

# DATA STRUCTURE REPORT OF AN ARCHAEOLOGICAL WATCHING BRIEF AT POWMYRE SAND AND GRAVEL QUARRY, GLAMIS, ANGUS 

Phase 3 Works

## PROJECT SUMMARY SHEET

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Keylimit of extraction
site boundary
stripped area (phase III)

previously stripped area (phase I\&II)

Illus 1
Site location

# DATA STRUCTURE REPORT OF AN ARCHAEOLOGICAL WATCHING BRIEF AT POWMYRE SAND AND GRAVEL QUARRY, GLAMIS, ANGUS 

Phase 3 Works

by Paul Masser


#### Abstract

Topsoil stripping in advance of an extension to Powmyre sand and gravel quarry was carried out under an archaeological watching brief, which was required as a condition of planning consent. The current phase of work (Phase III) covers an area of 3.2 hectares. The findings continued the pattern of widely scattered, multi-period remains seen in previous phases of work. A double row of postholes was recorded, located on top of a ridge, with a pit nearby which has been radiocarbon dated to the Early Neolithic. A small group of undated pits was found along the edge of a shallow lake or marsh to the east of the site. Three open-sided enclosures, defined by narrow gullies that probably supported fences, 30-38m wide and located on sloping ground, are thought to relate to livestock management. A $2 n d-3 r d$ century AD radiocarbon date was obtained from one of the enclosures. A single corn-drying kiln, probably medieval or postmedieval in date, was also found.


## 1. INTRODUCTION

### 1.1 Project background

Gravel extraction by Aggregate Industries Ltd at Powmyre Quarry, near Glamis, Angus has been ongoing since 2007. The area with planning consent for extraction comprises several large fields approximately 50 ha in total, located near Powmyre Farm, 3 km southwest of Kirriemuir, centred on NGR NO 36685037 (Illus 1).

A desk-based study and a walkover survey were carried out for the Environmental Impact Assessment submitted in 2003 (Aggregate Industries Ltd 2003, chapter 16: Cultural Heritage). A trial trench evaluation was carried out by Headland Archaeology, prior to determination of the planning application (Brown 2004). No archaeological features were identified in the evaluation; however in view of the relatively small area covered by the evaluation trenches, the potential for unrecorded archaeology was still considered to be significant. Therefore in accordance with NPPG5 and PAN42 planning consent was granted with a condition that topsoil stripping should be carried out under an archaeological watching brief (Planning reference 03/00691/MIN, Condition 24).

The watching brief so far has been carried out in accordance with a Written Scheme of Investigation (Powmyre Quarry, Glamis, Angus - Method Statement for an

Archaeological Watching Brief, dated 21 June 2007), prepared by Headland Archaeology in response to a brief issued by Angus Council (entitled Scope and framework of an archaeological watching brief at Powmyre sand and gravel quarry, Glamis). Topsoil stripping with archaeological monitoring is taking place in several phases in advance of extensions to the quarry. Phases I and II are complete and the results are described in previous Data Structure Reports (Bailey 2007, Simonsson 2007, Humble 2008, Robertson 2009). Phase III, which is the subject of this report, covers an additional 3.2 ha to the east of the existing quarry. Additional phases of work are anticipated as the quarry continues to expand in years to come.

### 1.2 Archaeological background

The watching brief on the Phase I works was carried out in three stages, the first and largest of which is described in Bailey 2007; two smaller extensions to the north of this area are described in separate reports by Simonsson (2007) and Humble (2008). The watching brief on the Phase II works is described in a fourth report by Robertson (2009). A publication report currently in preparation discusses the results of Phase I (Bailey forthcoming). Widely scattered archaeological features were found in all four stages of work and included prehistoric settlement and funerary remains, and groups of early medieval long cists.


[^0]

Illus 3


Illus 4
Posthole alignment: overall view facing north

## Prehistoric activity

A group of at least four posthole-defined structures, recorded in Phase I (Bailey 2007), included two roundhouses and two rectangular buildings. This group of features was associated with pottery that suggests a Bronze Age date. Two more distinct groups of postholes were identified, which probably represent other settlement foci, although no clear structures could be recognised.

In addition to these three concentrations of features, isolated features of probable prehistoric date were found widely scattered throughout the areas stripped during Phases I and II. These included two shallow pits with traces of in situ burning, which probably represent prehistoric cooking places; and a pit filled with burnt stones which is interpreted as a trough associated with a burnt mound (presumably ploughed away). Other isolated features consisted of small pits and postholes, a few of which contained fragments of prehistoric pottery and lithics. One pit excavated in Phase II contained sherds of late Neolithic Grooved Ware.

Evidence for prehistoric funerary activity includes a short cist containing a crouched burial accompanied by a Beaker vessel; and a probable cremation burial consisting of a simple deposit of ash and burnt bone within a small pit.

An alignment of six large postholes or pits was identified during Phase I, which remain undated.

## Early Medieval long cists

Eight long cist burials, dating from the 6th-7th centuries AD, were excavated during Phase I. These were distributed in two groups and a single isolated cist, located along the crest of a ridge that runs east/west across the site. Two of the four cists in Group A, and the isolated cist, contained well-preserved skeletons, while the remaining two cists of Group A, and all three cists in Group B, were severely plough-damaged.

## Post-medieval and modern farmsteads and agriculture

The desk-based study for the Environmental Impact Assessment identified three sites of post-medieval date, shown on late 18th/19th century maps of the area (Aggregate Industries Ltd 2003). Two of these are farmsteads, named as Cranford and Guilds; the third is an unnamed building. All have been demolished and no remains survive above ground level.

Phase I and II watching briefs identified rig and furrow covering most of the stripped area, relating to post-medieval ploughing.

## Previously identified archaeology within Phase III

One of the sites identified in the EIA, the unnamed building shown on late eighteenth and nineteenth century
maps, lies at the north corner of the Phase III watching brief area. No other remains have been identified previously in this area of the proposed quarry. A single evaluation trench was excavated within this area during the evaluation but found nothing of archaeological significance.

## 2. AIMS AND METHODS

The watching brief was intended to ensure that any features or deposits of archaeological significance were identified and recorded.

All topsoil stripping was carried out with a $360^{\circ}$ mechanical excavator fitted with a flat-bladed ditching bucket, supervised at all times by an archaeologist. Any possible features were tagged and marked on a 1:1000 plan of the site plotted by hand from handheld GPS readings.

All possible archaeological features were at least partially excavated by hand, to a sufficient extent to establish their character and, where possible, their date. Postholes and pits were at least $50 \%$ excavated, in half-section or opposing quadrants. At least $10 \%$ of each linear feature was excavated, principally with 1 m slots evenly distributed along the length of the feature. All ditch/gully terminals were excavated.

All cuts, deposits and other stratigraphic elements were assigned unique context numbers (continuing the sequence of numbers used in Phases I and II) and described on pro forma context sheets. Full context descriptions are included in Appendix 1.1.

A digital survey of the site was made in AutoCAD LT using a Total Station linked to an on-site computer via TheoLT surveying software. All archaeological features were surveyed in outline and in section. Where a higher level of detail was required, hand-drawn plans and sections were produced at 1:20 and 1:10 scales. A list of drawings is included in Appendix 1.2. A full photographic record was taken, using colour slide and colour print film and a digital camera. A photo catalogue is included in Appendix 1.3.

Bulk soil samples were taken from deposits with potential for environmental analysis, and a selection has been processed for assessment. An environmental assessment is included in this report and environmental data is included in Appendix 2.

Finds were recovered by context and are catalogued in Appendix 3. A finds assessment is included in this report.

Radiocarbon determinations have been obtained from two samples, in order to date two groups of features which were otherwise completely undated and therefore of unknown significance. Certificates and calibration curves are included in Appendix 4.


Illus 5
Close-up view of postholes [429], [455], [427], [457] and [425], facing north

## 3. SITE DESCRIPTION

### 3.1 Topography, soils and geology

The quarry site is located in a gently undulating agricultural landscape, with a few steeper slopes, at an altitude of $60-75 \mathrm{~m}$ OD, approximately 2 km north of the course of the Dean Water. The area covered by the Phase III watching brief slopes down from a gently rounded ridge at the south-west end of the site, to a low-lying hollow in the eastern corner. The lowest part of this hollow lies just beyond the edge of the excavation, between the site and Dairsie Farm, and is an area of marshland.

The drift geology covering the entire site consists of glacial sand and gravel. The underlying solid geology was not reached at any point. The depth of soil overlying the Phase III area was very variable: on top of the ridge to the west, there was no more than 0.25 m of topsoil, while in deeper folds and hollows there was up to 1.3 m of soil in places. Areas where the topsoil was more than 0.5 m deep are shaded on Illus 2 . There was corresponding variability in the nature of the soil: in areas of deep soil it consisted of very dark brown, almost stone-free, fine-grained silt with a high organic component, a type of soil one might associate with drained peat bog. A more stony soil with a more mineral composition was found on top of the ridge. The deeper soil occurs in precisely the areas where colluvial deposits might be expected to accumulate, i.e. at the foot of steeper slopes, and the variability in soil depth is undoubtedly largely due to ploughing which has caused considerable erosion and soil movement.


### 3.2 Neolithic (?) post-alignments and pits

## on the ridge to the south-west of the site

A group of features was excavated on the crest of the ridge towards the west end of site (Illus 3, 4 and 5). The majority appeared to be postholes, around 0.3 m wide and 0.15 m deep on average, and nowhere more than 0.3 m deep, with characteristic reddish-brown stony silt fills. A pair of features, [435] and [465], were larger than the others, around 0.5 m in diameter. An outlying feature [453] was also larger than the others, with a shallow, irregular profile, and appeared to be a shallow pit rather than a posthole. One other atypical feature was [433], another outlier at the south end of the group which had a very dark, charcoal-rich fill.

The majority of the postholes seem to be arranged in two rather irregular parallel lines oriented north/south, about 3 metres apart. The eastern alignment was much more extensive, comprising 15 postholes compared with the 6 making up the western alignment. The arrangement as it survived may be incomplete, however, since some of the postholes were very shallow and the ground surface in this area of the site was obviously truncated by ploughing. Nevertheless there was no particular reason to think that it once extended much further to the north or south.

Sherds of undiagnostic prehistoric pottery were recovered from posthole [435]; a sample from this feature was processed but produced only small quantities of charcoal. Posthole [449], which was an outlier to the main group, contained concentrations of charred material. A sample of this material was processed and produced high concentrations of cereal grain and hazelnut shell. A radiocarbon determination on the cereal grain was given a date range of $3770-3640 \mathrm{BC}$ ( $95.4 \%$ probability). A very small sherd of modern whiteware from the upper part of posthole [472] (Context [474]) is thought to be intrusive.

### 3.3 Three enclosures

Enclosures [410] (Illus 6), [357] (Illus 7) and [526]/[527] (Illus 13) displayed many common features. All consisted of curvilinear gullies up to 0.5 m wide, with steep sides and rounded bases, containing mid/dark brown silt loam fills (Illus 9). The consistently narrow profiles of the gullies, and the lack of evidence for weathering, indicates that they did not function as open ditches, but rather as settings for fences. All three enclosures were approximately oval in plan, but with irregularities that suggest that no great care was taken over the exact form of the enclosure. They shared a similar location on sloping ground, and appear to have been open on the upslope side; at least two of them had an entrance on the opposite, downslope, side. None of them contained any features, although there was a possible subdivision within [410]; and all were devoid of finds.

The largest and best-preserved enclosure [410] occupied a distinct hollow in the landscape and was therefore


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Illus 7
Enclosure [357]
protected by a considerable depth of soil over much of its extent. It enclosed an area approximately 38 m from east to west, and 32 m from north to south, and followed a somewhat meandering course (Illus 8 ). It was truncated in places by plough furrows, dividing it into segments which have been assigned separate context numbers ([411], [413], [415], [417], [419], [421] and [423]). However the gap between [415] and [417] certainly represents an entrance between two well-defined termini on the downslope side (Illus 10). The enclosure gullies were deepest on the south side where they were protected from plough truncation beneath deep soil deposits. The segments on the northwest side, [411] and [423], were much shallower, and beyond [411] a possible continuation is defined by three short truncated segments [371], [369] and [367]. However there was no trace of a gully closing off the north-west, upslope side. Five samples taken at different points around the circuit of the enclosure produced little other than small quantities of charcoal. Radiocarbon dating of alder


Illus 8
Enclosure [410], facing north
charcoal from Sample 198 from Context [412], the fill of gully segment [411], returned a date range of AD230-390 (95.4\% probability).

Several pits were located within enclosure [410], but there is no particular reason to think they are contemporary with it. However, a very shallow gully [521] ran across part of the interior, and may form a subdivision of some sort. There was also a short segmented gully (Contexts [403] and [404]) immediately to the south of the enclosure (Illus 12). The possibility that these features are associated with [410] should be considered, if only because they are linear features with similar dimensions.

Enclosure [357] (Illus 11) was located on an eastfacing slope, and measured 30 m from north to south. It was generally much shallower than [410], and had clearly suffered more from the effects of ploughing. Therefore it is possible that it had been truncated, and originally extended further to the west. Nevertheless, there was nothing to indicate that it was closed on the west side. No evidence was seen for an entrance on the downslope side, but this may be due to truncation by plough furrows. The four samples taken from different points around the circuit were generally uninformative, and the only find (recovered from one sample) was a single fragment of possible slag from Context [387].

The third enclosure, defined by gullies [526] and [527], was located on a north-east facing slope and measured 38 m wide from north-west to south-east, and at least 20 m wide from north-east to south-west (Illus 13 and 14). Gully [527] had a well-defined terminal at its south-west end, clearly indicating that the upslope side of this enclosure, at least, was indeed open. A six metre gap separated the two gullies: as both features were very shallow where they terminated on either side of this gap, it is not certain, though likely, that this represents an entrance to the enclosure. A sample from the fill of [527], Context [529], contained a small lump of iron and a piece of possible slag; two samples from [526] produced only small quantities of charcoal. No other features were associated with [526]/[527]; the only other features in the vicinity are two possible postholes [524] and [522], both of which are undated.

### 3.4 Prehistoric features beside a shallow

## lake in the south-east corner of site

Overlying the natural gravel subsoil in the low-lying southeast corner of the site was a thin layer of greyish-white clayey silt [519], nowhere more than 0.1 m thick (Illus 17).


Illus 10
West terminal of gully [417], facing north

Illus 11
Gully 357, facing NNW

Illus 12
Pit [405] and gullies [403] and [404], facing NNE



Illus 13
Enclosure [526]/[527]


Illus 14
Enclosure [526]/[527], facing east


Illus 15
Pit [361], facing west

The edge of this deposit corresponded approximately with the 65 m contour line and probably represents the former limit of seasonal flooding and wetland vegetation on the margins of a shallow lake or marsh lying between the site and Dairsie Farm. A thin deposit of peat was present at the very lowest point of the hollow, at about the same level as the water table. Above this peat, at the base of the topsoil, was a layer of rounded stones [520], covering an area approximately 10 m wide, probably deriving from post-medieval or modern field clearance and dumped in this part of the field to improve the drainage.

A small group of pits was excavated on the edge of the 'lake-bed deposit' [519] (Illus 6 and 7). Pit [347] contained a single burnt flint flake and concentrations of charcoal. Another very shallow pit [355] (Illus 16) contained much charcoal and also quartz fragments which were identified in the field as possible knapping debitage. The fill was $100 \%$ sampled, but the quartz was not identified as worked when the retent was sorted, and has now been discarded, so this initial identification cannot be confirmed. The other pits produced no finds, but [343] and [345] did contain significant quantities of charcoal. The fills of other pits [390], [392], [388] and [349] appeared to be archaeologically sterile, but the features had well-defined edges and almost certainly represent deliberately cut pits.

A few more pits were excavated further away from the edge of the lakebed deposit (Illus 6): [361] (Illus 15), [363], [365] and [405]. None of these contained any finds, but the features were well-defined enough to be convincingly interpreted as deliberately cut pits.

Within areas of deeper soil, the surface of the subsoil was covered by


Illus 16
Pit [355] half-sectioned, facing north


Illus 17
Lakeshore sediments [519], general view from spoil heap
soft, organic 'peaty' material [502]. Samples from [485] and [502] both produced significant quantities of charred oat and barley grains.

### 3.6 Rig and furrow and modern features

Cultivation furrows (collectively numbered [341]) covered the entire Phase III area, generally orientated WSW-ENE, with a gentle curve to the north-east (Illus 2). The average spacing between them was 11 m centre-to-centre, but locally this varied from six to 13 metres depending on local topography. The furrows were up to 2 m wide with very gently sloping edges. In the southeast corner of the site, two furrows were seen oriented NW-SE, suggesting the presence of a headland aligned with the dip in the ground at this point. The furrows cut across the three enclosures [410], [357] and [526]/[527], but were in turn cut by a modern field boundary [518]. While the furrows tended to disappear over high ground due to plough truncation, they showed less tendency to disappear beneath areas of deep soil. They must therefore pre-date both the present-day field layout, and most of the erosion and soil movement that has resulted in the deep soil deposits on the lower slopes of the field.

A concentration of features containing late 19th / early 20th century material in the north corner of the site corresponds to the location of the building shown on late 18th and 19th century maps (Illus 18). The footings of the building were not identified, however, and the features seen are more characteristic of a garden or yard. They included numerous very shallow rectangular, flat-bottomed cuts filled with topsoil, which are probably the remains of planting pits or beds; and several small round pits filled with broken bottles, scrap metal and other refuse. Some linear features ([494] and [495]) look like the foundations of a shed or greenhouse. A basic record was made of the 19th-20th century features, with exploratory digging in some cases to confirm their date, but none of the finds were retained.

## 4. PALAEOENVIRONMENTAL

## ASSESSMENT

## S. Timpany and D. Masson

Twenty-four samples from the third stage of archaeological works at Powmyre Quarry, Glamis were processed to assess their palaeoenvironmental potential (see Appendix



Illus 19
Tree-throw [504], facing west

2, Tables A2.1 and A2.2). Samples were taken from a number of possible prehistoric and medieval features including pits, enclosures and a corn-drying kiln.

All of the samples processed contained charcoal fragments, with five samples containing common to abundant quantities, suitable for further charcoal analysis work. Charcoal fragments suitable for radiocarbon dating are present in sixteen of the samples. These are highlighted in Tables A2.1 and A2.2.

Charred cereal grains are present in only five samples; although a range of cereal types were recovered with oat (Avena sp.), spelt wheat (Triticum spelta), emmer wheat (Triticum dicoccum) and naked barley (Hordeum vulgare var nиdum) present. Grain too badly degraded to be able to identify to family level was also encountered in the samples and this has been recorded as indeterminate cereal grain (Cerealia indet.). Small quantities of charred hazel (Corylus avellana) nutshell were found in three samples and may represent incidental burning of nuts attached to branches used as fuel or the remains of discarded food waste (McComb and Simpson, 1999).

## SW facing section (AA)



Illus 20
Corn-drying kiln [484]: plan and section

Together with the charred grain and nutshell a number of charred wild taxa were recovered from six samples including sedge (Carex sp.), docks (Rumex sp.) and corn marigold (Chrysanthemum segetum) together with fat hen (Chenopodium sp.). The wild taxa are all indicative of arable and disturbed ground (Clapham et al., 1962; Stace, 1997).

Two features were found to contain significant numbers of charred cereal grain and therefore have good potential for further palaeoenvironmental analysis. The first is posthole [449] which contained an abundant quantity of charred cereal grain within its fill [450] with large quantities of emmer wheat present. The posthole is an outlier to a double row of postholes whose function is as yet unclear. The presence of a pure emmer wheat crop suggests this feature is of prehistoric date and this has been shown by a radiocarbon date from the grain of $3770-3640 \mathrm{cal}$. вC (SUERC-30981; 4920 $\pm 35 \mathrm{BP}$ ) placing this activity in the Neolithic period. Emmer wheat was a favoured cereal grown during this period and has been found on Neolithic sites across Scotland (e.g. Fairweather and Ralston, 1993; Barclay et al., 2002;Timpany et al., 2009). The presence of so much well preserved charred grain and the absence of chaff and weed seeds from within the sample suggests that it was burnt after the crop had already been processed (Hillman, 1981). The large quantity found at Powmyre suggests a significant reliance on arable crops during the Neolithic.

Charred grain was also recovered from the corn-drying kiln [484]. This assemblage is more typical of medieval agriculture, with the presence of oat and spelt wheat. A small quantity of weed seeds was also recovered from the kiln, which are likely to have been accidentally incorporated with the crop during drying. This included corn marigold, which is often associated with medieval fields (Grieg 1988). Given the relatively small quantity of grain (and charcoal fragments) recovered from the kiln it appears likely that it was raked clean following its last use.

## 5. FINDS ASSESSMENT

## J. Lochrie

The assemblage includes all hand-collected and sample retent finds from the Phase III excavations at Powmyre Quarry. These include a handful of modern pottery sherds, a very small amount of possible iron slag, a small iron object, a fragment of possible daub, a few lithics and some sherds of coarse pottery. The coarse pottery and the lithics are prehistoric, probably late Neolithic/early Bronze Age.

In total there were 16 sherds and fragments of prehistoric pottery. The only diagnostic sherd is part of an all over cord


Illus 22
Surface [491] in base of kiln [484], facing west
decorated (AOC) beaker from a tree throw (cut [504], fill [505]). Beaker pottery first appears during the final stages of the late Neolithic and marks the advent of the Bronze Age, dating between c. 2400 вс and 1950 вс (Sheridan 2007).

The lithics amounted to two pieces of flint and a quartz flake. The flint flakes are both hard hammer flakes, both burnt. One may have some edge retouch or edge damage along the lateral edge. The quartz flake has no clear signs of reduction and may be a natural flake which has broken along fracture planes. None of the lithic finds are datable, though they are not inconsistent with a late Neolithic/ early Bronze Age date.

The small fragment of iron slag and small iron lump were both from the same context, [529]. They are undiagnostic but are clearly Iron Age or later.

Modern finds include two sherds of whiteware and two sherds of redware from a modern garden/yard feature and posthole (cut [472], fills [474], [490]).

## 6. DISCUSSION

The latest phase of archaeological monitoring has added to the evidence for dispersed, low-intensity prehistoric activity seen throughout the areas examined so far at Powmyre. The fact that none of this evidence was indicated by the evaluation simply illustrates the difficulty of locating dispersed features by trial trenching, and the appropriateness of the watching brief as a strategy in the circumstances. Two main foci can be identified. The first, located on a ridge top, consists principally of a double alignment of postholes. A Neolithic date was obtained from a pit nearby; while it is likely the posthole alignments are contemporary with the pit, and are almost certainly prehistoric, the association should perhaps be treated with caution since isolated prehistoric features
are so widespread in this landscape. The arrangement of postholes has been characterised as an alignment, although a case could also be made for seeing it as the remains of two or more rectangular buildings, similar to those seen in Phase I (Bailey 2007, Fig. 2). No obvious function can be suggested for the alternative interpretation as two parallel rows of free-standing posts. A number of large Neolithic posthole-defined enclosures have been excavated in Angus and neighbouring regions (e.g. Kendrick 1995, Halliday 2002), for which a ceremonial role has been suggested. Pit alignments which often run for considerable distances are also known, principally from cropmarks (Dunwell and Ralston 2008, 44). While neither of these types of site provides an exact parallel, they suggest two possibilities: that the posthole alignment at Powmyre may form part of a large ceremonial structure; or part of a more extensive system of land division.

The edges of a small marsh or pond in the southeast corner of the site appears to have provided a second focus of activity. The features consist of a random scatter of a few undated, but presumably prehistoric, pits, perhaps representing a temporary camp or a location that was visited occasionally for specific purposes. A small area of wetland might have been attractive as a source of water, reeds used as building materials, or as a place for hunting waterfowl, for instance.

A radiocarbon date was obtained for one of the three enclosures, since their date, and hence significance, would otherwise be entirely obscure. A 3rd-4th century AD date confirms their significance and at least provides a starting point in looking for parallels. On existing evidence, a few points can be made. They occupy similar locations just below the crest of a slope, and seem to have been open on their upslope sides, with narrow gaps in the circuit on the downslope side; and they are largely devoid of structures, artefacts or evidence of human occupation. For all these reasons they are highly unlikely to be related to settlement, and livestock control seems the most likely alternative. Sheep or cattle could have been herded into the open side of the enclosure (which would be invisible, lying below the crest of the slope, until the animals were very close), and then penned there while they were brought out singly through the entrance at the opposite side to be sheared or branded, for instance.

The feature interpreted as a corn-drying kiln is undated but in most respects is a typical example of a feature commonly associated with medieval and post-medieval farmsteads (Gibson 1989). The lack of evidence for scorching is unusual, but the presence of charred cereal grain in the backfill confirms an association with crop processing. It appears to be an isolated feature, and almost certainly pre-dates the mapped building and associated yard/garden features that were found in the same general area. This is also typical, as corn-drying kilns were usually located some distance from the settlement due to the risk of fire.

The rig and furrow covering the site reflects postmedieval ploughing. The site today lies in highly productive arable farmland, and would have been intensively cultivated
in the past. However, the erosion and soil movement that has resulted in the build-up of deep soil deposits in lowlying areas of the site appears to be largely a result of more modern cultivation methods.

As previously mentioned, the deep soil deposits were remarkably dark and stone-free and look as if they are largely derived from oxidised peat. If this material is indeed a product of relatively recent colluvial soil movement, it derives from high ground with free-draining gravel subsoil. This situation might be explained by the former presence of an area of blanket mire, specifically the 'spur mire' subcategory, which is most commonly found where a slope flattens into a plateau (Emma Tetlow, pers. comm.; Lindsay 1995, 44-51). The most significant defining characteristic of a spur mire is that it is constrained by an increasingly steep slope. In some cases, when this spur forms a basin, the peat will establish a morphology similar to that of a domed bog. Plateaus and hollows within the irregular glacial moraine landscape around the site could have provided the conditions for patches of blanket mire to develop in the past. Their existence may also explain the origins of the place name 'Powmyre'.

## 7. ACKNOWLEDGEMENTS

The project was funded by Aggregate Industries Ltd, and the assistance of Bruce Young, the quarry manager, in facilitating the fieldwork is gratefully acknowledged. Moira Greig, the Aberdeenshire Council Archaeologist, monitored the work on behalf of Angus Council.

## 8. REFERENCES

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## 9. APPENDICES

## Appendix 1 - Site registers

## Context register

## Context no. Description

Furrows covering entire excavation area. Orientated WSW-ENE, gently curving to NE. Average spacing is 11 m centre-to centre, but locally this varies from 6 to 13 m as furrows are bunched together or spaced out. All have very gently sloping sides and are up to 2 m wide; tend to disappear in highest points of the field where modern plough truncation is likely to be most severe, and to a lesser extent in areas of deep topsoil. Cut by modern field boundary feature [518].

Topsoil over whole field.Varies from 0.25 to 1.3 m in depth, being thickest over deep hollows where it has accumulated as a result of colluvial soil movement. Generally homogeneous, dark brown fine-grained silt with high organic content, though in higher/shallower areas this is paler and more mixed with sand and gravel.

Irregular rectangular pit, $1.86 \times 1.10 \mathrm{~m}$ wide, 0.22 m deep, steeply sloping and well-defined edges and flat base. Contains deposit [344].
Fill of [343]. Dark grey sandy clay with occasional small rounded stones, with a lens of charcoal on base of feature.
Oval cut $0.85 \times 0.57 \mathrm{~m}$ wide, 0.18 m deep, with moderately sloping sides and $U$-shaped base. Contains deposit [346].
Fill of [345]. Dark grey silty clay with occasional small stones.
Oval cut, $1.00 \times 0.76 \mathrm{~m}$ wide, 0.10 m deep, with moderately sloping sides and gently rounded base. Some heat-affected stone on base of feature. Contains deposit [348].

Fill of [347]. Dark brownish-black sandy clay with frequent charcoal.
Irregular, roughly triangular cut, $0.9 \times 0.8 \mathrm{~m}$ wide, 0.19 m deep, sloping sides and rounded base. Contains deposit [350].
Fill of [349]. Mid brownish-grey sandy clay with occasional small stones.
Probable tree throw: curvilinear feature 3.2 m long, 0.75 m wide, 0.22 m deep, irregular sides and base, contains deposit [352].
Fill of [351]. Mid brown gravelly/sandy clay, moderate small/medium stones
Probable tree throw: curvilinear feature 4.2 m long, 1.3 m wide, 0.32 m deep, with moderately sloping sides and V-shaped base, the terminals at either end vague and irregular. Contains deposit [354].

Fill of [353]. Mid/dark brown sandy clay, with moderate stone inclusions and occasional lenses of yellow sand.
Circular cut $0.55 \times 0.52 \mathrm{~m}$ wide, 0.04 m deep, containing deposit [356].
Fill of [355]. Black sandy clay with high concentration of charcoal and quartz debitage.
Curvilinear gully defining an irregular enclosure approximately 30 m wide from north to south, at least 10 m wide from east to west, but either open or truncated on the west (upslope) side. Truncated in places by cultivation furrows, which divide it into segments which have been individually numbered as Contexts [380], [382], [384] and [386].

Fill of [357]. Mid brown sandy/gravelly clay, moderate small stones. Deposits excavated from different parts of the enclosure individually numbered as Contexts [381], [383], [385] and [387] which are all part of [358].

Tree throw: curvilinear feature, $3.4 \times 0.9 \mathrm{~m}$ wide, 0.3 m deep, with moderately sloping sides (steeper on north) and irregular base. Contains deposit [360].

Fill of [359]. Mid brown gravelly/sandy clay with moderate stones.
Small pit. Oval cut $0.8 \times 0.7 \mathrm{~m}$ wide, 0.2 m deep, with moderately sloping sides and gently rounded base. Contains deposit [362]. Fill of [361]. Mid/dark brown sandy clay with occasional stones

Circular cut $1.3 \times 1.2 \mathrm{~m}$ wide, 0.3 m deep, with steeply sloping sides and flat base. Slight disturbance from animal burrow on west side. Contains deposit [364].
Fill of [363]. Mid/dark brownish-yellow sandy clay with occasional small stones and lenses of yellow sand.
Oval cut $0.92 \times 0.58 \mathrm{~m}$ wide, 0.29 m deep, with moderately sloping sides and rounded base, disturbed by animal burrow on west side. Contains deposit [366].

Fill of [365]. Mid brown clayey sand with occasional small stones.
Very slight cut $0.31 \times 0.25 \mathrm{~m}$ wide, 0.03 m deep, containing deposit [368]. Represents possible (fragmentary) continuation of enclosure gully [410].
Fill of [367]. Pale brown sandy clay, occasional small stones.

| Context no. | Description |
| :---: | :---: |
| 369 | Very slight cut $0.38 \times 0.22 \mathrm{~m}$ wide, 0.04 m deep, containing deposit [370]. Represents possible (fragmentary) continuation of enclosure gully [410]. |
| 370 | Fill of [369]. Mid brown sandy clay, occasional small stones. |
| 371 | Slight oval cut, $0.68 \times 0.3 \mathrm{~m}$ wide, 0.05 m deep, containing deposit [372]. Represents possible (fragmentary) continuation of enclosure gully [410]. |
| 372 | Fill of [371]. Mid brown sandy clay, occasional small stones. |
| 373 | void |
| 374 | void |
| 375 | Slot excavated through [380]. |
| 376 | Slot excavated through [382]. |
| 377 | Slot excavated through [384]. |
| 378 | Slot excavated through [386]. |
| 379 | Slot excavated through [386]. |
| 380 | SW part of enclosure gully [357]. Curvilinear cut traced for approx. 6 metres, up to 0.34 m wide and 0.1 m deep, with steeply sloping sides and flat base. It appears to terminate at east end less than 0.1 m from the adjacent segment [382], suggesting that the enclosure may have been extended at this point. It becomes increasingly shallow towards the west end before disappearing entirely, so may have continued beyond this point. |
| 381 | Fill of [380]. Mid brown sandy/gravelly clay, moderate small stones. |
| 382 | Continuation of enclosure gully [357] to east of [380]. Curvilinear cut traced for approx. 4 metres, up to 0.4 m wide, 0.06 m deep, with moderately sloping sides and flat base. Terminates to the west adjacent to [380], and truncated by a furrow to the east, which separates it from adjacent segment [384]. |
| 383 | Fill of [382]. Mid brown sandy/gravelly clay, moderate small stones. |
| 384 | Part of enclosure gully [357]. Curvilinear cut traced for approx. 10 metres, up to 0.4 m wide and 0.05 m deep. Truncated by furrows to SW and NE, which separate it from adjacent segments [382] and [386]. |
| 385 | Fill of [384]. Mid brown sandy/gravelly clay, moderate small stones. |
| 386 | NE part of enclosure gully [357]. Curvilinear gully, up to 0.22 m wide and 0.07 m deep, truncated by a furrow which separates it from adjacent segment [384] to SW, continues for 3 m NE of this point before curving sharply to the NW and disappearing after a further 9 metres. At its NW end it is very shallow and may have continued, but not survived, beyond this point. |
| 387 | Fill of [386]. Mid brown sandy/gravelly clay, moderate small stones. |
| 388 | Small pit or posthole. Oval cut $0.86 \times 0.56 \mathrm{~m}$ wide, 0.14 m deep, moderately sloping sides and rounded base. Contains deposit [389]. |
| 389 | Fill of [388]. Blackish-grey sandy clay with occasional small stones. Some larger stones against the side and base may represent postpacking. |
| 390 | Oval pit $0.6 \times 0.5 \mathrm{~m}$ wide, 0.25 m deep, with steep sides and rounded base, overlapping with similar cut [392]. Contains deposit [391]. |
| 391 | Fill of [390]. Mid grey clayey sand, with occasional small stones. Indistinguishable from [393]. |
| 392 | Oval pit $0.55 \times 0.40 \mathrm{~m}$ wide, 0.25 m deep, with steep sides and rounded base, overlapping with similar cut [390]. Contains deposit [393]. |
| 393 | Mid/pale grey clayey sand, occasional small stones. Indistinguishable from [391]. |
| 394 | Natural hollow, $1.75 \times 0.53 \mathrm{~m}$ wide, 0.23 m deep, irregular with poorly defined edges, containing blackish-grey sandy clay. Similar to [395] and [396]. |
| 395 | Natural hollow, $3.1 \times 0.8 \mathrm{~m}$ wide, 0.13 m deep, irregular with poorly defined edges, containing blackish-grey sandy clay. Similar to [394] and [396]. |
| 396 | Natural hollow, $2.3 \times 0.54 \mathrm{~m}$ wide, 0.28 m deep, irregular with poorly defined edges, containing blackish-grey sandy clay. Similar to [394] and [395]. |
| 397 | Probable tree throw. Curvilinear feature 2.6 m long, 0.7 m wide, 0.4 m deep, steep sides and rounded base, with the north side (on the inner edge of the curve) undercutting at the base. Contains deposit [398]. |
| 398 | Fill of [397]. Mid/dark greyish-black sandy clay with occasional stones. |
| 399 | Posthole. Circular cut 0.28 m diameter, 0.18 m deep, with vertical sides and rounded base. Contains deposit [400]. |
| 400 | Fill of [399]. Dark grey clayey sand, occasional small stones. |


| Context no. | Description |
| :---: | :---: |
| 401 | Natural hollow $1.85 \times 1.5 \mathrm{~m}$ wide, 0.25 m deep, irregular with poorly defined edges, containing blackish-grey sandy clay deposit. Similar to [402]. |
| 402 | Natural hollow $1.6 \times 1.3 \mathrm{~m}$ wide, 0.13 m deep, irregular with poorly defined edges, containing blackish-grey sandy clay. Cut by gully [410]. |
| 403 | Curvilinear gully 3.1 m long, 0.4 m wide, 0.1 m deep, with steeply sloping sides and rounded base. Contains deposit [408]. Its alignment is continued a short distance to the SW by a similar gully [404]. Due to shallow depth of both features it is unclear whether the break between them is real or due to variable depth in a single feature. |
| 404 | Curvilinear gully 1.9 m long, 0.4 m wide and 0.1 m deep, with steeply sloping sides and rounded base. Contains deposit [409]. Continues alignment of similar gully [403] beyond a short break to the NE. At its south end it appears to cut a pit [405], though this relationship was not certain. |
| 405 | Pit. Oval cut $1.9 \times 1.4 \mathrm{~m}$ wide, 0.24 m deep, with moderately sloping sides and irregular rounded base. Some evidence of disturbance by animal burrows on north side. Contains deposits [406] and [407]. |
| 406 | Primary fill of pit [405]. Rather mixed deposit of pale grey clayey sand, below deposit [407]. |
| 407 | Secondary fill of pit [405], overlying [406]. Fairly mixed pinkish-grey clayey sand. Cut by gully [404]. |
| 408 | Fill of [403]. Mid/dark brown sandy clay, occasional small stones. |
| 409 | Fill of [404]. Mid/dark brown sandy clay, occasional small stones. |
| 410 | Curvilinear gully defining an irregular enclosure approximately 38 m from east to west, and at least 32 m from north to south. The north (upslope) side is either completely truncated or open. Truncated in places by furrows, which divide it into segments which have been numbered individually (Contexts [411], [413], [415], [417], [419], [421] and [423]). A 3 metre wide gap between [415] and [417] represents an entrance on the south side of the enclosure. |
| 411 | Part of enclosure gully [410]. Linear cut 8.1 m long, 0.34 m wide and up to 0.3 m deep, with steep sides and rounded base. It appears to terminate to the north, but to the south is truncated by a furrow which separates it from adjacent segment [413]. Contains deposit [412]. |
| 412 | Fill of [411]. Dark brown sandy silt with moderate small sub-rounded stones and occasional charcoal. |
| 413 | Part of enclosure gully [410]. Linear cut 7.2 m long, 0.5 m wide, up to 0.2 m deep. Truncated at either end by furrows, continuing to north and south as [411] and [415] respectively. Contains deposit [414]. |
| 414 | Fill of [413]. Dark brown sandy silt with moderate small sub-rounded stones. |
| 415 | Part of enclosure gully [410]. Linear cut 4.25 m long, 0.45 m wide, up to 0.2 m deep with steep sides and rounded base. Truncated to NW, continuing beyond a short gap as [413]. Terminates to SE, separated from [417] by a 3 m gap that represents an entrance in the enclosure. Contains deposit [416]. |
| 416 | Fill of [415]. Dark brown sandy silt with moderate small sub-rounded stones. |
| 417 | Part of enclosure gully [410]. Rather irregular linear cut, terminating to NW and separated from [415] by a 3 m gap that represents an entrance in the enclosure; continues for 18 m to SE before turning abruptly to the east, truncated after a further 8 metres by a furrow that separates it from adjacent segment [419]. Up to 0.55 m wide and up to 0.38 m deep, with steep sides and rounded base. Contains deposit [418]. |
| 418 | Fill of [417]. Dark brown sandy silt with moderate small sub-rounded stones. |
| 419 | Part of enclosure gully [410]. Curvilinear cut 4.9 m long, 0.5 m wide, up to 0.2 m deep, truncated by furrows to west and north-east, which separate it from adjacent segments [417] and [421].Contains deposit [420]. |
| 420 | Fill of [419]. Dark brown sandy silt with moderate small sub-rounded stones. |
| 421 | Part of enclosure gully [410]. Linear cut 9 m long, 0.45 m wide, up to 0.25 m deep. Truncated by furrows at either end which separate it from adjacent segments [419] and [423]. Contains deposit [422]. |
| 422 | Fill of [421]. Dark brown sandy silt with moderate small sub-rounded stones. |
| 423 | Part of enclosure gully [410]. Linear cut 5 m long, 0.4 m wide, up to 0.1 m deep, becoming shallower before disappearing entirely at NE end, and truncated by a furrow that separates it from adjacent segment [421] to SW. Contains deposit [424]. |
| 424 | Fill of [423]. Dark brown sandy silt with moderate small sub-rounded stones. |
| 425 | Posthole. Circular cut 0.3 m diameter, 0.2 m deep, steeply sloping sides and rounded base. Contains deposit [426]. |
| 426 | Fill of [425]. Dark brown sandy silt, moderate small sub-rounded stones. |
| 427 | Posthole. Circular cut 0.3 m diameter, 0.15 m deep, with steep sides and flat base. Contains deposit [428]. |
| 428 | Fill of [427]. Dark brown sandy silt, with moderate small sub-rounded stones. |
| 429 | Posthole. Oval cut $0.3 \times 0.22 \mathrm{~m}$ wide, 0.17 m deep, with steep sides and rounded base. Contains deposit [430]. |


| Context no. | Description |
| :---: | :---: |
| 430 | Fill of [429]. Dark brown sandy silt, with inclusions of small sub-rounded stones. |
| 431 | Posthole. Oval cut $0.34 \times 0.32 \mathrm{~m}$ wide, 0.15 m deep, with steep sides and rounded base. Contains deposit [432]. |
| 432 | Fill of [432]. Dark brown sandy silt with occasional small rounded stones. |
| 433 | Posthole. Oval cut $0.28 \times 0.32 \mathrm{~m}$ wide, 0.14 m deep, with steep sides and rounded base. Contains deposit [434]. |
| 434 | Fill of [433]. Black charcoal-rich clay. |
| 435 | Small pit or posthole. Oval cut $0.5 \times 0.43 \mathrm{~m}$ wide, 0.13 m deep, with moderately sloping sides and flat base. East edge of base appears to be heat-affected. Contains deposit [436]. |
| 436 | Fill of [435]. Dark brown sandy silt with frequent rounded stones. |
| 437 | Posthole. Sub-circular cut $0.23 \times 0.22 \mathrm{~m}$ wide, with steeply sloping sides and base sloping down towards the west. Contains deposit [438]. |
| 438 | Fill of [437]. Dark brown sandy silt with occasional small rounded stones. |
| 439 | Possible tree throw. Curvilinear feature $2.6 \times 0.4 \mathrm{~m}$ wide, 0.13 m deep, with rounded base and diffuse, poorly defined edges. Contains deposit [440]. Not on survey. |
| 440 | Fill of [439]. Reddish-brown sandy clay with abundant charcoal. |
| 441 | Posthole. Sub-circular cut $0.37 \times 0.35 \mathrm{~m}$ wide, 0.2 m deep, with steep sides and rounded base. Contains deposit [442]. |
| 442 | Fill of [441]. Dark brown sandy silt, with moderate small rounded stones. |
| 443 | Posthole. Sub-circular cut $0.41 \times 0.34 \mathrm{~m}$ wide, 0.11 m deep, with steep sides and rounded base. Contains deposit [444]. |
| 444 | Fill of [443]. Dark brown clay, occasional pebbles. |
| 445 | Small pit or posthole. Irregular oval 'pear-shaped' cut, $0.49 \times 0.38 \mathrm{~m}$ wide, 0.09 m deep, with gently sloping sides and flat base. Contains deposit [475]. |
| 446 | Posthole. Sub-circular cut $0.3 \times 0.25 \mathrm{~m}$ wide, 0.2 m deep, with steeply sloping sides and rounded base. Contains deposit [447]. |
| 447 | Fill of [446]. Dark brown sandy silt with gravel inclusions and frequent small charcoal flecks. |
| 448 | void |
| 449 | Posthole. Oval cut $0.34 \times 0.22 \mathrm{~m}$ wide, 0.23 m deep, steep/vertical sides and flat base. Contains deposit [450]. |
| 450 | Fill of [449]. Black fine-grained silt, with charcoal inclusions. A large pebble within the fill may be post-packing. |
| 451 | Posthole. Oval cut $0.24 \times 0.21 \mathrm{~m}$ wide, 0.11 m deep, steep/vertical sides and rounded base. Contains deposit [452]. |
| 452 | Fill of [451]. Dark blackish-brown sandy clay with some small pebbles; one large stone in the centre may represent post-packing. |
| 453 | Pit or tree throw. Irregular cut $0.74 \times 0.73 \mathrm{~m}$ wide, 0.15 m deep, with irregular edges and base. Contains deposit [453]. Not on survey: described as 1.5 m NW of posthole [449]. |
| 454 | Fill of [453]. Dark brown fine sandy silt with occasional charcoal and pebbles. |
| 455 | Posthole. Sub-circular cut $0.5 \times 0.36 \mathrm{~m}$ wide, 0.3 m deep, with steep sides and rounded base. Contains deposit [456]. |
| 456 | Fill of [455]. Greyish-brown sandy silt with occasional rounded pebbles. |
| 457 | Posthole. Sub-circular cut $0.38 \times 0.33 \mathrm{~m}$ wide, 0.18 m deep, with steep sides and rounded base. Contains deposit [458]. Not on survey. Context sheet says 'the first of a curvilinear alignment of postholes - located 0.63 m to the S of [455]'. |
| 458 | Fill of [457]. Dark brown sandy silt. |
| 459 | Posthole. Oval cut $0.34 \times 0.22 \mathrm{~m}$ wide, 0.12 m deep, with gently sloping edges and rounded base. Contains deposit [460]. |
| 460 | Fill of [459]. Dark reddish-brown sandy clay, with fine gravel inclusions. |
| 461 | Circular cut 0.24 m diameter, 0.18 m deep, with steeply sloping sides and rounded base. Contains deposit [462]. |
| 462 | Fill of [461]. Dark brown sandy silt. |
| 463 | Posthole. Sub-circular cut $0.3 \times 0.28 \mathrm{~m}$ wide, 0.08 m deep, with sloping sides and rounded base. Contains deposit [464]. |
| 464 | Fill of [464]. Mid greyish-brown sandy silt. |
| 465 | Pit or posthole. Oval cut $0.51 \times 0.47 \mathrm{~m}$ wide, 0.1 m deep, moderately sloping sides and irregular base. Contains deposit [466]. |
| 466 | Fill of [465]. Greyish-brown sandy silt with frequent large sub-rounded stones. |

## Context no. Description

467 Posthole. Sub-circular cut $0.28 \times 0.23 \mathrm{~m}$ wide, 0.18 m deep, with moderately sloping sides and rounded base. Contains deposit [468]. Fill of [468]. Dark brown sandy silt with frequent rounded stones. Posthole. Sub-circular cut 0.26 m wide, 0.19 m deep, with moderately sloping sides and rounded base. Contains deposit [470]. Fill of [469]. Mid greyish-brown sandy silt with frequent large rounded stones. Posthole. Sub-circular cut 0.2 m wide, 0.05 m deep, with gently sloping sides and rounded base. Contains deposit [473]. Posthole. Shallow irregular 'diamond-shaped' cut $0.24 \times 0.12 \mathrm{~m}$ wide, with gently sloping edges and rounded base. Contains deposit [474].
Fill of [471]. Dark brown sandy clay with some pebbles
Fill of [472]. Dark brown sandy clay with some stones.
Fill of [445]. Pale brown clayey sand.
Posthole. Circular cut 0.2 m diameter, 0.1 m deep, moderately sloping sides and rounded base. Contains deposit [477]. Fill of [476]. Dark brown sandy silt.
Posthole. Sub-circular cut $0.42 \times 0.33 \mathrm{~m}$ wide, 0.14 m deep, with moderately sloping sides and irregular base. Contains deposit [479]. Fill of [478]. Dark brown sandy silt, occasional sub-rounded pebbles.
Modern garden feature. Rectangular cut $2.6 \times 0.8 \mathrm{~m}$ wide, 0.08 m deep, sloping sides and flat base, containing topsoil. Cuts a furrow.
Modern garden feature. Rectangular cut $1.35 \times 0.92 \mathrm{~m}$ wide, 0.06 m deep, with vertical sides and flat base, containing topsoil-like fill. Not on survey.

Modern garden feature. Rectangular cut $2.2 \times 0.82 \mathrm{~m}$ wide, 0.06 m deep, with vertical sides and flat base, containing topsoil-like fill similar to [480] and [481], from which a fragment of modern china was retrieved (discarded).

Modern garden feature. Rectangular cut $1.35 \times 0.88 \mathrm{~m}$ wide, containing topsoil-like fill. Not excavated. Similar to features [480], [481] and [482].

Cut of possible kiln. 'Pear-shaped' in plan, 2.8 m long, narrowing from 1.4 m to 0.92 m at SW end, 0.34 m deep (max). Steeply sloping sides and flat base, sloping up towards the narrow SW end. The sides of the cut are lined with stones [492], the base with clay deposit [491]. The feature is backfilled with deposit [485].
Backfill within kiln [484]. Dark brown sandy silt with large sub-rounded stones deriving from collapse or demolition of the structure. A lens of soft organic material, context [502], was observed towards the base of the fill.

Modern garden feature. Rectangular cut $2.2 \times 0.82 \mathrm{~m}$ wide, containing topsoil-like fill. Fragments of glass noted within the fill (not kept). Not excavated. Similar to features [480], [481], [482], [483].
Modern garden feature. Rectangular cut $2.2 \times 0.85 \mathrm{~m}$ wide, containing topsoil-like fill. Not excavated: similar to features [480], [481], [482], [483] and [486].
Modern garden feature. Rectangular cut $0.88 \times 0.45 \mathrm{~m}$ wide, 0.16 m deep, with sloping sides and flat base, containing topsoil-like fill. Similar to features [480], [481], [482], [483], [486] and [487].
Modern garden feature. Rectangular cut $1.2 \times 0.88 \mathrm{~m}$ wide, containing topsoil-like fill. Not excavated: similar to features [480], [481], [482], [483], [486], [487] and [488].
Modern garden feature. Rectangular cut similar in size, dimensions and fill to [480] and [482]. Not excavated. Modern pot (not retained) present within fill.
Layer of compact, mid greyish-yellow clay containing occasional flecks of charcoal, lining base of kiln [484]. Sealed by [485].
Stone walling lining the sides of kiln [484]. 1-2 courses present, of rounded cobbles 0.15 m average size, probably locally sourced from gravel deposits, drystone built without bonding.

Modern garden feature. Oval cut $3.4 \times 1.35 \mathrm{~m}$ wide, 0.33 m deep, with sloping sides and flat base, containing topsoil-like fill. Modern pot and undecayed wood (not retained) within fill.

Modern garden feature. Linear cut 6.7 m long, on NW-SE alignment, 0.6 m wide. Contains modern material including quantities of glass (not retained). Not excavated.

Modern garden feature. Linear cut 4.6 m long, on NW-SE alignment parallel with [494], 0.46 m wide. Contains modern glass and ceramic. Not excavated.

Modern garden feature and/or refuse pit. Sub-circular cut $2.4 \times 1.6 \mathrm{~m}$ wide, containing ashes, coal and undecayed wood. Not excavated.
Modern garden feature. Rectangular pit $2.2 \times 0.88 \mathrm{~m}$ wide, containing topsoil-like fill. Similar to [480] etc. Not excavated.

| Context no. | Description |
| :---: | :---: |
| 498 | Modern garden feature. Oval cut $1.4 \times 0.54 \mathrm{~m}$ wide, filled with rounded stones with inclusions of modern pottery (not retained). Not excavated. |
| 499 | Modern garden feature. Circular cut filled with rounded stones, similar to [498]. Not excavated. |
| 500 | Modern garden feature. Sub-circular cut $1.6 \times 1.3 \mathrm{~m}$ wide, filled with rounded stones, similar to [498] and [499]. Not excavated. |
| 501 | Modern garden feature and/or refuse pit. Sub-circular/irregular cut $2.2 \times 1.8 \mathrm{~m}$ wide, with similar fill to [496]. Contains modern material including pottery and metalwork. Not excavated. |
| 502 | Lens of dark blackish-brown 'peaty' organic material within fill of kiln [484]. |
| 503 | Modern garden feature. Elongate oval cut $1.0 \times 0.5 \mathrm{~m}$ wide, containing dark charcoal-rich deposit. Fragments of 19th/20th century pottery within fill (not retained). Not excavated. |
| 504 | Tree throw: irregular feature $1.8 \times 0.7 \mathrm{~m}$ wide. 0.4 m deep, with irregular and diffuse edges. Contains deposit [505]. |
| 505 | Fill of [504]. Dark yellowish-brown sandy silt with occasional sub-rounded stones and sandy lenses. Sherd of prehistoric pottery (SF2) recovered from surface of deposit during machining but no other finds recovered during hand-excavation. |
| 506 | Possible tree throw. Irregular feature $1.35 \times 1.13 \mathrm{~m}$ wide, 0.36 m deep, with gently sloping sides and irregular base. Contains deposit [507]. |
| 507 | Fill of [506]. Dark brown sandy silt with occasional charcoal fragments and frequent sub-rounded stones and sand lenses. |
| 508 | Possible tree throw. Elongated sub-rectangular cut $1.8 \times 0.95 \mathrm{~m}$ wide, 0.31 m deep, with moderately sloping sides and rounded base. Contains deposit [509]. |
| 509 | Fill of [508]. Dark brownish-black sandy clay with occasional charcoal and a layer of cobbles on the base. |
| 510 | Modern pit. Sub-rectangular cut $1.85 \times 1.0 \mathrm{~m}$ wide, 0.31 m deep, with sloping sides and rounded base. A deposit of stones and pale grey clay on base. Small fragment of 19th/20th century pottery within fill (not retained). |
| 511 | Modern refuse pit. Oval cut $0.59 \times 0.79 \mathrm{~m}$ wide, filled with 19th/20th century glass and metalwork (not retained). Not excavated. |
| 512 | Modern garden feature. Oval cut $1.4 \times 0.8 \mathrm{~m}$ wide. Not excavated. |
| 513 | Modern refuse pit. Oval cut $0.5 \times 0.45 \mathrm{~m}$ wide, containing 19th/20th C metalwork. |
| 514 | Modern refuse pit. Oval cut 0.85 m wide, containing 19th/20th century glass and pottery. Not excavated. |
| 515 | Modern garden feature. 'Diamond-shaped' cut $2.5 \times 0.55 \mathrm{~m}$ wide, not excavated. Not on survey. |
| 516 | Possible posthole or rabbit burrow. Circular cut 0.21 m wide, 0.11 m deep, containing sandy organic material. Not on survey. |
| 517 | Possible posthole or animal burrow. Circular cut 0.2 m wide, 0.15 m deep, containing dark brown sandy clay. Not on survey. |
| 518 | Former field boundary, bisecting field on ENE/WSW alignment parallel to existing field boundaries. Cuts furrows [341]. Not excavated. |
| 519 | Area of greyish-white clayey silt covering an area approx. 30 m wide in south-east corner of site, corresponding to low-lying area around the edge of a former pond. A thin deposit of peat is also present at the lowest point of the field, continuing beyond the limit of excavation. Machine-excavation of three test pits demonstrated that this deposit is shallow (no more than 0.1 m thick) and overlies gravel deposits. |
| 520 | Patch of rounded stones covering an area approx. 10 m wide in the SW corner of site, at the lowest point of the field, at the base of topsoil. |
| 521 | Linear cut traced for 10 m , aligned NE-SW, 0.25 m wide, 20 mm deep at most and has no appreciable depth in many places, hence observed length is unlikely to be its full extent. Contains deposit [525]. |
| 522 | Possible posthole. Sub-circular cut $0.38 \times 0.35 \mathrm{~m}$ wide, with steeply sloping sides and flat base. Contains deposit [523]. |
| 523 | Fill of [522]. Dark brown sandy clay with charcoal inclusions. |
| 524 | Possible posthole. Sub-circular cut $0.43 \times 0.33 \mathrm{~m}$ wide, 0.39 m deep, with steep sides and pointed base. Contains compact dark brownish-black sandy clay fill. |
| 525 | Fill of gully [521]. Mid brown sandy silt with moderate small/medium stones. |
| 526 | Curvilinear gully forming (with [527]) an open-sided enclosure approx. $38 \times 20 \mathrm{~m}$ wide. The cut extends for 42 m from SE to NW, curving sharply to south at the NW end where it is truncated by a furrow; the SE end appears to terminate with a 6 m wide gap between it and gully [527] that may represent an entrance, though both features are shallow at this point and the gap could conceivably be a result of variable depth and truncation. The cut is $0.6-0.8 \mathrm{~m}$ wide and up to 0.22 m deep, with steeply sloping sides and gently rounded base. Contains deposit [526]. |

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| Context no. | Description |
| :--- | :--- |
| 527 | Curvilinear gully forming (with [526]) an open-sided enclosure approx. $38 \times 20 \mathrm{~m}$ wide. Cut extends for 18 m NE/SW. There is a clear <br> terminal at the SW end, but the NE end is very shallow and it is unclear whether the gap between this point and the start of gully <br> [526] is real or a result of variable depth and truncation. Contains deposit [529]. |
| 528 | Fill of gully [526]. Reddish-brown sandy clay with small stones and pebbles. |
| 529 | Fill of gully [527]. Reddish-brown sandy clay with small stones and pebbles. |

## Drawing register

| Drawing no. | Scale | Type | Description |
| :--- | :--- | :--- | :--- |
| 84 | $1: 1000$ | Plan | Overall plan of Phase III plotted from handheld GPS. |
| 85 | $1: 20$ | Plan | Pre-excavation plan of kiln [484]. |
| 86 | $1: 20$ | Plan | Plan showing pit [484], [491] and section location. |
| 87 | $1: 10$ | Section | East-facing section through pit [484]. |
| 88 | $1: 10$ | Section | West-facing section through pit [484]. |
| 89 | $1: 1000$ | Plan | Plot of topsoil depths from handheld GPS. |
| 90 | $1: 1000$ | Plan | Plan of areas stripped on each day, plotted from handheld GPS. |

## Photographic register

| Photo no. | Colour Print | Colour Slide | Digital | Facing | Description |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | - | - | 366 | NW | Pre-ex view of SW end of Phase 3 area. |
| 2 | - | - | 367 | NE | Pre-ex view of Phase 3 area from south corner of site. |
| 3 | - | - | 368 | NE | Pre-ex view of Phase 3 area. |
| 4 | - | - | 369 | N | Pre-ex view of east end of Phase 3 area. |
| 5 | - | - | 370 | S | Pre-ex view of east end of Phase 3 area. |
| 6 | - | - | 371 | W | Pre-ex view of Phase 3 area: soil bund on NW edge of site. |
| 7 | - | - | 372 | NE | Deep soil deposits in natural hollow. |
| 8 | - | - | 373 | SW | Deep soil deposits in natural hollow. |
| 9 | 13/35 | 12/35 | 374 | S | Extent of stripped area on 28 May 2010. |
| 10 | 13/34 | 12/34 | 375 | E | Extent of stripped area on 28 May 2010. |
| 11 | 13/33 | 12/33 | 376 | SW | Extent of stripped area on 28 May 2010. |
| 12 | 13/32 | 12/32 | 377 | NW | Extent of stripped area on 28 May 2010. |
| 13 | 13/31 | 12/31 | 378 | N | Probable tree throw [353]. |
| 14 | 13/30 | 12/30 | 379 | W | Probable tree throw [353]. |
| 15 | 13/29 | 12/29 | 380 | N | Pit [355] half-sectioned. |
| 16 | 13/28 | 12/28 | 381 | NNW | Pit [343]. |
| 17 | 13/27 | 12/27 | 382 | W | Pit [345]. |
| 18 | 13/26 | 12/26 | 383 | NE | Pit [347]. |
| 19 | 13/25 | 12/25 | 384 | W | Pit [349] half-sectioned. |
| 20 | 13/24 | 12/24 | 385 | S | Probable tree throw [351]. |
| 21 | 13/23 | 12/23 | 386 | E | Slot excavated through gully [357]. |
| 22 | 13/22 | 12/22 | 387 | NW | Gully [357]. |
| 23 | 13/21 | 12/21 | 388 | SW | Tree throw [359]. |
| 24 | 13/20 | 12/20 | 389 | NW | Tree throw [359]. |


| Photo no. | Colour Print | Colour Slide | Digital | Facing | Description |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 25 | 13/19 | 12/19 | 390 | W | Pit [361]. |
| 26 | 13/18 | 12/18 | 391 | N | Pit [363]. |
| 27 | 13/17 | 12/17 | 392 | SSW | [367], [369] and [371], possible fragmentary continuation of enclosure gully [410]. |
| 28 | - | - | 393 | SSW | Close-up of [371]. |
| 29 | - | - | 394 | SSW | Close-up of [369]. |
| 30 | - | - | 395 | SSW | Close-up of [367]. |
| 31 | 13/16 | 12/16 | 396 | NE | Pit [365] half-sectioned. |
| 32 | 13/15 | 12/15 | 397 | S | [373]. |
| 33 | 13/14 | 12/14 | 399 | E | Gully [357]. |
| 34 | 13/13 | 12/13 | 400 | NE | Gully [357]. |
| 35 | 13/12 | 12/12 | 401 | NNE | Gully [357]. |
| 36 | 13/11 | 12/11 | 402 | NNW | Gully [357]. |
| 37 | 13/10 | 12/10 | 403 | SW | Gully [357]. |
| 38 | 13/9 | 12/9 | 404 | SW | Test pit excavated at NO 3706950285. |
| 39 | 13/8 | 12/8 | 405 | SW | Test pit excavated at NO 3708150290. |
| 40 | 13/7 | 12/7 | 406 | SW | Test pit excavated at NO 3709250294. |
| 41 | 13/6 | 12/6 | 407 | SW | Lakeshore sediments [519], stone spread [520], and test pits shown in photos 38, 39 and 40. |
| 42 | 13/5 | 12/5 | 408 | NW | General view of site from spoil heap. |
| 43 | - | - | 409 | S | Possible terminus of [357]. |
| 44 | 13/4 | 12/4 | 410 | E | Slot [375] through gully [357]. |
| 45 | - | - | 411 | N | Mini-terminus' in [357]. |
| 46 | 13/3 | 12/2 | 412 | SW | Slot [376] through [357]. |
| 47 | - | - | 413 | NE | Slot [377] through gully [357]. |
| 48 | - | - | 414 | W | Mini-terminus possibly truncated by furrow. |
| 49 | 13/2 | 12/1 | 415 | NE | Slot [378] through gully [357]. |
| 50 | 13/1 | 12/3 | 416 | E | Slot [379] through possible terminus of [357]. |
| 51 | 15/36 | 14/36 | - | - | ID shot |
| 52 | 15/35 | 14/35 | 417 | SW | General view of hollow occupied by enclosure [410]. |
| 53 | 15/34 | 14/34 | 418 | N | Enclosures [357] and [410] from spoil heap. |
| 54 | 15/33 | 14/33 | 419 | N | Enclosures [357] and [410] from spoil heap. |
| 55 | - | - | 420 | N | Enclosures [357] and [410] from spoil heap. |
| 56 | 15/32 | 14/32 | 421 | SW | [388] half-sectioned. |
| 57 | 15/31 | 14/31 | 422 | W | Intercutting pits [390] and [392]. |
| 58 | 15/30 | 14/30 | 423 | N | [394] half-sectioned. |
| 59 | 15/29 | 14/29 | 424 | SE | [395]. |
| 60 | 15/28 | 14/28 | 425 | NE | [396]. |
| 61 | 15/27 | 14/27 | 426 | NW | Tree throw [397]. |
| 62 | 15/26 | 14/26 | 427 | NW | Overall view of [397]. |
| 63 | 15/25 | 14/25 | 428 | NNW | Posthole [399] half-sectioned. |
| 64 | 15/24 | 14/24 | 429 | SE | Context [401]. |

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| Photo no. | Colour Print | Colour Slide | Digital | Facing | Description |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 65 | 15/23 | 14/23 | 430 | NW | Gully [410] cutting through deposit [402]. |
| 66 | 15/22 | 14/22 | 431 | NNE | Pit [405] and gullies [403] and [404]. |
| 67 | 15/21 | 14/21 | 432 | NNW | Gully [403]. |
| 68 | 15/20 | 14/20 | 433 | NW | Context [405], also showing [404]. |
| 69 | 15/19 | 14/19 | 434 | N | East side of enclosure [410] - general view from spoil heap. |
| 70 | 15/18 | 14/18 | 435 | N | West side of enclosure [410] - general view from spoil heap. |
| 71 | 15/17 | 14/17 | 436 | S | Gully [411] pre-excavation. |
| 72 | 15/16 | 14/16 | 437 | SE | Gully [413] pre-excavation. |
| 73 | 15/15 | 14/15 | 438 | NW | Gully [415] pre-excavation. |
| 74 | 15/14 | 14/14 | 439 | E | Gully [417] pre-excavation. |
| 75 | 15/13 | 14/13 | 440 | W | Gully [417] pre-excavation. |
| 76 | 15/12 | 14/12 | 441 | N | Gully [417]/[419] pre-excavation. |
| 77 | 15/11 | 14/11 | 442 | N | Gully [421] pre-excavation. |
| 78 | 15/10 | 14/10 | 443 | S | Gully [423] pre-excavation. |
| 79 | 15/9 | 14/9 | 444 | W | Section at north end of gully [411]. |
| 80 | 15/8 | 14/8 | 445 | N | Slot in centre of gully [411]. |
| 81 | 15/7 | 14/7 | 446 | S | Section near south end of gully [411]. |
| 82 | 15/6 | 14/6 | 447 | NE | Section at NW end of gully [413]. |
| 83 | 15/5 | 14/5 | 448 | NW | Section in centre of gully [413]. |
| 84 | 15/4 | 14/4 | 449 | NE | Section in middle of gully [413]. |
| 85 | 15/3 | 14/3 | 450 | SW | Section at SE end of gully [413]. |
| 86 | 15/2 | 14/2 | 451 | SE | Section at NW end of gully [415]. |
| 87 | 15/1 | 14/1 | 452 | SE | Section in middle of gully [415]. |
| 88 | 16/36 | 17/37 | - | - | ID shot |
| 89 | 16/35 | 17/36 | 453 | SW | Section in middle of gully [415]. |
| 90 | 16/34 | 17/35 | 454 | SW | Section at SE terminal of gully [415]. |
| 91 | 16/33 | 17/33 | 455 | W | Feature [353] - terminals half-sectioned. |
| 92 | 16/32 | 17/32 | 457 | E | Feature [353] - terminals half-sectioned. |
| 93 | 16/31 | 17/31 | 458 | N | West terminal of gully [417]. |
| 94 | 16/30 | 17/30 | 459 | S | Slot B' section through gully [417]. |
| 95 | 16/29 | 17/29 | 460 | E | Slot C'section through gully [417]. |
| 96 | 16/27 | 17/27 | 462 | W | Slot C' section through gully [417]. |
| 97 | 16/26 | 17/26 | 463 | S | Slot D section through gully [417]. |
| 98 | 16/25 | 17/25 | 464 | W | Slot D section through gully [417]. |
| 99 | 16/24 | 17/24 | 465 | SE | Slot E section at sharp bend in gully [417]. |
| 100 | 16/23 | 17/23 | 466 | W | Context [405] . |
| 101 | 16/22 | 17/22 | 467 | N | Slot A through gully [419]. |
| 102 | 16/21 | 17/21 | 468 | W | Slot A through gully [419]. |
| 103 | 16/20 | 17/20 | 469 | W | Section through N end of gully [419]. |
| 104 | 16/19 | 17/19 | 470 | E | Slot A through gully [421]. |
| 105 | 16/18 | 17/18 | 471 | W | Slot B through gully [421]. |


| Photo no. | Colour Print | Colour Slide | Digital | Facing | Description |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 106 | 16/17 | 17/17 | 472 | S | Slot B through gully [421]. |
| 107 | 16/16 | 17/16 | 473 | E | Section through north end of gully [421]. |
| 108 | 16/15 | 17/15 | 474 | NE | Lakeshore sediments [519], general view from spoil heap. |
| 109 | 16/14 | 17/14 | 475 | N | Working shot: excavation of enclosure [410], from spoil heap. |
| 110 | 16/13 | 17/13 | 476 | W | Section through south end of gully [423]. |
| 111 | 16/12 | 17/12 | 477 | S | Section through middle of gully [423]. |
| 112 | 16/11 | 17/11 | 478 | W | Section through north end of gully [423]. |
| 113 | 16/28 | 17/28 | 461 | S | Slot C through gully [417]. |
| 114 | 16/10 | 16/10 | 481 | N | Pit/posthole [435]. |
| 115 | 16/9 | 16/9 | 482 | N | Postholes [425], [427] and [429]. |
| 116 | 16/8 | 16/8 | 483 | NW | Working shot: excavation of posthole alignments. |
| 117 | 16/7 | 16/7 | 484 | NW | Working shot: excavation of posthole alignments. |
| 118 | 16/6 | 16/6 | 485 | W | Working shot: excavation of posthole alignments. |
| 119 | 16/5 | 16/5 | 486 | W | Postholes [441], [442] and [446]. |
| 120 | 16/4 | 16/4 | 487 | N | Postholes [429], [455], [427], [457] and [425]. |
| 121 | 16/3 | 16/3 | 488 | N | Postholes [465], [463] and [461]. |
| 122 | 16/2 | 16/2 | 490 | S | Kiln [484] pre-ex. |
| 123 | 16/1 | - | 491 | W | Kiln [484] pre-ex. |
| 124 | 18/36 | 19/37 | 492 | - | ID shot |
| 125 | 18/35 | 19/36 | 493 | W | Context [480]. |
| 126 | 18/34 | 19/35 | 494 | W | Context [481]. |
| 127 | 18/33 | 19/34 | 495 | N | Context [482]. |
| 128 | 18/32 | 19/33 | 496 | N | Context [483]. |
| 129 | 18/31 | 19/32 | 497 | W | Context [484]. |
| 130 | 18/30 | 19/31 | 498 | W | Context [487]. |
| 131 | 18/29 | 19/30 | 499 | W | Context [488]. |
| 132 | 18/28 | 19/29 | 500 | W | Context [489]. |
| 133 | 18/27 | 19/28 | 501 | W | Context [490]. |
| 134 | - | 19/27 | - | N | Working shot |
| 135 | 18/26 | 19/26 | 502 | S | Kiln [484], NE and SW quadrants excavated. |
| 136 | - | - | 503 | N | Kiln [484], NE and SW quadrants excavated. |
| 137 | 18/25 | 19/25 | 504 | W | Kiln [484], east-facing section. |
| 138 | 18/24 | 19/24 | 505 | E | Kiln [484], west-facing section. |
| 139 | 18/23 | 19/23 | 506 | W | Surface [491] in base of kiln [484]. |
| 140 | 18/22 | 19/22 | 507 | S | Working shot - Laura working on kiln [484]. |
| 141 | 18/21 | 19/21 | 508 | S | Kiln [484], NE and SW quadrants excavated. |
| 142 | 18/20 | 19/20 | 509 | N | North wall of kiln [484]. |
| 143 | 18/19 | 19/19 | 510 | W | Flue at south end of kiln [484]. |
| 144 | 18/18 | 19/18 | 511 | E | Flue at south end of kiln [484]. |
| 145 | 18/17 | 19/17 | 512 | NE | Context [493]. |
| 146 | 18/16 | 19/16 | 513 | S | Context [494]. |

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| Photo no. | Colour Print | Colour Slide | Digital | Facing | Description |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 147 | 18/15 | 19/15 | 514 | S | Context [495]. |
| 148 | 18/14 | 19/14 | 515 | NW | Context [496]. |
| 149 | 18/13 | 19/13 | 516 | N | Context [497]. |
| 150 | 18/12 | 19/12 | 517 | N | Context [498]. |
| 151 | 18/11 | 19/11 | 518 | S | Context [499]. |
| 152 | 18/10 | 19/10 | 519 | NW | Context [500]. |
| 153 | 18/9 | 19/9 | 520 | N | Context [501]. |
| 154 | 18/8 | 19/8 | 521 | N | Context [502]. |
| 155 | 18/7 | 19/7 | 522 | N | Refuse pit [511]. |
| 156 | 18/6 | 19/6 | 523 | N | Refuse pit 'E of Context [496]'. |
| 157 | 18/5 | 19/5 | 524 | N | North wall of kiln [484]. |
| 158 | 18/4 | 19/4 | 525 | W | West wall of kiln [484]. |
| 159 | 18/3 | 19/3 | 526 | W | Tree throw [504]. |
| 160 | 18/2 | 19/2 | 527 | S | Pit [506]. |
| 161 | 18/1 | 19/1 | 528 | NW | Pit [508]. |
| 162 | 20/36 | 21/37 | 529 | S | Pit [510]. |
| 163 | 20/35 | 21/36 | 530 | N | Refuse pit [511]. |
| 164 | 20/34 | 21/35 | 531 | N | Pit [513]. |
| 165 | 20/33 | 21/33 | 532 | N | Pit [512]. |
| 166 | 20/32 | 21/32 | 533 | N | Pit [515]. |
| 167 | 20/31 | 21/31 | 534 | N | Pit [514]. |
| 168 | 20/30 | 21/30 | 535 | N | Working shot |
| 169 | 20/29 | 21/29 | 536 | NW | Postholes [516] and [517]. |
| 170 | - | 21/34 | - | N | General view of north corner of site. |
| 171 | 20/28-27 | 21/28 | 537 | E | Gully [521] pre-excavation. |
| 172 | 20/26-25 | 21/27 | 538 | W | Gully [521] section. |
| 173 | 20/24 | 21/26 | 539 | W | Gully [521] pre-excavation. |
| 174 | 20/23 | 21/25 | 540 | SW | Possible postholes [522] and [524]. |
| 175 | 20/22 | 21/24 | 541 | E | Working shot - Emma and Laura excavating enclosure gully [526]/ [527]. |
| 176 | 20/21 | 21/23 | 542 | W | Gully [526] Slot 1. |
| 177 | 20/20-19 | 21/22 | 543 | S | Gully [526] Slot 1. |
| 178 | 20/18 | 21/21 | 544 | NE | Gully [526] Slot 2. |
| 179 | 20/17 | 21/20 | 545 | E | Gully [526] Slot 3. |
| 180 | 20/16 | 21/19 | 546 | E | Gully [526] Slot 4. |
| 181 | 20/15 | 21/18 | 547 | E | Gully [526] Slot 5. |
| 182 | 20/14 | 21/17 | 548 | E | Gully [526] Slot 6. |
| 183 | 20/13 | 21/16 | 549 | SE | Gully [526] Slot 7. |
| 184 | 20/12 | 21/15 | 550 | SE | Gully [526] Slot 7. |
| 185 | 20/11 | 21/14 | - | E | Gully [526] Slot 7. |
| 186 | 20/10 | 21/13 | - | E | Gully [527] Slot 1. |


| Photo no. | Colour Print | Colour Slide | Digital | Facing | Description |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 187 | $20 / 9$ | $21 / 12$ | - | N | Gully [527] Slot 1. |
| 188 | $20 / 8$ | $21 / 11$ | - | E | Gully [527] Slot 3. |
| 189 | $20 / 7$ | $21 / 10$ | - | E | Gully [527] Slot 3. |
| 190 | $20 / 6$ | $21 / 9$ | - | E | Gully [527] Slot 4. |
| 191 | $20 / 5$ | $21 / 8$ | - | S | Gully [527] Slot 4. |
| 192 | $20 / 4$ | $21 / 7-6$ | - | SE | Enclosure gully [526]/[527] - general view from spoil heap. |

## Sample Register

| Sample no. | Context no. | No. of buckets/ bags | V (1) | Description |
| :---: | :---: | :---: | :---: | :---: |
| 169 | 356 | 1 | 10 | Small pit containing charcoal and worked quartz. |
| 170 | 344 | 1 | 10 | Fill of pit [344] - definite pit with charcoal on base. |
| 171 | 346 | 1 | 2 | Fill of pit [345] - no finds, no charcoal (?). |
| 172 | 348 | 1 | 2 | Fill of pit [347] - signs of in situ burning and freq. charcoal. |
| 173 | 387 | 1 | 10 | Fill of enclosure gully [357]. |
| 174 | 385 | 2 | 20 | Fill of enclosure gully [357]. |
| 175 | 383 | 10 | 1 | Fill of enclosure gully [357]. |
| 176 | 381 | 2 | 20 | Fill of enclosure gully [357]. |
| 177 | 408 | 1 | 10 | Fill of short curvilinear gully [403] - no finds, no charcoal (?). |
| 178 | 406 | 1 | 10 | Primary fill of pit [405]. No finds, no charcoal noted, may be disturbed by burrows. |
| 179 | 428 | 1 | 1 | Fill of posthole [427] - noted as 'fairly sterile'. |
| 180 | 426 | 1 | 1 | Fill of posthole [425]. |
| 181 | 432 | 1 | 1 | Fill of posthole [431]. |
| 182 | 434 | 1 | 1 | Fill of posthole [433]. |
| 183 | 436 | - | - | Fill of posthole [435]. |
| 184 | 439 | 1 | 1 | Should be context [440] which is fill of [439], possible tree throw containing charcoal. |
| 185 | 442 | 1 | 1 | Fill of posthole [441] - no charcoal noted. |
| 186 | 446 |  |  | Should be context [447], which is fill of posthole [446]. Freq. charcoal noted. |
| 187 | 450 | 1 | 3 | Fill of posthole [449]. Contains large charcoal frags (subsampled). |
| 188 | 450 | 1 | $\mathrm{n} / \mathrm{a}$ | Single item sample - large charcoal frags from same deposit as sample 187. |
| 189 | 452 | 1 | 1 | Fill of possible posthole [451]. |
| 190 | 462 | 1 | 1 | Fill of posthole [461] - 'appears to be sterile' |
| 191 | 468 | 1 | 1 | Fill of posthole [467] - no mention of charcoal or finds. |
| 192 | 485 | 1 | 10 | Fill of kiln [484]. |
| 193 | 502 | - | - | Dark organic lens within [485], in kiln [484]. |
| 194 | 507 | - | - | Fill of possible (irregular) pit [506]. Contains charcoal. |
| 195 | 509 | - | - | Fill of [508] - possible tree throw |
| 196 | 509 | 1 | $\mathrm{n} / \mathrm{a}$ | Single item sample of charcoal from same deposit as sample 195. |

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| Sample no. | Context no.No. of <br> buckets/ <br> bags | V (l) | Description |  |
| :--- | :--- | :--- | :--- | :--- |
| 197 | 412 | 1 | 10 | Fill of gully [411]. |
| 198 | 412 | 1 | 10 | Charcoal concentration in gully [411]. |
| 199 | 414 | 1 | 10 | Fill of gully [413]. |
| 200 | 416 | 1 | 10 | Fill of gully [415]. |
| 201 | 418 | 1 | 10 | Fill of gully [417]. |
| 202 | 420 | 1 | 10 | Fill of gully [419]. |
| 203 | 523 | - | - | Fill of posthole [522], def. feature said to contain charcoal. |
| 204 | 523 | 1 | $n / a$ | Single item sample of charcoal from same deposit as sample 203. |
| 205 | 526 | 1 | 10 | Fill of enclosure gully [528]. |
| 206 | 526 | 1 | 10 | Fill of enclosure gully [529]. |
| 207 | 526 | 1 | n/a | Fill of enclosure gully [530]. |
| 208 | 527 | 1 | 10 | Fill of enclosure gully [527]. |

## Appendix 2 - Environmental tables

Table A2.1 - Flotation Sample Results
Key: $1=$ rare, $2=$ occasional, $3=$ common and $4=$ abundant
NB charcoal over 1 cm is suitable for identification and AMS dating

| Context <br> no. | Sample <br> no. | Total flot <br> $\mathrm{V}(\mathrm{ml})$ | Cereal grain | Other plant <br> remains | Charcoal <br> qty |
| :--- | :--- | :--- | :--- | :--- | :--- |


|  |  |  |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |  |  |  |  |  |

Table A2.2 - Retent Sample Results
Key: $1=$ rare, $2=$ occasional, $3=$ common and $4=$ abundant
NB charcoal over 1 cm is suitable for identification and AMS dating

| Context <br> no. | Sample <br> no. | Sample <br> $\mathrm{V}(1)$ | Ceramic | Stone | Metal | Ind. <br> waste | Charred <br> plant | Charcoal | Material <br> available <br> for AMS |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |


|  |  |  | $\begin{aligned} & \vec{U} \\ & \pm \\ & 0 \\ & \dot{Z} \\ & \text { I } \end{aligned}$ | $\begin{aligned} & \text { 弟 } \\ & \text { 号 } \\ & 0 \\ & 0 \end{aligned}$ |  | $\begin{aligned} & \dot{-8} \\ & 0 \\ & \text { is } \end{aligned}$ | $\begin{aligned} & \text { w } \\ & \stackrel{N}{5} \\ & \text { in } \end{aligned}$ |  | $\stackrel{i}{0}$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 356 | 169 | 10 | - | - | - | - | - | - | 3 | 1.0 | Charcoal 3 | - | - | - |
| 344 | 170 | 10 | - | - | - | - | - | Charred Peat 1 | 3 | 1.0 | Charcoal 3 | - | - | - |
| 346 | 171 | 2 | - | - | - | - | - | Nutshell 1 | 1 | $<0.5$ | - | - | - | Charcoal not retained. |
| 348 | 172 | 2 | - | - | Flint <br> Flake 1 | - | - | - | 3 | 1.0 | Charcoal 3 | - | - | - |
| 387 | 173 | 10 | - | - | - | - | 1 | - | 1 | <0.5 | - | - | - | Charcoal not retained. |
| 385 | 174 | 20 | - | - | - | - | - | Charred <br> Stone 1 | 2 | 1.0 | - | - | - | - |
| 383 | 175 | 10 | - | - | - | - | - | - | 1 | <0.5 | - | 1 | - | Charcoal and cinder not retained. |
| 381 | 176 | 20 | - | - | - | - | - | Nutshell 1 | 2 | 0.5 | - | - | - | - |
| 408 | 177 | 10 | - | - | - | - | - | Cereal Grain 1 | 1 | - | - | - | - | Charcoal not retained. |
| 434 | 182 | 2 | - | - | - | - | - | - | 3 | 1.5 | Charcoal 2 | - | - | - |
| 436 | 183 | 1 | 1 | - | - | - | - | - | 1 | $<0.5$ | - | - | - | Charcoal not retained. |
| 440 | 184 | 1 | - | - | - | - | - | - | 3 | 1.0 | Charcoal 2 | - | - | - |
| 450 | 187 | 3 | - | - | Flint 1 | - | - | Cereal Grain <br> 4, Corylus nutshell 1 | 4 | 3.0 | Charcoal 4 | - | - | - |
| 485 | 192 | 10 | - | - | - | - | - | - | 1 | <0.5 | - | - | - | Charcoal not retained. |
| 502 | 193 | 2 | - | - | - | - | - | - | 1 | $<0.5$ | - | 2 | - | Charcoal and cinder not retained. |
| 412 | 198 | 10 | - | - | - | - | - | - | 1 | $<0.5$ | - | - | - | Charcoal not retained. |
| 414 | 199 | 10 | - | Burnt <br> Clay 1 | - | - | - | - | 1 | $<0.5$ | - | - | - | Charcoal not retained. |
| 416 | 200 | 10 | - | - | - | - | - | - | - | - | - | - | - | - |
| 418 | 201 | 10 | - | - | - | - | - | - | 2 | $<0.5$ | - | - | - | Charcoal not retained. |
| 420 | 202 | 10 | - | - | - | - | - | - | 1 | 1.0 | Charcoal 1 | - | - | - |
| 523 | 203 | 2 | - | - | - | - | - | - | 1 | $<0.5$ | - | - | - | Charcoal not retained. |
| 526 | 205 | 10 | - | - | - | - | - | - | 1 | 1.0 | - | - | - | - |
| 526 | 206 | 10 | - | - | - | - | - | - | - | - | - | - | - | Archaeologically sterile. |
| 529 | 208 | 10 | - | - | - | 1 | 1 | - | - | - | - | 1 | 1 | Cinder and coal not retained. |

## Appendix 3 - Finds catalogue

| Context <br> no. | SF <br> no. | Sample <br> no. | Material | Qty | Weight <br> $(\mathbf{g})$ |  | Object | Description | Ppot Date |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | Period

## Appendix 4 - Discovery and Excavation Scotland entry

Topsoil stripping in advance of a further extension to Powmyre sand and gravel quarry (Phase III) was carried out under an archaeological watching brief. The findings continued the pattern of widely scattered, multi-period remains seen in previous phases of work. A double row of postholes was recorded, located on top of a ridge, with a pit nearby which has been radiocarbon dated to the Early Neolithic. A small group of undated pits was found along the edge of a shallow lake or marsh to the east of the site. Three open-sided, oval fenced enclosures, $30-38 \mathrm{~m}$ wide and located on sloping ground, are thought to relate to livestock management. A 2nd-3rd century AD radiocarbon date was obtained from one of the enclosures. A single corn-drying kiln, probably medieval or post-medieval in date, was also found.


[^0]:    Illus 2
    Overall plan of Phase III area

