

Southampton Archaeology Unit Report 1054

Report on a Watching Brief and Archaeological Excavation at Lepe, Hampshire, A2010.77

JI Russel MIFA 2012 Client: Halcrow Group Limited for Scotia Gas Network





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Report on a Watching Brief and Archaeological Excavation at Lepe, Hampshire, A2010.77

By J I Russel MIFA

Site code Archaeology Unit report Ordnance Survey grid reference A2010.77 1054 444950 101420 (north end) 445900 098770 (south end) A2010.77

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1. SUMMARY

An archaeological investigation was carried out by Southampton City Council Archaeology Unit for Halcrow Group Limited on behalf of Scotia Gas Networks at Lepe, prior to the laying of the Cross-Solent gas pipeline. This covered the areas to be used as a site compound, a drill site, the 3km long pipe-stringing area and associated works. The work consisted of a watching brief on topsoil removal with further investigation of threatened features, and took place between September 2010 and April 2011.

Twenty-two areas were stripped. Most contained no archaeological features or only post-medieval ditches. A number of flints were recovered including a Mesolithic core and later prehistoric pieces.

One trench, T11, produced a complex area of Romano-British activity including ditches, pits, kilns/hearths and structural features. This area was subject to further work to retrieve dating and environmental evidence. This revealed some evidence of 1st and 2nd century activity but the main phases of occupation dated to the 3rd and 4th centuries, when a rectilinear field system, aligned on the Roman road was laid out across the landscape, followed by the production of grog-tempered pottery in a number of small stone-built kilns.

Air photos and previously discovered finds suggest this newly discovered settlement covered an area some 300m square straddling the narrow strip of land along which Roman Road Margary 423 passed to reach the coast of the Solent less than 1km to the south. The settlement undoubtedly formed an important node between land and sea trade in the Roman period and will merit further research.

2. INTRODUCTION

Scotia Gas Network sought permission to provide a new gas pipeline from Hampshire to the Isle of Wight, running between Lepe and Gurnard. The set up would involve a site compound, a drill site, a pipe stringing area and associated works. The proposed site (Fig 1) was identified as being within an archaeologically sensitive landscape.

Phase 1 of the archaeology project was undertaken in 2008 under site code A2008.96. An area at the south end of the proposed development was stripped for a trial drilling rig. This work revealed a late Neolithic pit containing large quantities of charcoal, burnt flint and a flint flake, dated by radiocarbon dating to 2900BC. More recent evidence for the D-Day preparations was also found in the form of a concrete access road to the Mulberry harbour construction site. The road included beach-hardening mats in its construction (Russel & Elliott 2008). Subsequent to this a Cultural Heritage Desk Based Assessment (Halcrow 2009) assessed the potential for archaeological remains as follows:

- **Prehistoric** the presence of a late Neolithic pit and additional flint finds suggest that finds and features of this date survive well preserved beneath the plough soils the extent of which is unknown -- <u>High Potential</u>
- **Romano British** Romano-British find in and around Stone Farm indicate some form of yet undiscovered activity here or in the adjacent areas, the scheme also crosses the line of the Roman Road and a lynchet <u>High</u> <u>Potential</u>
- Early Medieval no evidence for this date Low Potential
- **Medieval** Stone Farm was a medieval grange and the remains of this and features associated with it may survive <u>Medium Potential</u>
- **Post Medieval** Features relating to WWII are know to exist within the boundaries of the scheme further deposits can be anticipated. Former possible barn within the drill site indicated by aerial photographs <u>High Potential</u>

The local planning authority, the New Forest National Parks Authority, indicated that the site would require archaeological mitigation as a condition of planning consent. A Written Scheme of Investigation for a programme of archaeological mitigation was prepared by the Halcrow Group, proposing an archaeological watching brief with option to excavate which would preserve by record any significant features or artefacts exposed during the course of the groundworks (Halcrow Group 2010).

The Written Scheme of Investigation was approved by Frank Green, the Archaeologist of the New Forest National Parks Authority.



Figure 1. Site location, with trenches in red and Roman Road 423 in green.

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3. AIMS & OBJECTIVES OF THE INVESTIGATION

The aims of the archaeological observation and recording were set out in the Written Scheme of Investigation (Halcrow 2010, 7). They were as follows:

- The record the extent, survival and significance of the buried archaeological resource across all areas of the site impacted by groundworks;
- To record a sample of the archaeological features and deposits where encountered across all areas of the site impacted by groundworks.

The objectives of the archaeological investigation were to:

- Monitor all groundworks as defined in section 4, which have the potential to expose archaeological deposits.
- Ascertain the nature of archaeological features, if present, across the sites with a contingency for archaeological recording should significant deposits be present within the footprint of the works.
- To produce a final written report for approval by the New Forest National Park Area Archaeologist to confirm the archaeological mitigation strategy was successful. This will document all finds and features with full interpretation of these.

4. METHODOLOGY

4.1 Watching Brief and Excavation Methodology

The methodology followed that specified in the Written Scheme of Investigation (Halcrow 2010, 7). The archaeological work on site consisted of the observation of the removal of the topsoil and subsoil to the natural gravel and the archaeological investigation of any archaeological features revealed (SCCAU, 2010, 2-3). A total of 303 contexts were issued across 22 trenches (fig 2).

Trench	Location	Context Numbers
1	Compound	1–9
2	South side of the compound (T1)	10–12
3	South side of the compound (T1)	1–2
4	North of the compound, South of T10	199
5	North side of the compound (T1)	1–2
6	West side of the compound (T1)	1–2
7	West side of the compound (T1)	1–2
8	North side of the compound (T1)	1–2
9	Off northeast corner of the compound (T1)	1–2
10	North of T4	198
11	North of T10	14–222

12	North of T11, up to Stanswood Lane	1–2
13	North from Stanswood Lane	301–324
14	Southeast of Whitefield Farm	547, 601–604
15	South of Whitefield Farm track	501–540, 544, 550
16	North of Whitefield Farm track	541–543, 548
17	Southwest of the compound (T1)	1–2
18	Northeast of the compound (T1)	1–2
19	Off southwest corner of the compound (T1)	1–2
20	West of T20	1–2
21	South of T19 & T20	1–2
22	East of T19 & T20	1–2

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 (Munsell Color 2000).

4.2 Environmental Methodology

Environmental samples were taken from a wide range of contexts for potential assessment and analysis (Halcrow 2010, section 4.2.8). Eighty five samples of soil, ranging from 5 to 53.5 litres, were taken from 54 features. As part of the post-excavation process the potential of each sample was assessed, and samples from contaminated and insecurely-dated features were discarded. After discussion with Halcrow and Frank Green, New Forest National Park Authority Archaeologist, 5 litre sub-samples from 29 soil samples from kilns and stokeholes were processed. Standard techniques were employed i.e. samples were disaggregated with water and hydrogen peroxide to breakdown compact soil, floating material was collected on a 250 micron sieve and the residues were sieved to 1mm. Assessment showed that little ancient environmental material survived.

4.3 Post-excavation Methodology

Following completion of the site work an assessment of the results was made, and a programme of work was agreed with Halcrow. Following agreement of the work programme the finds were washed, marked and identified, site records were computerised, a Harris matrix was drawn up and phased and this report was written.

On completion of the project the archive will be stored with the Hampshire Museum Service with accession number 2010.77.



© Crown Copyright. All rights reserved Southampton City Council. LA 1000 19679 2012. Figure 2. Trench Locations.

5. SITE LOCATION, GEOLOGY AND TOPOGRAPHY

The site of the compound was some 100m north of the present shore, off a northsouth track that leads off from Stanswood Road and down to the shore (Fig 2). This formed the southern end of the site at 445900 098770. The northern end of the site was located at 444950 101420 to the north of Whitefield Farm. The geological survey map (Ordnance Survey 1975) shows the site to lie predominantly on Plateau Gravel with outcrops of Osborne and Headon Beds in the valleys of an unnamed stream to the east, and the Dark Water stream to the west.

6. HISTORICAL AND ARCHAEOLOGICAL BACKGROUND

The first phase of the project in 2008 (A2008.96) revealed a late Neolithic pit containing large quantities of charcoal, burnt flint and a flint flake, which was radiocarbon dated to 2900BC. More recent activity took the form of an early modern ditch running diagonally across the site and evidence for the D-Day preparations in the form of a concrete access road to the Mulberry harbour construction site. The road included beach-hardening mats in its construction.

Immediately to the west of the site two Neolithic flint flakes were found (AHBR 42587). During the replacement of the Cross Solent water mains pipe in 2008 a scatter of predominantly Bronze Age flint flakes were found in the top soil and subsoil, but one pebble core was felt to be Mesolithic in date (AHBR 58171). An Iron Age shell midden is also within this area (AHBR 22338).

A range of Roman coins and a Roman fibula and ring were found through metal detecting (AHBR 29940-29944). Finds were particularly concentrated around the area of Stone Farm. It is possible that in this vicinity is the line of a Roman road, possibly passing along the route of the existing concrete road (AHBR 29936).

Lepe is perhaps mentioned in Bede's (d.735) *Historia Ecclesiastica Gentis Anglorum* in connection with the death of two princes from the Jutish Isle of Wight: "...two royal youths, brothers to Atwald, king of the island, who were honoured by the particular grace of God. For when the enemy approached, they made their escape out of the island, and passed over into the neighbouring province of the Jutes; where, being conducted to the place called Ad Lapidem, as they thought to be concealed from the victorious (Saxon) king, they were betrayed and ordered to be killed."

In the medieval period Lepe was part of the parish of Exbury; Maud Folliot holding a carucate of land in Exbury and Lepe in the late 13th century. By the 14th century Lepe was deemed to be a separate manor, although often held by the owner of Exbury (VCH, 1973, 291). A medieval seal, a decorated silver mount and some coins were found to the west of the site (AHBR 42587).

Stone Farm is located on the site of a 16th century monastic grange (AHBR 22336). During the 18th/19th century refuse from Portsmouth was purchased and used to manure the fields of the Cadland Estate. Finds of this period have been found widely on the estate (Frank Green p*ers. comm*.).

The area of Lepe played a key role in the D-Day landings (Operation Overlord), and the beach at Lepe was used to construct components of the Mulberry Harbour system. Much evidence of this survives on the foreshore and to the north.

7 RESULTS

The results are reported in chronological order from the oldest to the most recent. Gravel and stones refer to naturally occurring flint pebbles.

7.1 NATURAL

Natural was found across the site and variously numbered 10, 227 and 541. It was gravel in a sand or a clay matrix of varying colour including, white, pale brown, dark greyish brown, strong brown and yellowish brown.

7.2 PREHISTORIC

A layer of subsoil, approximately 0.2m thick, lay across much of the site and was variously numbered 2, 7, 9, 16, 84, 178, 303 and 550. The subsoil was a silty clay loam with variations in gravel content and soil colour varying between strong brown, dark brown, yellowish brown and dark yellowish brown. Finds consisted of prehistoric flints, burnt clay, Roman glass and pottery, and post-medieval ceramic building material, demonstrating that the subsoil had been subject to disturbance.

Trench 1 at the south end of the site, and in the vicinity of the Neolithic pit found in 2008, produced a small assemblage of prehistoric flint. This consisted of two burnt flints, two flint cores, and five flint flakes. One of the cores had been used to produce bladelets and is probably Mesolithic. There were also four flint 'bashed lumps', three of which may have been crude cores.

7.3 ROMAN

Within Trench 11 there was a concentration of Roman features consisting of ditches, kilns, pits, post-holes, and a beamslot (fig 3). The east and west limits of the Roman activity were not established within the 10m wide trench, but the southern limit was at NGR 445702 099144 and the northern limit was 120m to the north at NGR 445649 099264.

Because most of the exposed archaeology was left in-situ and there was little stratification, it is not possible to be certain of the date of many of the features. The field system seems to have gone out of use in the late Roman period, and the kilns appear to have been built and used during the late Roman period. The majority of the other features were only cleaned and planned, and if dating material was recovered it will only date the final filling, which may be slumping of late Roman layers. Although many of the pits and most of the post-holes cannot be assigned a firm date, a probable date has been suggested in most cases.

7.3.1 Ditches

There were 15 ditches in Trench 11. These can be divided into three groups: a trackway, a rectilinear field system, and two ring ditches. The trackway was delineated by a pair of parallel ditches [19] and [21] which were found at the southern end of the site. These date from the late 2nd or early 3rd century.

To the north of the track was a 32m wide field to the north of which lay a grid of late Roman ditches covering some 50m. This rectilinear field system consisted of five approximately east—west ditches, [41], [156], [164], [174], and [176], together with a north—south ditch that had several re-cuts: [37], [43], [170], [179] and [183]. These formed three fields which ranged from 12m to 25m across.

The two ring ditches, [25] and [120/82], were located one at each end of the area of Roman occupation. The southern ring ditch was undated while the northern ring ditch was late Roman. Associated with the northern ring ditch was a late Roman ditch [124/122/158] which ran from the northern ring ditch in a south westerly direction.

7.3.1.1 The Trackway

A pair of parallel ditches [19] and [21] which lay some 4.5m apart at the southern end of the site. These could be ditches on either side of a small east-west Roman track.

7.3.1.1.1 Trackway Ditch 19 (figs 3 & 4)

Ditch [19] was orientated east – west and was the most southerly of the features in trench 11. It was situated some 4.5m south of ditch [21] which ran parallel to it. Its undulating sides were steeply sloping to a slightly rounded base. It measured 1.80m wide by 0.40m deep and was at least 10.0m long. It was filled with (20) dark brown silty clay loam, containing six sherds of pottery from two vessels. Five were from a flat-rimmed bowl in the BB1 tradition with burnished lattice decoration, the other was sherd of a flat-grooved rim bowl, copying BB1, in Vectis ware. Both are probably 3rd century in date.

7.3.1.1.2 Trackway Ditch 21 (figs 3& 4)

Ditch [21] was orientated east – west, parallel, and to the north of ditch [19]. It had steeply sloping sides to a flat base. It was 1.0m wide, 0.40m deep and at least 10.0m long. It contained two fills. The bottom fill (209), was a dark brown silty clay containing a brick-like piece of fired ceramic in a coarse sandy clay, possibly kiln furniture, a sherd of Dorset BB1 and two sherds (a rim and body) in sandy fabric Q3. Above it was context (22) a very dark brown, gritty clay loam which contained burnt flint, a sherd of Q3 pottery, and a sherd of a Dr 37 Samian bowl by the potter Paternus from Central Gaul (AD 145-190; see front cover). A date in the second half of the 2nd century or early 3rd century is likely. A sherd of post-medieval pottery is regarded as intrusive.



Figure 3. Features in Trench 11.



Figure 4. Section through trackway ditches 19 and 21.

7.3.1.2 The Field Ditches

7.3.1.2.1 Field Ditch 183 (fig 3)

North-south ditch [183] was the earliest. It was 1.4m wide and at least 10.6m long. It was filled with (184) a dark brown silty clay containing large flint cobbles. Finds consisted of a fragment of Purbeck limestone, three sherds of Grog-tempered pottery, four sherds of Vectis ware, three sherds of BB1 and one sherd of Q1 pottery. The grog-tempered pottery indicates a date after 250AD.

7.3.1.2.2 Field Ditch 43 (fig 3)

North-south ditch [43] was 54.57m long, and was a re-cut of ditch [183]. At its widest it was 2.20m wide and 0.30m deep with steeply sloping sides to a pointed round base. It was filled with (44) a dark brown silty clay loam containing a fragment of kiln lining and 42 sherds of pottery. The pottery consisted of: 12 sherds of grog-tempered ware, two sherds of New Forest grey ware, one flint-tempered sherd, 11 sherds of Vectis ware, 12 sherds of Black Burnished ware, two sherds from a whiteware butt beaker, a sherd of Q1 and a sherd of Q3. The whiteware beaker is probably first century in date but the grog-tempered pottery and the New Forest wares indicate a date after 250AD.

Ditch [43] exhibited two re-cuts allocated context numbers [37] and [170]

7.3.1.2.3 Field Ditch 37 (figs 3 & 5)

North-south re-cut [37] was 1.4m wide at its southern end. It ran north for 12.25m where it had a terminus/causeway 4.0m wide before continuing as re-cut [170]. Its southern end was found just south of east—west ditch [164] which cut it. It was 0.13m deep, bowl-shaped with gently sloping sides and a flattish base. It was filled with (38) a brown silty clay loam containing 12 sherds of pottery and an iron nail. The pottery consisted of five Fine Sandy sherds, four grog-tempered sherds, two of Vectis ware and one of Q3. The grog-tempered pottery indicates a date after 250AD.



Figure 5. Section through ditch 37.

7.3.1.2.4 Field Ditch 170 (figs 3 & 6)

North-south ditch [170] was a 7.2m length of re-cut. It was 1.3m wide and 0.32 deep with a rounded bowl-shaped profile. It was filled with (171) a brown silty clay loam which produced no finds. As it cut late Roman ditch [43] it must be late Roman in date.



Figure 6.Section through ditch 170.

Ditch [183] and its re-cuts were cut by east-west ditches [156], [164] [174] and [176].

7.3.1.2.5 Field Ditch 41 (fig 3)

East-west ditch [41] appears to be contemporary with ditch [183] and its re-cuts. It lay to the west of ditch [183] and appeared to have filled up at the same time. It was 1.32m wide and at least 7.50m long. It had sloping sides but was not bottomed. It was filled with (42) a dark brown silty clay containing two fragments of limestone, one sherd of Vectis ware, two sherds of Q3, and one sherd of grog-tempered ware from a large storage jar. The grog-tempered pottery indicates a date after 250AD.

7.3.1.2.6 Field Ditch 179 (figs 3 & 7)

Another north—south ditch [179] cut ditch [37]. It was 1.13m wide, at least 3.90m long and 0.35m deep with sloping sides and a rounded base. It contained two fills. The bottom fill was (221) a brown silty clay containing burnt clay and 15 sherds of Roman pottery. Pottery consisted of 12 sherds of a BB1 cooking pot, 2 sherds of a BB1 flat rim dish, and one sherd of Grog-tempered ware. The upper fill (180) was a brown silty clay loam containing 31 sherds of Roman pottery including two sherds of BB1, four sherds of an oxidised globular flagon, two sherds of Sandy ware, 13 sherds of Q1 including a near complete lid, and 16 sherds of Late Roman Grog-tempered ware. In addition there were six fragments of heat shattered Roman brick, 20 fragments of kiln lining and two 'wedges' probably kiln furniture.



Figure 7. Section through ditch 179.

7.3.1.2.7. Field Ditch 164 (figs 3 & 8)

A number of east-west ditches cut the north-south ditch. The most southerly of these, ditch [164], lay some 32m to the north of the trackway. It was 1.19m wide, 8.15m long and 0.22m deep. It had gently sloping curved sides and a slightly rounded base. It terminated at ditch [179] the fill of which it cut. It was filled with (165) a dark brown silty clay loam. The finds consisted of a burnt flint, a bashed flint lump, two fragments of kiln lining, a fragment of briquettage, 18 sherds of pottery fabric Q3, including four bead rims, and one sherd of Vectis ware. The finds are not necessarily late Roman in date but, given that this feature cut late Roman ditch [179] it must also belong in the late Roman period.



Figure 8. Section through ditch 164.

7.3.1.2.8 Field Ditch 174 (fig 3 & 9)

East-west ditch [174] was situated 22.5m to the north of ditch [164] and parallel to it. It was 0.85m wide and at least 10.25m long. It cut ditch [183] re-cut [170] and continued to the east of it. It was filled with (175) dark brown silty clay loam containing a burnt flint, two sherds of late Roman Grog-tempered pottery and four sherds of Q3 with food residue attached.



Figure 9. Section through ditch 174.

7.3.1.2.9 Field Ditch 176 (figs 3 &10)

East-west ditch [176] consisted of two lengths of ditch with rounded terminal ends 3.0m apart. It lay between 1.0m and 2.0m to the north of and parallel to ditch [174]. The eastern length of ditch was at least 3.0m long and 1.0m wide and cut ditch [183] re-cut [43]. It lay slightly further to the north than the western length which was 1.0m wide, at least 4.3m long and 0.60m deep with fairly steep sides and a flat base. It was filled with (177) a brown silty clay loam.

Half way up the sides of the ditch were lenses of eroded natural gravel. The finds consisted of three iron nail fragments, a small fragment of fuel ash slag, a burnt flint, fragments of burnt ironstone, and seven sherds of pottery. The pottery consisted of three sherds of late Roman Grog-tempered pottery (one fragment near vitrified), one sherd of BB1, a rim of New Forest Parchment ware, a Sandy ware rim, and a sherd of flint-tempered pottery possibly of early-medieval date.



Figure 10. Section through ditch 176.

7.3.1.2.10 Field Ditch 156 (fig 3)

East-west ditch [156] lay approximately 14.0m north of, and parallel to, ditch [41]. It was 0.75m wide and at least 9.4m long and cut ditch [183]. It was filled with (157) a gravelly, light brown sandy silt loam. This feature was cleaned, planned and photographed but not excavated. The cleaning produced two fragments of post-medieval pottery which could indicate a later date for this feature; however it seems

to form part of the field system with the other Roman ditches and has therefore been included here. The post-medieval sherds are therefore assumed to have come from overburden left over the ditch after machining.

7.3.1.3 The Ring Ditches

Two ring ditches were found, one at the north end of Trench, and another towards the south end of Trench 11.

7.3.1.3.1 Ring Ditch 25 (Figs 3, 11 & 12)

Ring ditch [25] was at the southern end of trench 11. Only the western half of the ring ditch was exposed. It formed a circle some 7.7m in diameter. At its widest the ditch was 1.0m wide, and it was 0.25m deep with sloping sides and a rounded base. It was filled with (26) a brown, gritty silty clay loam containing large quantities of burnt flints but no other finds.



Figure 11. Photograph of ring ditch 25 and kiln 27 from the east.



Figure 12. Sections through either side of ring ditch 25.

7.1.3.3.2 Ring Ditch 82/120 (Figs 3 & 13)

Ring ditch [82/120] was situated at the north end of Trench 11, 19.0m to the north of ditch [156]. It was a narrow, curvilinear ring ditch with gently sloping sides forming a circle at least 14.5m diameter. At its maximum it was 1.10m wide, and 0.43m deep with steeply sloping sides and a base that ranged from rounded to V-shaped.

Its primary fill, 206, was a dark brown slightly stony silty clay which contained no finds. The secondary fill (121/83), was a dark brown silty clay containing abundant flint inclusions, 96 sherds of pottery, 25 fragments of burnt clay, a flint blade, and

burnt flints. The pottery consisted of nine late Roman grog-tempered sherds, one sherd of BB1, one whiteware sherd, 25 sherds from a fabric Q1 bead rimmed jar, three Samian sherds, and 87 sherds of fabric Q3. The Samian consisted of one Form 30 rim, one Form 18 sherd and a Walters 79 sherd. The fabric Q3 sherds consisted of 48 body sherds, 2 upright jar rims (one from a small and one from a large vessel), four sherds from the base of a small jar, two sherds from a bead rim jar and one from an inturned-rim jar.



Figure 13. Sections either side of ring ditch 82/120.

7.1.3.4 Ditch not part of the field system

7.1.3.4.1 Ditch 122/124 NE-SW (figs 3 & 14)

Ditch [124/122] was situated at the north end of trench 11. It was orientated northeast – south-west and it was cut by ring ditch [120], and kiln [194]. It was 0.64m wide, 0.27m deep and at least 6.0m long with steeply sloping sides coming to a pointed base. The primary fill was (149), a silty clay loam containing fragments of kiln lining, burnt flint, a clay wedge (probably kiln furniture), and 18 sherds of pottery. The pottery consisted of a hammer-head mortaria sherd, a Fine Sandy sherd, five sherds of Dorset BB1 and 11 sherds of late Roman grog-tempered ware.

Above the primary fill was (125/123), a greyish brown silty clay loam, containing kiln lining, burnt flint, a sandstone pebble whetstone and 24 sherds of pottery. The pottery consisted of four Vectis ware sherds, seven BB1 sherds, seven late Roman grog-tempered sherds, one Q1 sherd, and five burnt Samian base sherds. Apart from one sherd of Vectis ware all the finds came from context (123) at the west end of the ditch. The grog-tempered sherds from both primary and secondary fills were mainly from a large storage jar with an everted rim.



Figure 14. Section through ditch 124.

7.3.2 Kilns

Nine kilns or hearths were found. They consisted of circular or oval areas of burning. Five were excavated and four were found to be kilns, with one a hearth. Another four were not excavated and were only cleaned and planned. The similarity in plan of the unexcavated to the excavated kilns and the finds recovered from cleaning means there is a high level of confidence in their interpretation as kilns. From the pottery recovered all appear to have been dated from the late Roman period.

From the north they are as follows:

7.3.2.1 Kiln 128/207 (fig 3, 15 & 16)

The most northerly of the kilns was Kiln [128] with stokehole [207]. It was oval in shape with gently sloping sides and a flat base. It had been constructed by excavating into the fills of ring ditch [82/120]. It measured more than 2.20m long by 1.04m by 0.35m deep, and was aligned northwest-southeast.



Figure 15.Section through Kiln 128.



Figure 16. Kiln 128 half-sectioned. Note smashed grog-tempered pottery vessel to right of the picture.

The cut had been lined with limestone rubble (202), in a matrix of brown clay (129). The body of the kiln and the stokehole were filled with (205/208), a very dark grey sandy clay loam. Fragments of dark grey fired clay, (201), lay above (205) in the kiln. It is presumed to be part of the collapsed clay superstructure. The final fills were (200) in the kiln and (222) in the stokehole, both dark greyish brown, sandy clay loams.

The clay lining to the kiln (129) produced burnt clay, burnt flint and limestone rubble as well as six sherds of late Roman grog-tempered pottery and three sherds of Q1 pottery.

The bottom fills of the kiln (205) and stokehole (208) contained broken kiln lining, 31 sherds of late Roman grog-tempered pottery, two sherds of BB1 pottery, and five sherds of an Oxford mortaria, dated AD 180-240. Fill (205) also contained a Roman brick with a paw mark and (208) a fragment of briquettage. The collapsed fired clay superstructure (201) included fragments with finger marks. Sixteen fragments of limestone rubble were recovered from (202), of which some was burnt. The upper fill of the stokehole (222) contained 18 late Roman grog-tempered sherds from a large storage jar with a thumbed rim, and six sherds of BB1 (five body and a rim from a cookpot).

A smashed grog-tempered vessel was found adjacent to the kiln (fig 16).

7.3.2.2 Kiln 194 (figs 3, 17, 18, 19 and 20)

Kiln 194 lay 8.5m to the south-west of kiln 128. It was oval in shape with a stokehole at the south-east end. It measured 2.40m by 1.70m overall, orientated north-west-southeast. The firing chamber of the kiln was approximately 0.68m long by 0.52m wide and survived up to 0.34m deep. It was lined with limestone rubble (220) in a matrix of hard-fired, dark reddish brown clay (215/217) and firm, reddish brown silty clay (216). It was lined with light red, sandy clay (195/219), which gave a concave shape to the walls in the lower part of the kiln (fig 17). The base was flat, lined with incompletely fired clay (219). The stokehole was 0.48m deep.

After the kiln went out of use it was backfilled with a firm, black, charcoal rich material (214) within the stokehole, and (212) a reddish black, firm, clayey silt, in the kiln chamber. Contexts (211) and (210) above (212) may represent the collapse of the chamber wall and vault. Context (211) was a firm, dark grey, sandy clay, full of red, burnt clay inclusions presumed to be remains of the superstructure. Fill (210) was a black, firm, charcoal rich silt which butted the lining (195).



Figure 17. Vertical profile through Kiln 128.

The feature was finally backfilled with contexts (196/213), very dark grey material, consisting of firm, silty clay and gravel. Context (218) was a very dark brown, firm, silty clay material very rich in red, burnt clay which overlay the east side of the flue area. Its measurements were 1.22 m by 0.45m by approx 0.1m deep.



Figure 18. Pre-excavation and partial-excavation photographs of Kiln 194, showing the clay-bonded stone wall of the kiln, fired in-situ.



Figure 19. Section through Kiln 194.

Fills (195), (210), and (216) produced no finds. The base of the kiln (219) produced one sherd of North Gaulish Whiteware of the 1st century.

The backfills (214/212) contained burnt clay, kiln lining, burnt bone, charred plant remains and charcoal, Roman brick, and fragments of a burnt bottom stone of a greensand quern. A fragment of tegula with a cut out came from (214) and a carbonised cereal grain, probably Rye. The pottery from these contexts consisted of one rim and two body sherds from a late Roman grog-tempered, large storage jar (212), and a Sandy sherd from (214). A sample of (211), the collapsed chamber produced charcoal, seeds and five sherds of pottery, two grog-tempered and three sandy.

The final fills (196/213) produced quantities of burnt flint, kiln lining, Roman brick, limestone rubble, ironstone, 2 iron nails, a flint flake, burnt animal bone, charcoal and a carbonised cereal grain. Three fragments of a bottom stone of a greensand quern came from (196) and five fragments of a greensand quern topstone came from (213). One of these had been drilled and another re-used as a mortaria. A ceramic clay pedestal from (196) may have been a piece of kiln furniture. 30 fragments of heat shattered tegula were recovered from (213). Pottery from the final fills consisted of four Dressel 20 amphora, 45 sherds of late Roman grog-tempered ware and 15 sherds of Fine Sandy (one with wavy line decoration). The final fill in the kiln area (196) also produced four BB1 sherds, seven Q1 sherds and four Q3. Fill (218) produced two late Roman grog-tempered sherds and burnt flint.

The stone lining (220) produced 91 fragments of burnt limestone and a fragment of a millstone grit quern topstone. The burnt clay bonding (215/217) for the limestone structure produced three New Forest greyware sherds, and charcoal. The backfill (212) within the firing chamber produced Roman brick, eight burnt clay fragments, a fragment of a burnt bottom stone of a quern, two animal bone fragments (one burnt), and three late Roman grog-tempered pottery sherds.



Figure 20. Photograph of half-sectioned Kiln 194.

7.3.2.3 Kiln 112/110 (figs 3 & 21)

Kiln 112 was sub-circular in shape with a sub-rectangular stokehole [110]. It measured more than 1.5m long by 0.8m wide. Its only fill, (113), was a moderately stony, very dark grey to black, silty clay loam with fired clay pieces.



Figure 21. Pre-excavation photograph of pit 110.

The feature was not excavated but heavy cleaning produced 41 fragments of burnt flint, 40 fragments of kiln lining, three fragments of Roman brick, a fragment of ironstone, and 26 sherds of Roman pottery consisting of one sherd of North Gaulish mortaria (NOGWH), 10 sherds of BB1, and 15 sherds of grog-tempered ware (including a large bead-rimmed storage jar).

Stokehole [110] was situated south-west of Kiln [112]. It was sub-rectangular in shape, 0.80m wide and 0.88m long, containing (111) a greyish dark brown sandy clay loam. It was not excavated but cleaning produced fragments of burnt clay, burnt flints and limestone and ironstone rubble. The pottery consisted of four Q1 sherds including a rim of a flat bowl, three late Roman grog-tempered sherds from a large storage jar, six sherds of BB1, one sherd of Q3, and six sherds form a 1st century North Gaulish white ware mortaria.

7.3.2.4 Kiln 80 (Figs 3 & 22)

Kiln [80] was situated 8.14m to the south-east of Kiln [112]. It lay between ditches [122] and [156] in an area surrounded by post-holes. It was oval in plan, 1.20m long and 0.58m wide, filled with context (81) a brown silty clay loam, containing many brick fragments towards its west end. It was not excavated but cleaning produced burnt flints, 29 Roman brick fragments, including one with a signature mark, two sherds of BB1 pottery, and 6 sherds of fabric Q3.



Figure 22. The cleaned surface of Kiln 80.

7.3.2.5 Kiln 91 (fig 3)

Kiln [91] was situated 0.9m to the east of Kiln [80] at the edge of the excavated area. It was not excavated. It was an oval feature, at least 0.68m wide (full extent not known) and 0.80m long. It was filled with (92) a very dark sandy silt loam containing five sherds of Roman pottery. These consisted of two sherds of BB1, one sherd of late Roman grog-tempered ware, one sherd of Q1 and another of Q3. Four fragments of Roman ceramic and two fragments of burnt clay were also found.

7.3.2.6 Kiln 89 (fig 3)

Kiln [89] lay south-west of [91]. It was sub-circular in plan, 0.80m wide and 0.70m long. It was filled with (90) a very dark brown sandy silt loam containing a large patch of kiln lining on the north side. This feature was not excavated but cleaning produced two briquettage fragments, burnt flints and a sherd of BB1 pottery.

7.3.2.7 Hearth 189 (Fig 3 & 23)

Hearth [189] was circular in shape 1.1m in diameter and 0.15m deep and had been cut into ditches [41] and [43] at their junction. It was dish-shaped in profile with gently sloping sides and a flat/irregular base.



Figure 23. Photograph of hearth 189 half sectioned.

The excavated hollow had been lined with crushed shell (46/192) over which a clay lining (191), approximately 0.1m thick had been laid (Fig 23). The clay (191) had been burnt yellow and light red and was very hard. Above it was (190) a moderately stony, black, silty clay containing rare fragments of charcoal. A total of 392 oyster shells was recovered from the shell layer and five sherds of Q3 pottery. The clay lining produced 31 fragments of kiln lining, burnt clay, charcoal and shell. The upper fill (190) contained six fragments of kiln lining and five pieces of burnt Bembridge limestone.

7.3.2.8 Kiln 27 (figs 3, 24, 25 and 26)

Kiln [27] with its stokehole [48] lay within ring ditch [25], although there is no evidence that they were contemporary. The stokehole [48] was cut into subsoil 16 and was approximately 1.2m in diameter and 0.38m deep with gently sloping sides tapering to a pointed base (fig 25). It contained fill (49) a very slightly stony, very dark greyish brown, sandy clay loam, containing occasional charcoal flecks and fragments of burnt clay. The soil samples from this context produced, charcoal and 16 fragments of burnt bone including bird bone, but also included modern seeds.



Figure 24. Pre-excavation photograph of kiln 27 (in the foreground) & 48 stokehole beyond it.

Kiln chamber [27] was also 1.2m in diameter and was 0.20m deep. It was lined with limestone rubble in a matrix of red and light olive grey clay (193). The chamber was filled with a moderately stony, very dark brown, silty clay loam (28) containing daub and burnt ceramic building material.



Figure 25. Section through 48 and 27.

Finds from (28) consisted of 18 fragments of burnt clay; 30 fragments of kiln lining; two wedge-shaped fired clay objects, possibly kiln furniture; burnt flints; 20 fragments of Bembridge and Purbeck limestone, much of which was burnt; and six sherds of late Roman grog-tempered pottery. The environmental material from the soil samples included a burnt bird bone but also modern seeds. Five Roman bricks and 14 pieces of burnt limestone rubble were recovered from the lining (193).



Figure 26: Photograph of section through 48 and 27.

7.3.2.9 Kiln 23 (figs 3, 27 and 28)

Kiln [23] lay at the southern end of the trench, 5.8m to the north of parallel ditches [21] and [19]. It was sub-circular in shape with a stokehole at the north end. It cut subsoil 16 and measured 0.95m by 0.86m by 0.3m deep. Its sides were near vertical dropping to a flat base (fig 27). The bottom fills were (54) and (55) dark reddish brown (2.5YR3/4) and very dark greyish brown, sandy clay containing burnt bird bone and charcoal. Above this was fill (53) a mottled, very dark greyish brown to dark reddish brown silty clay loam containing three burnt flints, a fragment of burnt bone, charcoal, a cereal grain, 12 fragments of burnt clay, 20 fragments of kiln lining, five Roman brick fragments, a burnt glass fragment, two sherds of grog-tempered pottery and one sherd of Q1. Fill (52) lay above this and was a dark yellowish brown silty clay with lenses of dark reddish brown. It contained burnt clay, kiln lining, four fragments of tegula, charcoal, burnt flint, another sherd of burnt glass, and 3 sherds of BB1 pottery.



Figure 27. Section through kiln 23.



Figure 28. Kiln 23 sectioned.

The top fill (24) was a very dark greyish brown, silty clay loam containing charcoal, burnt flint, 13 Roman brick, 10 grog-tempered sherds, one Sandy sherd and one BB1 sherd. The fill, (140), of the stokehole was very similar to the fills of the chamber. Its colour ranged from black to dark brown, to red. No finds were recovered.

7.3.3 Pits

There were 19 probable pits in Trench 11 (figs 29 and 31). All were cleaned and recorded and a sample was investigated. The recorded depths are the minimum depths as excavated. The pits are described starting at the north end of the site and working south.

Three pits [133], [135], and [228] lay to the north of ditch [122] west of ring ditch [120]. One pit [203] lay within the ring ditch. There were six pits [72], [74], [93], [116], [118] and [223] to the south of this in the area between ditches [122] and [156]. To the south of ditch [156] three pits [60], [131] and [147] lay between it and ditch [41]. Two pits [56] and [187] lay between ditches [41] and [176]. Four pits [14], [35], [168] and [172] lay to the south of ditch [174] and north of ditch [164].



Figure 29. Plan of pits at north end of Trench 11 and their relationships to ditches & hearths.

From the north the pits were as follows:

7.3.3.1 Pit 133 (fig 29)

Pit [133] was situated in the far northwest end of trench 11. It was a sub-oval feature with a rounded terminus at the east end. It was 0.64m wide and 1.12m long, filled with (134).a brown sandy silt loam containing burnt flint. Although half-sectioned no dating evidence was recovered.

7.3.3.2 Pit 228 (fig 29)

Pit [228] was to the south of pit [133] and cut by it. It was a sub-circular feature 1.10m wide and 1.25m long, filled with (229) a brown sandy silt loam. It was not excavated.

7.3.3.3 Pit 135 (fig 29)

Some 3.14m to the east of pit [228] and slightly to the southeast of pit [133] lay pit [135]. It was a sub-circular feature 0.81m wide and 0.88m long. It was filled with (136), a brown silty clay loam, containing large amounts of stone. Finds consisted of a fragment of burnt clay, a fragment of kiln lining, 15 sherds of Roman pottery, two fragments of Roman ceramic building material, a box flue tile fragment, a small smithing slag hearth bottom, 28 fragments of a lava quern and a very worn Roman coin. The coin is of the Emperor Hadrian, and comes from a late series depicting the provinces personified as a reclining figure, and can be dated to AD 134-138 (Robert Webley, Hampshire Finds Liaison Officer *pers. comm.*). The pottery consisted of two New Forest greywares, one sherd of grog-tempered pottery, 10 sherds in sandy fabrics and two sherds of Q3.

7.3.3.4 Pit 203 (figs 16 & 29)

Pit [203] was situated immediately to the south of kiln [128]. It was 0.60m wide and 0.68m long. It was filled with (204) a light greyish brown sandy clay loam containing 104 grog-tempered pottery sherds from a large storage jar.

7.3.3.5 Pit 118 (fig 29)

Pit [118] was situated 0.5m south-west of ring ditch [120] and northeast of pits [112] and [116]. It was oval in plan, 0.42m wide and 1.02 long. It was filled with (119) a dark brown sandy clay loam containing charcoal flecks. It was not fully excavated but a large fragment of Bembridge limestone was recovered during cleaning.

7.3.3.6 Pit 116 (figs 29 & 30)

Pit [116] was situated south of ditch [122] and west of pit [118]. It was oval shaped in plan, 0.55m wide and 1.05m long. It was filled with (117) a stony, brown sandy clay loam. Cleaning recovered burnt flint, six Roman brick fragments and four sherds of pottery, consisting of three sherds of BB1 and one grog-tempered sherd from a large storage jar.

7.3.3.7 Pit 223 (fig 29)

Pit 223 was oval in shape, measuring 0.64m by 0.54m. It lay 7.2m to the southeast of pit [110] and may have been a large post-hole. It was not excavated and no finds were recovered from its cleaning.



Figure 30. Pit 116.

7.3.3.8 Pit 93 (fig 29)

Pit [93] was situated 7.0m to the east of pit [223], and northwest of Kiln [91]. It was oval in plan, 0.50m wide and 0.80m long. It was filled with (94) a dark brown sandy silt loam. Cleaning recovered two sherds of grog-tempered pottery.

7.3.3.9 Pit 74 (fig 29)

Pit [74] lay 1.85m south-west of Kiln [89]. It was sub-circular in plan, 0.75m wide and 0.95m long. It was filled with (75) a dark brown sandy loam. It was not excavated but cleaning produced burnt flint, a quern fragment and one sherd of grog-tempered pottery.

7.3.3.10 Pit 72 (fig 29)

Pit [72] was 2.28m to the south of pit [74]. It was oval in plan, 0.55m wide and 0.80m long. It was filled with (73) a dark brown sandy clay loam. It was cleaned and planned but no finds were recovered.

7.3.3.11 Pit 60. (fig 29)

Pit [60] was approximately 9.0m south of ditch [156] and just over 3.0m north of ditch [41]. It was sub-rectangular in plan, 0.70m wide and 2.60m long and 0.68m deep with a possible gulley at the base. It had gently sloping sides and a flat base with a pointed gulley in the middle. It was filled with (61) a dark brown sandy clay loam which produced a fragment of kiln lining, a fragment of burnt clay, six reddened flints, charcoal, two iron nails and 16 sherds of Roman pottery. The pottery consisted of one Grog-tempered sherd, one New Forest Greyware, five Q3 including a bead rim, six Sandy sherds and three of Vectis ware.

7.3.3.12 Pit 147 (fig 31)

Pit [147] lay 2.16m to the south-east of [60] and was oval in plan and shallow. It was 0.30m wide, 1.0m long and 0.14m deep and filled with (148) a brown silty clay containing burnt clay, kiln lining, burnt flint and worked flint. Twelve sherds of Roman pottery were recovered; two of BB1, two from a North Gaulish whiteware flagon, seven grog-tempered sherds, one Vectis ware sherd with an internal residue, and two sherds of Q3.



Figure 31. Plan of pits at south end of Trench 11 and their relationships to ditches & hearths.

7.3.3.13 Pit 131 (fig 31)

Pit [131] cut the south end of pit [147]. It was sub-circular in plan, 0.70m wide, 0.90m long and 0.25m deep. It was filled with (132) a dark brown silty clay loam. No finds were recovered from excavation of this feature, but the two soil samples recovered an iron nail, three sherds of Vectis ware, one Grog-tempered sherd and one sherd of Q3.

7.3.3.14 Pit 187 (fig 31)

Pit [187] was situated 4.2m to the south of ditch [41] half a metre from the west edge of ditch [43]. It was circular in plan, 1.30m in diameter and 0.51m deep. It had vertical sides and a flat base. It was filled by (188) a very dark brown silty clay containing common gravel inclusions, a Roman brick fragment with a signature mark, burnt flint, a Dressel 20 amphora sherd, a grog-tempered storage jar fragment and a sherd of Q3.

7.3.3.15 Pit 56 (figs 31 & 32).

Pit [56] was situated 0.8m south-west of pit [187]. It was circular shape in plan, 2.50m in diameter and 1.0m deep. The edges were initially steeply sloping at the top becoming almost vertical near the base which was flat (fig 32). It contained two fills. The bottom fill, (109) was 0.62m deep and a dark brown silty clay loam containing lenses of a dark yellow brown gravel. Above this was fill (57), which was a 0.34m deep deposit of dark brown silty clay loam containing three sherds of BB1 and one sherd of grog-tempered pottery.



Figure 32. Quarter section 28 through pit 56.

7.3.3.16 Pit 172/39 (fig 31)

Pit [172] lay 2.4m south of ditch [174]. It was sub-circular in plan, 1.30m long and 1.07m wide. It was filled with (173) a dark brown silty clay loam which was not excavated. It was probably the same feature as [39] fill (40) which lay above it. Feature [39] covered a larger area than pit [172] being some 3.40m long and 1.85m

wide. Fill (40) contained a brown silty clay loam containing nine sherds of Roman pottery and building material. It was either the top fill of pit [172] or a layer slumping into it. Finds from this were Roman brick, 14 tegula, five sherds of grog-tempered pottery, two everted rim sherds in fabric Q1, and a fragment of a Q3 bead rim jar.

7.3.3.17 Pit 168 (fig 31)

Pit [168] lay west of ditches [37] and [170] and 2.4m south-east of [172/39]. It was dish shaped in profile, 1.05m long and 0.65m wide, oval in shape and fairly shallow. It was filled with (169) a brown silty clay loam with charcoal flecks containing fragments of Roman brick, burnt flint, and a fragment of animal rib. The pottery consisted of 21 Grog-tempered sherds, mainly from an everted rim jar but one sherd from a flanged rim bowl, two New Forest greyware sherds, and one Q3 sherd. The bone fragment was the only fragment of unburnt bone to be recovered from the site, so it may have been modern contamination.

7.3.3.18 Pit 14 (fig 31)

Pit [14] was 5.7m to the south of pit [168]. It was sub-rectangular, shallow with almost vertical sides, 1.25m long, 0.60m wide and at least 0.10m deep. It was not bottomed. It was filled with (15) a dark brown silty clay loam containing Roman brick, a ceramic kiln furniture fragment, an iron knife blade, three grog-tempered sherds, three everted rim sherds in BB1, and 17 sherds of Rowland's Castle ware. This was the only feature on the site that contained Rowland's Castle ware.

7.3.3.19 Pit 35 (fig 31)

Pit [35] was situated 4.2m to the south-east of pit [14]. It was 2.50m long and 1.84m wide with very indistinct boundaries but was roughly oval in shape. It was filled with (36) a brown silty clay containing chalk flecks. Heavy cleaning produced burnt clay, Roman brick, burnt flint and 16 sherds of pottery. The pottery consisted of six New Forest greyware sherds, four sherds of BB1, two sherds of Samian, one sherd of grog-tempered ware, two sherds of Q1, one a pedestal base and the other a flanged bowl, and a sherd from a New Forest stoneware colour coat indented beaker.

7.3.4 Post-holes

There were 31 post-holes recorded in trench 11. The majority of these were found towards the north end of the site. Two post-holes [126] and [162] lay to the west of ring ditch [120]. The most intense area of structural activity was between ditches [122] and [156] where 19 post-holes ([70], [76], [78], [87], [97], [99], [101], [103] [105], [107], [114], [130], [138], [141], [143], [145], [150], [152], [154]) were recorded. This covered an area some 21m by 9.3m and must represent more than one structure; no clear structures could be seen in plan. South of ditch [156], between it and ditch [41] lay five post-holes [50], [62], [64], [185] and [225] covering an area some 10.4m by 5.0m, but not forming an obvious structure. Post-hole [185] cut north-south ditch [43] (fig 33). Three post-holes ([17], [33], and [181] lay between ditches [174] and [164]. These lay in a roughly straight line some 16m in length but are unlikely to have been from the same structure. Two post-holes [31] and [58] lay to the south of ditch [164], to the west of ring ditch [25] (fig 37).

The post-holes will be described from north to south.

Post-holes [126] and [162] lay to the north of ditch [124] and west of ring ditch [80/120]. Post-hole [126] was a sub-circular feature, 0.40m in diameter, filled with (127) a dark brown sandy silt loam. Post-hole [162] lay 1.62m to the southwest. It was sub-circular in plan and 0.35 in diameter. It was filled with (163) a very dark brown silty clay loam. No finds were recovered from either post-hole.



Figure 33. Post-holes and beamslot in the northern half of Trench 11.

Post-hole [114] was situated 0.32m south of ditch [122] some distance away from any of the other post-holes. It was circular in plan, 0.25m in diameter, but was not excavated. It was filled with (115) a brown sandy clay loam. Cleaning produced fragments of burnt clay, burnt flint and a sandstone whetstone.

Post-hole [138] was circular in plan, 0.23m in diameter and filled with (139) a very dark brown stony sandy silt loam.

Post-hole [152] was situated 1.21m to the south-west of [138]. It was sub-circular and 0.22m in diameter. It was filled with (153) a dark brown sandy silt loam.

Post-hole [160] was situated 1.30m south-west of post-hole [152]. It was sub-circular and 0.19m in diameter. It was filled with (161) a very dark sandy silt loam.

Post-hole [154] lay 1.40m east of [152] very close to the east edge of the site. It was shallow, dish-shaped and sub-circular in plan, measuring 0.50m long, 0.43m wide and 0.09m deep. It was filled with (155) a dark brown stony sandy silt loam.

Post-hole [150] lay 1.40m to the south of [154]. It was sub-circular in plan, 0.24m in diameter and filled with (151) a greyish brown sandy silt loam.

Post-hole [103] lay 0.25m from the eastern edge of the trench. It was sub-circular in shape, 0.40m in diameter and filled with (104) a very dark brown stony sandy silt loam containing rare flecks of charcoal fragments. Cleaning produced two fragments of pottery; one Vectis ware and the other Q1.

Post-hole [101] was approximately 1.0m to the west of [103]. It was sub-circular in shape, 0.36m wide by 0.46m long. It was filled with (102) a very dark brown sandy silt loam containing very rare flecks of charcoal. Cleaning produced burnt flint and five fragments of pottery; four Vectis ware and one Q1.

Post-hole [145] lay 2.4m to the west of [101] and was sub-circular 0.30m in diameter and 0.13m deep with gently sloping sides to a rounded base. Its fill (146) was a very dark brown gravelly silt loam. No finds were recovered.

Post-hole [105] lay 0.57m to the west of [145]. It was circular in shape, 0.34m in diameter and 0.14m deep with steeply sloping sides and a flat base. It was filled with (106) a brown silty clay loam containing two fragments of pottery. One was a grog-tempered sherd and the other a sherd of Q1.

Post-hole [107] lay 3.0m west of post-hole [105]. It was sub-circular in shape, 0.27m wide, 0.38m long and 0.22m deep (fig 34) with steeply sloping sides to a pointed base. It was filled with (108) a dark brown sandy silt loam containing two fragments of briquettage and three fragments of pottery: one Q1 and two fragments of a North Gaulish Whiteware flagon.

Post-hole [141] lay only 220mm to the south of [107] and was probably associated with it. It was sub-circular, 0.60m wide, 0.68m long and 0.30m deep with steep edges and a rounded base (fig 35). It was filled with (142) a stony, dark brown sandy silt loam which contained two fragments of mottled burnt clay, a fragment of kiln lining, a burnt flint, an iron nail and four fragments of Roman pottery. The pottery consisted of one sherd of Q1 with lattice decoration copying BB1, two South Gaulish Samian sherds and one sherd form a North Gaulish Whiteware mortaria. The burnt clay and kiln lining suggest this features dates to the late Roman period.



Figure 34. Section through post-hole 107.



Figure 35. Section through post-hole 141.

Post-hole [99] lay 1.35m south of post-hole [101]. It was sub-circular in plan, 0.40m wide by 0.48m long and 0.20m deep, with steeply sloping, almost vertical, sides and a flat base. It was filled with (100) a dark brown sandy silt loam containing rare charcoal inclusions; one sherd of Q1 pottery was recovered.

Post-hole [97] was sub-circular in plan, 0.40m long and 0.34m wide. It was filled with (98) a dark brown sandy silt loam. It was cleaned and recorded but produced no finds.

Post-hole [143] was situated 1.42m south-west of post-hole [97], close to the west edge of the trench. It was sub-circular in plan 0.23m wide, 0.29m long and 0.10m deep with steeply sloping sides dropping to a rounded base. It was filled with (144) a brown sandy silt loam containing rare flecks of charcoal. Although it was half-sectioned it produced no finds.

Post-hole [78] lay 2.5m south of [143]. It was sub-circular in plan, 0.25m in diameter and at least 0.10m deep. It was filled with (79) an iron-panned, dark brown, sandy clay loam. Finds included burnt flint, a Bembridge limestone beach pebble, oolitic limestone, ironstone, and two fragments of Roman pottery. The pottery consisted of two sherds of Q1, one with lattice decoration.

Post-hole [76] lay 1.1m southeast of [78]. It was oval in plan, 0.55m wide and 0.65m long and at least 0.2m deep. It was investigated but not bottomed. It was filled with (77) a dark brown sandy clay loam containing rare charcoal and green clay inclusions (fig 36). It contained 24 large fragments of Purbeck limestone rubble and 14 Roman brick fragments, probably post-packing material. The pottery consisted of two grog-tempered sherds, two Q3 sherds and three Vectis ware sherds.



Figure 36. Pre-excavation photograph of post-hole 76.

Post-hole [87] was 6.2m to the east of [76] close to the northeast edge of the trench. It was sub-circular in plan, 0.035m wide and 0.40m long, filled with (88) a dark brown silty clay loam. It was cleaned and recorded but produced no finds. It may have been associated with beamslot [85].

Post-hole [70] was sub-circular in plan, 0.34m in diameter, and filled with (71) a dark brown sandy clay loam.

Post-hole [130] was situated 0.16m to the west of [70] and slightly to the north of it. It was sub-rectangular in shape, 0.19m long and 0.16 wide filled with (137) a brown silty clay loam.

Post-hole [64] lay 3.6m to the south-east of ditch [156]. It was a rather shallow feature, sub-circular in plan, 0.32m in diameter and 0.11m deep with sloping sides and a rounded base. It was half-sectioned and found to contain fill (65) a dark brown sandy clay loam which contained large flints at the base, probably post-packing.

Post-hole [62] lay 0.85m south-west of post-hole [64]. It was 0.63m wide and 0.50m long and 0.2m deep, sub-circular in plan with an irregular base. It was filled with (63) a dark brown sandy silt loam containing charcoal inclusions and a concentration of burnt flint. No other finds were recovered.

Post-hole [185] was 3.6m to the east of [64] cutting through ditch [43]. It was oval in plan, 0.21m wide and 0.27m long. It was filled with (186) a very dark brown gravelly silt. The feature was sampled but not bottomed. Finds consisted of a nail head and 17 pottery sherds. The pottery consisted of one grog-tempered sherd, a sherd of a New Forest greyware, one sherd of Lyon ware colour coat, four sherds of Vectis ware, three sherds of Q1 including an everted rim, two flint-tempered sherds, one of which was a bead rim, and five sherds form a BB1 dish.

Post-hole [50] was almost triangular in plan, up to 0.8m long and 0.52m wide. It was filled with (51) a yellowish brown silty clay loam.

Post-hole [225] lay 2.5m south-east of [50], immediately north of ditch [41]. It was oval in shape measuring 0.64m by 0.53m. It contained fill (226) a dark brown silty clay loam.

Post-hole [181] lay 2.0m south of east-west ditch [174] some 0.56m west of northsouth ditch [43]. It was sub-circular in plan, 0.57m in diameter, and filled by (182) a brown silty clay loam. No finds were recovered.

Post-hole [17/166] lay 9.0m to the south of post-hole [181]. It was sub-circular in plan, some 0.56m in diameter and filled with (167/18) a brown silty clay loam containing frequent charcoal. Finds from cleaning were an iron nail, and two Roman pottery sherds; one Q1 and the other a BB1 sherd from an everted rim jar.

Post-hole [33] lay 6.25m south and slightly east of [17/166] to the north of ditch [164]. It was sub-circular, 0.20m in diameter and filled with (34) a dark brown silty clay loam containing red burnt clay.

Post-hole [31] lay 1.5m west of ring ditch [25]. It was sub-circular in plan, 0.36m wide, 0.40m long and 0.09m deep with sloping sides and a flat base (fig 38). It was filled with (32) a mixed brown soil, greenish brown/light green clay and reddish burnt clay. It contained daub, burnt flint and kiln lining. It produced one sherd of Q3.

Post-hole [58] lay 2.15m to the south of [31] west of ring ditch [25]. It was sub-circular in plan, 0.50m in diameter and 0.10m deep. It was filled with (59) a mix of brown silty clay loam and pale green, orange, and dark reddish clay. It contained fragments of burnt clay, kiln lining, one sherd of sandy pottery and one of sherd of grog-tempered pottery.



Figure 37. Plan of post-holes in southern area of trench 11.



Figure 38. Section through post-hole 31.

7.3.5 Beamslot

Beamslot [85] was situated in the middle of trench 11, very close to its southeast edge. It was approximately 0.25m wide and 0.70m long. It was filled with (86) a dark brown sandy silt loam and its edges which were very indistinct, were mottled with orange brown top soil 84 laying around.

7.4 UNDATED DITCHES & POST-HOLES

7.4.1 Undated Ditches and post-holes in Trench 13

Several ditches and pits were recorded in Trench 13. None of contained dateable finds.

7.4.1.2 Ditch 304 (fig 39)

Ditch [304] was the most southerly of the ditches in Trench 13. It ran in a northeasterly to south-westerly direction across the eastern half of the trench from the eastern edge to the middle of the trench for 5.0m where it terminated. It was approximately 0.65m wide and at least 0.10m deep. It was filled with (305) a very dark brown silty clay loam containing abundant charcoal inclusions.

7.4.1.3 Ditch 301(fig 39)

Ditch [301] lay some 9.25m to the north of, and parallel to ditch [304]. It was 0.85m wide, 0.24m deep and at least 11.0m long. It was filled with (302) a dark brown silty clay loam, 0.24m thick.

7.4.1.4 Ditch 306 (fig 39)

Ditch [306] lay 77.5m to the north of [301]. It was orientated north-west – south-east and ran across trench 13. It was relatively shallow with U-shaped sides, 1.70m wide, 0.22m deep and at least 10.0m long. It was filled with (307) a brown silty clay loam containing stone rubble.

7.4.1.5 Ditch 310 (fig 39)

Ditch 310 was 25.5m north of and roughly parallel to [306] in the northern part of trench 13. It was aligned northwest – southeast and was 2.50m wide, 0.41m deep and at least 18.0m long. It cut feature [308]. The edges were gently sloping to a flat base. It was filled with (311) a brown silty clay loam containing a flint flake which was probably residual.

7.4.1.6 Ditch 314 (figs 39 & 40)

Possible ditch [314] was situated in northern part of trench 13, 1.5m north of ditch [310] and parallel to it. It was a narrow small feature, 0.50m wide by 0.18m deep and about 2.20m long, aligned northwest – southeast. The sides were gently curved and the base was rounded. It was filled with (315) a greyish brown silty clay loam containing charcoal.



Figure 39. Features in Trench 13.



Figure 40. Section through Ditch 314.

7.4.1.7 Post-holes 321 & 323 (fig 39)

Two post-holes [321] and [323] were found at the southern end of trench 13. They lay 8.0m apart. Both were oval in plan. Post-hole [321] measured 0.20m by 0.16m by 0.08m deep with steep sides and a rounded base. It was filled with (322) a very dark brown silty clay loam containing abundant charcoal inclusions. Post-hole [323] was 0.30m by 0.23m by 0.04m deep. The base was flat. It was filled with (324) a very dark brown silty clay containing abundant charcoal.

7.4.2 Undated Ditch in Trench 16

7.4.2.1 Ditch 542 (fig 41)

Ditch [542] was situated halfway along trench 16. It was orientated roughly east-west, and terminated halfway across the trench. It was 0.60m wide and at least 6.0m long. The edges were U-shaped, the base was concave. It was filled with dark brown silty clay loam, context 543.

7.5 POST-MEDIEVAL DITCHES IN TRENCHES 14 & 15

Several ditches were found in trenches 14 and 15 which could be dated to the postmedieval period.

7.5.1 Ditches Trench 14

Two ditches were present at the southern end of trench 14.

7.5.1.1 Ditch 601(fig 42)

Ditch [601] was situated in the south end of trench 14, 31.5m southeast of ditch [603]. It was orientated northeast-southwest, some 3.0m wide and at least 16.0m long. It was filled with (602) a yellowish brown silt clay loam which contained two fragments of post-medieval brick.

7.5.1.2 Ditch 603 (fig 42)

Ditch [603] was situated north of ditch [601]. It was orientated northwest-southeast, was some 0.75m wide and was at least 27.0m long. It was filled with (604) a yellowish brown silty clay loam containing a fragment of post-medieval brick and a fragment of post-medieval roof tile.



Figure 41. Ditch 542 in Trench 16.

7.5.2 Ditch in Trench 15

7.5.2.1 Ditch 501 (figs 43 & 44)

Ditch [501] ran north-south along trench 15. It was 2.20m wide and at least 200m long and 0.65m deep. The edges were sloping steeply and the base was flat. It was filled with (502) a dark grey brown silty clay loam containing a fragment of Tudor brick.

7.5.2.2 Ditch 503 (fig 44)

Ditch [503] ran 3.0m to the west of ditch [501] at the south merging with it 47.0m to the north. It was 1.10m wide, at least 85m long and 0.30m deep. The west edge was straight while the east edge was very irregular. The base was flat. It was filled with (504) a very dark brown silt containing gravel inclusions close to the base of the feature. No finds were recovered but its association with other features in the trench suggest a similar date.

7.5.2.3 Ditch 539 (fig 44)

Ditch [539] ran parallel to [501] 2.0m to the east of it for 13.5 m just north of east-west ditch [537]. It was 1.0m wide, at least 13.5m long and at least 0.07m deep. It was filled with (540) a dark brown silty clay loam.







Figure 43. Section 32 through ditch 501.



Figure 44. Features in Trench 15.

7.5.2.4 Ditch 537 (fig 44)

Ditch [537] was southeast of feature [539]. It ran north-east – south-west across the trench and was 1.10m wide and at least 10.0m long. The north edge sloped very gently while the south sloped steeply to a flat base. It was filled with (538) a dark brown silty clay loam. It met ditch [501] but a clear relationship could not be seen; the ditches may therefore be contemporary.

7.5.2.5 Ditch 535 (fig 44)

Ditch [535] was parallel to [537] some 105m to the north of it in the northern part of trench 15. It was 1.5m wide and at least 15m long. It was filled with (536) a very dark brown silty clay loam containing a fragment of post-medieval roof tile. It was cut by ditch 503 and 501.

7.5.2.6 Ditch 533 (fig 44)

Ditch [533] was parallel to [535] 5.0m to the north of [535]. It was a northeast – southwest orientated feature which ran from the western edge of the trench for 7.70m where it terminated. It was 1.30m wide, 7.7m long and 0.16m deep with concave edges and a flat base. It was filled with (534) a very dark brown silty clay loam containing post-medieval pottery (one coarse sandy, one Verwood), and fragments of brick, perhaps late medieval or early post-medieval.

7.5.2.7 Ditches [510] and [524] (fig 44)

Two small linear features, found to the east of ditch [501], were probably the remnant of other east-west ditches but may have been tree throws. [510] lay some 12.0m to the north of [533] and [524] 7.5m north of that.

Ditch/tree throw [510] was situated in north-eastern part of trench 15. It was orientated northwest-southeast 0.90m wide and at least 4.70m long. It was filled with (511) a very dark brown silty humic soil.

Ditch/tree throw [524] was situated in north-eastern part of trench 15. It was orientated northwest-southeast 0.50m wide and at least 2.50m long. It was filled with (525) a very dark brown silty-humic soil.

7.6 TREE AND ROOT DISTURBANCE

7.6.1 Tree throws in Trenches 1, 11, 13 and 15.

A number of tree throws and root disturbances were identified, particularly in trench 15, but also in trenches 11 and 13.

These were numbered [3], [304], [505], [507], [510], [512], [514], [516], [518], [520], [522], [524], [526], [528] and [531].

A boat-shaped feature [3] was observed in trench 1. It was orientated northwest – southeast. It was 1.20m wide, 3.0m long and 0.05m deep and contained three fills. The bottom fill (4) was a black, decomposed wood occurring mostly on the south side of feature. Fill (5) was grey brown (10YR 4/1) silty clay loam which occurred only on north feature side. Fill (6) was above fill (4). It was dark orange brown (7.5YR 4/6) stony silty clay loam, observed mainly in east end of the feature. Its relation with fill (8) was not established. Feature [3] cut through layer 7. No finds were recovered and this was probably a tree throw.

7.6.1.3 Tree throws Trench 13 (fig 39)

Tree throw [308] lay in the northern part of trench 13. It was sub-rectangular in plan, 2.10m wide by 2.80m long and 0.27m deep. The edges were gently sloping and the

base was flat. It was cut by ditch [310]. It was filled with (309) a dark brown silty clay loam containing charcoal.

Tree throw [312] lay just to the north of ditch [310]. It was oval in shape measuring 1.46m by 0.96m and 0.07m deep. It contained (313) a dark brown silty clay loam containing charcoal inclusions.

Tree throw [316] lay 4.0m to the north of ditch [310] It was sub-rectangular in shape measuring 1.83m by 1.10m and 0.20m deep mainly concentrated around an area of charcoal where it was deepest.. It contained two fills (317) a dark brown silty clay loam containing charcoal, above (320) a grey silt loam.

Tree throw [318] lay at the northern end of trench 13, 9.5m north of [316]. It was a shallow, sub-rectangular feature, 0.88m wide by 3.20m long and 0.06m deep. The edges were sloping at a gentle angle and the base was flat. It was filled with (319) a very dark brown silty clay loam containing charcoal.

7.6.1.4 Tree throws in Trench 15 (fig 44)

Tree throw [505] was situated in the north-eastern part of trench 15. It was 0.9m wide and 3.0m long. It was filled with (506) a very dark brown silt.

Tree throw [507] was situated in the north-eastern part of trench 15. It was subcircular shape in plan, at least 1.20m wide and 4.9m long, filled with two fills. The bottom fill was (509), a grey brown and pale silty clay loam containing abundant gravel. Above it was fill (508), a very dark brown silt.

Tree throw [531] was found at the north end of trench 15. It was irregular in shape and at least 1.5m by 2.5m in plan. It contained (532) a very dark brown silt.

Tree throws [506], [508], [514], [516], [518], [520] and [522] were recorded but not planned.

7.7 MODERN

7.7.1 Ditch & bank 545 Trench 16

Ditch and bank 545 was situated in trench 15 and were aligned northeast-southwest. The ditch was filled with (546) a brown silty clay loam and contained modern rusted iron. The bank consisted of re-deposited natural soil.

7.7.2 Topsoil

Topsoil 1 was a dark brown silty clay loam some 0.30m thick. It contained common stone inclusions.

7.7.3 Soil/rubble spread

Spread 544 was situated in the middle of trench 15. It was large, diffuse spread of soil, at least 35.0m long and 12.0m wide (in the widest point), containing fragments of early modern/modern brick fragments with cement mortar adhering.

8. CONCLUSIONS

Much of the area stripped for the pipeline construction did not disturb archaeology. At the north end of the site field ditches and tree throws were found. Some of the ditches contained post-medieval finds but most were undated.

The project produced a small assemblage of prehistoric worked flint with few diagnostic pieces. Most flints were residual in later contexts or were unstratified. Probably the assemblage represents a range of activities over a long period of time. The material includes a Mesolithic core and later prehistoric pieces.

The pipeline strip crossed the supposed line of Roman road Margary 423 (Fig 45) (Clarke 2003) but no side ditches were seen. Other parts of the Roman road to the north were built on a raised embankment, and side ditches were perhaps not utilised in its construction.

In the area south of Stanswood Road and east of Stone Farm there was a concentration of Roman features in Trench 11. The east and west limits of the Roman activity were not established within the 10m wide trench, but the north and south limits of the occupation were found. In the field to the west of the stripped area a number of ditches are visible on aerial photographs (fig 45) and one ditch, feature 114, can probably be related to the ditches seem from the air, suggesting they date from the Roman period.

The Trench 11 evidence included a trackway, a rectilinear field system, and two ring ditches. The trackway was delineated by a pair of parallel ditches which contained finds of the late 2nd or early 3rd century AD. The field system lay to the north of the trackway, where a series of rectilinear fields, from 12m to 25m across, was found. There was evidence of ditches filling and being re-cut. Given the loose sandy nature of the soil this may not necessarily point to long use of the fields. The rectilinear ditches do not show on earlier air photographs.

Two ring ditches were located, one at each end of the area of Roman occupation. They may have marked gullies around circular houses but no structural evidence was found inside them. The southern ring ditch was undated while the northern ring ditch was late Roman.

Nine kilns or hearths were found across the site. Four were not excavated and were only cleaned and planned, so their function cannot be conclusively said to be kilns, but their similarity in plan to the definite excavated kilns, and the burnt material recovered from their cleaning have encouraged their interpretation as kilns. From the pottery recovered all appear to have dated from the late Roman period, and they probably were used to produce grog-tempered pottery.



Figure 45. The Roman settlement and road at Lepe.

At the southern end of the site, on higher land overlooking the Solent Roman evidence was sparse but flint cores and flakes point to Mesolithic and later activity. Similar material has been found in this area previously, and this area seems to have been a focus for prehistoric activity over a long period.

The archaeological work associated with the Cross-Solent Pipeline has thus produced important new evidence, particularly in relation to Roman occupation on the south coast of Hampshire. The Ordnance Survey has downgraded Margary Roman Road 423 from a road to a linear earthwork (Clarke 2003, passim) but this latest phase of archaeological work for the Cross-Solent Pipeline has shown that the road is aligned on an area that has produced evidence of Roman activity from the first to the fourth century.

The narrow strip through the site has provided an opportunity to locate the settlement. Previous finds of Roman artifacts point to the extent of that settlement. Figure 45 shows the road line (29936), the ditches to the west of the pipeline area and find spots of archaeological material as follows: 29943 Roman coins; 29939 undated silver coin; 29944 Roman fibula brooch; 29942 2nd-3rd century Roman coins; 22338 shell midden and Iron Age pottery; 29933 Roman bronze phallic amulet; 29940 Roman ring with glass intaglio 2nd-3rd century; 29941 Roman silver coin 2nd century.

The settlement would therefore seem to be some 300m square, and straddles the strip of land between two small rivers along which Roman Road 423 ran to the sea. The road would have met the coast some 800-1000m south of the settlement (dependent on the rate of coastal erosion) and the settlement has produced evidence of coastal trade in stone, pottery, and ceramic building material. Any Roman port will have long since disappeared into the sea, but further work on this newly discovered settlement could provide important new evidence for trade and transport in Roman Britain.

9. ACKNOWLEDGEMENTS

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APPENDIX 1 SPECIALIST REPORTS

THE FLINT

By M Garner BA MIFA

Burnt Flint

Burnt flints, often referred to as 'pot boilers', show evidence of repeated heating and cooling, and are thought to have been used in a form of prehistoric cookery, although other uses are possible. Burnt flint is not intrinsically datable.

A total of 309 burnt flints weighing 2287g were recovered from the site (Table 1). This gives an average weight for a burnt flint of 7.4g. No burnt flints were recovered from soil samples. This is a relatively low quantity of burnt flint for a large site. Nearly all of the burnt flints came from features in T11: mainly from Roman features. The burnt flints from other trenches were from layers or were unstratified.

Trenches	0	1	11	14	All
Total number of fragments	2	1	300	6	309
Total weight (g)	3	9	2170	105	2287
Average weight (g)	1.5	9.0	7.2	17.5	7.4

Table 1: Quantities of burnt flint by trench

The most productive features (with over 200g) were ring ditch 25 (561g), kiln 110/112 (518g), and pit 133 (242g). All were Roman features. These and other features with burnt flint were scattered across the area of Roman activity in Trench 11 with no obvious concentrations. Not surprisingly, six of the nine kilns produced burnt flints but many of the ditches, pits, and post-holes also contained burnt flints.

The low quantity of material and the lack of concentrations make it difficult to interpret the presence of burnt flint in Trench 11. Some of the Roman activities such as the construction and use of kilns will have caused flints to be heated but it is possible that some of the burnt flints were residual prehistoric material.

Worked Flint

A total of 23 worked flints weighing 791g was recovered (Table 2). All came from normal excavated recovery with none from soil samples and the total includes five fragments that are not definitely the products of working. In addition to the worked flint, three flint cobbles (weighing 1325g) were recovered from kiln 194 in Trench 11.

Trenches	0	1	4	10	11	13	ALL
Cores		2					2
Flake tools	1			1	1		3
Flakes	2	5	1	1	3	1	13
All knapped flints	3	7	1	2	4	1	18
Uncertain fragments		4			1		5
All flints	3	11	1	2	5	1	23

Table 2: Quantities of worked flint by trench

All of the worked flints from Trenches 0, 4, and 10 were unstratified. The flints from Trench 1 were from subsoil layer 2, all from Trench 11 were from Roman features, and the single flake from Trench 13 was from undated ditch 310.

Both cores were recovered from subsoil layer 2 in Trench 1. One was a single platform, bladelet core of probable Mesolithic date. The other core was small (13g) and crude with flakes scars at 90°. The uncertain fragments were classified as bashed lumps and may have been crude or abandoned cores.

Three flake tools were recovered. A tertiary flake from Trench 1 had ancient edge damage and gloss patina and had been utilised. A tertiary flake from Trench 10 had ancient edge damage or retouch and had been utilised. A fragment of retouched blade came from Trench 11.

The flakes comprised 4 secondary flakes, 8, tertiary flakes, and 1 fragment. Two of the tertiary flakes had ancient edge damage and may have been utilised.

The raw material included water-worn pebbles/cobbles and the colour of the flint ranged from grey to brown.

Trench 1 produced 39% of the worked flints or 48% if the uncertain fragments are included. All were from subsoil layer 2. These flints were found in the vicinity of the late Neolithic pit that was investigated in 2008. The bladelet core is unlikely to be late Neolithic but the other pieces are not diagnostic and could be later prehistoric.

The project produced a small assemblage of prehistoric worked flint with few diagnostic pieces. Most flints were residual in later contexts or were unstratified. Probably the assemblage represents a range of activities over a long period of time. The material includes a Mesolithic core and later prehistoric pieces.

THE ROMAN POTTERY

By Dr A D Russel BA PhD MIFA

A total assemblage of 860 sherds weighing 13,481g was recovered. The sherds were divided into fabric types, and each type of pottery was counted and weighed by context. The fabrics are shown in Table 1, sorted in descending order of abundance.

Fabric	No of sherds	Weight in g
Grog-tempered	375	7238
Quartz 3	118	1070
BB1	108	986
Quartz 1	83	1152
Vectis Ware	46	493
Misc sandy	40	215
New Forest wares	22	150
Rowland's Castle	17	162

North Gaulish	13	308
Samian	13	230
Dressel 20 amphora	6	878
Oxford mortaria	5	225
Oxidised flagon	4	146
Whitewares	4	27
Flint-tempered	3	61
Quartz 2 Hammerhead	1	46
mortaria		
Colour coat	1	2
Lyon	1	2
	860	13391

Table 1: The Pottery Fabrics

The fabrics can be divided into imported, non-local, and local types. The imports consisted of North Gaulish wares, Samian, Dressel 20 amphora, whitewares of unknown origin, and Lyon ware. The non-local fabrics were BB1 from the Poole area, Rowland's Castle Ware from the Hampshire-Sussex border, Oxford ware, an oxidised flagon of unknown origin, a mortaria of unknown origin, and a colour coat beaker of unknown origin. The local fabrics were Grog-tempered ware, Quartz 3, Quartz 1, Vectis ware, miscellaneous Sandy wares, New Forest wares, and flint-tempered wares. Each category will be discussed in turn.

Imported wares

The imports comprised some 4.5% of the assemblage. The North Gaulish wares consisted of flagons and mortaria, the whitewares of unknown origin were probably butt beakers, the Lyon ware sherd probably comes from a small bowl. These types are typical of 1st century assemblages in southern Britain. Some of the Samian sherds are South Gaulish products, of the 1st century, but others date from the second half of the 2nd century, including a Walter's 79 dish and a Dr 37 bowl of the potter Paternus, probably AD 145-190. The sherds from Dressel 20 amphorae, used to import olive oil from southern Spain, come from probably two vessels, and exhibit traits of the later vessel types, and are probably 2nd to mid 3rd century in date.

Non-local wares

Non-local wares comprised 16.5% of the total assemblage. The largest component, 108 sherds, was the products of the Black Burnished ware industry of the Poole Harbour/Wareham region, some 50km to the west. Sea transport is the most likely way for these products to have reached Lepe. Sea transport is also the likely method by which products of the Rowland's Castle kilns, represented by a single vessel from pit 14, reached the site. The Rowland's Castle kilns are 50km to the east of the site. The Oxford mortaria probably travelled overland, some 130km as the crow flies, but a waterborne route, via London is a possibility.

Local wares

The local wares, which form 79% of the assemblage, can be divided into wares of the early Roman period AD c50-250, and later wares AD 250-400. The earliest wares are probably the three flint-tempered sherds and the coarse sandy bead rim jars of fabric Quartz 3. These fabrics were probably superseded by vessels in finer sandy fabrics

such as Vectis ware and Quartz 1, both having vessel forms based on the widely traded BB1 industry of the 2nd and 3rd centuries. Vectis ware was produced at a number of small potteries on the Isle of Wight, and links with the Island were probably quite strong, Lepe being the closest point on the mainland. Forms include bowls and jars, and internal residues suggest they were used for cooking food. Fabrics Quartz 1 and Quartz 3 are similar in forms and fabric to the true Vectis ware, and both also may have been Island products. If so the majority of the pottery used on the site in the 1st and 2nd centuries was brought from the Isle of Wight.

The later period is marked by the presence of products of the New Forest kilns, including colour coated, greyware and parchment ware products, all in small amounts and only totalling 22 sherds. This is a low level considering the kilns, which formed one of the major pottery manufactories in Roman Britain, lay only some 30km away. The major ware of the late Roman period however consists of Grog-tempered ware, which comprised 42% of the total assemblage, and probably formed over 80% of the late Roman assemblage. Forms consist of flat-rimmed bowls and jars, which range from small vessels to very large storage jars with thickened rims. The high amounts of Grog-tempered wares are probably due to the site being a manufactory in the late Roman period, with at least four kilns and a number of hearths/areas of burning. Lyne has argued that much of the grog-tempered wares in southern Hampshire had their origin in the salt-producing sites around the north coast of the Isle of Wight, with briquettage being crushed to make the grog (Lynne 2007). The Lepe site did not produce much briquettage, and the grog is very similar to the burnt clay and kiln lining from the kilns, which seems a more obvious source for a potter than the crushing up of salt-making vessels.

Discussion

The pottery suggests limited activity in the early Roman period, with more intensive occupation after AD 250, marked by grog-tempered wares and New Forest wares.

The nearest site with a comparable pottery assemblage is at Holbury School, some 4.5km to the northwest. The main phases of occupation there was also in the later Roman period and the three main fabrics were grog-tempered ware, undifferentiated sandy wares, and BB1 (Collings 2008, 19). The New Forest wares formed a much higher percentage, some 6%, than at Lepe 1%.

There is a strong probability that the Late Roman Grog-tempered wares were produced on the site. Six out of the eight kilns contained sherds of grog-tempered ware, and spalled and near-vitrified sherds were found on the site, possibly wasters. The Lepe site would fit certainly fit geographically the known distribution of grogtempered ware in Hampshire, and the coastal location of the kilns would explain its presence at sites such as Portchester and along the Sussex coast.



Figure 46. The distribution of Grog-tempered pottery as of 2004. (Tyers 2004)

THE STONE

By Dr AD Russel BA PhD MIFA

Stone was found in the form of whetstones, quernstones and rubble.

Whetstones

Context 115. Post-hole in trench 11.

A small slab of iron rich sandstone probably picked up locally and utilised as a whetstone. The edges and flat surfaces show signs of use. Sarsen and other erratics can be picked up from the Quaternary beach deposits around the Solent and Chichester areas (Cordiner 2006).

Context 123. Ditch in trench 11.

A shattered fragment, from a whetstone possibly of bar shape. The fabric is a hard quartzite and may have been a pebble picked up from local Quaternary beach deposits. One surface shows signs of use.

Querns

Querns in lava, greensand and gritstone were recovered from Roman contexts.

<u>Lava</u>

Context 136. Pit in trench 11.

A fragment of lava quern, now in many small fragments. No surfaces present. Lava querns imported from Germany are a common type in Roman Hampshire and the Isle of Wight (Tomalin 1987, 85).

<u>Greensand</u>

The greensand quern fragments were all found in the backfill of kiln 194 at the north end of trench 11. all were burnt and shattered and probably formed part of the kiln structure. The Greensand querns are in Lodsworth stone or other greensands. Lodsworth Greensand has a distinctive lithology and has been sourced to a West Sussex quarry that was a major supplier of saddle and rotary querns in the Iron Age and Roman periods (Peacock 1987). The other greensand querns did not have the distinctive root burrows of the Lodsworth Bed, and may have been quarried on the North Downs, or even on the Isle of Wight (Tomalin 1987, 85-7). One fragment shows re-use as a mortaria; similar examples of have been found on the rural site at Old Park Farm in Waterlooville, in southeast Hampshire where pottery mortaria were rare (Russel J forthcoming). The Holbury school site produced similar querns in Lodsworth stone (Collings 2008, 31).

Context 196.

Three fragments of quern (Item 12), probably from two separate stones. One has a worn surface.

Context 212.

A fragment of bottom stone of conical form (Item 9). Lodsworth stone.

Context 213.

Four fragments of a topstone (Items 13 and 15). The fragment was utilised as a mortaria, resulting in a hollow, before being burnt, causing it to shatter.

Context 213.

A fragment of probable bottom stone, with part of the spindle hole surviving (Item 11).

<u>Gritstone</u>

Context 220. Lining of kiln 194 A fragment of topstone in hard millstone grit (Item 10). Slightly reddened by burning.

Stone rubble

A total of 237 fragments of stone rubble was recovered, weighing 78.69kg. Most of the stone was recovered from kilns 27, 128, and 129, where it had been used as build the walls of the kilns. Stone rubble was also recovered from pits 110, 118 and 183, and from post-holes 78 and 76, where it may have formed post-packing.

The majority of the stone, 131 fragments weighing 64.32kg was Bembridge limestone, three fragments were in Quarr stone weighing 1.49kg, so the Isle of Wight stone totalled 65.82kg. Forty-nine fragments were of shelly Purbeck stone weighing 12.21kg. Fifty four fragments weighing 0.66kg were fragments of ironstone. This is naturally occurring and its presence in the Roman deposits is probably accidental. Most of the limestone rubble was rounded, and some bore marks of marine borers, suggesting that the stone was collected from beach exposures, rather than being quarried.

The 50% excavation of kiln 194 yielded 51kg from the kiln chamber that survived below the level of the natural gravel, so perhaps 200kg of stone would have been required to build a compete kiln. Large lumps of local ironstone 'doggers' can be found locally on beaches, but it was presumably simpler to obtain raw materials from known exposures of stone at a greater distance. The fact that the kiln builders sourced their stone from the Isle of Wight and Dorset reinforces the maritime trading aspect of the site, and suggests ready access to a sizeable vessel, either their own or perhaps that of a trading partner.

THE BURNT AND FIRED CLAY AND KILN FURNITURE.

By Dr A D Russel BA PhD MIFA

Burnt Clay

154 fragments of burnt clay weighing 1122g were recovered from the Roman features in Trench 11. Three-quarters of the fragments came from the kilns, and only kiln 80, which was left *in-situ* and unexcavated, did not produce any, so it is likely that this material formed part of the kiln structures. None of the fragments had wattle marks, so the kilns did not use such reinforcement. The majority of the fragments were amorphous lumps, low fired and quite soft. These were divided under the microscope into six fabrics.

Fabric	Wt in g	No of fragments
Silty clay and sparse	449	65
organic material;		
Coarse sand	335	28
Fine sand and sparse	157	34
organic material		
Pure clay red/grey	119	17
Headon Hill formation		
Pure clay buff/orange	6	6
Headon Hill formation		
Sandy clay	9	1
	1075	151

Table 1: Clay Fabrics

The most common fabric was a silty clay, possibly a brickearth, with added organic material, probably animal dung. The coarse sandy fabric was similar to the material used as lining for the kilns (see below). The fine sand and organic-temper fabric may have been the silty clay fabric with added sand. Two fabrics were badly wedged pure variegated clays taken from the Headon Beds which outcrop in the valley sides adjacent to the site and in the sea cliffs along the Solent shore to the south (West, I., and Talbot, K. website <u>http://www.southampton.ac.uk/~imw/Lepe-Beach.htm</u> accessed 29/08/2012).

Kiln Lining

The site produced 416 fragments of well-fired clay, most tempered with coarse sand, weighing 6,548g. The majority, 357 fragments weighing 6,135g came from the kilns, and all the kilns apart from kiln 80 (unexcavated) produced this material. Fragments were also recovered from ditches 43, 120, 122, 164, and 176; ring ditch 82; hollow 147; and post-holes 58 and 141, suggesting they date to the kiln period or later.

A number of the fragments exhibited surfaces with finger impressions and smoothing marks, some appeared to have been built up in layers, which had then de-laminated. Most fragments were in a clay tempered with coarse sand, with occasional flint pebbles. In kilns 128 and 194 the *in-situ* lining was in the coarse sand fabric. A few fragments of organic-tempered lining were recovered from kilns 23, 27, and 194, but

the majority of the lining from these three kilns was of the coarse sandy variety; possibly the organic-tempered material had been used in repairs to an earlier lining.

Kiln Furniture

Five small wedges of fired clay were recovered, two from kiln 27, one from ditch 122, and two from ditch 179. They were perhaps used in propping pots during the loading of the kilns. Two fragments of reduced brick-like ceramic objects in a clay tempered with coarse sand and organic material were recovered from ditch 21 and pit 14. Although neither came from a kiln they may have been kiln furniture.

THE ROMAN CERAMIC BUILDING MATERIAL

By Dr AD Russel BA PhD MIFA

Ceramic building material was found in the form of brick, roof tile and box flue tile, plus a number of unidentifiable fragments.

Brick

Seventy-two fragments of brick weighing 8.58kg were recovered. Most were 40mm thick and probably came from *lydion*, *pedalis* or *bessalis* tiles (Tomalin 1987, 100). Over half came from the fills of the kilns, where they had been used as rubble in the construction of the kiln walls. All the fragments were in a red fabric with white spots and streaks, indicating clays of the Reading Beds. The most common clay type at the Clausentum site in Southampton is Reading Beds, and it is thought that this material was manufactured at Curbridge, where the river Hamble crosses the road from Southampton to Chichester. The location of the kilns suggests the producers were taking advantage of seaborne transport.

Tegula

Forty-nine fragments of tegula were identified, weighing 2.54kg. About half were in Reading beds fabrics, the other fragments were from an unknown source. Tomalin has suggested tiles were made on the Isle of Wight from the brickearths near Comley Roman villa and this could be a possible source (Tomalin 1987, 98). About half the fragments at Lepe were recovered from the late Roman kilns.

Box Flue tile

A single fragment of box flue tile was recovered from pit 135. It is in a slightly streaky fabric so may be from a Reading Beds source. The tile was combed with a six-toothed comb, in a 'union jack' pattern.

THE IRON AND IRONWORKING RESIDUE

By Dr AD Russel BA PhD MIFA

Ironworking residue

A small plano-convex piece of dense iron slag weighing 53g was recovered from context 136. It is a small hearth-bottom formed during the smithing process, and represents a single phase, perhaps a day's work, of ironworking.

Iron artifacts

A fragment of a knife blade was recovered from pit 14. Nails were recovered from pits 17 and 60, ditches 37, 82 and 176 (two examples), post-holes 141 and 185, and kiln 194 (two examples). The nails were all fairly short, none longer than 50mm.

THE GLASS

By Dr AD Russel BA PhD MIFA

Three fragments of glass were recovered.

Context 2. Subsoil in trench 1.

The base of a tubular unguent bottle in bluish green glass, heavily abraded and with fresh breaks. There is a pontil mark on the base. A common type of Roman bottle commonly found in settlements and burials, and dated from the 1st to the 3rd centuries AD (Price and Cottam 1998, 169-171).

Contexts 52 and 53 Kiln in trench 11.

Two fragments of colourless glass with a slight greenish tint, distorted by heat. The surfaces and breaks have a 'frosted' appearance, apart from one small patch that is unabraded. Colourless glass was used extensively in the 2nd and 3rd centuries for good quality tableware (Price and Cottam 1998, 15-16).

THE ENVIRONMENTAL EVIDENCE

By Dr AD Russel BA PhD MIFA

The recovery of environmental evidence was an important part of the archaeological investigation, and 85 samples of soil, ranging from 5 to 53.5 litres, were taken from a 54 features. As part of the post-excavation process the potential of each sample was assessed, and samples from contaminated and insecurely-dated features were discarded. It was decided that the kiln features would have the greatest potential to preserve carbonised material and a 5 litre sub-sample from 20 soil samples from kilns and stokeholes were processed.

The samples were disaggregated with water and hydrogen peroxide to breakdown compact soil. Any floating material was collected on a 250 micron sieve and the residues were sieved to 1mm.

Most of the samples had modern rootlets, and the samples from kilns 23, 27/48 and 194 produced large amounts of modern fat hen (chenopodium album) and oilseed rape seed (Brassica napus), suggesting the loose sandy soils had been subject to a certain amount of bioturbation. The charred material consisted predominantly of fine wood charcoal, large fragments that could be identified to species were rare. Cereal grains were recovered from kiln 23, one example, and kiln 194, two examples. All three grains had exploded on carbonisation and were rye (*Secale cereale*) which would have been a suitable crop on the sandy soils in the locality. However rye is not thought to be a Roman crop, and was not widely grown until the late Saxon period, so these grains are also contamination.

BIBLIOGRAPHY

Clarke, A., 2003 The Roman Road on the Eastern Fringe of the New Forest. Hampshire Studies **58**.

Cordiner, R. 2006 *The Quaternary Geology of Chichester Harbour*. Geode Publications, Bognor Regis.

Collings M 2008 An Archaeological Watching Brief at Holbury Infants School, Holbury, Hampshire. Archaeology South East Report No.2008058.

Halcrow Group 2009 Cross-Solent Pipeline Cultural Heritage Desk Based Assessment.

Halcrow Group Limited, 2010: Scotia Gas Networks Cross Solent Pipeline – Hampshire Archaeological Written Scheme of Investigation for a Scheme of Archaeological monitoring and recording.

Lynne M 2007 Roman Wight http://thehumanjourney.net/pdf_store/sthames/iow%20Roman.pdf accessed 7/08/2012

Munsell Color, 2000: Munsell Soil Color Charts, Baltimore.

Ordnance Survey, 1975: *Geological Survey of Great Britain (England and Wales) - drift*. Sheet 330.

Peacock, D.P.S., 1987 Iron Age and Roman Quern Production at Lodsworth, West Sussex *The Antiquaries Journal* **67**

Price J, and Cottam S, 1998 Romano-British Glass Vessels, a handbook. CBA.

Russel, JI & Elliott GL 2008 *Report on an Archaeological Watching Brief at Lepe, Hampshire, A2008.96.* Southampton Archaeology Client Report for Scotia Gas Networks and Halcrow.

Southampton City Council Archaeological Unit. 2010 Scheme of Investigation for Archaeological work on the Cross-Solent Pipeline, New Forest National Park.

Tomalin D., 1987. Roman Wight: a guide catalogue. Isle of Wight County Council.