

98/19

**ARCHAEOLOGICAL FIELD EVALUATION (PHASE II)
LAND EAST OF LINWOOD ROAD, MARKET RASEN,
LINCOLNSHIRE**

Site Code: LRM97
LCNCC Acc No. 301.97
NGR TF 111 885
Planning Ref. 96/P/0397

Lincolnshire County Council
Archaeology Section

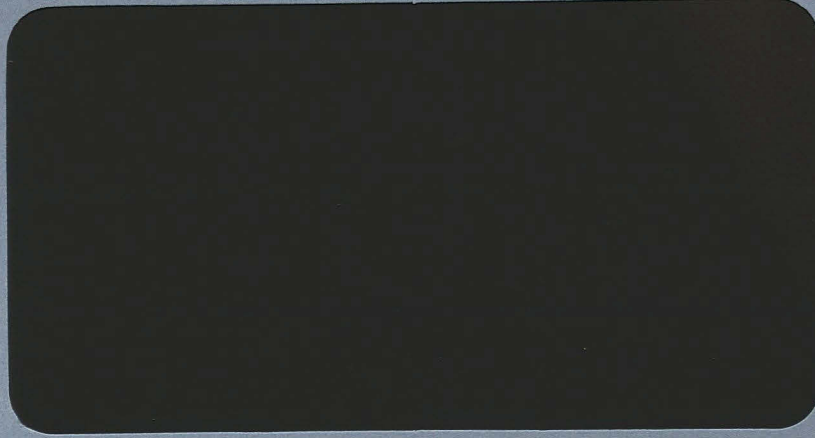
09 APR 98

12 Friars Lane

LINCOLN LN2 5AP

Tel: 01522 575292 Fax: 01522 575293

accepted 9/11/98



EWT 42161

SOURCES 416876 416877

52736

452736

52751

452751

52752

452752

**ARCHAEOLOGICAL FIELD EVALUATION (PHASE II)
LAND EAST OF LINWOOD ROAD, MARKET RASEN,
LINCOLNSHIRE**

Site Code: LRM97
LCNCC Acc No. 301.97
NGR TF 111 885
Planning Ref. 96/P/0397

Report prepared for Hugh Bourn Developments (Wragby) Ltd
by James Albone
March 1998

Pre-Construct Archaeology (Lincoln)
61 High Street
Newton on Trent
Lincoln
LN1 2JP
Tel. & Fax. 01777 228155

Contents

Summary	1
1.0 Introduction	2
2.0 Location and description	2
3.0 Archaeological background	2
4.0 The objectives of archaeological trenching	3
5.0 Methodology	3
6.0 Results	4
6.1 Trench 1	4
6.2 Trench 2	5
6.3 Trench 3	6
6.4 Trench 4	7
6.5 Trench 5	9
6.6 Trench 6	9
6.7 Trenches 7 and 8	9
6.8 Trench 9	9
6.9 Trench 10	9
6.10 Trench 11	10
6.11 Trench 12	10
6.12 Trench 13	10
6.13 Trench 14	11
6.14 Trench 15	11
6.15 Trench 16	11
7.0 Summary and conclusions	11
8.0 Acknowledgements	13
9.0 Appendices	13
9.1 Report on the Roman pottery by M Darling	
9.2 Report on the kiln fabric and kiln furniture by J Albone	
9.3 Report on the iron production slags by J Cowgill	
9.4 Report on the stone find by J Cowgill	
9.5 List of contexts	
9.6 References (main text)	
9.7 Colour photographs	

Illustrations

- Fig. 1** 1: 10,000 site location
- Fig. 2** Trench location plot (1:2500)
- Fig. 3** Plan and sections, Trench 1
- Fig. 4** Plan and sections, Trench 2
- Fig. 5** Trench 3, main section
- Fig. 6** Trench 3, plan and feature sections
- Fig. 7** Trench 4, main section
- Fig. 8** Trench 4, plan and feature sections
- Fig. 9** Trench 5, plan and feature sections
- Fig. 10** Trench 6, plan and section
- Fig. 11** Trench 11, plan and feature section
- Fig. 12** Trench 12, plan and feature sections
- Fig. 14** Trench 15, plans and sections

:

Summary

- * *An archaeological field evaluation took place on land off Linwood Road, Market Rasen, on a potentially important Romano-British pottery manufacturing and settlement site. The NGR for the site is TF 111 885.*

- * *Sixteen trenches were excavated to sample anomalies and blank areas detected by a topsoil magnetic susceptibility and magnetometer survey.*

- * *A wide range of archaeological features datable to the Romano-British period were identified during the evaluation. These included ditches pits and gullies. No kilns or furnaces were located, although copious amounts of associated debris were.*

- * *A large quantity of Romano-British pottery was recovered. Analysis of this has provided a new date range for the Market Rasen pottery industry from the mid 2nd to 4th centuries AD.*

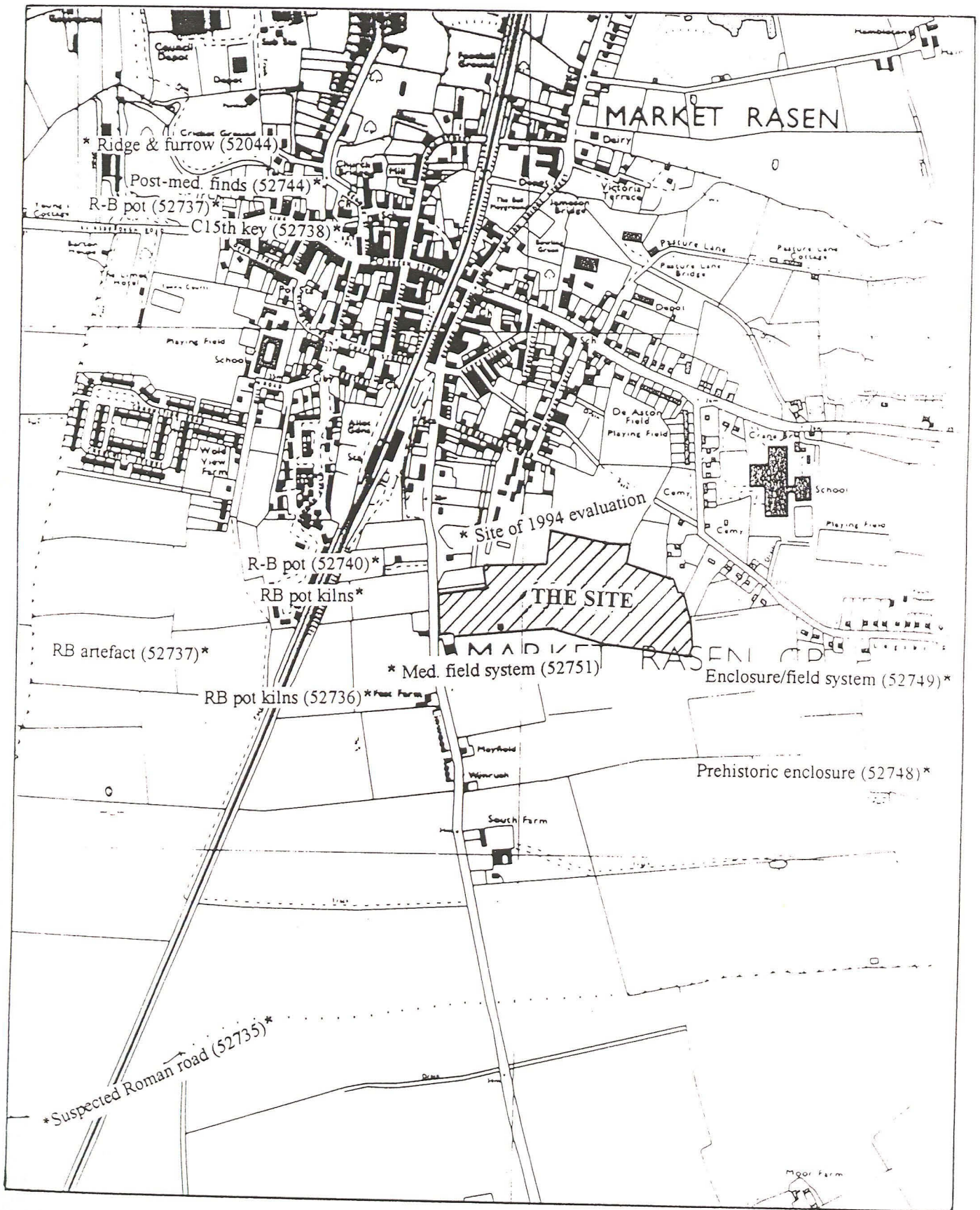


Fig. 1 Site location showing principal entries from the County Sites and Monuments Record (1:10,000) OS copyright ref. AL 51521A0001.

1.0 Introduction

A ten day programme of archaeological trial excavation was carried out on a c.6.7 hectare site adjacent to Linwood Road, Market Rasen, Lincolnshire (Fig. 1). The work was commissioned by Hugh Bourn Developments (Wragby) Ltd.

The results of this report will assist the local planning authority to assess the archaeological significance of the site, the potential impacts which may be imposed by development and the requirement / non-requirement for further archaeological investigation in advance of or during development.

2.0 Location and description

Market Rasen lies approximately 18 km north-east of Lincoln in the West Lindsey district of Lincolnshire. It is situated in the Clay Vale to the west of the Lincolnshire Wolds in an area extensively covered by wind-blown sand deposits.

The proposed development site, which covers approximately 6.7 hectares is located to the east of Linwood Road to the south-east of the main settlement of Market Rasen. It is defined by Linwood Road on the west side and field and property boundaries to the north and east. The southern boundary is arbitrary.

The area evaluated is currently in agricultural use and was covered in cereal crop stubble and weeds. The site lies at an altitude of approximately 29 m.OD and the land is predominantly flat with a low waterlogged area towards the western side of the site.

The central national grid reference is TF 111 885.

3.0 Archaeological background

A detailed archaeological assessment has already been prepared in the form of a desk top study (Palmer-Brown, 1998) and will not therefore be repeated in detail here. However, the main points are as follows:

- a) Extensive evidence for a Romano-British pottery industry has been recorded in the area of the site particularly to the west of Linwood Road. Pottery and kiln debris was brought to the surface in the area immediately to the west of road when a RAF bomber crashed there in 1964. A kiln was excavated by Mr D Boyce of De Aston School in 1966 and information was brought together by Mr K Hunter in 1975.
- b) A rapid fieldwalking survey was carried out on the site by PCA in December 1997. The ground conditions were not ideal as much of the site was covered by dense vegetation. Despite this, dense scatters of pottery sherds were recorded in some areas of the site.

c) Geophysical surveys were carried out at the site by Oxford Archaeotechnics in December 1997. A topsoil magnetic susceptibility survey was carried out over the whole of the site and identified areas possibly associated with industrial processes. A magnetometer survey was carried out in selected areas of potential archaeological remains identified by the magnetic susceptibility and in potentially blank areas.

4.0 The objectives of archaeological trenching

The Assistant County Archaeologist for Lincolnshire issued a brief requiring that sixteen archaeological trenches should be excavated to determine the nature of the archaeology (its character, date, depth, state of preservation, extent and significance). Only by sampling a percentage of the site could the actual archaeological potential be fully addressed. The overall objective of this phase of work, therefore, was to present the District Planning Authority with a set of data from which reasoned decisions may be taken regarding future management of the archaeological resource and development of the site.

5.0 Methodology

The sixteen trenches (the locations of which can be examined in Fig. 2) were sited as follows;

Trenches 1 and 2 were located in Area 1 of the magnetometer survey to investigate the high density of magnetic anomalies which had been identified.

Trenches 3, 4 and 15 were located in Area 2 of the magnetometer survey to investigate anomalies suggesting the presence of enclosure ditches and a possible trackway.

Trench 5 was located in Area 3 of the magnetometer survey which had showed a low density of anomalies.

Trenches 6 to 14 were located outside of the magnetometer survey areas across the eastern area of the site.

The trench locations were marked-out in advance of excavation and a JCB, fitted with a smooth ditching blade was used to remove all topsoil and overburden: to the top of the first significant natural or cultural horizon. The desired depths were achieved by removing graded spits under strict archaeological supervision. All further excavation was by hand.

During controlled excavation, archaeological contexts (eg layers, feature fills, pits, ditches) were described using standard context record sheets. The majority of archaeological features were partially excavated. All excavated features were drawn in plan and in section at a scale of 1:20 and, when fully or partially excavated, were photographed in colour.

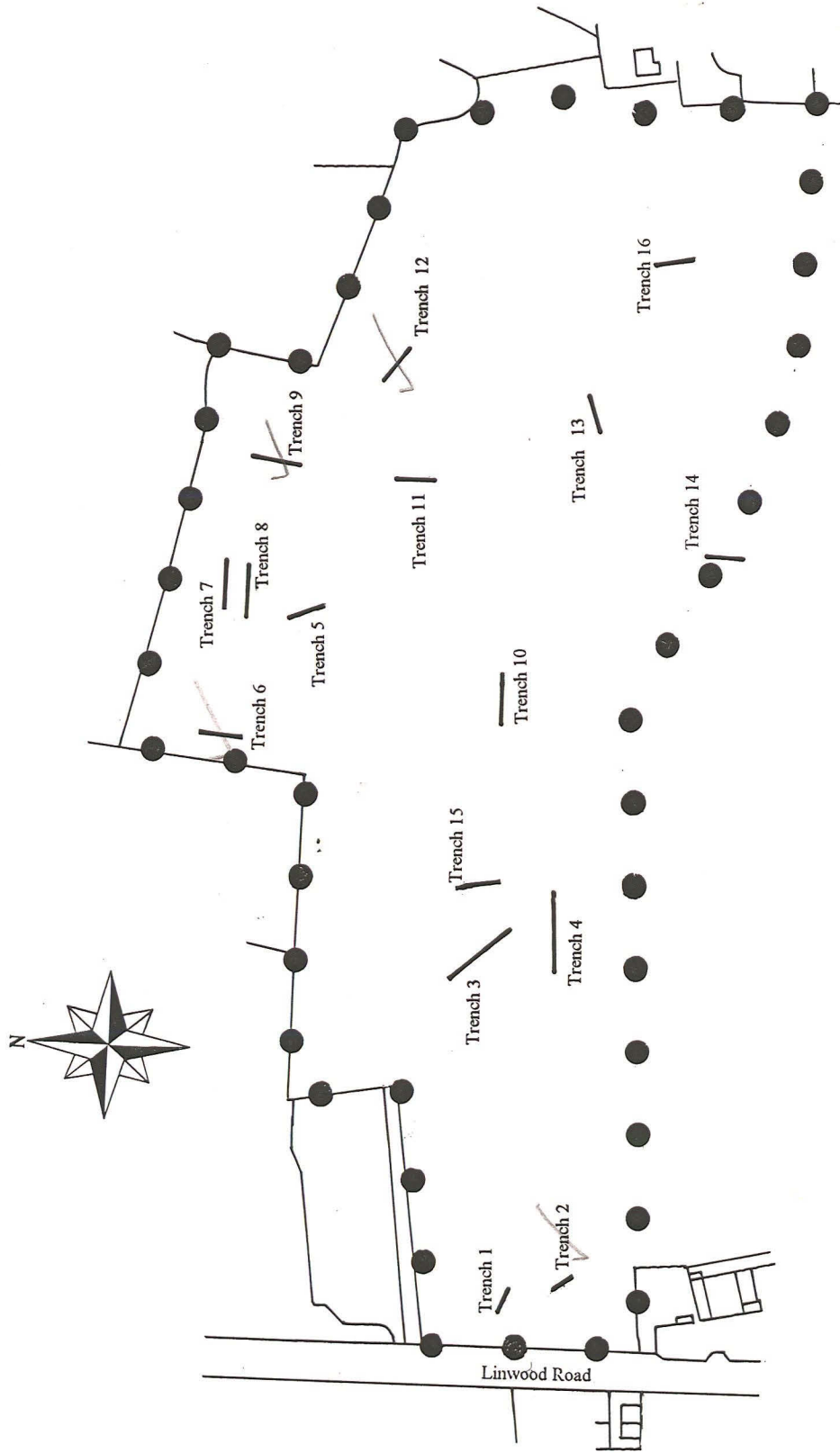


Fig.2 Site plan showing trench locations. (Scale 1:2500)

specialist assessment. The preservation of animal bone was very poor and only a handful of small fragments were recovered. The potential for environmental deposits was recognised as being low and consequently no samples were taken.

Excavation was carried out under the supervision of Mr. R. Schofield and the writer, assisted by five experienced field archaeologists.

6.0 Results

6.1 Trench 1 (Fig. 3)

The trench measured approximately 10.5 m. x 4.1 m. and was located in Magnetometer Area 1 at the western end of the field. It was orientated west-north-west to east-south-east. A dark brown sand-silt topsoil (100) directly sealed a range of archaeological features. The trench contained a large number of ceramic land drains.

Pit [109] was broadly rectangular and orientated north-east to south-west. It was steep sided and measured c.7.0 m. by c.3.4 m., covering most of the western half of the trench. It was filled predominantly with medium to dark grey sand (108) / (112) which contained Roman and post-medieval pottery. This feature was cut by a number of smaller pits, [106a] [107a] [116a] and [119a], which were not investigated due to their late date.

Pit [121] was located on the southern side of the trench and was possibly cut by pit [109] although the exact relationship was destroyed by a land drain. It was sub-circular in plan and measured at least 3.0 m. by 0.9 m. It had a bowl-shaped profile 0.84 m. deep. It was filled with medium to dark clay-sand, incorporating a large quantity of Roman pottery and a single sherd of post-medieval pottery. The feature was cut by two land drains and it is possible that the later sherd was incorporated in this way.

Pit [111] was sub-rectangular in plan, measuring 1.8 m. by 1.3 m., and was cut by pit [109]. It was quarter-sectioned, revealing a steep-sided profile 0.7 m. deep. It was filled with medium grey to black silt-sand (110) which contained a large quantity of Roman pottery. This feature cut through pit [126] at the eastern end of the trench.

Pit [126] was lozenge-shaped and orientated east-west at the eastern end of the trench. It was 1.7 m. wide and at least 2.0 m. long. A section c.0.5 m. wide was excavated through the fill but, due to time constraints, the feature was not bottomed. It contained a dark grey silt-clay (124) overlying a medium grey silt-clay (125). Both of these fills contained large quantities of Roman pottery, including wasters, and it would not be unreasonable to assume the presence of a kiln very close to the eastern end of the trench.

Features [128] and [138] were possibly pits and were cut by pit [126]. They were not investigated due to time constraints but can confidently be assigned a Roman date.

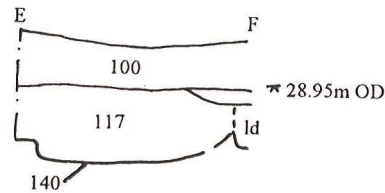
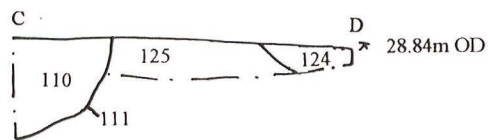
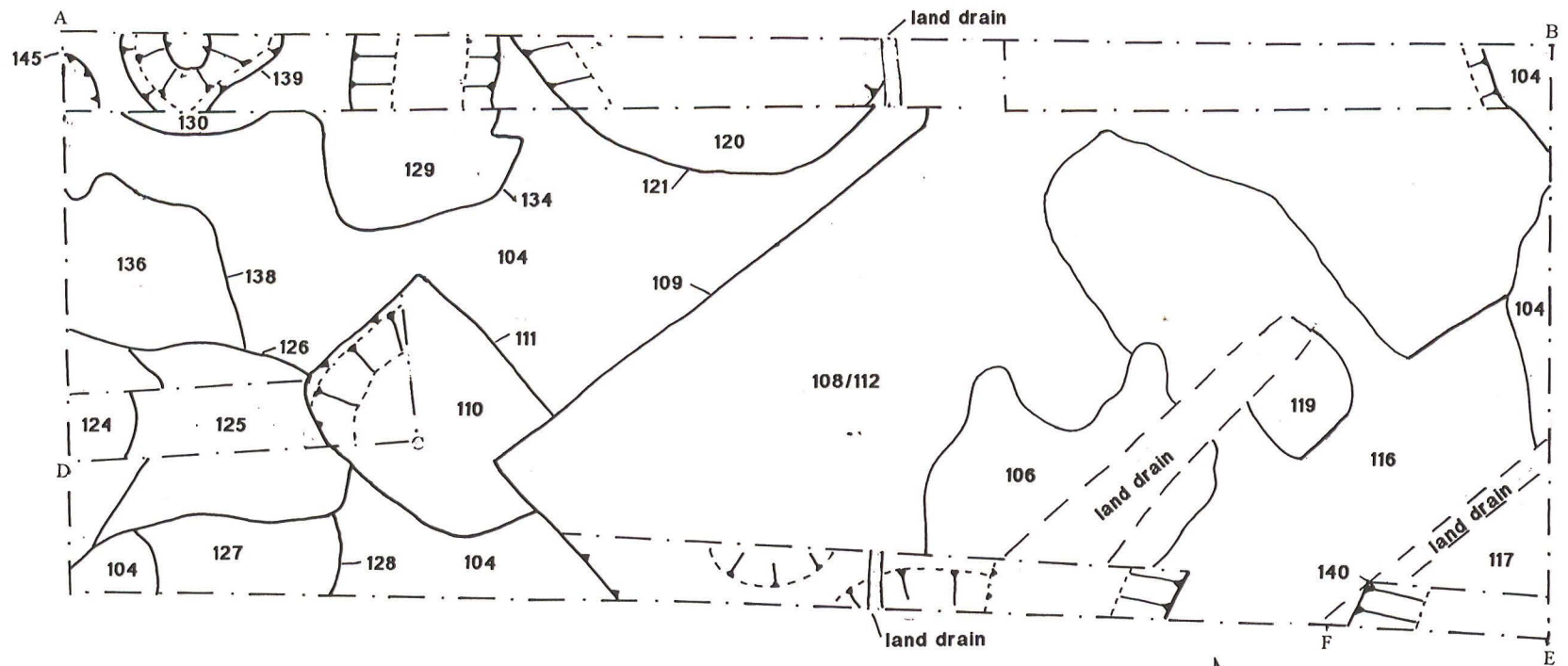
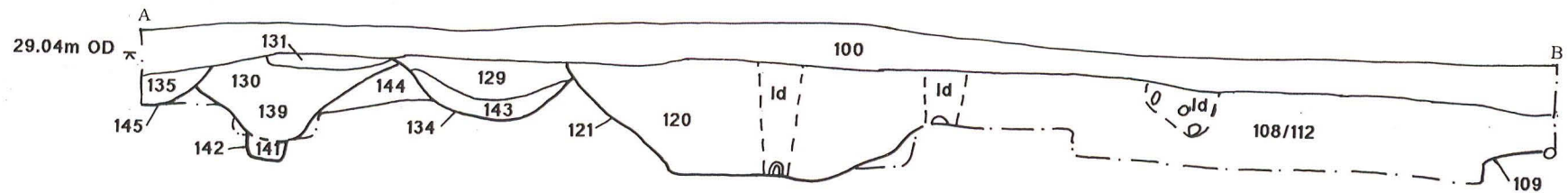


Fig. 3 Trench 1 plan and sections. (Scale 1:50)

Pit [134] ran north-north-east to south-south-west for 1.4 m. It was 1.30 m. wide and 0.48 m. deep with a broad U-shaped profile. It was filled by a dark grey sand-silt (129) overlying a yellow sand-clay (143). Both fills contained Roman pottery.

Pit [139] was located to the east of, and was cut by, pit [134]. It was 1.52 m. wide with a broadly V-shaped profile 0.62 m. deep. In the base was a sub-circular post hole [142] which was 0.30 m. in diameter. It was filled with black silt-clay (141). The bulk fill of the pit comprised black silt-clay (131), overlying medium grey silt-sand (130) which contained Roman pottery.

Pit [145] was cut through the east side of pit [139]. It also incorporated a post hole in its base. It was filled with light grey sand (135).

Pit [140] was located in the north-west corner of the trench. It was c.0.90 m. wide and 0.50 m. deep with a flat base. It was filled with dark grey clay-sand (117) which contained Roman pottery.

6.2 Trench 2 (Fig. 4)

Trench 2 measured 10.5 m. in length; 3.5 m. in width, and was orientated north-west to south-east in Magnetometer Area 1. A thick dark brown-grey clay-sand topsoil (150) sealed a dark grey-brown clay-sand subsoil (171). A range of archaeological features were cut into clay deposits (159) and (168), which were taken to be natural.

Pit [152] cut the subsoil at the north-west end of the trench. Only one side of the feature was present within the trench and it was not excavated to its full depth due to waterlogging. It was filled with medium to dark grey silt-sand (151) which contained post-medieval glass and pottery.

Furrow [154] ran east to west across the trench and was cut by pit [152]. It was filled with a dark brown-grey silt-sand (153) which contained small fragments of tile and residual Roman pottery. This feature cut three earlier pits.

Pit [156] was an irregular shape at least 1.2 m. wide and 1.6 m. long. It was filled by a medium grey silt-sand-clay which contained a large amount of Roman pottery and burnt clay. The base of part of the pit appeared to be lined with burnt clay. The west side of this feature was cut away by pit [158].

Pit [158] was lozenge-shaped, measuring 0.94 m. in width by at least 1.50 m. in length. It had steep sides with an irregular base, and was cut through pit [156]. It was filled by a dark brown-grey silt-sand-clay (157) which contained sparse fragments of tile.

Pit [169] covered all of the southern half of the trench, and its full extent is unknown. It was vertical-sided and contained a large number of apparently dumped fills. A sondage was excavated to a depth of 1.2 m. (from ground level) along the north-east side of the trench but did not reach the base of the feature. The fills, (160) (161) (162) (163) (165) (167) (170), comprised of various grey clay and silt-sand-clay deposits

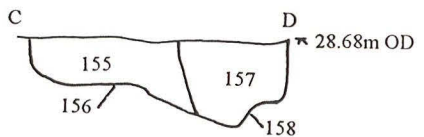
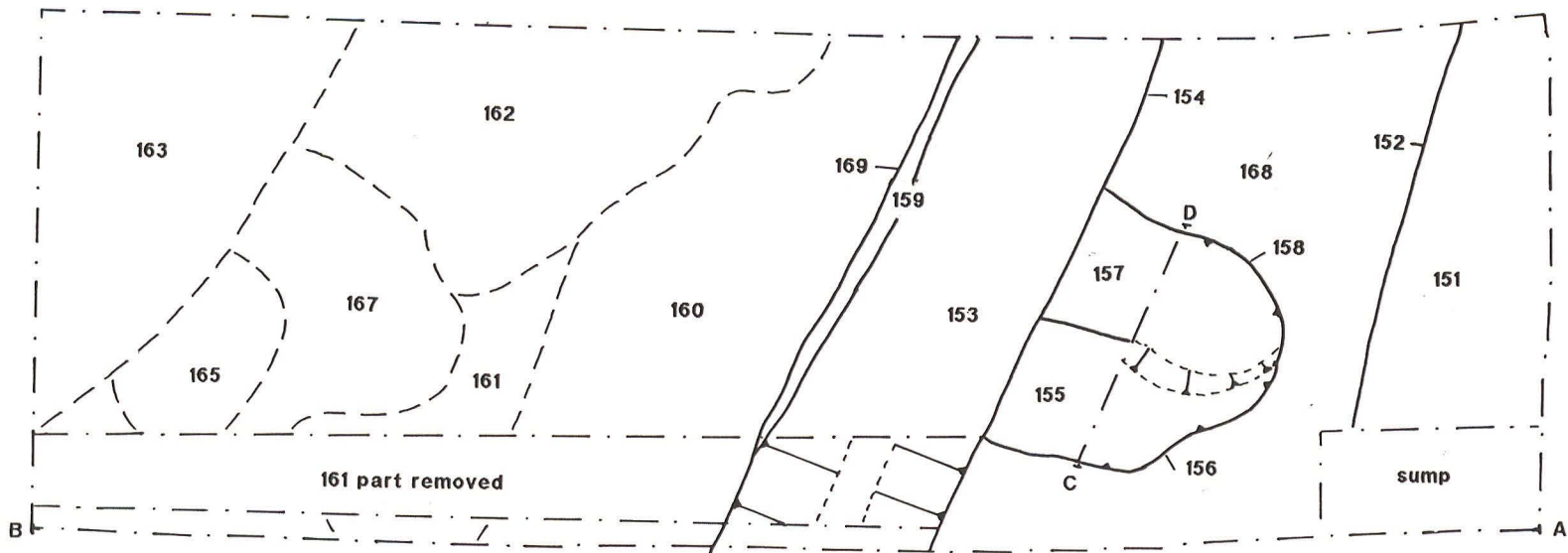
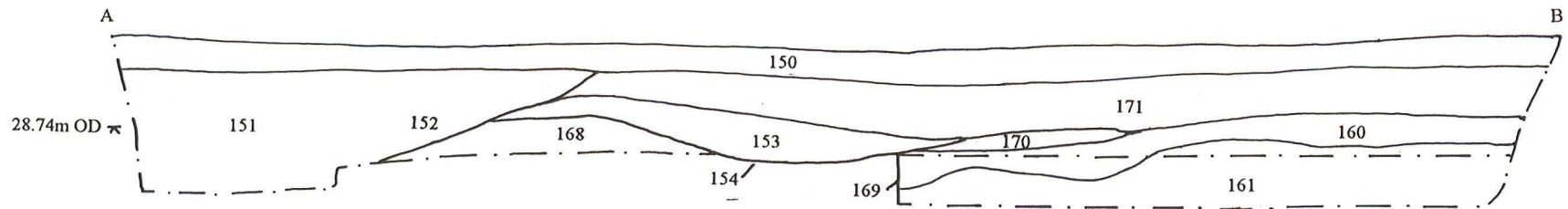


Fig. 4 Trench 2 plan and sections. (Scale 1:50)

some of which included gravel. Roman pottery was only recovered from an upper deposit (160). The large size and mixed fills of this feature would suggest that it was a clay pit associated with pottery production at the site.

6.3 Trench 3 (Figs. 5 & 6)

Trench 3 measured 31.1 m. in length by 1.6 m. width. It was located in Magnetometer Area 2 and was orientated north-west to south-east.

Below the topsoil (200) and an intermittent layer of medium brown-grey silt-sand subsoil (201) were three dumped deposits of dark grey to black silt-sand (202) / (249) which contained a significant quantity of Roman pottery. Beneath these deposits, and sealing a series of ditches, was a layer of silty sand (219). This was up to 0.13 m. thick and was devoid of artefacts. The absence of finds from this deposit is particularly unusual as the deposits above and below it contain a moderate amount of pottery sherds. It seems likely that this represents a single deposit of wind-blown sand which sealed the infilled ditches prior to the dumping of the overlying dark silt-sands. The mixed colour of (219) (light to medium grey and medium brown-grey) would suggest that it was derived from a range of sources.

Trench 3 contained nine linear features which can be summarised north-west to south-east as follows;

Ditch [222] had a broad V-shaped profile with a rounded base and was 0.92 m. wide and 0.55 m. deep. It was orientated east to west and appeared to cut an earlier ditch on the same alignment [237]. It contained two fills. A medium to dark grey silt-sand (221) which contained a large quantity of Roman pottery overlay a light to medium grey sand (235) which was confined to the southern side of the ditch.

Gully [212] was parallel to ditch [222] and was 0.98 m. wide, 0.18 m. deep. It possessed a broad shallow profile, and was filled with medium grey silt-sand (211).

Ditch [215] was orientated roughly north-south and was a broad, shallow recut of an earlier ditch on the same alignment [228]. It was 1.32 m. wide and 0.38 m. deep, and contained a medium grey silt-sand (214) overlying a light to medium grey silt sand which was confined to the eastern side of the ditch.

Ditch [228] survived as a broad V-shaped cut below ditch [215]. It was 0.64 m. wide and 0.20 m. deep with a medium brown-grey silt-sand fill (227).

Ditch [225] was orientated north-east to south-west and had an irregular U-shaped profile; 1.50 m. wide and 0.60 m. deep. It was filled by a light to medium grey silt-sand (224) which sealed a dark grey sand (234).

Ditch [217] was orientated north-east to south-west and had an irregular stepped profile with near-vertical sides. It was c.1.40 m. wide and 0.40 m. deep. It contained an upper fill of brown silt-sand (216) which sealed two deposits of blown or washed sand (242) and (244). It was cut through the west edge of ditch [205].

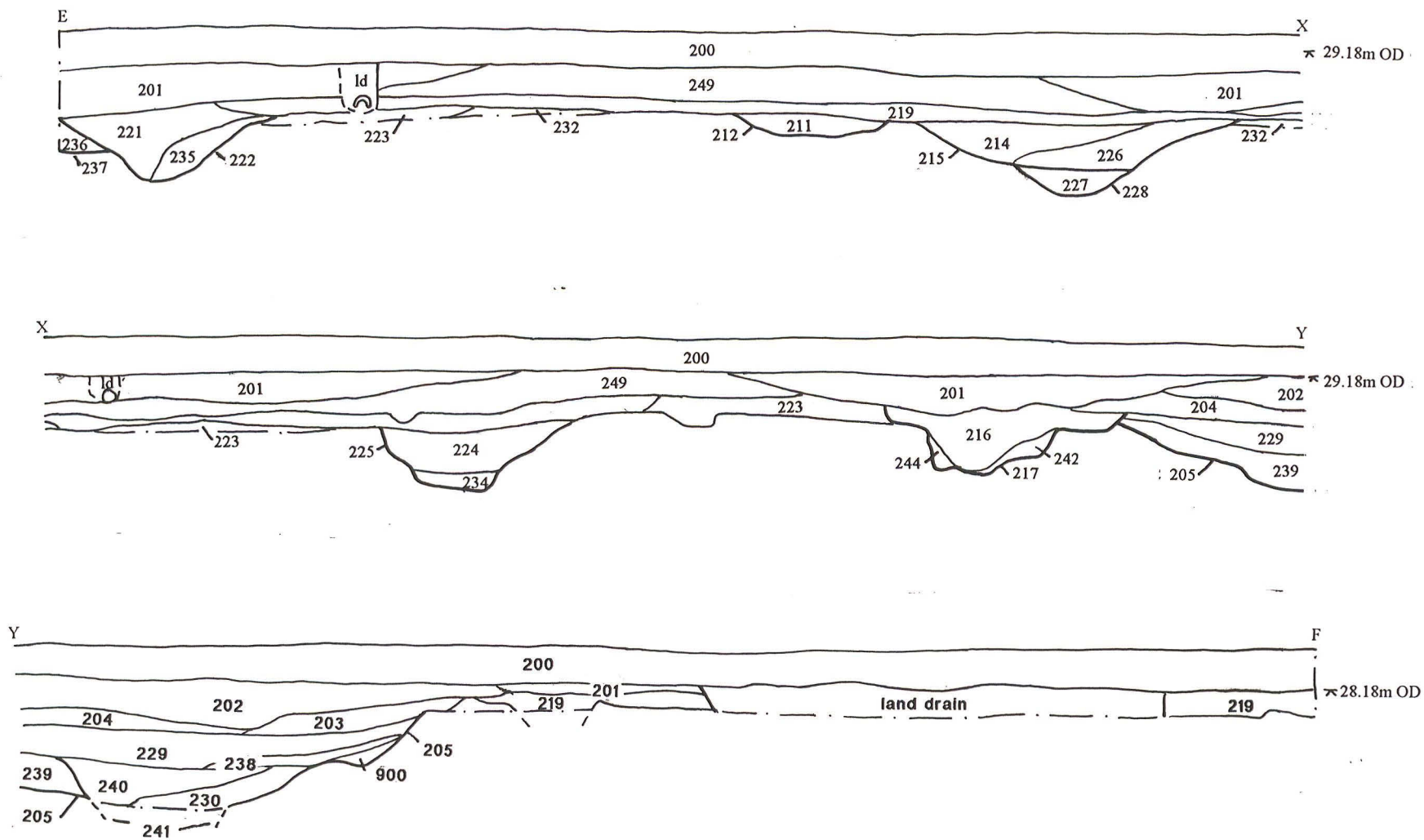


Fig. 5 Trench 3 main section. (Scale 1:50)

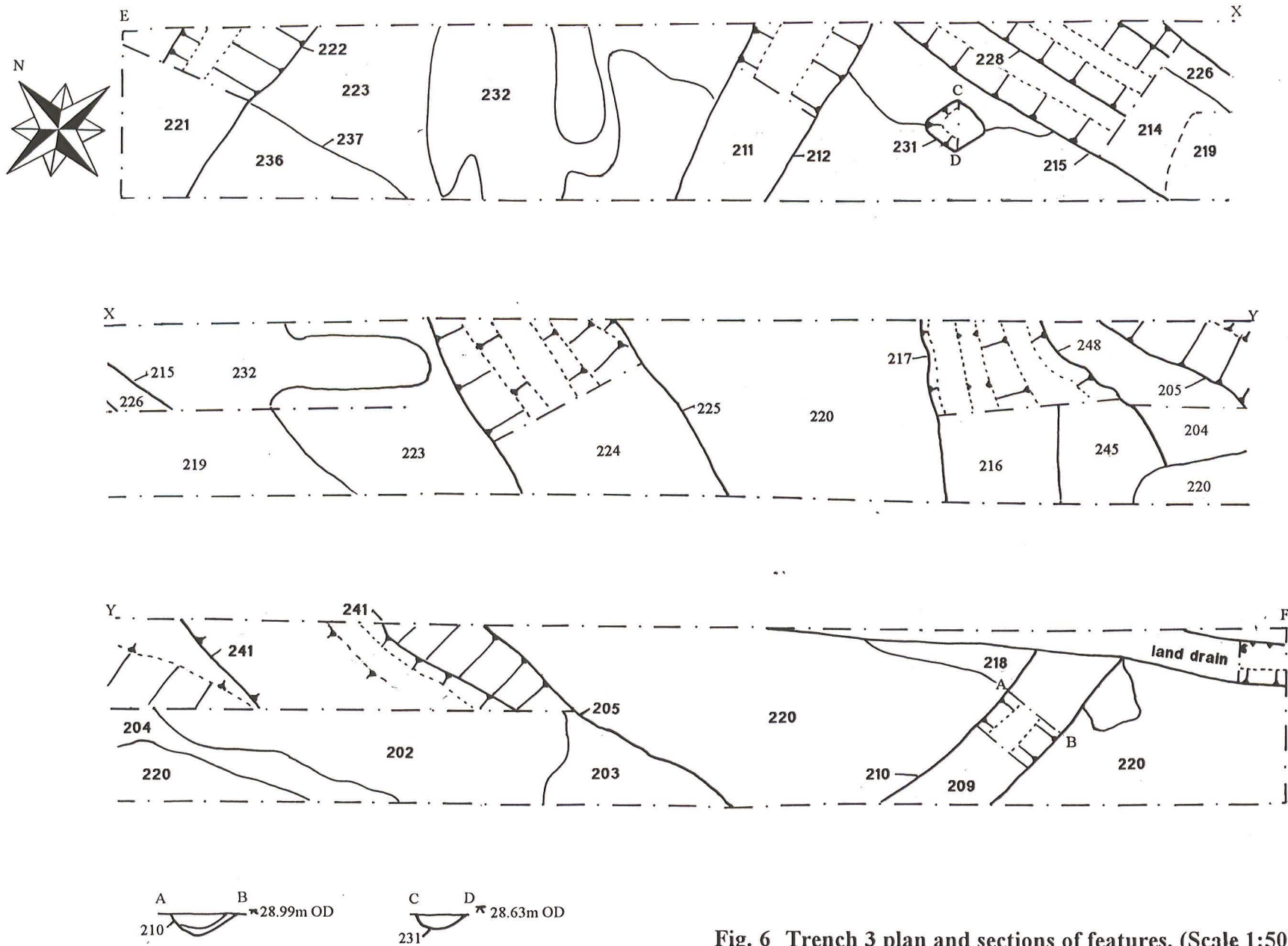


Fig. 6 Trench 3 plan and sections of features. (Scale 1:50)

Ditch [205] was 2.60 m. wide, 0.80 m. deep and was orientated north-south. It contained a pale brown to yellow sand primary fill (239). This was cut by a broadly V-shaped recut [241] which was 1.40 m. wide and in excess of 0.34 m. deep, although full excavation was not possible due to slumping and waterlogging. It contained a light grey-yellow sand (240) over a light brown-grey sand (230) which was isolated to the eastern side and contained Roman pottery. These were sealed by deposits filling ditch [205]: on the east side were two in-washed sand deposits (238) and (900). Sealing these was a brown-yellow silt-sand (229). This deposit was sealed by grey-brown silt-sands (203) and (204) which post-dated the infilling of the adjacent ditch [217].

Post pit [231] was located in the angle between ditches [212] and [215]. It was roughly square in plan and 0.40 m. across. The fill was a medium to very dark grey silt-sand (213). This feature contained no artefacts and its stratigraphic isolation renders it undatable.

6.4 Trench 4 (Figs. 7 & 8)

Trench 4, which measured 30.0 m. in length and 1.6 m. in width, was located to the south of Trench 3 in Magnetometer Area 2 and was orientated east-west. On the east side of the trench the topsoil (250) sealed a subsoil (251). Below the topsoil in the western part of the trench was a dump of black-grey silt-sand (259) which contained a large assemblage of Roman pottery. This deposit was very similar to (202) / (249) in Trench 3. It sealed eight linear features, consisting of ditches and gullies, mainly running north-west to south-east. They can be briefly described, west to east, as follows;

Gully [267] was 0.6 m. wide and 0.2 m. deep with a broad V-shaped profile and ran north to south. It contained a medium grey-brown silt-sand with some Roman pottery (266). This gully was cut by another gully [268].

Gully [268] ran west to east for at least 1.4 m. before curving to the south-east. It was up to 0.56 m. wide and 0.38 m. deep. In profile it had a steep northern side and a stepped southern side with a flat bottom. It was filled by a grey-brown silt-sand which contained Roman pottery (260). This gully was cut by ditch [269].

Ditch [269] ran north-west to south-east with a broad, U-shaped profile 0.96 m. wide and 0.32 m. deep. It contained a black silt-sand with occasional Roman pottery sherds (261).

Ditch [270] ran parallel to [269] and had a very similar profile. It was 0.78 m. wide and 0.22 m. deep, and was filled with dark grey silt-sand (262) which became lighter towards the base of the feature and contained Roman pottery and kiln debris.

Ditch [271] ran north-west to south-east, immediately to the east of [270]. It had an asymmetrical stepped profile 1.54 m. wide and 0.56 m. deep. The upper fill (264) was a dark grey silt-sand which became lighter towards the base. Below this was a light brown-grey silt-sand (265). Both fills contained Roman pottery and kiln debris.

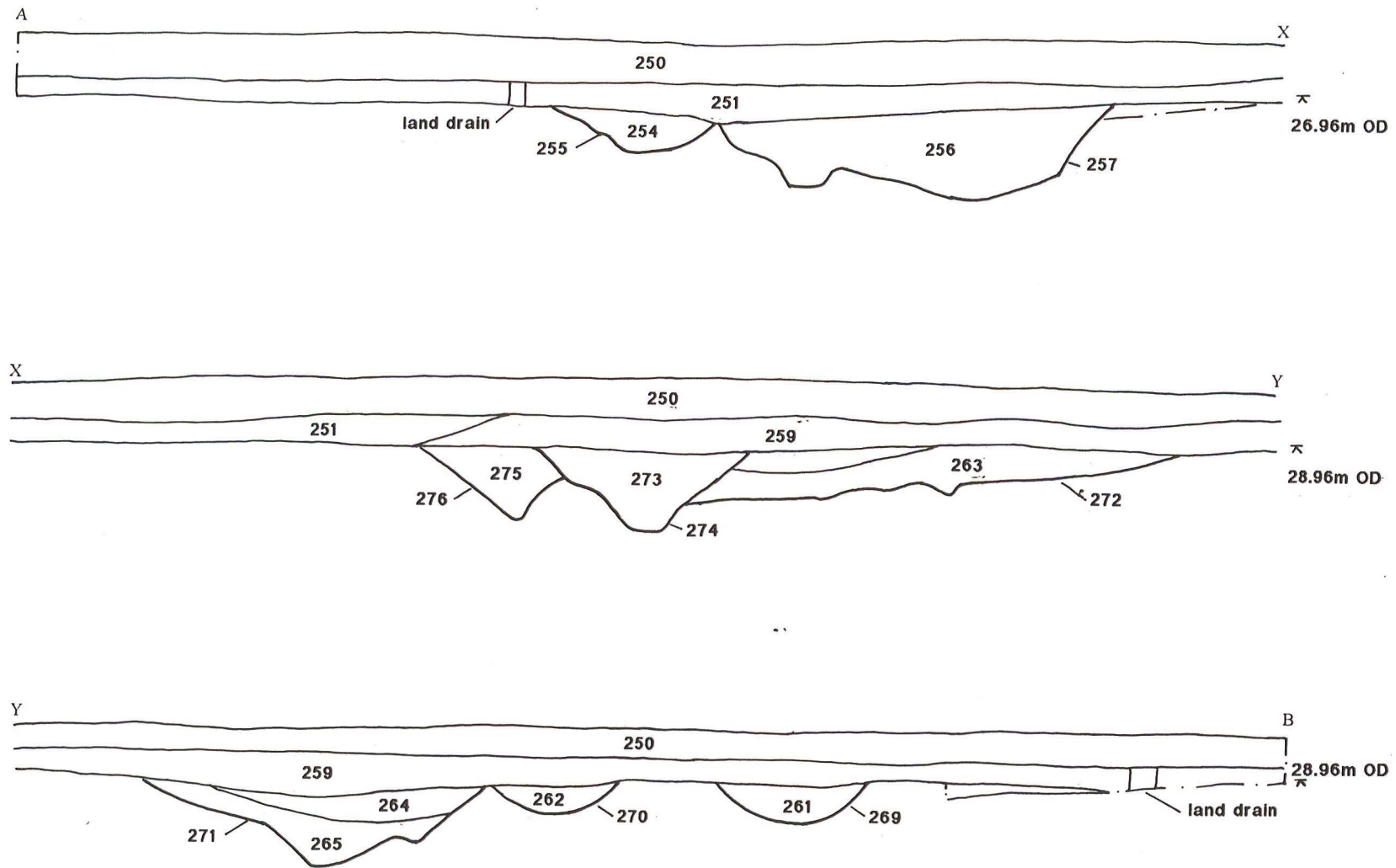


Fig. 7 Trench 4 main section. (Scale 1:50)

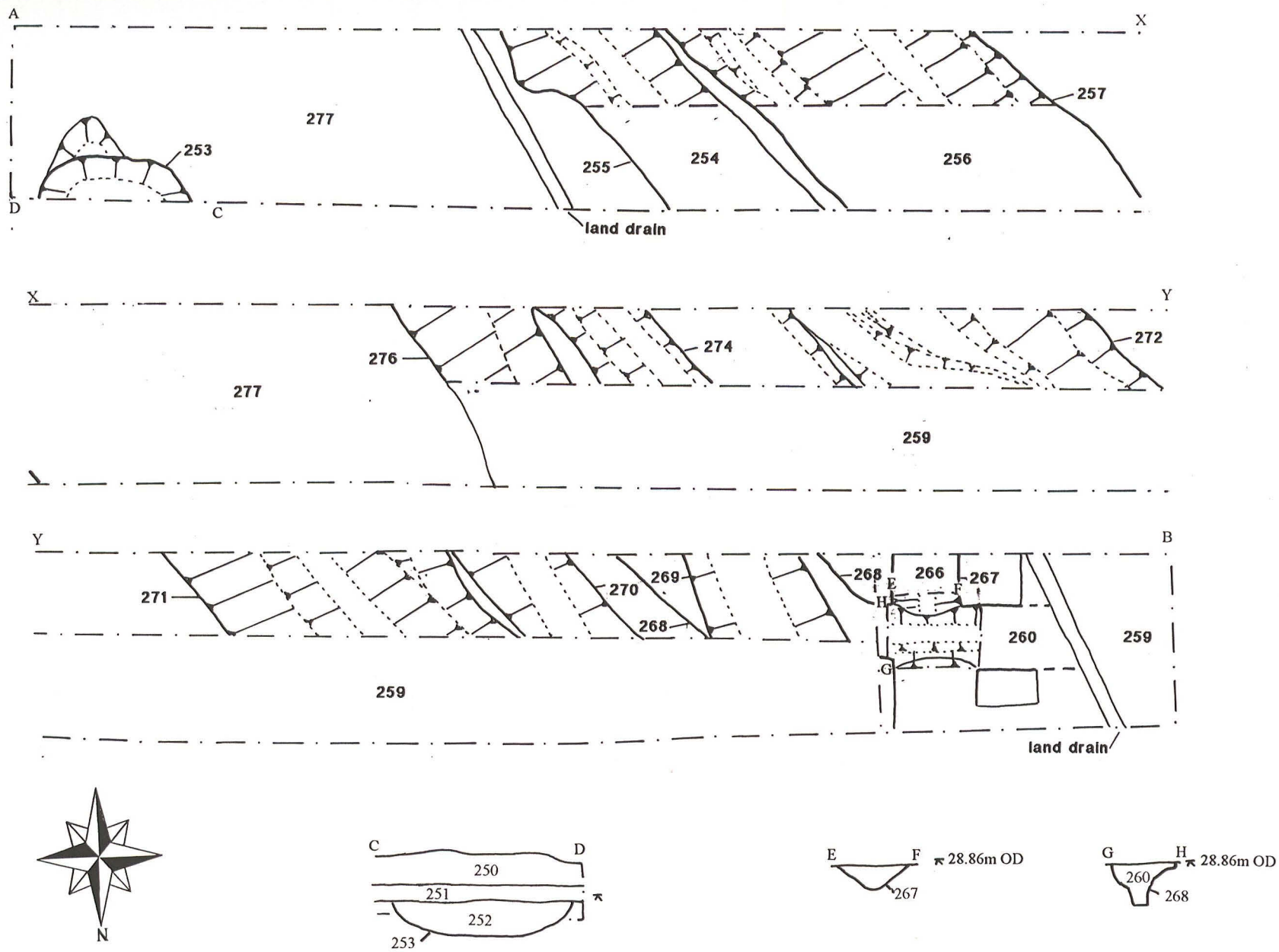


Fig. 8 Trench 4 plan and sections of features. (Scale 1:50)

Feature [272] was a broad shallow cut 2.20 m. wide and 0.38 m. deep which sloped to the east and may have been part of a ditch cut obliquely by the excavation. It was filled by a dark grey silt-sand (263) containing Roman pottery below a lens of redeposited natural.

Ditch [274] was 1.22 m. wide and 0.63 m. deep, and was cut through both ditch [276] and feature [272]. It had a V-shaped profile with a stepped east side and a flat base. It was filled by a medium grey silt-sand (273) which contained Roman pottery and kiln material and became lighter and sandier towards the base of the feature.

Ditch [276] had a V-shaped profile 0.96 m. wide and 0.56 m. deep. It contained a dark grey silt-sand (275) which became lighter and more sandier towards the bottom of the feature and included Roman pottery and kiln material.

Towards the eastern end of the trench, beyond the extent of dumped deposit (259), were two linear features which ran north-west to south-east.

Ditch [257] was 2.00 m. wide and 0.68 m. deep with a broad asymmetrical U-shaped profile. A steep-sided slot cut into its east side may have been a recut or a separate feature, but no differences were present in the fill to allow this to be ascertained. The fill (256) was a black-grey silt-sand which became lighter and more sandy towards the bottom. It contained Roman pottery and kiln debris.

Ditch [255] was 1.22 m. wide and 0.40 m. deep with an irregular profile. It was filled by a black-grey silt-sand (254) which also became lighter and sandier with depth, and contained Roman pottery and kiln material.

In the north-east corner of the trench was a sub-circular pit [253] which was 1.30 m. wide and 0.32 m. deep with a broad U-shaped profile. It was filled by a dark brown silt-sand which contained some Roman pottery. The south side of the pit and fill were extensively disturbed by animal burrows.

6.5 Trench 5 (Fig. 9)

Trench 5 measured 20.7 m. by 1.5 m. and was located in Area 3 of the magnetometer survey which was theoretically blank. It contained three linear features all of which ran east to west.

Plough furrow [801a] was located at the south end of the trench and contained dark grey-brown sand (801b).

Ditch [802b] was located in the centre of the trench. It had a U-shaped profile and contained a dark grey-brown sand incorporating post-medieval pottery (802a). This appeared to align with field boundaries to the east and west, and probably represents the boundary of a field suggested by the magnetic susceptibility survey.

Feature [803b], located at the north end of the trench, was a broad, shallow and probably a natural watercourse. It was filled by a light grey sand (803a).

6.6 Trench 6 (Fig. 10)

Trench 6 measured 15.7 m. by 1.6 m. and contained ditch [355] running east to west at the southern end of trench. It was filled by a dark grey sand (358) overlying a light grey sand (359) which sealed a primary in-washed white sand (360). Deposits present in the section indicated ridge and furrow [366] running east to west.

6.7 Trenches 7 and 8

Trenches 7 and 8 measured c.15 m. by 1.6 m., and contained only a dark grey-brown silt-sand topsoil (400) / (450) overlying an orange-brown natural sand (401) / (451).

6.8 Trench 9

Trench 9 measured c.15 m. by 1.6 m.. Underlying the topsoil (500), 3 m. from the south end of the trench, was a truncated plough furrow [503], which was 0.18 m. deep and extended east to west. It was filled with light to medium grey sand (502) and was cut through natural orange-brown sand (501).

6.9 Trench 10

Trench 10 measured c.15 m. by 1.5 m. and contained only a dark grey-brown silt-sand topsoil (550) over an orange-brown natural sand which showed extensive animal disturbance (551).

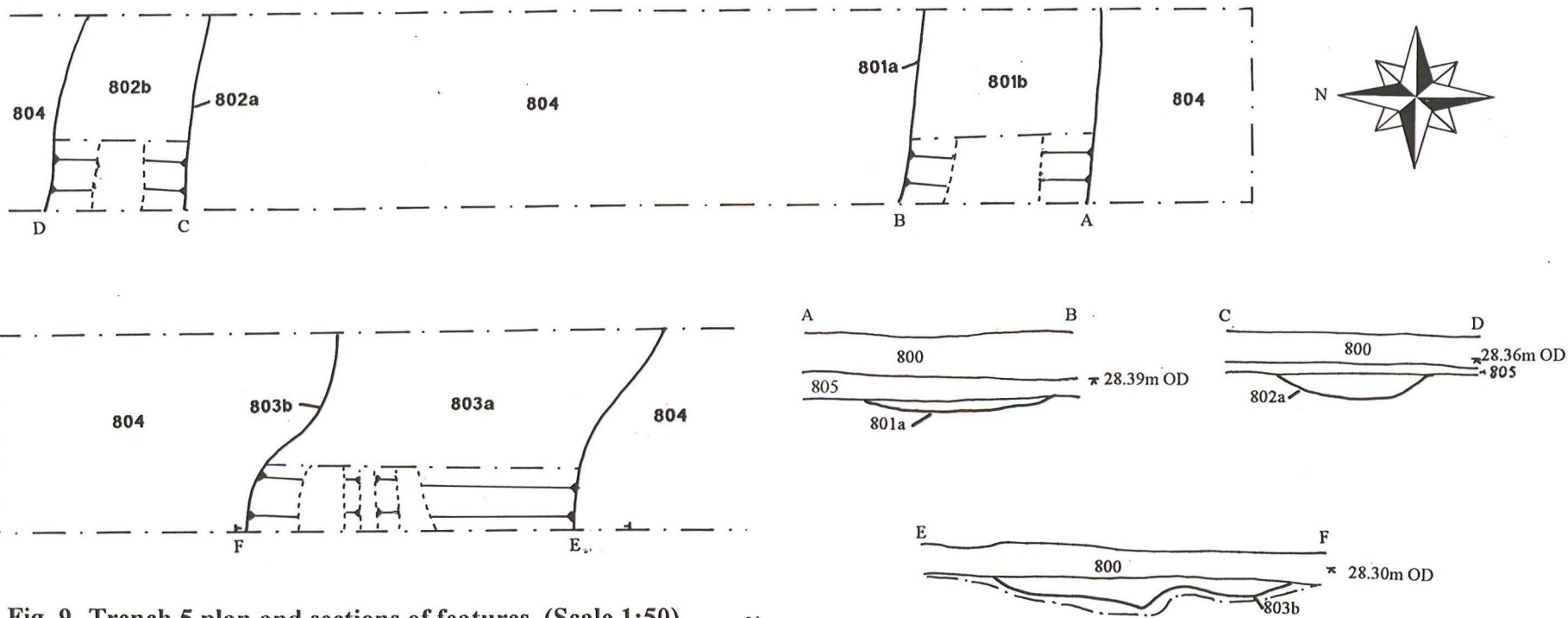


Fig. 9 Trench 5 plan and sections of features. (Scale 1:50)

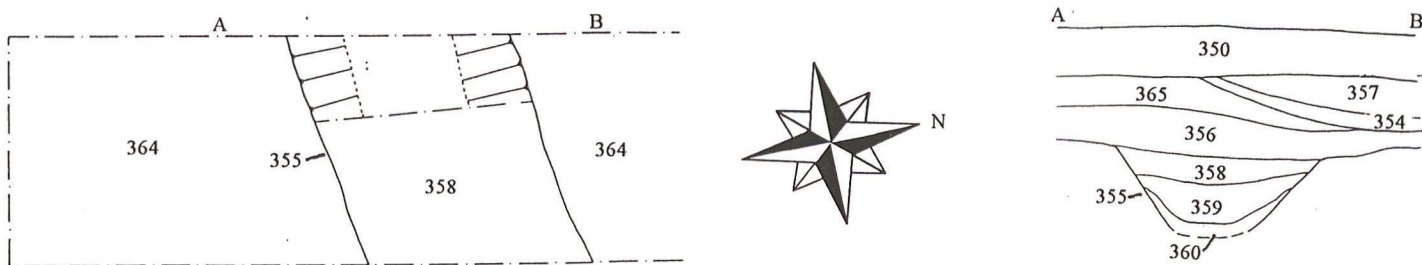


Fig 10 Trench 6 plan and section. (Scale 1:50)

6.10 Trench 11 (Fig. 11)

Trench 11 measured 15.5 m. by 1.5 m. A single worked flint was recovered from the topsoil (600). A broad and shallow linear ditch ran east to west across the southern part of the trench [603]. It was filled by a medium brown-grey sand (602) which contained small tile fragments and a piece of clay tobacco pipe suggesting a post-medieval date for this feature.

6.11 Trench 12 (Fig. 12)

Trench 12 measured 15.5 m. by 1.6 m. and contained two inter-cutting gullies running east to west [655] and north-north-west to south-south-east [653]. They contained light grey sandy fills (654) and (652). No relationship between the two was established and it is possible that they are parts of the same feature. A single sherd of medieval pottery was recovered from the excavated section of (652).

A third feature was present in the south-east corner of the trench. This was apparently linear and parallel to [655]. It also contained a light grey sand (656) and had a shallow and irregular profile. The extent of this feature within the trench was too limited to allow interpretation.

6.12 Trench 13 (Fig. 13)

Trench 13 measured 14.5 m. by 1.6 m. and contained two soil layers sealed below the topsoil (700). A mixed grey-brown layer of silt-sand (704) thinned to the east and stopped, possibly truncated by the modern ploughing. Below this was a layer of dark brown silty sand (705) which became thicker to the east. The dark colour of this layer may indicate that it was contemporary with human activities local to this part of the site.

Ditch [703] was V-shaped and ran north-east to south-west across the western end of the trench. It contained a clean light yellow-grey sand (701) over a dark grey silt-sand (702), both sealed by the topsoil. The ditch was cut through (704) and (705) into the natural sand (710) and through an earlier ditch [707].

Ditch [707] was steep-sided with a rounded base and ran north-west to south-east. It cut through (705) and into the natural sand (710). It contained a light grey sand (706) which contained no finds and was sealed below (704). In the south-west corner of the trench was a linear feature [709] which also contained a light grey sand (708). This feature ran parallel to [707] and was not excavated.

Ditch [712] was broad and shallow, and extended north-west to south-east at the eastern end of the trench. It cut through (704) and (705) into (710); so, although it was parallel to [707] and [709] it was stratigraphically later. It contained a light grey sandy fill (711) from which a single sherd of medieval pottery was recovered.

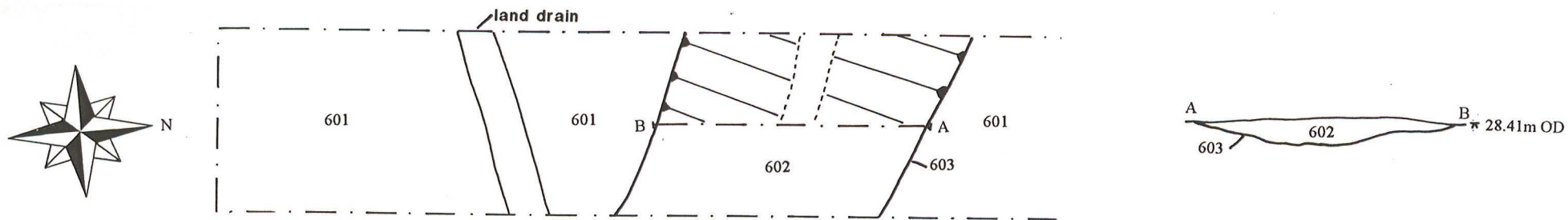


Fig. 11 Trench 11 plan and section of feature. (Scale 1:50)

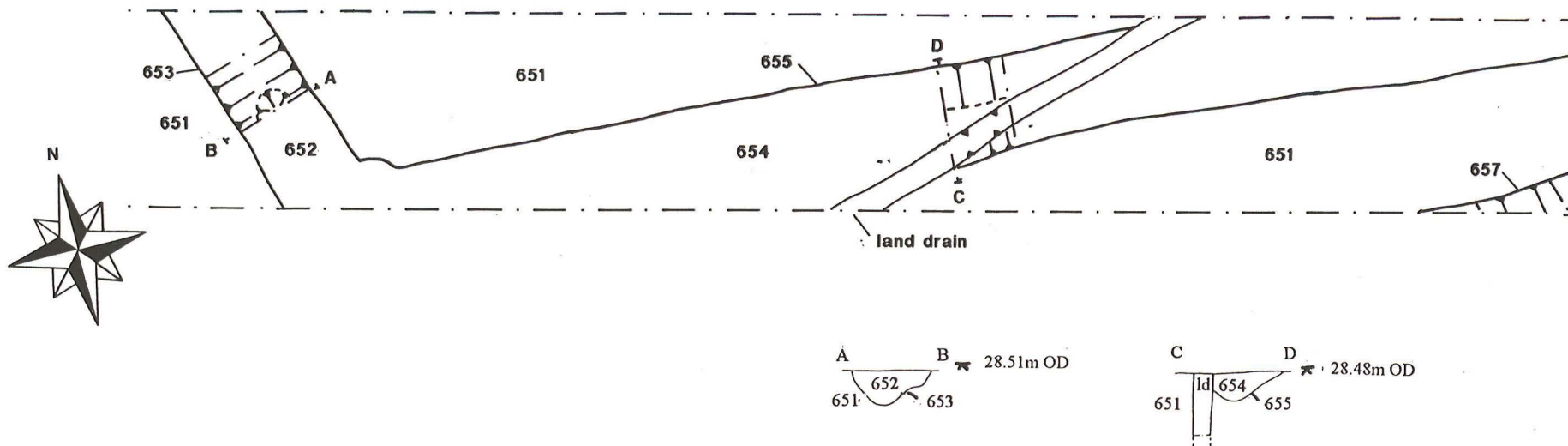


Fig. 12 Trench 12 plan and sections of features. (Scale 1:50)

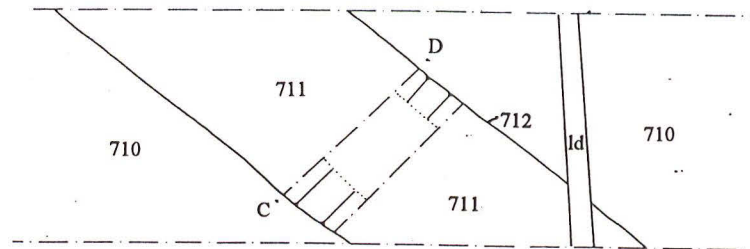
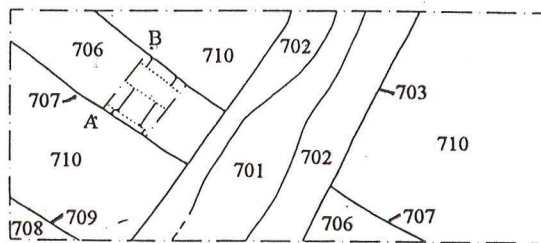
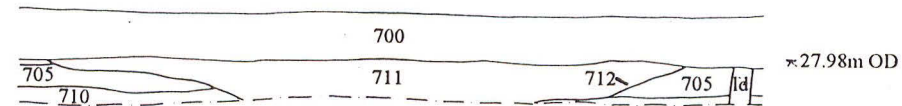
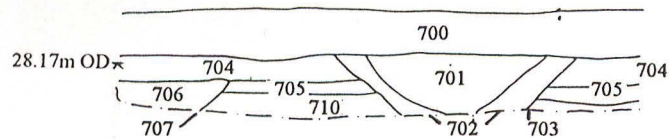


Fig. 13 Trench 13 plans and sections. (Scale 1:50)

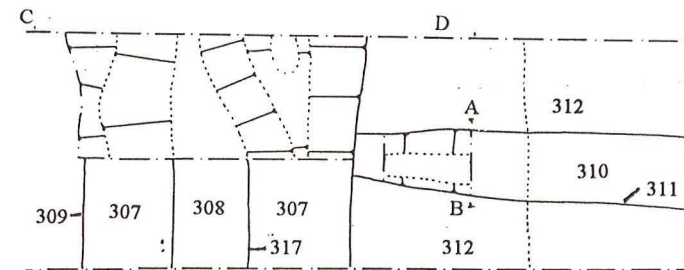
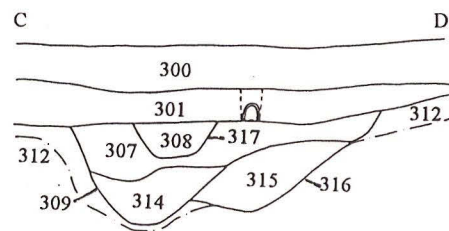
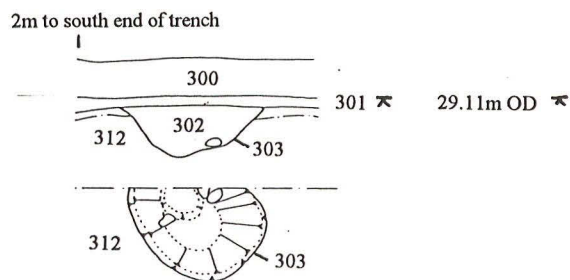
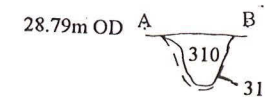
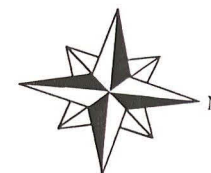


Fig. 14 Trench 15 plans and sections. (Scale 1:50)



6.13 Trench 14

Trench 14 measured 15.3 m. by 1.5 m. and contained only a plough furrow [754] which was 0.05 m. deep and ran east to west. It contained a dark grey-brown sand (753).

6.14 Trench 15 (Fig.14)

Trench 15 measured 15.8 m. by 1.5 m. and contained a dark brown silt-sand subsoil (301) below the topsoil.

Gully [317] was steep sided with a flat base and ran east to west at the northern end of the trench. It was filled by a dark grey-brown silt-sand (308) which contained Roman pottery. The gully was cut into the upper fill (307) of an east to west ditch [309]. The fills were a medium to dark brown silt-sand (307) over a medium grey sand (314). Both of these fills contained Roman pottery.

Ditch [316] also ran east to west slightly to the north of, and cut by, [309]. It contained a yellow-brown sand with Roman pottery (315). Ditch [309] also cut a north to south gully which had steep sides and a flat base [311]. This gully was filled by a dark brown sand (310) which contained Roman pottery.

Towards the southern end of the trench was a sub-circular pit with a c. 0.9 m. diameter [303]. This contained a dark grey-brown sand with stones and Roman pottery (302). The pit has been interpreted as a post with the stones being used for packing.

6.15 Trench 16

Trench 16 measured 15.7 m. by 1.5 m. and contained a modern pit [852] and a pond [855]. The pond contained a brown-grey silt-sand (853) over a dark grey organic sandy-silt (854). The upper fill contained post-medieval pottery.

Laminated bands of silt-sand and sand (856) were present in hollows in the natural sand (857) in the base of the trench.

7.0 Summary and conclusions

A large quantity of archaeological features and deposits were exposed during the evaluation. The bulk of these were of Romano-British date and were concentrated at the western side of the site. This distribution correlates well with the geophysical and fieldwalking survey results.

The Romano-British deposits and features identified consisted mainly of ditches, gullies and pits. It is very difficult to interpret the exact purpose of many of these features from the small areas which have been excavated. No kilns or furnaces were

identified. There was no clear evidence of any structures, although the post-holes and some of the gullies may have been parts of these.

The preservation of the archaeological deposits was generally good. It should be noted that the preservation in trenches 3 and 4 was particularly good as the features were largely sealed below dumped deposits of Romano-British date. It is possible that ground surfaces contemporary with these features survive and that any structures, particularly kilns and furnaces, may be well preserved in this part of the site.

The evaluation has confirmed that the site was part of the Romano-British pottery production complex located on the southern side of Market Rasen. The large quantity of waster pottery and kiln debris recovered from the dumped deposits and features would presumably not have been moved far from the kilns.

The analysis of the pottery from the evaluation has altered the previously accepted date range of c.150 - 200 AD (Samuels 1983) for the Market Rasen industry. It seems that the industry started in the 2nd century and continued into the later Roman period with types comparable to those from the Rookery Lane and Swanpool industries in Lincoln (see Appendix 1).

The presence of a small quantity of iron smelting slag supports previous suggestions of ironworking associated with the pottery production to the west of Linwood Road (Swan 1984, fiche 458). This association has been found elsewhere including at the Swanpool kiln site in Lincoln (see Appendix 3).

The presence of cereal grain and leaf impressions on some of the kiln furniture and the single piece of quern stone points to an agricultural element to the site's economy. This probably operated hand in hand with the industrial activities, with pottery manufacture taking precedence during slack periods in the agricultural calendar (Swan 1984, 47).

A small amount of the pottery recovered, including samian and mortaria, was clearly not produced on the site and would seem to be domestic refuse. This would suggest that some domestic buildings associated with the industry are either on or close to the site. A difficulty exists in identifying where these may have been located as the vast majority of pottery in domestic use on the site would have been the same as that being manufactured. In addition, the other main indicator of domestic activity, butchered animal bone, was poorly preserved and only a few small fragments were recovered. If domestic and industrial areas existed in close proximity to one another the refuse from each may have become mixed which would present further complications for interpretation.

The site is part of a very important Romano-British industrial complex some areas of which, to the west of the site, have already been destroyed. The main industry was pottery production which occurred from the 2nd to 4th centuries AD. This industry appears to have been supplemented by ironworking and arable farming, although the relative importance of these to the sites economy remains uncertain. The presence of some pottery types suggests that domestic areas associated with the industry lie on or close to the site. The evidence from the evaluation would suggest that remains in some areas of the site may be very well preserved.

8.0 Acknowledgements

Pre-Construct Archaeology (Lincoln) would like to express their sincere thanks to Hugh Bourn Developments (Wragby) Ltd. for commissioning this work. Thanks are also expressed to members of the site team (R Gardiner, W Livesey, M Ridsdale, S Savage and J Snee) and to specialists who have contributed to this report: J Cowgill and M Darling.

9.0 Appendices

9.1 Report on the Roman pottery by M Darling

9.2 Report on the kiln fabric and furniture by J Albone

9.3 Report on the iron production slags by JM Cowgill

9.4 Report on the stone find by JM Cowgill

9.5 List of contexts

9.6 References cited in main text

9.7 Colour Photographs

REPORT ON THE POTTERY FROM LINWOOD ROAD, MARKET RASEN, LRM97

for PRE-CONSTRUCT ARCHAEOLOGY

by Margaret J. Darling, M.Phil., F.S.A., M.I.F.A.

25 March 1998

QUANTITY AND CONDITION

The pottery came from 43 contexts, and amounted to 926 sherds weighing 38.036kg. The bulk came from the two areas closest to Linwood Road, Areas 1 and 2 (trenches 1-4 and 15), as shown in table 1 below:

Table 1 Quantities by area

Area	Sherds	%	Weight	%	g/sh
1	277	29.9	12831	33.7	46.3
2	627	67.7	24626	64.7	39.3
3/4	22	2.4	579	1.5	26.3
Total	926	100	38036	99.9	

The condition is generally good, the sherds being mostly large and fresh, although some contexts produced sherds showing abrasion. There is little difference in fragmentation between the two main areas, the higher sherd weight from Area 1 probably deriving from a number of sherds from large thick-walled vessels. No problems are anticipated for long term storage. The pottery has been archived according to the guidelines laid down for the minimum archive by *The Study Group for Roman Pottery*. A copy of the database is available on disk, and will be curated for future study.

The quantities by area, trench, and context are detailed on table 2, with the context date, and comments. The only definite sherd link was between contexts 358 and 360.

Table 2 Quantities and date by Area, Trench and context.

Area	Trench	Cut	Details	Cxt	Sherds	Weight	Date	Comments
1	1	109	Pit	108	22	684	L3	
1	1	111	Pit	110	45	845	M3?	
1	1	121	Pit	120	19	1796	L3+	
1	1	126	Pit top	124	48	3410	L3	
1	1	136	Pit upper	125	21	674	L3	
1	1	134	Pit upper	129	23	867	ML3?	
1	1	139	Pit	130	11	227	L2-3?	
1	1	134	Pit	135	4	110	L2-3	Date on PART fab
1	2	154	Linear ?plough	153	1	23	ML2	
1	2	156	Pit	155	25	2348	L3	Some abrasion
1	2	158	Linear	157	27	710	L3	
1	2	169	Pit ?clay	161	31	1137	L3	
2	3	#	Subsoil	201	3	25	RO	Some abrasion
2	3	#	Layer sand	202	68	3456	L3	
2	3	215	Ditch upper	214	18	929	L3	
2	3	222	Ditch upper	221	26	1240	4C	2 Tile frags; 1 scored
2	3	215	Ditch lower	226	1	16	RO	

2	3	205	Ditch	229	24	1831	L3-?4	
2	3	241	Ditch	230	8	1112	3C?	
2	3	#	Layer much pot	249	9	281	ML3	
2	4	253	Pit	252	18	280	L3+	Some abrasion
2	4	255	Ditch	254	13	207	4C	
2	4	257	Ditch	256	45	1587	L3-?4	
2	4	#	Fills ?ploughed	259	47	2492	4C	
2	4	268	Gully	260	3	104	M2?	
2	4	269	Ditch	261	28	1013	L3+	
2	4	270	Ditch	262	43	1166	L3	
2	4	#	Ditch	263	20	884	L3	
2	4	271	Ditch secondary	264	49	1238	L3-?4	
2	4	271	Ditch primary	265	41	1346	M3?	Occasional abrasion
2	4	274	Ditch	273	20	660	L3-?4	
2	4	276	Ditch	275	22	758	L3	
2	15	#	Pit	302	13	63	RO	Fragmented
2	15	309	Ditch	307	25	1446	L3?	
2	15	317	Gully	308	13	254	M4	
2	15	311	Gully	310	12	559	RO	Tile frag 30g
2	15	#	Pit modern	313	9	83	2-3/POSTRO	Brick/Tile frag 34g; some abrasion
2	15	309	Ditch lower	314	33	1233	ML3	Some abrasion
2	15	316	Ditch	315	16	363	3C	
3	6	355	Ditch upper	358	5	262	2-3C	Some abrasion; Joins 360
3	6	355	Ditch lower	360	3	118	2-3C	Joins 358
4	10	#	Topsoil	550	6	113	L3-4	Abraded
3/4	11	#	Topsoil	600	8	86	3C/POSTRO	Abraded
				Total	926	38036		

OVERVIEW OF FABRICS

The fabrics from the excavations are detailed on table 3.

Table 3 Fabrics, total site

Fabric	Code	Sherds	Weight
Samian Central Gaul	SAMCG	3	41
Mancetter-Hartshill mortaria	MOMH?	1	294
Mortaria	MORT	2	197
Oxidized	OX	1	39
Oxidized white slip	OXWS	1	14
Parisian type	PART	7	192
Grey fine	GFIN	22	753
Grey	GREY	869	35842
Grey sandy	GRSA	1	23
Pimpley coarse	IAGR	4	115
Vesicular	VESIC	5	107
Coarse	COAR	1	237
Kiln debris	KILN	5	155
Post-Roman	PRO	4	27
Total		926	38036

The small quantity of pottery from elsewhere, the samian, mortaria and other oddments indicates some admixture of normal domestic rubbish, but the overall analysis of the assemblage suggests

this is minor, and may well pre-date the main activity in the area. Trade in mortaria from the Mancetter-Hartshill potteries in Warwickshire is common for Lincolnshire from the mid to late 2nd century onwards, and the mortarium from this site is probably of later 2nd century date. The other mortarium is unidentified for source at present, and may be later, perhaps 3rd century, in date. There are no amphorae. The grey wares include different fabrics, but all with much the same inclusions and character, and soil conditions make it difficult to securely identify local production waste. The occasional body sherds of pimply coarse ware (IAGR) is akin to fabrics known from Lincoln and from the Trent Valley. The few vesicular sherds (VESIC, uncertain lost tempering), the grey sandy (GRSA) and coarse (COAR) appear to be unrelated to local pottery production. The site is quite remarkable in having no Nene Valley colour-coated wares, normally ubiquitous on most sites of similar date range. The odd sherds of post-Roman are all post-Medieval.

The quantities from the outlying trenches away from Areas 1 and 2 are negligible, and the fabrics from the main areas are detailed on table 4.

Table 4 **Fabrics, Areas 1 and 2**

Fabric	Code	Area 1		Area 2	
		shs	wt	Shs	Wt
Samian Central Gaul	SAMCG	2	32	1	9
Mortaria Mancetter-Hartshill	MOMH?	1	294	-	-
Mortaria	MORT	-	-	2	197
Oxidized	OX	-	-	1	39
Oxidized white slip	OXWS	1	14	-	-
Parisian type	PART	5	138	2	54
Grey fine	GFIN	11	178	11	575
Grey	GREY	253	11813	596	23461
Grey sandy	GRSA	-	-	1	23
Coarse pimply	IAGR	-	-	4	115
Coarse	COAR	1	237	-	-
Vesicular	VESIC	1	43	4	64
Kiln debris	KILN	1	74	4	81
Post-Roman	PRO	1	8	1	8
Total		277	12831	627	24626

Details of the fabric and form combinations by area are given in the appendix 1. Expansion of the vessel type codes used is available if required. Vessels recommended for illustration, particularly if no further excavation occurs on this site, are listed in the appendix 2. These would form the basis for a type series for any new material from the site.

DISCUSSION

Pottery production:

A fairly large proportion of sherds show signs of mis-firing as would be expected from a pottery production site. A few fragments of fired clay likely to have come from kiln superstructure occurred with the pottery, in addition to the quantity recovered from the site. The sub-soil conditions would appear to have affected the pottery, and it is difficult to be certain in some cases whether poor surface preservation and other defects arose from soil conditions or were the result of the pottery being waste from pottery production in the area. This makes it difficult to certainly determine the proportion of waste, and there are, as noted, some vessels clearly not from local production.

As can be seen, the vast bulk of the pottery is of ordinary grey ware, the fabric being undistinguished in terms of character or inclusions. The small number of finer sherds are likely to

be from what is known as Parisian ware (Elsdon 1982), although no sherds with stamps occurred. This fine quality black polished ware from Market Rasen varies considerably in quality and fineness; only particularly fine fabric sherds have been recorded as PART, Parisian type, and the others are grouped as GFIN, fine grey. The local production would appear to be solely concerned with grey wares, both ordinary coarse vessels and the finer Parisian types.

The assemblage as a whole is as would be expected from the environs of a pottery production area. The analysis in terms of vessel types would be highly unusual for a normal domestic site, with the main class being open forms, bowls and dishes, and comparatively little in terms of jars, normally the commonest form. Analysis based on vessels represented by rims shows bowls and dishes to represent over 70% of the normal grey ware, the main fabric produced.

There are quantities of bases, and while some can be attributed to vessel types, identification of the form of others is less clear. The vessel types have therefore been analysed on the basis of vessels based on rims, and the commonest greyware vessel is the wide-mouthed bowl (BWM), mostly with a strongly curved-over, undercut rim type. The commonest dish is the plain-rimmed dish (DPR), with only a few of other types, with flanged (DFL), triangular (DTR) and grooved (DGR) rims. Of the straight-sided bowls in the tradition derived from BB1 types, the commonest type is the triangular-rimmed bowl (BTR), the other main type being the simple flat-rimmed flange type (BFL). The latest bowls in this tradition present are the bead-and-flange bowls (BFB), and the type with an inturned bead (BIBF). There are one or two unusual bowl types. Recognition of wasters in some of the bowl forms is often difficult, given the strength of the vessel type, but waster sherds occur for most of the main forms noted, including a bead-and-flange bowl, which would date to the late 3rd century at the earliest.

The jars are a motley group of various types, with no clear dominant type. Not all are necessarily from local production, and they include copies of Dales ware jars (JDW), common in the area in the later 3rd century, a number of lid-seated jars of differing types (JLS; J106), a fine two-handled jar (JH), and rims from large jars with collared rims (JCR). A number of waster sherds from large jars occurred.

The finer wares occurred mainly as body sherds from closed vessels, either beakers or flasks. There are, however, two flasks with collars on the neck (FDN), bases typical of Parisian beakers, sherds from a possible folded beaker and a poppy-head type. A copy of a samian bowl form 38 also occurred in the fine fabric, with rouletting under the flange. The evidence of the flasks (a type more common in the later Roman period), and probably also the bowl, substantiates the view (Darling 1984, 80) that production of vessels in this fine fabric continued after the normal *floruit* of Parisian ware, and it is particularly useful to have this evidence from a production site.

Dating:

The typological dating for the main types represented lies quite strongly in the later Roman period, and with the late kilns at Lincoln, at Rookery Lane in particular, and the Swanpool kilns. The wide-mouthed bowls in particular are paralleled at Rookery Lane and also at the Thealby kilns, while the jars with collared rims are typical products of Rookery Lane and Swanpool, one (D27) being of the type of Swanpool C41 with a frill. Bowls with inturned beads and flanges are made at Swanpool, and some of the wide-mouthed bowls are more akin to Swanpool types.

Spatial aspects:

Superficially there is little difference between the pottery from Areas 1 and 2, but the latest forms occur in Area 2, further away from the road. This may, however, be fortuitous, given the smaller sample size from Area 1. Both areas have a number of earlier vessel types. The overall date range could extend back into the mid to late 2nd century, and extend through to the mid 4th century, the main emphasis lying in the latter part of the 3rd century. The paucity of material from the outlying trenches indicates the main activity to lie closer to the present road.

THE SIGNIFICANCE OF THE SITE

The dating of the pottery from these trenches differs from that currently accepted for this pottery industry of c AD150-200 (Samuels 1983, 684; Swan 1984, fiche 457-8), although Swan suggests a broader late 2nd to 3rd century range. Types illustrated by Samuels, however, suggest that his dating was based on samian and Parisian ware, the latter being a minor part of the production from these kilns. Other vessels illustrated by Samuels include Dales ware types, normally accepted as being classic later 3rd century jars, and bowls and other types which can be paralleled at the late Roman industries at Rookery Lane and Swanpool in Lincoln, and other late kilns.

It seems clear that the pottery industry has a long-life, certainly starting in the 2nd century, but continuing through into the later Roman period. This longevity confirms the considerable importance of this industry for the area. The quantity of slag from the site suggests a close association between the potters and iron workers, and wheat impressions on fired clay from earlier excavations in the area may be evidence for the proximity of threshing. This appears to indicate an important industrial area for an adjacent settlement and surrounding area. This has significant implications for the area, and further information about the pottery industry at Market Rasen is needed to assess Roman settlement in the area, and its relationship to other kilns to the south and east.

RECOMMENDATIONS

As an industrial site of importance to any understanding of the area, further excavation is very desirable, particularly to define the range of production both in terms of vessel types and date-range. Very little evidence has been found in the past relating to the kiln structures at Market Rasen, and virtually nothing is known of the potters' workshops or their relationship to other industrial work in the area. This aspect is one urgently needing attention.

If no further excavation is to be undertaken, it is crucial that the vessels listed in appendix 2 are drawn for publication, and that the mortarium of unknown source is referred to the specialist, Mrs K.F. Hartley. In the event of further excavation, some of the vessels from this evaluation will probably need to be drawn. Closer examination of the fabrics will also be needed to define more closely the production.

BIBLIOGRAPHY

- | | |
|---------------------|---|
| Darling, M.J., 1984 | <i>Roman Pottery from the Upper Defences</i> , The Archaeology of Lincoln, XVI-2. |
| Elsdon, S.M., 1982 | <i>Parisian Ware</i> , Vorda Research Series, 4. |
| Samuels, J., 1983 | <i>The Production of Roman Pottery in the East Midlands</i> , unpublished D.Phil. Thesis, University of Nottingham. |

APPENDIX 1

The vessel type codes are hierarchical, the prefixes indicating the vessel form, as B, Bowl; BK, Beaker; D, Dish; BD, Bowl or dish; C, Cup, J, Jar, F, Flagon or flask; P, plate; M, Mortarium. The following letters indicate the main characteristic.

Area	Fabric	Form	Shs	%	Weight	%
1	COAR		1	0.36	237	1.85
1	GFIN	BK	1	0.36	16	0.12
1	GFIN	BKPH	2	0.72	32	0.25
1	GFIN	CLSD	8	2.89	130	1.01
1	GREY		114	41.16	2507	19.54
1	GREY	-	5	1.81	433	3.37
1	GREY	B	4	1.44	103	0.80
1	GREY	BD	8	2.89	220	1.71
1	GREY	BDFL	3	1.08	74	0.58
1	GREY	BDTR	1	0.36	15	0.12
1	GREY	BFL	5	1.81	435	3.39
1	GREY	BK2	1	0.36	50	0.39
1	GREY	BTR	6	2.17	659	5.14
1	GREY	BWM	26	9.39	1643	12.80
1	GREY	CLSD	8	2.89	499	3.89
1	GREY	D	1	0.36	114	0.89
1	GREY	DFL	4	1.44	583	4.54
1	GREY	DGR	3	1.08	107	0.83
1	GREY	DP	2	0.72	48	0.37
1	GREY	DPR	11	3.97	611	4.76
1	GREY	DTR	2	0.72	82	0.64
1	GREY	FS	1	0.36	52	0.41
1	GREY	J	10	3.61	432	3.37
1	GREY	J106	1	0.36	28	0.22
1	GREY	JB	6	2.17	288	2.24
1	GREY	JBCUR	3	1.08	48	0.37
1	GREY	JBK	1	0.36	11	0.09
1	GREY	JCR	2	0.72	207	1.61
1	GREY	JCUR	1	0.36	70	0.55
1	GREY	JEV	1	0.36	37	0.29
1	GREY	JH	3	1.08	646	5.03
1	GREY	JL	10	3.61	1489	11.60
1	GREY	JLS	7	2.53	231	1.80
1	GREY	JNN	3	1.08	91	0.71
1	KILN		1	0.36	74	0.58
1	MOMH	MHK	1	0.36	294	2.29
1	OXWS	B	1	0.36	14	0.11
1	PART	BK	1	0.36	55	0.43
1	PART	BK2	1	0.36	30	0.23
1	PART	FDN	3	1.08	53	0.41
1	PRO		1	0.36	8	0.06
1	SAMCG	31	1	0.36	23	0.18
1	SAMCG	B	1	0.36	9	0.07
1	VESIC	J	1	0.36	43	0.34
2	GFIN		1	0.16	2	0.01
2	GFIN	B	1	0.16	8	0.03
2	GFIN	B38	1	0.16	288	1.17
2	GFIN	BK2	2	0.32	39	0.16
2	GFIN	CLSD	4	0.64	135	0.55
2	GFIN	FS	1	0.16	40	0.16
2	GFIN	PL	1	0.16	63	0.26
2	GREY		296	47.21	6984	28.36
2	GREY	B	15	2.39	984	4.00
2	GREY	B334	1	0.16	14	0.06
2	GREY	BC	1	0.16	14	0.06
2	GREY	BCARFL	2	0.32	419	1.70
2	GREY	BD	44	7.02	2290	9.30
2	GREY	BDFL	5	0.80	77	0.31
2	GREY	BDTR	7	1.12	138	0.56
2	GREY	BEV	1	0.16	75	0.30
2	GREY	BFB	11	1.75	719	2.92
2	GREY	BFBH	1	0.16	30	0.12
2	GREY	BFBL	1	0.16	10	0.04

2	GREY	BFL	7	1.12	461	1.87
2	GREY	BGR	1	0.16	18	0.07
2	GREY	BIBF	5	0.80	663	2.69
2	GREY	BIR	1	0.16	31	0.13
2	GREY	BK	3	0.48	48	0.19
2	GREY	BKCAR	5	0.80	222	0.90
2	GREY	BKEV	1	0.16	2	0.01
2	GREY	BKFO	1	0.16	14	0.06
2	GREY	BPR	1	0.16	29	0.12
2	GREY	BRR	4	0.64	186	0.76
2	GREY	BTR	13	2.07	630	2.56
2	GREY	BWM	40	6.38	2232	9.06
2	GREY	CLSD	4	0.64	99	0.40
2	GREY	D	3	0.48	242	0.98
2	GREY	DPR	30	4.78	1327	5.39
2	GREY	J	25	3.99	960	3.90
2	GREY	JB	26	4.15	2790	11.33
2	GREY	JBCUR	3	0.48	84	0.34
2	GREY	JBK	6	0.96	100	0.41
2	GREY	JBKCUR	1	0.16	4	0.02
2	GREY	JBWM	1	0.16	58	0.24
2	GREY	JCR	5	0.80	259	1.05
2	GREY	JCUR	5	0.80	133	0.54
2	GREY	JDW	3	0.48	90	0.37
2	GREY	JEV	6	0.96	266	1.08
2	GREY	JL	4	0.64	506	2.05
2	GREY	JLS	1	0.16	18	0.07
2	GREY	JNN	3	0.48	122	0.50
2	GREY	JTR	1	0.16	41	0.17
2	GREY	OPEN	1	0.16	22	0.09
2	GREY	ST	1	0.16	50	0.20
2	GRSA		1	0.16	23	0.09
2	IAGR		2	0.32	56	0.23
2	IAGR	J	2	0.32	59	0.24
2	KILN		4	0.64	81	0.33
2	MORT	MFL	2	0.32	197	0.80
2	OX	CLSD	1	0.16	39	0.16
2	PART	CLSD	2	0.32	54	0.22
2	PRO		1	0.16	8	0.03
2	SAMCG		1	0.16	9	0.04
2	VESIC		4	0.64	64	0.26
3	GREY		3	37.50	86	22.63
3	GREY	JBK	5	62.50	294	77.37
3/4	GREY		4	50.00	29	33.72
3/4	GREY	BWM	1	12.50	22	25.58
3/4	GREY	JTR	1	12.50	24	27.91
3/4	PRO		2	25.00	11	12.79
4	GREY		2	33.33	24	21.24
4	GREY	BFB	1	16.67	16	14.16
4	GREY	BTR	1	16.67	39	34.51
4	GREY	JBK	1	16.67	13	11.50
4	GREY	JCR	1	16.67	21	18.58

Vessels for illustration.

Trench	Cut		Cxt	DNo	Fab	Form	Dec	Ves	Details	Links	Shs	Grams
1	111	Pit	110	49	GREY	DTR		1	RIM WALL	-	1	46
1	111	Pit	110	50	GREY	J106		1	RIM ONLY;DKGRY	-	1	28
1	121	Pit	120	1	PART	FDN		1	100%RIM/NECK	-	1	18
1	121	Pit	120	2	GREY	JH		1	100%RIM/NECK;HDLE STUMPS	-	2	591
1	121	Pit	120	51	GREY	BFL		1	COMP PROF;CHAMFER	-	1	80
1	121	Pit	120	52	GREY	BK2		1	RIM/PT WALL;PART TYPE	-	1	50
1	121	Pit	120	53	GREY	BWM		1	RIM/NECK/PT SHLDR;U/C	-	1	79
1	121	Pit	120	54	GREY	DGR		1	COMP PROF;CHAMFER	-	1	33
1	126	Pit top	124	11	MOMH?	MHK		1	RIM/SPOUT/PT WALL;?GROG TYPE TG	-	1	294
1	126	Pit top	124	12	GREY	BTR		1	COMP PROF;MOST VESS	-	3	539
1	126	Pit top	124	13	GREY	JCR		1	RIM/SHLDR;RL TYPE	-	1	105
1	126	Pit top	124	55	GREY	DPR	WAST	1	COMP PROF;SCORED LINES EXT	-	3	228
1	126	Pit upper	125	6	GREY	BWM		1	RIM/WALL;ALMOST NECKLESS	-	1	127
1	134	Pit upper	129	7	PART	FDN		1	RIM/NECK	-	2	35
1	134	Pit upper	129	8	GFIN	BKPH?		1	RIM OUT CURVED	-	2	32
1	134	Pit upper	129	56	GREY			1	FTM;GROOVED U'SIDE	-	1	55
1	134	Pit	135	10	PART	BK2		1	RIM/PT WALL	-	1	30
2	156	Pit	155	3	GREY	BWM		1	RIM/WALL;NON J BASE;CURVED TYPE	-	4	702
2	156	Pit	155	4	GREY	DFL	WAST	1	COMP PROF	-	2	469
2	156	Pit	155	5	GREY	JLS		1	RIMS/PT WALL	-	7	231
2	156	Pit	155	58	GREY	JNN		1	RIM/PT NECK;TRIANG.RIM	-	1	22
2	158	Linear feature	157	9	GREY	DP		1	RIM/PT WALL	-	2	48
2	169	Pit ?clay	161	57	GREY	BWM		1	RIMS>SHLDR;CURVED TYPE	-	4	112
2	169	Pit ?clay	161	59	GREY	DGR		1	RIM/WALL;DKGRY	-	1	48
3	-	layer sand	202	41	MORT	MFL		1	RIM & UNUS SPOUT;CR-BN;SLAG TG	-	2	197
3	-	layer sand	202	42	GREY	BWM		1	RIM STRONG CURVE;U'CUT	-	1	96
3	-	layer sand	202	60	GREY	BWM		1	RIM STRONG CURVE;U'CUT	-	1	66
3	-	Layer much pot	249	63	GREY	JDW		1	RIM/NECK;RB FAB;DKGRY SURF	-	1	53
3	205	Ditch	229	45	GREY	JEV		1	RIM/SHLDR	-	1	108
3	205	Ditch	229	61	GREY	ST		1	STRAINER BASE	-	1	50
3	215	Ditch	214	28	GREY	BCARFL		1	COMP PROF;LGE PART VESS	-	1	397
3	215	Ditch	214	30	GREY	JBCUR		1	RIM/SHLDR	-	2	54
3	215	Ditch	214	31	GREY	JCUR	STAB	1	RIM>BODY	-	1	55
3	222	Ditch	221	14	GREY	DPR		1	COMP PROF;THICK BASE	-	1	190

Vessels for illustration.

3	222	Ditch	221	15	GREY	BC		1	OUTFL.RIM; C33?	-	1	14
3	222	Ditch	221	16	GREY	BIBF		1	RIM/PT WALL;DKGRY	-	1	49
3	222	Ditch	221	43	GREY	BFB		1	COMP PROF POSS	-	4	211
3	241	Ditch	230	62	GREY	DPR		1	COMP PROF	-	1	138
4	257	Ditch	256	34	GREY	BFL	BS;WAST	1	RIM/WALL;DENT RIM	-	1	49
4	257	Ditch	256	35	GREY	BFL	WAST	1	COMP PROF;SMALL CHAMFER	-	1	98
4	257	Ditch	256	36	GREY	BWM	WAST?	1	RIM>LWR BODY	-	1	134
4	257	Ditch	256	64	GREY	BWM		1	RIM CURVED U' CUT RL;SQUARISH	-	1	99
4	257	Ditch	256	65	GFIN	BK2		1	RIM/PT WALL	-	1	28
4	269	Ditch	261	39	GREY	JEV	BS	1	RIM; BS BELOW & GROOVE	-	1	57
4	269	Ditch	261	40	GREY	BEV		1	RIM/WALL	-	1	75
4	270	Ditch	262	32	GREY	BRR		1	COMP PROF	-	4	186
4	270	Ditch	262	33	GREY	BKCAR		1	COMP PROF	-	5	222
4	271	Ditch	264	37	GREY	BPR		1	RIM/WALL;DKGRY	-	1	29
4	271	Ditch	264	38	GREY	B		1	RIM/PT WALL CURVED	-	1	20
4	271	Ditch primary	265	17	GREY	BFL	BWL?;WAST	1	RIM/WALL;CRACKED	-	1	137
4	271	Ditch primary	265	18	GREY	BCARFL		1	RIM/PT WALL;DKGRY	-	1	22
4	271	Ditch primary	265	66	GREY	DPR		1	COMP PROF;THICK BASE	-	1	152
4	271	Ditch primary	265	67	GFIN	CLSD		1	PED. TYPE BASE;BK/FS?	-	1	66
4	274	Ditch	273	29	GREY	BWM		1	SQ.RIM/BODY	-	1	81
4	o	Fills ?ploughed	259	19	GFIN	FS		1	TUBULAR NECK;GROOVED	-	1	40
4	o	Fills ?ploughed	259	20	GREY	DPR		1	COMP PROF	-	2	197
4	o	Fills ?ploughed	259	21	GREY	BFB		1	RIM/WALL	-	1	68
4	o	Fills ?ploughed	259	22	GREY	BFBH		1	RIM/PT WALL	-	1	30
4	o	Fills ?ploughed	259	23	GFIN	PL		1	RIM/PT WALL;DKGRY;POLISH SURF	-	1	63
4	o	Fills ?ploughed	259	24	GREY	JTR		1	RIM/PT NECK;AS SPOOL F1-2	-	1	41
4	o	Fills ?ploughed	259	25	GREY	BTR		1	RIM/PT WALL;VARIANT	-	1	42
4	o	Fills ?ploughed	259	26	GREY	BIR		1	RIM/PT WALL	-	1	31
4	o	Fills ?ploughed	259	27	GREY	JCR	FRILL	1	RIMS	-	2	170
15	309	Ditch	307	44	GREY	BIBF		1	RIMS/MOST PROF	-	2	552
15	309	Ditch lower	314	46	GREY	JEV		1	RIM/PART BODY	-	1	61
15	309	Ditch lower	314	47	GREY	BFB		1	COMP PROF	-	1	301
15	309	Ditch lower	314	48	GFIN	B38	ROUL	1	COMP PROF;DAMAGED FL	-	1	288
15	309	Ditch lower	314	68	GREY	JLS		1	RIM/PT WALL	-	1	18
15	309	Ditch lower	314	69	GREY	JDW		1	RIM FRAG;DKGRY	-	1	20

Appendix 9.2

Report on the Kiln Fabric and Furniture by James Albone

A total of eighty five fragments of kiln fabric and furniture were recovered from eighteen contexts. Five different types of kiln furniture were identified based on the types and categories listed by Swan (1984, 59-67). These were all items of portable and reusable kiln furniture and consisted of bars, pedestal / supports and perforated plates. The results are summarised in Table 1.

The bars were divided by size except for the curved bars which were considered separately. The large bars were brick or slab like and as such were considered as possible pedestals or supports for the kiln floor. These were generally rectangular in section although one apparently rounded fragment was recovered. The medium sized bars, which measured c.7 cm across in section, would have been used to form the kiln floor onto which the pottery to be fired would be stacked. A number of small bars, of c.6 cm or less across in section, would also have been used to form the kiln floor. Although some adjoining fragments were recovered, it was not possible to determine the original length of any of the bars.

Two fragments of curved bars were recovered. Bars of this type were used both as supports within the kiln and as part of the structure, for example in flue arches.

Two fragments of portable perforated clay plates were found. These would have been used in conjunction with the bars within the kiln as extra support for the pottery being fired. Both pieces showed edges which confirmed that they were plates and not fragments of fixed clay floors.

A small number of baked clay fragments, which may have been pieces of kiln lining, were recovered.

The kiln furniture was made from a range of different fabrics although no attempt has been made to categorise it on this basis. The bulk of the pieces are oxidised to grey colour and where reduction occurred on identifiable fragments it has been noted. The main inclusion was quartz sand which occurred in anything from sparse to very frequent amounts. Very occasional pieces of flint were also noted.

The use of organic temper appears to have been limited and in some cases may have been accidentally included. The surfaces of some fragments, particularly medium sized bars were covered with impressions of grass / straw and grain. It is important to note that the impressions are much more abundant on the exterior surfaces of the fragments and do not appear to represent deliberate temper. Impressions similar to these were noted on fragments recovered during the 1966 excavation by De Aston School. These were identified by Mr R Alvey as the stem and leaf spikelets of spelt wheat and the proximity of a threshing floor to the kiln was suggested (Samuels 1983, 686-687). The impressions

Context	No. of Frags.	Small Bars	Med. Bars	Large Bars	Curved Bars	Perf. Plates	Kiln Lining	Misc.
120	3				1			2
124	21	1		4			3	13
150	1	1						
157	2		1	1				
161	3				1	1		1
202	15	1	4	1				9
221	2			1				1
229	8		4	1				3
230	2		1					1
259	7	1	1				1	4
261	4						2	2
262	1			1				
263	5			2				3
264	3							3
265	2		1				1	
273	4		1	1			1	1
358	1			1				
u/s	1					1		
TOTAL	85	4	13	13	2	2	8	43

Table 1: Types and quantities of kiln material by context

present on the fragments in the assemblage from this evaluation suggested that the bars and other kiln furniture were manufactured on a surface, such as a threshing floor, which was covered in straw and grain. The possible association of pottery production and crop processing has been briefly discussed by Swan (1984, 47). Alternatively the items of kiln furniture may have been deliberately wrapped in grass / straw to give them extra strength and to allow for easier handling and stacking before they were fired.

The identification of the fragments present in each context is discussed below;

Context (120).

Only three fragments were recovered from this context. The most significant of these was part of a curved bar formed from a roughly rectangular slab. The fragment measured 19.8 cm long, 11.9 cm wide and up to 5.8 cm thick although its original length would have been greater. Curved bars of this type were used both as supports for vessels and as part of the kiln structure. The arched appearance of this fragment may indicate that it was part of the structure of the kiln flue but this is by no means certain. The other two fragments from this context were small and could not be identified.

Context (124).

A total of twenty one fragments were recovered from this context. This is a particularly high number given that only a small part of the context was excavated. A small number of the fragments were found to be adjoining but this did not help greatly in the identification of the types present. Only two fragments could be positively identified as being from bars including one which represented the end of a small tapering bar. Four of the largest pieces, including two made up from the adjoining fragments, appear to have been either large clay bars or brick-type pedestals / supports. Three of the small fragments were of baked clay and it is possible that they were pieces of kiln lining.

Context (150).

A single fragment of small bar was recovered from this context. This had a square or rectangular section which measured 6.4 cm across.

Context (157).

This context contained two fragments both of which were identifiable. A fragment of a large brick or slab type pedestal / support showed two original faces representing a corner. It measured 14.7 cm by 9.5 cm by 10.0 cm thick, although it was broken in all directions and its original size would have been greater. The other fragment from this context was part of a medium sized bar with a rectangular section which measured 7.0 cm by 6.7 cm. This fragment showed a large amount of grass / cereal impressions on the exterior surfaces.

Context (161).

Three fragments were recovered from the excavated part of this context of which two can be identified. The largest fragment, which measures 10.3 cm by 10.0 cm and 4.3 cm thick, is part of a curved bar similar to the one from context (120). The other identifiable

fragment appears to be from the edge of a portable perforated clay plate. This fragment measures 7.5 cm by 7.5 cm and shows what appears to be its complete thickness of 3.9 cm. It is perforated by two holes of approximately 2.3 cm diameter which are spaced 5.6 cm apart and c.4.5 cm from the edge of the plate. Plates of this type were used in the loading of kilns as supports for and spacers between the vessels being fired.

Context (202).

This context contained fifteen fragments of which five could be identified as parts of bars and one as part of a large bar or pedestal / support. The other nine fragments were probably also parts of bars or pedestals but were too incomplete to be identified.

One of the fragments was from close to the end of a small, tapering bar which measured 5.3 cm across its section. The other fragments were from medium sized bars with rectangular sections which measured c.7cm across. Two of the fragments were from the ends of bars. One of these showed the complete end to be rounded. The other fragment was oxidised at the end whereas the rest of the exterior and the core were reduced. The fragment of a larger bar or pedestal / support had a rectangular section which measured 9.8 cm by 7.8 cm.

Context (221).

Two fragments were recovered from this context. One of these, from a large bar, was very badly cracked from firing. It appeared to have had a rectangular section c.10 cm across. The other fragment was probably also from a bar but could not be positively identified.

Context (229).

This context contained eight fragments, five of which could be identified. One of the fragments was from the end of a large bar or brick type pedestal / support. This had a rectangular section which measured 10.2 cm by 8.8 cm at the widest point and tapered towards the end. The exterior surface of the fragment showed a large amount of grass / cereal impressions. The other identifiable fragments were all parts of medium sized bars. One fragment was from the end of such a bar and had a rectangular section which measured 8.0 cm by 7.5 cm. Three of the other fragments, two of which were adjoining, were probably all from the same bar. This appeared to have been c.8.0 cm across and tapered towards the ends. One of these fragments showed a flattened impression at the end of one of its sides. This would have been caused when the bar was stacked or placed in position when still soft before firing. The other fragments were probably also from bars or pedestals / supports although it was not possible to be certain despite all showing external surfaces and corners.

Context (230).

Two fragments were recovered from this context one of which could be identified. This was a fragment of a medium sized bar with a rectangular section which measured 6.2 cm by 7.2 cm. The external surfaces of this bar showed a grass / cereal impressions.

Context (259).

This context contained seven fragments. These included part of a medium sized bar 8.8 cm across and the end of a small bar which was 5.5 cm by 4.3 cm in section. A small fragment of soft, oxidised, baked clay may be a piece of the lining of a kiln. A fragment with a oxidised exterior may in fact be part of a roof tile waster. The other fragments from this context were not identifiable.

Context (261).

Only four fragments were recovered from this context. Two of these were fragments of kiln furniture which could not be identified. The other two fragments were of baked clay and were probably part of kiln lining.

Context (262).

This context contained a single fragment of a large bar or brick type pedestal / support. This had a broadly rectangular section c.8.0 cm across and had three finger impressions in one of the surfaces.

Context (263).

This context contained five fragments. Two large adjoining fragments were from the end of a large bar or pedestal / support with a rectangular section which measured 9.0 cm by 8.4 cm. The other three fragments were all small and could not be identified.

Context (264).

Only three small fragments were recovered from this context none of which could be identified.

Context (265).

This context contained a fragment of the end of a possible medium sized bar. The section was rectangular and measured 6.5 cm by c.8.0 cm. A small fragment of brown daub-like material, possibly a piece of kiln lining, was also recovered.

Context (273).

Four fragments were recovered from this context. These included a fragment of a large bar or brick-type pedestal / support. This had a rectangular section which measured 10.2 cm by 6.6 cm. This fragment was unusual in that the core was oxidised to a medium pink colour and one of the external surfaces was light grey whereas the others were light brown. The only other positively identifiable fragment was of a medium sized bar which measured 7.7 cm by 6.5 cm in section. A small fragment of baked clay was probably a piece of kiln lining. The other fragment from this context was not positively identifiable but was probably part of a medium to large bar.

Context (358).

Contained a single fragment of a rounded large bar or pedestal / support which had a section with a diameter of c.10 cm.

**REPORT ON THE IRON-PRODUCTION SLAGS FROM LINWOOD ROAD,
MARKET RASEN (LRM97; LCCM: 301.98)**

By Jane Cowgill©
March 1998

Introduction

The evaluation trenches in Market Rasen uncovered quantities of charcoal, pottery wasters, kiln bars and iron smelting slags suggesting that they were close to an industrial area of the Romano-British settlement. Initial fieldwalking had proved relatively unsuccessful due to the amount of vegetation growing in the 6.7 hectare field. The gazetteer of Romano-British kilns in Lincolnshire (Swan 1984) mentions that a number of excavated pottery kilns had been found associated with iron slags at Market Rasen.

The recording methodology

A total of 4.581 kg of slag (6 pieces) was submitted for recording. The slag was identified solely on morphological grounds by visual examination, sometimes with the aid of a x10 binocular microscope. It was recorded on *pro forma* recording sheets using the following encoded fields: Context; Type; Count; Weight; Comments. A note of probable fuel type has been recorded when fragments were incorporated within the slag.

The iron-production debris

Table 1. The smelting slags

Context	Type	No	Weight (g)	Comments
+	Tap	2	335	Matt dark grey-blueish surface; both represent individual short flows; raked??
120	Slag	1	447	Probably very dense tap; abraded and encrusted.
150	Tap	1	859	Very dense; minimum thickness 60mm; occasional ore inclusions.
161	Furnace Slag	1	2612	Very dense and red purple in places; sandy clay adhering on ?side; many ore inclusions; many charcoal imprints – some 50mm long.
302	Tap	1	328	Long flow fragment; dense; mid-dark grey; surface cooled fast.

All the slag was generated by iron smelting; there are no smithing slags amongst this assemblage. The individual pieces are well preserved, large and in good condition with the exception of the piece from context 120 which is abraded probably from frequent redeposition. The slags are dark in colour and unusually dense and have a surprising number of red and grey (oxidised and reduced) ore inclusions. The composition of the assemblage is also very unusual in that all types present are forms that normally would constitute the minority of a Romano-British smelting assemblage. By far the most common type usually encountered are pieces of flowed tap-pit slag which often fracture into layers and have a smooth or rippled surface. The only piece that almost fits this description is that from context 150 but it is rather

thick. The three other pieces of tap are all flows perhaps suggesting that the slag was tapped into channels rather than pits (no excavated parallel is known to the author). Another possibility is that the slags were raked out of the furnace at the end of the smelt but although this type is known it is not common in this part of Britain or during the Romano-British period.

The large piece of furnace slag contains both large and small charcoal imprints from the fuel used to smelt the iron ore. Some of the blocky imprints are as large as 50mm by 25mm indicating that large timbers, converted into charcoal, were used by the smelters. (When wood is converted into charcoal it shrinks by six to seven times in size.) Evidence from another site in Lincolnshire suggests that the main fuel used there was oak (Gale 1995). The red/purple coloration is partly due to the presence of pieces of ore but some suggests that the slag has partly oxidised in places. Both are peculiar because the whole of the inside of the furnace should be a reducing zone because iron production is a reduction process therefore the remaining ore should be grey and the slag should have had no opportunity to oxidise whilst it remained within the furnace.

Rich iron ores, in the form of iron pan, may have been available on the site either on the clay deposits or at a level within which the water table fluctuated. A very large lump of iron pan was found in the Trench 2 backfilled clay pit (context 161) which did not appear to the excavator to have formed *in situ* (pers comm R Schofield).

This is such a very small assemblage in terms of iron production sites that it cannot be interpreted except to say that it is unusual in form and that the assemblage has a strange composition. This need not reflect the true composition of the assemblage, however, if it were found. It is very likely that iron smelting was occurring in the vicinity from the combined evidence from the previously recorded pottery kilns and this group. The two industries are known to have operated alongside one another in some locations (for example Swan Pool (Lincoln) and in the Nene Valley) from the physical evidence and because of the presence of iron slags as trituration grits in mortaria. There are thought to be a number of reasons for this including the fact that both industries require clay and, more importantly, their use of wood is complementary – the smelters used the timber while the potters burnt the remaining brush as their fuel.

Recommendations

Iron-working slag is not prone to deterioration and requires no special storage treatment. It is recommended that the entire assemblage is retained in case there is no further work on the site but this should be reassessed if and after further excavation takes place.

It may be possible to establish whether iron smelting actually took place on the site by re-analysing the geophysics information. Although the furnaces will give a similar response to pottery kilns the associated evidence will give significantly higher magnetic susceptibility readings. The fayalitic slags and deposits of roasted ore are so strongly magnetic that they will distort the magnetic field for several meters around

them and therefore the presence of any extreme peaks should be sought. (McDonnell 1995.)

If the site is to be excavated it is recommended that the excavator obtains copies of the Historical Metallurgy Society Archaeological Datasheets. These can be bought for the price of £1 from Dr D Starley, Ancient Monuments Laboratory, English Heritage, 23 Savile Row, London W1X 1AB. Cheques should be made payable to the Historical Metallurgy Society.

Iron-smelting furnaces tend to be very ephemeral. Their small size and often limited degree of vitrification can mislead excavators; they are also easily confused and mistaken for small pottery kilns. It is therefore recommended that the supervisor and preferably the entire team involved in any further work, attend an illustrated lecture on the process and the type of evidence likely to survive. The author is willing to offer this service free of charge.

During any further work at the site the charcoal should be extensively sampled. This would enable questions on fuel use and woodland management to be addressed.

Bibliography

Gale, Rowena 1995 *Creeton Quarry, CRQ 94: Charcoal*, unpublished archive report.

McDonnell, Gerry 1995 Geophysical techniques applied to early metalworking sites *Historical Metallurgy Society: Archaeology Datasheet* No 4.

Swan, Vivian G 1984 *The pottery kilns of Roman Britain*, Royal Commission on Historical Monuments, Supplementary Series: 5.

**THE STONE FIND FROM LINWOOD ROAD, MARKET RASEN
(LRM97; LCCM: 301.98)**

Context 259; Stone ?Quern. Produced from a conglomerate stone type. The outer edge is fairly straight suggesting that it may have a wide diameter; this edge is also unusually worn and almost polished. Around the outer edge are radial grooves c. 25mm long with pecked hollows inside them. This is unusual for a Romano-British quern stone because usually the grinding surface is composed of a herringbone pattern of grooves. If the stone is a part of a quern it is an upper stone.

By Jane Cowgill©
March 1998

Appendix 9.5

Trench 1 Contexts

<i>Number</i>	<i>Category</i>	<i>Description</i>
100	Layer	Dark brown sandy topsoil
101	Cut	Land drains. (3 on same line)
102	Cut	Land drain.
103	Cut	Land drain.
104	Layer	Firm, yellow/blue/grey clay natural layer.
105	Layer	Moderate, orange sand natural layer.
106	Fill	Mid grey sand fill. Top deposit in cut (109)/(113).
107	Fill	Dark grey sand upper fill of pit (109).
108	Fill	Dark grey sandy (iron-stained) fill of pit (109). Contains clay pipe. Same as (112).
109	Cut	Large rectangular pit with vertical sides and uneven base.
110	Fill	Light grey brown fill of rubbish pit (111)
111	Cut	Steep-sided, sub-square (rubbish) pit.
112	Fill	Mid grey sand fill or large post-med feature (same as (108).
113	Cut	Same as (109).
114	Fill	Friable, bright orange reduced clay lens in fill of (109).
115	Fill	Mid grey brown sand. Iron-stained. Land drain disturbance.
116	Fill	Mixed (orange, blue, grey) redeposited clay on the surface of post-medieval pit (109)/(113).
117	Fill	Dark grey clayey sand fill. Of Roman date. May be more than one feature.
118	Fill/deposit	Dark grey silty clay.
119	Fill/deposit	Mid grey clayey sand.
120	Fill	Mid to dark grey brown clayey sand fill of pit (121).
121	Cut	Bowl-shaped pit cut.
122	Fill	Light grey silty clay fill of unexcavated small pit.
123	Cut	Sub-round small, unexcavated pit.
124	Fill	Dark grey, firm silty clay top fill of pit (126).
125	Fill	Firm mid grey silty clay upper fill of pit (126).

126	Cut	Pit cut. Not fully excavated.
127	Fill	Mid grey sand/silt clay fill of pit (128). Not excavated.
128	Cut	Unexcavated ?Roman pit.
129	Fill	Dark grey sandy silty upper fill of pit (134).
130	Fill	Mid grey silty sandy fill of pit (139).
131	Fill	Yellow/orange (redeposited) clay fill of pit.
132	Fill	Dark grey silty sand fill of pit. Lens in fill (130).
133	Fill	Mid grey silty sand fill of pit. Lens in fill (130).
134	Cut	Oval pit cut containing fills (129) - (143).
135	Fill	Soft light grey sand fill in pit (134).
136	Fill	Light grey clayey sand fill in pit (134).
137	Fill	Dirty, very light brown sand fill in pit (134).
138	Cut	Unexcavated cut. Cuts (104)/(105).
139	Cut	Broad, flat-bottomed, v-shaped pit cut.
140	Cut	Broad, shallow pit cut.
141/42	Fill/Cut	Small, circular pit and fill in base of ditch (139). ?Posthole.
143	Deposit	Yellow, sandy clay primary fill of ditch (134).
144	Deposit	Light yellow-grey clay sand deposit. May be natural.
145	Cut	Broad, shallow cut for pit.

Trench 2 Contexts

<i>Number</i>	<i>Category</i>	<i>Description</i>
150	Layer	Thick sandy topsoil layer.
151a	Fill	Mid to dark grey sand upper fill in feature (152).
151b	Fill	Largely waterlogged lower fill in feature (152).
152	Cut	Post-medieval linear feature in section only.
153	Fill	Dark brownish grey fill of (154).
154	?Cut	Linear, east-west feature. Ridge and furrow.
155	Fill	Mid grey sand-silt fill in feature (156).

156	Cut	Shallow, rectangular pit cut.
157	Fill	Dark brownish-grey clay-sand-silt fill in feature (158).
158	Cut	North end of a linear feature with a very irregular base.
159	Layer	Mid greyish yellow, waterlogged deposit along south side of feature (154). ?Natural.
160	Fill	Very dark grey upper fill of (169).
161	Fill	Mid grey sandy fill of (169).
162	Fill	Dark brownish grey sandy deposit. Probably part of (161).
163	Fill	Very dark grey gravelly fill. Possibly part of (161).
164	No. not used	
165	Fill	Dark grey fill in cut (166). Probably part of (161).
166	No. not used	
167	Layer	Mid yellowish grey clay. Redeposited natural. Part of (161)?
168	Layer	Stiff, yellow-grey mottled clay deposit. Similar to (167).
169	Cut	North edge of large pit (?clay pit).
170	Deposit	Lens of layer, observed in section. Possibly upper fill of (169).
171	Deposit	Dark grey brown subsoil/redundant ploughsoil. Almost identical to (150).

:

Trench 3 Contexts

<i>Number</i>	<i>Category</i>	<i>Description</i>
200	Layer	Mid brown sandy silt topsoil.
201	Layer	Mid brownish grey silty sand subsoil layer.
202	Fill	Very dark grey silty sand layer. May be same as (249).
203	Fill	Dark brownish grey silty sand layer/deposit above (205).
204	Fill	Mid greyish brown silty sand layer/deposit above (205).
205	Cut	Large, north-south ditch. Recut by ditch (241).
206	Fill	Dark grey silty sand fill of (208).
207	Fill	Dirty brown orange fill of (208).
208	Cut	Linear, north-south land drain cut.
209	Fill	Mid to dark grey soft upper fill of gully (210).

210	Cut	Linear, east-west gully.
211	Fill	Soft mid grey fill of shallow gully (212).
212	Cut	Linear, east-west gully.
213	Fill	Mid to very dark grey fill of post hole (231).
214	Fill	Mid grey upper fill of ditch (215)
215	Cut	Linear, north-south ditch cut. Recutting ditch (228).
216	Fill	Mid brown upper fill of (217).
217	Cut	Linear, north-east/south-west feature with vertical sides and a flat base.
218	?Fill	Dark brown sand. Not excavated. Possibly change in natural or feature fill?
219	Layer	Very mixed layer. Varies in colour throughout, with small, occasional chalkstones.
220	Layer	Natural orange sand layer, with some ironpanning.
221	Fill	Mid to dark grey upper fill of ditch (222).
222	Cut	Rectilinear, east-west ditch with steep sides and a concave base.
223	Layer	Soft white and yellowish white sand windblown natural layer.
224	Fill	Light to med grey main fill of ditch (225).
225	Cut	North-east/south-west linear ditch with slightly concave base.
226	Fill	Light and mid grey lower inwash fill of ditch (215).
227	Fill	Mid brownish grey fill of ditch (228).
228	Cut	Linear, north-south ditch cut. Truncated from above by later ditch (215).
229	Fill	Brownish yellow fill within ditch (205).
230	Fill	Light brown-grey soft sand fill of ditch (241).
231	Cut	Virtually square posthole with a slightly concave base.
232	Layer	Dirty brown and grey sand. Natural windblown sand deposit/layer.
233	Fill	Sandy primary fill of ditch/gully (210). Mainly white with orange pockets
234	Fill	Dark grey sandy lower fill of ditch (225).
235	Fill	Light to mid grey sandy lower fill of ditch (222).
236	Fill	Mid brown-grey fill of ditch (237). Not excavated.
237	Cut	Linear, north-south, unexcavated ditch.
238	Fill	Dark grey sand. Shallow inwashed lens from edges of (205).

239	Fill	Pale brown-yellow sandy lower fill within ditch (205).
240	Fill	Light greyish yellow sandy fill of (241). Similar to (239).
241	Cut	Unexcavated (due to collapsing sides) linear ditch with steep sides. Recut of (205) after silting up.
242	Fill	Light to mid grey sandy fill of (217).
243	Fill	Mid to dark grey fill of (217).
244	Fill	Mixed fill of (217). Inwashed natural.
245	Fill	Light to mid grey sandy fill of (248).
246	Fill	Soft, yellow and white, inwashed lens of sand. Fill of (248).
247	Fill	Mid to dark grey sandy fill of (248).
248	Cut	Probably linear feature/ditch. Aligned north-south.
249	Deposit	Dark grey layer, rich in Roman pottery. Similar to (202).
900	Fill	Yellow, white, and orange sand. Slumped natural/inwashed natural sand.

Trench 4 Contexts

<i>Number</i>	<i>Category</i>	<i>Description</i>
250	Layer	Dark greyish brown silty sand topsoil
251	Layer	Subsoil
252	Fill	Dark brown sandy silt fill in pit (253).
253	Cut	Half-round pit. Fairly shallow with slightly concave sides with a dished base.
254	Fill	Blackish grey sandy silt fill in ditch (255).
255	Cut	Linear south-east/north-west ditch cut with a flattish base. Adjacent and parallel to (257).
256	Fill	Blackish grey fill of linear ?ditch (257).
257	Cut	Linear south-east/north-west ditch cut with a shallow u-shaped base.
258	?Deposit	Collection of formless black splodges. Animal disturbance/burrow.
259	Deposit	A mixture of fills, perhaps created by ploughing.
260	Fill	Mottled grey-brown sandy fill in gully (268).
261	Fill	Black ditchfill in (269). Westernmost of a group of 3 fills.
262	Fill	Very dark grey fill in ditch (270) which became lighter and sandier with depth.

263	Fill	Dark grey mixed fill of linear ditch. Contained redeposited natural and small clay lumps at the base.
264	Fill	Dark grey secondary fill above (265) in (271).
265	Fill	Light brownish grey silty primary fill in ditch (271).
266	Fill	Mid greyish brown shallow silty sand fill of gully (267).
267	Cut	Shallow, north-south gully, with u-shaped base.
268	Cut	Narrow, east-west gully/ditch, with a flat base.
269	Cut	Shallow, south-south-east/north-north-west ditch, with u-shaped base.
270	Cut	Shallow, south-east/north-west ditch, with u-shaped base
271	Cut	Irregular-sided, south-east/north-west ditch, with a base sloping west to east.
272	Cut	Shallow cut. May represent a ditch. Only west side survive.
273	Fill	Mid grey silty sand fill in ditch (274).
274	Cut	Steep-sided, south-east/north-west ditch with a flat base.
275	Fill	Dark grey silty sand fill in ditch (276).
276	Cut	V-shaped, south-east/north-west ditch.
277	Layer	Variable yellow/white natural sand.

Trench 5 Contexts

<i>Number</i>	<i>Category</i>	<i>Description</i>
800	Layer	Dark grey brown topsoil.
801	Linear feature	Shallow furrow from plough ridge and furrow. Containing dark grey brown sand.
802	Linear feature	Linear ?post-med field boundary ditch. Containing dark grey brown silty sand.
803	Linear feature	Linear ?post-med water course. Containing mid grey sand.
804	Layer	Mixed yellow/orange, white and mid brown sand natural layer with patches of iron pan.
805	Layer	Mid grey brown sand subsoil.

Trench 6 Contexts

<i>Number</i>	<i>Category</i>	<i>Description</i>
350	Layer	Dark grey sandy silt topsoil

351	Deposit	Mid grey silty sand upper fill of furrow (366) or possible layer/deposit sealing and slumping over furrow fills (352) etc.
352	Fill	Fairly dark grey sandy clayey silt upper fill within furrow (366).
353	Fill	Light grey silty fine sand fill within furrow (366).
354	Fill	Mixed but mainly light grey silty sand fill within furrow (366).
355	Cut	Roughly east-west ditch with a concave base.
356	Deposit	Dark grey silty sand layer.
357	Fill	Light to mid grey silty sand fill within furrow (366).
358	Fill	Dark grey sand upper fill of ditch (355).
359	Fill	Light grey sand fill of ditch (355).
360	Fill	White sand lower fill (inwashed) of ditch (355).
361	Fill	Mid to dark grey silty sand lower fill within furrow (366).
362	Layer	Mid grey/orange sand layer heavily stained by iron panning.
363	Layer	Mid grey/white/orange sand with frequent iron panning between sand lenses. Possibly flood deposition of sand.
364	Layer	Light to dark orange natural sand.
365	Cut	Mid to light grey sand layer stained by iron panning.
366	Cut	Shallow, east-west furrow.

Trench 7 Contexts

<i>Number</i>	<i>Category</i>	<i>Description</i>
400	Layer	Dark greyish brown silty sand topsoil.
401	Layer	Mid orange/brown natural sand.

Trench 8 Contexts

<i>Number</i>	<i>Category</i>	<i>Description</i>
450	Layer	Dark greyish brown silty sand topsoil.
451	Layer	Mid orange/brown natural sand.

Trench 9 Contexts

<i>Number</i>	<i>Category</i>	<i>Description</i>
500	Layer	Dark greyish brown silty sand topsoil.
501	Layer	Mid orange/brown natural sand.
502	Fill	Mid to light grey sandy fill of furrow (503).
503	Cut	East-west cut for furrow. Heavily truncated by ploughmarks and animal activity.

Trench 10 Contexts

<i>Number</i>	<i>Category</i>	<i>Description</i>
550	Layer	Dark greyish brown silty sand topsoil.
551	Layer	Mid orange/brown natural sand.

Trench 11 Contexts

<i>Number</i>	<i>Category</i>	<i>Description</i>
600	Layer	Mid greyish brown sandy topsoil.
601	Layer	Natural sandy layer with some ironpanning.
602	Fill	?Wind-blown fill of feature (603).
603	Cut	Shallow, east-west, linear cut for ditch/gully.

Trench 12 Contexts

<i>Number</i>	<i>Category</i>	<i>Description</i>
650	Layer	Mid greyish brown sandy topsoil.
651	Layer	Natural sandy layer with iron staining.
652	Fill	Sandy fill of narrow, linear feature (652)
653	Cut	Shallow, north-south, linear cut. Possibly contemporary with (655).
654	Fill	Sandy fill of linear feature (655). Probably a field drain.
655	Cut	Shallow, linear east-west cut. Possibly contemporary with/part of cut (653).
656	Fill	Sand fill in shallow feature (657). Contained rare charcoal flecks.
657	Cut	North side of a shallow, irregular depression in the south-east corner of the trench. Possibly not archaeological.

Trench 13 Contexts

<i>Number</i>	<i>Category</i>	<i>Description</i>
700	Layer	Topsoil (as 400).
701	Deposit	Clean sand. Upper fill of ditch (703).
702	Fill	Lower fill of ditch (703). ?Wind-blown.
703	Cut	V-shaped ditch cut. Possible field boundary.
704	Layer	Possibly wind-blown layer of subsoil which thins out to the east end of trench.
705	Layer	Dark brown sand layer.
706	Fill	Light grey fill of ditch (707).
707	Cut	Fairly steep-sided ditch with rounded bottom.
708	Fill	Light grey fill of ?ditch (709). Not excavated.
709	Cut	?Ditch cut. Possibly contemporary with (707).
710	Layer	?Wind-blown deposit of natural sand.
711	Fill	Light grey fill of ditch (712).
712	Cut	Broad, shallow ditch cut.

Trench 14 Contexts

<i>Number</i>	<i>Category</i>	<i>Description</i>
750	Layer	Dark grey brown topsoil.
751	Feature	Linear, east-west cut. Modern field drain containing mid brown sand.
752	No. used twice?	Linear, east-west cut. Modern field drain containing mid brown sand
753	Feature	East-west, shallow plough furrow containing dark grey brown sand.
754	Cut	Cut for the above.
755	No. not used	
756	Deposit	Subsoil layer of mid grey brown sand.
757	Deposit	Natural layer containing some iron pan and root disturbance.

Trench 15 Contexts

<i>Number</i>	<i>Category</i>	<i>Description</i>
300	Layer	Dark grey brown topsoil.
301	Layer	Dark brown subsoil. Possibly post-medieval/medieval ploughsoil
302	Fill	Dark grey brown sandy fill of pit.
303	Cut	Sub-circular post-pit cut. Very irregular with a rounded base. Depression in centre (for post), 3 post-packing stones at sides.
304	Fill	Dark grey brown fill of linear cut. Classed as being same as subsoil (301).
305	Cut	East-west linear cut for ridge and furrow.
306	?Deposit	Mixed orange and dark brown layer (spread). Base of (301) only.
307	Fill	Irregular thickness, medium - dark brown upper fill of ditch (309).
308	Fill	Dark grey brown fill of shallow gully (317).
309	Cut	East-west linear ditch cut. Steep-sided, v-shaped with flattened base.
310	Fill	Dark brown fill of gully (311).
311	Cut	North-south linear gully. Deep, steep-sided with flattened base.
312	Layer	Mid to dark orange natural layer with some iron pan.
313	Pit	Sub-rectangular cut for modern pit, containing dark grey brown fill (with modern finds).
314	Fill	Mid grey sandy lower fill of ditch (309).
315	Fill	Yellow brown sandy fill of ditch (316).
316	Cut	Broad, v-shaped, east-west ditch.
317	Cut	Shallow, flat-bottomed, east-west gully.

Trench 16 Contexts

<i>Number</i>	<i>Category</i>	<i>Description</i>
850	Layer	Mid grey brown topsoil layer.
851	Fill	Mixed dark grey sandy silt fill of modern pit (852).
852	Cut	Probably rectangular modern pit cut.
853	Fill	Mid brown/grey silty sand upper fill(s) of ?pond/feature (855).
854	Fill	Very dark grey organic sandy silt fill in (855). Possible pond silting.
855	Cut	?Pond. Large feature at north end of trench.

856	Layers	Laminated bands of silty sand and sand in hollows with yellow sand (857).
857	Layer/deposits	?Wind-blown or waterborne yellow sand and natural sand.

Appendix 9.6: References

- Palmer-Brown, CPH 1998 *Archaeological Desk Top Assessment and Field Evaluation (Phase 1). Land off Linwood Road, Market Rasen.* Unpublished developer report.
- Samuels, J 1983 *The Production of Roman Pottery in the East Midlands.* Unpublished Phd thesis, Nottingham.
- Swan, V 1984 *The Pottery Kilns of Roman Britain.* Supl. Ser.5 RCHM

Appendix 9.7 Colour photographs



P1. General view of Trench 1, looking west



P2. General view of Trench 2, looking south-east



P3. General view of Trench 3, looking north-west



P4. General view of Trench 4, looking east



P5. General view of Trench 12, looking east



P6. General view of Trench 13, looking east