



**Archaeological Evaluation on Land at
the former Royal Mail Sorting Office,
70 Maison Dieu Road, Dover, Kent
*May 2011***

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An Archaeological Evaluation on land at the
Former Royal Mail Sorting Office,
70 Maison Dieu Road,
Dover, Kent

NGR: 631620 142037

Site Code: MDE-EV-11

(Planning Application Number: DOV/10/00399)

Report for
Jenner (Contractors) Ltd.

SWAT. ARCHAEOLOGY

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SUMMARY

Project Name: Maison Dieu Road, Dover

Location: Dover, Kent

NGR: 631620 142037

Type: Evaluation

Date: 16th – 20th May 2011

Planning Reference: *DOV/10/00399*

Site Code: MDE-EV-11

Swale & Thames Survey Company (SWAT) was commissioned by Jenner (Contractors) Ltd. to carry out an archaeological evaluation at the above site. The work was carried out primarily in accordance with the Standards of the IfA, (IfA, 2008) and in discussion with the Archaeological Officer, Kent County Council.

In these works fluvial gravels and alluvial layers were uncovered at the base of the sequence from deposits associated with the nearby River Dour. Overlying these was a thick layer of colluvium, probably heavily laminated; containing abraded worked flints of a probable Bronze Age date and a single sherd of Mid to Late Iron Age or Early Medieval pottery along with a number of sherds of C16th date. Above this was modern made ground from the date of the construction of the former Sorting Office and in some areas there was demolition material from the demolition of the same in 2008.

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**An Archaeological Watching Brief on land at the
Former Royal Mail Sorting Office
70 Maison Dieu Road, Dover, Kent
NGR: 631620 142037
Site Code: MDE-EV-11**

Introduction

Swale & Thames Survey Company (SWAT) carried out an archaeological evaluation on land at 70 Maison Dieu Road in Dover, Kent. A planning application (PAN: DOV/10/00399) for the "... Erection of 36 flats and 4 houses together with associated landscaped areas and surface car parking", (DDC, 2011), at the above site was submitted to Dover District Council (DDC). Kent County Council Heritage and Conservation (KCCHC), on behalf of Dover District Council requested that an Archaeological Investigation be undertaken in order to determine the possible impact of the development on any archaeological remains. The work was carried out in discussion with the Archaeological Officer, Kent County Council.

The archaeological evaluation commissioned encountered no significant archaeological features with the investigation area having only modern deposits above natural deposits of colluvium in which worked flints and pottery were found. These flints, of a possible Bronze Age date, appeared to be in a moderate condition. This most likely shows that any habitation or working sites of this period lay uphill to the north of the site beyond the site boundary. The area was also subject to geoarchaeological study by members of the QUEST team from the University of Reading.

SITE DESCRIPTION AND TOPOGRAPHY

The application site lies within the present day town of Dover, and is accessed off of Maison Dieu Road which forms the south-western boundary of the site, to the north-west and the south-east the site is bounded by neighbouring properties on Maison Dieu Road, whilst to the north-east the site backs onto allotment gardens. The site is located 650m north-west of the medieval core of the town of Dover and 300m to the south-east of the Domesday settlement of Charlton. The site lies at an elevation of between 6 and 8m OD on the north-eastern side of the valley of the River Dour. The evaluation trenches lie approximately 125m north-east of the present, mostly culverted, course of the River Dour. The National Grid Reference centroid for the new development is NGR 631620 142037.

The stated underlying geology of the site, according to the British Geological Survey, (BGS, 1966), consists of Cretaceous Chalks of the Middle and Upper Chalk, New Pit and Lewes Nodular Chalk Formations, with Holocene Head Deposits and Alluvium in the areas closest to the River. Work along the Dour Valley has revealed complex geologies associated with the River Dour (Bates and Barham 1993).

PLANNING BACKGROUND

A planning application (PAN: DOV/10/00399) for the construction of, "...36 flats and 4 houses together with associated landscaped areas and surface car parking", (DDC, 2011), at the above site was submitted to Dover District Council (DDC). Kent County Council Heritage and Conservation (KCCHC), on behalf of Dover District Council, requested that an evaluation be undertaken in order to determine the possible impact of the development on any archaeological remains. The following condition was placed on the planning consent:

"No development shall take place until the applicant(s), or their agents or successors in title, has or have secured the implementation of a programme of archaeological work in accordance with a written specification and timetable which has been submitted to and approved by the Local Planning Authority;

Reason: To ensure that features of archaeological interest are properly examined and recorded."

"This will involve a phased programme of archaeological investigations with the trial trenching detailed in this specification forming the first part of the on-site archaeological works." (KCCHC 2010)

ARCHAEOLOGICAL BACKGROUND

The area surrounding this site on Maison Dieu Road is of archaeological interest mainly due to its proximity to the historic port town of Dover which lies 650m to the southeast, and to the presence of the main Dover to Richborough Port Roman Road the line of which lies approximately 250m to the west of the development (KHER TR35 SW357). The nationally important Early Medieval/Jutish burial site of Buckland lies 1.15km north-west of the site (KHER TR 34 SW 32 - MKE6969) and the associated Castle View, Anglo-Saxon burial site, (TR 34 SW 461 - MKE 15690) lies slightly closer. The historic environment of the immediate area is, however, mainly characterised by Victorian buildings which are mostly terraced private houses which were constructed as infill development between the settlements of Dover and Charlton. These are most likely to be related to the milling industries which grew up along the River Dour. The varied milling industries which grew up along the River Dour have been a main source of employment for the area. Milling on the Dour has a long history and is mentioned in Charlton at least as early as the Domesday Book (Williams and Martin 1992, 4) and possibly as early as the 8th century in the Anglo Saxon charter S25 (Miller 2001).

The prehistoric period is well attested in the area with spot finds and scatters being found all along the valley. The earliest finds within the 500m diameter of the HER search, which form the scope of this report, was an Early Bronze Age B2 Beaker which was recovered in 1883 from Maison Dieu Fields near Connaught Park in Dover, some 150m north-east of the centre of the site (KHER TR34 SW25). Of unknown prehistoric date are five 'struck flints' recovered during works at the Dover Grammar School for Girls 200m north of the site (KHER TR34 SW688).

A significant number of Iron Age coins (28) have been found in the area and have been reported through the Portable Antiquities Scheme (PAS). These finds have been recovered from 1972 to the present day and range from Bronze *Potins* and Copper Alloy *Units* to three Gold Quarter *Staters* (KHER MKE 65646, 65647, 65840, 65854, 66016-66018, 66080, 66125, 66247-66257, 66259-66261, 66382, 66394-66397). The exact location of these finds is not given, however, the south-western corner of the 100m square which is given lies 155m to the south-west of the site.

Considering the major Roman occupation of the area of Dover town centre and the continuous use of the nearby Roman Roads, very little has been recovered from this period. As mentioned above, the line of the Dover to Richborough Roman Road lies close by. Just to the north of the line of the Roman Watling Street, 250m to the south of the application site, "...midden material of Roman date, poss(ibly) from an adjacent occupation site" (KHER TR34 SW 451) was recovered during evaluation trenching.

Evidence of occupation in this area during the medieval period, it is presumed, must lie under the Victorian housing surrounding the site. Charlton, in which parish this site lies, is mentioned in the Domesday book as the settlement of '*Cerlentone*', at this time this parish was a part of the possessions of the Canons of St. Martin of Dover. The land was divided into two parts, the first was held by Ralph de Saint-Samson and was assessed at 1 *sulung*, had a population of 3 *villans* and 4 *bordars* who held one plough (*ibid*). The second part was held by William Fitz-Ogier and was also assessed at 1 *sulung*. This manor was home to 1 *villan* and 7 *bordars* who held half a plough (*ibid*). In this manor also was a mill which rendered 40 shillings.

Excavations at the Royal Victoria Hospital 250m to the south of the site, and on the line of the Roman Watling Street, "...revealed layers of 13th-14th century pottery with tile, shell and bone fragments and a series of wooden stakes interpreted as the remains of a riverside revetment." (KHER TR 34 SW 451). Unstratified early medieval pottery was also recovered from this site at this time (Parfitt, 1992).

Evaluation trenching further to the north-west along the line of the London Road/ Roman Watling Street near its junction with the Richborough Road showed, "Two ditches (...) one running parallel to the High St (...) contained 13th/14th century pottery and animal bone. The other undated ditch was aligned east-west." (KHER TR 34 SW 660)

The 1842 Tithe Map shows the site to be occupied at this time by the house and gardens of Charlton Lodge. The site appears to have altered little by the time of the early Ordnance Survey maps of the area, although development in the surrounding area has encroached upon the house. The site was redeveloped in 1937 when Charlton Lodge was demolished and three large buildings were constructed on the site. (from Specification)

AIMS AND OBJECTIVES

"The aim of the archaeological evaluation and related geo-archaeological investigation is to determine whether any significant archaeological, geo-archaeological or palaeo-environmental remains are present on-site. Assessment of the results should provide guidance on what mitigation measures would be appropriate and will help guide any future evaluation and mitigation works. Such measures may include further archaeological trial trenching; detailed archaeological excavation; historic palaeo-environmental/ geo-archaeological recording and analysis; and/or an archaeological watching brief during construction work."

"Any subsequent archaeological evaluation and mitigation of the site will be subject to other documents or specifications which will need to be agreed with the Local Planning Authority."

"Particular aims that should be addressed by the evaluation include (not exclusively):

- to establish whether there are any archaeological deposits at the site and to ascertain the extent, depth below ground surface, depth of deposit, character, significance and condition of such deposits;
- to assess the potential of the site to contain nationally important remains, using English Heritage assessment criteria.
- to determine the impact of past activity and especially the construction of the sorting office buildings and/or Charlton Lodge and any terracing works on the sites' archaeological potential.
- to place any remains exposed in their wider setting and contribute to our understanding of the history of the development of the settlement of this part of this part of the Dour Valley;
- to determine whether there are significant geo-archaeological or palaeo-environmental deposits present at the site and if so to relate these to other exposures within the Dour Valley;
- to contribute to the environmental and landscape history of the area; and
- to contribute to the objectives of the South East Regional Research Framework." (KCCHC 2010)

ARCHAEOLOGICAL METHODOLOGY

The archaeological and geoarchaeological evaluations were carried out in accordance with the following:

The European Association of Archaeologists' *"The EAA Principles of Conduct for archaeologists involved in contract archaeological work"* (EAA, 1998)

English Heritage's *"Management of Research Projects in the Historic Environment: The MoRPHE Project Managers' Guide' v1.1"* (EH, 2009)

Institute for Archaeologists' *"Standard and Guidance for archaeological field evaluation"* (IfA, 2008a)

Institute for Archaeologists' *"Standard and Guidance for the collection, documentation, conservation and research of archaeological materials"* (IfA, 2008b)

Institute for Archaeologists' *"Code of approved practice for the regulation of contractual arrangements in archaeology"* (IfA, 2008c)

Institute for Archaeologists' (Institute for Archaeologists) *"Code of conduct"* (IfA, 2010)

Kent County Council Heritage and Conservation's *"Specification for an Archaeological Evaluation of Land adjoining Buckland House, Crabble Hill, Dover, Kent. (Phase 1 Care Home Application)"* (Revised Oct, 2010). (KCCHC, Feb 2010)

Six trial trenches, measuring 20m x 1.8m, were machine excavated across the area of the proposed development under archaeological supervision (Figs 1 and 2).

The trial trenches were scanned prior to excavation using a Cable Avoidance Tool (CAT). All of the trenches were excavated under constant archaeological supervision, using a 5 tonne 360° tracked excavator, fitted with a toothless ditching bucket. Revealed surfaces were manually cleaned in an attempt to identify any archaeological deposits or features. The sections of the trenches were selectively cleaned to observe and record their stratigraphy. All spoil removed from the trenches was scanned visually for the presence of any stray, unstratified artefacts.

All encountered archaeological deposits, features and finds were recorded according to accepted professional standards using pro-forma context record sheets. Archaeological features and deposits were planned at a scale of 1:20 and sections generally drawn at a scale of 1:10. Deposit colours were verified by visual inspection.

A full photographic record of the trenches and associated deposits and features was kept and will form part of the site archive. The archive is presently held in secure storage at the offices of Swale and Thames Archaeology and will be offered to a local museum when archives can be accepted.

Only undifferentiated topsoil, subsoil and overburden of recent origin was removed by machine and kept separately. The excavation was taken, in spits of no more than 0.1m for the top and sub soil, down to the top of the first significant archaeological horizon or the top of the underlying 'natural'.

Geoarchaeological test pits were excavated in trenches 1, 2, 5 and 6. The results of this aspect of the investigation are detailed in Appendix 3. Geotechnical Test Pits 301 to 306 were also excavated under archaeological supervision by a representative from Ashdown Site Investigation Ltd. Test Pits 301 and 306 used existing Geoarchaeological Test Pits 2.1 and 6.1 in Trenches 2 and 6 respectively.

The trenches were surveyed in by James Madden from 'Digitise This' using a Leica 1200 series GPS. This information was then digitised using AutoCAD 2007 and the final plan dropped directly onto an Ordnance Survey tile.

MONITORING

The curator was informed of the commencement of the project and one visit was undertaken.

RESULTS

The general stratigraphic sequence in all the trenches comprised a modern tarmac or rubble overburden layer, **(001)** (Quest Unit 5) beneath which lay the colluvial soils (Quest Unit 4). Below these again are deposits of an alluvial nature including a layer of Tufa Gravels (Quest Unit 3) and river silts (Quest Unit 2) and at the base of the sequence lay the Flint Gravels (Quest Unit 1).

Trench 1 (Fig 6, 7 and 14) revealed two distinct colluvial deposits, **(100)** and **(101)** (Quest Unit 4). Layer **(102)** was a layer of pure Tufa Gravel, (Quest Unit 3) which lay above **(103)** **(104)** **(106)** **(107)** and **(108)** which were varied silts, (Quest Unit 2). Below this lay the upper surface of the Flint Gravels, **(105)** (Quest Unit 1).

The sequence in Trench 2 was similar, (Figs 8, 9, 15 and 17), except here there were modern features cutting into the upper soil units, **(203)/[204]**, **(205)**, **(206)/[207]** and **(216)/[217]**. Below the modern common overburden layer were the colluvial deposits, **(200)** and **(201)** (Quest Unit 4) in addition to these common layers a number of other lenses were seen that lay above the tufa gravels, and therefore fall into Quest's category of Head/Colluvial deposits, these were, **(202)**, **(208)**, **(209)** and **(210)**. Below these deposits lay **(211)** which was the Tufa gravels layer (Quest Unit 3). Below this again was a silt deposit **(212)** (Quest Unit 2) and at the base lay the Flint Gravels **(213)** (Quest Unit 1). A single feature was seen which may have been of archaeological origin **(214)/[215]** (Fig 17), this feature appeared to be linear in shape and was sealed by **(202)** and cut into **(208)**. Unfortunately nothing dateable was recovered from the fill. However, it does show that there was a period of stability between these two colluvial events.

Trenches 3 and 4 were both heavily disturbed, probably as a result of the demolition and removal of Charlton House in the 1930s which lay in this area. This has left both these trenches with a limited stratigraphic sequence. Due to this fact and the fact that these two trenches lay furthest away from the course of the river no Test Pits were made within these trenches.

In Trench 3 (Fig 10) the common overburden is anything up to 1m in thickness **(001)** (Quest Unit 5) this overlies a colluvial layer **(300)** (Quest Unit 4). Cutting the Colluvium were two modern features **(301)** which was a concrete encased sewer pipe, the second **(302)** was a red brick wall of unknown date. It is possible that this may represent the surviving remains of Charlton House, however, the brickwork was so badly crushed that no diagnostic elements could be recovered for dating purposes.

The ground surface in Trench 4 had also been severely truncated and also contained elements which may have belonged to either Charlton House or its successor structures. Beneath the overburden lay rubble context **(401)** (Figs 11 and 12) which infilled a hollow in the centre of the trench and also the remains of a brick lined cellar **[403]** which lay at the western end of the trench. Cutting colluvial layer **(400)** (Quest Unit 4) and possibly a part of rubble layer **(401)** was a rectilinear area which may have been a discrete entity **(402)**. Again Trench 4 did not contain a Test Pit, and as such the sequence terminated in this trench with colluvium **(400)**.

Trench 5 had a relatively simple sequence (Figs 13 and 15) with **(001)** (Quest Unit 5) overlying two layers of make-up, **(500)** and **(501)** utilising what appears to be re-worked natural colluvium, this would make sense as the site would be dropping off in this direction, as it heads down the valley. Below this lay contexts **(502)**, **(505)** and **(506)** which appeared to be the truncated natural colluvium (Quest Unit 4). Cutting through these layers at the south-eastern end of the trench was **(503)/[504]**, which was a modern ceramic pipe. At the base of the sequence was a silt/cobble layer **(507)** (Quest Unit 1) therefore the Tufa Gravel layer (Quest Unit 3) and the underlying silts (Quest Unit 2) did not lie in this trench.

Trench 6 had a similar sequence to that seen in Trenches 1 and 2 (Figs 13 and 16) with colluvial layers **(600)** and **(601)** (Quest Unit 4) underlying the overburden **(001)** (Quest Unit 5). Below this lay an interface layer that appeared to be part colluvium and part Tufa Gravel **(602)**, below this again lay the Tufa Gravel layer proper **(603)** (Quest Unit 3). Below this again lay another interface layer, this time, between the Tufa Gravels and the riverine silts **(604)**, this lay upon silt layer **(605)** (Quest Unit 2) which in turn lay upon the Flint Gravels **(606)** (Quest Unit 1).

FINDS

Many worked flints were found from across all the Colluvial layer, this assemblage was comprised mainly of flakes and burnt unworked flint pieces. These were not derived from any archaeological features found on site and may originate from areas towards the northern edge or beyond the bounds of the site.

Pottery was recovered which dated from the medieval to the modern periods. From colluvial layers **(201)** and **(600)** came pottery that was dated to the mid to late medieval periods, as a rule the earlier pottery appeared to be more abraded showing that the mid medieval material was residual in what must have been a later deposit. This colluviation may, however, have been more of a continuum rather than many discrete events. The flints are obviously residual in this but may have been moving downslope continuously since deposition, picking up later material on the way.

From context **(603)** came a left *mandible* and a right *metacarpal* from a type of cattle which lay within the Tufa Gravels, these are provisionally dated to the Bronze Age period as it was soils of this nature that surrounded and infilled the Dover Bronze Age boat, (C. Green *pers. comm.*). (Appendix 4).

CONCLUSION

The archaeological works have been successful in fulfilling the primary aims and objectives of the Specification. Despite the archaeological potential of the surrounding area, significant buried archaeological features were not found in the area. The significant worked flint scatter across the site and the presence of medieval pottery, all abraded, may suggest that archaeological features exist in the immediate locality.

Several of the sites in the HER show that there was significant Bronze Age activity on the upper slopes of the Dour Valley on this side of the river. At the foot of Old Park Hill in the base of a deep coombe that is Buckland Valley, an assemblage of worked flints and pottery was found, (TR 34 SW 466- MKE15995). The flints were undated, but the majority of the pottery was dated to the Late Bronze- Early Iron Age. Earlier fragments of pottery were also found dating back to the Early Bronze Age. This site is 1.5km NW of the current site. Also, as mentioned above, the earliest find in this area is an Early Bronze Age B2 Beaker which was recovered near Connaught Park in Dover, some 150m north-east of the centre of the site (KHER TR34 SW25). All these show the high probability that Bronze Age sites lay above this riverside area as also appeared to be the case on the nearby site of the Phase 1 evaluation of the Buckland Paper Mill, (Morley, 2011).

The Geoarchaeological investigations were also a success, revealing coarse fluvial gravels probably from the late-Devensian period, with flood plain deposits of the River Dour overlying these and laying above the above mentioned Colluvial sequence.

ACKNOWLEDGEMENTS

SWAT would like to thank Jenner (Contractors) Ltd. for commissioning the project. Thanks are also extended to Heritage and Conservation (Kent County Council) for their advice and assistance. James Madden and Geoff Morley carried out the archaeological fieldwork, surveying was undertaken by Digitise This. The project was managed by Dr. Paul Wilkinson.

G. Morley MSc, FSA Scot, PlfA June 2011

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APPENDIX1

THE DATING AND ASSESSMENT OF THE CERAMIC ASSEMBLAGE FROM 67-71 MAISON DIEU ROAD, DOVER EVALUATION 2011 (MDE-EV-11)

A. Primary quantification: 16 sherds (weight: 119gms)

B. Period codes employed:

MIA>MIA-LIA	= Mid>Mid-Late Iron Age
LIA	= Late Iron Age
B/ER	= 'Belgic'-Early Roman transition
ER	= Early Roman
MR	= Mid Roman
EM-M	= Early Medieval-Medieval transition
M	= Medieval
LM	= Late Medieval

C. Context dating:

Trench 2

Context: 200 - 1 sherd (weight: 26gms)

1 sherd M ?Ashford/Wealden-type sandy ware (c.1225/1250-1275 AD probably)

Comment: Single jug handle fragment, moderately worn.

Likely date: Probably residual

Context: 201 - 6 sherds (weight: 45gms)

1 sherd ?MIA-LIA or EMS sandy ware with calcitic inclusions (c.200-50 BC or c.475-600 AD; **see Assessment**)

1 sherd EM-M Canterbury Tyler Hill sandy ware (c.1175/1200-1225 AD emphasis)

1 sherd M-LM ?Wealden-type pink-buff sandy ware with iron oxide (? c.1300-1375/1400 AD)

2 sherds LM Wealden-type orange-buff sandy ware (c.1375/1400-1475 AD)

1 sherd LM-PM ?Wealden-type pink-buff sandy earthenware (c.1475/1500-1550 AD emphasis probably)

Comment: The earliest element, a small bowl part-profile, is chipped and fairly worn. The LC12-EC13 AD sherd is from a large-diameter pan, is moderate-sized and moderately worn. The Late Medieval elements are all bodysherds – the pink-buff probable Wealden types from jugs – and are small and only lightly worn or chipped.

Likely date: Uncertain – if not c.1500-1550 AD probably residual in a late sixteenth or seventeenth century, possibly later, context

Trench 6

Context: 600 - 9 sherds (weight: 48gms)

2 sherds M Canterbury Tyler Hill sandy ware (c.1200/1225-1250 AD emphasis)

2 sherds M Canterbury Tyler Hill sandy ware (c.1225/1250-1275 AD probably – **1 lightly re-fired**)

2 sherds M Canterbury Tyler Hill sandy ware (c.1275-1325/1350 AD emphasis; **same vessel**)

1 sherd LM ?Wealden-type buff sandy ware (c.1375/1400-1475 AD emphasis probably)

2 sherds LM-PM ?Wealden-type buff sandy earthenware (c.1475-1525/1550 AD; **same vessel**)

Comment: Mostly small bodysherds, the Medieval elements fairly worn and clearly residual in-context. The LM-PM probable Wealden sherds are larger but still chipped or slightly worn. Degree of wear on latter sherds suggests an LC16 or C17 AD date.

Likely date: Uncertain – if not c.1500-1550 AD probably residual in a late sixteenth or seventeenth century, possibly later, context

D. Assessment:

Two main periods are represented by this small assemblage -

Mid-Late Iron Age or Early Saxon (c.200-50 BC or c.475-600 AD):

A single handmade sandy ware medium-diameter bowl rim and upper-body part-profile from *Context 201* could, initially, belong to either of these periods. Regional assemblages for both periods have produced small bowls with palm cup-type profiles with, for instance, early first century BC examples from Bigbury near Canterbury (Thompson 1983, Fig.10, 8) and earlier Saxon examples from Canterbury (Wilson 1995, Fig.347, F42 and Macpherson-Grant 1995 Fig.361, 133). Rather intriguingly, the present example has hard angular calcitic inclusions, some of which are cemented to quartz grains. The only regional later Iron Age or earlier Saxon assemblages that have, in this analyst's experience, produced a similar inclusion type are those recovered in advance off the Channel Tunnel rail-works at the foot of the North Downs behind Folkestone. The bowl is rather crudely finished and an unlikely candidate for a traded or travelled product so that clays with similar calcitic inclusions *may* also occur in the Dour Valley. Irrespective, these two form and fabric inter-period similarities do not readily indicate a likely date for this sherd except that if it is of Saxon date it is a little surprising that there is no associated Roman pottery. As a result, and tentatively, a Mid-Late Iron Age date is preferred at the moment.

Early Medieval-early Post-Medieval (c.1175-1550 AD):

The remainder of the recovered vessel material predominantly consists of bodysherds – except for 1 handle fragment from *Context 200*. Most of the earlier, Medieval, material comprises a rather innocuous collection of cooking-pot or pan sherds representing a thin spread of sporadic domestic discards throughout the thirteenth century and into, at least, the earlier fourteenth century. With the exception of the ?Ashford/Wealden jug handle from *Context 200*, all these sherds are Canterbury sandy ware products.

Although the sample size is small - the mid-later fourteenth century is not obviously represented and the sequence ends with a set of principally fifteenth into early sixteenth century orange-buff or pink/cream-buff Wealden or Waalden-type variably sandy wares. These are mostly from olive/purple-green glazed jug sherds. The similarity of these from both *Contexts 201* and *600*, with no other contemporary ware types recorded, suggests that both context-assemblages represent discards from the same household – and one that had a distinct preference for the bright oxidised colouring of Wealden-type products, compared with the duller range of colours among contemporary Canterbury Tyler Hill products. No ceramic material later than c.1525/1550 AD was recovered.

E. Recommendations

1. With the exception of the ?MIA-LIA bowl rim from *Context 201* none of the material warrants illustration or inclusion in a separate publication report.
2. The ?MIA-LIA bowl should be held in reserve for any future regional/sub-regional comparative fabric/form studies.

F. Bibliography

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Analyst: N.Macpherson-Grant 28.06.2011

APPENDIX 2

The assemblage comprises 36 flakes, 1 blade, 3 bladelets, 1 blade-like flake, 2 cores, 1 spurred piece, 1 awl and 5 pieces of burnt unworked flints. The flint is all heavily edge-damaged and residual. The flake debitage may be of mixed date: many of the flakes are of thick, broad, proportions typical of the Later Neolithic or Bronze Age, but the blades and bladelets are more typical of the Neolithic. The two retouched tools - an awl and a spurred piece - are not chronological diagnostic forms and only a broad Neolithic or Bronze Age date can be proposed. The cores are both regularly worked and the single platform blade core may date from the Mesolithic or early Neolithic; the other core is probably Neolithic.

Summary catalogue

201 13x flakes, including one from opposed platform core (mixed date). 1x multi-platform core (N) 1x burnt unworked flint

211 1 x flake. 1 x spurred piece (N/BA).

214 2x burnt unworked flint.

300 1x blade. 1x flake (N/BA).

400 10 x flakes. 2x bladelets (N/BA). 1x burnt unworked flint

500 3x flakes. 1x bladelet. 1x heavy duty awl (N/BA).

600 8x flakes. 1x blade-like flake (N). 1x single platform blade core (M/EN). 1x burnt unworked flint.

Hugo Anderson-Whymark

A REPORT ON THE GEOARCHAEOLOGICAL INVESTIGATIONS AT THE FORMER SORTING OFFICE, 70 MAISON DIEU ROAD, DOVER

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INTRODUCTION

This report summarises the findings arising out of the geoarchaeological investigations undertaken by Quaternary Scientific (University of Reading) in connection with the proposed development at the former sorting office, 70 Maison Dieu, Dover (National Grid Reference: TR 31620 42037) following archaeological assessment of the site by Swale and Thames Archaeological Survey Company. The main aim of the geoarchaeological investigations was to observe and interpret the sub-surface stratigraphy across the site, to clarify the existence of alluvium within this part of the Dour Valley, and to highlight sediments of potential palaeoenvironmental significance.

THE SITE

The site is in the town of Dover on the floor of the Dour valley in an area of mixed residential and commercial development. The site is generally flat at levels between 6.5m and 7.0m OD. The channel of the River Dour can be seen alongside Maison Dieu Road close to the junction with Bridge Street to the NW of the site. From this point the river channel passes south-eastward, partly culverted and partly open, about 150m to the south of the site. Between the River Dour and Maison Dieu Road, the British Geological Survey (BGS) maps Alluvium on the valley floor with Head to the north and east of Maison Dieu Road and therefore underlying the present site of investigation. However, Kent County Council in the specification for the present investigation reports that *Geotechnical site investigation works at the site have suggested the presence of alluvial deposits within the proposed development area.*

Recent investigations on the floor of the Dour valley at Buckland Mill (NGR: TR 304 429), about 1.3km upstream from the present site (Young & Green, 2010), recorded a sedimentary sequence characterised by sand and gravel overlain by alluvial and colluvial deposits. The oldest sediments observed were the coarse fluvial gravels of probable Late Devensian age, found throughout the lower and middle Dour Valley downstream of Crabble (Bates *et al.*, 2008). These sediments have yielded mammal remains, including a mammoth tooth (*Mammuthus primigenius*) during excavations at Market Square (Bates *et al.*, 2008).

The sand and gravel at Buckland Mill was overlain by a thin (0.30m) layer of brown alluvial silty clay which in turn was overlain by colluvial sediment yielding burnt and worked flint and pottery,

consistent with the recognition elsewhere in the Dour valley of post-Neolithic colluvium (stony loam) containing evidence of human activity and occurring both on the valley-side slopes and on the valley floor where it may overlie earlier colluvium and alluvial sediments, including fine grained silts and peat (Bates *et al.*, 2008). The Holocene sediment sequence at Buckland Mill is thinner and less varied than the sequences recorded nearby at Crabble Paper Mill (NGR: TR 2998 4311) by Bates *et al.* (2008) where the Holocene sequences included peat and oncoidal tufa gravels. Less than 1.0km downstream from the present site, beneath Townwall Street (NGR: TR 3201 4126), a thick sequence of alluvial silts and tufa sand and gravel formed the sediments enclosing the Bronze Age Dover Boat (Clark, 2004).

METHODS

Field descriptions and sampling

Six sondages were put down in Trenches 1 (TP1.1, TP1.2), 2 (TP2.1), 5 (TP5.1) and 6 (TP6.1, TP6.2). In Trenches 3 and 4 only made ground was recorded. Representative sections were measured in each sondage and were described in the field, using standard procedures for recording unconsolidated sediment, noting the composition (gravel, sand, clay, silt and organic matter) and thickness of the unit. The results are displayed in Table 1.

A sequence of three overlapping 0.5m column samples was taken from the west facing section at the E end of Trench 1. Bulk samples were also retained from a Mollusca rich unit (unit 2b) from the section from which the column samples came.

Laboratory descriptions

The column samples were described in the laboratory using standard procedures for recording unconsolidated sediment and peat, noting the physical properties (colour), composition (gravel, sand, clay, silt and organic matter) and inclusions (e.g. artefacts). The procedure involved: (1) cleaning the samples with a spatula or scalpel blade and distilled water to remove surface contaminants; (2) recording the physical properties, most notably colour; (3) recording the composition e.g. gravel, fine sand, silt and clay; (4) recording the degree of peat humification, and (5) recording the unit boundaries e.g. sharp or diffuse. The results are displayed in Tables 2 to 4.

RESULTS OF THE FIELD DESCRIPTIONS

Six sondages were put down in Trenches 1 (TP1.1, TP1.2), 2 (TP2.1), 5 (TP5.1) and 6 (TP6.1, TP6.2). In Trenches 3 and 4 only Made ground was recorded. Representative sections were measured in each sondage (Table 1).

Table 1: Measurements of each unit within representative sections across the site (m OD), Maison Dieu, Dover

Trench number	Trench 1	Trench 1	Trench 2	Trench 5	Trench 6	Trench 6
Section number	TP1.1	TP1.2	TP2.1	TP5.1	TP6.1	TP6.2
	West end of trench	East end of trench			South end of trench	North end of trench
Made ground	7.05-6.55	7.08-6.58	7.10-6.80	6.67-6.27	6.72-6.52	6.71-6.51
Head	6.55-6.40	6.58-6.03	6.80-5.95	6.27-5.27	6.52-5.90	6.51-5.65
Tufa gravel	6.40-6.00	6.03-5.88	5.95-5.85		5.90-5.65	5.65-5.41
Grey silt		5.88-5.63	5.85-5.80			
Pale silt	6.00-5.75	5.63-5.43			5.65-5.27	
Gravel	5.75 onwards	5.43 onwards	5.80 onwards	5.27 onwards	5.27 onwards	5.41 onwards

RESULTS OF THE LITHOSTRATIGRAPHIC DESCRIPTION

A sequence of three overlapping 0.5m column samples was taken from the west facing section at the east end of Trench 1 (TP1.1) and described in the laboratory (Tables 2 to 4).

Table 2: Lithostratigraphic description of Column sample <1> (upper), Maison Dieu, Dover

Depth (m OD)	Unit number	Composition
6.58-6.13	4	10YR3/2 very dark greyish brown; very poorly sorted gritty sandy clay silt with sub-angular flint clasts up to 80mm, small clasts of chalk and common oncoidal tufa which becomes more common downward; massive but porous with many small voids; worm granules; broken mollusc shell; small (<2mm) charcoal particles; strong acid reaction; well-marked transition to:
6.13-6.05	3	10YR8/4 very pale brown (tufa) in very sparse silty matrix of 10YR3/2 very dark greyish brown; poorly sorted clayey silty gravel of oncoidal tufa (up to 15mm) and flint granules; massive but very porous; scattered broken mollusc shell and complete shells of <i>Acicula cecilioides</i> ; strong acid reaction.
0.21m overlap with sample <2>		

Table 3: Lithostratigraphic description of Column sample <2> (middle), Maison Dieu, Dover

Depth (m OD)	Unit number	Composition
6.29-6.14	4	10YR3/2 very dark greyish brown; very poorly sorted gritty sandy clay silt with sub-angular flint clasts up to 80mm, small clasts of chalk and common oncoidal tufa which becomes more common downward, especially below 6.18m OD; massive but porous with many small voids; worm granules; broken mollusc shell; small (<2mm) charcoal particles; strong acid reaction; gradual transition to:
6.14-5.93	4/3	10YR8/4 very pale brown and 10YR3/2 very dark greyish brown passing down to predominantly very pale brown with 10YR6/3 light brown matrix – colour affected by texture, finer texture: paler colour; poorly sorted silty clayey gravel of oncoidal tufa (up to 20mm), banded - coarser 6.14-6.07, finer 6.07-6.03, coarser 6.03-5.97, finer 5.97-5.93; a few <i>in situ</i> vertical roots; strong acid reaction; well-marked transition to:
5.93-5.87	3	10YR7/3 very pale brown with slight Fe staining penetrating downward from contact with overlying unit; poorly sorted clayey/silty fine gravel of oncoidal tufa (up to 10mm); massive and porous; scattered vertical <i>in situ</i> root channels; broken mollusc shell; strong acid reaction; well-marked transition to:
5.87-5.81	3	2.5Y5/2 greyish brown becoming darker downward; poorly sorted gravely silty clay with oncoidal tufa up to 10mm but mainly smaller; massive and porous; scattered broken mollusc shell; strong acid reaction; gradual transition to:
5.81-5.79	2b	2.5Y3/2 very dark greyish brown; poorly sorted gravelly silty clay with oncoidal tufa up to 5mm; massive and porous; scattered vertical <i>in situ</i> root channels; mollusc remains common, both broken and complete shells; strong acid reaction.
0.10m overlap with sample <3>		

Table 4: Lithostratigraphic description of Column sample <3> (lower), Maison Dieu, Dover

Depth (m OD)	Unit number	Composition
5.89-5.79	3	2.5Y6/2 light brownish grey; poorly sorted silty clayey gravel with oncoidal tufa up to 15mm and flint granules; massive and porous; scattered broken mollusc shell; strong acid reaction; well-marked transition to:
5.79-5.62	2b	2.5Y3/2 very dark greyish brown; moderately sorted; gritty silty fine sand with scattered tufa oncoids up to 10mm; massive; common complete and broken mollusc shells; strong acid reaction; well-marked transition to:
5.62-5.37	2a	2.5Y7/2 light grey; well sorted silty fine sand, including finely divided tufa debris; massive; strong acid reaction.
<i>base of column rested on gravel (Unit 1)</i>		

SUMMARY AND INTERPRETATION OF THE SEDIMENTARY DEPOSITS

In all of the trenches in which undisturbed valley floor deposits were recognised (Trenches 1, 2, 5 and 6), the sediment sequence comprised up to five units:

- 5 – Made ground
- 4 – Head
- 3 – Tufa gravel
- 2 – Silts comprising;
 - 2b: upper grey silty clay
 - 2a: very pale brown silty clay
- 1 – Flint gravel

In all of the trenches, Made ground (Unit 5) and Head (Unit 4) were present. The head was a rather uniform dark greyish brown stony and sandy silty clay, up to 1.0m thick (Trench 5). Material of anthropogenic origin was common in the Head, including flint flakes, burnt flint, pottery and CBM. In Trench 2 large pieces of CBM were present close to bottom of the unit. This unit can be assumed to equate with the head deposits described from various sites in the Dour valley and probably relates to periods of enhanced soil erosion reflecting increasingly intensive agricultural land-use in the prehistoric and historic periods. In SE England such colluvial horizons are generally post-Neolithic in age, with deposition continuing intermittently down to the present day.

In Trenches 1, 2, and 6, the Head is underlain by Tufa gravel (Unit 3). The gravel component consists almost entirely of clast supported tufa oncoids (sub-spherical laminated accretions) in a

matrix of tufa sand with scattered quartz grains and flint granules. The oncoidal form of the tufa gravel suggests that it developed in a quiet water environment in which episodes of more active water movement were regularly experienced. These conditions may have occurred during the Holocene in the active channel of the Dour which is a relatively small stream with a catchment underlain by the Chalk, and in consequence a flow regime largely regulated by groundwater behaviour. Alternatively, and perhaps more likely, deposition may have taken place in a shallow pond occupying a floodplain depression at a distance from the active channel but regularly disturbed by the inflow of floodwater. Mammal bones were recovered from the Tufa gravel in Sondage TP6.2 at the northern end of Trench 6. Substantial amounts of tufa gravel are incorporated into the base of the overlying Head and individual oncoids are scattered throughout the Head.

In Trenches 1 and 2, and at the southern (riverward) end of Trench 6, the Tufa gravel is underlain by silty deposits (Unit 2). These can be divided into two sub-units, an upper, grey silty clay (Unit 2b) containing scattered tufa debris and numerous Mollusca and a lower, very pale brown sub-unit (Unit 2a) incorporating finely divided tufa debris and small fragments of broken mollusc shell. Sub-unit 2b is present only in Trenches 1 and 2, and Sub-unit 2a is present only in Trenches 1 and 6.

All of the sondages terminated downward in coarse flint gravel at depths ranging from 1.60m to 1.30m below the present ground surface. This gravel can be assumed to equate with the Late Devensian sand and gravel that has been widely identified elsewhere underlying Holocene alluvial sediments in the Dour valley.

The thickest and most varied alluvial deposits were recorded in Trench 1, but waterlaid deposits were also present in Trenches 2 and 6 and it seems likely that deposition from river water occurred across most if not all of the development area on occasions during the Holocene. There are slight indications of a trend in the pattern of deposition from the riverward edge of the site towards the valley side. In the sondages the waterlaid deposits are less varied towards the valley side and the head is thicker, although the thickest head is in Trench 5 where it cuts down to the underlying flinty gravel and no Holocene alluvial deposits have survived.

CONCLUSIONS

The sedimentary sequences preserved at this site represent the valley floor deposits of the River Dour. Pre-Holocene, Late Devensian sand and gravel (Unit 1) was present at the base of the sequence across the whole of the site. The earliest Holocene deposits were pale coloured silts (Unit 2a) incorporating fine tufa debris and broken mollusc shell. In Trench 1 these silts passed up into dark greyish brown clayey silt (Unit 2b) containing a well-preserved mollusc fauna. These two sub-units were localised in their distribution within the site, reflecting either localised deposition, or

localised removal during episodes of erosion. They survive preferentially towards the riverward margin of the site and their deposition probably took place in shifting channels of the Dour. Post-dating these silts and more widely present across the site was a bed of oncoidal tufa gravel. Although this gravel could have developed in an active channel of the Dour, it seems more likely that the oncoids formed in a shallow backwater lake. Detailed investigation of similar oncoids at Crabble Mill (Bates *et al.*, 2008) suggests that individual oncoids can form in a period of only a few years, i.e. well within the life of a typical floodplain pond. The tufa gravel is everywhere overlain, or in places completely cut out, by head which has probably been accumulating from the late prehistoric period onward.

RECOMMENDATIONS

The Holocene alluvial sequence at 70 Maison Dieu Road lies approximately midway between the Dover Boat site and the sites at Crabble and Buckland Mills. It provides therefore an opportunity to explore the continuity of the valley floor sediment sequences in the lower Dour valley and in particular within the built up area of Dover. An assessment of the potential of the sediments obtained from Trench 1 to yield information on the local and regional environment is recommended. This assessment would consist of (1) organic matter determinations to permit identification of sedimentary units, and aid the recognition of units having a higher organic matter that may be suitable for radiocarbon dating; (2) pollen assessment, to establish the potential of the column sample to provide information on vegetation composition, land-use and diet; (3) diatom assessment, to establish the potential of the column sample to provide information on the environmental conditions (e.g. marine, brackish or freshwater) throughout the sequence; (4) waterlogged plant macrofossils (seeds and wood), to establish the potential of the column sample to provide information on climate change or vegetation history; (5) Mollusc assessments, to establish the potential of the column sample to provide information on the environmental conditions (e.g. marine, brackish or freshwater) and (6) radiocarbon dating, to provide a robust chronology for the palaeoenvironmental assessment.

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APPENDIX 4

Animal Bone analysis – Professor Danielle Schreve

Morphologically, *Bos* (aurochs and cattle) and *Bison* are often extremely difficult to separate unless teeth or horn cores are present. Unfortunately, the teeth are missing from the mandible. Comparison needed to be undertaken with reference materials as there are small-bodied bison known from the last ice age. The conclusion is that the bones are most likely to be cattle because they are fully-grown but still noticeably smaller than the smallest (female) individuals of bison studied. Morphologically, there is not much in it, but metacarpals of *Bos* tend to have a more ‘shouldered’ aspect towards the distal end, whereas bison taper gently. The metacarpal here is more shouldered.

The remains from Trench 6 are:

Context (603) Sondage 6.2:

Right metacarpal of adult *Bos* cf. *taurus*, damaged distal end

Left mandible missing teeth of adult *Bos* cf. *taurus*, some damage to horizontal ramus

Professor Danielle Schreve

Director, MSc Quaternary Science, Centre for Quaternary Research

Department of Geography

Royal Holloway

University of London



Plate 1. General view of site facing north-west along Trench 3.



Plate 2. Test Pit 2.1. Trench 2. Facing north-west.



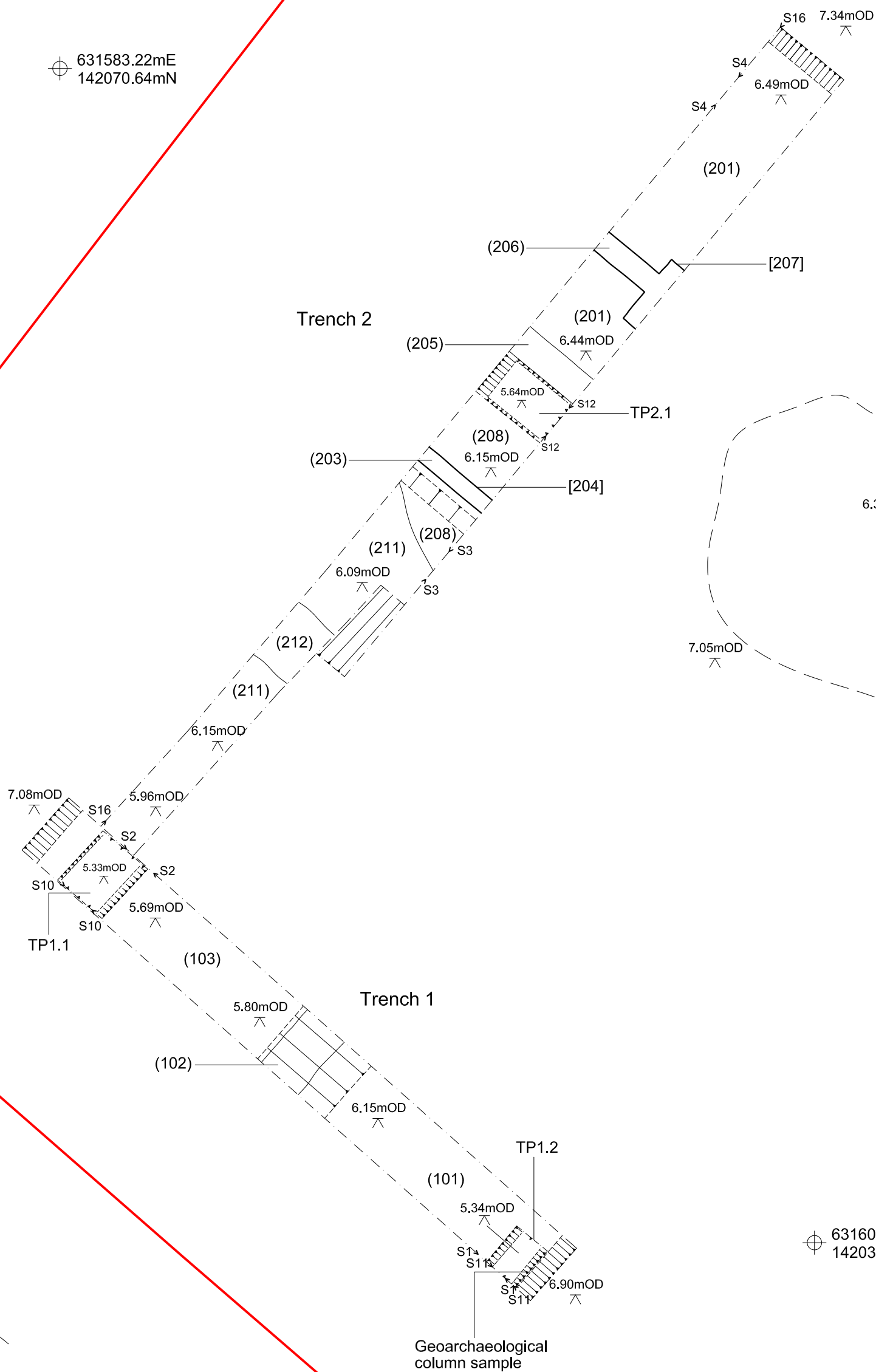
Plate 3. Test Pit 6.1. Trench 6 south end facing north.



Figure 2: Location of Evaluation Trenches



⊕ 631583.22mE
142070.64mN



⊕ 631603.76mE
142038.67mN

1:125@A3



Figure 3: Plans; Trenches 1 and 2

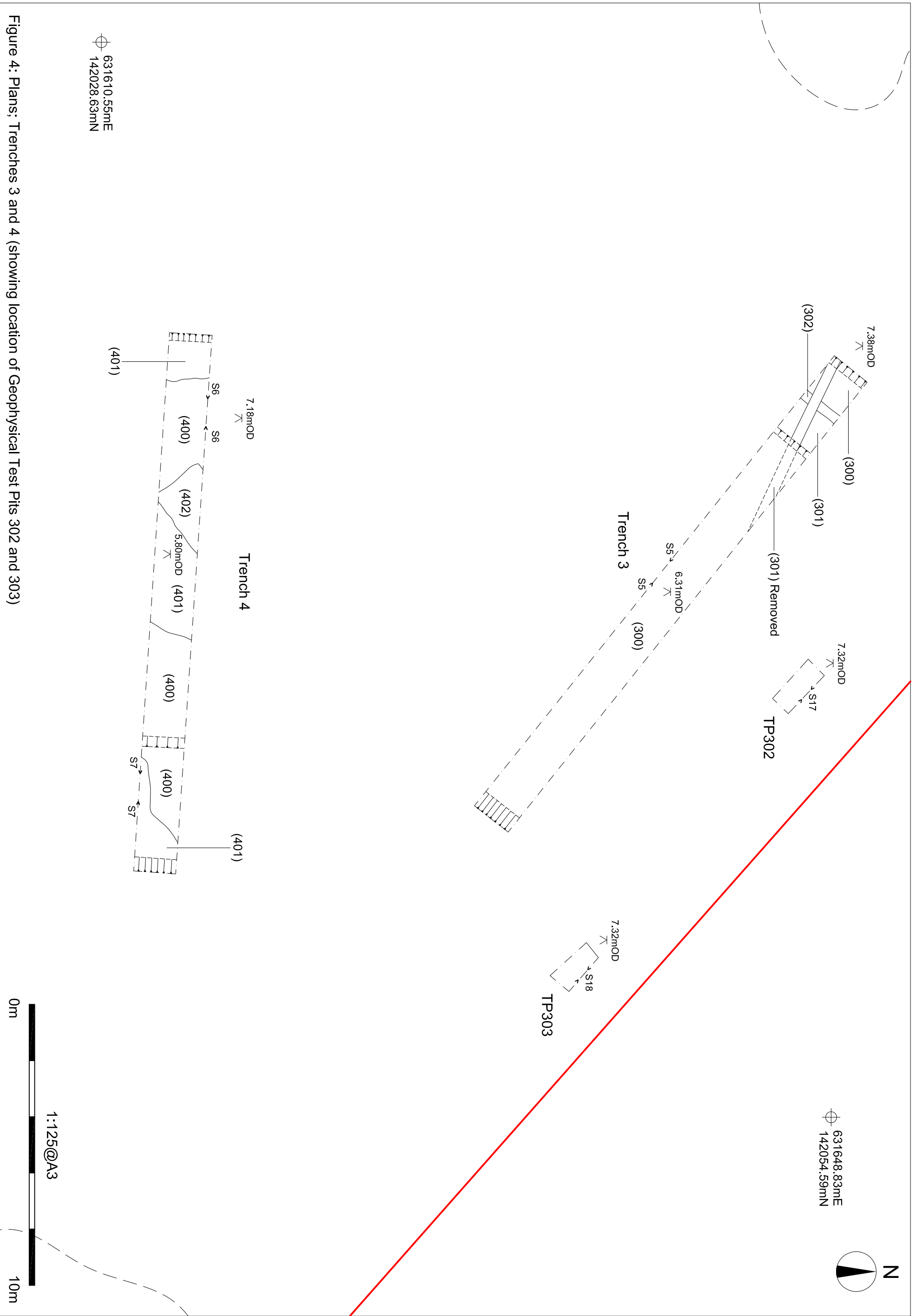


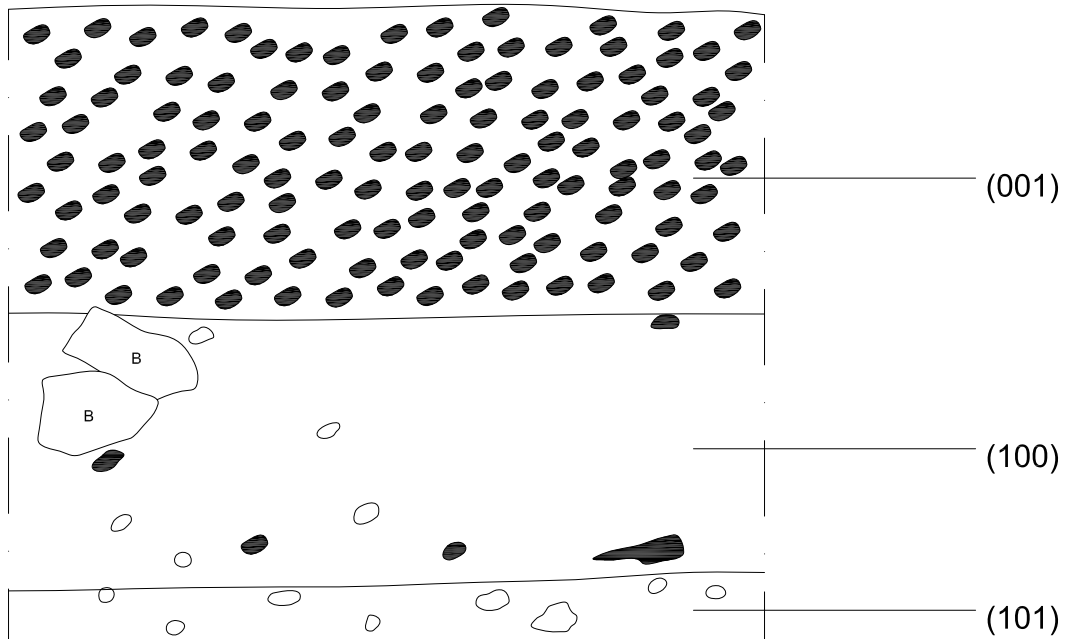
Figure 4: Plans; Trenches 3 and 4 (showing location of Geophysical Test Pits 302 and 303)

Section 1
(Trench 1)









SE

NW

6.90mOD
∧



Key:

-  Chalk
-  Gravel
-  Brick
-  Slate
-  Charcoal
-  Tile
-  Flint
-  Ceramic pipe

1:10@A4

Figure 6: Representative Section
(Trench 1)

0m



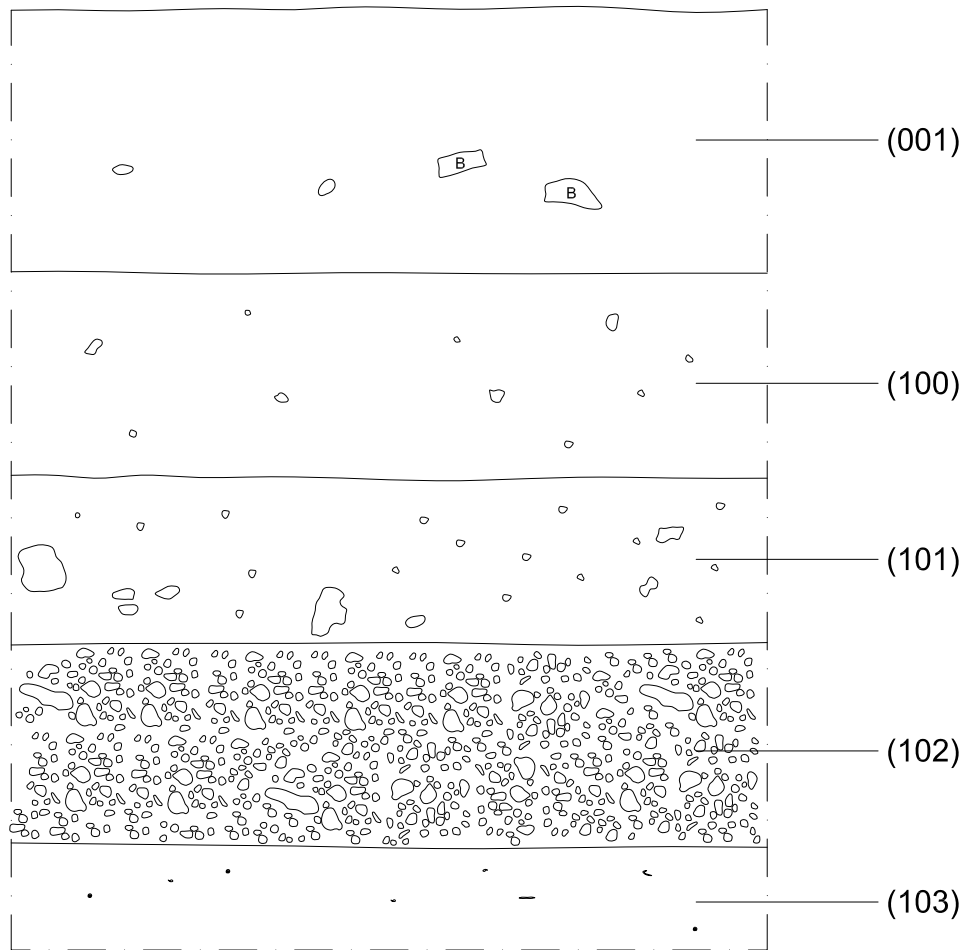
1m

Section 2 (Trench 1)

NW

SE

6.91mOD
^



Key:



Chalk



Brick

1:10@A4

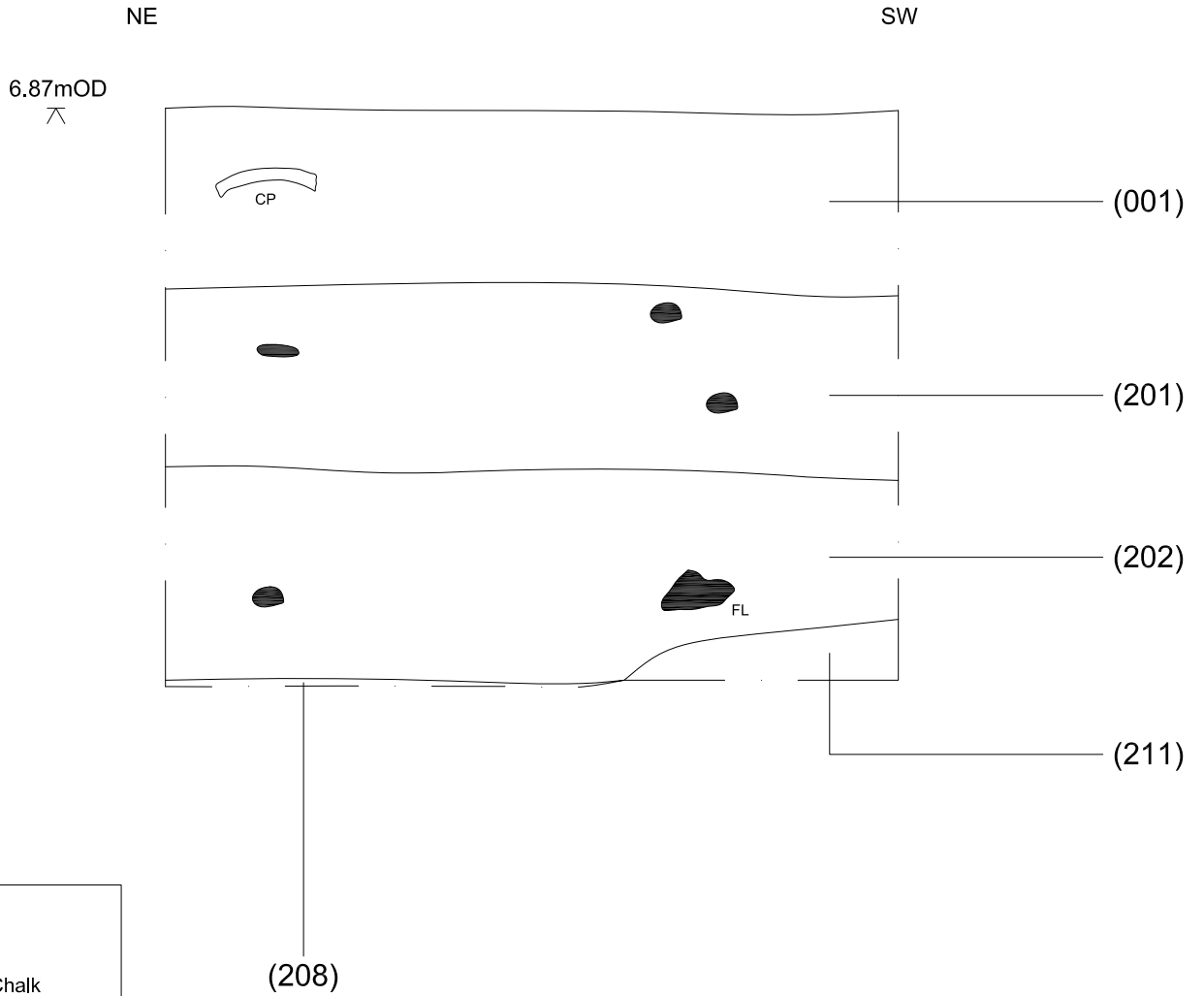
Figure 7: Representative Section
(Trench 1)

0m











1m

Section 3 (Trench 2)



Key:

-  Chalk
-  Gravel
-  Brick
-  Slate
-  Charcoal
-  Tile
-  Flint
-  Ceramic pipe

1:10@A4

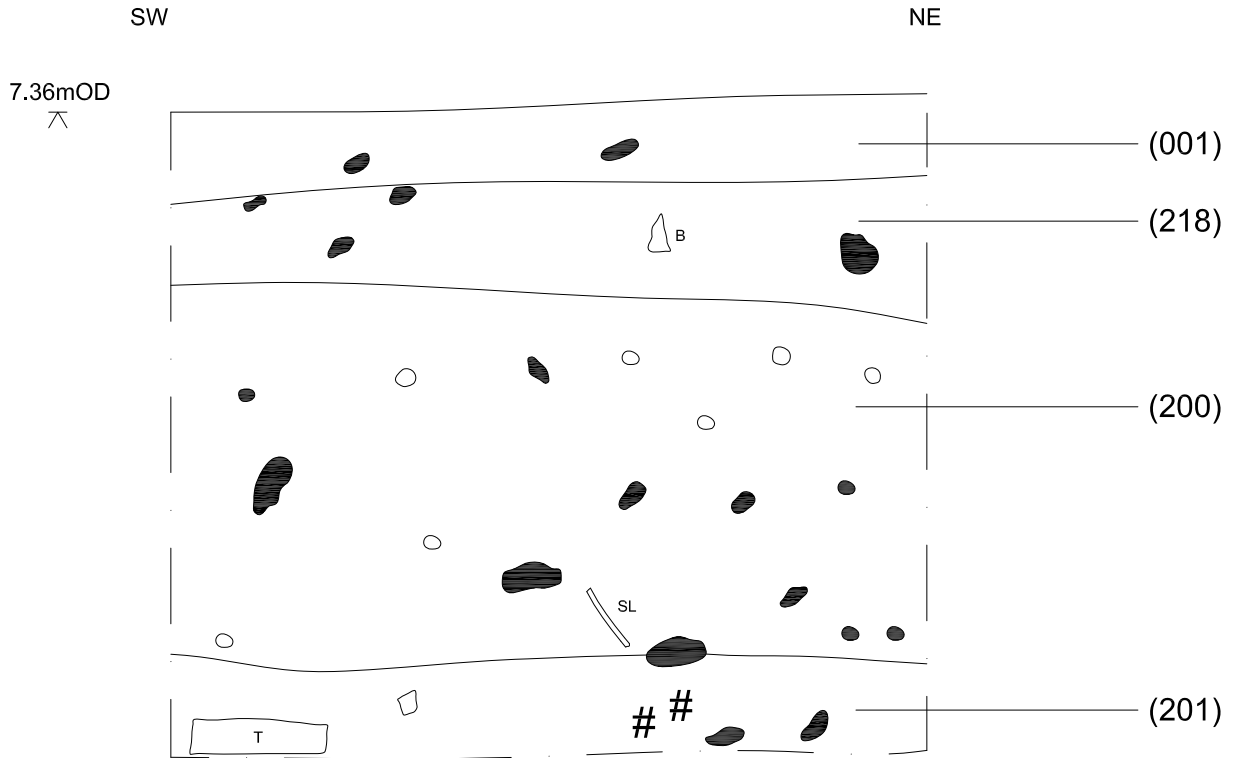
Figure 8: Representative Section
(Trench 2)

0m









1m

Section 4 (Trench 2)



Key:

-  Chalk
-  Gravel
-  Brick
-  Slate
-  Charcoal
-  Tile
-  Flint
-  Ceramic pipe

1:10@A4

Figure 9: Representative Section
(Trench 2)



Key:

Ta Tarmac

C Concrete

CH Chalk

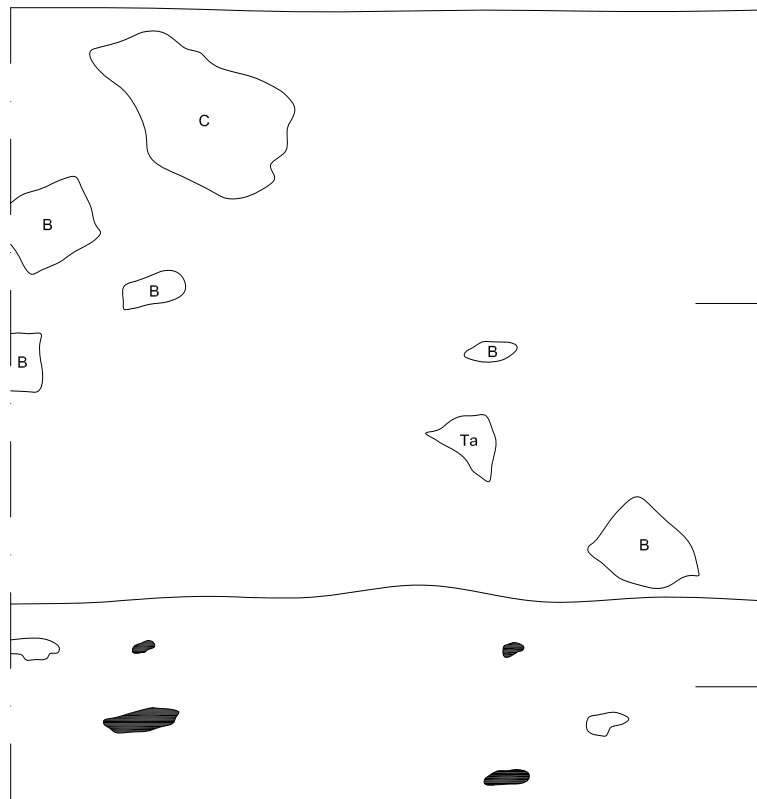
Gravel

Section 5 (Trench 3)

SE

NW

7.36mOD
^



(001)

(300)

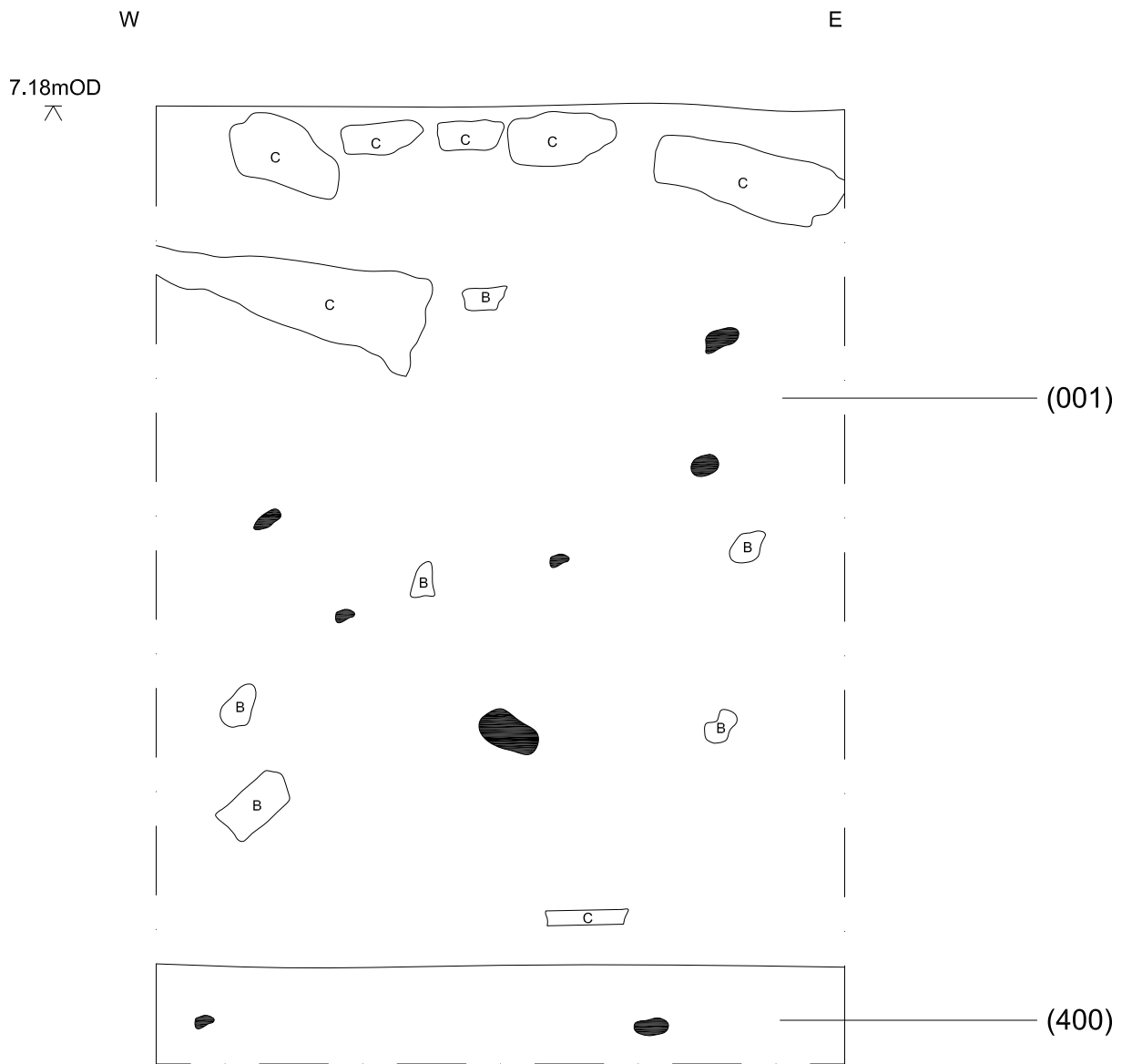
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Figure 10: Representative Section
(Trench 3)





0m

1m

Section 6 (Trench 4)



Key:

-  Tarmac
-  Concrete
-  Chalk
-  Gravel

1:10@A4

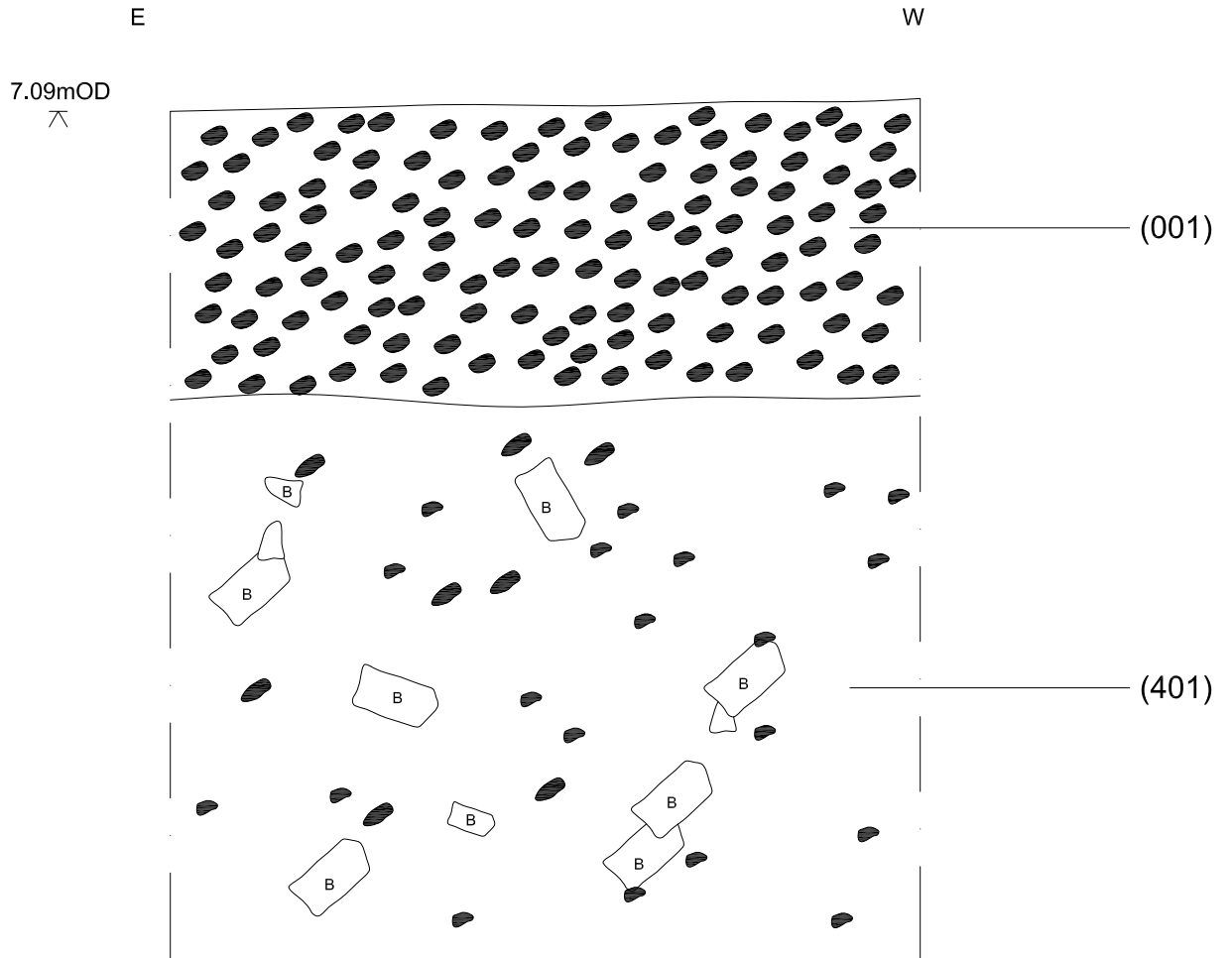
Figure 11: Representative Section
(Trench 4)

0m



1m

Section 7
(Trench 4)



Key:

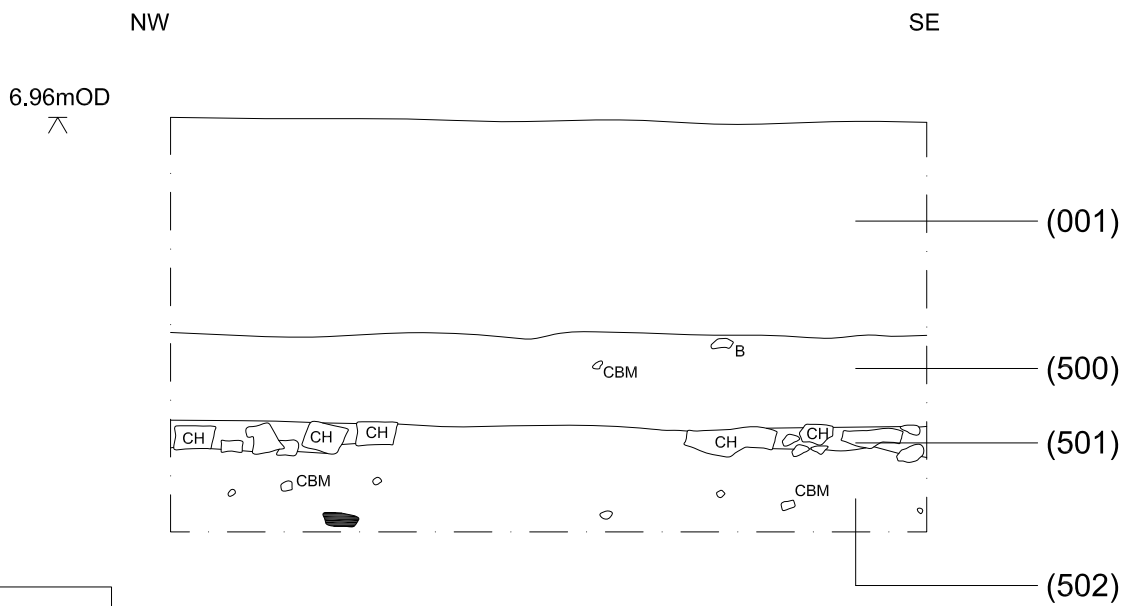
	Tarmac
	Concrete
	Chalk
	Gravel

1:10@A4






Figure 12: Representative Section
(Trench 4)



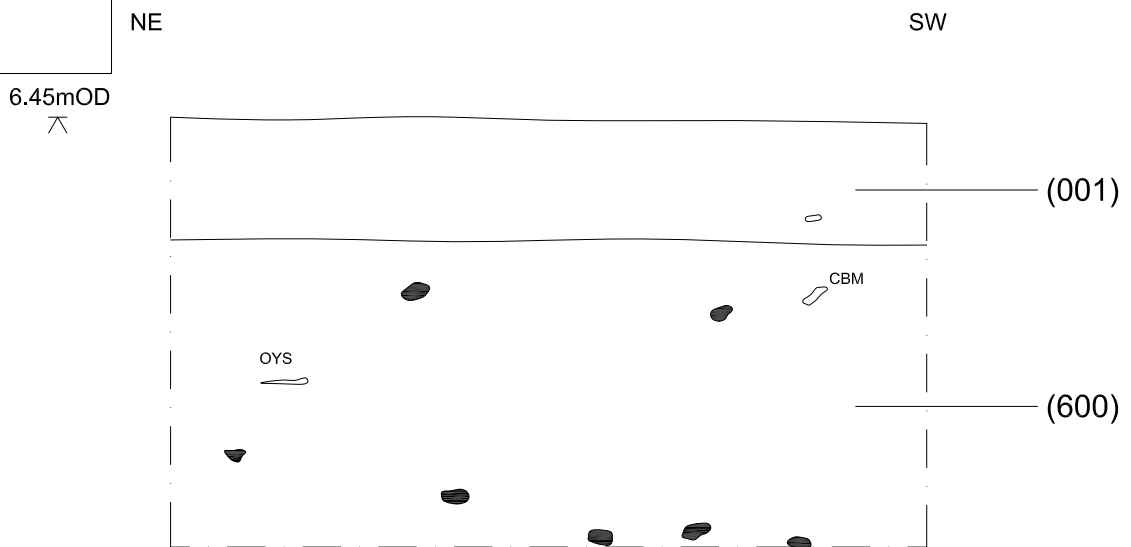
Section 8 (Trench 5)



Key:

-  Chalk
-  Ceramic Burnt Material
-  Oyster
-  Gravel
-  Brick

Section 9 (Trench 6)



1:10@A4

Figure 13: Representative Section
(Trench 5 and 6)



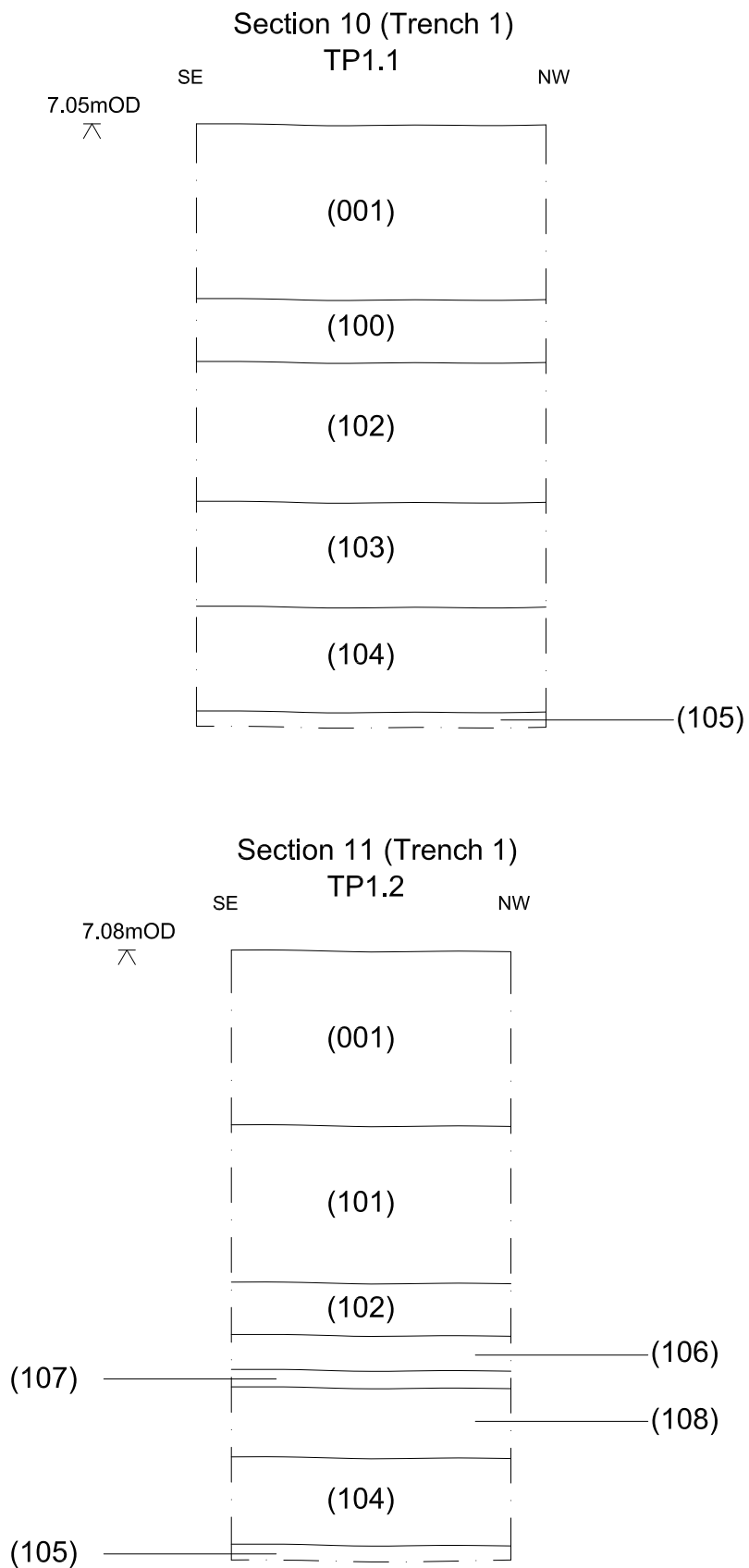
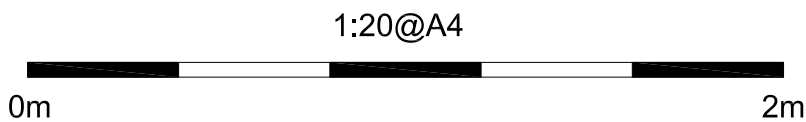
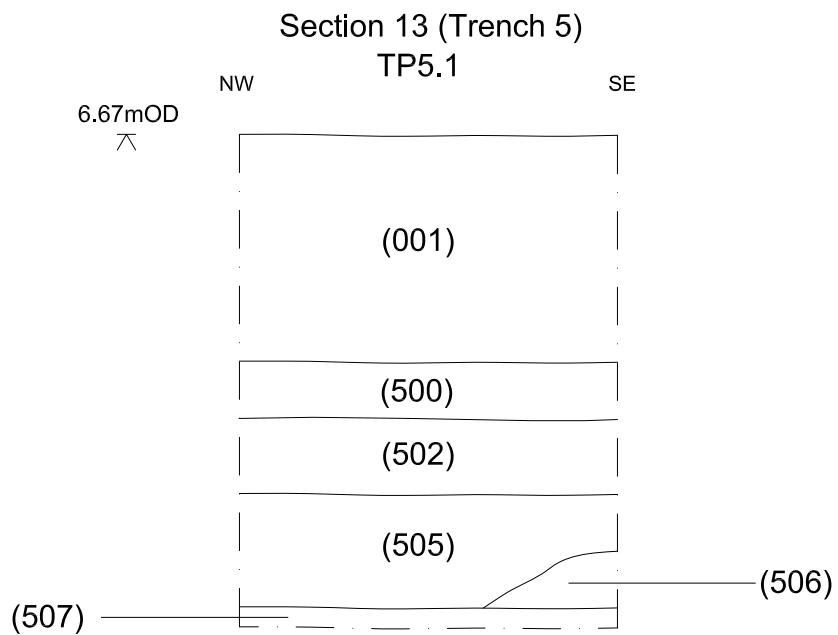
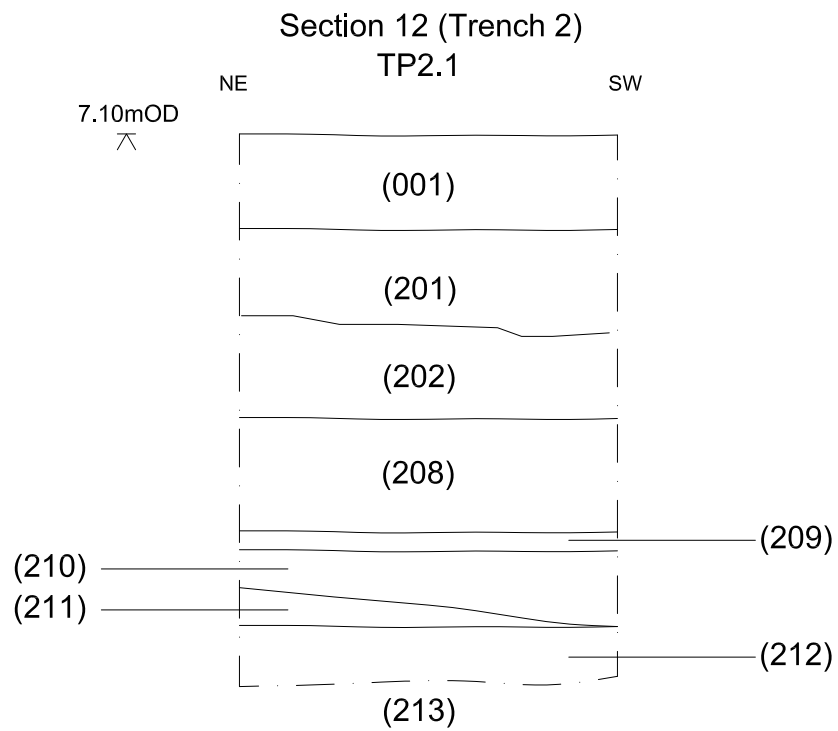


Figure 14: Geoenvironmental test pit sections

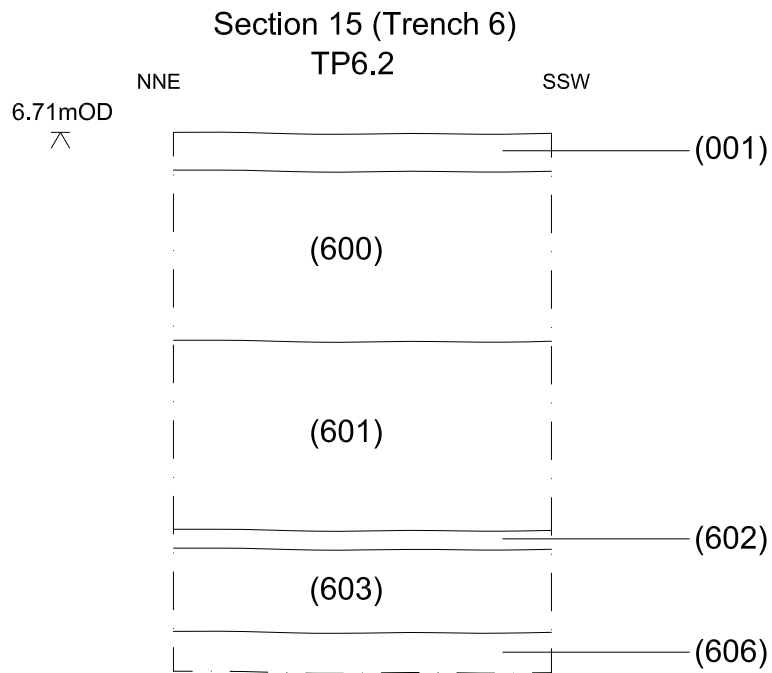
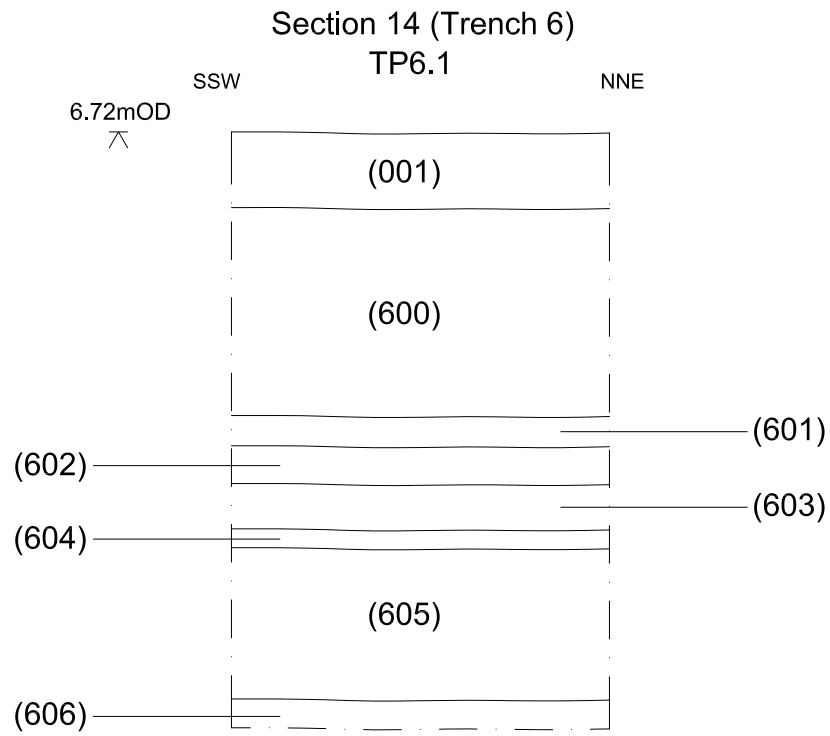




1:20@A4

Figure 15: Geoenvironmental test pit sections





1:20@A4

Figure 16: Geoenvironmental test pit sections

0m



2m



Section 16
(Trench 2)

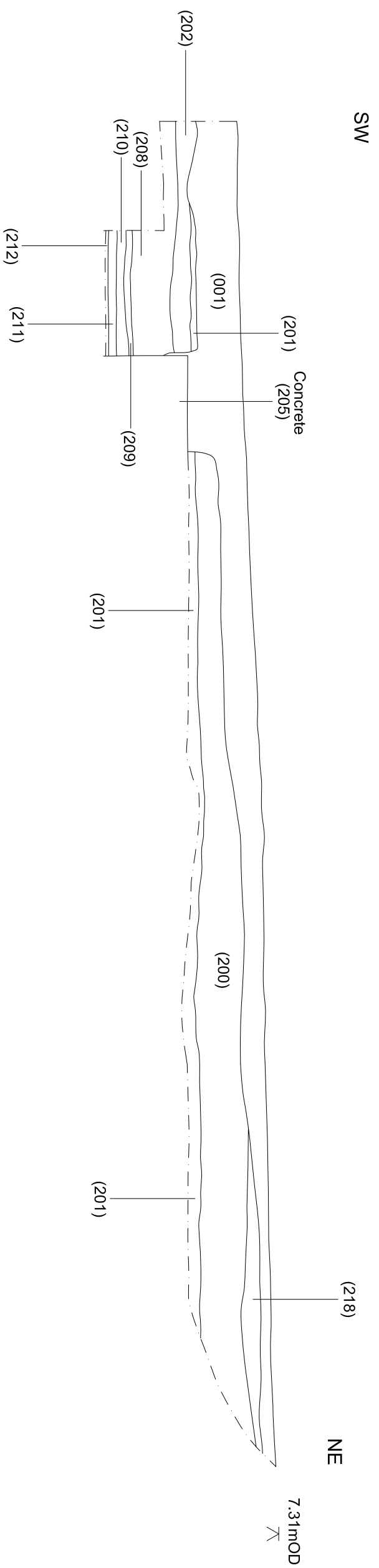
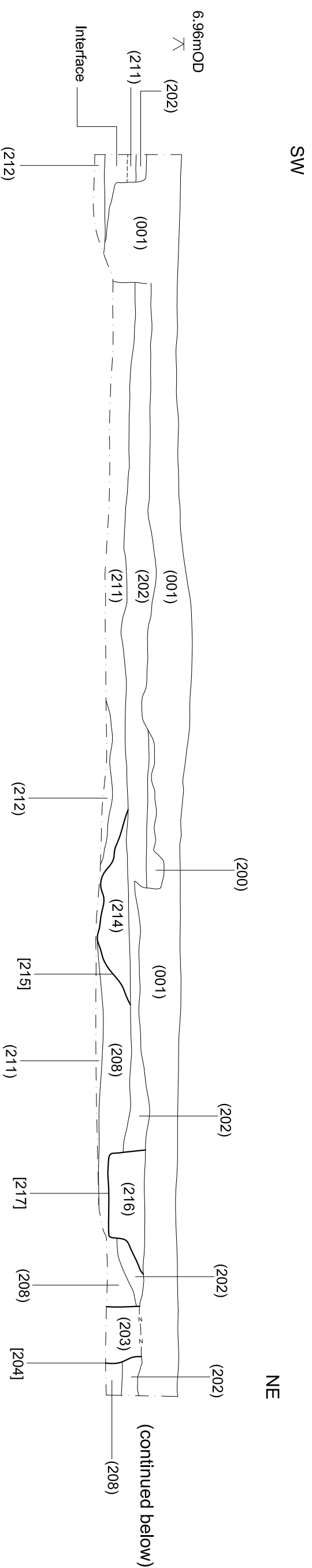
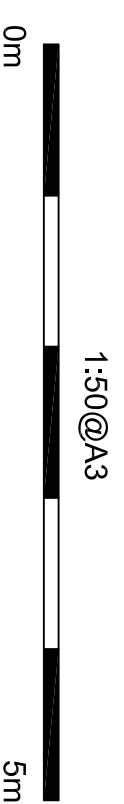
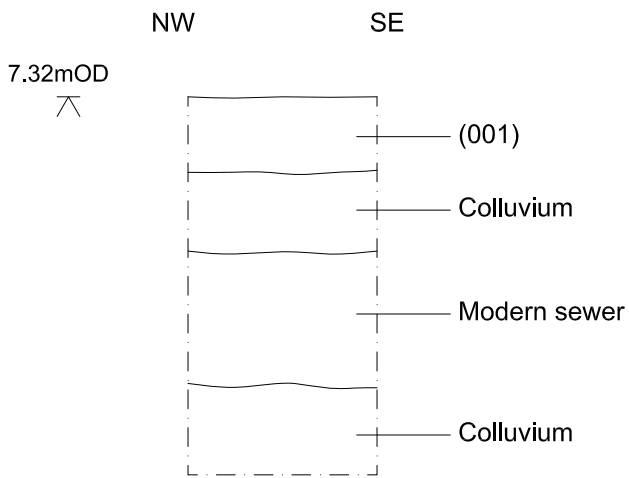


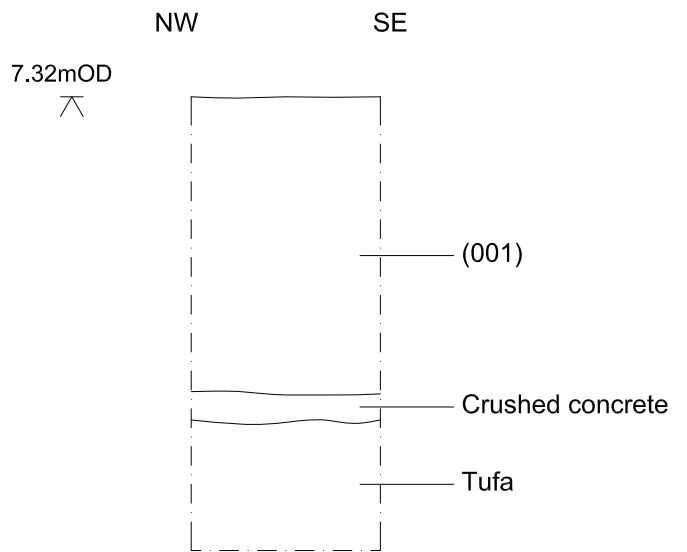
Figure 17: Section 16 (Trench 2)



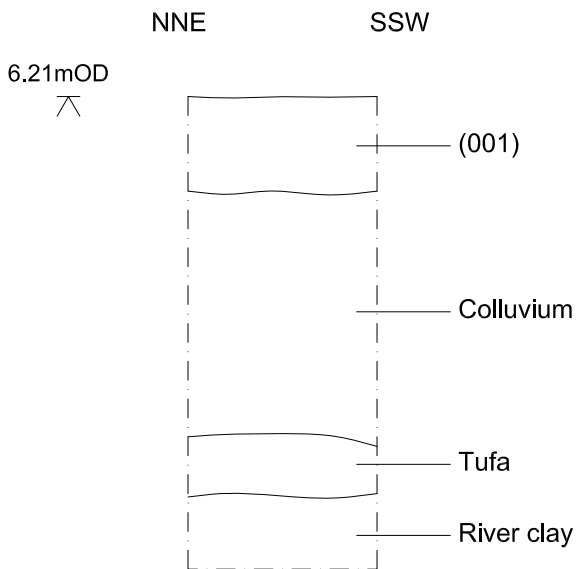
Section 17
TP302



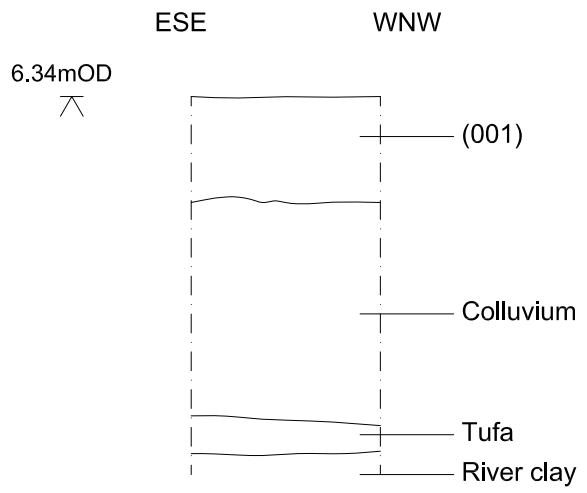
Section 18
TP303



Section 19
TP304



Section 20
TP305



1:20@A4

Figure 18: Sections 17 - 20;
Geotechnical Test Pits





Figure 19: Location of Evaluation Trenches in Relation to Proposed Development