
246	Fill	Loose mottled dark grey, blue and orange sandy clay with occasional iron pan patches			0.25	Natural silting within ditch [244]

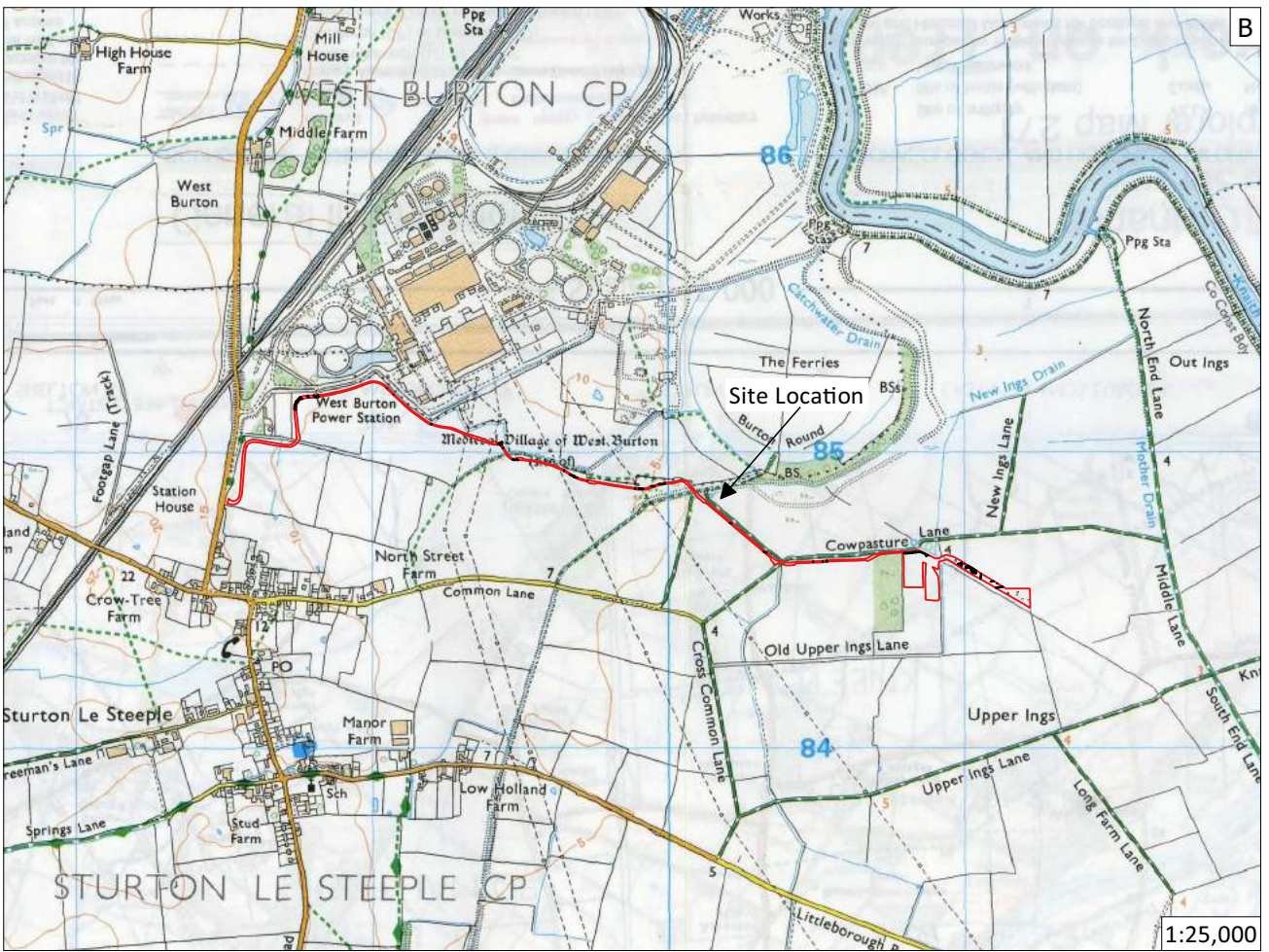


Figure 1: Site location outlined in red

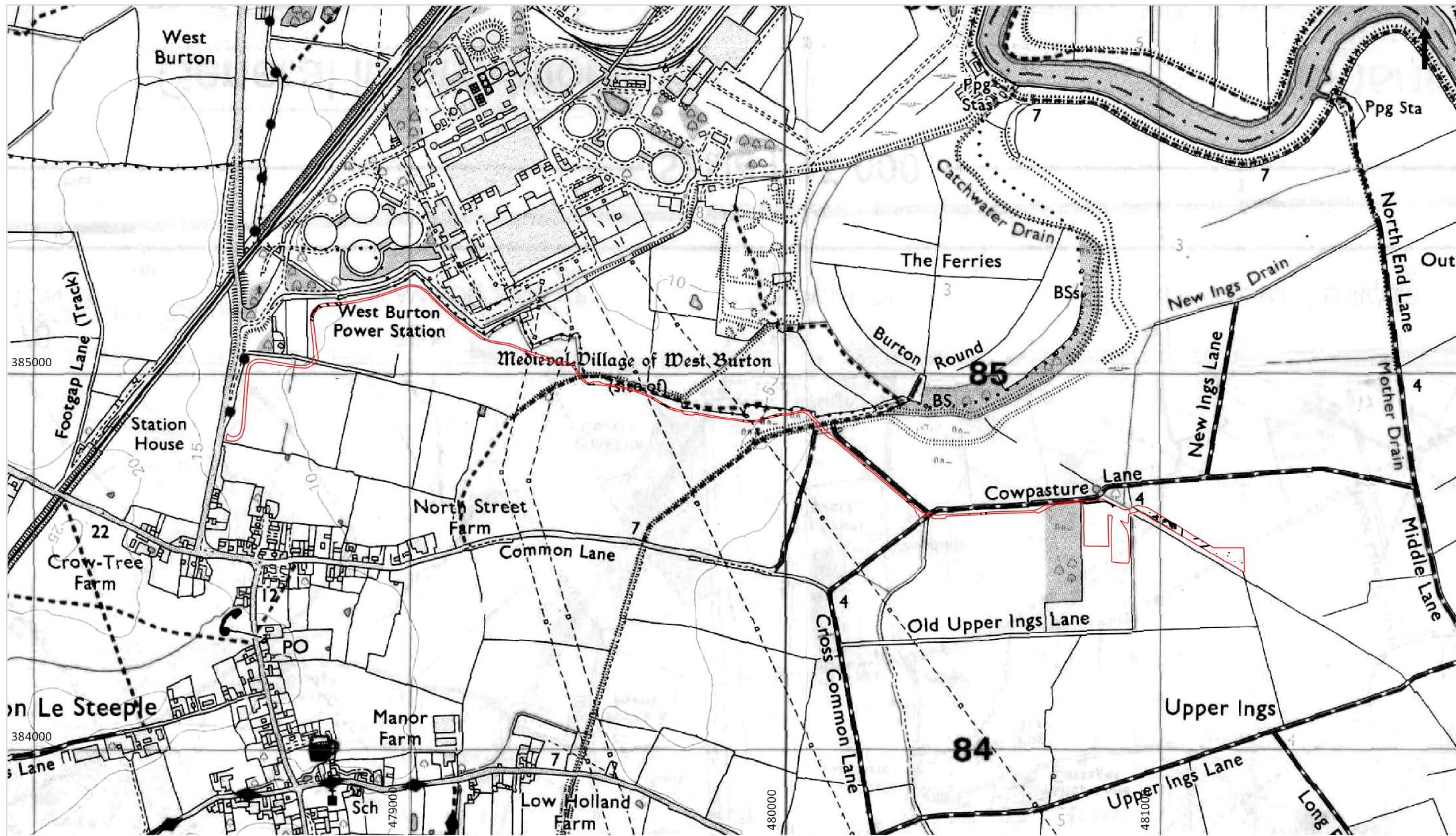
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Site Code	SLSQ16
Scale	1:10,000,000 1:1,000,000 1:25,000 @ A4
Drawn by	T Rayner
Date	24/10/2017

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Figure 2: Detailed overview of site (red) showing features (black)



Figure 3: Area 1 plan

Key

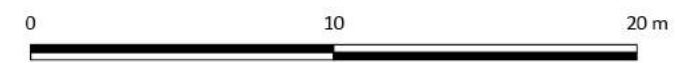
- ?Later Prehistoric
- Late Iron Age/1st Century AD
- sondage

Site Code	SLSQ16
Scale	1:250 @ A3
Drawn by	T Rayner
Date	16/10/2017

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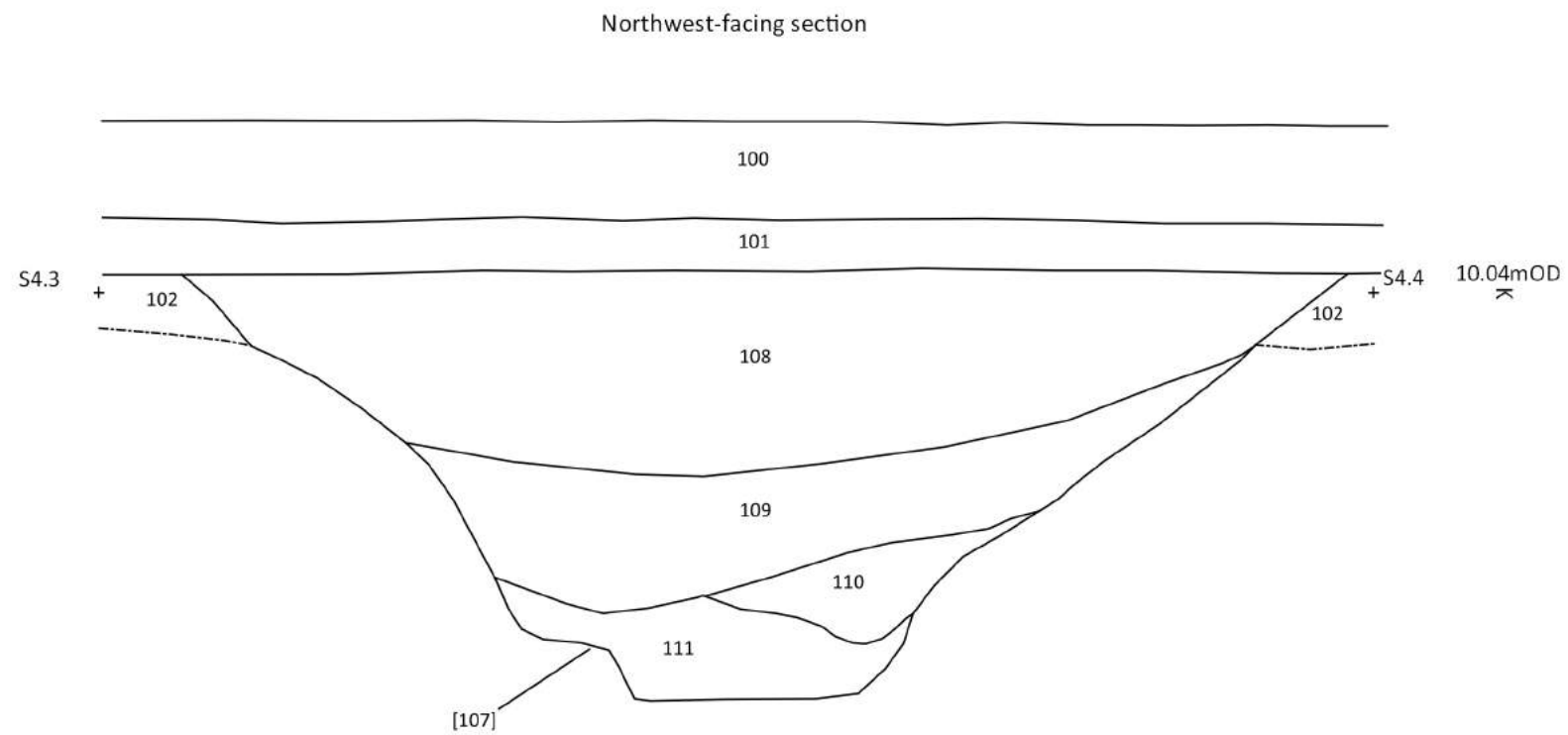
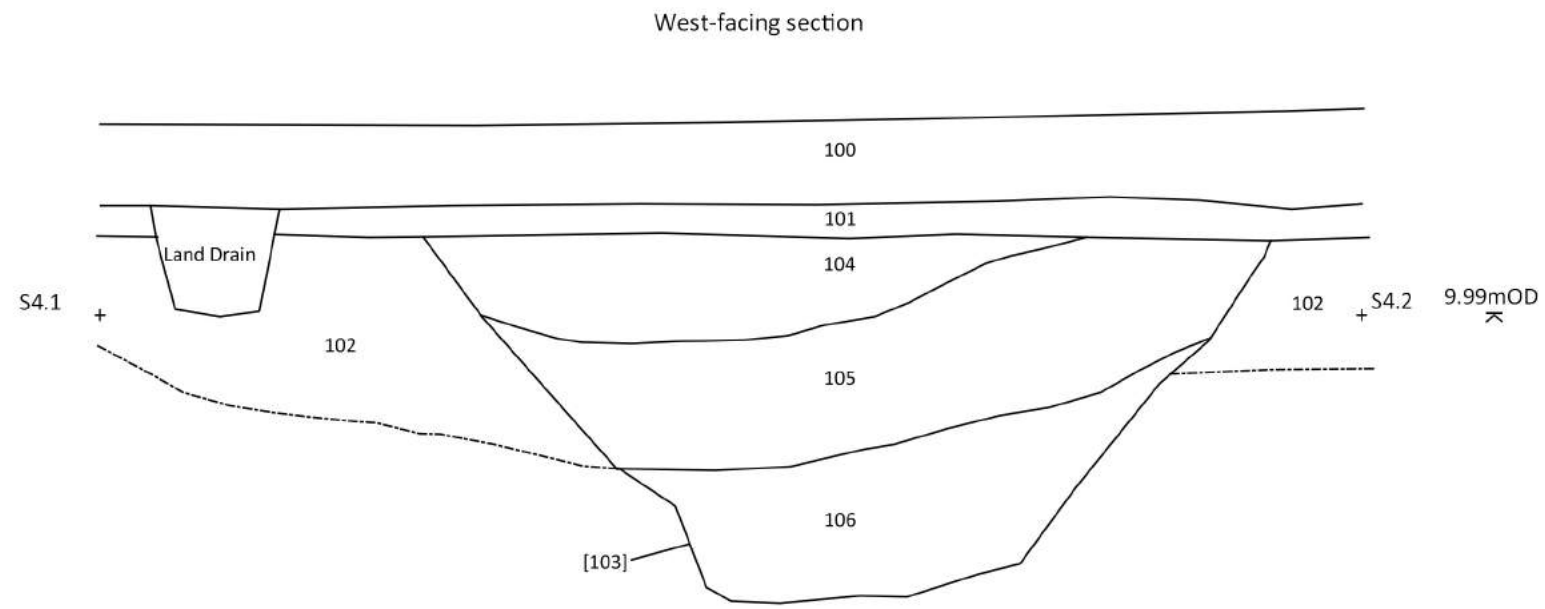
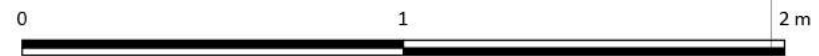


Figure 4: Area 1, Sections



Site Code	SLSQ16
Scale	1:20 @ A3
Drawn by	T Rayner
Date	18/10/2017

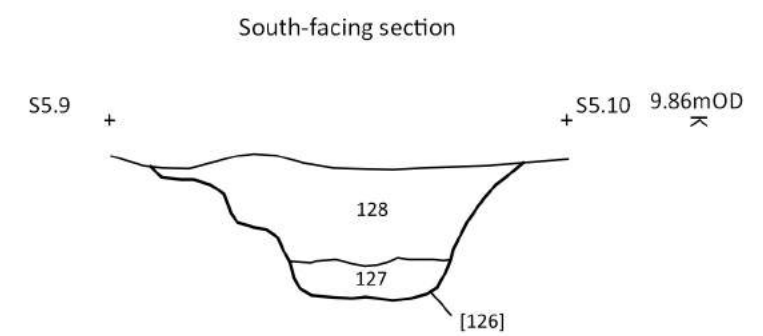
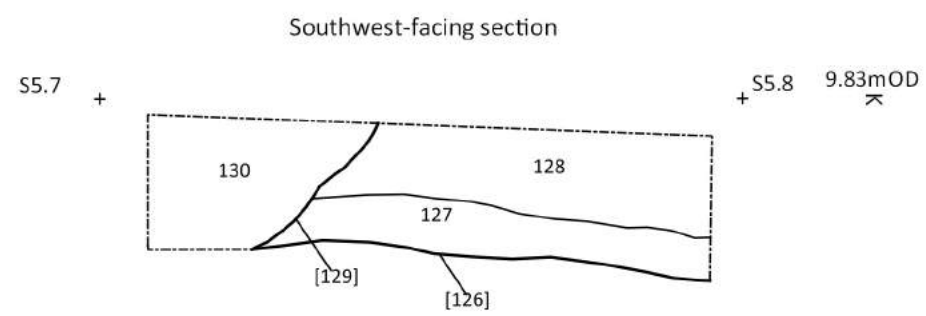
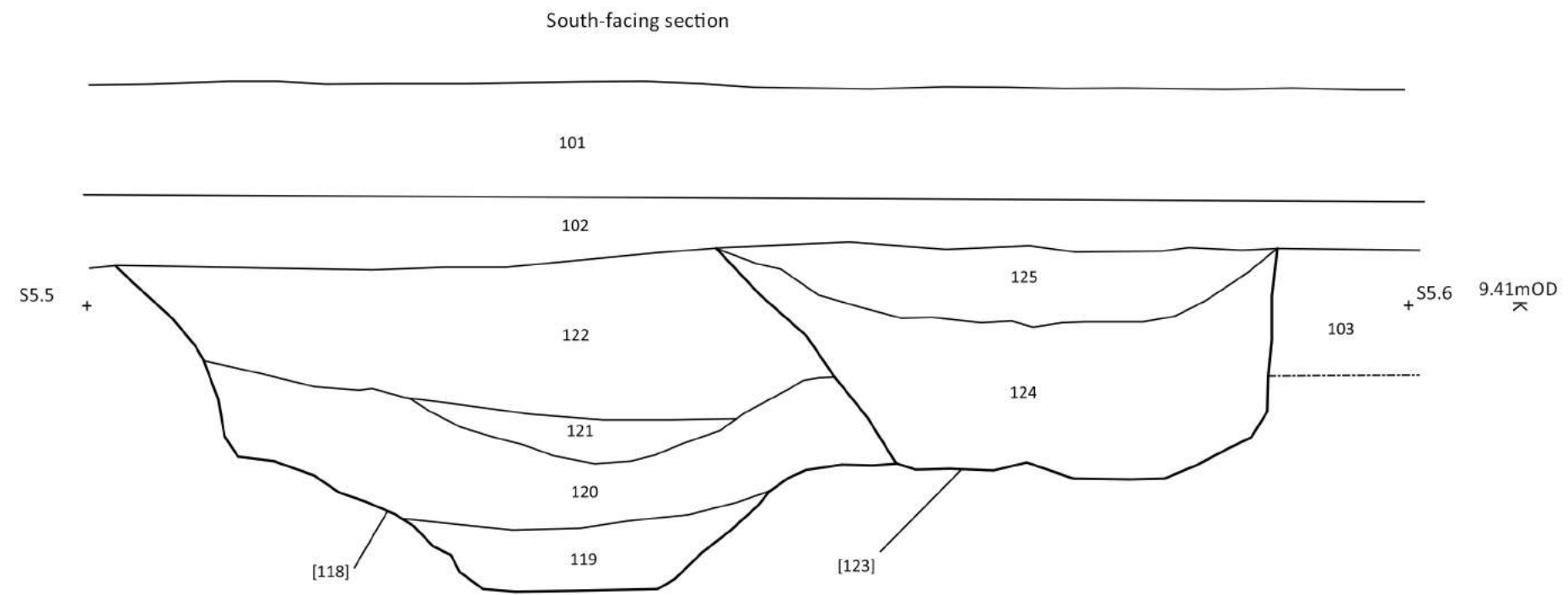
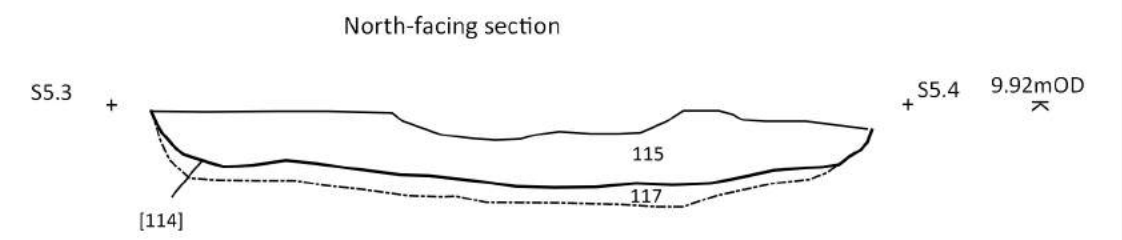
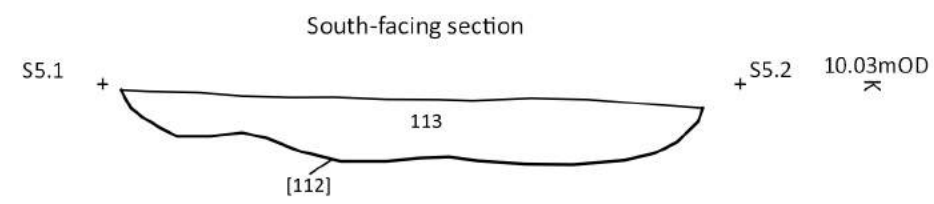


Figure 5: Area 1, Sections



Site Code	SLSQ16
Scale	1:20 @ A3
Drawn by	T Rayner
Date	18/10/2017

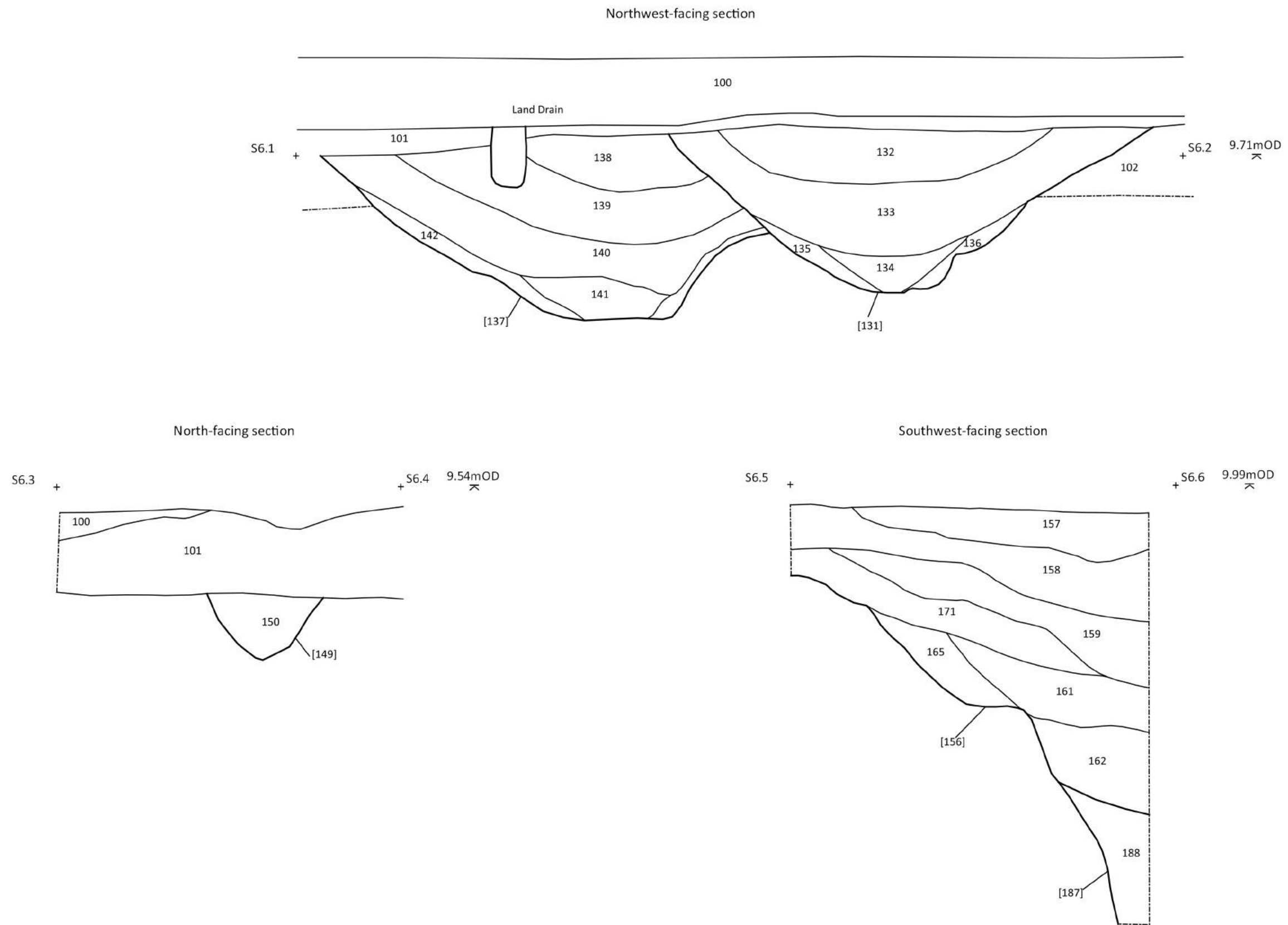


Figure 6: Area 1, Sections

Site Code	SLSQ16
Scale	1:20 @ A3
Drawn by	T Rayner
Date	18/10/2017

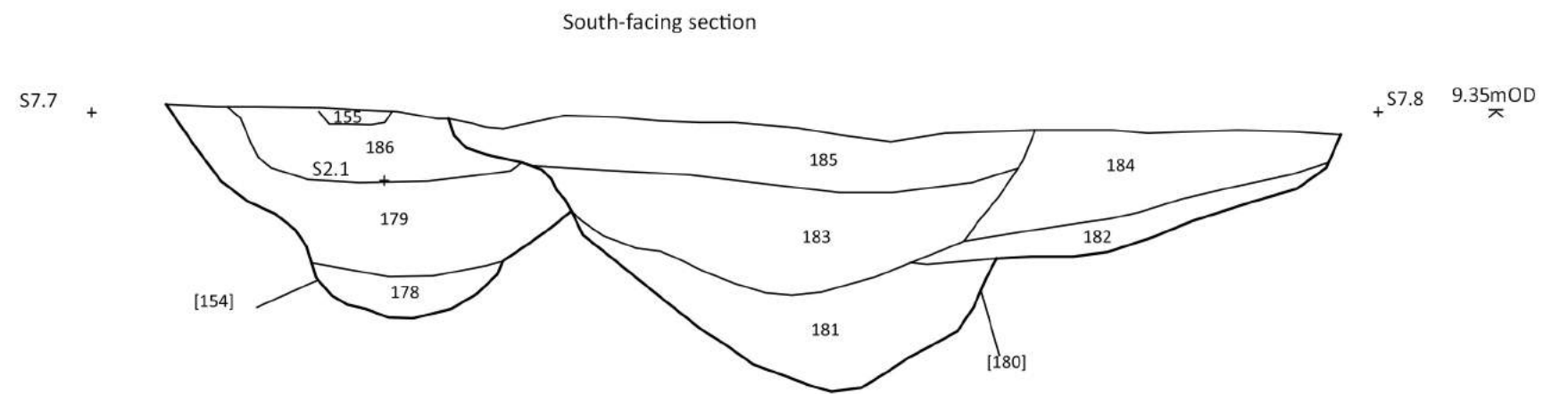
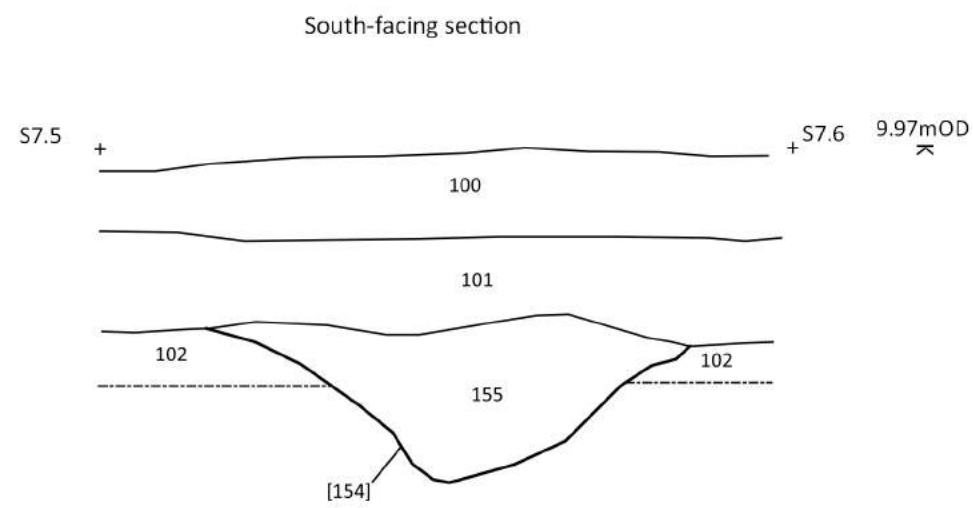
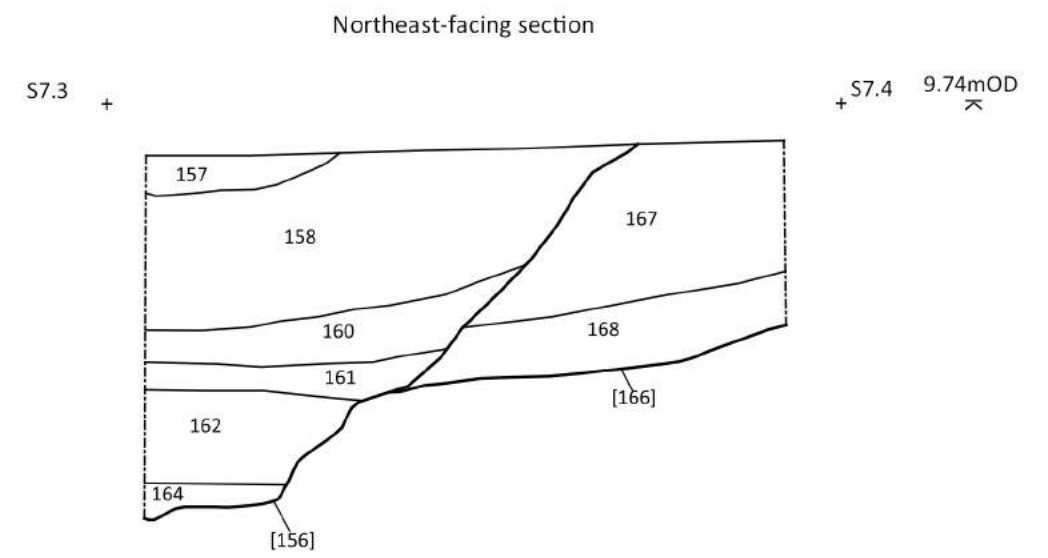
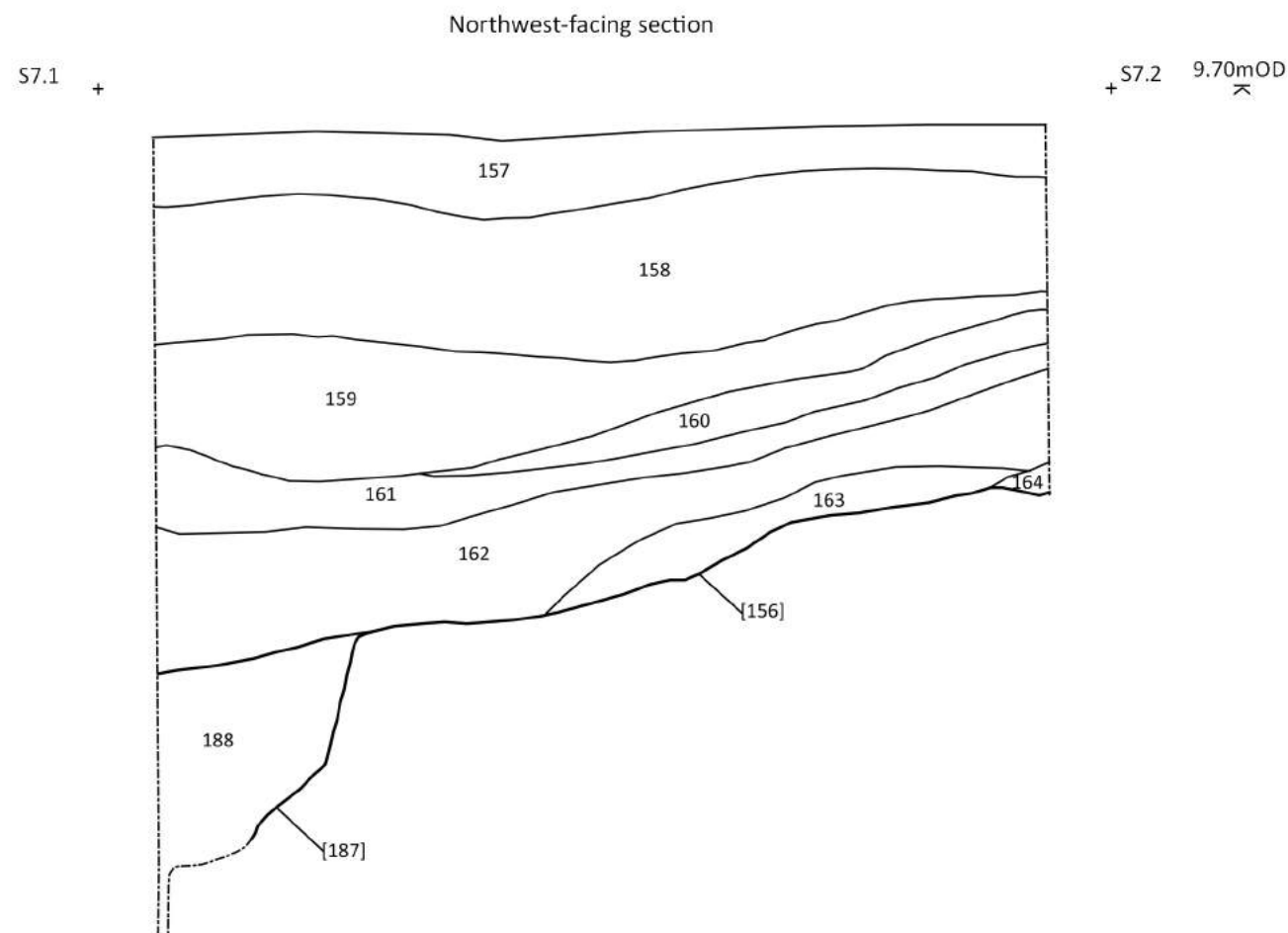


Figure 7: Area 1, Sections



Site Code	SLSQ16
Scale	1:20 @ A3
Drawn by	T Rayner
Date	18/10/2017

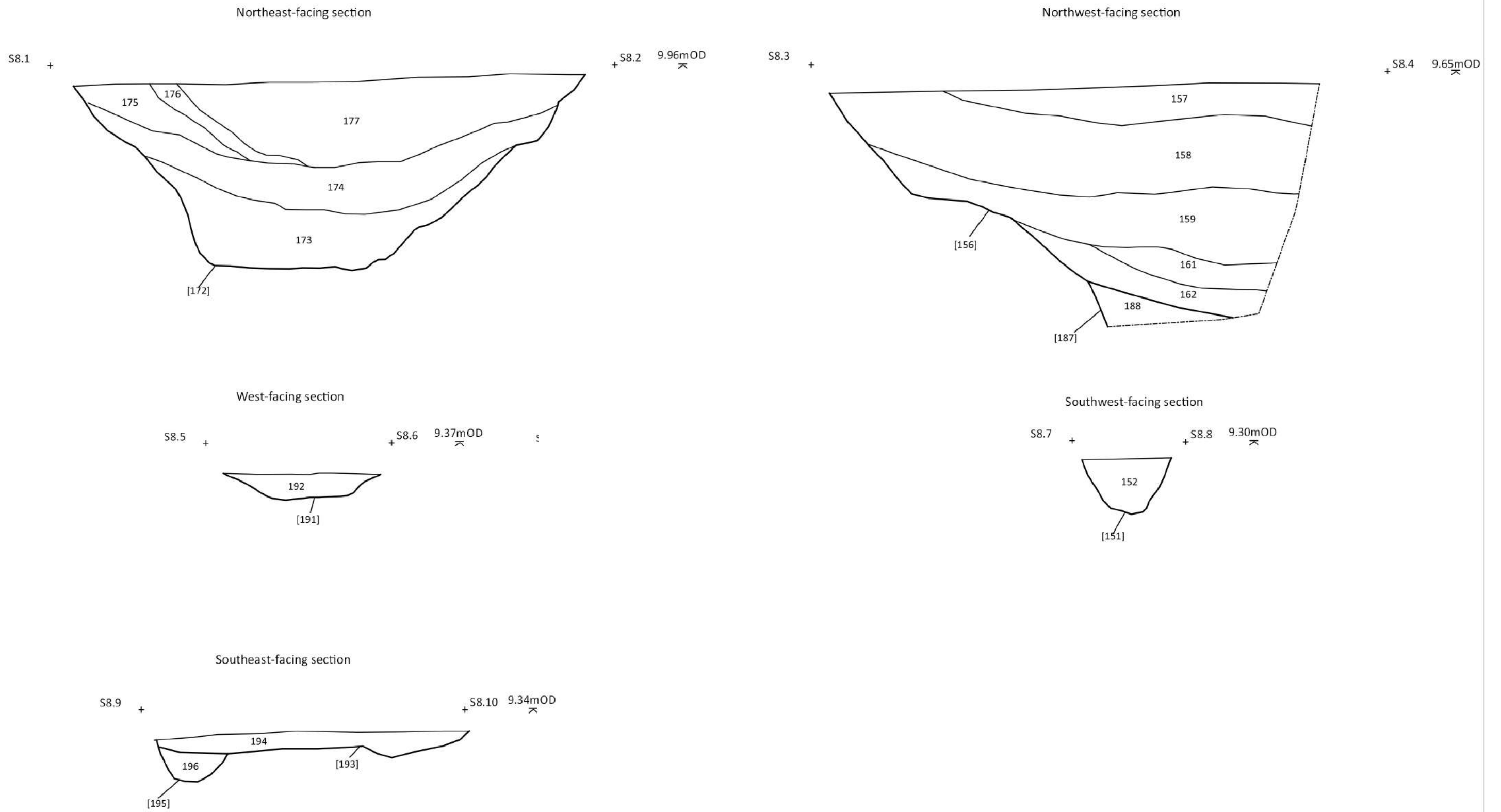


Figure 8: Area 1, Sections

Site Code	SLSQ16
Scale	1:20 @ A3
Drawn by	T Rayner
Date	18/10/2017

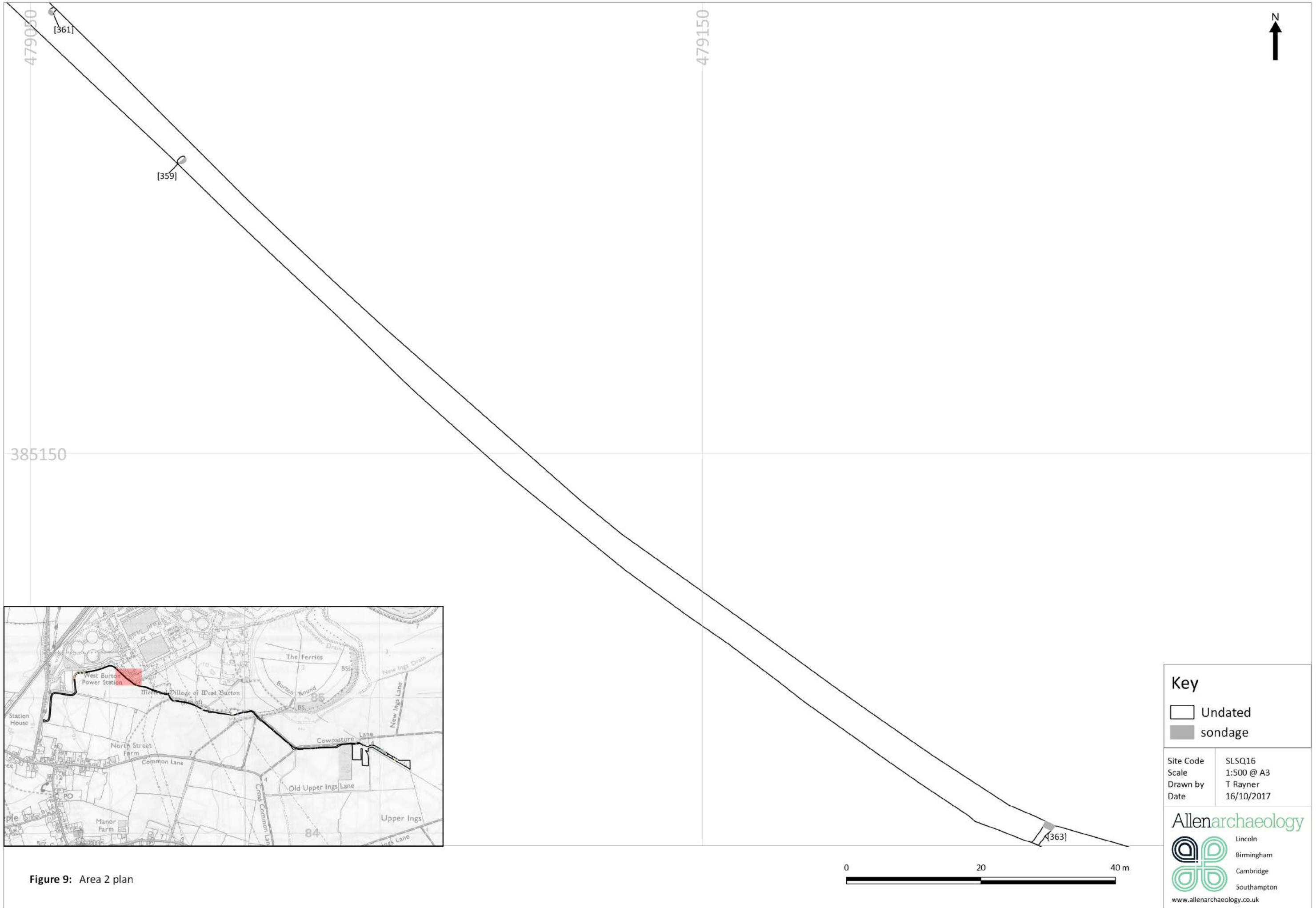


Figure 9: Area 2 plan

Key

- Undated
- sondage

Site Code	SLSQ16
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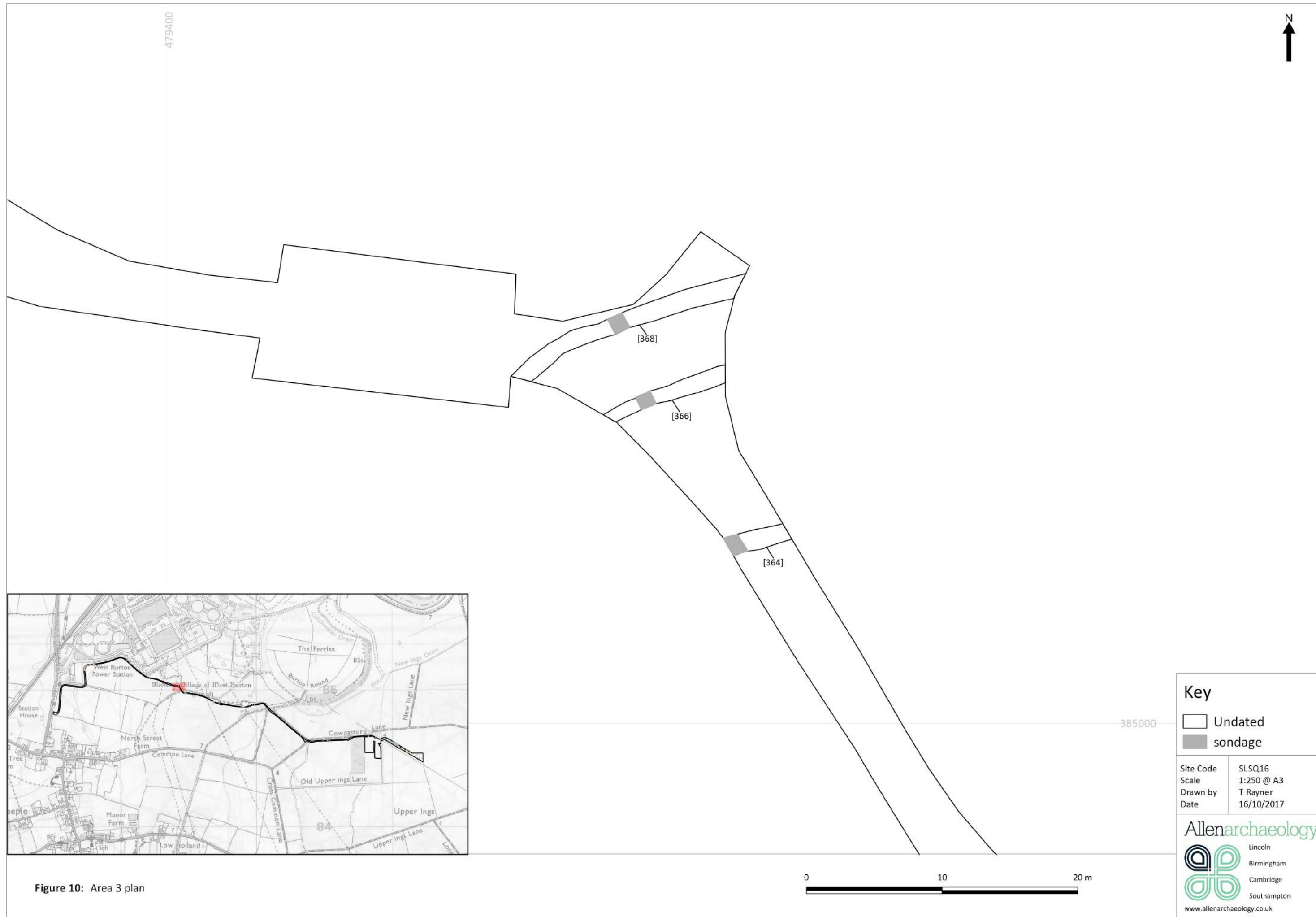


Figure 10: Area 3 plan

Key

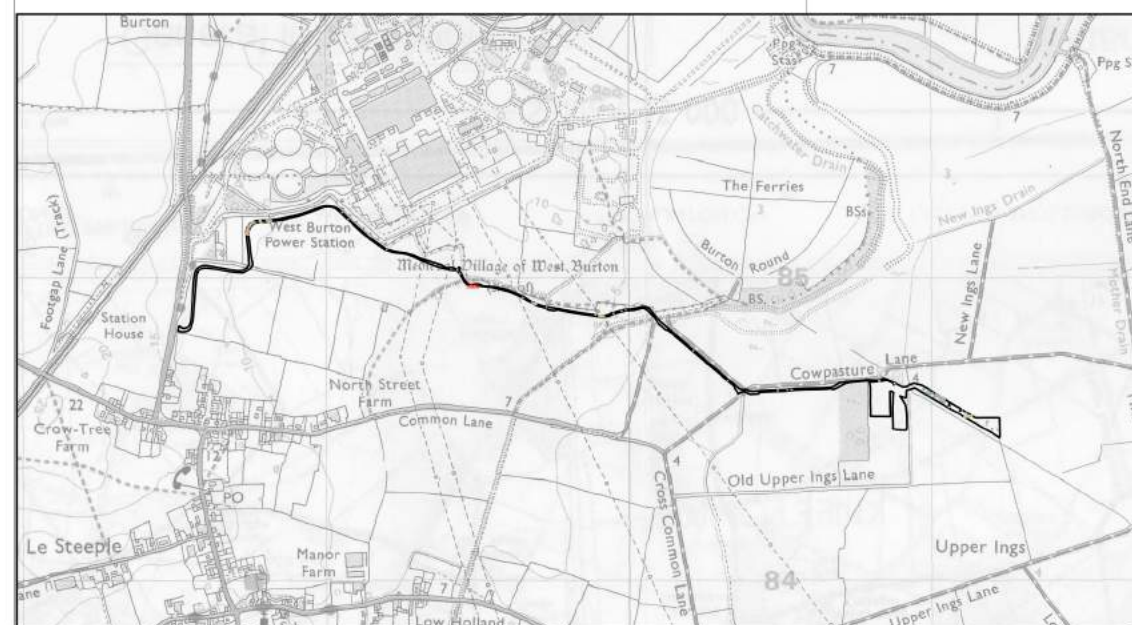
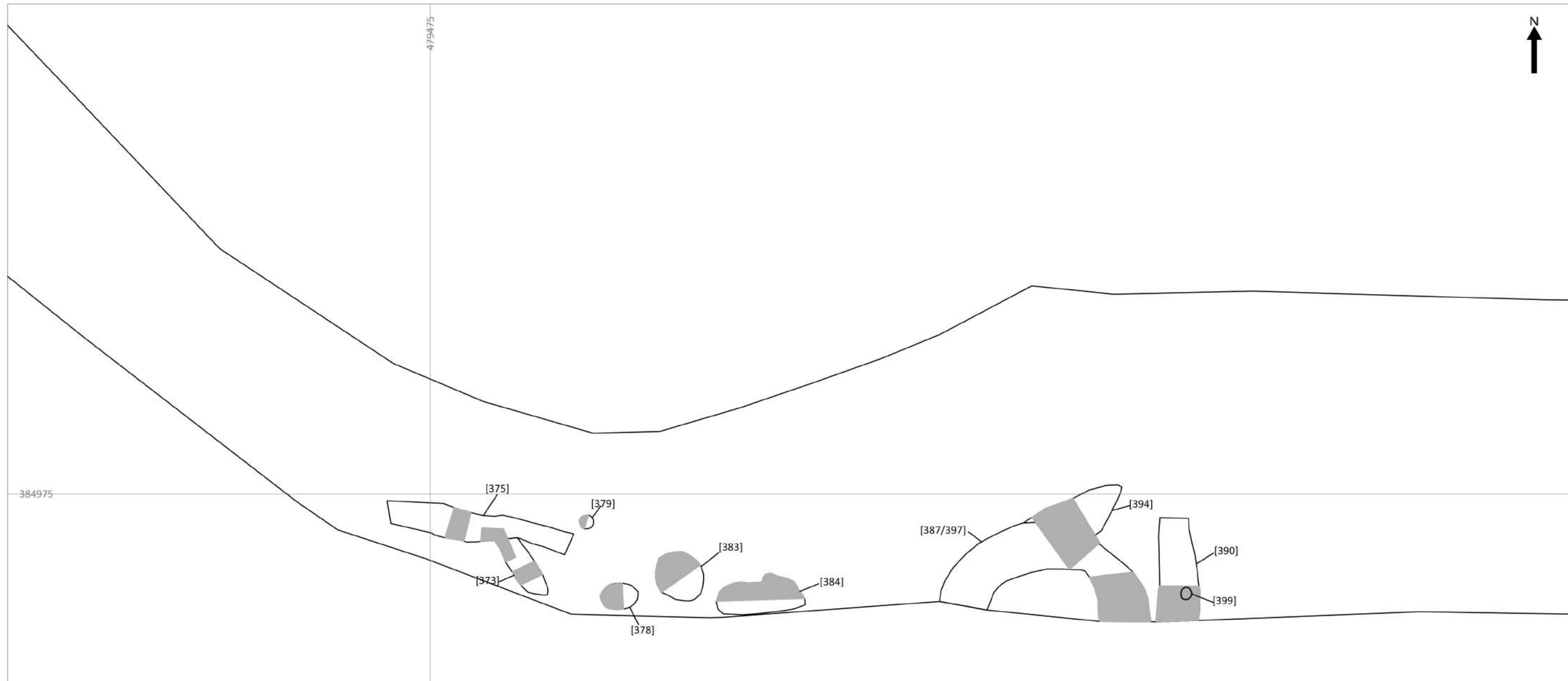
- Undated
- sondage

Site Code	SLSQ16
Scale	1:250 @ A3
Drawn by	T Rayner
Date	16/10/2017

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Key

- Undated
- sondage

Site Code	SLSQ16
Scale	1:100 @ A3
Drawn by	T Rayner
Date	16/10/2017

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Figure 11: Area 4 plan





Figure 12: Area 5 plan

Key	
	Roman
	Undated
	sondage

Site Code	SLSQ16
Scale	1:250 @ A3
Drawn by	T Rayner
Date	16/10/2017

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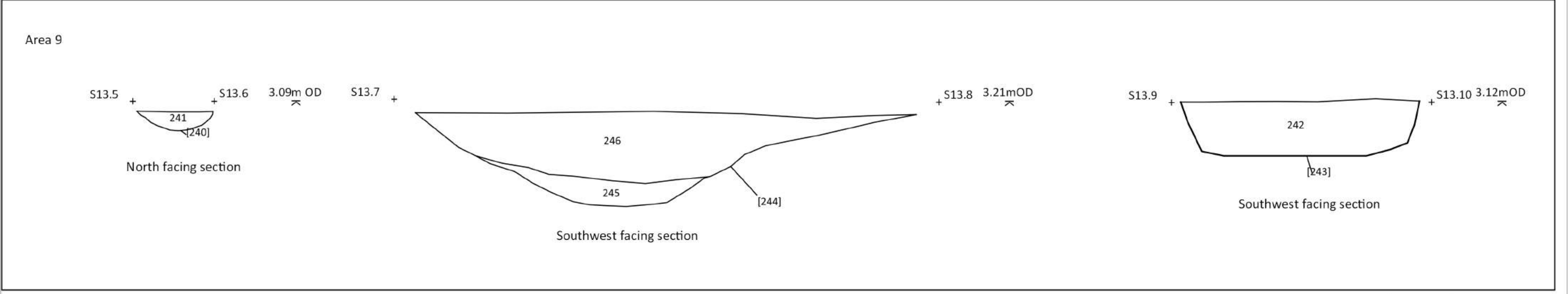
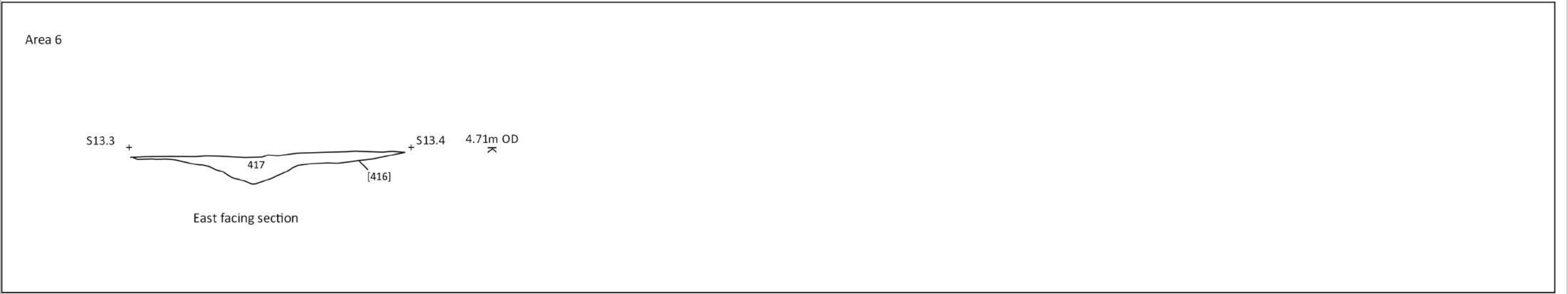
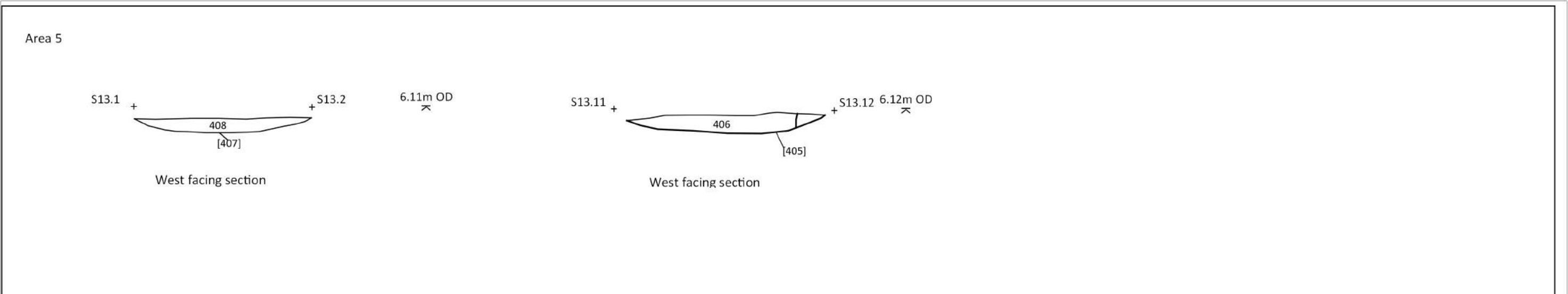
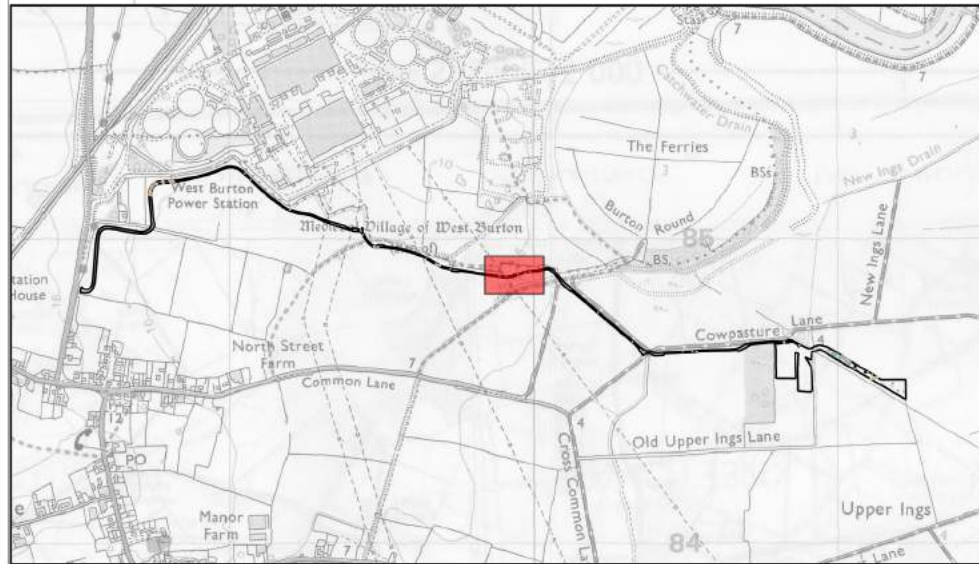
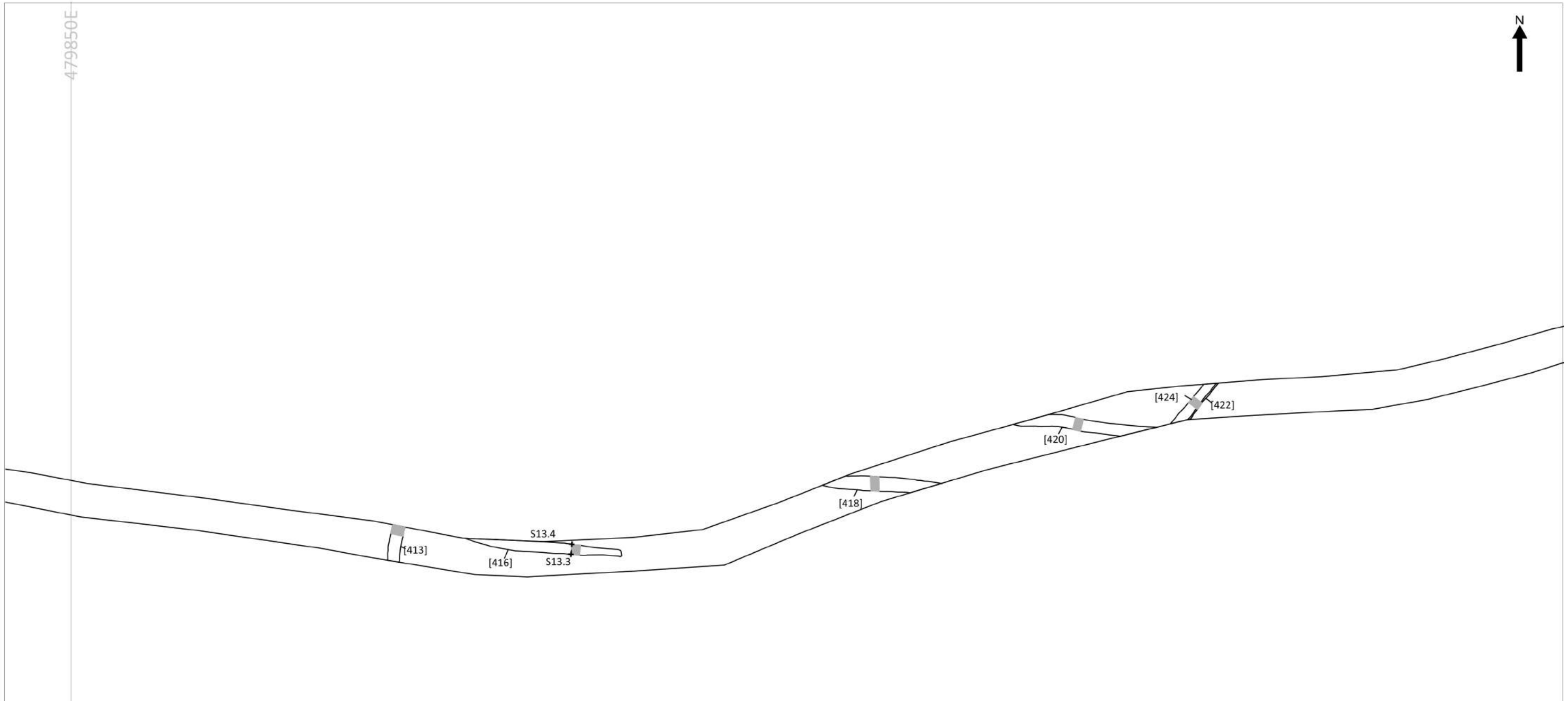


Figure 13: Area 5, Section, Area 6, Section and Area 9, Sections

0 1 2 m

Site Code	SLSQ16
Scale	1:20 @ A3
Drawn by	T Rayner
Date	18/10/2017

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384850N

Key	
	Undated
	sondage

Site Code	SLSQ16
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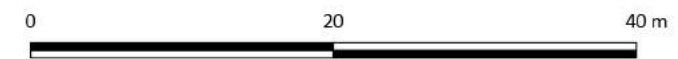


Figure 14: Area 6 plan



Figure 15: Area 7 plan

Key	
■	Roman
□	Undated
■	sondage

Site Code	SLSQ16
Scale	1:2000 @ A3
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Figure 16: Area 8 plan

Site Code	SLSQ16
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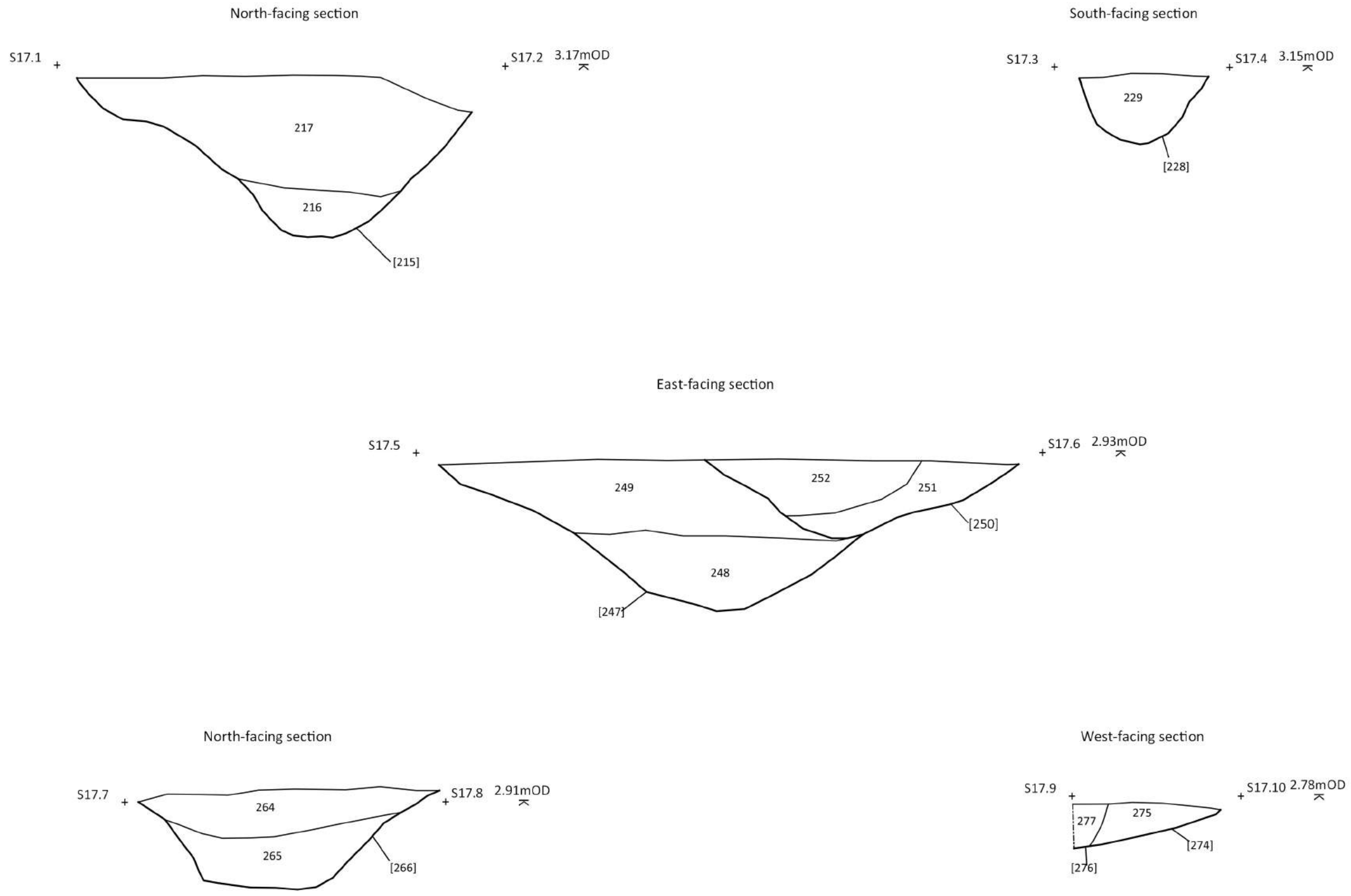
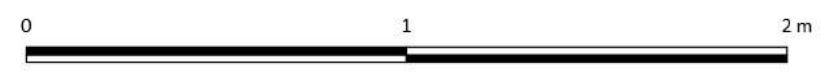


Figure 17: Area 8, Sections



Site Code	SLSQ16
Scale	1:20 @ A3
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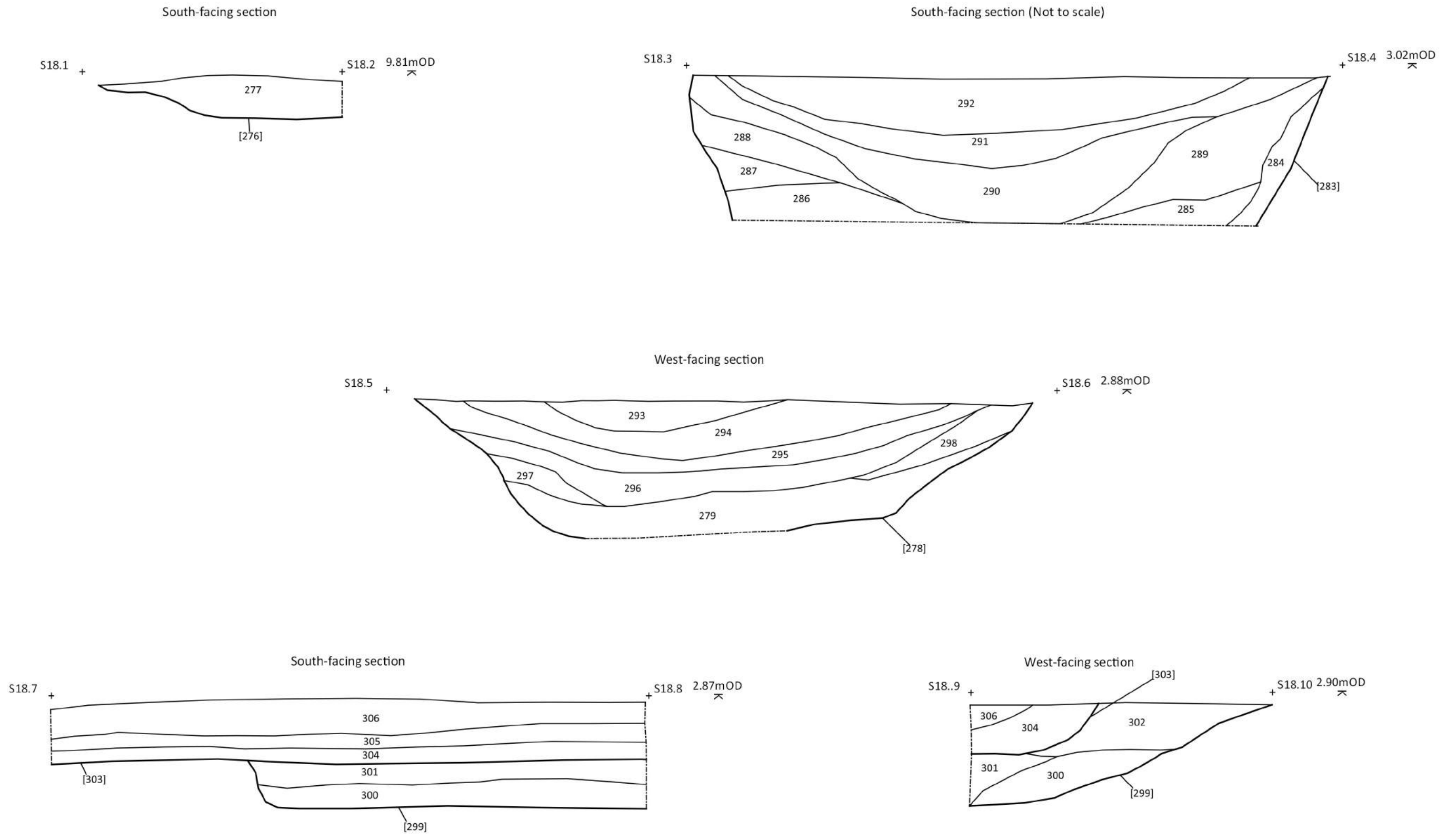


Figure 18: Area 8, Sections



Site Code	SLSQ16
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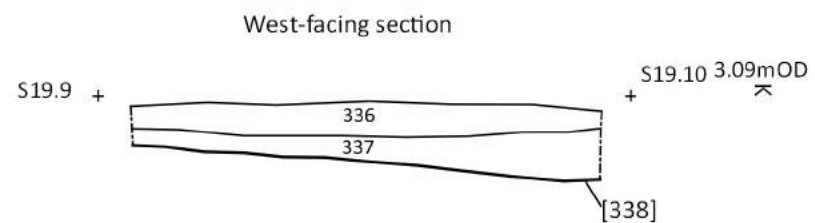
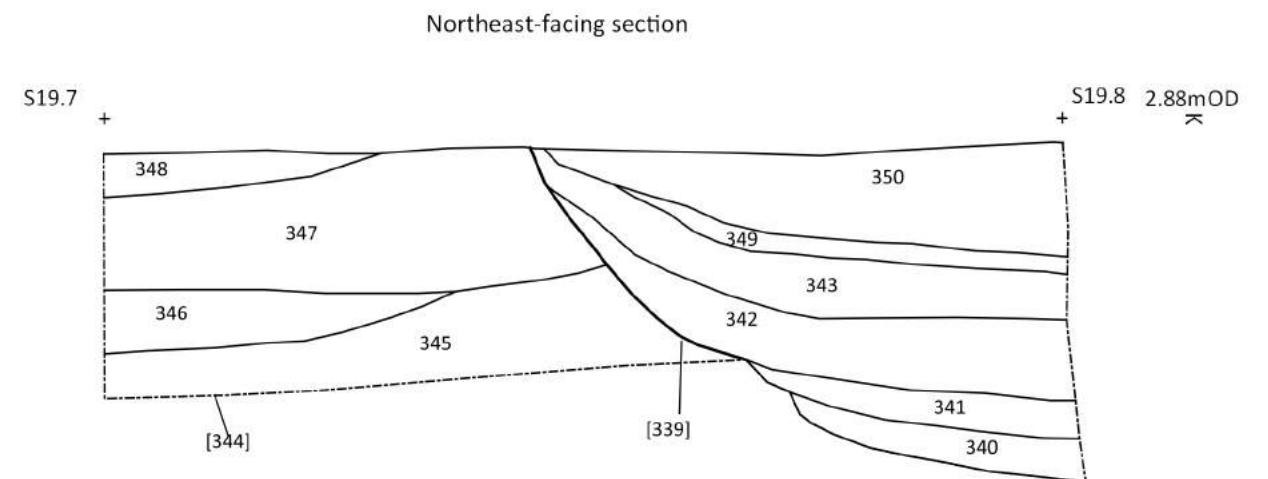
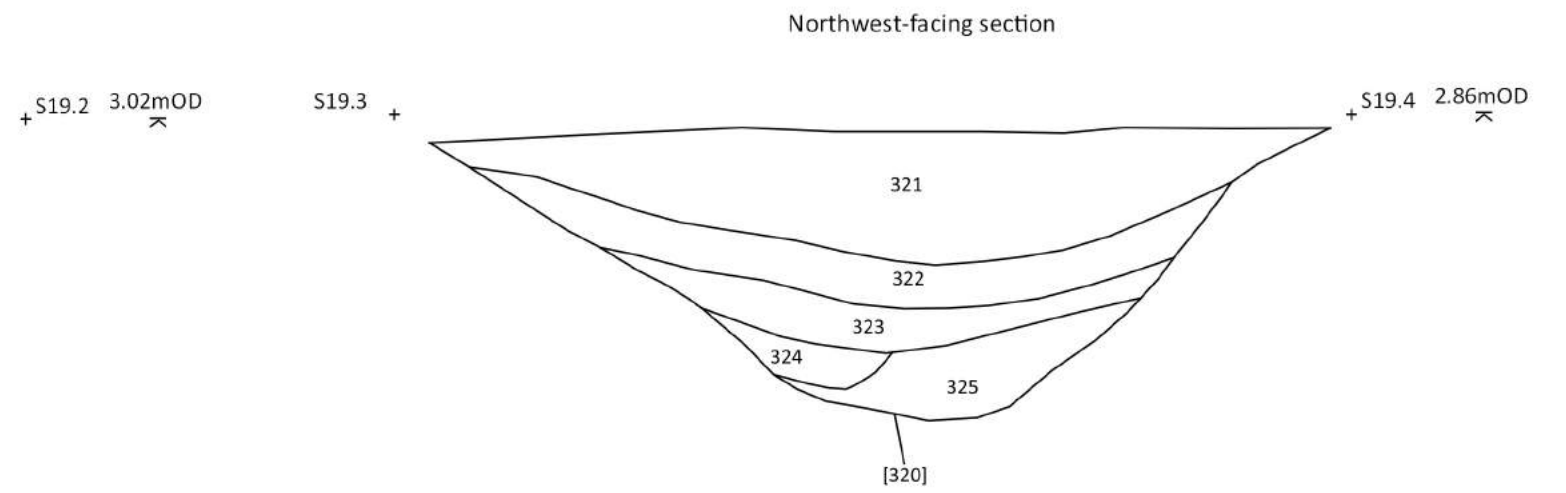
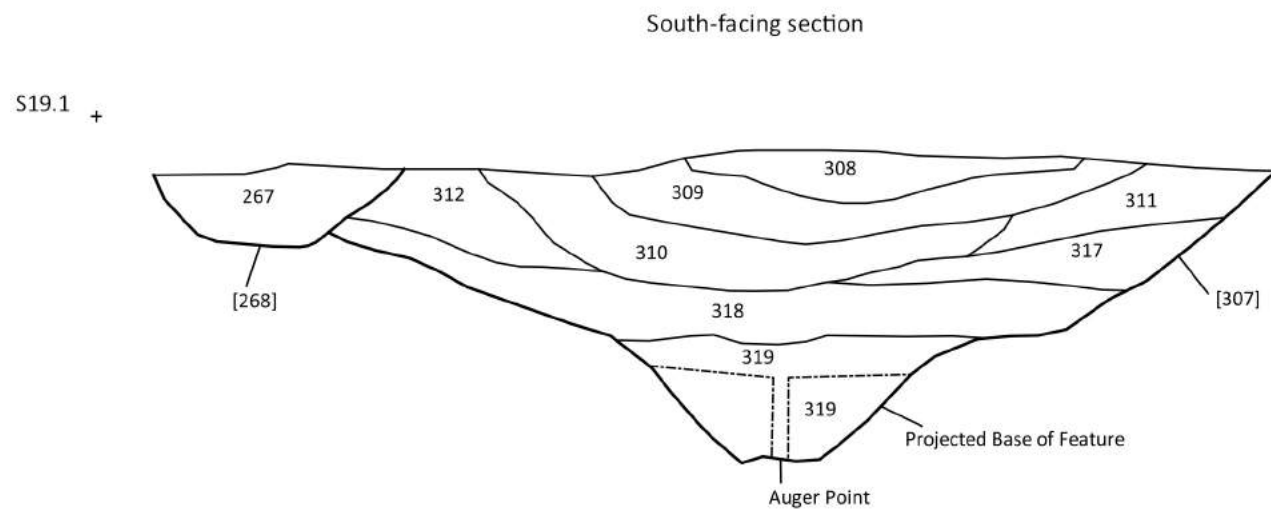


Figure 19: Area 8, Sections



Site Code	SLSQ16
Scale	1:20 @ A3
Drawn by	T Rayner
Date	18/10/2017



Legend

SLSQ16 pols

- Late Iron Age/1st Century AD
- Roman
- sondage
- Undated

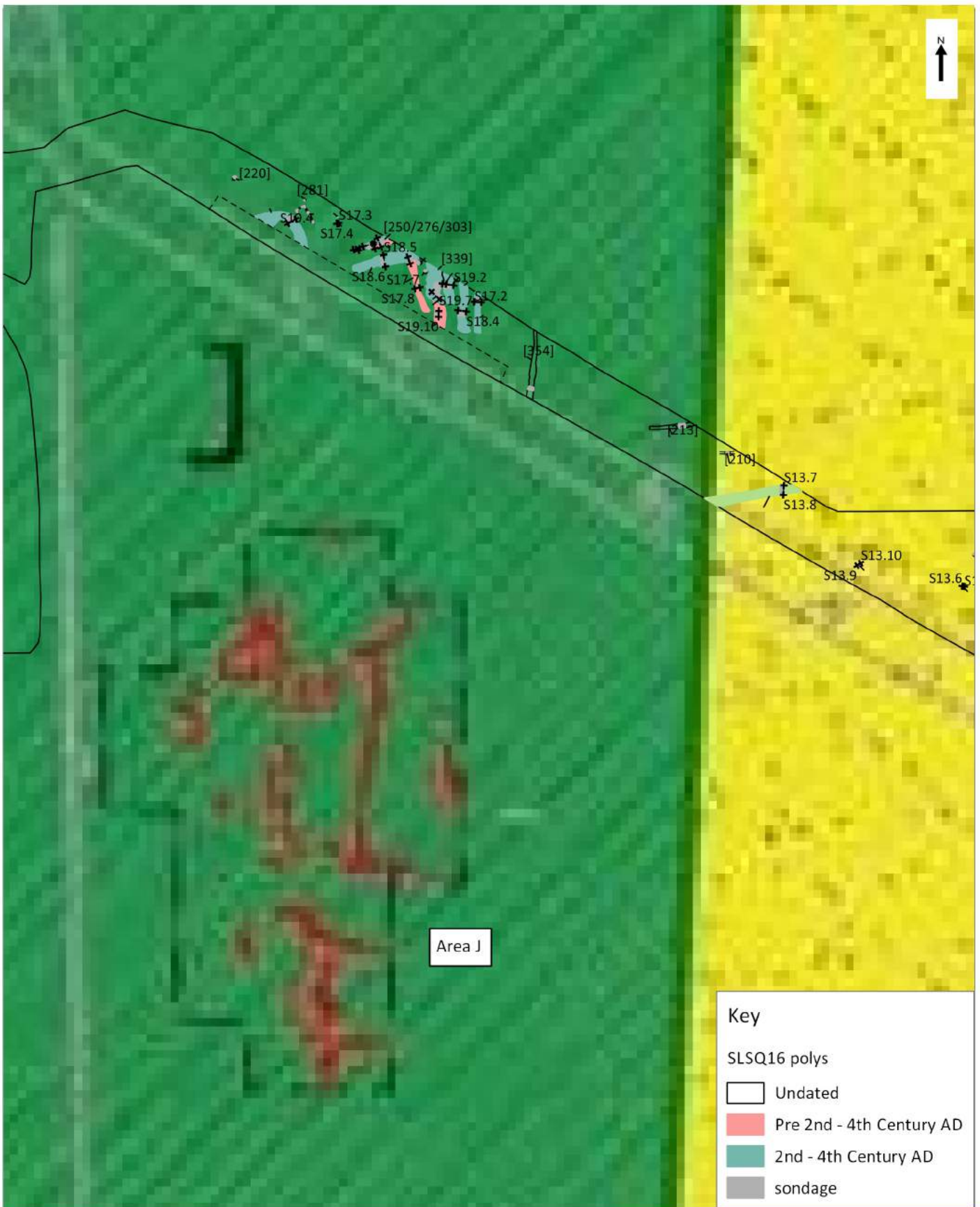
Site Code	SLSQ16
Scale	1:500 @ A3
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Figure 20: Area 9 plan



Key

SLSQ16 polys

- Undated
- Pre 2nd - 4th Century AD
- 2nd - 4th Century AD
- sondage

Site Code	SLSQ16
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Figure 21: Areas 8 and 9 superimposed on areas identified during archaeological evaluation (Coates and Richmond 2016, Figure 2)

Appendix 10: OASIS summary

OASIS ID: allenarc1-299917

Project details

Project name	ARCHAEOLOGICAL WATCHING BRIEF REPORT:
Short description of the project	Allen Archaeology Limited (AAL) was commissioned by Phoenix Consulting Archaeology Ltd on behalf Tarmac a CRH Company to undertake an archaeological watching brief of the access route between Gainsborough Road and Sturton-Le-Steeple Quarry, Nottinghamshire in fulfilment of an archaeological condition of planning permission.
Project dates	Start: 08-11-2016 End: 22-03-2017
Previous/future work	Yes / Yes
Type of project	Field evaluation

Project location

Country	England
Site location	NOTTINGHAMSHIRE BASSETLAW STURTON LE STEEPLER STURTON-LE-STEEPLE QUARRY
Entered by	t.rayner (info@allenarchaeology.co.uk)
Entered on	2 November 2017



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