

A mid-Saxon structure in the intertidal zone at Point Clear,
River Colne, Essex



O. Hutchinson & D. Newman

ABSTRACT

Four groups of worked wood were recently exposed at –1.61mOD by aggressive tidal scour on the open foreshore at Point Clear on the River Colne, Essex. Samples from feature group 1, 2 and 3 have returned provisional dates of the very late 6th and early 7th centuries, contemporaneous with a series of large, dated fish trap structures in the Blackwater estuary. The level of preservation of all features recorded is relatively good, particularly the subsurface remains of Feature Group 1 which appears to be by and large intact to a depth of at least 500mm.

The function of the site is unclear, although possibly linked to the extensive fishing industry operational at the period. The feature does not follow the same form as the fish traps identified in the Blackwater but appears to have been built either on the contemporary foreshore. The circular feature may well be a pound of some kind, originally with wattle fencing encircling it. The post alignments to the north-west may be contemporary, but their relationship to the circular feature is unclear. A summary of the features is thus;

***Feature Group 1** comprised the basal elements of a circular structure some 17m in diameter formed by roundwood piles.*

***Feature Group 2** comprised two 18m-long alignments of roundwood piles associated with hazel wattlework beside a brushwood raft.*

***Feature Group 3** comprised two assemblages of semi-worked wood close to and possibly associated with the pile alignments.*

***Feature Group 4** was a horizontally laid section of hurdlework comprising hazel rods and sails. The relationship of this structure to the others is at present unclear.*

Acknowledgements

The survey and report of Point Clear would not have been possible without the generosity, dedication, knowledge, and enthusiasm of the Mersea Island CITiZAN volunteer team. The survey referenced in this report is a direct result of their efforts over two chilly days battling thick muds and oysters in February 2020. A heartfelt thanks to Mark and Jane Dixon, James Pullen, Carol Wyatt, Alan Williams and Geoff Lunn for making every trip to the foreshore a joy.



A well-earned slice of cake...

L-R: CITiZAN archaeologist Danielle Newman with volunteers James Pullen, Jane Dixon, Carol Wyatt, Alan Williams, Mark Dixon, Geoff Lunn

1. Introduction

The Point Clear site is located on estuarine mudflats 15km south of Colchester town on the eastern bank of the Colne estuary by the mouth of Brightlingsea Creek at TM 08299 15344 (*fig.1*). Its western limit is 20m from the Mean Low Water line (MLW) and the site, which occupies an area of soft to stable mud, is bounded to the south and east by a dense natural oyster reef. Over 300 upright and horizontal timbers form four distinct feature groups within an area roughly 1000m². A circular feature Ø17m, two intersecting single rows of posts c.18m long, a scattered group of structural timbers and a wattle track way were the principle remains observed (*fig. 2 and 4*). The foreshore surface at the centre of the site is at -1.49mOD and the profile of the foreshore slopes downwards from E – W towards the MLW (*Fig.3*). A small archaeological intervention presented evidence of possibly two sealed land surfaces, the result of a likely inundation event, potentially linked to a marine transgression.

First observed by a CITiZAN volunteer, Alan Williams, in late 2019, the site was subsequently brought to the attention of project archaeologists and a rapid two-day survey was planned for the next sufficiently low tide in February 2020. The site is accessible with low tides of 0.4m and below, and then only for a couple of hours unless a favourable offshore wind extends the workable tidal window. The sites' location is such that it is very unlikely that it would have been observed or reported had it not been for CITiZAN volunteers walking the lower foreshore. The subsequent site survey was made possible by the dedicated work of a group of six local CITiZAN volunteers over two three-hour tidal windows during which they were able to conduct a high precision GPS survey, a high-resolution aerial survey, conduct three small archaeological interventions and make detailed recordings of several larger timbers. Point Clear is an excellent example of the CITiZAN model engaging local communities, developing teams of empowered residents armed with the confidence and knowledge to observe, record and monitor the dynamic archaeology of the Colne and Blackwater estuaries.

The presence of a large, well established, naturally formed oyster reef covering a portion of the site is noteworthy. Generally, oyster reefs require solid bases and substrates on which to develop and expand and it is possible that exposed archaeological remains may have provided such a stable base to anchor ~~to~~, or at least to enable, expansion of the reef. Evidence for the continuation of both circular and linear features beneath the reef suggest that further remains may still be covered (and therefore well protected) to the south and east.

2. Archaeological background and previous work

The Hullbridge Survey (Murphy & Wilkinson 1991) examined numerous sites in the Blackwater and Colne estuaries to establish a stratigraphic sequence spanning the Mesolithic to late medieval periods and is recommended for a detailed appraisal of the palaeogeography of the area. Generally, the survey revealed a landscape gradually submerged by rising sea levels with no evidence for freshwater sedimentation. Of the many preserved timber remains, almost all were Bronze Age or later in date, a function of sea level rise, inundation and subsequent preservation. Earlier wetland sites were likely located close to the contemporary Mean Low Water (MLW) line, now well below the present MLW in the main channel of the estuary, and thus difficult to investigate.

No previous survey work has been undertaken on this foreshore site nor is there any record of the features visible presence prior to CITiZAN's survey in February 2020. At that time, a small number of samples were collected from all four features as a precaution against loss and are stored at MOLA. It is unclear how long the timber features have been exposed but, study of the now visible bases of the vertical piles, show only sparse barnacle cover and, given the accelerating pace of erosion observed over a 12-month period on the Essex coast, it is estimated that features may have been first exposed at some point in the last 24 – 36 months. If this is correct, then the rate of tidal scour on the mud flats here may be as much as 160mm per year in places.

3. The site

Four feature groups were identified during survey.

Feature Group 1 (fig.5)

A circular structure 17m in diameter comprising 172 vertically-set roundwood piles which were on average 90mm in diameter, spaced relatively uniformly c.400mm apart and were exposed to a height of c.300mm. An arc of 15 piles were observed around the outer edge of the main circle but set back some 0.6m from it with concentrations in the northern and western quadrants. Four uprights were observed in the inner side in the NW quadrant mirroring the curvature of the structure, but 2m away from it. Wattlework was observed on the exposed foreshore surface in several locations around the structure (*marked on fig. 5*) and was clearly woven between at least some of the upright piles. A row of 7 posts on a roughly SW-NE alignment measuring 2.3m long was recorded, probably intersecting with the circular feature beneath the oyster reef. The posts are of similar character to those utilised in the circular feature and thus are may well be contemporary, representing another element of the structure. Oysters were cleaned back in the SE quadrant to reveal a continuation of the feature with particularly well-preserved, woven wattles visible (*noted on fig. 5*). A 300 x 300 x 500mm archaeological intervention (Trench A) revealed wattles in-situ, woven directly into the upright frame of the superstructure to a depth of 500mm (trench bottom) at -2.20m OD. In the trench wattles averaging Ø30mm were observed, woven into the uprights of the main circle and incorporating the outer bracing timbers, presumably providing stability for the structure. The wattlework continued below the bottom of the trench and comprised coppiced hazel in an excellent state of preservation. Since wattlework was exposed above the surface of the foreshore at many points around the circumference of the circular feature, it is likely that more wattlework is present and *in situ* below the surface of the foreshore suggesting the basal elements of the original structure remains largely intact, currently protected by fine silt deposits.

Interpretation of the feature is difficult without environmental evidence indicating the nature of the terrain on and into which the structure was originally set. If it was built on dry land, or very infrequently flooded marshland, then the feature could be a compound for livestock or possibly a roundhouse, although it would be a particularly large example of the latter. The uprights surrounding (and woven into) the main timber circle appear to provide robust bracing whilst the evidence of a possible inner circle of slightly larger upright timbers may have supported the weight of a roof. The 2.5m- long timber alignment to the east of the circle could be a point of entry, located opposite the possible weather side of the structure and facing away from the Colne. The scatter of structural timbers immediately to the east (feature group 3) may be associated, perhaps part of an entrance or part of the wider roof structure.

The form of the structure does not suggest a building assembled on the open foreshore for use in an intertidal environment. The intricacy of the wattle work and weaving of the outlying uprights into the main wall must have taken place on site and does not incorporate pre-formed wattle hurdles. To achieve the level of intricacy observed would be a lengthy process if conducted between tide cycles. The closest possible intertidal function this author can conceive of for such a structure would be a pound for retaining fish (Cooper 2015). However, the diameter of the feature (Ø 17m) puts it beyond the size of any known fish pounds in England, and would be the largest recorded capture and storage elements of the large, mid Saxon era fish traps found along the Blackwater (Heppell 2005). The observed depth of wattle, at least 0.5m below the current foreshore surface, and the unknown but likely deeper foundations of the uprights strongly indicates a structure built in a terrestrial environment and set in solid foundations. **Feature Group 1** may be contemporary with the sealed context found at the bottom of Trench C given the relatively small difference in datum points (trench A -2.20m OD and trench C -1.98m OD).

Feature Group 2 (fig. 6)

Two single rows of upright posts c.18m long on N-S and NW-SE alignments. Coppiced hazel wattles are exposed on the surface and woven between the uprights. Outlying posts appear to have provided bracing for the main row. An archaeological intervention 300 x 300 x 500mm found woven wattles continuing to a depth of 250mm terminating above a layer of sterile dark grey silty mud 150mm thick. Below this brushwood Øc.70mm was observed laying directly above a surface of coarse sand and mussel shells at a depth of 500mm and -1.98m OD (fig. 7, 8 and 9).

A third row of posts on a NE-SW alignment was observed following selective clearing of oysters (noted fig 6). The posts here are more closely spaced with a shallow dog leg at the eastern end. It was not possible to determine the character of the uprights as only their very tips (c.20mm) were above the foreshore surface ground measuring Øc.70mm. The alignment curves slightly to the south, possibly representing another feature group.

Feature Group 2 shares some structural elements with intertidal fish traps found around the English coastline, notably those in the Blackwater estuary (see Hall & Clark 2000, Heppell 2011, Heppell & Brown 2008, Ingle & Saunders 2011, and Strachan 1998). The intersecting rows could be interpreted as forming the typical V-shape of a kiddle trap, funnelling the fish to the end at the apex, in this case the south-eastern intersection. However, the uprights average Ø65mm, perhaps too slight to withstand the forces placed on such structures during the ebb tide.

A more plausible interpretation is a section of fence, part of a larger compound perhaps related to **Feature Group 1**, built to hold livestock, or prevent them from escaping an area of grazing marsh otherwise bounded by natural creeks. The brushwood found at the base of Trench C is difficult to interpret given the size of the exposure, therefore any interpretation is suggested with caution. Given the sands, gravels and shells found below, it may have been laid as a platform to access the tidal Colne or upon which to build a larger structure. It may also be evidence of a shell midden accumulated below a structure or indeed simply natural driftwood debris. There is possible evidence of tool marks on the brushwood (fig. 9). The size, character, and arrangement of the brushwood at the base of trench C is markedly different from that found in the first 200mm of the trench and it seems reasonable to suggest, albeit given limited evidence, that this is an earlier feature in a sealed context.

Feature Group 3 (fig. 10)

Two groups of scattered, larger timbers that appear structural in nature. One group is clustered around the N-S post alignment of Feature 2 and contains roughly worked large timbers. The second group is directly to the east of circular feature 1 and are worked, in the round, bear tool marks where the ends are worked (fig. 11) and appear to be part of a fence or possibly rafters for the roof of a larger structure. Some worked and some unworked wood may be suitable for dendrochronological dating. A sample was taken from the tip of the longest, worked roundwood beam (noted on fig.10) due to the likelihood of the feature being washed away.

Feature Group 4 (fig. 12)

Two sections of wattle hurdle trackway made of coppiced hazel rods. The western section was cleaned and photographed. The panels are of single rod and sail design and tool marks are evident on both rods and sails, with the tips of some rods worked to a point (fig. 13). The tool marks may be too small to be diagnostic. Small roundwood uprights, likely pegs that pinned the walkway to the ground, mark out the original position and alignment of the trackway where the wattles have since eroded away to the west (noted fig. 12).

Two interpretations of this feature are possible. Firstly, and more likely, that it respects the N-S timber alignment and meets the row of timbers at a point of access. The gap in the row of uprights may indicate this. If so, then the trackway may have provided easier access to the fenced area or across a marshy environment.

A second interpretation is that the trackway does not respect the alignment of **Feature Group 2** and crosses through the N-S alignment, and that it was constructed later, ignoring what may have been the remains of earlier alignments given the height of the uprights relative to the trackway surface. The use of pegs through and by the

panels indicates that it is not a collapsed fence, although re-use of such panels as walkways over difficult terrain is known.

4. A site at risk

A combination of forces threatens the visible archaeology at Point Clear. The daily wash of the tide has had a significant impact on some of the more fragile elements exposed since the site was first visited, notably the wattle hurdle trackway resting on the foreshore surface. Over a six-month period wave action has undercut the feature removing up to 80mm of sediment that binds the wattle in place (see *photograph on fig. 12*). There is evidence that the same process is also affecting several of the structural timbers scattered across the site. When the mud that binds them to the foreshore is sufficiently reduced, they may be liable to redeposition across the site or to being washed away completely. Generally, once undercutting begins it is often an accelerating process and reports from CITIZAN volunteers during lockdown suggest that the wattle is now in a perilous state with the loss of c.40% of one section of wattle trackway since November 2020.

In addition to the daily wash of the tide, winter storms pose a direct threat to the site. Their capacity for damaging archaeological features is evident on nearby Mersea Island and the 2020/21 winter season may prove to be equally as destructive at Point Clear. Wattles woven into **Feature Groups 1 & 2** are at risk of being lost when faced with stronger storm surges and increased wave energy seen during storm season. The timber uprights also show signs of erosion with recent volunteer accounts noting fresh timber exposed at the base of many posts. The site requires urgent attention as soon as is practicably possible to, at the very least, to retrieve samples of the wattle trackway.

5. Scientific dating

Preliminary results have kindly been provided by Historic England. They indicate that feature groups 1 – 3 date to the late 6th and early 7th centuries, making the structure contemporaneous with dated fish traps in the wider Blackwater estuary.

6. Significance of Point Clear

Given the Saxon date, the extent and quality of sub-surface structural preservation, evidence of potentially sealed land surfaces and possible relative sea level indicator datum points make Point Clear an excellent site for further and more extensive investigation. There is significant potential to confirm relative sea levels for the period in the Blackwater and Colne estuary. The high level of preservation of the sub-surface wattles surrounding **Feature Group 1** suggests that any rise in sea level was rapid and sustained enough to submerge the base of the structure and render the land almost immediately inaccessible and uninhabitable. This would be a key climatic event to confirm. Gradual sea level rise could not account for such an inundation, unless the land was particularly low lying, perhaps protected by a natural defence against the Colne that was breached by a storm surge that failed to recede. Whilst perhaps a fanciful idea at present with such limited evidence, it could be theorised that the structural timbers in **Feature Group 3** (and their distribution across the NE quadrant of the site) are evidence of such a catastrophic event. A large storm wave impacting a building, destroying it, and scattering structural elements along the vector of impact.

The site also shows tantalising evidence of a marine transgression submerging a potentially earlier land surface (Trench C) at -1.98m OD. The layer of extremely fine, dark sterile silts found above the coarse sands, shells and brushwood in trench C may have been deposited by gradual sea level rise as the Colne widened to envelop low-lying banks. Further archaeological interventions may reveal more concrete evidence of this important event.

7. References

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- Strachan, D. (1998) Inter-tidal stationary fishing structures in Essex: some C14 dates *Essex Archaeology and History* 29 274-284

8. Figures

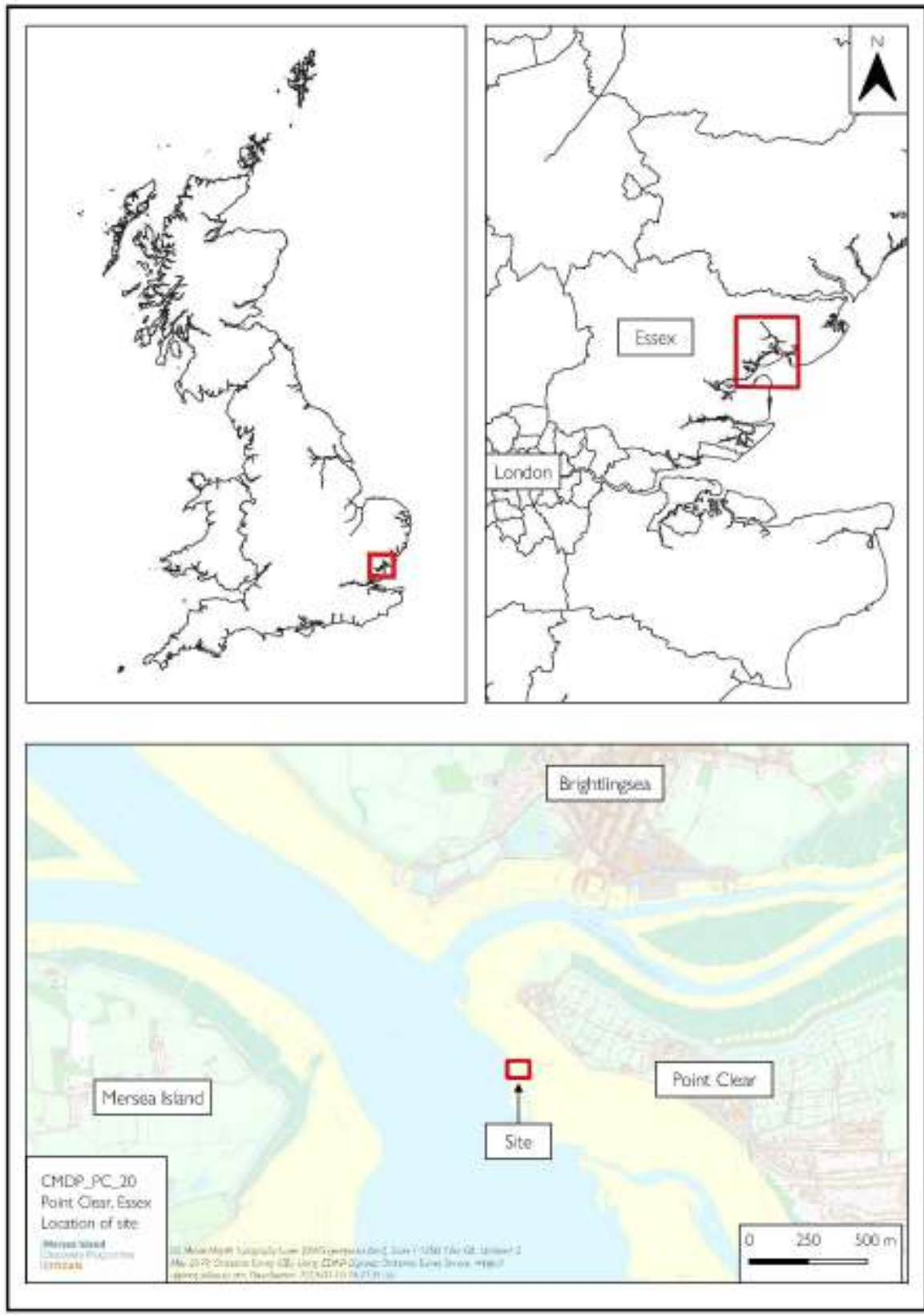


Figure 1. Site location

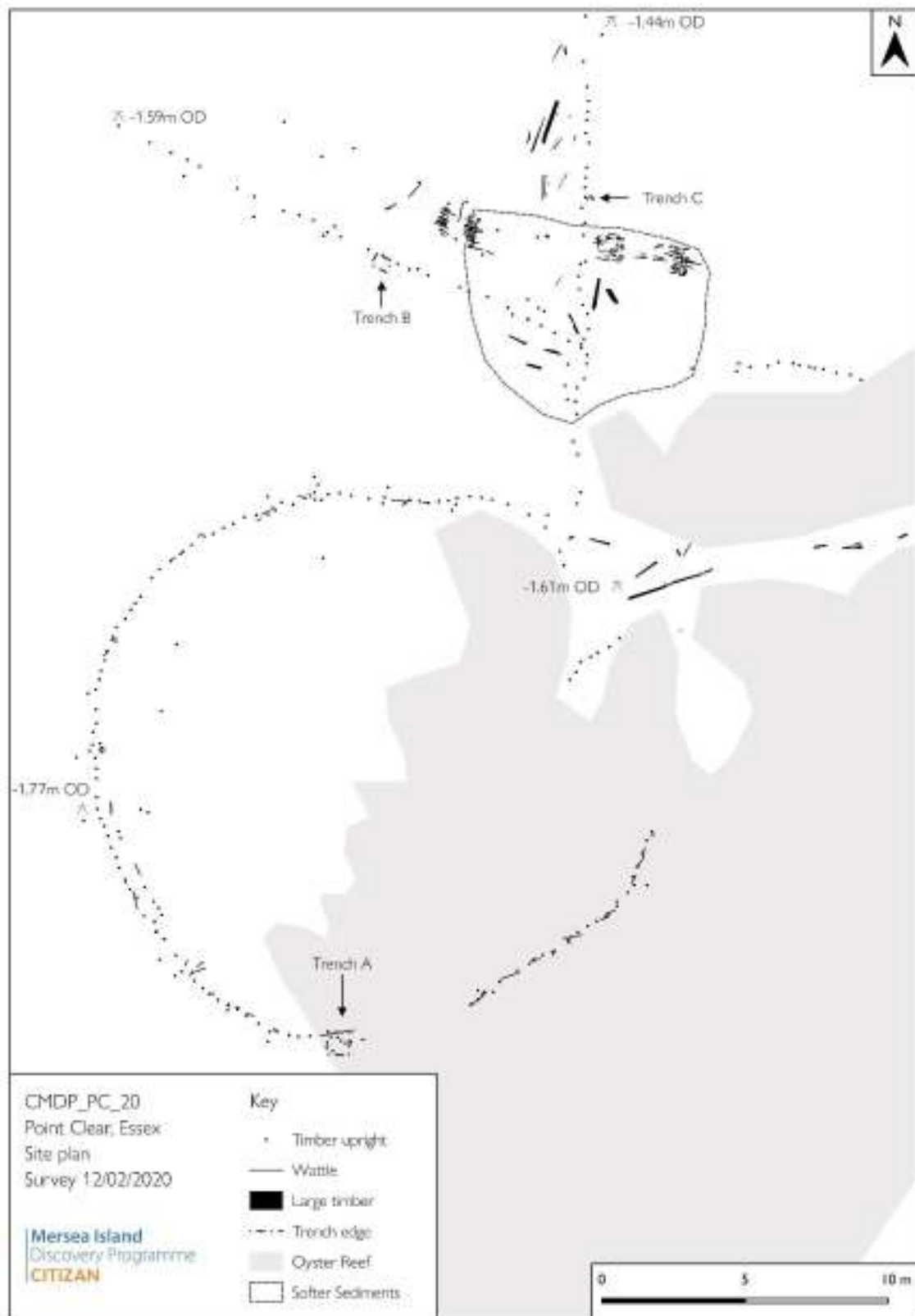


Figure 2. Site Master Plan

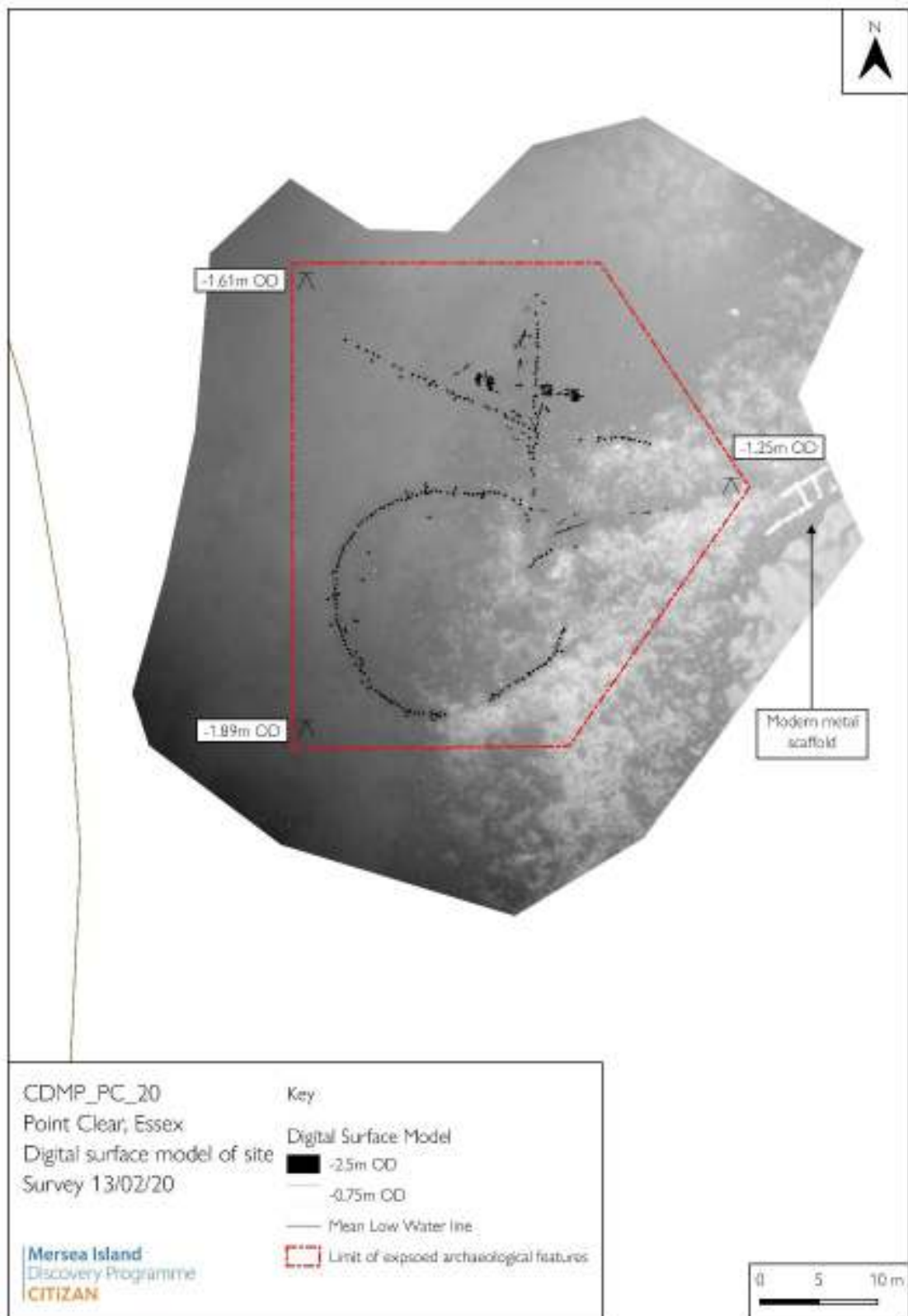


Figure 3. Digital Surface Model including levels (Image courtesy James Pullen)

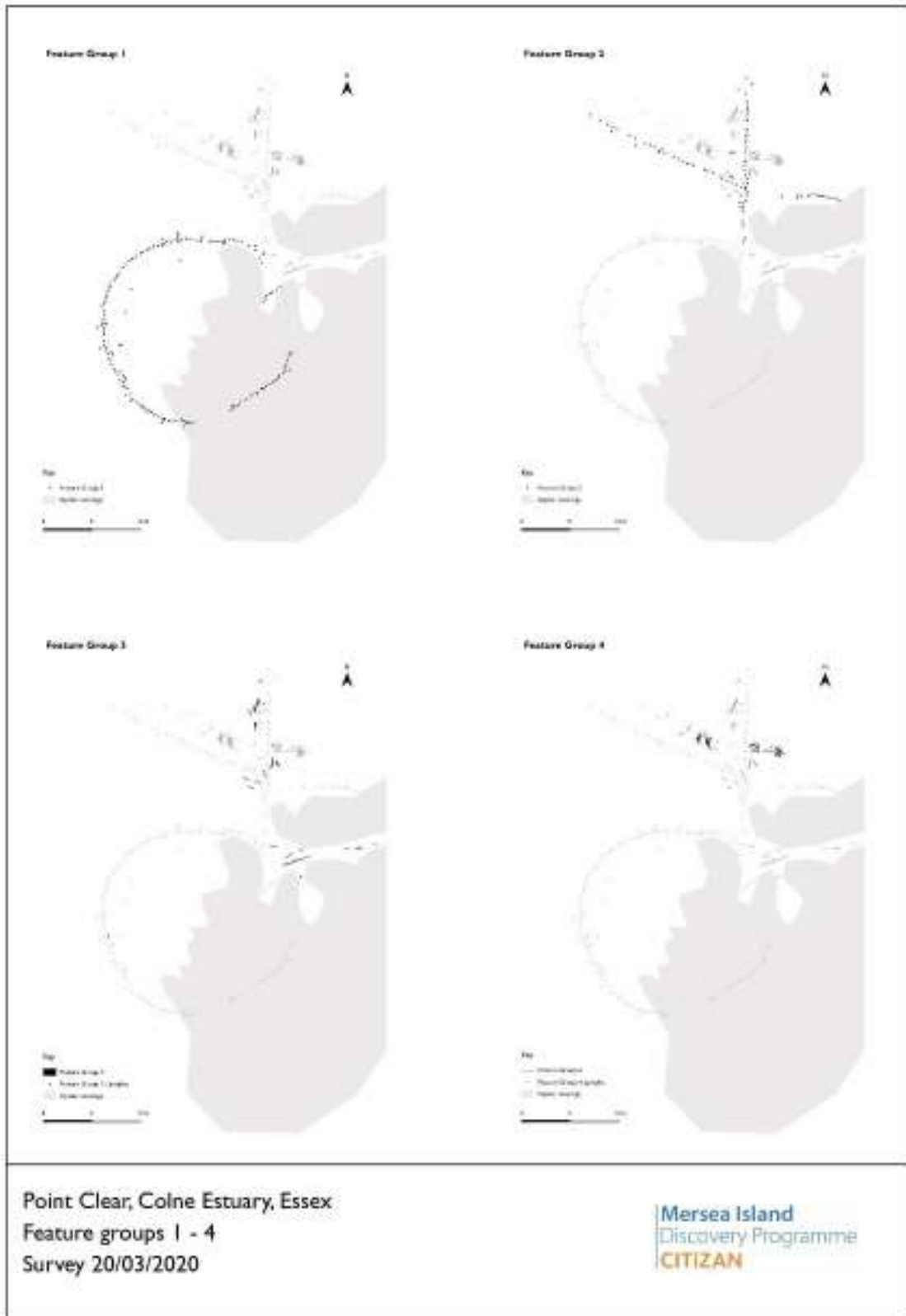


Figure 4. Isolated Feature Groups 1 – 4

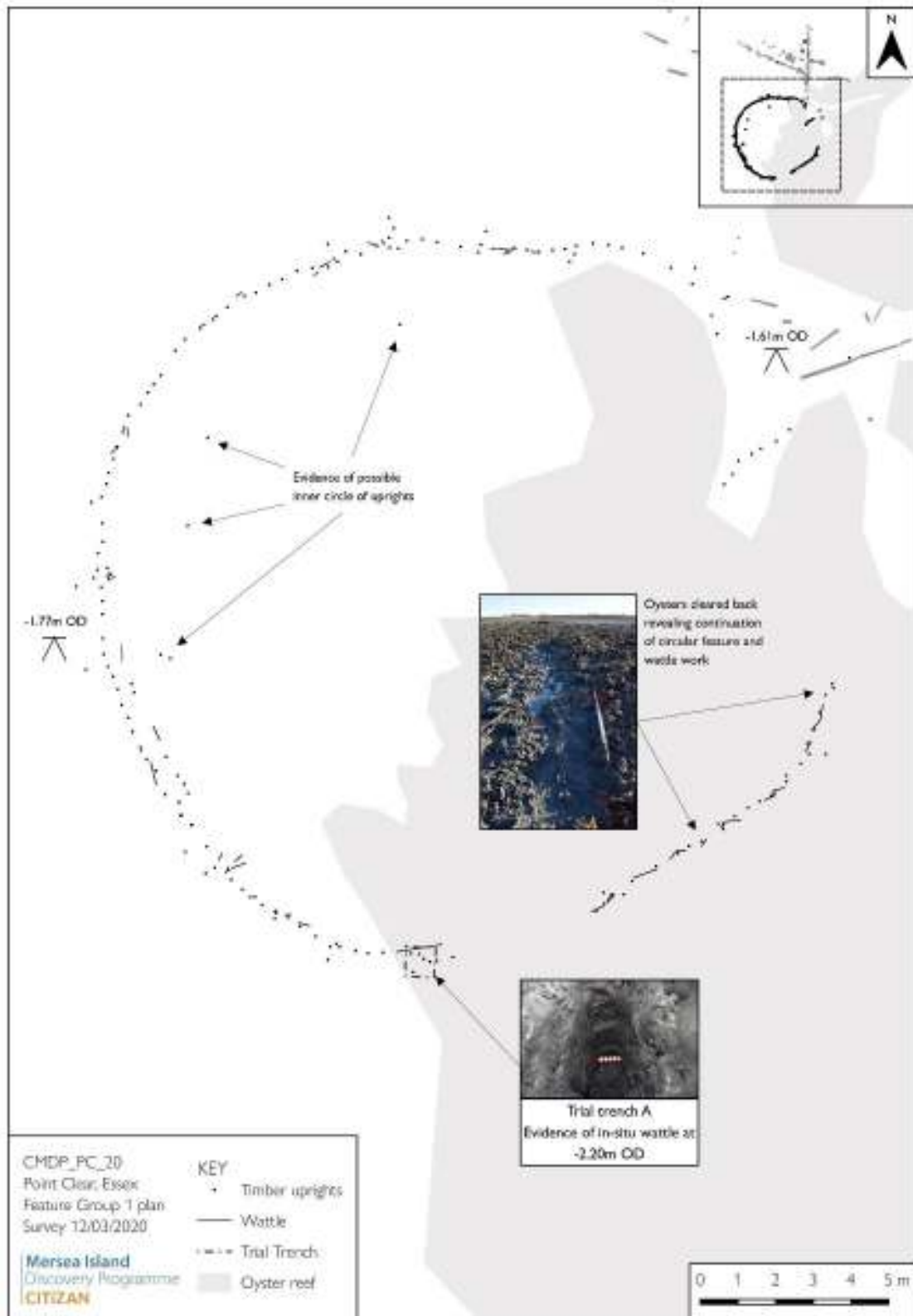


Figure 5. Feature Group 1 plan

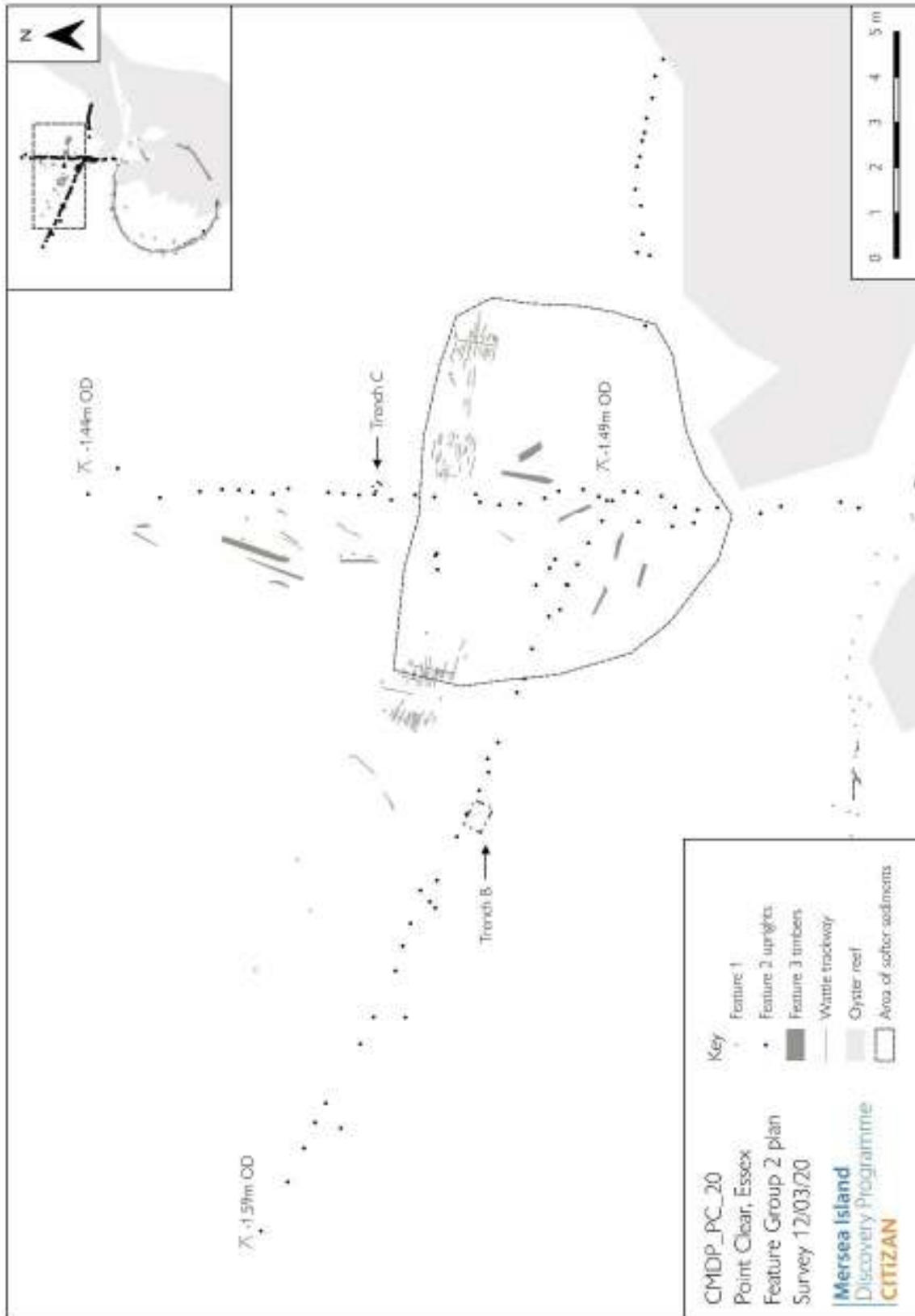


Figure 6. Feature Group 2 plan

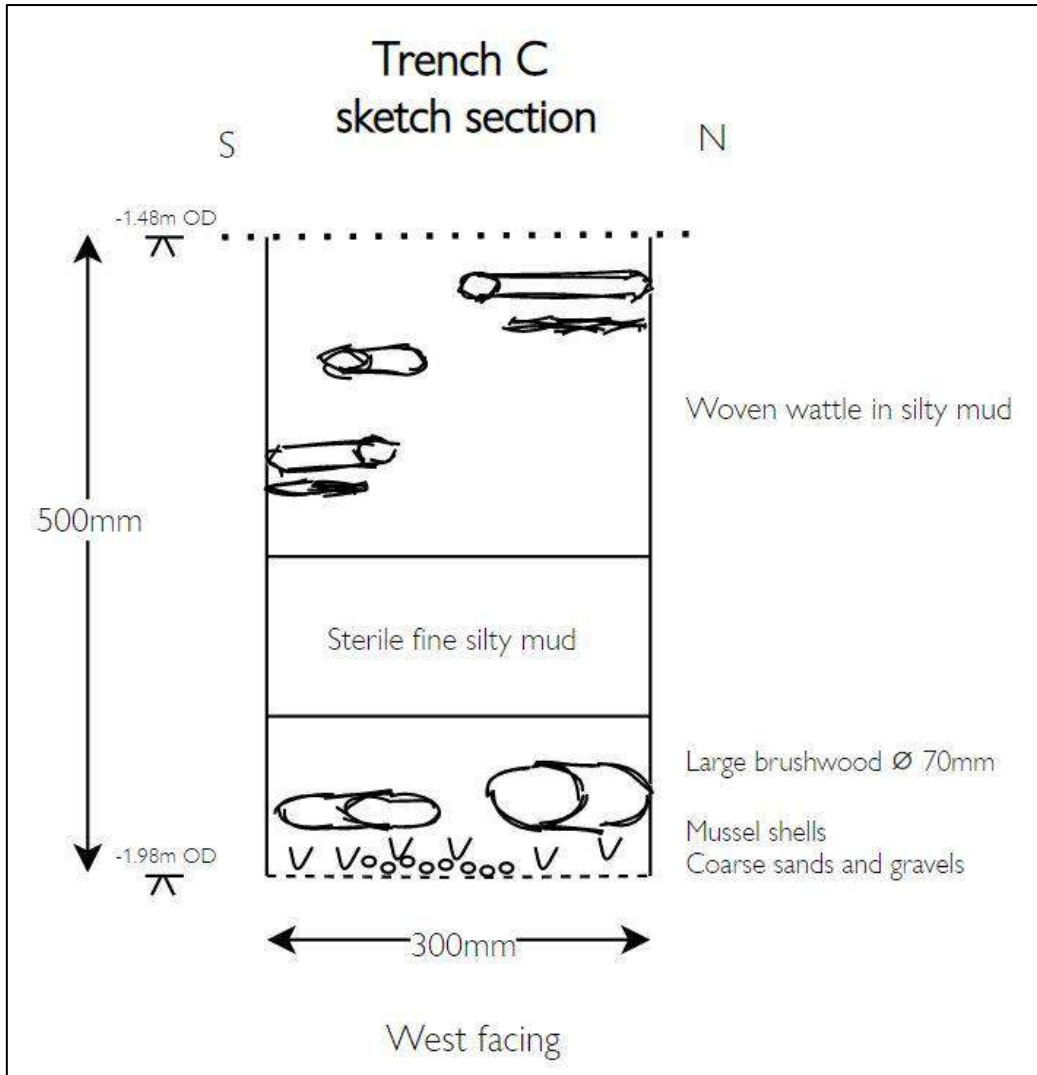


Figure 7. Trench C sketch section



Figure 8. Trial Trench C in oblique section showing sealing band of sterile mud. Image is oblique due to rapidly incoming tide!



Figure 9. Trial Trench C in section showing larger diameter brushwood resting on horizon of coarse sand, gravel, and shells

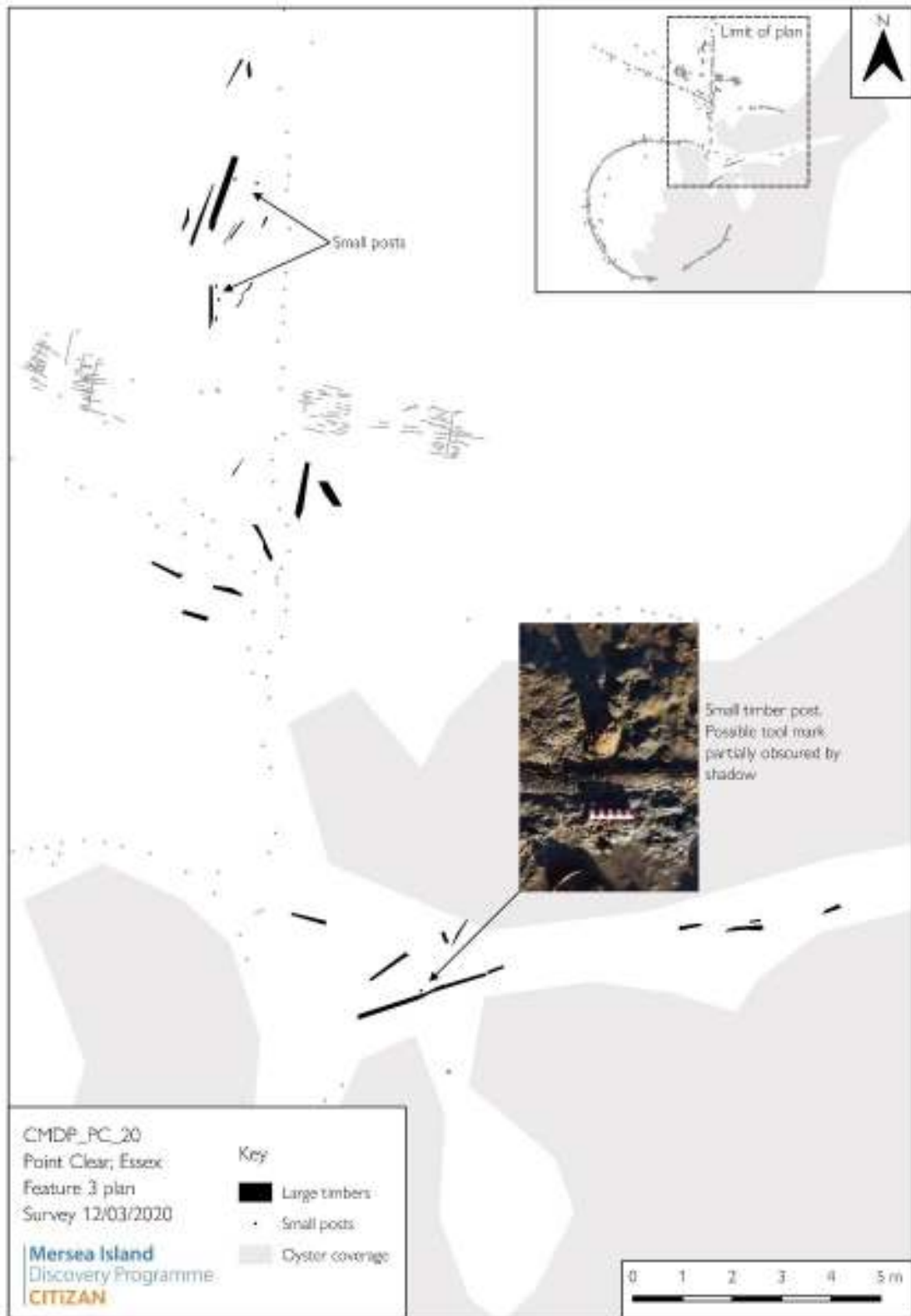


Figure 10. Feature Group 3 plan

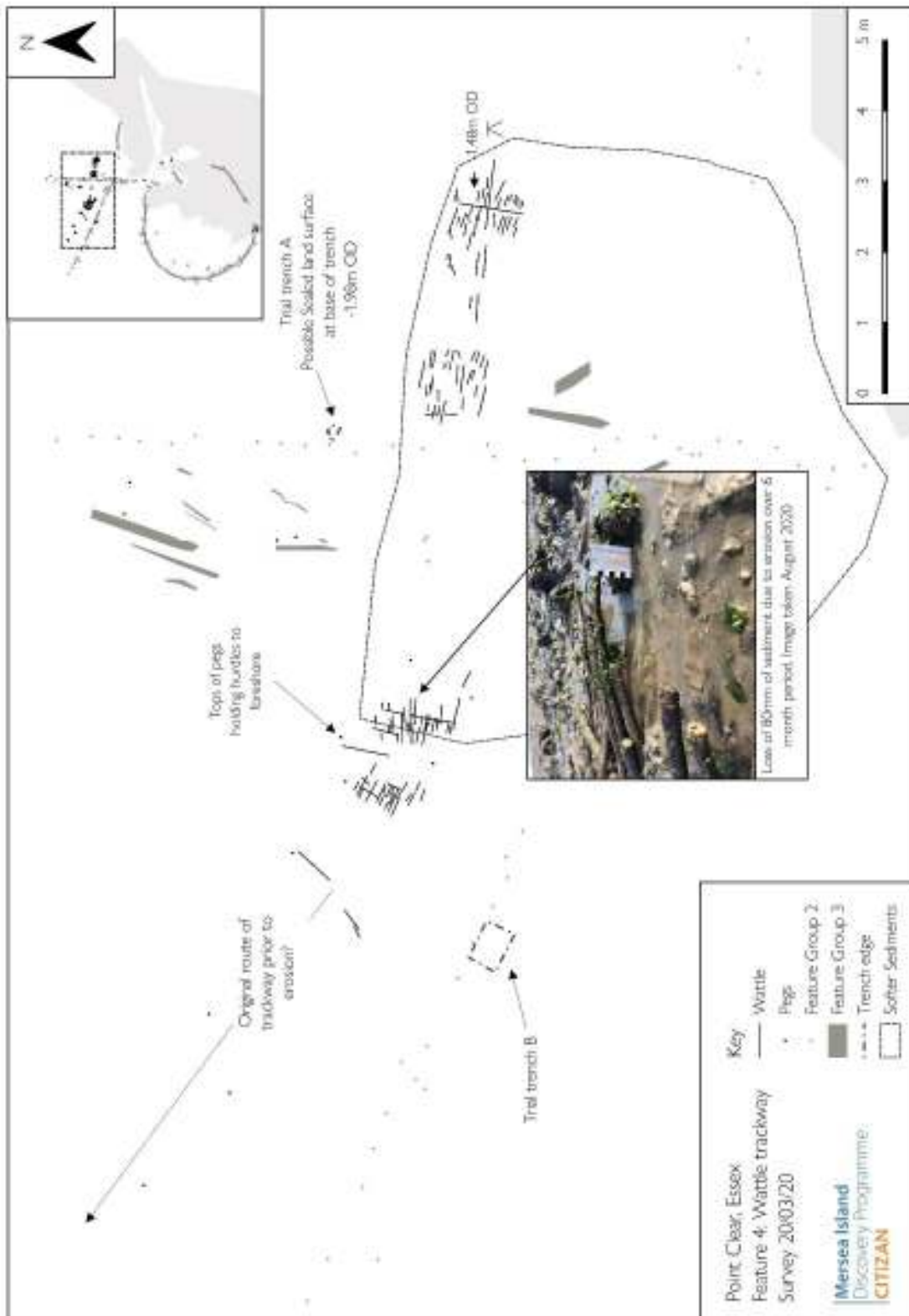


Figure 11. Feature Group 4 plan