Southampton Archaeology Unit

Report 1000

Archaeological watching brief at The Institute of Marine Sciences phase 2a, Ferry Road, Eastney, Portsmouth: 2010/567

MP Smith BA MIFA

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Client: University of Portsmouth

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Report on the archaeological watching brief at The Institute of Marine Sciences phase 2a, Ferry Road, Eastney, Portsmouth: 2010/567

By MP Smith BA MIFA

Site code	2010/567
Archaeology Unit report	1000
Ordnance Survey grid reference	468448 099890
Planning reference number	09/01449/FUL

1. Summary

A watching brief was carried out by Southampton City Council Archaeology Unit on the demolition of an existing late-20th century building, and the erection of a new building at the Institute of Marine Sciences, Ferry Road, Eastney, Portsmouth on behalf of the University of Portsmouth. The site lay near the north end of Eastney Spit which extends across the west side of the entrance to Langstone Harbour. The natural was gravel overlying gravelly sand. These would be the drift deposits that formed the spit. Their base, and therefore the underlying ground surface, were not exposed. No evidence for human activity that could be securely dated to before the 19th century was found. A clay dump of uncertain date overlay a buried soil horizon. The dump may have been associated with the laying out of a coastguard station that had been built by 1870. However, its north end had been removed by a large disturbance, into which a brick-lined pit was built. The pit coincided with the south edge of a building shown on the 1870 Ordnance Survey map.

2. Introduction

The Archaeology Unit of Southampton City Council carried out an archaeological watching brief at The Institute of Marine Sciences, Ferry Road, Eastney, Portsmouth (figure 1) on behalf of the University of Portsmouth. The observations were made by MP Smith BA MIFA and AD Russel BA PhD MIFA between 20th September and 7th October 2010. The project was managed by MP Smith BA MIFA. The development

involved the demolition of an existing building, and the erection of a new two storey building.

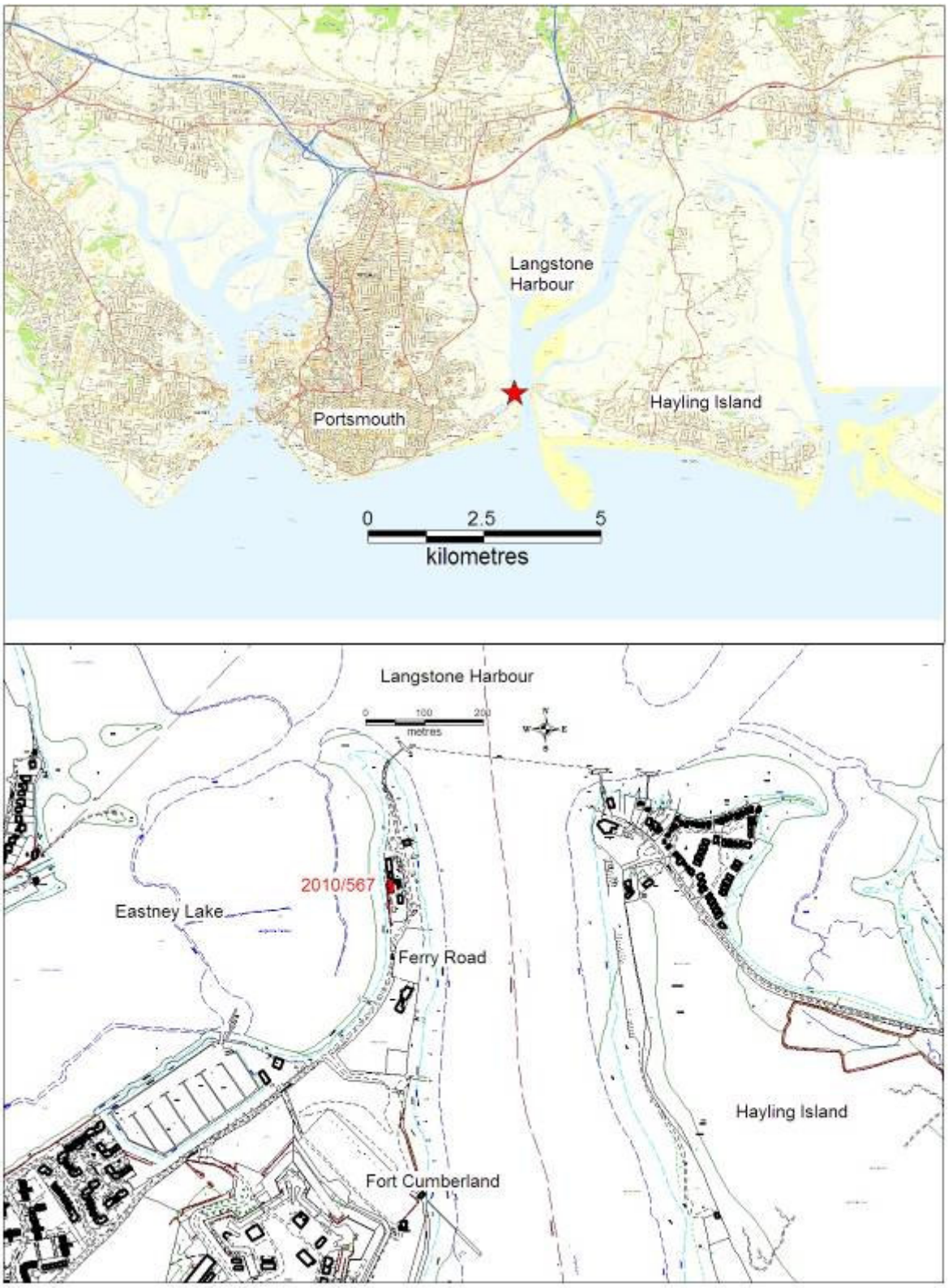

Figure 1. Site location plans.

3. Aims of the investigation

The aim of the investigation was to determine the presence or absence of archaeological features, structures, deposits, artefacts or ecofacts within the area of ground works. Any such remains were to be recorded and artefacts recovered.

4. Watching brief methodology

The methodology followed that specified in the Scheme of Investigation. The archaeological work on site consisted of observing the removal of the footings of the previous building, and the excavation of the foundations of the replacement building. It was agreed with Portsmouth City Council that it would not be necessary to observe the associated drain runs, given the lack of archaeologically significant remains in the footings, and that they were only expected to be approximately 300mm deep.

Trench numbers were issued to each excavated section as dug (figure 4). Trench numbers 1 – 4 were used for the grubbing out of the existing footings and are not shown on figure 4. All of the other trenches were excavated by mechanical excavator, nearly all to a nominal depth of 900mm. The external wall footings were nominally 800mm wide, and the internal footings 450mm. Larger pad bases were distributed around the footings. The lift base trench (19) was excavated to a depth of 1500mm.

All archaeological records were made using the Southampton City Council archaeological recording system. The colours of deposits were recorded using the Munsell Soil Color Chart and these are used in this report (Munsell Color 1975). The archive will be deposited with Portsmouth City Museum and Record Office on completion of the project.

5. Site location and topography

The site lay to the west of Ferry Road on the west shore of the shingle spit across the entrance to Langstone Harbour (figure 1). The site was occupied by a complex of mid-20th century buildings originally built for the Ministry of Defence, but currently used by the University of Portsmouth Institute of Marine Sciences.

The geological survey map (British Geological Survey 1994) shows the site to lie on storm gravel deposits over deposits of the Bracklesham Group. Eastney Point consists of a long shore spit across the west side of the entrance to Langstone Harbour, separated from the west coast of Hayling Island by a narrow channel. The site was located near the northern tip of a turn to the north at the east end of the spit.

The site was located on a fairly level spit of gravel surrounded to the north, west and east by Langstone Harbour. The pre-development ground surface was about 300mm above the level of the natural beach gravels immediately to the west of the site. The beach gravels sloped sharply away to the west of the site. An Ordnance Survey spot height of 3.4m OD is recorded immediately to the south-east of the site.

6. Historical and archaeological background

The site lies on the foreshore overlooking the entrance to Langstone Harbour. There are scattered archaeological finds of all periods in the Harbour and on the shores around it. The Langstone Harbour Survey (Allen and Gardiner 2000) records the following sites within 1km of the site:

6.1. Prehistoric to Romano-British

The Eastney spit is thought to have been dry land since the prehistoric period (Allen and Gardiner 2000, 203-220).

6.2. Medieval

Horseshoe-shaped structure of 64 timbers enclosing a shingle bank in Eastney Lake, now partly under reclaimed land. Possibly a medieval or Tudor harbour installation (Allen and Gardiner 2000, 78 Timber Structure 4).

6.3. Post-medieval

Posts of undated jetty adjacent to the sea wall north of the canal entrance. (Allen and Gardiner 2000, 78 Timber Structure 5)

Fort Cumberland. Built in 1747/8, and rebuilt 1785-1812, widely recognised as the finest example of a bastion trace fort in England. Now a Scheduled Monument.

Posts forming entrance to the Portsmouth Canal of 1822. (Allen and Gardiner 2000, 78 Timber Structure 5).

Posts of a jetty possibly associated with the early 19th century Prison Hulks moored of Eastney Point. (Allen and Gardiner 2000, 78 Timber Structure 5).
The seabed in this area has revealed artefacts including animal bones, pottery and clay pipes. Parts of the hulks remain in the mud (Allen and Gardiner 2000, 87).

6.4. 20th Century

Across the Langstone Channel lie a number of sites associated with the defence of Portsmouth during the Second World War. The Sinah Sands Q decoy site, created an area of 'leaky lights' simulating a town, the Sinah Common SF site simulated incendiary bombs, both controlled from the Sinah Common Control site. These sites were used to decoy German bombers away from Portsmouth.

A Mulberry Harbour construction site lies across the Langstone Channel from the site.

A series of two storey buildings (figure 1) were built on the site by the Ministry of Defence in about 1970. These were the buildings present on site at the start of the present development.

6.5. Map evidence

The earliest maps of the area, of the 16th and 17th centuries, were not surveyed with sufficient accuracy to be able to define the nature of the geology or settlement of the spit. They generally show a vague protrusion into the mouth of Langstone Harbour that presumably represents the spit. The earliest map found to show the area with any degree of detail was Morden's map of 1695 (Hampshire Record Office HMCMS:FA1996.33) which seems to show the spit with much the same form as at

the present day. No settlement is shown on it. The map shows a sizable creek to the north of the spit. Much the same situation is shown on 18th and early-19th century maps. Nineteenth century Ordnance Survey maps label the creek as Eastney Lake. The major difference is the appearance of Fort Cumberland to the west of the present site, first clearly shown on a map of Portsea Island produced by the Ordnance Office in 1773 (British Library, reference Division, Maps K. Top.XIV.16). This map also labelled the area of the spit as "Eastney Common." The situation remained much the same until a coastguard station was built on the present site by 1870 (figure 2). This consisted of a sub-rectangular enclosure with a building near its north end, with a small out-house to its north-west. The 1898 Ordnance Survey map (not reproduced) shows that the main building had been demolished by that time, and the out-house was labelled "Coastguard Watch House." This site was abandoned by 1910, though the outline of the enclosure was still marked, and the Coastguard Watch House had re-located to the south-east near the flagstaff.

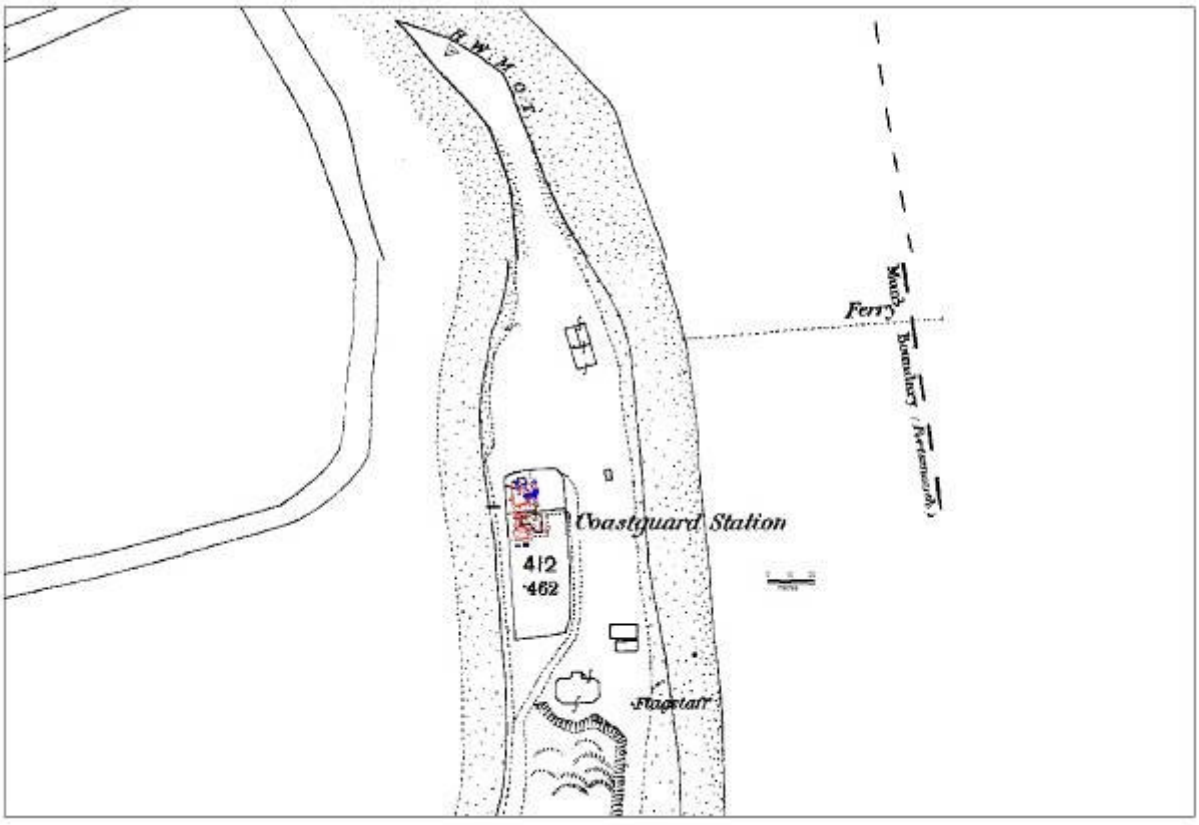

Figure 2. Extract from the 1870 Ordnance Survey map.

Outline of trenches and features superimposed.

7. Results of the watching brief

7.1. Natural.

The earliest deposit exposed in the ground works was a layer of loose, gravely, pale brown sand (layer 13) in trench 19. It was overlain by an approximately 500mm thick layer of virtually matrix free gravel (layer 3 – figure 3). Its upper surface had probably been truncated by feature 16 at the north end of the site (see 7.4 - figure 4). However, to the south it was present at a depth of about 600mm below the pre-development ground surface (assumed to be the underside of concrete slab 1 – see 7.6 below).

Figure 3. North facing section of trench 19, looking south.

Showing natural layers 3 and 13 below the dark line of fill 12.

7.2. Buried soil horizon.

An 80mm thick layer of dark greyish brown, sandy clay loam (layer 4), overlay layer 3 (figure 5). It was probably the original turf line that developed over the natural spit

gravels. In trench 17 it was replaced by a layer of gravel (layer 7) that produced post-medieval ceramic roof tile, perhaps associated with the 19th century coastguard station (see 6.5 above).

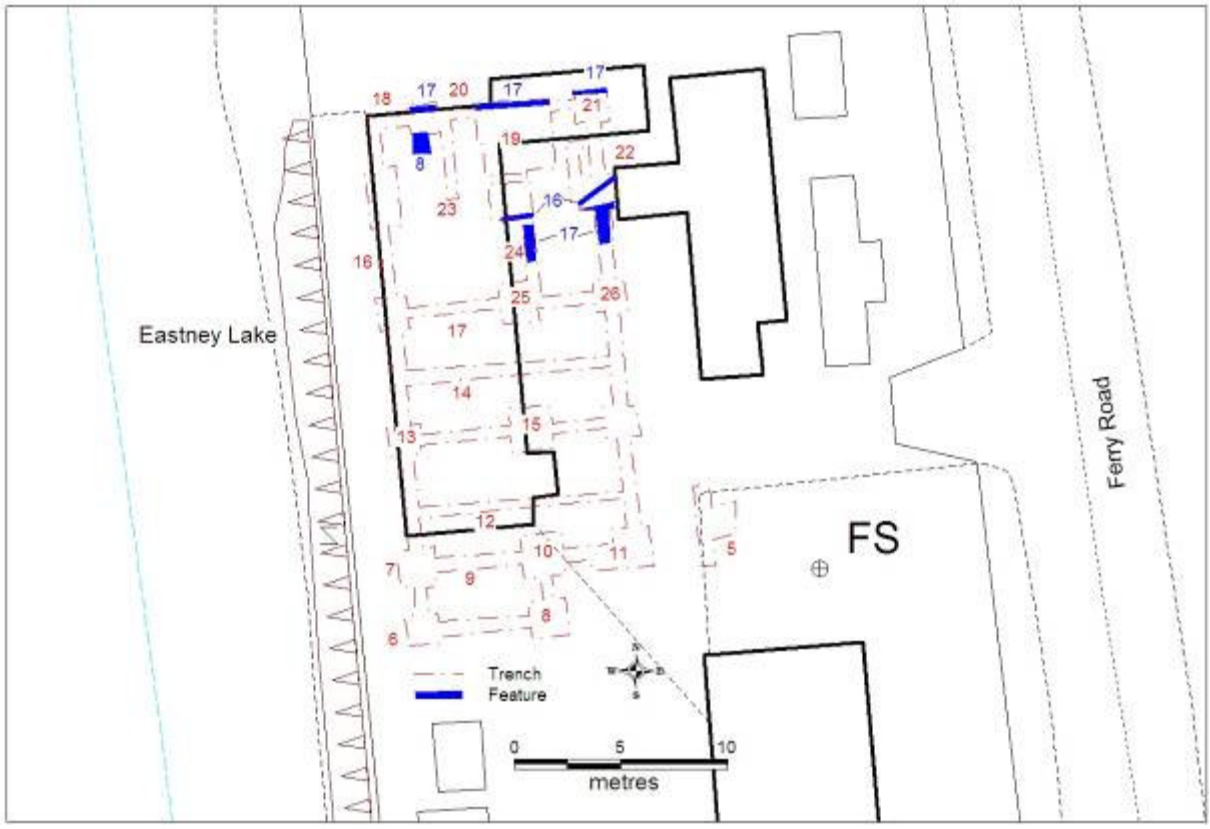

Figure 4. Trench location plans.

7.3. Clay dump.

A 200mm thick layer of dark yellowish brown, gleyed, clay (layer 5 – figure 5) overlay layers 5 and 7. It was presumably a deliberate dump of material, perhaps dredged from the harbour, to make up the ground surface. It may have been associated with the construction of the 19th century coastguard station (see 6.5 above). No structural remains of the coastguard buildings were identified, except for the probable soakaway 8 (see 7.5 below).

Figure 5. North facing section of trench 6, looking south.

Showing layers 1, 2, 5, 4 and 3.

7.4. Major disturbance.

Layers 4 and 5 were removed at the north end of the site by a large cut feature (16) that was filled by very dark brown gravel (fill 12) overlain by a mixed fill of gravel and soil (fill 11). Cut 16 was certainly observed in trenches 22 and 24 (figures 4 and 6). It was not recognised in trench 16 to the west, but layers 4 and 5 at the north end of this trench were replaced by a dirty sand (layer 6), that may have been part of its fill. The reason for this disturbance was unclear, but if layer 5 was associated with the construction of the coastguard station, it would presumably be late-19th century or later.

Figure 6. East facing section of trench 24, looking west.

Showing the cut for feature 16 at right, and feature 17 at left.

7.5. Brick-lined pit.

A 1500mm wide pit (feature 8) certainly cut fills 11 and 12, and possibly layer 2, though it is perhaps more likely that layer 2 butted up against its fill. It was lined by a single skin brick lining (fill 9 – figure 7). The bricks were hand-moulded without frogs and measured 230mm by 99mm by 60mm (9" by 4" by $2^{1}/_{2}$") and were bonded with a hard lime mortar. The pit was backfilled with a dump of gravel at the base overlain by 200mm of oyster shells with peg tiles and limestone fragments overlain by a gravelly soil (all fill 10). It was presumably associated with the out-house labelled as Coastguard Watch House in 1898. However, its stratigraphic position is somewhat problematical as it cut through the fills of disturbance 16 which in turn cut the dump layer 5. The latter was presumed to have been a make-up layer for the coastguard station, though as no dating evidence was recovered from it, it may have been earlier.

Figure 7. North facing section through feature 8, looking south.

7.6. Modern.

A large, east to west aligned linear feature (14) filled with clean pale yellow sand (fill 15) cut fill 11 at the far north end of the site. It was presumably a modern service trench. The whole site was covered by a 230mm thick layer of dark soil (layer 2), except for the uncertain relationship with pit 8 (see 7.5 above). An east to west aligned feature (17) cut layer 2 in trenches 22 and 24 to the south of feature 16. It was also filled with clean sand (fill 18) and may also have been a service trench. The whole site was covered with a 200mm thick concrete raft (layer 1) which formed the floor of the late-20th century building.

The watching brief on the removal of the footings of the existing building of c1970, showed that they consisted of a very shallow reinforced concrete ring below its external walls below layer 1 (figure 8). This did not penetrate below the modern make-up layer 2.

Figure 8. North end of the site showing the depth of the existing footings, looking south.

8. Conclusions

The site lay on a gravel spit formed by long shore drift, probably since the Neolithic period (Allen and Gardner 2000, 11). The natural deposits exposed on the site consisted of gravel overlying gravelly sand. These would be the drift deposits that formed the spit. The excavated trenches were not deep enough to expose the base of the spit deposits or any deposits associated with the pre-spit ground surface.

The watching brief did not produce any certain evidence for human activity earlier than the 19th century. A buried soil horizon of unknown date was found, that was overlain by a dump of clay, again of uncertain date. There was a large disturbance of the north end of the site, into which a brick-lined pit was dug. The pit was probably associated with a coastguard station shown on the site on 19th century maps.

Bibliography

Allen, MJ, and Gardiner, J, 2000: *Our Changing Coast: a survey of the intertidal archaeology of Langstone Harbour, Hampshire*. CBA Research Report **124**.

British Geological Survey, 1994, *Geological Survey of Great Britain, Portsmouth Solid and Drift, Sheet 331, 1:50000*, Ordnance Survey.

Munsell Color, 1975: *Munsell Soil Color Charts*, Baltimore.

Appendix 1. Context list

Number/letter codes (eg 10YR 3/1) = Munsell soil colour codes.

sa = stone abundance – 0 = virtually stone free; 5 = gravel

Context	Trench	Type	Description
1	All	Layer	Concrete slab
2	All	Layer	10YR 2/2, very dark brown, sandy silt loam, sa 3-4. Very common brick and concrete fragments
3	All	Layer	5Y 8/3, pale yellow, gravel, no matrix
4	5-15, 25, 26	Layer	2.5Y 4/2, dark greyish brown, sandy clay loam, sa 4
5	5-15, 25, 26	Layer	10YR 4/6, dark yellowish brown, clay, sa 3. Gleyed
6	16	Layer?	5Y 3/1, very dark grey, sand, sa 0
7	17	Layer	Gravel with chalk and flint nodules, and peg-tile fragments
8	18, 20	Feature	Vertical sided rectangular pit
9	18, 20	Fill of 8	Brick lining to pit 8. The bricks were hand-moulded without frogs and measured 230mm by 99mm by 60mm (9" by 4" by $2^1/_2$") and were bonded with a hard lime mortar.
10	18, 20	Fill of 8	2.5Y 3/0, black, silty loam, sa 4. Gravel at basal 500mm, 200m band of oyster shell above, cleaner soil above
11	19-24	Fill of 16	2.5Y 7/4, pale yellow, sand, sa 5. Mixed lenses of gravel and soil
12	19-24	Fill of 16	10YR 2/2, very dark brown, sand, sa 5
13	19	Layer	10YR 6/3, pale brown, sand, sa 3-4
14	19-21	Feature	East – west aligned linear feature
15	19-21	Fill of 14	2.5Y 8/3-4, pale yellow, sand, sa 0

Context	Trench	Type	Description
16	23-24	Feature	Slopping cut for large disturbance
17	23-24	Feature	Shallow, irregular feature, fairly flat base
18	23-24	Fill of 17	2.5Y 8/3-4, pale yellow, sand, sa 1