



Penans Farm Phase 2 Watching Brief Archive Report

Cornwall Archaeological Unit

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Additional historical research into the ornamental landscape of Penans Farm was undertaken by Graeme Kirkham, who contributed to the historical summary section of this report.

The Project Manager was Adam Sharpe.

The views and recommendations expressed in this report are those of Cornwall Archaeological Unit and are presented in good faith on the basis of professional judgement and on information currently available.

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Cover illustration:

The road [1060] winding through the landscape towards Tybesta Round.

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Abbreviations

CAU	Cornwall Archaeological Unit
CIfA	Chartered Institute for Archaeologists
CRO	Cornwall Record Office
HER	Cornwall and the Isles of Scilly Historic Environment Record
MCO	Monument number in Cornwall HER
NGR	National Grid Reference
NMP	National Mapping Programme
OS	Ordnance Survey

1 Summary

Cornwall Archaeological Unit (CAU) was commissioned by Emma Dawson of Qila Biogas Ltd to carry out a full-scale site strip of land at Penans, Grampond. This site is proposed for the construction of an anaerobic digester plant which will operate in conjunction with a nearby gas injection unit for which planning permission has been applied (PA16/02022/preapp). The aim of the work was to test the geophysical survey results, to determine the extent of and interrelationships between the features identified during the evaluation trenching, and to produce a record of the archaeology of the site prior to development.

The geophysical survey undertaken by TigerGeo (Roseveare 2016) had revealed that the field contained a large number of geophysical anomalies with archaeological potential. Following on from the geophysical survey a number of locations for evaluation trenching were identified to test the nature of key anomalies and relationships between them. The final trenching strategy was agreed with the Local Planning Authority and the evaluation was carried out over two weeks in July 2017 (Fleming 2017).

The evaluation trenches at Penans demonstrated significant potential for the survival of buried archaeology within the proposed development site at Penans. The results broadly correlated with the results of the 2016 geophysical survey (Roseveare 2016) but the evaluation did not reveal all of the suggested features but conversely was able to identify additional features not recorded by the geophysical survey. With this in mind, the subsequent site recording undertaken in 2017 was intended to identify additional features and further determine the nature of those evaluated earlier in the year.

The Historic Landscape Character of the study area is currently mapped as Modern Enclosed Land (MOD), indicating previously medieval or post-medieval enclosed farmland that has been significantly altered by large-scale hedge removal in the 20th century (Herring 2009). The adjacent land surrounding the study area is characterised as Anciently Enclosed land (AEL; farmland; Medieval); Cornwall's agricultural heartland, having medieval or prehistoric origins. The accumulating evidence at Penans, both documentary and archaeological, indicates that the historic landscape character of the study area should in fact be re-defined as Anciently Enclosed Land overlain by Ornamental Land and subsequently in part remodelled as Modern Agricultural Land.

The majority of the features recorded by the watching brief and evaluation trenching appear to represent field boundaries and land drains associated with a fairly recent agricultural landscape at Penans, these being imposed over the remains of an ornamental landscape associated with the farm during the late 17th or early 18th centuries. The more recent agricultural activity appears to have been accompanied by several phases of deliberate infilling of hollowed areas and brick pits which may be associated with the construction of Penans Farm.

Evidence for earlier agricultural activity was represented by a prehistoric or later boundary ditch which was aligned so as to respect a Bronze Age barrow in the southwestern part of the site.

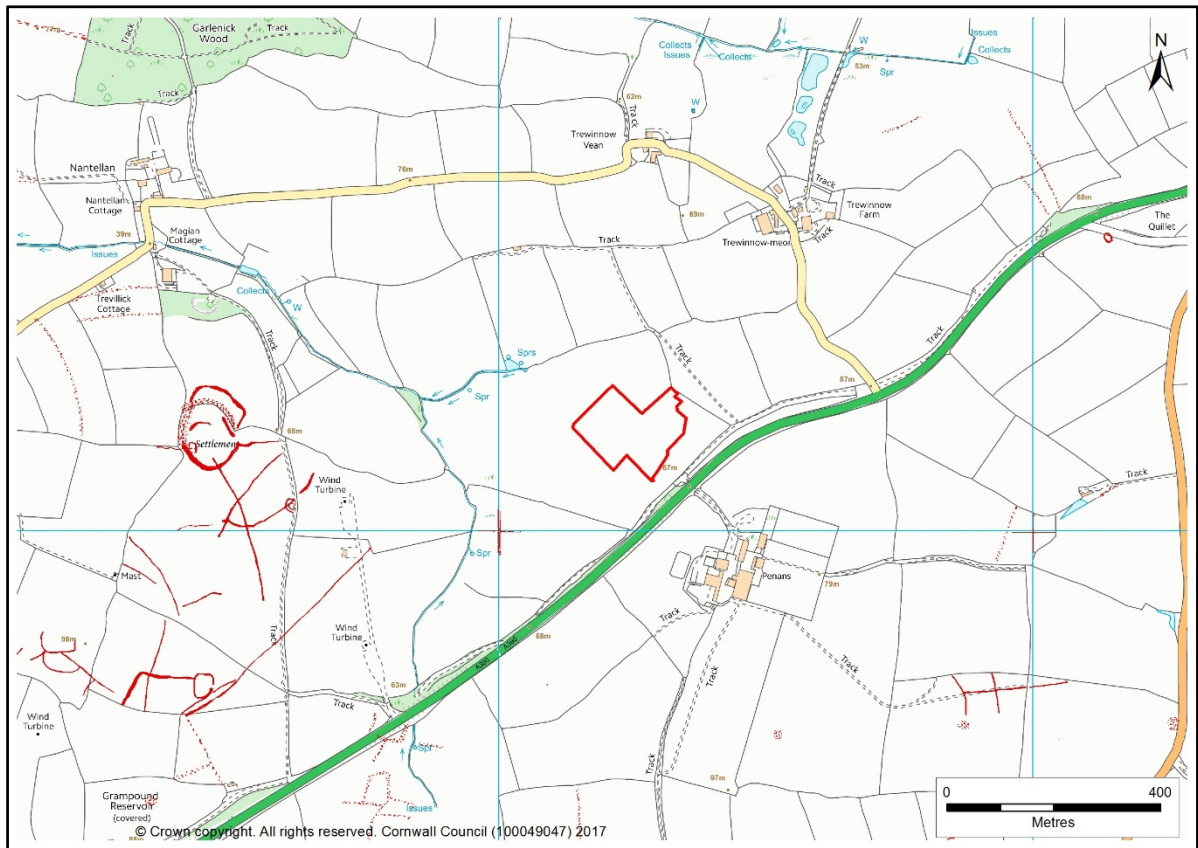


Fig 1. Location map with NMP aerial photo plots overlain.

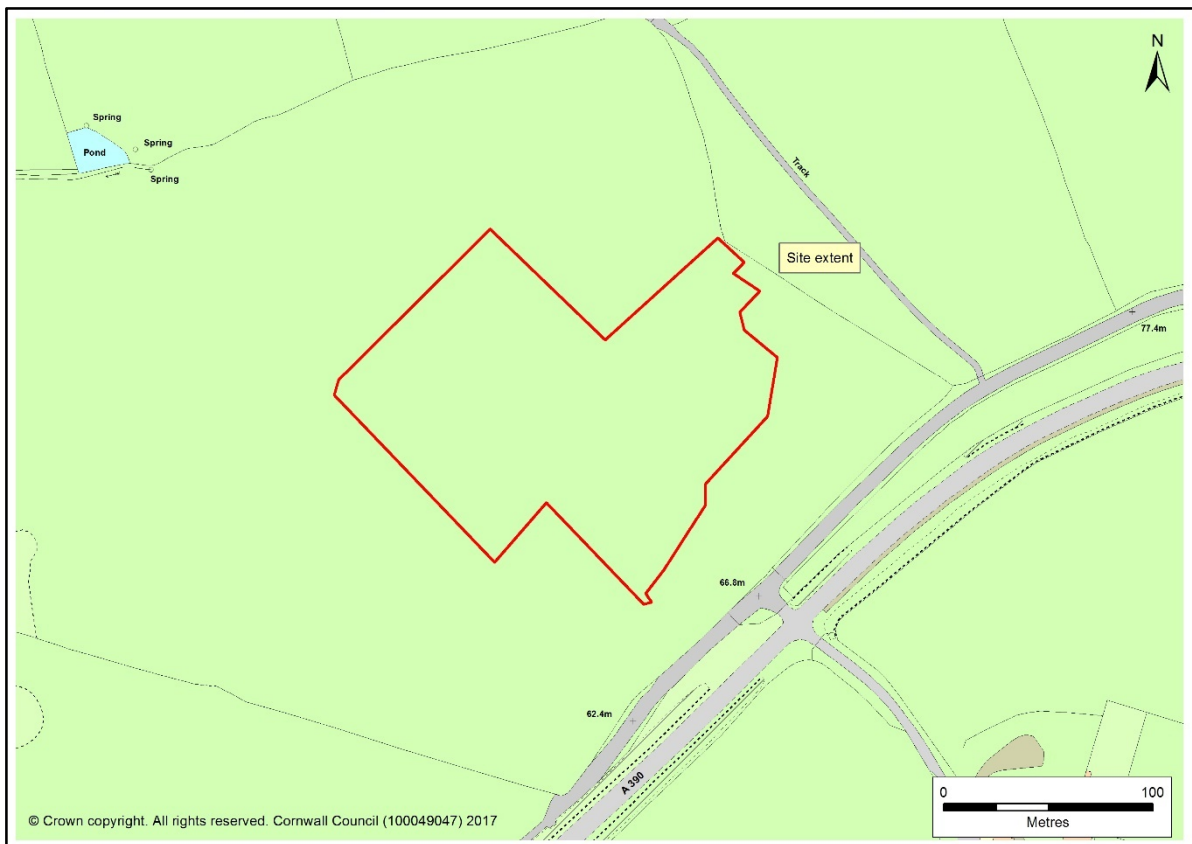


Fig 2. Site extent.

2 Introduction

2.1 Project background

Cornwall Archaeological Unit (CAU) was contacted by Emma Dawson of Qila Biomass on 08 August 2017 with a request for a Written Scheme of Investigation (method statement) for undertaking an archaeological watching brief during the second phase of groundworks associated with the construction of an anaerobic digester (AD) and gas injection plant (GIU) in an area currently used as a large agricultural enclosure to the west of Penans Farm near Grampound (Figs 1 and 2). The relevant planning reference is PA17/02955; the application has yet to be determined.

The Senior Development Officer (Historic Environment) recommended that a Cultural Heritage Assessment was needed to accompany the original application. This was produced by Wardell Armstrong in July 2016. A further advisory comment was that an archaeological watching brief would be required during the groundworks associated with the development of the site.

The geophysical survey commissioned via CAU and undertaken by TigerGeo (Fig 3) revealed indications of a complex multi-period landscape incorporating what appeared to be elements relating to settlement, ceremonial activities, agricultural enclosures of a range of periods, industrial activities and possible water management features.

An archaeological watching brief was undertaken during the Phase 1 works on site in 2016, covering the area to be occupied by the gas injection unit. This revealed an area of medieval ridge and furrow and a pit containing charcoal from oak and hazel which, when radiocarbon dated, proved to be of Later Mesolithic date, 6563-6428 Cal BC (Jones, forthcoming).

The area to be occupied by the anaerobic digester plant was subjected to evaluative trenching during 2017 (Fleming 2017). A number of field boundaries of varying dates interpreted as dating from the prehistoric to the post-medieval periods were revealed, together with a features thought to represent a possible backfilled quarry and an early post-medieval track, as well as other minor features.

The watching brief undertaken during the Phase 2 works associated with the development consisted of the removal of topsoil over a large area to prepare the site for the construction of the anaerobic digester plant and the associated holding tanks for slurry. This investigation was carried out to further record the features identified during the evaluation works as well as to investigate and record archaeological features in the remaining parts of the site which were to be affected by the development.

2.2 Aims

No specific brief had been produced which covered the aims and objectives of this watching brief, though the WSI (Appendix 1) for this work has been guided by comments made on the planning applications by the Senior Development Officer (Historic Environment).

The site specific aims are to:

- Establish the presence/absence of archaeological remains.
- Determine the extent, condition, nature, character, date and significance of any archaeological remains encountered.
- Establish the nature of previous human activity in this section of the Cornish landscape.
- Retrieve and identify any artefacts relating to the occupation or use of this section of the Cornish landscape.

- To provide further information on the archaeology of the landscape around Grampound and the surrounding area from any archaeological remains encountered.

The project objective is to produce a report setting out the results of the archaeological watching brief and placing them in their historical and landscape context. A further objective is to create an entry to the Historic England OASIS/ADS national online database of archaeological projects.

2.3 Methods

2.3.1 Desk-based assessment

A desk-based assessment was undertaken by Wardell Armstrong in 2016 (Howell 2016).

2.3.2 Fieldwork

Following the initial desk based assessment (Wardell Armstrong 2016), the geophysical survey (TigerGeo 2016), and evaluation trenching works (Fleming 2017) it was decided that an appropriate scheme of fieldwork should be undertaken on the site for the remaining phase of ground breaking works. The fieldwork comprised the five elements detailed below.

2.3.2.1 Archaeological monitoring – soil stripping

The site covered by the Phase 2 watching brief is a single large open field. Due to features of archaeological interest being found during the evaluation phase in 2016, it was determined by the client during discussions with Projects Archaeologist and the Senior Development Officer (Historic Environment) that monitoring of the strip of the whole area to be developed was appropriate. These discussions also agreed upon an appropriate level of archaeological recording.

Archaeological monitoring was undertaken as the first stage of the mitigation programme. Soil stripping was carried out under archaeological supervision using a machine fitted with a toothless bucket. The soil was stripped cleanly to a level at which archaeological features or layers were revealed (i.e., top of the 'natural subsoil'). Machines were prohibited from running over stripped areas until they had been assessed by the archaeologist.

When significant features were encountered, their locations were recorded and highlighted as requiring further investigation. These areas were then deemed 'off limits' by the contractors, helping to maintain their condition and protect them from being damaged prior to excavation.

2.3.2.2 Excavation

Following the controlled stripping, the CAU Project Manager, in consultation with the Projects Officer and the Senior Development Officer (Historic Environment) decided that the features exposed within the stripped area be either sampled or fully excavated depending on their nature.

The most obvious feature on the site was what appeared to be a roadway (subsequently numbered [1060]), possibly associated with the partly documented designed landscape known to occupy parts of the land of Penans Farm. Determining the extent and construction of this feature and how it related to other features in the area was deemed important for site interpretation.

The most abundant features on the site were boundary ditches, some of which appeared to intersect. It was decided that an investigation into the relationships between these features be undertaken as well as any suggestions of interrelationships with the road. Determining whether the ditches were part of the wider designed landscape known or part of a separate agricultural phase was felt to be important.

A large number of what were interpreted as large tree throws or planting holes were identified, most being alongside the roadway. It was decided to try and determine whether they were indeed planting holes or tree throws associated with the documented former designed landscape. One in particular (subsequently numbered [1048]), was enormous and was thought possibly to represent a former pond.

A small number of discrete features were also noted, these were to be fully excavated.

2.3.2.3 Fieldwork recording

Areas of interest were initially cleaned using a hoe; targeted areas were subsequently cleaned more carefully using trowels. Pits and ditches were excavated in section using hand tools; postholes and smaller features were excavated in their entirety. Detailed recording took place during each step of the excavation process.

- Features were initially planned prior to excavation and their locations were linked to a site grid and recorded using a total station EDM. All archaeological contexts were described to a standard format linked to a continuous numbering sequence. Cuts were denoted by the use of [] brackets. Layers or fills were recorded using () brackets.
- All site drawings (plans, sections, locations of finds) were made by 4H pencil on drafting film at an appropriate scale, typically 1:10 or 1:20. They included site details, date, scale and a north-point. Phased plans and sections were linked to the Ordnance Survey landline map and the heights of all features were linked to Ordnance Datum. All the drawings were individually numbered using a unique sequence. Subsequently all drawings have been scanned, digitised and catalogued.
- Photography: all features were recorded using scaled monochrome photography as the main record medium, with colour digital photographs taken more selectively and for illustrative purposes. All photographs were linked to a numbered sequence, recording photo orientation, description of context or feature, details of photographer and the date.
- Sealed/undisturbed archaeological contexts in the form of buried soils, layers or deposits within cut features (ditches and pits, etc.) were sampled for potential environmental evidence and dating material.
- The spoil from the stripping was routinely inspected for finds.

2.3.2.4 Treatment of finds

The fieldwork produced artefactual and environmental material.

- All finds in significant stratified contexts predating 1800 AD were plotted on a scaled base plan and described.
- All finds were collected in sealable plastic bags which were labelled with the context number, site code and area identifier, along with a two to three word description.
- Significant, sealed archaeological contexts (predating c 1500 AD) were sampled for environmental material.

2.3.2.5 Environmental Sampling strategy

Soil samples were taken from those features and layers that were considered to have the greatest potential for palaeoenvironmental analysis. From most features an amount of 40 litres was sampled. Where smaller features did not allow for this quantity, 100 percent sampling was employed. All samples were given a unique identifying number, and descriptions of contexts, weather conditions and any likelihood of contamination were recorded.

2.3.3 Post-fieldwork

A site archive has been created from the records made during fieldwork, and an appropriate online archive entry made on the OASIS archive index. A digital (PDF) copy

of the archive report, illustrations and any other files will be held in the Cornwall HER. A digital copy of the report will be issued to the client. Copies of the report have been distributed to the client, to local archives and national archaeological record centres.

3 Location and setting

(See Figures 1 and 2 for geographical location and extent)

The site extends to approximately 4ha and is centred at SW 95263 49210. The relevant postcode is TR2 4RQ. The site is in the ecclesiastical parish of Grampound with Creed.

The local soils are the well-drained fine loams of the Denbigh 2 Association (these were found to be deeper and prone to waterlogging on the lower, northern slopes of the field), these overlying mudstones and sandstones of the Middle Devonian Gramscatho Formation. The agricultural land classification is a mixture of Grade 3 and Grade 2 land.

The proposed development area is bounded to its south-east by the line of the A390 road.

4 Designations

No national, regional or local designations apply to the area under investigation.

5 Site history

(Extracted from Fleming 2016 with additional material kindly supplied by Graeme Kirkham)

The Historic Landscape Character of the proposed development area noted as being Recently Enclosed Land, though since it is in close proximity to the 17th century remodelled Penans Farm and given that the National Mapping Programme has plotted a significant number of enclosed Romano-British farmsteads (rounds) in the surrounding area it should probably be reclassified as Anciently Enclosed Land (AEL: farmland medieval), that is land which has been in continuous agricultural use as enclosed land since at least the medieval period.

The archaeological desk-based assessment of the proposed development area (Sharpe 2016) indicates that there has been only limited archaeological investigation of the surrounding area and none specifically within the development site until 2016.

The survey area lies within an area which archaeological evidence shows has been at least partly cultivated since late prehistory. The arrangement of field boundaries locally indicates that this area was farmed during the medieval period, and from at least 1326 this area was part of the farmland of Penans Farm, whose place name is Cornish, from *pen* (top or head) and *nans* (valley), describing the settlement's topographical location.

Penans (historically alternatively spelt Pennans, Pennant and Pennance) was depicted on Gascoyne's and Martyn's maps dating to 1699 and 1740. In some cases, Martyn includes the name of the owner next to the farms or settlements. At Penans Martyn recorded the name of Hawkins, this being likely to be a member of the family occupying Trewithen House, Probus.

Prehistoric remains in this area tend to consist of a series of relatively large hilltop enclosures rather than scatters of findspots or clusters of smaller monuments. There are some barrows in elevated locations near the site as well as Romano-British enclosures recorded from aerial photographs by the National Mapping Programme (NMP) in the landscape surrounding the development site (see fig 10-12). These include Tybesta Round (MCO8881) on the hilltop overlooking Grampound, and the cropmark field system and additional enclosures recorded at Higher Trevillick (MCOs 30043; 21626; 21068) to its south. A particularly well-articulated cropmark complex at Trenithan Bennett to the west of Grampound comprises at least eight Romano-British

rounds (enclosed settlements) and their associated field systems; there is another example at Carwinnick (MCO7819) just to the south of Penans.

The closest recorded Domesday Manor was Tybesta, whose site was located just to the south of the A390 to the west of Penans. This was held by the Count of Mortain following 1066, having been appropriated from Ralph the Constable. Tybesta and Grampound were important early medieval centres within Cornwall. Strip fields or fields derived from agricultural enclosures dating to the medieval period are characteristic of this part of the Cornish landscape, whilst surviving medieval burgage plots are associated with properties of medieval origin in Grampound. Many local place-names have early medieval or medieval origins.

The place name Penans was first recorded in 1326, when it was spelt Pennant (MCO16036). Most of the other farms in the locality, including Nantellan, Trewinnow, Pengelly and Tregensa were also first recorded around this date.

The farmhouse at Penans Farm dates back to c1680 though it was extended and remodelled c1700-1720. An ornamental tree-lined avenue was constructed from the western frontage of the house out in the direction of Tybesta Round. Penans Farmhouse was a high status building at the time, its owner's significantly influencing activity in the surrounding landscape. However, by the early 1800s it was recorded that the house and avenue had fallen into decay, probably as a result of the rise of local large post medieval estates including Trewithen and Trewarthenick and the resultant diminution in the importance of Penans.

Thomas Tonkin noted that Penans was 'formerly the seat of Henry Hoddy, Gent ... He had a considerable estate in these parts, which he foolishly lavished and at last sold to Mr. Thomas Lower' (Gilbert 1838, I, 257). The latter 'did not keep it long, but conveyed his right in it to Philip Hawkins, Gent, since become the most wealthy attorney which this county ever produced' (*ibid*).

Penans passed from Thomas Lower to Thomas Hancocke in 1677, and the latter surrendered it to Philip Hawkins the following year (Royal Institution of Cornwall (RIC) HH/11/30, 32; Bane and Oliver 1998, 126).

Hawkins built a new house at Penans, which was probably completed about 1680 (National Heritage List Entry (NHLE) no 1144033; Beacham and Pevsner 2014, 167-8). Associated with the new house was an ornamental landscape. This was the creation of Phillip and his son, the Reverend John Hawkins, who succeeded to the estate after Phillip's death in 1722 (Bane and Oliver 1998, 127). John was said to have inherited £100,000 and, according to Tonkin, 'laid out very large sums of money on the improvement of Pennance' (Gilbert 1838, I, 257). After his death in 1736 it was noted that John Hawkins had taken 'great pleasure in this seat, building thereon a very good stable, fine gardens, several pleasure houses with lead statues on each corner, iron gates, parterres, fish ponds etc ...' (quoted in Bane and Oliver 1998, 128).

Penans was inherited by John's brother Phillip, who lived nearby at Trewithen in Probus parish. After Phillip's death in 1738 and during the minority of his son Thomas it appears that materials were taken from Penans to Trewithen and the ornamental landscape at Penans was allowed to decline (Bane and Oliver 1998, 127-8). The property passed to the Carlyon family of Tregrehan (St Austell) but does not seem to have been occupied as a country house for some period (*ibid*). Given this later decline, it seems probable that features associated with the designed landscape at Penans date to a period between about 1680, when the house was built, and the death of the Reverend John Hawkins in 1736 (although see below).

The key elements of this designed landscape were a tree-lined avenue aligned on the main frontage of the house and a large walled garden lying symmetrically about the same principal axis to the rear. The position of the avenue is shown on the Creed Tithe Map of 1841, extending west-north-west from the main façade of the house for about 500m and terminating at what appears from its shape to have been an ornamental

pond. A further pond, probably formed by impounding a stream running along a boundary, lay beyond this. Fortescue Hitchins described the avenue as a 'shady walk leading from the house to a piece of water in an adjoining vale' (Hitchins 1824, II, 185-6). An engraving of c1845 shows the portion of the avenue fronting the house lined with mature trees (Pett 1998, 141) and the Ordnance Survey 1st edition 25in to 1 mile map surveyed in 1878 showed a double file of trees on each side of the avenue along most of its length. Part of the site of the avenue survives as a significant earthwork on the west side of the field in which the archaeological work took place.

The Reverend John Swete, passing Penans while travelling between Grampound and St Austell in 1780, noted 'an arch which crost the road, extending itself between 40 and 50 feet, raised with an intent of joining the grounds on the opposite side of the road with a house, which appeared on the right and belonged to a Mr Caerlion' (Swete 1971, 216). Hitchins claimed that the bridge, constructed of brick, 'over which carriages belonging to the house could pass without inconvenience', had been built to carry the route along the avenue over a new turnpike road (Hitchins 1824, II, 185-6; repeated in Lake 1867, I, 260). Hitchins was writing well after the relevant period, however, and his interpretation of the origins of the bridge appears to have been incorrect. The turnpike route was not created until the early 1760s and followed not a new route but the line of the existing road (Thompson 2013, 123). Further, the bridge over the road at Penans was shown schematically on Thomas Martyn's map of 1748 and so evidently pre-dated the turnpiking of the route. It seems more probable that the brick bridge formed part of the original designed landscape; the walls to the large gardens to the rear of the house were also of brick as were the stables on its west side (NHLE 1136264; 1327448). The bridge was demolished in the late eighteenth century (Hitchins 1824, II, 185-6) as it was impeding traffic on the road.

The unusually large field in which the archaeological work took place – at almost 34 acres (13.75 ha) it was the largest field recorded in the Creed tithe survey – was named in the apportionment as Pond Field. It is likely that in the early eighteenth century this formed a park, an open grassed area across which the geometrically aligned avenue and pond were laid out. Such an arrangement would reflect the tastes of the period (*cf* Williamson 1995, ch 2) and the park element of the landscape may once have been larger. The road discovered during the project entered the site from fields to the east and its alignment suggests that its origin in that direction may have been close to the junction between the A390 and the lane running north to Trewinnow. At the time of the tithe survey (1841) these fields formed part of Trewinnow and were recorded as Lower Croft and Higher Croft, the 'croft' element suggesting that they had been enclosed from former rough ground (Dudley 2011). However, the boundary forming the northern side of these fields continues the alignment of the northern side of Pond Field – that is, of the Penans estate as it existed in 1841 – and it is conceivable that at an earlier date these fields had belonged to (or were used by) Penans and formed part of the park. Trewinnow was referred to in a document of 1739 which listed properties affected in the partitioning of the Penans estate after John Hawkins' death, so this is a possibility (CRO CF/1/2391; not consulted for this report).

Both the 1841 Creed Tithe Map and the OS 1st and 2nd Edition historic mapping (figs 10 +11) suggest that water management had become established as an important element of the surrounding landscape by the mid-19th century, probably long before. The larger of the local streams were captured near their sources, fed to a series of ponds and conveyed by a leat to the western side of Grampound, where the settlement's 'Town Mills' (established in 1607) was sited. A medieval tucking or fulling mill (MCO26121) was recorded at Tybesta in 1333. This would have been located near a water source but its exact location is not known. Some of the ponds may have formed elements of Penans' ornamental landscape.

The OS 1st and 2nd Edition maps showed few changes to the landscape by the late 19th and early 20th centuries, although they both marked the extent of Tybesta Round and

more clearly depicted the tree-lined avenue extending westwards from Penans Farmhouse (figs 10 and 11).

During recent years the A390 road has been upgraded into a major route between Truro and St Austell with associated modern infrastructure, whilst the surrounding landscape is increasingly being used for renewable energy installations. A small number of the avenue's original trees survive at its western end.

6 Archaeological results

The original proposed development boundary was slightly altered to avoid areas identified as being potentially feature-rich during the geophysical survey (Roseveare 2016); these included that siting a possible barrow to the west and north of the site compound (Feature 18 on Fig 3 below, sited immediately to the south of the excavated area) and a rectilinear enclosure in the north-east part of the wider land parcel around the site (Feature 26 on Fig 3). The remaining features exposed during the soil strip consisted of ditches, two tracks and some planting hollows or tree throws. Taken together these represent a mixture of agricultural and water management features and the remains of a formally designed landscape. Most of the ditch features were located in or converged in the northern and western parts of the site, whilst the trackway and much of the planting evidence were found in its northern and eastern areas.

As the features exposed by the soil strip fall into two broad categories: agriculturally related boundary features and features relating to the formally planted landscape associated with the 18th century buildings at Penans, they are described under these two headings in this chapter for ease of interpretation. Almost all features correlated with anomalies identified by the geophysical survey (see Fig 3); the main features recorded during the fieldwork are shown in Figure 4 below.

Detailed context descriptions are given in Appendix 2.

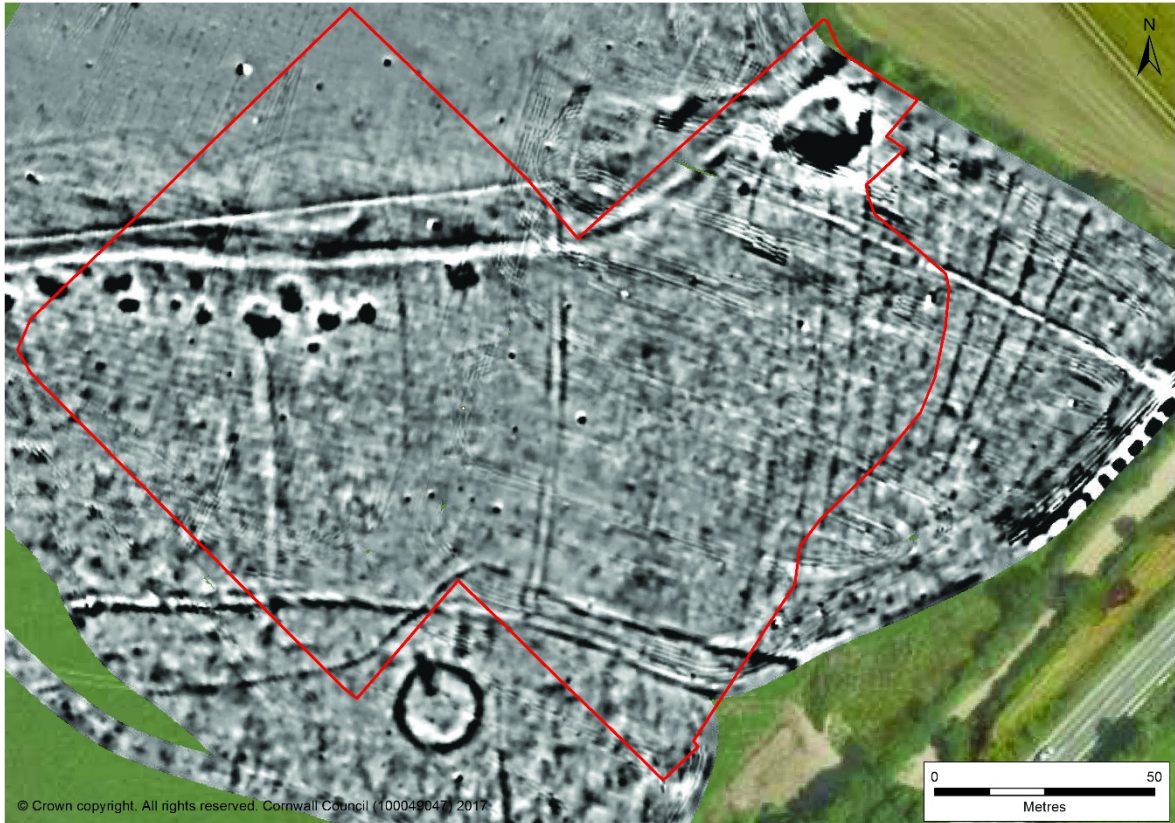


Fig 3. Geophysics results

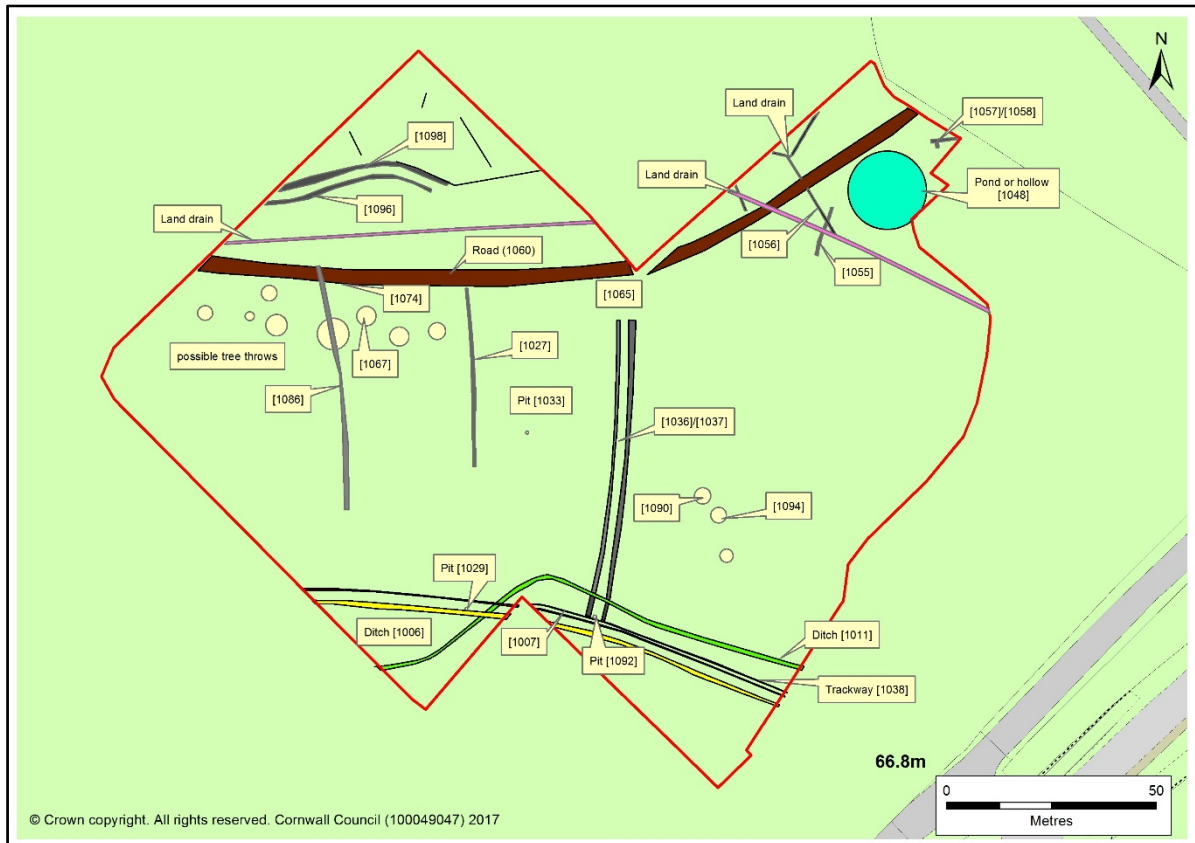


Fig 4. Plan of the principal features recorded during the 2017 soil strip.

The topsoil (1001) across the site was a mid to dark reddish brown silty clay varying in depth from 0.3m to 0.8m, being deepest at the base of the slope. Small, patchy areas of surviving buried subsoil (1028) were noted in the deeper parts of the site where hill wash had buried and protected it from ploughing.

6.1 Agricultural and water management features

A curving linear ditch [1011] (the green feature on Fig 4) which runs along the upper south-western end of the site is the only boundary feature which appears to respect the suspected barrow immediately to its south. On average this ditch had a width of 1.18m and a depth of 0.48m with sloping sides and a concave base. In most of the sample trenches cut across it this ditch had two fills, these being numbered (1010), (1016) & (1018), (1020) & (1022), (1040) & (1041) and (1045). All the upper fills were consistently dark reddish brown and similar in appearance to the topsoil found across the site; the lower deposits, where present, were a mix of this and natural reddish yellow silty clay, this containing shillet fragments. Generally, this lower fill was colluvial in appearance and most likely resulted from the silting up of the ditch whilst it was in use. This ditch was cut by the E-W running ditch [1006] and trackway [1038] and also by the pair of N-S aligned ditches [1036] and [1037], therefore pre-dating all of these features. It is likely that ditch [1011] is the earliest of the ditches found and represents a field boundary from a time when the barrow (immediately to its south and just outside the excavation area) was still in evidence. One gabbroic sherd of prehistoric pottery was found in fill (1016) of this ditch (Fig 5), this possibly being of Bronze Age date; the only other artefacts recovered from the ditch fills came from the top of the upper fills and consisted of a few pieces of relatively modern dark green bottle glass.



Fig 5. Pot from fill (1016).

Ditch [1006] and trackway [1038] (the same as [1007]), two features which run parallel on an E-W alignment across the upper south-western portion of the site, cut across ditch [1011]. Ditch [1006] was located on the upslope side of trackway [1038]; it varied between 0.7m and 1m wide by 0.34m deep with steeply concave sides and base but an occasional slight step along its southern side. There were either one or two fills present along its length, dependant on the amount of truncation which had

occurred. The upper fill (1005) and (1012) was a mid-yellowish brown plastic clayey silt with moderate amounts of stone. Finds within this feature were limited to the surface of the upper fill and can probably be interpreted as downwardly-migrated topsoil finds; they consisted of fragments of flint and 20th century glass.

Ditches [1036] and [1037] (Fig 6), a parallel pair of ditches, were probably the remains of a removed Cornish hedge which ran roughly N-S across the site, this can be seen in Figure 4. Both were 0.8m wide and about 0.15m deep with sloping sides and irregular bases. They had single fills: (1034) for ditch [1036] and (1035) for [1037]. Both fills were dark reddish brown clayey silts with occasional stones. The finds recovered from fill (1035), the main fill of ditch [1037], consisted of nine pieces of post-medieval pot, these being a mixture of rim and body sherds, some glazed, one clay pipe stem and two pieces of dark green bottle glass. Fill (1039), the fill of ditch [1038], yielded two sherds of post medieval pot.

Both ditches appeared to terminate at the northern edge of trackway [1038] suggesting a degree of contemporaneity; both cut through trackway/road [1060], this being suggestive of an agricultural boundary feature which post-dated the designed landscape, and related to the use of this area as agricultural land.



Fig 6. Photo 8093 of ditches [1036] on the left and [1037] on the right (in red) where they cut through [1060] (in blue).

Ditch [1027], a short surviving length of linear N-S aligned ditch running parallel to [1036] and [1037] but further to the west north, was 0.7m wide by 0.16m deep; this had a stepped profile and was found to be largely truncated on the upper slopes of the field where the natural is very stony.

Ditch [1086], a very shallow, frequently truncated N-S aligned linear feature ran over the top of road [1060] (Fig 13); it was 1m wide by 0.25m deep and had a concave profile. Most likely this was part of the arrangement of features associated with agricultural activity. In the evaluation report (Fleming 2017) these linear features were attributed to the medieval period, and thought to have resulted from ploughing activity,

but its recording during the watching brief showed that it clearly ran over trackway/road [1060] and not under it, so must be much more recent. The geophysics interpretation showed these features curling around at the base of the hill into right angled returns, but this was not found to be the case. This ditch was identified by the geophysical survey as one of a pair although only one ditch was noted after soil stripping; this feature was very shallow so it is likely that a significant degree of truncation by agricultural activity had taken place within this part of the field. This ditch followed a similar alignment across the field as ditches [1036] and [1037]; it had a similar fill. As both sets of ditches cut across trackway [1060] it can be inferred they date to a similar time period.

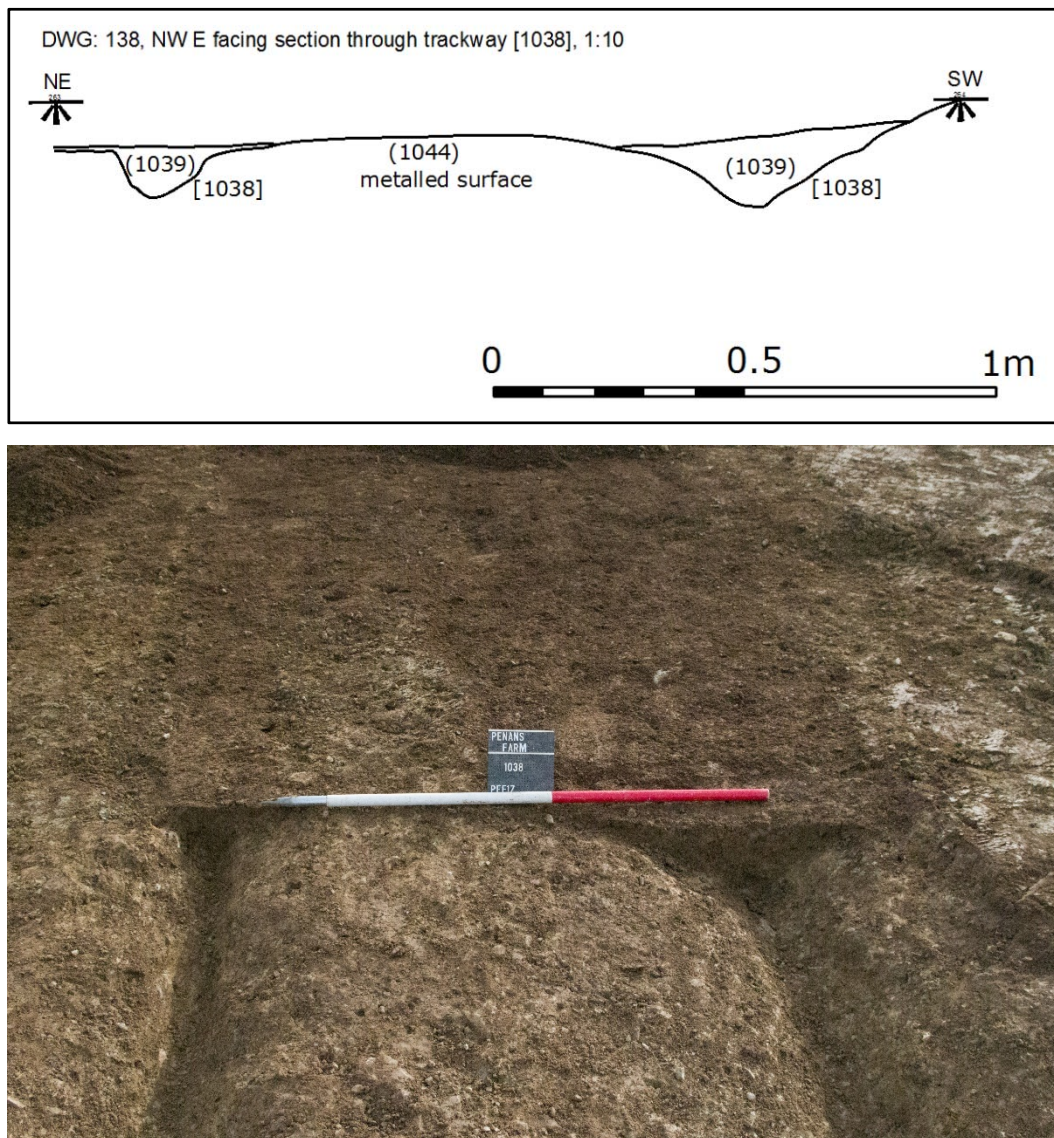
Ditches [1096] [1098] and land drain [1107], a stone lined water management feature, crossed the lower part of the site to the north east. Ditch [1098] appeared to merge with a stone filled land drain, which may represent an improvement of an older drain. More land drains of fairly modern construction were found but were not investigated, though their extents were surveyed in. These were all found in the wettest part of the field; water was noted as flowing quickly into this area from across the site during periods of rain.

Features [1057] and [1058] were two ditches that converged behind the pond or hollow feature [1048] in the south-eastern corner of the site; these appeared to be associated with the land drains in this area as they lined up with a number of them (Fig 11). [1057] was 0.25m wide by 0.16m deep and had a concave profile, whilst [1058] was wider at 1m wide and 0.2m deep; it again had a concave profile. The geophysics results suggest that these were part of a wider network of linear features interpreted as land drains in the field beyond the excavated area (see Fig 3). Where sample excavated they were found to have been accurately recorded during the geophysical survey.

6.2 Designed landscape features

The road [1060] and its associated ditch [1074] ran across the site from its north-east corner, crossed the bottom of the site and curved around to the north-west end of the excavated area.

Trackway [1038] (Figs 7a/b), initially assumed from the geophysical survey results to be a ditch, was numbered [1007] but at the location where it was initially exposed it was heavily truncated; a better profile of the trackway was found to the south where it was numbered [1038]. In this area it was characterised as a linear feature surfaced with road metalling (1044); here it averaged 1m wide and comprised compacted natural with double wheel ruts cut into it. The ruts had a depth of about 0.12m and a variable width of 0.08m – 0.15m. This trackway appeared to run from the current field entrance towards the top of the hill, behind which are reputed to be a series of clay pits or ponds associated with a former brickworks (pers. comm. a gamekeeper visiting the site). The track may be associated with industrial activity or might have been a component of the ornamental landscape. The ruts are very compacted, suggestive of long or very heavy use.

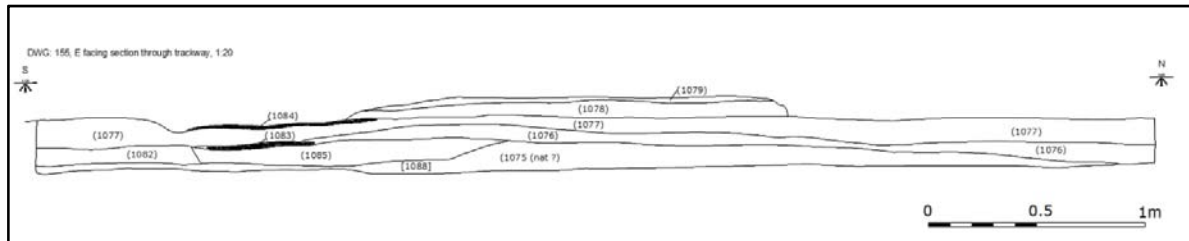


Figs 7a/b. Section drawing 138 and photo 8020 of trackway [1038].

The more substantial trackway running SE-NW across the lower part of the site was typically 3.2m wide (Figs 8a/b); the uppermost metalled surface [1060] and [1079] consisted of compact small sub angular stones and sand, typically 0.1m thick and overlying a much sandier clay bedding layer (1061) and (1078) between 0.07m and 0.16m thick. These layers typically overlaid various hill wash silt and soil layers and, in most places, a buried topsoil horizon (1062), which suggests that this road was quite informally built over the existing land surface as opposed to being constructed in a cut. The upper metalled surface [1060] was visible over most of the length of the road through the site but its survival was patchy in places, where the underlying bedding layer was exposed. It had a slight camber in places and looked to have been built up on the upper part of the hillslope and steeper parts of the hill slope so that it could be more level and set away from any areas where wet soils or runoff might have caused problems. In the section cut through the feature in the north-east corner of the site a lower metalled surface (1084) could be seen underlying the upper built surface, possibly representing an earlier phase of road surface or roadway. This was slightly

offset on the upslope side of the road and appeared to be accompanied by a cut, [1088]; this can be seen in Figure 8 below.

It is possible that this lower and narrower cut and surface represents an earlier road or trackway that was later appropriated as part of a scenic ride through the landscape from the Farm. Geophysical interpretation had this feature curving under depression [1048] but in fact it ran past this feature to the east, meeting the hedge.



Figs 8a/b. Trackway [1060] section drawing 155 and photograph 8056.

This feature looks likely to continue eastwards and westwards outside the excavated area, suggesting a much longer route running through the wider landscape. To the east, the field hedge displays differences in plant species and hedge construction at the point where the track meets it, suggesting there was once a gap there (Fig 9). To the west, a flattened cut or faint earthwork can be seen crossing the hill slope, suggesting that the road continued round the side of the hill and towards the north-western end of the former avenue running back to the house. It is suggested that this track was part of a formal drive designed to lead travellers along a route advantageously laid out to allow them to admire the designed landscape around the house and grounds before returning to it along the tree-lined avenue along which the house would come into view, framed by the flanking trees.



Fig 9. Gap filled with variant hedge species indicated by blue arrow and trackway running east towards it (indicated by dashed line) photo 8132.

Ditch [1074] (Fig 10) ran intermittently along the southern (upslope) edge of trackway/road [1060], passing through the lowest and wettest part of the site to its north-western corner. It was typically 0.63m wide by 0.42m deep with a concave profile and was filled by (1073), a material which appeared to be silty colluvium. It is possible this feature was built along the edge of the wettest and steepest part of the road's route to protect it from runoff from the hill slope above to the south. It was not found alongside the road as it approached the eastern field boundary.



Fig 10. Photo 8119 ditch [1074].

Sample excavated tree holes/throws were numbered [1067] [1090] [1094]. Although eleven of these features were surveyed on site they were not all investigated. Generally, they were found along the upslope side of road [1060] and were all similar in diameter. Trees planted at these locations would have obscured views to and from the farm. At the point where the tree hollows were found the house would not have been hidden by landform alone, and the tree planting may have deliberately obscured views of the house from this location for travellers along the road. Some of these holes, especially the larger ones, appeared to be more likely to be planting hollows which had subsequently become altered by root growth as opposed to naturally formed root holes; if correctly interpreted, this suggests that large trees were formally planted at this location, as opposed to saplings. In all cases the fills were similar to the local topsoil. All of these tree hollows were identified on the geophysical survey as anomalies although similar but smaller hollows scattered around the hill slope such as [1090] and [1094] were not picked up in the geophysics interpretation but can be seen in the raw results (see Sharpe 2016 and Fig 3, this report). Tree or plant throw [1094] held some prehistoric pot, possibly bronze age within its single fill (1093), this most likely represents a general level of activity in the area for this period rather than a deliberate deposition.

A pond or large bowl-shaped hollow [1048] (Fig 9) was partly investigated during the evaluation trenching phase (Fleming 2017) and recorded as a deep deposit of topsoil that was not bottomed, nor its edges determined. Its fill was numbered (1036) and was noted as similar to the topsoil found elsewhere during the excavation. The full strip of the area revealed a roughly circular feature approximately 16m in diameter with a depth of 1.3m at its deepest point. The side to the south was steep and cut into the slope of the hill whilst the northern side sloped very gradually and ended just short of the remains of trackway/ride [1060] which was heavily truncated in this area and hard to see. The basal fill of the hollow (1047) was a yellowish grey very fine silt; it was not particularly deep at 0.3m and there appeared to be root disturbance in the very base of the feature under (1047). It can now be suggested that this hollow was part of the

designed landscape, possibly a planted hollow or dell (a fernery like feature?), or perhaps a decorative pond. Certainly the road went around it suggesting that they were contemporary. During the evaluation this feature was tentatively interpreted as a backfilled quarry which was rumoured to have been sited in this area but its excavation proved this not to be the case.



Fig 11. Half-sectioned pond-like feature [1048], photo 8034.

6.3 Discrete features

Posthole [1009] was a well-formed, vertically-sided, flat-based posthole 0.45m in diameter by 0.2m deep filled with (1008); it contained both worked flint and medieval pot. Its relationship with the intersection of ditches [1011] and [1006], the closest features to it, is unknown.

A sub-oval burnt pit [1033], 0.7m in diameter by 0.4m deep had a concave profile (Fig 12). This pit had three fills. The upper one (1021) consisted of quartz, some heat-altered, as well as traces of burnt earth and charcoal; the middle layer (1031) was a charcoal-rich silty sludge, most likely the remains of the burning surface. The basal fill (1032) was a mix of redeposited natural with charcoal flecks. This is quite similar in description to the Mesolithic pit [110] found during the Phase 1 watching brief (Britten 2016), but rather better preserved and a considerable distance away to the west, the pit from 2016 being in the far south eastern corner of the site and pit [1033] being over in the west of the site. Samples of the charcoal from this pit were taken so an analysis of the charcoal could be made to see if this is of similar date to that from Britton's [110] and part of a wider scatter of such features.



Fig 12. Pit [1033] looking SE.

A sub-oval or possibly double posthole [1092] in the junction between boundary ditch [1036]/ [1037], ditch [1011] and trackway [1038] contained three iron fragments within its fill (1091), suggesting that it was likely to be contemporary with the trackway.

A number of other discrete features, some of which were identified on the geophysical survey, were noted but investigation found them to be animal burrows or geological anomalies and no records were made.

Two photographs of the site follow to give an impression of the site's appearance during the excavation process.



Fig 13. Site staff cleaning up the junction of ditch [1086] and road [1060] in the northern corner of the site. Note the standing water and clay downslope.



Fig 14. Trackway [1007] and ditch [1006] (lower left to upper centre) running west through broken natural at the top of the field.

7 Chronology/dating evidence

Few finds were discovered within sealed contexts that could suggest firm dates for the features, most of the finds within ditch fills having been in the tops of the upper fills exposed by stripping, quite possibly representing contamination by topsoil finds moved around by bioturbation. While the features recorded could not be archaeologically dated during the work on the site, it is most probable that the majority formed part of an ornamental landscape created at Penans by the Hawkins family in the late seventeenth century and the early decades of the eighteenth century. The presence of a sparse scattering of flint throughout the site in the topsoil and prehistoric pottery in one ditch and a tree throw suggests a general presence in the area during pre-history.

A Mesolithic pit was identified in the Phase 1 watching brief (Britten 2016); there is a possibility that burnt pit [1033] may be also date to that period. Features of this date are exceptionally rare in Cornwall and further analysis is recommended for this pit (see Section 10 below).

Ditch [1011] appears to be an early boundary ditch of either prehistoric or early medieval date, probably respecting the nearby barrow and definitely predating the other linear features within this part of the site; a prehistoric pot sherd found within fill (1016) suggests an early date. Given that the ditch appears to snake around the barrow, this feature seems likely to have been at least still partially standing when this boundary was in use.

The E-W aligned ditches [1027], [1037]/[1038] and [1086] are likely to be elements of a more recent agricultural landscape. It was hard to determine the age of these features however; although medieval pot was found in ditches [1036] and [1037] they cut the roadway which is attributed to the 18th century and therefore must post-date this feature. Ditch [1006] (Fig 14) and trackway [1038] appear to interact with ditches [1036] / [1037] so are likely to be contemporary with these later agricultural boundaries.

Track [1038] appears to be aligned towards the present field entrance and, beyond that, on the lane from Penans house to the main road (A390). An access lane in this location is shown on Martyn's map (1748) and it also appears on the Tithe Map (1841) and other later historic mapping (Figs 15, 16 and 17).

The parallel ruts of trackway [1038] were sharply cut into the surface of the natural and it is likely that they cut through an overlying layer of topsoil. No indications of multiple tracks following the same approximate alignment were found. It is unlikely, therefore, that the ruts were created by agricultural traffic such as hay carts and wagons, which would more probably have taken a variety of different routes across an open field. Instead, the paired ruts seem likely to have resulted from the repeated use of a specific route across the present field. This appears to suggest that the route is that of a 'ride': a pleasure route laid out within the park (Phibbs 2017, 147-8), in this instance being part of a circular route to the north of Penans Farm incorporating the documented avenue. The stables built by John Hawkins in the early eighteenth century included a coach house, indicating that wheeled vehicles were used at Penans during that period (NHLE no 1136264). Hitchins also referred to the bridge over the road as having formerly carried carriages from the house, suggesting the existence of pleasure routes within the park (Hitchins 1824, II, 185-6).

The documentary evidence suggests a date for the road in Pond Field broadly contemporary with other elements of the designed landscape created by Phillip Hawkins and his son John. Such deliberately 'indirect' approaches to country houses, designed to give visitors a carefully stage-managed visual experience, have been more frequently recognised in later designed landscapes. Humphrey Repton, in his 1793 *Red Book* for the Gregor family's nearby seat at Trewarthenick (Cornelly), distinguished between shorter, 'direct' routes to a house, used for heavy loads and for convenience by friends and family, and 'principal' approaches. The latter were 'lengthier, designed for light

carriages and for walking, and taking a route in large part determined by the pleasures of the drive and of the surrounding scenery' (Phibbs 2017, 148).

There is little to suggest that Penans was occupied by the gentry after the death of John Hawkins until it was leased in 1793 by Nicholas Donnithorne, a member of the wealthy St Agnes mining and mercantile family. Donnithorne was described as 'gentleman' and 'esquire' in contemporary sources and among other gentry benefactors donated £60 to the new Cornwall General Infirmary in Truro in c 1799, with an additional annual subscription of 10 guineas (CRO CN/681-682; Polwhele 1806, IV, 126). It is therefore conceivable that Donnithorne could have aspired to create or perhaps refurbish some elements of a designed landscape at Penans during at least the earlier part of his tenure. On the other hand, the brick bridge over the turnpike road, which would have been necessary to make the Pond Field approach 'work', had been demolished during the 1780s (Hitchins 1824, II, 185-6). By the early 1810s Donnithorne's fortunes were waning and Penans was regarded as a farmhouse rather than a residence of the gentry (Lysons and Lysons 1814, 70). The Ordnance Survey Surveyor's Drawing made in 1811, did not show the road in Pond Field and appears to depict the area suggested above to have been a large subdivided field (British Library, Ordnance Survey Surveyor's Drawings, Grampound sheet, online). Taking all the available evidence into account, therefore, a date during the period 1680 – 1736 seems most probable for the road.

Similarly, the pond-like feature [1048] and planting holes or tree throws are interpreted as part of the designed landscape, and associated with the same time period as the road.

The other partially-preserved linear features in the north-east corner of the excavated area and the 19th or 20th century field drains are almost certainly associated with a fairly recent phase of improvement as all appear to be situated in the wettest area of the field.

8 Significance

No secure dating evidence was recovered for any of features excavated in 2017, but there is the potential that some of them could relate to prehistoric activity within the site; ring gully [202] and pit [205] in Trench 2 excavated during the evaluation phase of works, for example. There is also the potential for high precision dating from the charcoal sampled from pit [1033]. There is a known late prehistoric/Roman period settlement to the west of the site at Tybesta Round (MCO8881) and at Trevillick (MCO30043), for example, but the morphology of features [202] and [205] suggest a rather earlier origin. The possible Bronze Age barrow on the rise of land in the southwestern part of the site (immediately outside the proposed development area), taken together with the scattered Late Neolithic and Early Bronze Age flints recovered as surface finds certainly support the likelihood of earlier prehistoric activity in this area. It is most likely that boundary ditch [1011] was constructed at a time when the unexcavated barrow was still in evidence. As it does not appear on any known maps it can be assumed that this ditch is definitely older than the others found on site whose broad date range can be demonstrated in the ways which they interact with or cut through features of the 18th century designed landscape.

The most significant features investigated within the site are probably the components of the 18th century designed landscape and its carriage ride, these being associated with the extensive remodelling works to the farmhouse undertaken in the 1600s and the early 1700s.

The route taken by the track in Pond Field could be traced as a slight earthwork for some distance beyond the area of soil stripping and appeared to be aligned towards the western end of the documented avenue. It is likely, therefore, that it formed part of a designed approach to the house at Penans, intended to take visitors through an impressive ornamental landscape *en route* to the principal frontage of the house. There

may have been features of interest within the park to be viewed from this approach, including the probable pond on the east side of Pond Field near the hedge, identified during the archaeological work, and perhaps other elements: a square univallate feature is known from air photographs on the north side of the field (HER MCO 21719) and the ditched enclosure revealed by geophysics on a local summit within the field, if not a prehistoric enclosure, could also potentially have been a parkland feature; a surviving barrow could itself have served as a feature of interest on the route. The series of large hollows identified on the south side of the route could represent excavations made for planting trees along the line of the approach; these would have screened views towards the house as the route crossed the park allowing it only to come into view when the north-western end of the avenue was entered.

This indirect route to the house was not shown as an approach on Martyn's map of 1748; that depicted a spur from the main road which is likely to correspond with the present access lane to Penans. The approach described above would have been an additional route intended to choreograph the experiences of visitors and 'show' them the house and its landscape in the most advantageous and diverting way. Approaches via avenues were a feature of other country houses in Cornwall at about the same period as that at Penans; for example, at Ethy (St Winnow), and Lanhydrock (Herring 1998; Holden *et al* 2010, 332–3).

9 Conclusions/discussion

The watching brief at Penans confirmed the general arrangement of features identified during the geophysical survey and built on the results of the 2017 evaluation trenching phase of works. Although no secure dating evidence was recovered, the morphology of the features recorded indicates that these represent elements of a lost designed landscape associated with the 18th century Farm and landholdings, subsequently overlain by a much more recent phase of agricultural activity dating to the 19th century or the early 20th century.

The small number of pottery sherds recovered from several of the archaeological features suggest activity in the area during the medieval and post-medieval periods. As the pottery is probably residual the context for this activity is uncertain and these might represent material incorporated into farmyard manure spread on the fields. A single sherd of prehistoric pot in boundary ditch [1011] and occasional pieces of flint scattered across the wider site suggests a degree of prehistoric activity in the area. The feature identified in the geophysics as a possible barrow would have been likely to have been located in an area used at the time of its construction in a relatively un-intensive way, probably an area of open downland. It is likely that any associated settlement would have been sited in the lower lying ground to the north.

One set of features not noted during excavation though identified on the geophysical survey were arrangement of parallel linear features located in the south and south-eastern area of the site. These are considered most likely to be deep machine rutting resulting from agricultural activity in very recent times. Wet weather during mechanical stripping of the topsoil during the excavation caused the ground to become so wet that tractor wheels carved deep ruts into the topsoil.

It is worth noting the likely presence of deep pits cut for clay to make bricks just outside the area of investigation towards the base of the hill. This is not mentioned in the HER but local knowledge places it in the field where a large infilled pond is sited. It is not known where the bricks were fired, though this might have been in a clamp close to the clay pit. These bricks were almost certainly used during the building of Penans during the late 1600s and early 1700s as many of the buildings dating from this period are noted as being of brick construction.

10 Recommendations

Elements of a late 17th or early 18th century designed landscape associated with Penans Farm were recorded in the area of Pond Field to be occupied by the proposed development. These clearly extend beyond the excavated area, both within Pond Field and into the area to the east of it. Associated with this is a contemporary brick-making site. Archaeological recording would be required should expansion of the AD/GEU plant be planned, or any other future developments be proposed within this field which would result in intrusions into the ground surface.

The probable barrow recorded by geophysical survey sited immediately to the south of the AD plant would be very vulnerable to erosion by vehicle movements around the plant or to any ground-lowering activities on its site. The small sub-rectangular enclosure recorded by geophysical survey to the north of the plant may also be a prehistoric feature and would also be vulnerable to agricultural erosion or too intrusive activities. Proposed works within either of these two areas should be the subject of an agreed programme of archaeological recording, either in advance of or during such works. The scope of such recording should be agreed with the Senior Development Officer (Historic Environment) (SDOHE).

It is recommended that the charcoal from pit [1033] is subjected to high precision radiocarbon dating to determine whether it this feature a further example of the Mesolithic 'burnt pit' found during the Phase 1 watching brief on the site. The results from the radiocarbon dating will published in *Cornish Archaeology*.

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11.3 Websites

<http://www.heritagegateway.org.uk/gateway/> Online database of Sites and Monuments Records, and Listed Buildings

12 Project archive

The CAU project number is **146727**

The project's documentary, digital, photographic and drawn archive is maintained by Cornwall Archaeological Unit

Electronic data is stored in the following locations:

Project admin: \\Sites\CAU\Live Projects\Penans Phase 2

Digital photographs: \\Historic Environment (Images)\CAU\Live Projects\Penans Phase 2

Electronic drawings: \\Historic Environment (CAD)\CAU\Live Projects\Penans Phase 2
WB 146727

Historic England/ADS OASIS online reference: cornwall2-303566

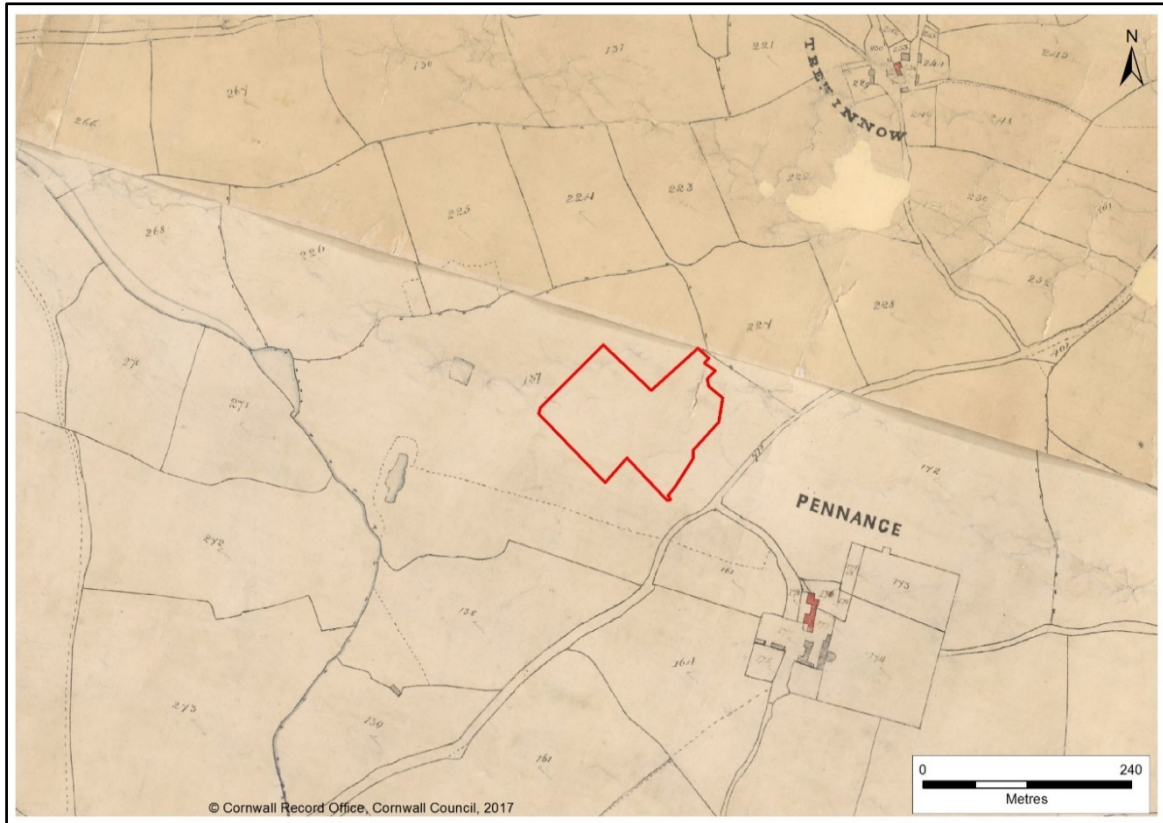


Fig 15. Extract from the Creed Tithe Map, c1841. Note the pond at the end of the avenue and the rectangular feature to its west.

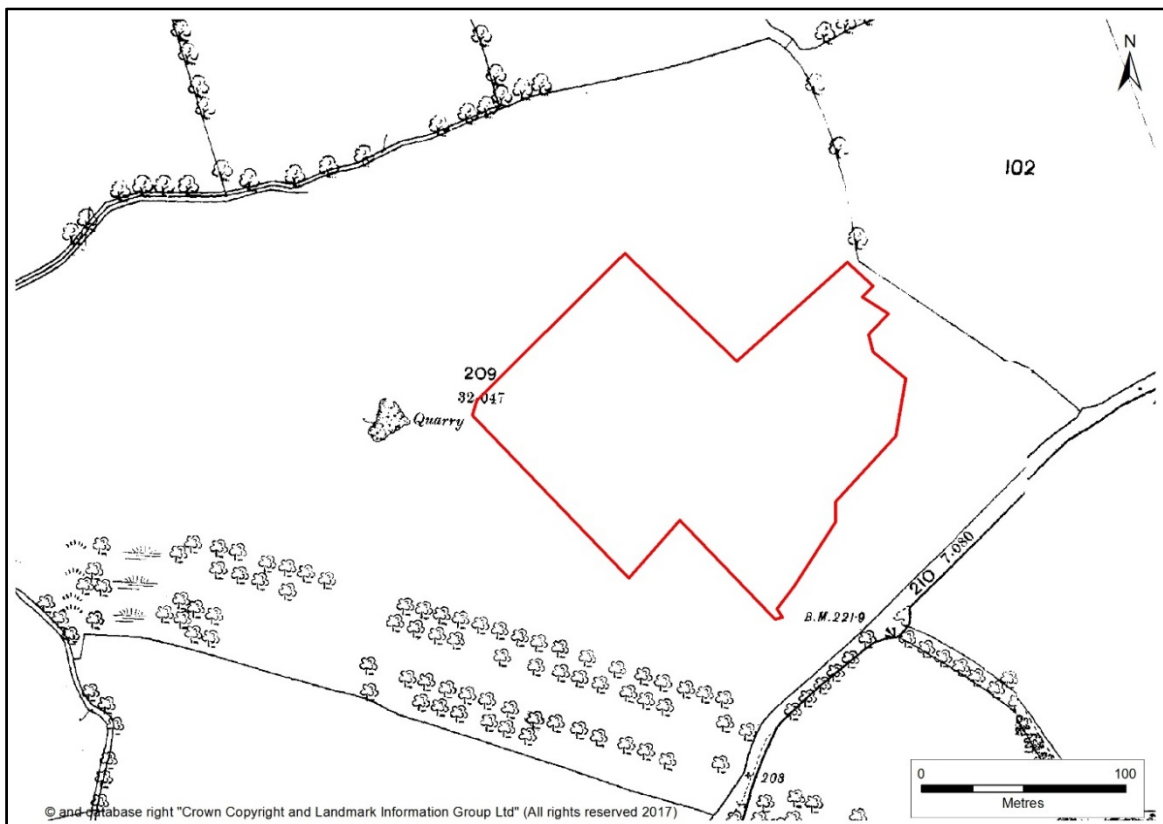


Fig 16. First Edition of the Ordnance Survey 25 Inch Map, c1880. Note the trees flanking the avenue.

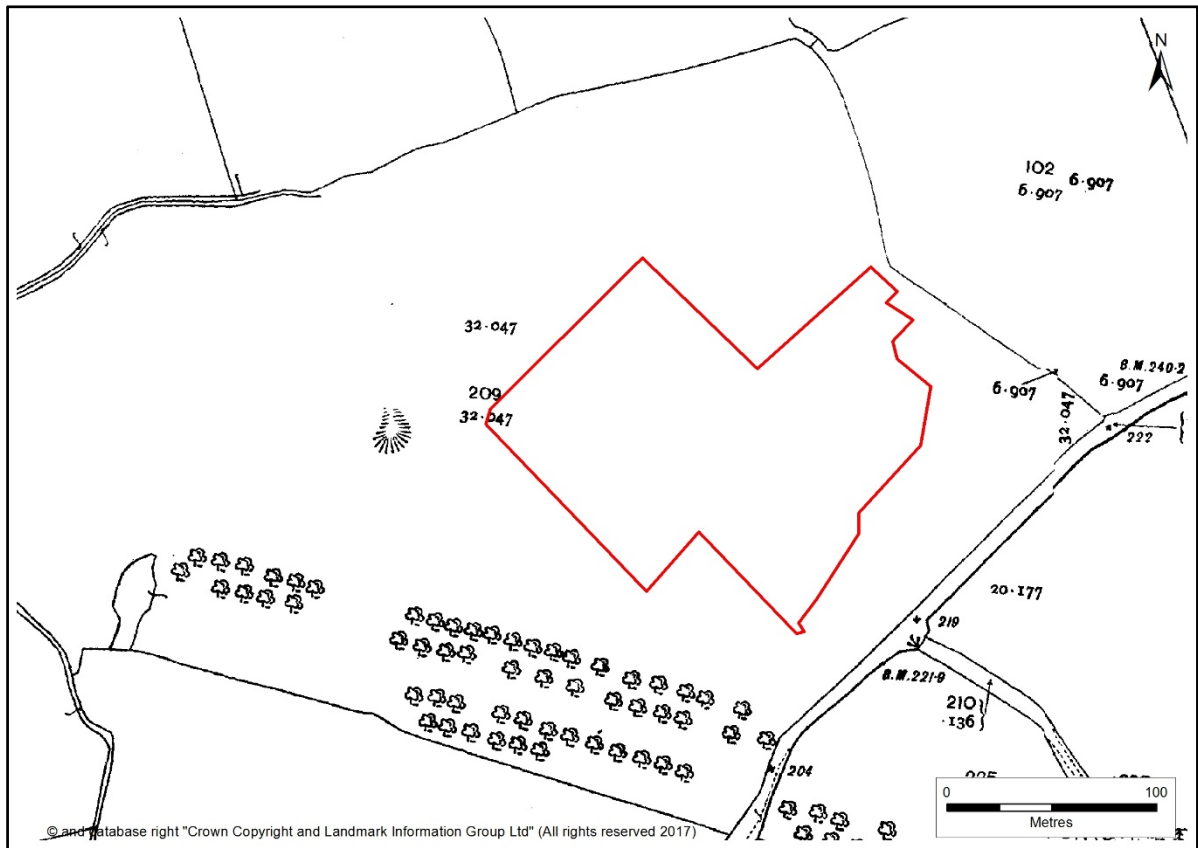


Fig 17. Second Edition of the Ordnance Survey 25 Inch Map, c1908.

Appendix 1: Written Scheme of Investigation

Client: Qila Biomass Ltd

Client contact: Emma Dawson

Client tel:

Client email:

Site name: Penans Farm

Site location: SW 95263 49210

Planning ref: PA16/02022/preapp

Summary project background

Cornwall Archaeological Unit (CAU) was contacted by Emma Dawson of Qila Biomass on 08 August 2017 with a request for a Written Scheme of Investigation (method statement) for undertaking an archaeological watching brief during the second phase of groundworks associated with the construction of an anaerobic digester (AD)/gas injection plant (GIU) in an area currently used as a large agricultural enclosure to the west of Penans Farm near Grampound. The relevant planning reference is PA16/02022/preapp, this being for an enlargement of previous proposal PA16/04956. Neither application has yet been determined.

The site extends to approximately 4ha and is centred at SW 95263 49210. The relevant postcode is TR2 4RQ. The site is in the ecclesiastical parish of Grampound with Creed.

The local soils are the well-drained fine loams of the Denbigh 2 Association, these overlying mudstones and sandstones of the Middle Devonian Gramscatho Formation. The agricultural land classification is a mixture of Grade 3 and Grade 2 land.

The Historic Landscape Character of the proposed development area noted as being Recently Enclosed Land, though since it is in close proximity to the 17th century remodelled Penans Farm and given that the National Mapping Programme has plotted a significant number of enclosed Romano-British farmsteads (rounds) in the surrounding area it should probably be reclassified as Anciently Enclosed Land (AEL: farmland medieval), that is land which has been in continuous agricultural use as enclosed land since at least the medieval period. No landscape designations apply to this parcel of land, and it contains neither Scheduled Monuments nor Listed Buildings. The proposed development area is bounded to its south-east by the line of the A390 road.

The Senior Development Officer (Historic Environment) recommended that a Cultural Heritage Assessment needed to accompany the original application. This was produced by Wardell Armstrong in July 2016. A further advisory comment was that an archaeological watching brief would be required during the groundworks associated with the development of the site.

For the subsequent application the SDO(HE) advised that a geophysical survey would be required to determine any need for further archaeological recording as part of a mitigation strategy. The Advisor also indicated that a further Cultural Heritage Assessment would be required to determine potential physical and setting impacts on archaeological and historic sites within the surrounding landscape.

The geophysical survey commissioned via CAU and undertaken by TigerGeo revealed indications of a complex multi-period landscape incorporating what appeared to be elements relating to settlement, ceremonial activities, agricultural enclosures of a range of periods, industrial activities and possible water management features.

An archaeological watching brief was undertaken during the Phase 1 works on site, covering the area to be occupied by the gas injection unit plant. This revealed an area of medieval ridge and furrow and a pit containing charcoal which, when C14 dated, proved to be of Mesolithic date (Britton 2016).

The area to be occupied by the anaerobic digester plant was subjected to evaluative trenching during 2017 (Fleming 2017). A number of field boundaries of varying dates from the prehistoric to the post-medieval periods were revealed, together with a possible backfilled quarry and an early post-medieval track, as well as other minor features.

This Written Scheme for Investigation (WSI) outlines the aims and objectives, methods and timetable of the proposed watching brief to be undertaken during the Phase 2 works associated with the development, which consists of the removal of topsoil over a large area to prepare the site for the construction of the anaerobic digester plant and the associated holding tanks for slurry. The WSI should be approved by Cornwall Council before any works on site can be commenced.

Methodology

All recording work will be undertaken according to the Institute for Archaeologists *Standards and Guidance for Archaeological Investigation and Recording*. Staff will follow the CIfA *Code of Conduct* and *Code of Approved Practice for the Regulation of Contractual Arrangements in Archaeology*. The Chartered Institute for Archaeologists is the professional body for archaeologists working in the UK.

Fieldwork: watching brief

The CAU Archaeologists will be on site during the stripping of the topsoil over all areas of the site which are to be developed.

All groundworks (predominantly topsoil stripping, but also any trenching for services) should be undertaken under archaeological supervision using a machine fitted with a toothless bucket. The topsoil will be stripped cleanly to a level at which archaeological features or layers can be expected to be revealed (i.e. the top of the underlying 'natural'). **Machines will not run over the stripped area until the archaeological recording works are complete.** Following soil stripping the area will be inspected by an archaeologist and any archaeological features or layers exposed will be carefully excavated by hand and recorded by written description, plan, section and photographic record as appropriate by the CAU Project archaeologist.

During the archaeological watching brief the archaeologists will identify and record any archaeological features that are revealed in the stripped area; the level of recording undertaken will be appropriate to the character/importance of the archaeological remains.

If complex and/or significant archaeological deposits are encountered then the archaeological requirements should be reviewed by the client, the Senior Development Officer (Historic Environment, Cornwall Council) and CAU. In the event that remains cannot be preserved *in situ* then full-scale excavation may be required. A contingency should be allowed to record any significant archaeological remains which are uncovered during the stripping. The significance of the remains should be agreed between the client, the Senior Development Officer (Historic Environment, Cornwall Council) or relevant planning officer and CAU.

The detailed archaeological recording will include:

- Excavation (either whole or in part) of archaeological features exposed in the stripped area and accurately plotting their locations and extents onto a base map.
- Production of plans and section drawings of the excavated features and recording of features using a continuous numbering system.

- Retrieval of artefacts.

Recording - general

Site drawings (plans, sections, locations of finds) will be made by pencil (4H) on drafting film; all plans will be linked to the Ordnance Survey Landline (electronic) map; all drawings will include standard information: site details, personnel, date, scale, north-point and location.

All features and finds will be accurately located at an appropriate scale. Sections will normally be drawn at 1:10 and plans at 1:20.

All archaeological contexts will be described to a standard format linked to a continuous numbering sequence.

Photography: scaled monochrome photography will be used as the main record medium, with colour digital images used selectively and for illustrative purposes. This will include both general and site specific photographs. All archive photographs will include a scale whilst photographs of detail will include a north arrow.

Drawings and photographs will be recorded in a register giving details of feature number and location.

Sealed/undisturbed archaeological contexts in the form of buried soils, layers or deposits within significant archaeological features (ditches and pits, etc) will be sampled for environmental evidence and dating material. In the event that significant organic remains are encountered, advice may be needed on an appropriate sampling strategy from the Regional Advisor for Archaeological Science.

If human remains are discovered on the site the Senior Development Officer (Historic Environment) and the Public Health Officer, Cornwall Council will be informed. All recording will conform to best practice and legal requirements.

If human remains are uncovered, which require excavation, they will be will be excavated with due reverence. The site will be adequately screened from public view. Excavated human remains must not be exposed to public view.

If human remains are not to be removed their physical security will be ensured by back filling as soon as possible after recording.

Treatment of finds

The archaeological fieldwork may produce artefactual material.

All finds in significant stratified contexts predating 1800 AD (e.g., settlement features) will be collected by context and described. Post medieval or modern finds may be disposed of at the cataloguing stage. This process will be reviewed ahead of its implementation.

All finds will be collected in sealable plastic bags which will be labelled immediately with the context number or other identifier.

Fieldwork: photographic recording

To include:

- Black and white photographs using a 35mm camera on fine grain archive quality film;
- Colour photographs taken with a digital camera (with a resolution of 10MP or higher).

The photo record will comprise:

- general views;
- examples of archaeological detail.

Methodology for the archive standard photography is set out as follows:

- Photographs of details will be taken with lenses of appropriate focal length;
- A tripod will be used to take advantage of natural light and slower exposures;
- Difficulties of back-lighting will be dealt with where necessary by balancing the lighting by the use of flash;
- A metric scale will be included in all views, except where health and safety considerations make this impractical.

Creation of site archive

This will include:

- Archiving of black and white photographs to HER standards;
- Archiving of digital colour photographs (to be stored according to HER guidelines and copies of images made available to the client);
- Preparation of finished drawings;
- Completion of the Historic England/ADS OASIS online archive index.

Archive

Archive report

A written report will include:

- Summary
- Project background
- Aims and objectives
- Methodology
- Location and setting
- Designations
- Site history
- Archaeological results
- Chronology/dating evidence
- Significance
- Conclusions
- References
- Project archive index
- Supporting illustrations: location map, historic maps, plans, elevations/sections, photographs

A digital (PDF) copy of the report, illustrations and any other files will be held in the Cornwall HER. A digital copy of the report will be issued to the client. Paper copies of the report will be distributed to the client (if required), to local archives and national archaeological record centres.

Assessment/analysis

In the event that significant archaeological remains are uncovered, the structural and stratigraphic data and artefactual material will be assessed to establish whether further analyses and reporting are appropriate. The form of the final report, and the work required to produce it will be determined in an updated project design.

In the event of significant remains being recovered (e.g. prehistoric or medieval sites or associated artefacts) it may be necessary to:

- Consult with the SDO(HE) over the detailed requirements for assessment, analysis and reporting.
- Liaise with specialists (e.g. artefacts, material suitable for scientific dating) to arrange for assessment of the potential for further analysis and reporting.
- Arrange for specialist analyses, where appropriate.

Final publication

In the event of significant archaeological remains being recorded the scope and final form of the report will be reviewed; for example in addition to an archive report the results should be published in an academic journal (e.g. *Cornish Archaeology*).

Archive deposition

An index to the site archive will be created and the archive contents prepared for long term storage, in accordance with CAU standards.

The archiving will comprise the following:

- All correspondence relating to the project, the WSI, a single paper copy of the report together with an electronic copy on CD, stored in an archive standard (acid-free) documentation box;
- A2 drawn archive storage (plastic wallets for the annotated record drawings);
- Archive standard negative holders and archive print holders, to be stored in the CAU system until transferred to the Royal Cornwall Museum.

The project archive will be deposited initially at ReStore PLC, Liskeard and in due course (when space permits) at Cornwall Record Office.

CAU uses the following file formats for stored digital data:

DOCX	Word processed documents
XLSX	Spreadsheets
PDF	Exports of completed documents/reports/graphics
JPG	Site graphics and scanned information
DNG or TIF	Digital photographs
DWG	AutoCAD drawings, measured surveys
MXD	ArcView GIS (electronic mapping) data
AI	Adobe Illustrator graphics

Timetable

It is anticipated that the watching brief is likely to take place during the late summer of 2017. CAU will require adequate time before commencement of work in order to allocate field staff time and arrange other logistics.

The archive report will be completed within 3 months of the end of the fieldwork. The deposition of the archive will be completed within 3 months of the completion of the archive report.

Agreed monitoring points

Monitoring of the project will be carried out by the Senior Development Officer (Historic Environment). Where the SDOHE is satisfied with the archive report and the deposition of the archive written discharge of the planning condition will be expected.

1. The SDOHE will monitor the work and should be kept regularly informed of progress.
2. Notification of the start of work shall be given preferably in writing to the SDOHE at least one week in advance of its commencement.
3. Any variations to the WSI will be agreed with the SDOHE, in writing, prior to them being carried out.

If significant detail is discovered, all works must cease and a meeting convened with the client and the SDOHE to discuss the most appropriate way forward.

Monitoring points during the study will include:

- Approval of the WSI
- Completion of fieldwork
- Completion of archive report
- Deposition of the archive

Staffing

Francis Shepherd BA (Hons), PGCE, HND, AIFA. Project manager.

Since 2004, Francis has worked on various excavations, watching briefs, evaluations and assessments. He has an HND in multimedia design, specialising in animation and digital image manipulation. A qualified teacher, he has previously taught various IT applications, including Microsoft Office and Adobe products, to students aged from 16 to 70. He now works both in the field, as part of post excavation teams, and is a specialist user of AutoCAD, Adobe graphics packages, and ArcGIS. Recently he has worked on the National Mapping Programme as an aerial photography and LIDAR interpreter. He has illustrated multiple volumes including *Bypassing Indian Queens: Archaeological Excavations 1992-1994* and ***Archaeology and Landscape at the Land's End, Cornwall - The West Penwith Surveys 1980-2010***. As well as other tasks his current role sees him managing IT provision for the department, creating specialist graphics and illustrations and **working as part of the Historic Buildings Team. Recent projects have included** Bradley Manor (Newton Abbott), Buckland Abbey (Yelverton), Molenick Farmhouse (Tideford) and several other houses and buildings.

Ryan Smith, BSc (Hons), PCIfA. Site assistant.

Archaeologist Ryan Smith has worked on a variety of projects with the Cornwall Archaeological Unit. Projects undertaken have involved the excavations at Porthleven and the TEDC site in Truro, evaluations of various sites around Cornwall including Tintagel Island, St Tudy, St Mabyn, and Four Burrows, as well as a large number of watching briefs, including St Buryan, St Breock Downs, and Otterham Wind Farm.

Laura Ratcliffe-Warren BSC (Hons) ACR MCIfA. Site assistant.

Graduate from Cardiff University in Archaeological Conservation in 2001 she has worked within the heritage sector with both museums and archaeology units as both a conservator and finds specialist and is accredited by both CIfA and ICON. Laura has set up field labs and worked on excavations in the UK and Middle East digging, planning surveying, teaching and supervising a team and have worked within the planning and environment sector as a consultant in archaeology. Currently works as a freelance conservator and archaeologist.

Fuller Hughes. Site assistant.

Since graduation in 2013 Fuller has taken part in a number of field projects over the county and works as a freelance archaeologist.

This WSI was produced by Adam Sharpe BA MCIfA on 10/08/2017. It was approved on 10/8/2017.

Appendix 2: Table of contexts

Context Number	Type (Cut/Deposit/Build)	Description
1001	D	Topsoil. Dark brown firm silty clay with frequent organic matter and occasional mudstone fragments. Depth varies from 0.25m to 0.8m across the site but is generally shallower at the top of the hill where the natural is more stony. Finds: iron horse shoes, one complete, one partial.
1002	D	Natural. Mid reddish yellow Compact silty clay and shillet.
1003	D	Fill of ephemeral pit - abandoned - burrow.
1004	D	Fill of ditch [1006]. Dark brown loose silty clay with infrequent shillet fragments and small roots. 0.7m wide by 0.34m thick. Finds: flint x2.
1005	D	Fill of ditch [1007]. Dark brown loose plastic clayey silt with occasional stones, mostly sorted to the edge of the fill. 1.1m wide by 0.24m thick. Finds: Iron lump x1.
1006	C	Cut of linear, E-W aligned ditch with steeply concave with a stepped side to the S, a concave base and good edge definition. 1m wide by 0.34m deep. Filled by (1004) (1012) (1013). Cut by ditch [1011]. Runs parallel to ditch [1007] / trackway [1038].
1007	C	Cut of linear, E-W aligned ditch with stepped sides, a concave base and good edge definition. 0.9m to 1.1m wide by 0.24m - 0.33m deep depending on the location of the sample trench. Filled by (1005). This is the same as trackway [1038], albeit a truncated version at the SW extent of the site.
1008	D	Fill of posthole [1009]. Mid reddish brown friable silty clay with occasional sub angular stones. 0.45m in diameter by 0.2m thick. Finds: 1x med pot, 1x worked flint core fragment.
1009	C	Cut of a circular posthole with vertical sides, a flat base and good edge definition. 0.45m in diameter by 0.2m deep. Filled by (1008).
1010	D	Upper fill of ditch [1011]. Dark reddish brown friable sandy loam with moderate (34%) stones as part of the fill. 0.5m wide by 0.3m thick. This fill is very similar to the topsoil for the field. Same as (1021) (1041) (1045).
1011	C	Cut of an -W aligned linear ditch with sloping sides, a concave base and moderate edge definition. 0.8m to 1.4m wide by 0.35m to 0.5m deep depending on the slot. Filled in various sampling trenches by (1010) (1016) (1018) (1020) (1022) (1040) (1041). Cuts [1006] [1038]. Cut by ditches [1036] [1037]. This ditch appears to respect the barrow just outside the excavated area to the south west then runs parallel to trackway [1038] so the north east of the barrow lower down the hill. finds: x1 PX pot sherd.

1012	D	Fill of ditch [1006]. Mid yellowish brown plastic clayey silt with very occasional stones. 0.23m wide by 0.07m thick. A lens of redeposited natural, possibly representative of a silting up period.
1013	D	Basal fill of ditch [1006]. Almost black compact layer silt. 0.23m wide by 0.07m thick.
1014	D	Ditch fill / tree throw? Voided.
1015	D	Ditch fill. Voided.
1016	D	Basal fill of ditch [1011]. Mid reddish brown plastic sandy clay with occasional (20%) stones. 0.3m wide by 0.1m thick. Redeposited natural material.
1017	D	Fill of ditch [1006], only visible in junction slot with ditch [1011]. Mid yellowish brown friable silty clay with frequent small sub angular slate pieces. 0.96m wide by 0.21m thick.
1018	D	Upper fill of ditch [1011] visible in junction slot with ditch [1006]. Dark brown loose silty clay with frequent sub angular slate pieces and ploughed in grass and roots. Finds: dark green bottle glass x2 frags.
1019	D	Fill of ditch [1011] visible in junction slot with ditch [1006]. Mid yellowish brown friable silty clay with frequent sub angular slate pieces. 0.55m wide by 0.23m thick. Similar in appearance to the surrounding natural.
1020	D	Basal fill of ditch [1011] visible in junction slot with ditch [1006]. Dark yellowish brown friable to loose silty clay with frequent small sub angular slate fragments. 0.39m wide by 0.14m thick.
1021	D	Upper fill of pit [1033]. Dark reddish brown friable sandy clay with frequent angular stones including quartz, some heat altered, and occasional charcoal flecks. 0.7m in diameter by 0.2m thick.
1022	D	Upper fill of ditch [1011]. Dark reddish brown compact to friable clayey silt with occasional small stones come loose from the cut on the NW side. 0.88m wide by 0.35m thick.
1023	D	Upper fill of ditch [1006]. Dark brown loose silty clay with frequent large stones throughout. 0.8m wide by 0.3m thick.
1024	D	Lower fill of ditch [1006]. Dark reddish brown loose silty clay with frequent large stones. 0.7m wide by 0.13m thick. A mix of upper fill (1023) and natural.
1025	D	Fill of possible posthole. Voided.
1026	D	Fill of ditch [1027]. Dark brown friable clayey silt with occasional small stones. 0.5m to 0.6m wide by 0.07m to 0.16m thick depending on location of the sample trench. This fill retains water well.

1027	C	Cut of linear, N-S aligned ditch with stepped sides, a flat to irregular base and moderate edge definition. 0.5m to 0.6m wide by 0.07m to 0.16m deep depending on location of the sample trench. Filled by (1026). Runs parallel to possible gully (1029).
1028	D	Subsoil (reddish). Dark reddish brown compact loamy clay with occasional stones. 0.45m to 0.75m thick. Finds: whetstone, near pit [1081], Med. Pot x1 sherd U/S..
1029	D	Fill of small, heavily truncated ditch. Dark brown loose clayey silt. 0.3m wide by 0.04m thick. Same as (1026).
1030		Void.
1031	D	Fill of pit [1033]. Dark black greasy, oily charcoal layer with occasional stones. 0.7m in diameter by 0.1m thick.
1032	D	Basal fill of pit [1033]. Mid yellowish brown loose sandy clay with moderate amounts of stone. 0.7m diameter by 0.1m thick. Mix of redeposited natural material.
1033	C	Cut of an oval fire pit with concave sides and base steeply sloping sides and moderate edge definition. 0.7m in diameter by 0.4m deep. Filled by (1021) (1031) (1032).
1034	D	Fill of ditch [1036]. Dark reddish brown friable clayey silt with occasional small mudstone inclusions. 0.8m wide by 0.14m thick. Becomes more clayey the deeper the fill gets. Finds: 9x Med. /PM Pot, rim and body sherds, some glazed, 1x clay pipe stem, 2x dark green glass..
1035	D	Fill of ditch [1037]. Dark brown mostly friable with plastic patches clayey silt with occasional stones. 0.8m wide by 0.12m thick. Finds: iron lumps x4, 6x Med / PM pot sherds.
1036	C	Cut of linear NE-SW aligned ditch running parallel to ditch [1037] with concave sides, a flat base and moderate edge definition. 0.8m wide by 0.14m to 0.26m deep depending on the location of the sample trench. Filled by (1034). Cuts ditches [1011] and [1074] and trackway [1038]. 3 sampling trenches through this ditch.
1037	C	Cut of linear NE-SW aligned ditch running parallel to ditch [1036] with concave sides, a flat base and moderate edge definition. 0.5m to 0.8m wide by 0.09m to 0.14m deep depending on the location of the sample trench. Filled by (1035). 3 sampling trenches through this ditch. Cuts ditches [1011] and [1074]. Abuts trackway [1038].

1038	C	Cut of a linear NE-SW aligned trackway / double wheel ruts with concave sides to the wider feature and V shaped double cuts in the base indicating wheel ruts, these areas being more compact. Ruts are 0.08m - 0.15m wide by 0.11m to 0.15m deep with a distance of 1.2m from rut to rut. Filled by (1039) and between the ruts is fill (1044). Cut by ditch [1011]. Abutted by ditches [1036] and [1037]. Same as [1007] which is further to the west than the more easily identified section of trackway. This feature runs parallel to ditch [1006] and runs roughly in the direction of the pond (now fill end in) in the lower portion of the field. finds: 2x med pot sherds.
1039	D	Fill of trackway [1038]. Mid brown soft clayey silt with occasional stones. 0.12m to 0.18m wide by 0.08m to 0.12m thick. Same as (1049).
1040	D	Basal fill of ditch [1011]. Light yellowish brown compact sandy clay with moderate amounts of stone. 0.6m wide by 0.12m deep. Same as (1020).
1041	D	Fill of ditch [1011]. Dark brown plastic clayey silt. 1.18m wide by 0.47m thick. Same as (1010) (1045).
1042	D	Fill of ditch [1043]. Mid reddish brown compact sandy silt with moderate stones like aggregate. 1.3m wide by 0.45m thick.
1043	C	Cut of linear E-W aligned ditch with concave sides and base and geed edge definition. 1.3m wide by 0.45m deep. Filled by (1042). Possible field drain.
1044	D	Metalled surface of track [1038] between the ruts. Mid yellowish brown very compact clayey stone. About 1m wide. Most likely just very compact natural.
1045	D	Fill of ditch [1011]. Mid yellowish brown compact silty clay with moderate amount of stone. 1.4m wide by 0.5m thick. Mix of hill washed silt and natural.
1046	D	Upper fill of pond like feature [1048]. Mid yellowish brown soft silt, about 16m in diameter by -.9m thick at deepest point.
1047	D	Basal fill of pond like feature [1048]. Light to mid greyish brown soft clean silt. Approximately 16m in diameter by 0.4m thick.
1048	C	Cut of large sub circular pond like feature with concave sides and base, sloping very shallowly to the NW, very steep the SE and good edge definition. Approximately 16m in diameter by 1.3m deep. Filled by (1046), (1047). This feature looks to be a large pond cut into the hill slope adjacent to the gap in the hedge where road [1060] would enter the field, probably part of a designed landscape.
1049	D	Fill of 'trackway' [1038]. Mid yellowish brown compact silty clay. 1m wide by 0.12m thick. Same as (1039).
1050	D	Fill of ditch [1007]. Mid yellowish brown compact silty clay with occasional stones. 0.9m wide by 0.33m thick.

1051	D	Fill of ditch [1055]. Mid brown friable to plastic fine clayey silt with occasional stones. 0.63m wide by 0.1m thick.
1052	D	Fill of land drain [1056] (stone). Mid yellowish brown loose clayey silt with frequent large sorted / placed stones following the line of the trench and some small roots. 0.34m wide by 0.3m thick. Stony land drain fill.
1053	D	Fill of ditch [1057]. Dark reddish brown compact silty clay with moderate amounts of stone. 1m wide by 0.25m thick.
1054	D	Upper fill of ditch [1058]. Dark reddish brown compact silty clay with moderate amounts of stone. 1m wide by 0.2m thick.
1055	C	Cut of linear, N-S aligned ditch with concave sides, a flat base and good edge definition. 0.63m wide by 0.1m deep. Filled by (1051). Cut by [1056].
1056	C	Cut of linear, NW-SE aligned ditch with sloping straight sides, uneven base and good edge definition. 0.34m wide by 0.3m deep. Filled by (1052).
1057	C	Cut of linear N-S aligned ditch with concave sides and base and good edge definition. 0.25m wide by 0.16m deep. Filled by (1053). Abuts / terminates at ditch [1058].
1058	C	Cut of linear, E-W aligned ditch with concave sides and base and good edge definition. 1m wide by 0.2m deep. Filled by (1054) (1059). Ditch [1057] terminates against the southern side of this ditch.
1059	D	Basal fill of ditch [1058]. Light yellowish brown compact silty clay with moderate amounts of stone. 1m wide by 0.1m thick.
1060	B	Metalled surface of road. Mid greyish brown compact occasionally loose stony clay with occasional sandy patches. 3.2m wide by 0.1m thick. This surface is patchy along the length of the road. The road is abutted by ditch [1074] on the upslope side.
1061	D	Layer of road [1060]. Mid greyish brown compact sandy clay. 3.2m wide by 0.07m thick. Immediately underlies surface [1060] but is patchy in its survival.
1062	D	Organic rich layer within road [1060]. Dark brown plastic clayey silt with occasional stones. 3.2m wide by 0.1 to 0.16m thick. A buried layer of topsoil under the built road surface. Patchy in its survival.
1063	D	Metalled surface adjacent to road. Dark brown compact stone and manganese ore 0.32m wide. A compact surface adjacent to road [1060] in places, possibly an earlier form of the road.
1064	D	Dark fill of ditch [1065] adjacent to road. Dark greyish brown plastic clayey silt. 0.25m wide by 0.17m thick. Same as (1103).

1065	C	Cut of linear ditch running parallel to road [1060] with steep sloping sides, a flat base and good edge definition. Filled by (1064). Same as [1074].
1066	D	Hard metalled surface. Dark brown compact silty clay and stone. 0.6m to 0.7m wide by 0.05m thick. Lies between ditch [1065] and metalled surface (1063).
1067	C	Cut of roughly sub circular tree throw with irregular stepped edges an uneven base and moderate edge definition. 5m in diameter by 1.5m deep. Filled by (1068) (1069) (1070) (1071) (1072).
1068	D	Basal fill of tree throw [1067]. Mid greyish brown plastic loamy clay with moderate amounts of stone and occasional charcoal flecks. 1m in diameter by 0.1m thick.
1069	D	Upper fill of tree throw [1067]. Mid reddish brown compact silty clay with moderate amounts of stone. 4m wide by 0.4m thick. Possibly field wash material filling the tree throw after tree removal.
1070	D	Fill of tree throw [1067]. Light reddish brown compact sandy clay with frequent stones. 1.4m in diameter by 0.25m thick.
1071	D	Fill of tree throw [1067]. Light reddish brown compact sandy clay with frequent stones. 1.4m in diameter by 0.3m thick. Probably same as (1072). Possibly representative of a backfilling after a tree was planted.
1072	D	Fill of tree throw [1067]. Light yellowish brown compact sandy clay with frequent stones. 0.6m wide by 0.6m deep. Probably same as (1071). Possibly representative of a backfilling after a tree was planted.
1073	D	Fill of ditch [1074] at W end of road. Dark yellowish brown loose clayey silt with occasional stones, typically colluvial material. 0.63m wide by 0.42m thick.
1074	C	Cut of a linear, E-W aligned ditch running parallel to road [1060] on the upslope side with concave, steeply sloping sides, a concave base and good edge definition. 0.63m wide by 0.42m deep. Filled by (1073). Same as [1065].
1075	B/D	Layer of road [1060]. Mid grey plastic / sticky clay. 1.8m wide by 0.27m thick. A natural hill washed clay layer under the road.
1076	B/D	Layer of road [1060]. Mid reddish yellow compact gritty clay with frequent sub angular small stones and manganese ore. 7.5m wide by 0.18m thick. Partially overlies buried trackway [1088].
1077	B/D	Layer of road [1060]. Mid pinkish yellow brown very compact sandy silt with frequent small sub angular stones. 6m wide by 0.2m thick.
1078	B/D	Layer of road. Mid yellowish red and brown compact mix of clay and stone and grit. 4.1m wide by 0.16m thick. Directly underlies metalled surface (1060). Abuts (1084).

1079	B	Metalled road surface. Mid pinkish purple brown very compact gritty clay with frequent small stones and manganese ore. 3.4m wide by 0.07m thick. Same as [1060].
1080	D	Fill of possible pit [1081]. Dark brown loose clayey silt. 0.33m by 0.45m by 0.2m thick.
1081	C	Cut of an oval pit with straight steeply sloping sides, a flat base and moderate edge definition. 0.35m by 0.33m by 0.2m deep. Filled by (1080). Could be an animal burrow.
1082	B/D	Layer of road [1060]. Dark blackish brown soft gritty silty clay with frequent manganese flecks. 1.5m wide by 0.17m thick. A buried topsoil layer under [1060] but possible cut by earlier road [1088].
1083	B/D	Upper metalled layer of road [1088]. Mid purplish brown very compact sandy clay and stone with manganese inclusions. 1.12m wide by 0.05m thick. Part of an earlier track or road, now buried with the upper road [1060].
1084	B/D	Layer of road [1060]. Mid purplish brown very compact sandy silt with frequent small stones and manganese ore. 1.84m wide by 0.03m thick. Possibly an earlier surface for road [1060] buried by a resurfacing event. Overlaid partially by (1078).
1085	B/D	Layer of road [1088]. Mid reddish brown plastic to soft silty clay. 2.85m wide by 0.22m thick. Build layer of trackway, possibly bedding layer.
1086	C	Cut of linear, E-W aligned ditch with shallow concave sides, a concave base and moderate edge definition. 1m wide by 0.25m deep. Filled by (1087). This ditch runs across the road [1060] but does not cut it.
1087	D	Fill of ditch [1086]. Mid reddish brown compact sandy loam with occasional stones. 1m wide by 0.25m thick. Similar to topsoil.
1088	C	Cut of a linear road / track buried under road [1060]. Cut has straight sloping sides, a flat base and moderate edge definition. 2.85m wide by 0.22m deep. Filled by (1083) (1084) (1085).
1089	D	Fill of feature/pit [1090]. Dark brown loose / friable silty clay with occasional slate and quartz pieces. 2.4m by 1.9m by 0.3m thick. Finds: PX pot 4x fragments 1x worked flint debitage.
1090	C	Cut of a sub oval pit or tree throw with moderately sloping concave sides, steeper to the south, a sloping base and moderate edge definition. 2.4m by 1.9m by 0.3m deep. Filled by (1089). Probably a tree throw.
1091	D	Fill of pit [1092]. Dark reddish brown compact silty clay with occasional sub angular slate pieces sorted smaller to the base of the fill. 0.96m by 0.4m by 0.43m thick. Finds: 3x pieces of iron.

1092	C	Cut of a sub oval pit with stepped sides, a concave base and good edge definition. 0.96m by 0.4m by 0.43m deep. Filled by (1091). Sits alongside the edge of trackway [1038] between ditches [1036] and [1037].
1093	D	Fill of pit [1094]. Mid brown loose silty clay with occasional stone inclusions. 2.4m by 2.1m by 0.17m thick.
1094	C	Cut of a double oval planting hole / tree throw with sloping sides, a sloping irregular base and moderate edge definition. 2.4m by 2.1m by 0.17m deep. Filled by (1093).
1095	D	Upper fill of ditch [1096]. Dark greyish brown plastic clayey silt with occasional stones. 0.7m wide by 0.05m thick. Thin veneer of topsoil like material above the main fill.
1096	C	Cut of an E-W aligned linear ditch with steeply sloping sides, an irregular base and moderate edge definition. 0.7m wide by 0.17m deep. Filled by (1095) (1099).
1097	D	Fill of ditch [1098]. Dark brown plastic clayey silt with frequent slate and quartz inclusions. 0.7m wide by 0.17m thick.
1098	C	Cut of linear E-W aligned ditch with vertical sides, a flat base and good to moderate edge definition. 0.7m wide by 0.17m deep. Filled by (1097).
1099	D	Basal fill of ditch [1096]. Mid grey plastic clay. 0.7m wide by 0.12m thick. Natural clay silting.
1100	D	Re-deposited yellow clay natural over ditch [1098]. Pale yellow plastic clay. 0.65m wide by 0.17m thick. Redeposited clay associated with adjacent land drain.
1101	D	Fill of ditch [1074] large cleared area of road. Light to mid yellow compact clay. 1.2m wide by 0.11m thick. A clay cap over the main ditch feature, probably spread from the adjacent road [1060] bedding layer.
1102	D	Fill of ditch [1074] large cleared area of road. Mid pinkish brown friable silty clay with moderate amounts of small sub angular stones and manganese flecks. 1.1m wide by 0.09m thick. Possible stony clay slump from road [1060].
1103	D	Basal fill of ditch [1074] large cleared area of road. Dark brown firm silty clay with occasional small stones. 1.25m wide by 0.16m thick. Same as (1064).
1104	D	Old land surface - possibly same as subsoil (1028). Dark reddish brown compact loamy clay with occasional stones. 0.45m to 0.75m thick. Possible buried land surface.
1105	D	Clay cap over field drain [1107]. Light yellowish brown compact sandy clay with moderate amounts of stone. 0.5m wide by 0.2m thick.

1106	D	Stone lining of field drain [1107]. Light grey angular slate pieces. 0.5m wide by unknown depth recorded in evaluation trenching.
1107	C	Cut of linear, NW-SE aligned field drain with vertical sides, a flat base and good edge definition. 0.5m wide, not bottomed.
1108	D	Layer of pale clay natural in NE corner of trench. Light greyish white plastic very wet silt clay and clay.
U/S		Finds: flint flake x2, flint core frag x1, pot Med. x3.

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