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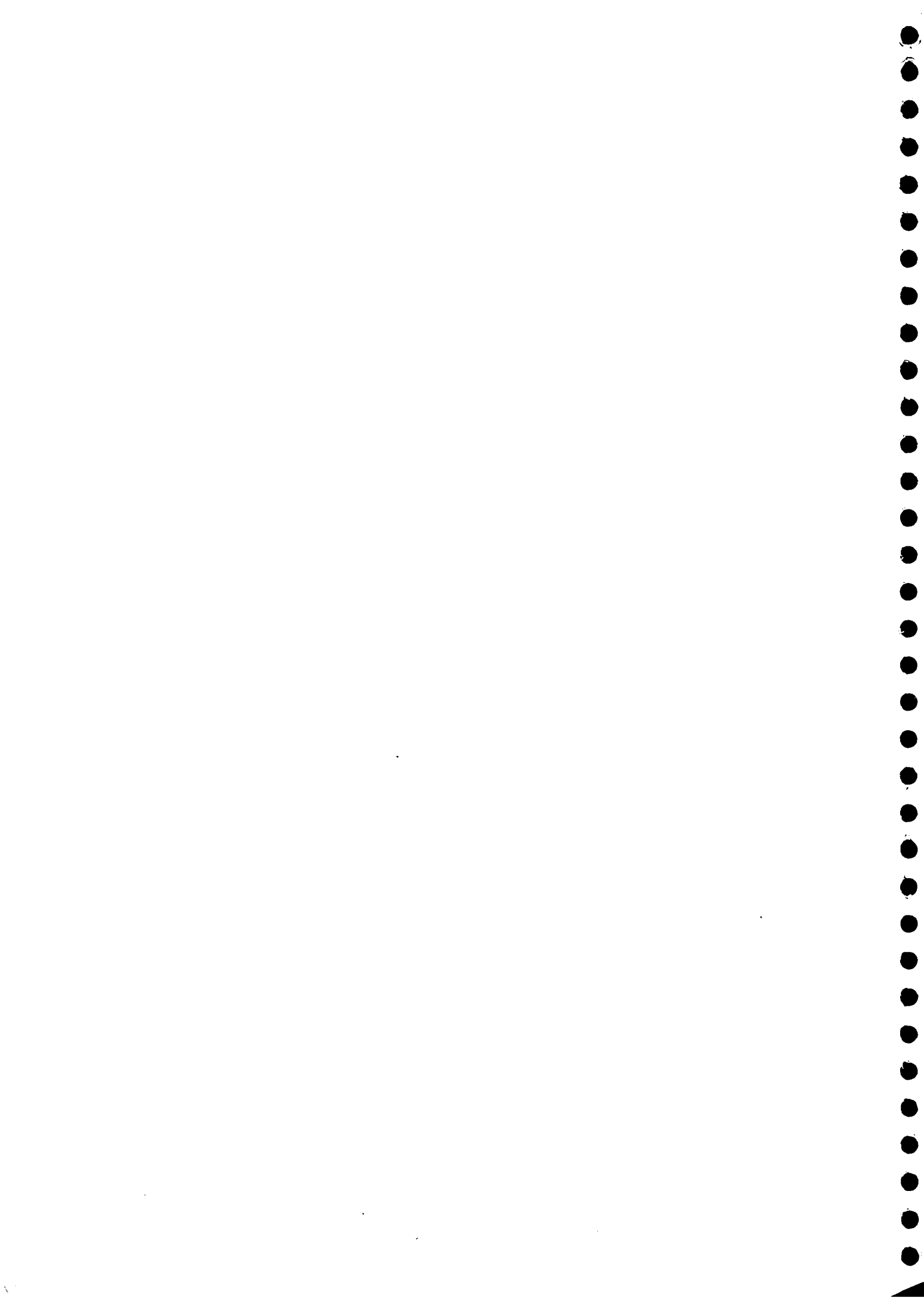
2001 - Box 2

# **Bear's Down to Ruthvoes SWW Pipeline**

An Archaeological watching brief



CORNWALL ARCHAEOLOGICAL UNIT



A Report for South West Water

## **Bear's Down to Ruthvoes, Cornwall**

### **Archaeological watching brief**

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With contributions from Rowena Gale,  
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March 2001

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## **Cover illustration**

Scenic view looking south from Lanhainsworth Field 25, showing the topsoil stripped corridor prior to the excavation of two burnt Bronze Age pits (seen in the foreground).

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### **Abbreviations**

CAU	Cornwall Archaeological Unit
CRO	Cornwall County Record Office
EH	English Heritage
NGR	National Grid Reference
RCM	Royal Cornwall Museum
PRN	Primary Record Number in Cornwall SMR
SMR	Cornwall and the Isles of Scilly Sites and Monuments Record



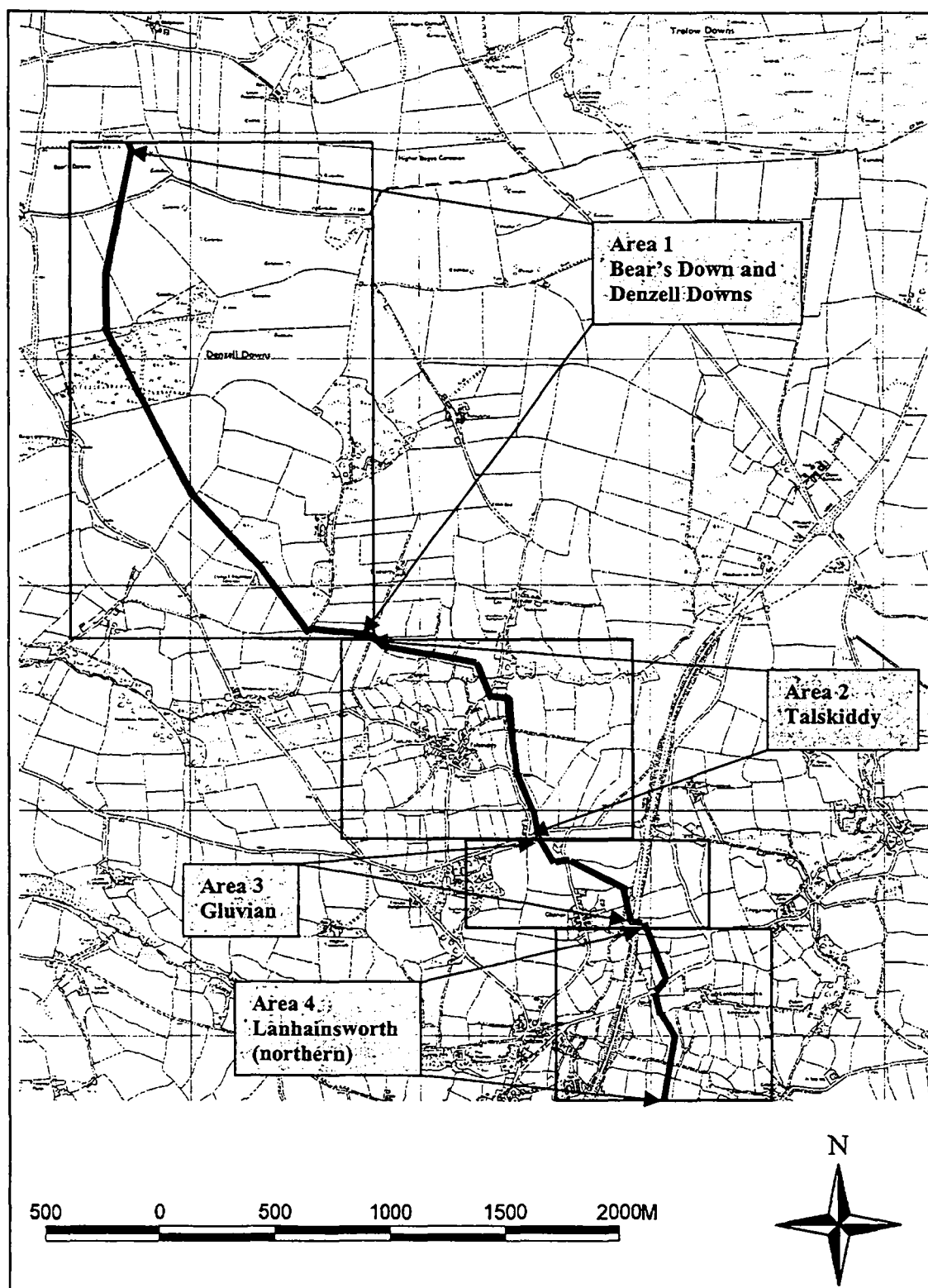
# 1 Summary

An archaeological watching brief, funded by South West Water, took place along the route of a replacement water pipeline 9km long, linking the Bear's Down reservoir to Ruthvoes during the spring and summer of 1998. A good variety of archaeological features and finds were found along the length of the corridor, including undated ditches, an Early Bronze Age barrow (field 3), a Middle Bronze Age site (field 25, perhaps a settlement), an Iron Age or Romano-British settlement or 'round' (field 26), and two early medieval settlements, 5th to 6th centuries AD (fields 3 and 23). Iron Age pottery found in another three fields (3, 16, 23) may suggest further prehistoric settlements, and other complexes of pits, hearths and post-holes were identified. The finds, 1142 in total, ranged from diagnostically Mesolithic and Neolithic flint to Early Bronze Age, Iron Age, Romano-British, Medieval and Post-Medieval pottery. Significant concentrations of prehistoric flint were found in three locations (fields 3-6, 9, 16-17). A limited number of soil samples were taken, many with sufficient charcoal for radiocarbon dating, and boundary sections were recorded along the length of the pipeline (many of which were Medieval or earlier in date and preserved buried soils).

The project allowed a comparison between two zones of different historic character, Recently Enclosed Land in the northern third (former downland enclosed in the 18th or 19th centuries) and Anciently Enclosed Land, farmland of medieval or earlier origin, in the south. The great bulk of finds and features were located in the Anciently Enclosed Land, suggesting a long-established distinction between the two zones, though there was also considerable diversity within the Anciently Enclosed Land, reflecting a degree of variation in environment and historic land use that has become obscured in more modern times.

This watching brief has provided an opportunity to look at, collect and sample a wide variety of archaeological resources, based on a linear alignment and a fixed width. This non-archaeologically selected route allows an un-biased glimpse of the past for this part of Cornwall.

Note: The excavation of an Iron Age to Romano-British round at Little Quoit Farm is a component of this project which will be covered in a separate report.



*Fig 1 Location map showing the northern route of the pipeline and the areas*

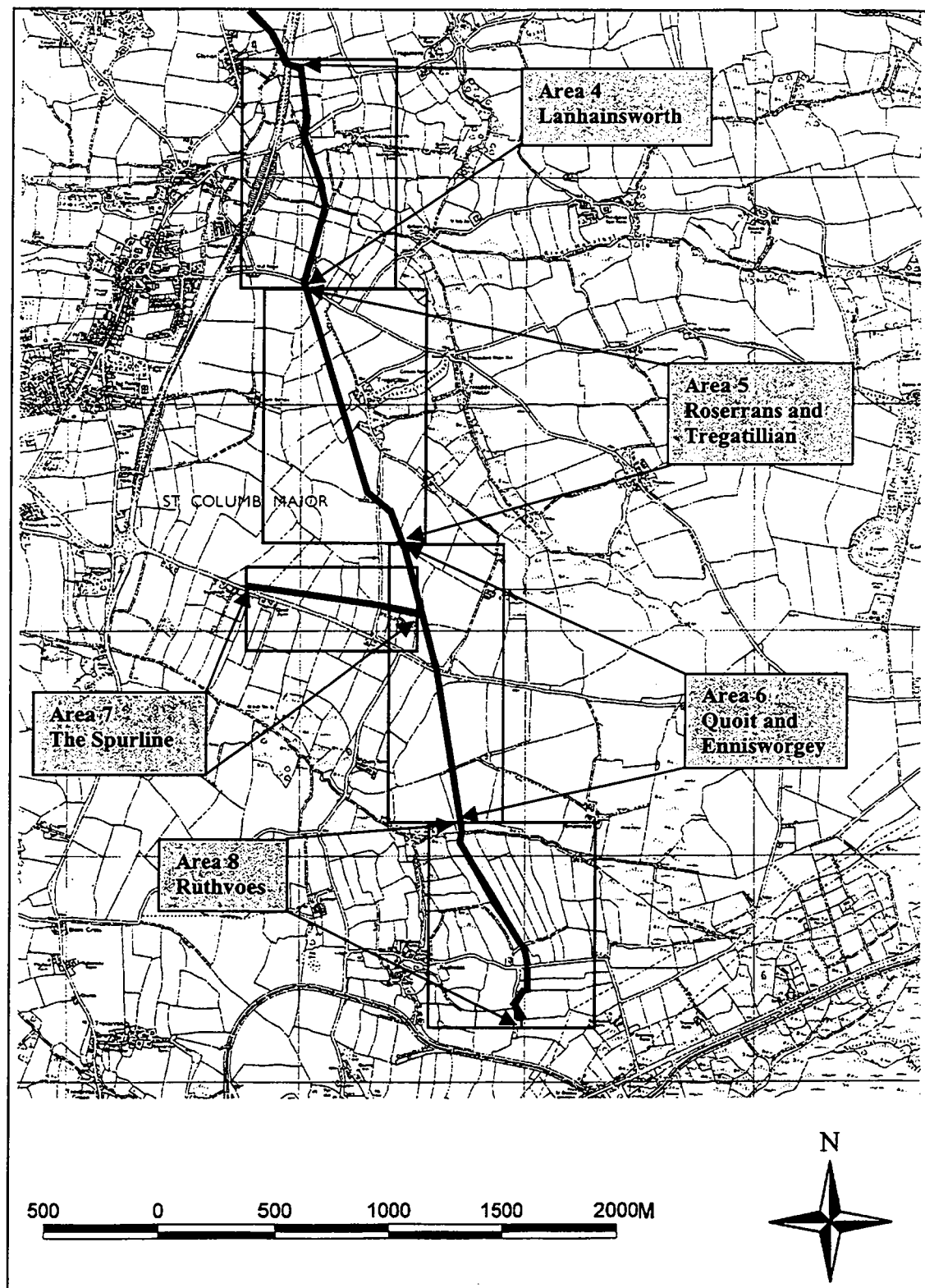


Fig 2 Location map showing the southern route of the pipeline and the areas

## 2 Introduction

### 2.1 Background

The Cornwall Archaeological Unit (CAU) was commissioned by South West Water (SWW) to carry out an archaeological watching brief for a proposed water main renewal, running north-north-west to south-south-east across the northern part of central Cornwall. The pipeline corridor extends south from the top of Bear's Down (SW 8970 6796) to Ruthvoes (SW 9305 6010), and has a total length of 9.24km. It ran through the parishes of St. Ervan, St. Mawgan in Pydar and St. Columb Major (from north to south). The fenced corridor itself was approximately 15m wide, the stripped area was 10.0m (max.) wide, and the pipe trench was 1.0m wide and excavated down through the natural subsoil. The corridor was topsoil stripped along its length, to reveal either the natural subsoil, or the underlying layers and archaeological features. In addition to the main north-south pipeline route, an additional east to west aligned Spurline was excavated running west from just north of the Little Quoit Farm excavation (Field 12), across six fields.

The archaeological watching brief began in the early summer of 1998. The route crossed some seventy two boundaries and fifty three fields of variable topography and ground cover. The majority of the route consists of farmland of medieval or earlier origin, whilst the higher ground at the north is former heathland or downland, enclosed and improved since the 18th century. The archaeological assessment in conjunction with the geophysical survey had already shown that the watching brief would encounter prehistoric, medieval and post-medieval sites. From the outset it was recognised that this project was likely to entail some excavation work. The majority of the excavation and sampling work was centred around Little Quoit Farm, (dealt with in a separate report - Lawson Jones, forthcoming). Other more limited excavation work took place in the Lanhainsworth area on two ring ditches and two burnt pit features.

This report summarises the results of the archaeological assessment and geophysical survey, and presents the results of the watching brief, including archaeological sites (ie. feature concentrations), individual features, finds, the recorded boundary sections, plus the results of the environmental samples and radiocarbon dating.

### 2.2 Objectives

This project has consisted of five main components: the preliminary archaeological assessment, the geophysical survey, the archaeological watching brief, the excavation work, and the boundary recording exercise. The results of the above have been combined to form a narrative, (section 2.0 of this report), rather than treated separately. The objectives of each of the above are listed below. The combined results have been used to present a coherent picture of the archaeology found along the length of the pipeline (from the Mesolithic through to the present day).

**The assessment objectives** were to identify archaeological sites and areas of archaeological potential within the pipeline corridor, and to produce a mitigation strategy for those archaeological sites and areas that were to be affected by the proposed works, (Johns 1998, 10).

**The aims of the geophysical survey** were to scan with gradiometers all accessible sections of the corridor to identify possible anomalies and areas of interest, and then to carry out a detailed survey of a selected 25% of the scanned area. This was designed to accurately locate and ascertain the nature of scanned anomalies, (Stephens 1998, 1).

The objectives of the watching brief were to identify and record any artefacts, features or sites located along the length of the pipeline corridor (looking at their density and type, and to compare and complement the assessment and geophysical results). The aim of excavation work carried out along the pipeline was to record in detail the more significant complexes of features associated with predicted or newly located sites and to collect artefacts and soil samples for further analysis. (The bulk of the excavation work carried out along this pipeline took place at Little Quoit Farm, and is covered by a separate report - Lawson Jones, forthcoming).

The boundary recording exercise was to record the structure, character and development of each boundary breached by the pipeline, most of which were expected to be of medieval origin, in the anticipation that these aspects would reflect and help interpret the historic development of field systems and land use in different parts of the corridor.

### 2.3 Geology and topography

The pipeline crosses northern central Cornwall, varying in height from c180m above sea level at Bears Down to c61m above sea level to the west of River Menalhyl (south of Lanhainsworth). The underlying geology consists of Lower Devonian sandstones, siltstones and slates. Soils are summarised as permeable, fine and loamy (Stephens 1998, 1), although on a more localised level the watching brief recorded quite a wide ranging series of soils, including heavy waterlogged clays (eg. to the north-east of Talskiddy), light well drained cultivated soils (eg. to the west of Tregatillian and Roserrans) and the more compacted and frequently mixed underlying soils or old land surfaces found (eg. to the west of Ruthvoes).

Topographically the pipeline crosses a number of different landscape types. At the north of the pipeline a long, exposed and high stretch of plateau-like downland is crossed. Along the majority of the rest of the route the pipeline crosses undulating hills with variable flat or convex hilltops. Interspersed between these anciently enclosed and farmed hills and slopes are the deeper, steeper-sided valleys, with their waterlogged basal deposits (eg. between Ruthvoes and Quoit, and to the south of Lanhainsworth). A longer expanse of low-lying land exists to the east and north-east of Talskiddy.

### 2.4 Landscape classifications

During 1994, CAU carried out a map-based historic landscape assessment across the whole of Cornwall, using existing field patterns and early map and place-name evidence to characterise the landscape (Countryside Commission 1996). This characterisation reflects the historic processes that have shaped the Cornish landscape and involved dividing the county into a series of zones, each of which reflects a particular set of historic processes and tends to contain a predictable range of archaeological sites and historic features. The pipeline corridor passes through three historic character zones, Anciently Enclosed Land (AEL), Recently Enclosed Land (REL) and a small pocket of Steep Sided Valley (SSV). The following sections are based on the text for these zones as published in the Cornwall Landscape Assessment 1994 (Countryside Commission 1996).

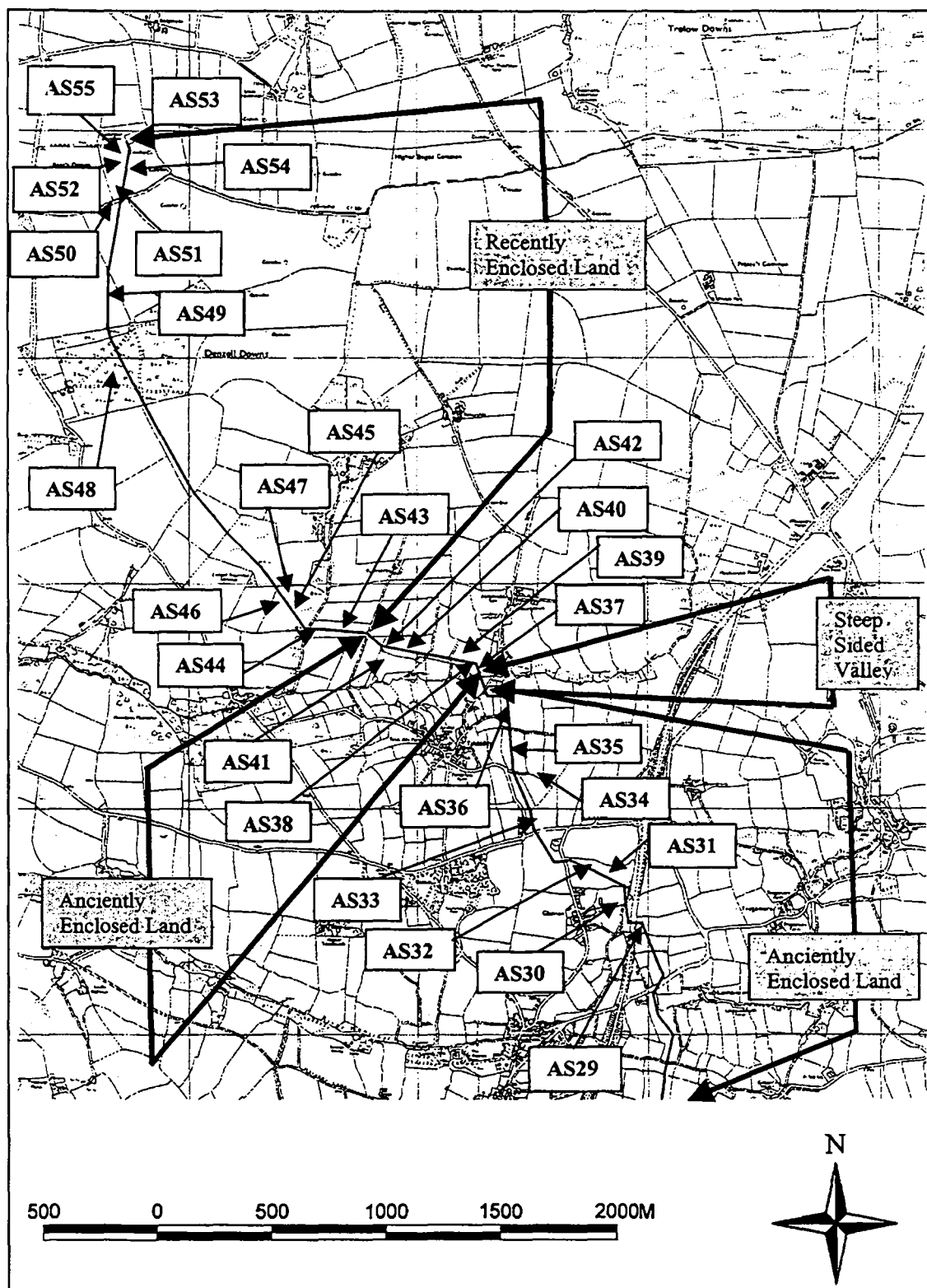


Fig 3 Map showing the landscape classifications and the assessment sites at the northern end of the pipeline

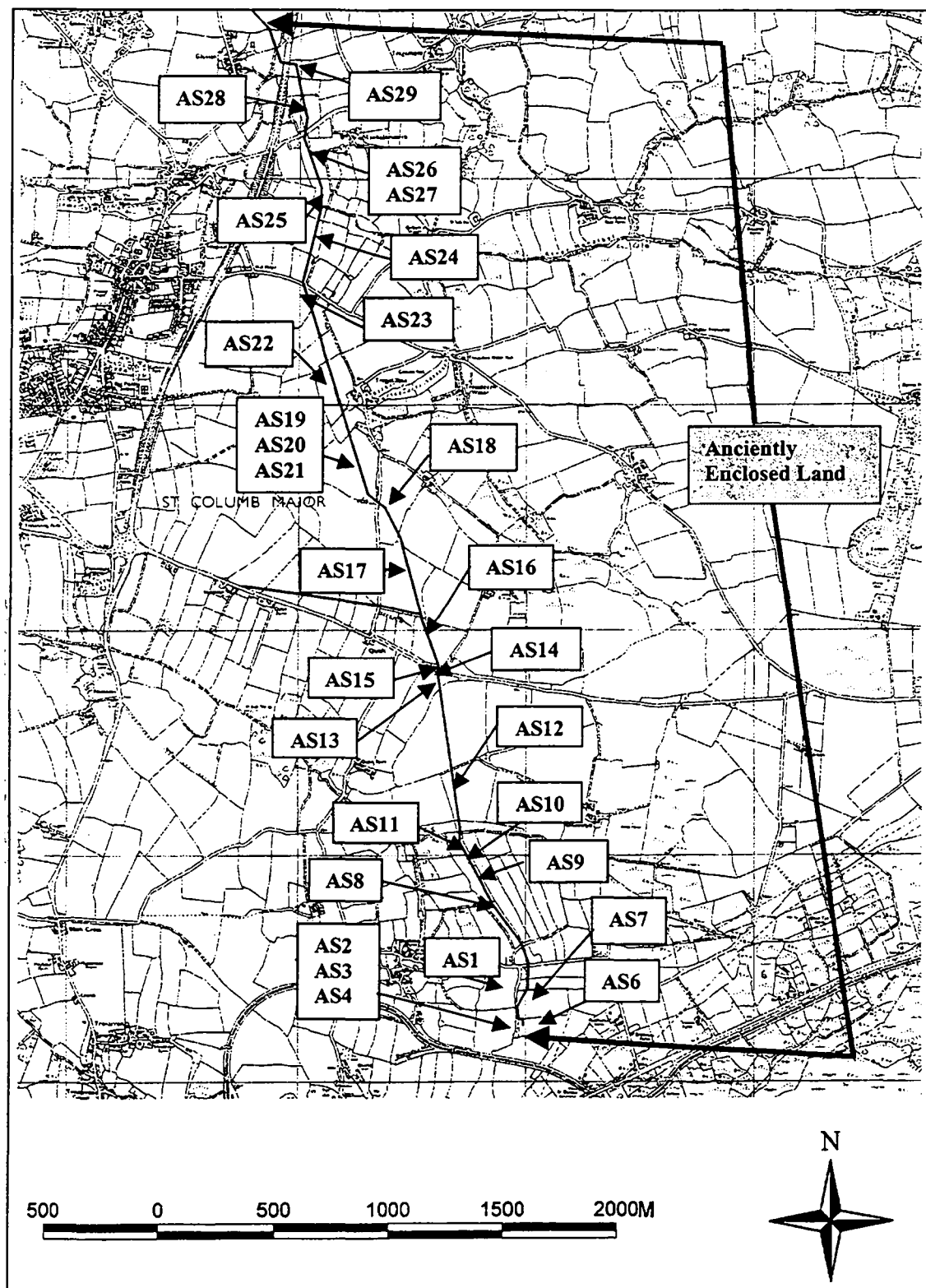


Fig 4 Map showing the landscape classifications and assessment sites for the southern half of the pipeline

#### **2.4.1 Anciently Enclosed Land (AEL)**

This is characterised by farming settlements documented before the 17th century AD and irregular field patterns with either medieval or prehistoric origins. AEL tends to be on relatively sheltered land, not too steep and not too poorly drained, but can extend onto the high downs. Networks of winding lanes and roads connect farming settlements whose layouts are typically irregular, often clearly shrunk from hamlets; (some are still hamlets). Church towns and a few larger villages are scattered through the zone, which also contains most of the county's ancient towns.

Much, even most, of this zone will have been enclosed and farmed since the Later Bronze Age (c.1500 BC). Land cleared and improved in later prehistory or in the Early Medieval period was re-organised in the later medieval period into extensive 'strip' field systems. These systems were associated with hamlets of co-operating families; while more solitary farmers laid out more irregular medieval field systems. At Lanhainsworth two interconnected 'ring ditches' were excavated, which produced Early Medieval radiocarbon dates.

The gradual enclosure of 'open' strip fields, mainly from the 14th to the 17th century, transformed this zone, leaving fields of various sizes and shapes, but almost all with sinuous sides whose boundaries are substantial, stock proof hedges and walls, supporting rich and varied fauna and flora. At the same time, the communal society of the co-operative hamlets gave way to a more individualistic one of self-contained farming families.

Approximately 75% of the pipeline route runs through AEL, including the entirety of the southern half and the vast majority of the central length of the pipeline, plus the Spurline. Associated with this land (from north to south) are the Medieval settlements of Talskiddy, Gluvian, Lanhainsworth, Tregatillian, Roserrans, Quoit, Ennisworrey and Ruthvoes. The settlements of Talskiddy and Ruthvoes are still surrounded by recognisably intact Medieval field systems. Earlier activity in the form of rounds (enclosed Iron Age to Romano-British settlement sites) have been located in the course of the project at Lanhainsworth, Quoit and potentially Ruthvoes, (see section 3.8.5). In addition a series of pockets of prehistoric activity have been identified along the length of the pipeline, for example, finds scatters A and B located near Roserrans (field 16) and the features located around Quoit, Ennisworrey and Ruthvoes. The finds assemblage similarly reflects this pattern of long-term landscape use.

#### **2.4.2 Recently Enclosed Land (REL)**

This is characterised by land enclosed from the 17th to 20th centuries, usually from medieval commons. The fields are characteristically rectangular with straight sides. The roads are also walled or hedged and straighter than elsewhere. Associated settlements mostly comprise single farmsteads or smallholdings. Often in exposed areas, there is usually less woodland than in Anciently Enclosed Land, but more evidence of its previous vegetation in gorse and heather, etc. on hedges and in corners of fields.

Although some of this zone was enclosed in the second half of the 18th century and in the 20th, the greatest part was taken in from rough ground in the 19th century. These new enclosures were not normally established in waste ground, but in summer grazing and fuel grounds, usually held by tenants in common but actually owned by lords of manors or estates.

Approximately 23% of the pipeline runs through REL. It involves the whole of the northern section of the pipeline route, and essentially is restricted to the highest and most exposed section of the pipeline. Although not enclosed during antiquity, prehistoric use of the area is illustrated by the presence of a series of barrows running along Bear's Down and



Denzell Downs, plus large scatters of flint which have been picked up to the east of the pipeline corridor (by various landowners etc). Fields in this area are notably larger than elsewhere along the pipeline, and at least half of the boundaries are known to post-date the 1840s.

#### **2.4.3 Steep Sided Valley (SSV)**

Steep-sided valleys extend inland from creeks and estuaries following rivers and streams into the heart of Cornwall. The slopes have relatively little ancient enclosure and are often densely wooded. Roads and railways either run along their tops or bottoms, or cross them by zigzagging routes with bridges or wide spanning viaducts. Settlements are usually confined to their floors and relate to route-ways or to processing industries (mills etc.).

Some of the woodlands in these valleys will be ancient, perhaps never clear felled, although these will often have been managed. Medieval farmers and craftsmen will have exploited them as pasture grounds (underwood), sources of fuel, coppice wood, bark and timber.

Approximately 2% of the pipeline is composed of SSV. To the north of Talskiddy the pipeline passes through the Vale of Lanherne or St Mawgan, a steep sided, low-lying, partially waterlogged valley. In the past, as now, this east to west running valley would have offered some local variety in terms of floral and faunal habitat. It is likely to have been a well used resource through out prehistory as well as during the Medieval period. It falls within the area utilized and enclosed by the settlement of Talskiddy, and is located close to the junction between AEL and REL.

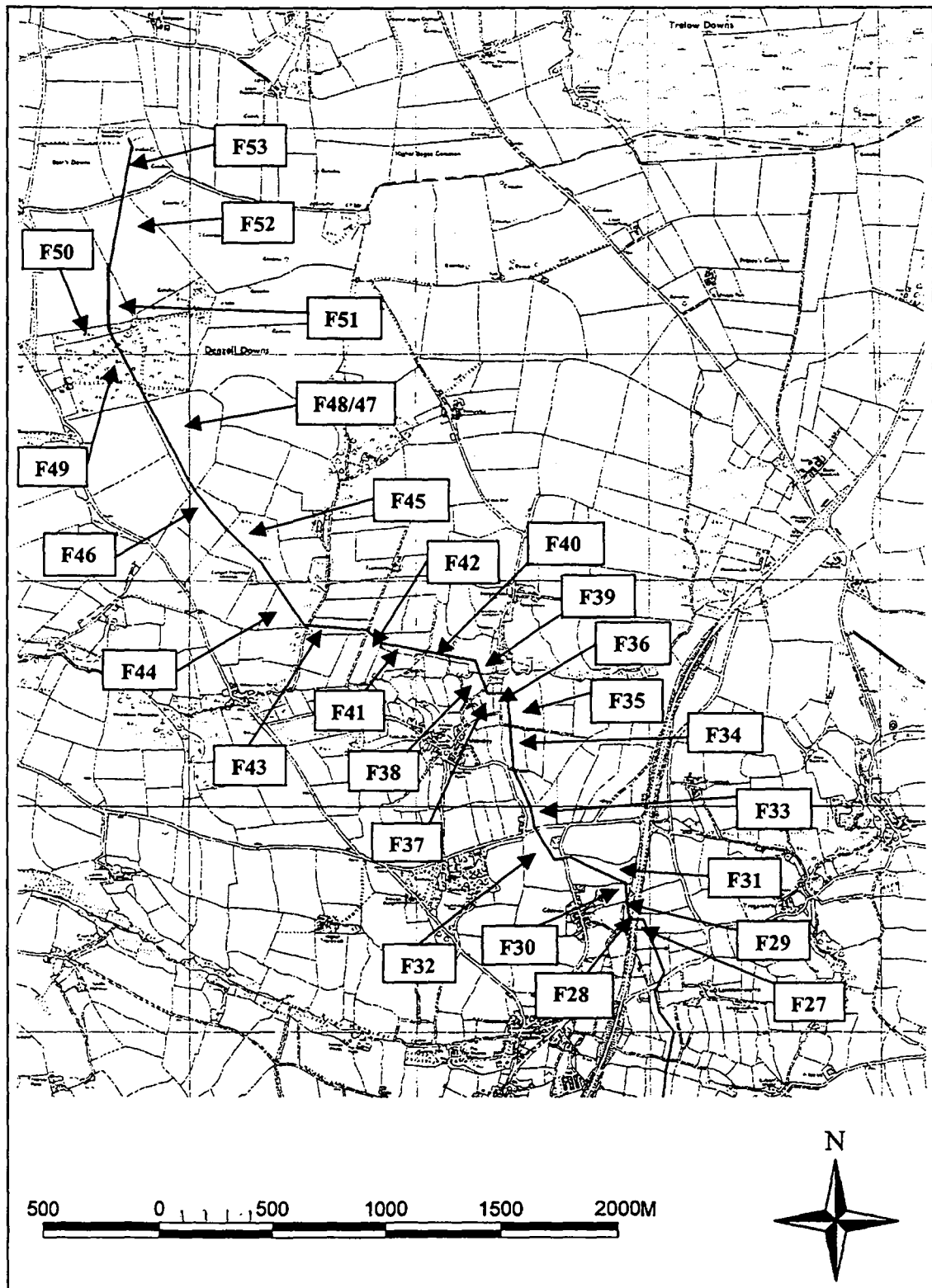
**Concluding comments:** The recently published *Cornwall's Historic Landscape* (Herring 1998, 40) presents the percentages of the Historic Landscape Character zones found across Cornwall. Anciently Enclosed Land makes up 57.47%, Recently Enclosed Land makes up 17.44%, and Steep Sided Valleys make up 4.48%. This is coincidentally quite close to the percentages represented along the pipeline. (The remaining percentage of land is predominantly made up of coastal, riverine and woodland, and urban, industrial and military land). In particular, the project offers the opportunity to compare the historical development and archaeological potential of two of the major historic landscape types.

## **2.5 Methodology**

### **2.5.1 Assessment Survey**

The assessment survey was carried out by Charlie Johns (1998), and involved a desk-based survey, an aerial photograph survey, a walk-over survey and a geophysical survey. Sites identified in the assessment are shown on Figs 3 and 4 and listed in appendix 8.4.

The desk-based survey was a rapid data-collection exercise, the end product being marked-up base maps at 1:2500 scale showing the location of identified archaeological sites along the pipeline corridor. Sources investigated included the Cornwall Sites and Monuments Record held by the CAU, which contains basic descriptions for many sites in Cornwall. Additionally cartographic sources were consulted including Gascoyne's 1699 map, Martyn's map 1748, the 1st Edition Ordnance survey 1-inch map published in 1813, the 1842 Tithe Maps and Apportionments for St Columb Major, St Mawgan-in-Pydar and St Ervan, and the 1st and 2nd Editions Ordnance survey 25-inch maps (1880-82 and 1907). Local history records and parish accounts etc. were also examined at The Courtney Library, Royal Cornwall Museum, Truro and the Cornwall Record Office, Truro.



*Fig 5 Map showing the field numbers along the northern part of the pipeline*

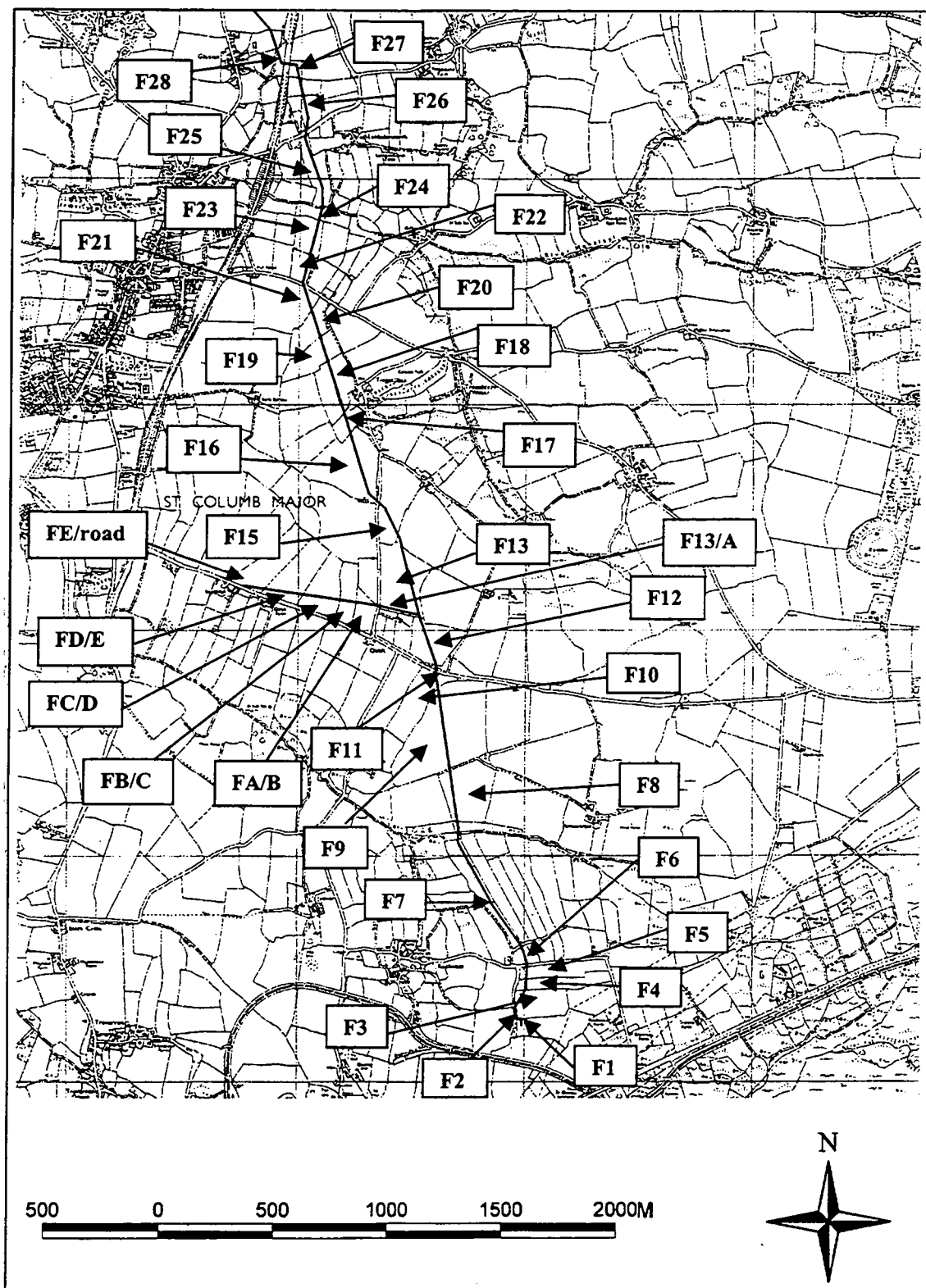


Fig 6 Map showing the field numbers along the southern part of the pipeline

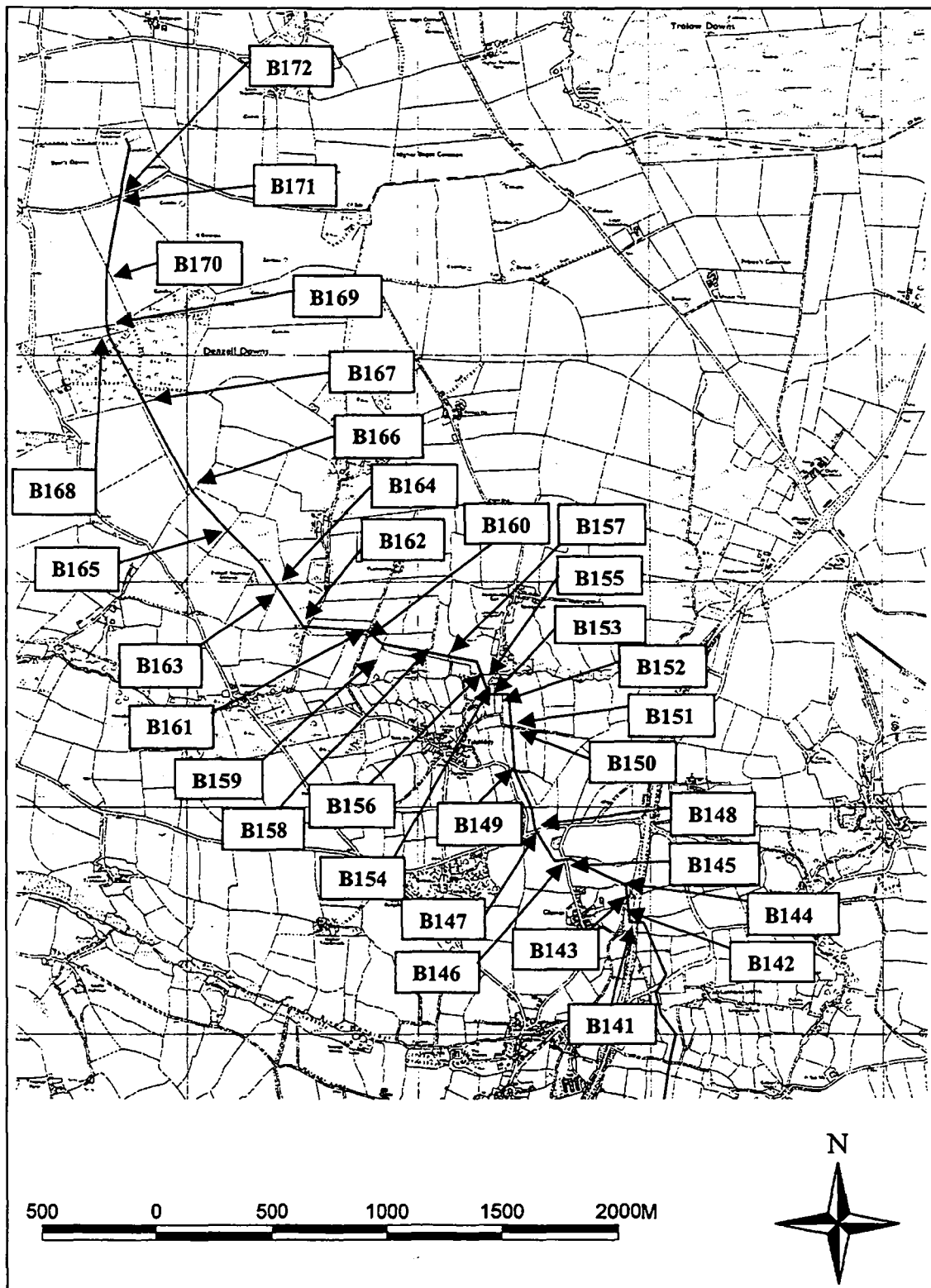


Fig 7 Map showing the boundary numbers along the northern part of the pipeline

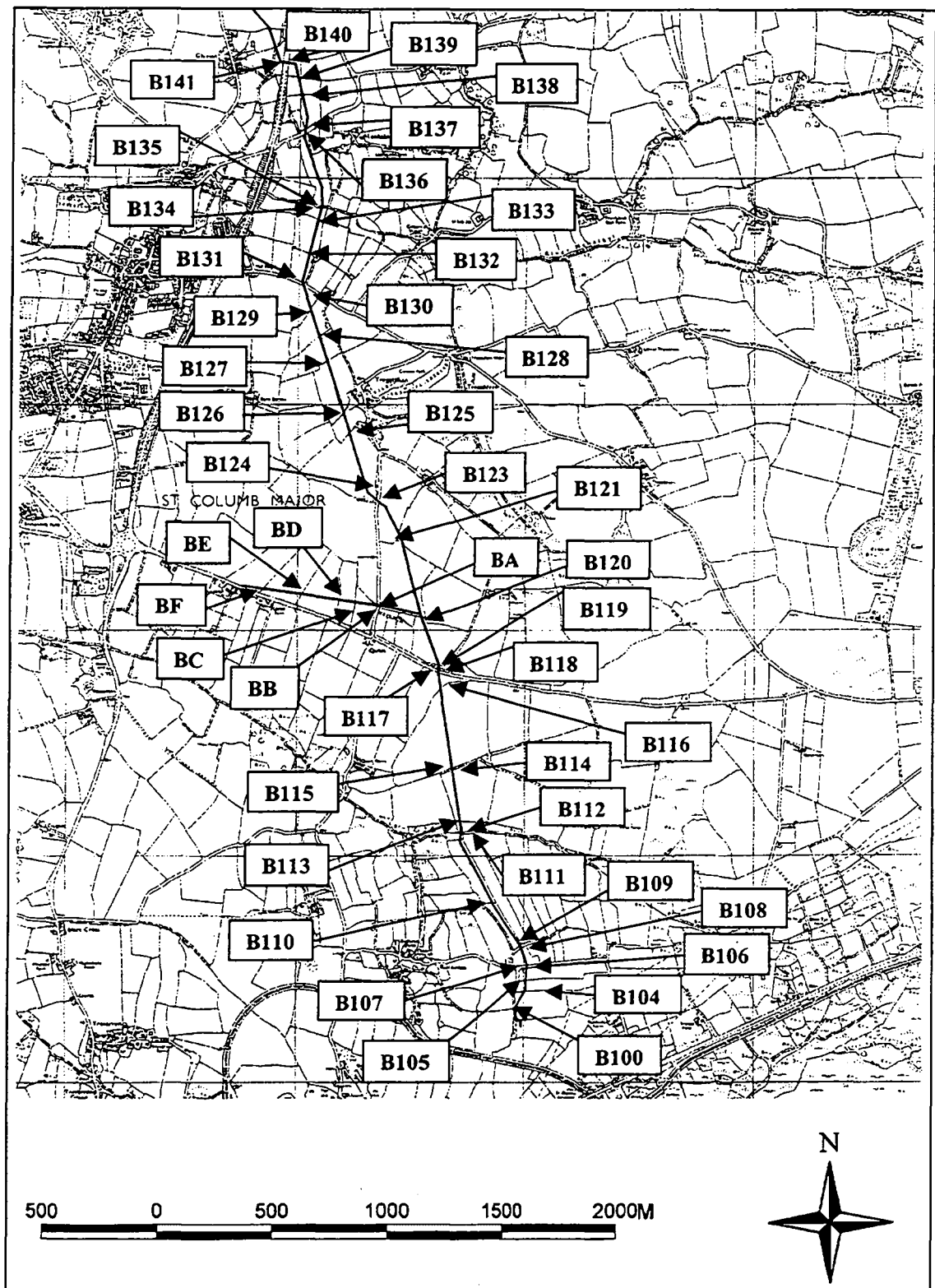


Fig 8 Map showing the boundary numbers along the southern part of the pipeline

The aerial photograph survey was carried out by Andrew Young (CAU). The principal method involved was sketch plotting, each site being drawn onto the 1:2500 base maps. Oblique photo coverage of the route was sparse (all plotting was done from vertical photographs). There were two main sources, the RAF coverage of 1947 and a run of photos taken by Meridian Airmaps Ltd (MAL) taken for the Central Electricity Generating Board in 1967. Other sources consulted were the two surveys, of 1988 and 1995, commissioned by CCC. Stretches of the existing pipeline are visible on the 1995 series.

The walk-over survey involved walking along the proposed route with the marked up base maps. The purpose of this exercise was to confirm the location, extent and survival of sites identified during the desk-based assessment and to search for surface features which had not already been recorded. The base maps were annotated with the results of the walk-over survey. During the walkover survey notes were made on the character and condition of the hedgerows, based on the Field Boundaries Questionnaire recently produced by CAU (Bull 1998).

#### 6.1.1 Geophysical Survey

The final stage of the archaeological assessment involved a magnetometer survey carried out by Geophysical Surveys of Bradford (Stephens 1998). This involved scanning all the accessible areas of the proposed corridor with gradiometers (ie. thirty of the fifty three fields), to identify anomalies and areas of interest. Detailed survey was then carried out over ten fields (totalling 25% of the scanned area), to accurately locate and help ascertain the nature of the anomalies. A 9.8ha area of pipeline was scanned, while detailed survey totalled 2.44ha.

#### 2.5.3 Watching Brief

The watching brief involved the location and recording of archaeological sites, individual features and the collection of all artefacts (unless obviously the result of landscaping or modern disturbance, litter etc).

The breakdown of the pipeline into eight areas was not based on the historic ownership of land (ie land associated with farms and settlements etc), but upon more 'practical,' modern day constraints. Main roads, streams, crop harvesting timetables etc. tended to dictate to a large extent the start and end points of lengths of topsoil stripping. Sometimes this corresponded with marked changes in the environment, for example as the pipeline route dropped down from the high and exposed Bears and Denzell Downs towards low-lying Talskiddy. It should additionally be noted that the variable quantities and types of finds scatters found along the length of the pipeline route is not a reflection of differential methodologies regarding the collection (and recording) of finds. The entire route was approached and dealt with in exactly the same way. There was no bias or concentration of the watching brief upon certain areas, with the single exception of Little Quoit Farm (Field 12), which underwent an archaeologically controlled topsoil strip followed by an excavation.

The whole length of the pipeline was monitored following topsoil stripping. In some cases the topsoil stripping was seen as it took place, in other cases the topsoil strip was viewed after completion - primarily due to there being more than one machine operating at any one time. Approximately half of the route was seen stripped down cleanly to the underlying natural clays etc. In these cases any archaeological features that were present would have been seen and recorded. The remainder of the route was more patchy in quality, meaning that potentially some features may not have been seen or recorded. Where possible these stretches of the pipeline were re-visited during actual trenching (although time-tabling this was not always possible). Limited controlled topsoil stripping took place

in some cases, for example across Bear's Down (where the proximity of known Bronze Age barrows meant that related features may have been disturbed) and around Little Quoit Farm (where the geophysical survey had located a probable late prehistoric or Romano-British settlement enclosure in Field 12). Little Quoit Farm subsequently underwent a full-scale excavation. Additionally small-scale excavations took place around Lanhainsworth, where two adjoining 'ring ditches' were located to the south of River Menalhyl, and two large pits and a clay platform were found just to the north.

Features were located on base plans at 1:2500, and either sketch planned (with occasional measurements) or accurately measured and planned in detail (depending on time and complexity). Selections of these features were then excavated. The location of excavated sections are shown on plan, and all sections or profiles were recorded via measured drawing and detailed annotation. All drawings generated have been catalogued within CAU's GRE system, and those that have been inked are within the GRH catalogue. Monochrome prints and colour slide photographs were taken of all main features in plan, as well as in section if excavated. These have been archived within CAU's GCS and GBP photographic catalogue system.

All different features, layers and fills were allocated individual context numbers in the field, or numbered subsequently (based on the field notes). The record for each of these context numbers is reproduced within the appendices (section 8.0) of this report.

Artefacts collected during the watching brief have been washed, dried, marked, catalogued and selectively sent to specialists. Environmental soil samples have been processed at Bristol University and looked at by environmental specialists, and the extracted charcoal has been selectively radiocarbon dated.

#### **2.5.4 Boundary Recording**

The assessment listed some seventy two boundaries, (numbered 101-172) to be crossed by the pipeline corridor. Of these some 46 were recorded by annotated sketch section; the remainder were either not breached due to the presence of nearby field gates, had already been removed, or were missed due to route alterations. An additional five were added because of the last minute addition of the Spurline, and an additional one added due to route alterations at the Ruthvoes end of the pipeline.

All recorded boundaries had their dimensions and number of visible contexts described. Measured sketch drawings were made of each, noting any obvious phasing or shift, the presence of clear ditches etc., and the broad type of vegetation cover.

### **3 Results**

To describe the results, the pipeline has been divided into eight areas, defined on the basis of topography and/or association with historic farming settlements. For each area, working from north to south, there is a description of their location, the results of the assessment, the geophysical survey, the results of the watching brief, and the boundary data. There is then a concluding discussion, quantifying the various forms of information and highlighting any particularly significant or noteworthy elements.

#### **3.1 Bear's Down and Denzell Downs**

##### **3.1.1 Introduction and Assessment**

Bear's Downs and Denzell Downs are located at the highest and most northerly end of the pipeline route, between grid references SW 8970 6796 and SW 9078 6577. The fields for this section are numbered 53 to 43. The northern most fields are high and exposed with

trees tending to be small and windswept. The majority of fields are pastoral, and on the summit of the downs sporadically littered with rocks, and occasionally gorse.

The assessment records this stretch of the pipeline as running through a landscape characterised as Recently Enclosed Land, (Johns 1998, 16-17), and as being of "high archaeological potential". Fields are angular in shape, and frequently large. The relicts of a Bronze Age ceremonial landscape, (Assessment site 53), visible as a series of prominent barrows (marked as '*tumuli*' on the maps), can be seen - reflecting an earlier ceremonial and burial use for the downs.

The barrows are Scheduled Monuments. The two positioned nearest to the pipeline are scheduled as Cornwall No. 511. These barrows form a distinctive part of the downland landscape, and overlook a large expanse of low lying land extending out towards the south. The antiquarian W.C.Borlase recorded in 1871 that a farmer had unearthed a large urn while ploughing around one of these tumuli. Borlase himself then visited the site and retrieved a rare handled pygmy cup which contained fragments of burnt human bone (Borlase 1872, 242-247). More recently a series of flint scatters have been recorded from the vicinity. The majority come from ploughed fields along the Denzell Downs, just to the east of the pipeline corridor, (eg. Steele 1991, 253).

During the Second World War a military training camp and radar station was built on these downs. The pipeline passes through the site of the training camp (Assessment site 48 in field 49), which was recorded as visible in the assessment as a network of trackways and zig zag trenches. The radar station itself lay c1km away to the east of the pipeline route.

### **3.1.2 Geophysical survey**

This section of the pipeline contains eleven fields. Of these three were not looked at during the geophysical survey due to the ground coverage, (fields 52, 51 and 43). Scanning across the eight remaining fields revealed 'high noise levels' predominantly attributed to the natural geology of the area. On the basis of these results, three of the fields scanned were then surveyed in more detail.

Field 53 produced the remains of a removed field boundary and two curvilinear features. The curvilinear features were thought to represent probable barrow sites. (One of them had already been identified on aerial photographs as a possible barrow site). As a result the original planned route of the corridor was shifted slightly eastwards to avoid damaging them.

Detailed survey of fields 48 and 46 produced further, probable natural variations, plus evidence for past cultivation trends.

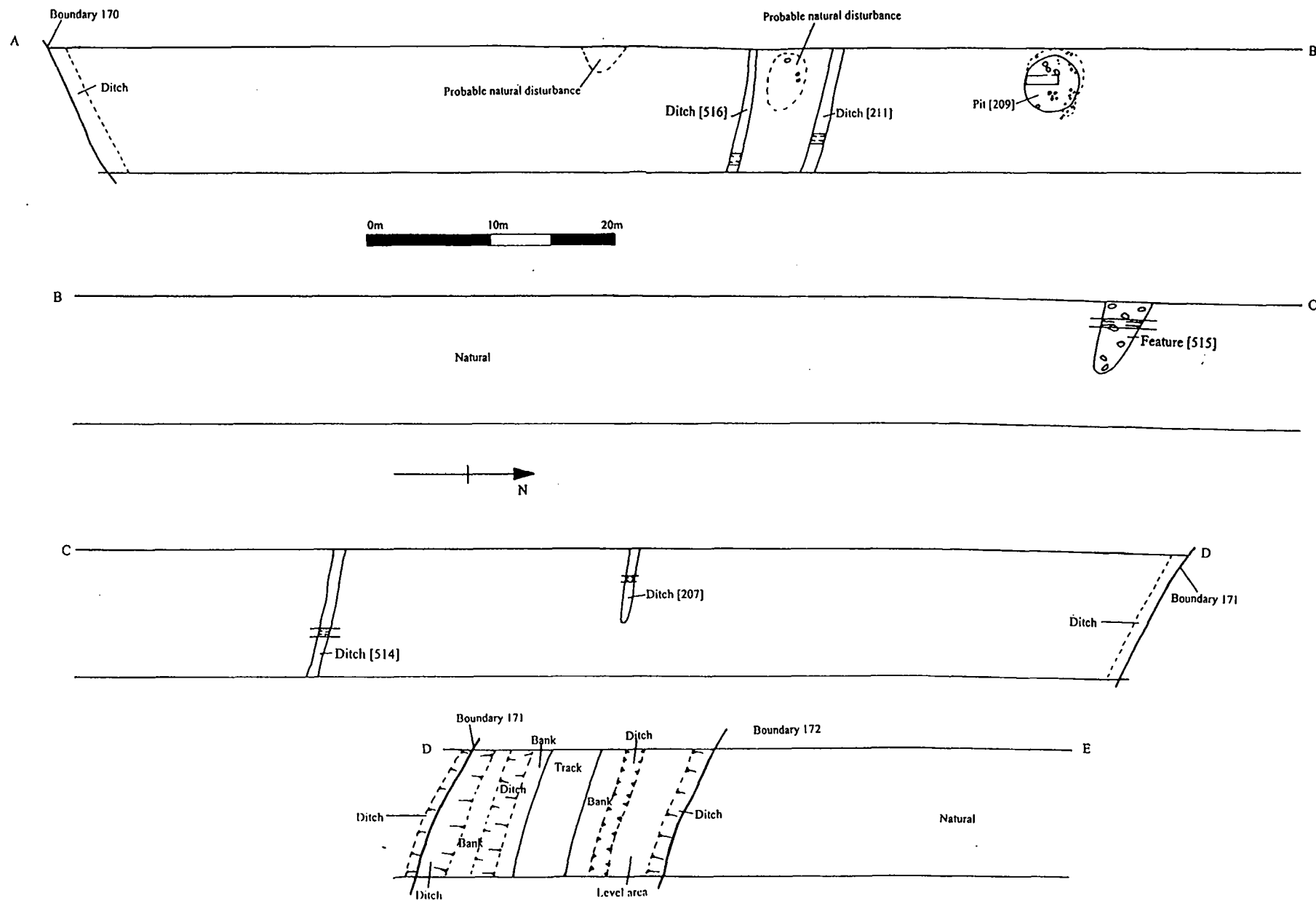
### **3.1.3 Field work - features and finds**

The features found in this section are relatively few in number, compared with the much denser concentration of features and finds found further to the south. This is consistent with the area's landscape classification as Recently Enclosed Land.

Field 53 did not produce any clear evidence for archaeological features other than the removed boundary (located by geophysical survey), seen as two ditches - numbers [203] and [205] (Assessment sites 54/55). A probable stone clearance hole was also found, number [201]. No artefacts were found.



Fig 9 Features located on Bears Down, within fields 52 and 53



Field 52 (Fig 9) contained two ditches [211] and [516] and ditch terminal [207]; a shallow circular pit-like feature [209], and two ephemeral, possible ditches [514] and [515]. Ditches [211] and [516] are parallel and closely spaced and probably represent a removed field boundary of medieval or post-medieval type. All of the ditches run east to west, on the same alignment as parish boundary no.172 and its associated, parallel boundary 171. This would suggest that they are broadly contemporary, and presumably represent part of an earlier field system or perhaps early subdivisions of the post-medieval enclosures. Known post-medieval boundary 170 is aligned slightly differently ie. west-south-west to east-north-east, perhaps suggesting a less close affiliation with these probable earlier features. Circular feature [209] appeared to be late when excavated, although no finds were retrieved to verify this. A single, unstratified water rounded pebble represents the field's only unstratified find. It is undateable but must have been introduced to the field, (since there is no immediate natural pebble source).

Field 51 produced no features although four water-rounded pebbles had been introduced at some point. Pebbles can be evidence for past soil improvement ie. the introduction of beach sand etc. to facilitate drainage and reduce soil acidity. The possible ridge and furrow referred to in the assessment as Site 49 was not seen within the corridor (although it might further suggest soil improvement regimes).

Field 50 contained no features and no finds. Field 49 produced no features, although a single unstratified rounded quartzite polisher or whetstone of probable prehistoric date was found. No clear evidence for World War 2 (Assessment site 48) activity was recorded within the stripped corridor. Field 48/47 produced no features although another unstratified quartzite polisher, three Neolithic worked flints and two pebbles were found. Field 46 contained ditch [213], and a curvilinear arrangement of stones up to 0.25m in size [221], probably marking the base of an early enclosure boundary wall. Both of these features are likely to be Medieval or earlier in date, partly based on their curvilinear alignment, which is more typical of these earlier periods, and partly on the fact that their arrangements do not relate to the extant, currently used, later field system. Two wide post-medieval, linear stone-filled drainage features were also located. No artefacts were found in the field.

Field 45 contained the eastern terminal of ditch [215]. A series of parallel running (probable mole) plough lines were also recorded. Based on differences in alignment these appeared not to relate to the ditch terminal. Ditch [215] appeared to pre-date the mole ploughing and may well be Medieval in origin. There were no finds from the field. Field 44 produced a truncated 'linear pit' [217] with a shallow central posthole [219]. These associated features did not unfortunately produce any finds and their date and function is not known although it is felt that they may well be early in date. Additionally this field produced two linear, loam filled features running near north to south. They are likely to represent the pre-1840 removed boundary (Assessment site no. 47). Boundary assessment sites 45 and 46, removed boundaries, were not seen in the corridor. A single, unstratified probable prehistoric hammerstone was found in this field.

Located between Field 44 and Field 43 was an SSSI - a Site of Special Scientific Interest. It was focused upon the low lying, overgrown and waterlogged area located between the two fields. This short stretch had a narrower corridor cleared, and was very rapidly topsoil stripped, trenched and back-filled in order to minimise the environmental impact. No further features or finds were found across this area.

Field 43 (Fig 11) contained ditch [240] (Fig 12), probably the removed post-Medieval boundary seen on the 1880 OS map of the area (Assessment site 43). The western side of this field (ie. the northern end of the pipeline) was demarked by parish boundary 162 and a stream, along which ran a very noticeable embanked line of massive quartz blocks. These presumably represent past field clearance and perhaps further demarcation of the parish limits. Bands of gleyed material and depressions in the underlying geology were noted within the field. These were assigned a

probable natural origin (perhaps tree boles) although some could mark the original location of the massive stones referred to above. No artefacts were found in this field.

#### **3.1.4 Boundaries**

This part of the pipeline runs through a landscape that has only relatively recently been enclosed. Boundaries in this section are numbered 161 to 172, and of these seven had their sections recorded in detail, (nos. 165, 166 and 168-172). The remaining boundaries were either not breached at all, or were not excavated adequately (ie. they were essentially flattened or cut through at a very oblique angle).

Two of the boundaries in this section demark parish boundaries. A bank would not always have initially marked parish boundaries. In some cases natural features could be used (ie. a stream in the case of boundary 162) or occasional boundary stones (as may have been the case for boundary 172). However, the recorded section for boundary 172 does show an earlier phase or element, which may perhaps date to the Medieval period. Boundary 172 marks the St Mawgan in Pydar / St Ervan limits, while boundary 162 marks the St Columb Major / St Mawgan in Pydar limits. These parish boundaries are likely to have existed in some form at a much earlier date than the majority of the other extant boundaries in this section, ie. during the Norman Conquest. Both parish boundaries are now stone faced and fairly massively built - in excess of 2.0m high and 2.5m wide. Boundary 162 was not recorded in detail due to excavation work at the southern end of the pipeline. However, like 172, boundary 162 will have had a ditch, and as mentioned above also had an associated stream (and an embankment of quartz mirroring its course). Parish boundary 172 (Assessment site 50) had a flanking track with another smaller boundary (Boundary 171) marking the opposite side. This would have further defined the significance of the parish limits.

Of the remaining boundaries, only boundary 166 and 170 had a clear stone-faced, earthen core recorded in section. It is likely that the majority of these boundaries had originally been faced, but due either to their lack of maintenance or sheer coincidence, the sections cut through them missed any deliberate stone element. Boundaries 166, 169, 170, 171 & 172 are all stockproof. The boundary section for 170 clearly shows the wholesale fossilisation of an earlier, stone-faced boundary beneath the substantial later boundary, while boundary 166 also shows the preservation of an earlier earthen bank beneath the current extant boundary. Boundary 166 pre-dates the 1840's Tithe Map, and represents a fairly major, primary landscape division in the immediate area.

Boundaries 165, 168, 169 and 171 all had related, flanking ditches recorded. Boundary number 169 is recorded as having a noticeably stony core. This stony core relates to the geology through which the ditch was cut, rather than an identifiable earlier phase. Boundaries 165 (and 168 and 170 to a lesser extent) show signs of slumping to either side. Boundaries 165, 166, 169, 170, 171 and 172 all included buried soils within the recorded sections. However, in the majority of cases these soils are late in date. A probable exception is that found in boundary 166 (context [4]), and possibly boundary 172 (although this appears to have been mounded - context [5]).

Note: a much more detailed run down of the sizes, date and characteristics of the boundaries in this section can be found in appendix 8.3.

#### **3.1.5 Conclusions**

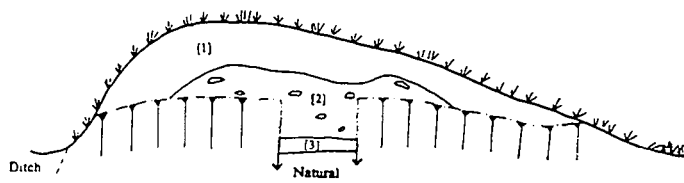
This northern section of the pipeline contains the vast majority of all the Recently Enclosed Land found along the route. The results of both the assessment and the later watching brief have essentially produced what was expected, ie. a scattered array of finds and features reflecting relatively unintensive use of this area. The majority of the features found relate to truncated, removed boundaries, some of which were known from aerial photographs and / or past maps of the area; others were not previously recorded but also seem to be part of the post-medieval field

patterns. A few ditches however, notably in fields 45 and 46, may represent the remnants of altered or essentially lost field system elements which in places predate the more recent wholesale reorganisation or re-enclosure of the downs; these could be medieval or even prehistoric.

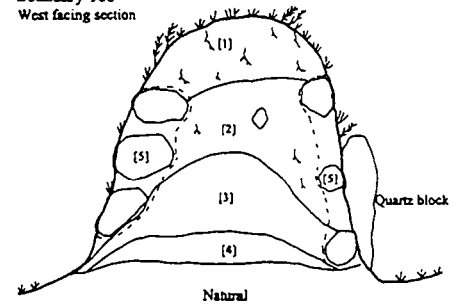
As regards finds, numerically the majority were introduced water worn pebbles of unknown date. The majority of pebbles probably relate to sporadic, medieval and later soil improvement regimes, although it is also possible that some may relate to earlier, prehistoric activity (although this cannot be proven). Pebbles are a significant feature of many prehistoric lithic scatters. Evidence for this association can be seen along much of this pipeline, and in addition other recent CAU work has revealed a similar pattern ie the Liskeard to Maudlin pipeline (Cole, 1999), the Colliford Reservoir pipeline (Reynolds, 1999) and the Perranuthnoe to St Hilary pipeline, (Lawson Jones, forthcoming).

Although considerable flint scatters have been found elsewhere on the downs (see 2.4.2) just three Neolithic flints were found in this section, in field 47, providing only limited evidence for early prehistoric activity here.

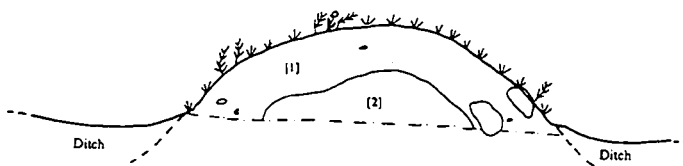
Boundary 165  
West facing section



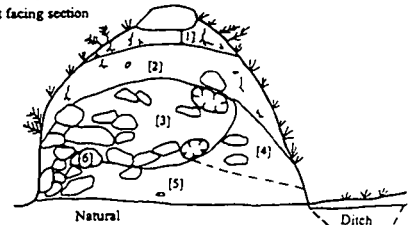
Boundary 166  
West facing section



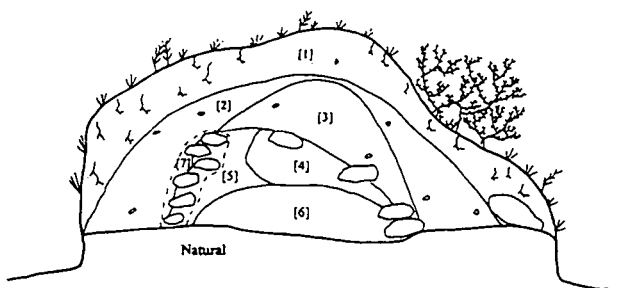
Boundary 168  
East facing section



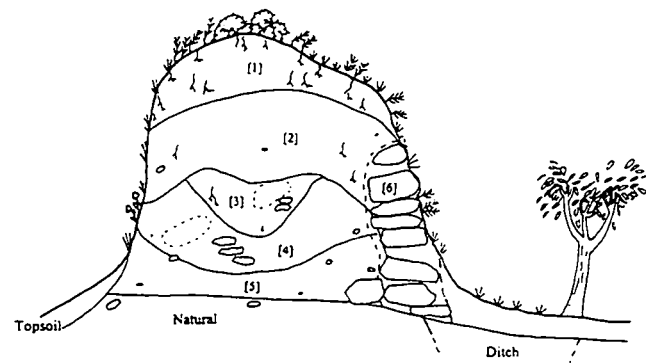
Boundary 169  
West facing section



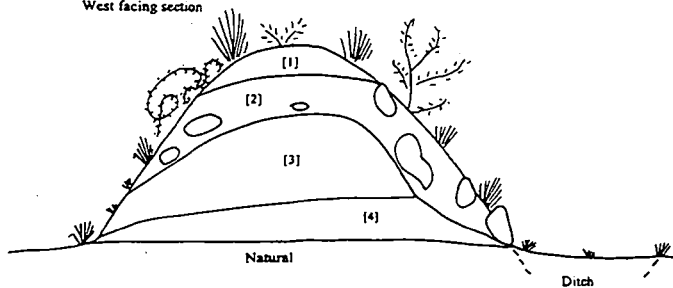
Boundary 170  
West facing section



Boundary 172  
West facing section



Boundary 171  
West facing section



0 0.5 1 2 m

Fig 10 Boundary sections within the Bears Down to Denzell Downs section.

## **3.2 Talskiddy**

### **3.2.1 Assessment**

The Talskiddy section of the pipeline runs from grid reference SW 9078 6577 to SW 9152 6490 and includes field numbers 42 to 33. The northern half of this section is low lying and for much of the watching brief was partially waterlogged. The Talskiddy fields span the last of the Recently Enclosed Land along this pipe route, some Anciently Enclosed Land and the pipeline's only area of land characterised as Steep Sided Valley.

The fields in this section are mostly associated with the medieval settlement of Talskiddy, first recorded in 1225, (SMR site 21623). However, the area covered by fields 42 to 39 (probably historically associated with Rosedinnick), represent a recently enclosed landscape. Today's settlement lies at the centre of a field system, which retains the outline of the probable medieval landscape arrangement. The pattern represents a fossilized system of small fields, lanes and tracks radiating out from the hamlet.

The majority of the sites referred to in the assessment relate to removed boundaries, located either on past maps of the area or from aerial photographs. Thirteen boundaries exist within this section. It was recommended in the assessment that they should be recorded in section during the watching brief (Johns 1998, 16), due to their known early date.

### **3.2.2 Geophysical survey**

Geophysical survey of this part of the pipeline route entailed scanning and selected detailed survey. Fields 40, 38 to 35 and 33 were rapidly scanned, fields 39 and 34 had a detailed survey carried out, and fields 41 and 42 were not scanned due to the ground cover. Field 41 produced far more features than the rest of this section during the watching brief.

The scanned fields showed no evidence for underlying archaeology and all variations in noise level were assigned a natural or geological origin. Field 39 showed a mass of low magnetic responses that were looked at in greater detail. Two tentative linear features were identified, but the general picture was indicative of waterlogging (to which this field is prone). Survey in field 34 revealed a long north to south-aligned response with a central break in to which ran two parallel east to west aligned linear features. In addition ephemeral pit responses were noted, scattered across the field.

### **3.2.3 Field work - features and finds**

The features located within this section are almost all ditched elements related to the past field system - many of them relating to the known Medieval strip field system associated with Talskiddy settlement. A number of these had already been identified during the assessment.

Field 42 did not produce any features. The few artefacts found were unstratified and either modern stoneware or undateable ie. a single pebble, and a chalk fragment indicative of soil improvement.

Field 41 (Fig 11) produced a whole series of ditches, but no artefacts. Ditches [482] and [483] represent the remains of a relatively large, post-Medieval removed boundary (probably assessment site 42). Ditches [484] and [486] appeared to be earlier. They were probably contemporary in that they were designed to abut. They were also very similar in appearance, ie. fill and width. Pit [485] was positioned within the right-angled junction formed by these two ditches. Although the relationship between the two ditches and the pit was not proven by finds or the stratigraphy, all three appeared to be well sealed and early. Ditch [241] (Fig 12) may well be similarly early. It was located some 80.0m west of [484], was similar in width and ran parallel to it - possibly suggesting that it belonged to the same phase of field system (perhaps medieval in date).

Ditch feature [487] was massive in relation to these probable early features. It was not excavated but had a 3.5m width. Its upper fill gave the impression of being early (or perhaps natural?). It was pale, silty and compact with no obvious recent disturbance or intermixing with today's topsoil cover. Interpretation of this feature is difficult. Based on the fact that its alignment mirrors that of ditches [241] and [484] it may well represent an element of the same field system. However, due to its substantial width and differences in fill it may have functioned differently. It could relate to the possible enclosure ditch (Assessment site 41), seen as a crop mark on aerial photographs of the area. Alternatively it could represent a major drainage feature, specifically designed to clear water from this low-lying area - as opposed to having a delineative function. Removed post-Medieval boundary (Assessment site 40) was not located during the watching brief, (probably due to the nature of the topsoil stripping).

Field 40 did not produce any evidence for buried features and no artefacts were found. Field 39 (Fig 11) produced ditch [383] (Fig 12), but no finds. The ditch also located by geophysical survey (Assessment site number 38), was positioned approximately half way along the field and aligned north to south. It appears to be part of the post-medieval field pattern. The broken line of anomalies aligned nearly east to west, located by the geophysical survey, could not be located, but they may well relate to Medieval (or earlier field subdivisions).

Field 38 (Fig 11) produced a single, truncated, 2.0m long curvilinear feature of unknown date or function. It is probably post-Medieval based on the visibly mixed appearance of its fill. The other noted feature in this field was a mass of grounders located running along the southern side of the stream, which forms the northern boundary of field 38. Diagnostic finds from this field are eighteenth century or later in date. Field 37 did not contain any features and did not produce any artefacts.

Field 36 produced ditch [231], which was aligned north to south on the line of a visible break of slope possibly further enhanced by lyncheting. It was not flagged up by the assessment but is likely to mark an early, long-standing boundary. Finds from this field were limited in number, and eighteenth century or later in date. Field 35 produced two narrow linear stone arrangements, numbered [226] and [227]. It is likely that one of these (probably [226]) relates to the east to west aligned field boundary picked up during the assessment on aerial photographs - Assessment site number 36. Stone/boundary alignment [227] has a north-west to south-east alignment. Since it does not feature on the maps it is likely that it is Medieval or earlier in date. In addition, it was noted that in this field an old probable plough soil [518] had survived. It was located immediately below the current topsoil. It is possible that this old plough soil relates to the linear boundaries found. They may well mark a long-term change in field use ie. from a predominantly ploughed regime to a predominantly pastoral regime. Artefacts from the field are few in number and generally late in date.

Fields 34 and 33 are relatively level and over look the lower lying northern section of the Talskiddy area. Field 34 produced a modern pipe trench (which was identified during the geophysical survey and which crossed the corridor) and an underlying subsoil [519] - present across all but the southernmost c10m length of the field. As with field 35 this underlying soil seems to indicate past agricultural activity. The topsoil stripped corridor was probably located to the east of the area looked at by the geophysical survey. The main north to south aligned ditch with its associated adjoining east to west aligned linears found by the geophysical survey was not seen during the watching brief. This feature was however, shown in the assessment to be the removed probable Medieval boundary - site number 35. The only artefact found in this field was a single piece of glass.

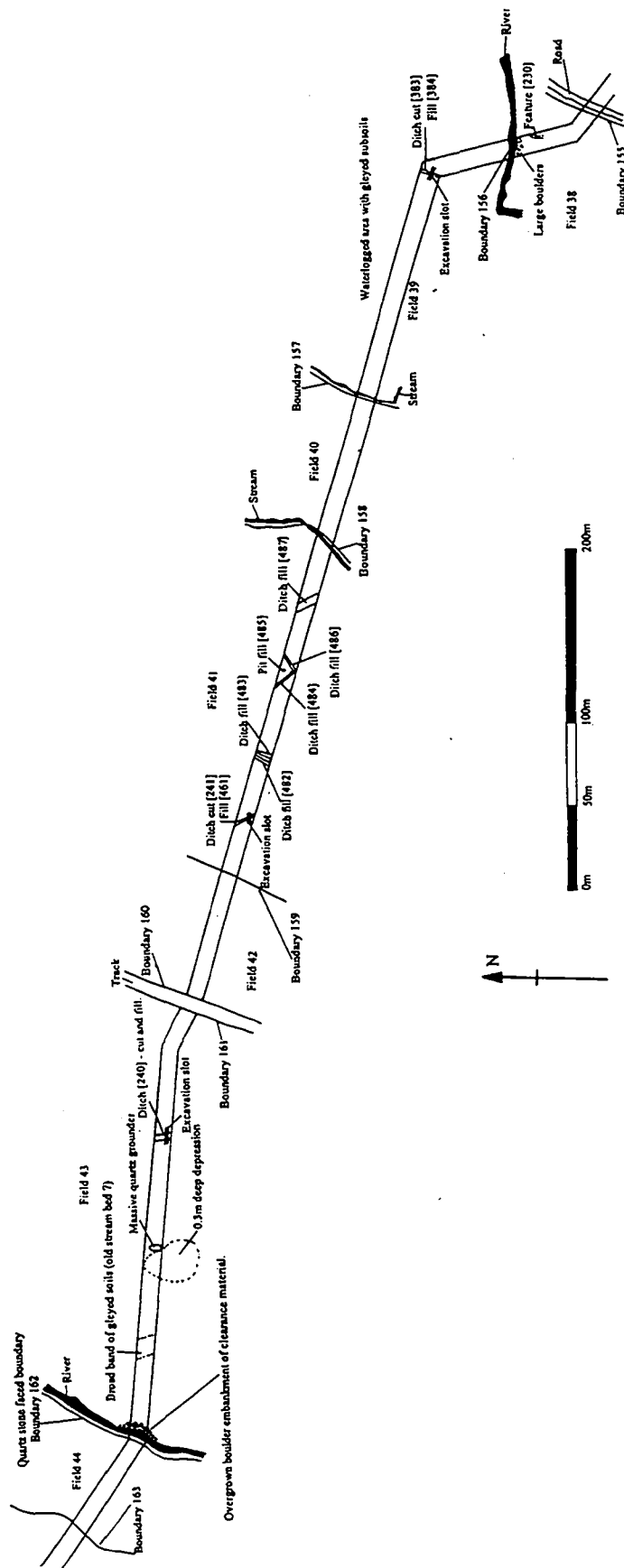


Fig 11 Plan showing the Talskiddy ditches of a lost field system



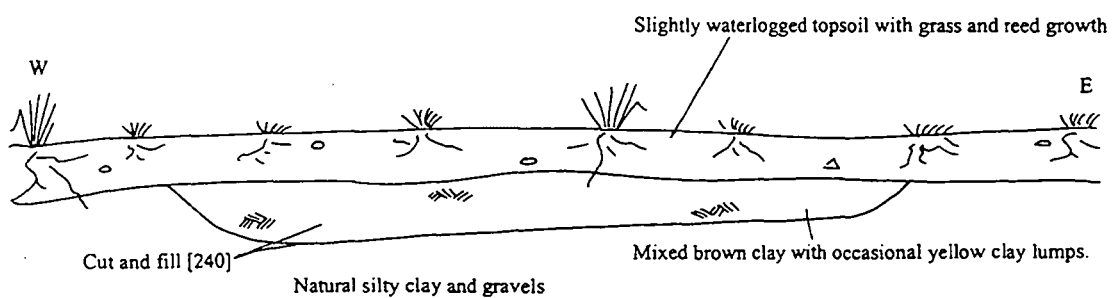
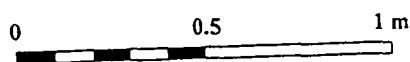
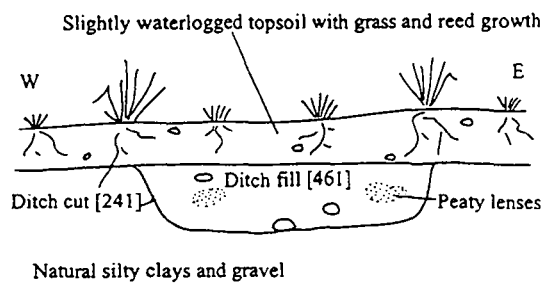
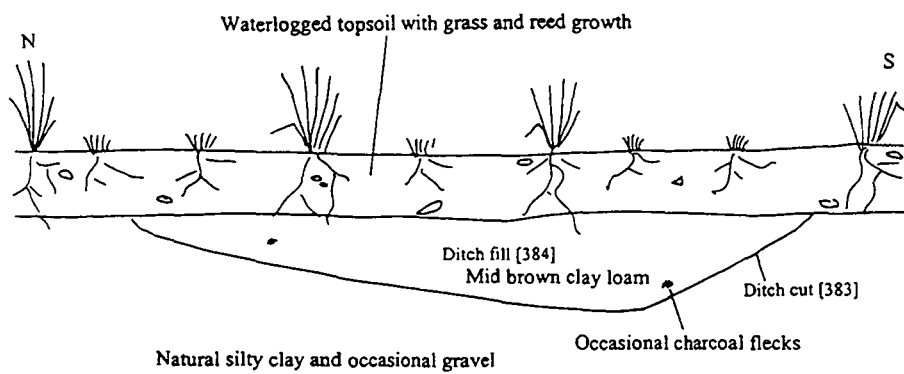


Fig 12 Sections through selected Talskiddy ditches

Field 33 contained ditch [223], which ran at an angle across the corridor. A second ditch [222] was also found in this field, terminating centrally within the corridor. It was noted that this feature was cut down from high up in the topsoil, indicating that it is likely to be the removed Medieval boundary seen on the Tithe map (Assessment site number 33). A single prehistoric flint, an undated pebble, a clay pipe stem and green glass was found in this field.

#### 3.2.4 Boundaries

The majority of this length of the pipeline runs through Anciently Enclosed Land. Many of the boundaries will as a result be at least Medieval in origin. Boundaries within this section are numbered 160 to 148. In the assessment boundaries 156 and 152 to 148 are recorded as pre 1840 in date – meaning that they could either be medieval, or early post-medieval in date. With the exception of boundary number 148 all of these Medieval boundaries belong to the strip field system recorded in the SMR as site 2163. Boundary 157 is additionally recorded as pre-Tithe map in date. The remaining six boundaries are post-medieval.

Twelve of the thirteen boundaries were seen in section. (Boundary number 160 was not breached, instead an existing gateway was used). Of the six Medieval boundaries only four different contexts were recorded in each. Three had a single stone face surviving, and the remaining three had no recognisable stone element at all. Three had ditches, one had a flanking stream and two had no visible ditch although both had flanking trackways. Pipeline trenching was not observed here, and so they were not recorded at a greater depth. However, boundaries 152 and 148 did reveal what may have been disturbed buried soils. With the exception of boundary 151 the remaining three Medieval boundaries revealed what appeared to be their primary core of quarried natural (ie. material caste up from the original associated ditch).

The six later boundaries 153 to 155 and 157 to 159 contained three to five different contexts reflecting their construction. The most complicated one was boundary 153, which contained five contexts including an early stone facing buried beneath subsequent boundary enlargement. This particular boundary had also seen fairly substantial past burrowing. Boundary 159 had an associated 'shelf' or build-up of soil and large stones running north to south along its eastern side. This 'shelf' had an approximate 4.5m width and an approximate 0.5m height plus large stones / grounders on top. It appeared to have a short height of stone facing on its eastern side, while the western edge merged with boundary 159. It is uncertain as to how or what this 'shelf' feature represents, although it is obviously a fairly late addition since it post-dates the earlier fossilised boundary (represented primarily by context [3]) within the section recorded for boundary 159. A possible early plough soil was sealed by this material - although the frequency of roots and stones etc. made identification difficult.

As with the previous area, many of these boundaries show earlier, smaller scale phases of boundary which are unlikely ever to have been stockproof - suggesting change in the agricultural regime practised since their earliest origins.

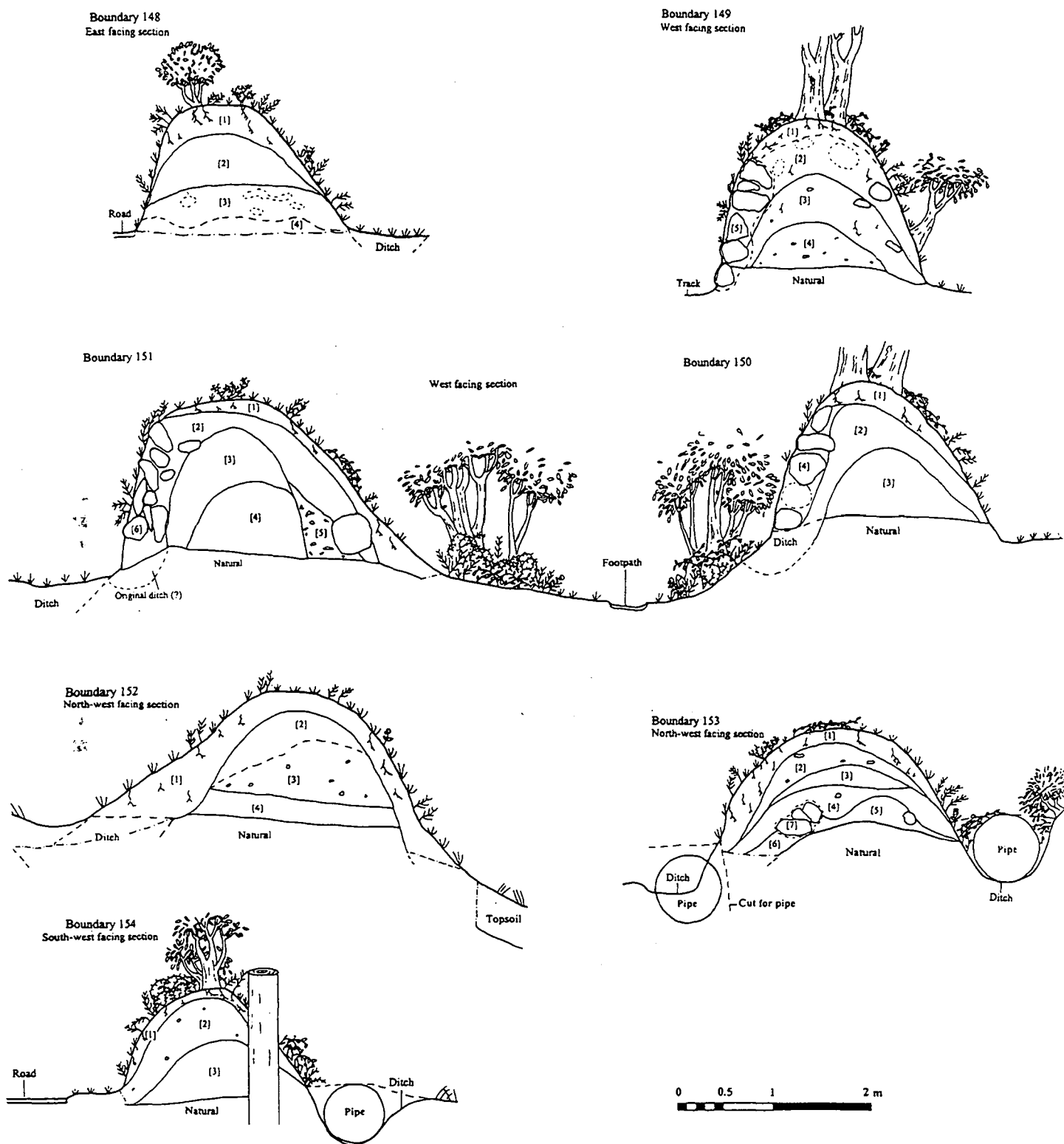


Fig 13 Boundary sections within the Talskiddy area

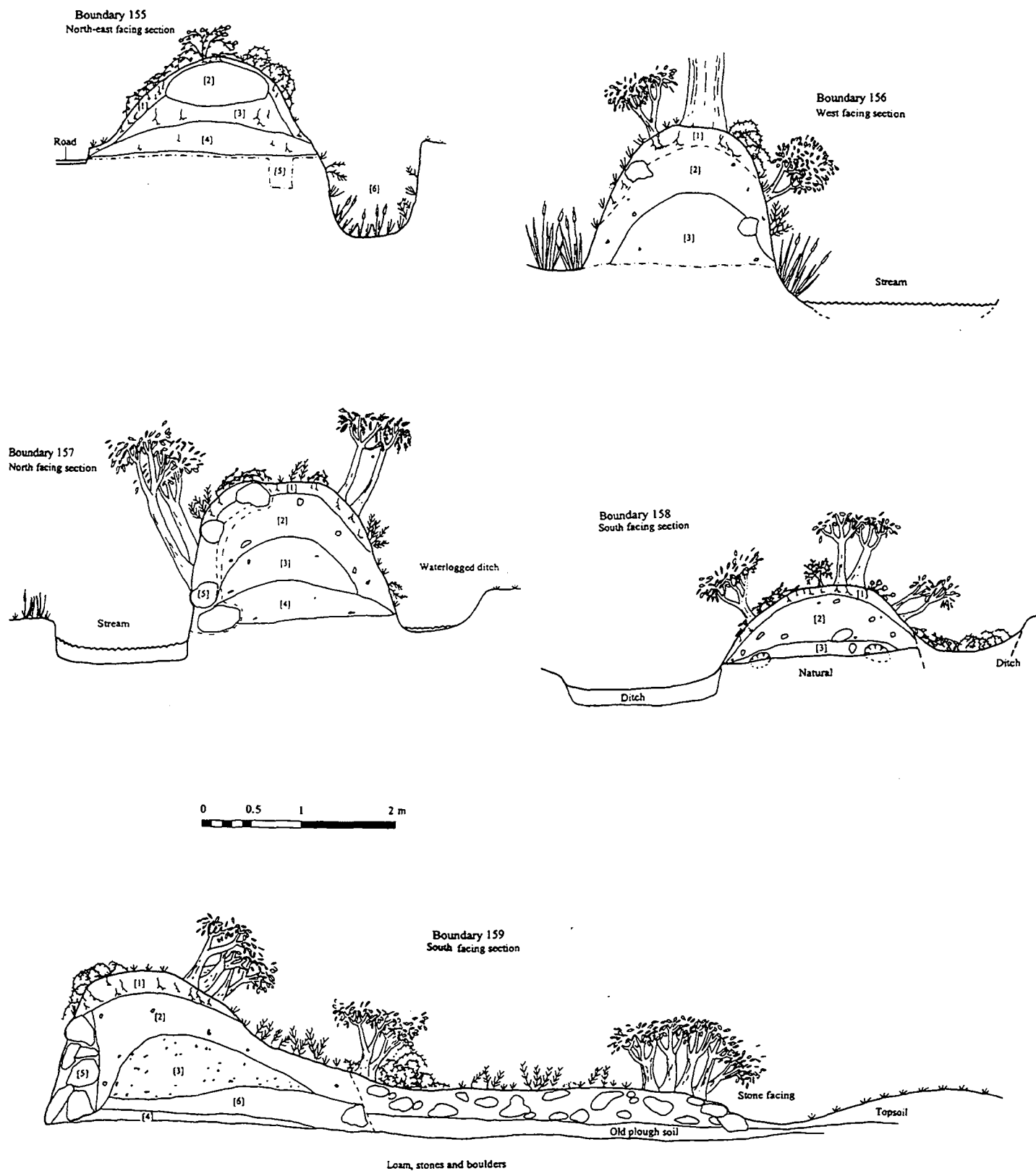


Fig 14 Boundary sections within the Talskiddy area

### **3.2.5 Conclusion**

Archaeology in this area strongly reflects the topography ie. low-lying, waterlogged fields and steep sided valley slopes. Most of the features found were ditches of removed field boundaries, related mostly to the existing medieval and post-medieval patterns. However, field 41 contained evidence for a field system predating the post-medieval enclosures; it is not known whether this is medieval or prehistoric.

This section of the pipeline mostly ran through the eastern periphery of the known Medieval Talskiddy strip field system. Little was seen in the way of early pottery etc. indicative of medieval domestic waste being used to fertilise the fields. However, had the pipeline passed closer to the settlement this picture may well have been different. Indeed the sparsity of finds in general would appear to reflect a long-lasting pattern of settlements avoiding these fields which are so prone to seasonal flooding, (and which obviously have been prone to wet conditions for a considerable length of time judging from the clayey, silty soils found within the features seen). Alternatively it may be that these periodically flooded fields did not require frequent deliberate fertilization via kitchen middens etc.

Despite the known longevity of six of the boundaries, no specific characteristics were seen in their recorded sections indicative of age. For example, there was no clear evidence for earlier stone faces which had subsequently become hidden by boundary enlargement, or of gradual shifting so that the upstanding boundary overlay previously flanking ditches, or even in terms of sheer size and complexity, (which could possibly be argued to be a sign of considerable age and piecemeal development).

## **3.3 Gluvian**

### **3.3.1 Assessment**

This short section of the pipeline runs from grid reference SW 9153 6489 to SW 9192 6449. It contains field numbers 32 to 28 and covers a relatively level, but raised area of landscape, which is entirely Anciently Enclosed Land. Fields 29 and 28 lie within an area designated as an SSSI (a Site of Special Scientific Interest).

The fields in this area are associated with the Medieval settlements of Gluvian, which was first recorded in 1206, and the periphery of Tregamere which is located to the east of the pipeline and was first recorded in 1372.

The three features located during the assessment of this area are removed boundaries seen on the aerial photographs. All are known to be associated with the Gluvian Medieval field system, (Johns 1998).

### **3.3.2 Geophysical survey**

Geophysical work in this area was fairly limited. Of the five fields concerned two were unsuitable for survey due to the ground cover, one could not be surveyed due to the presence of a mature crop, and the two remaining fields produced no obvious archaeological anomalies. One of these two scanned fields was only half scanned due to the presence of a SWW compound which caused extensive magnetic disturbance, which distorted the results.

### **3.3.3 Field work - features and finds**

Field 32 produced no features. Artefacts included three undiagnostic prehistoric flints, and a clay pipe fragment, stone ware and glass all dating to the eighteenth to twentieth century. Field 31 produced ditch [229], in the southern end of the field, which ran north-east to south-west. It was only clearly visible on the western side of the corridor, possibly suggesting that it terminated within the corridor itself. It is probable that this ditch is the boundary shown on aerial

photographs of the area (Assessment site number 32). It does not feature on maps of the area, and does not clearly relate to the current field pattern, suggesting that it is Medieval in date. A patchy alignment [228] of small stones and boulders flanked the northern side of ditch [229] representing the extant boundary itself. A modern land drain ran up the western side of the corridor, visible as a long, very distinct linear strip of redeposited clay. Finds from field 31 included a series of coarsewares dating from the fifteenth to the seventeenth century. These would be related to Medieval Gluvian. In addition, glass, stoneware and clay pipe fragments dating from the eighteenth to twentieth century were found (plus a slate roof fragment and seven pebbles) possibly representing past soil improvement.

Fields 30, 29 and 28 produced no evidence for archaeological features or scatters of finds. Neither of the removed boundary sites (numbers 31 and 30) recorded the assessment were located in these fields.

Located within field 29 and field 28 is an SSSI - a Site of Special Scientific Interest. It is focussed upon the low lying, over-grown and waterlogged area running down towards the A39. This stretch of the topsoil stripped corridor was narrower, and rapidly stripped, trenched and backfilled to minimise environmental impact on the area.

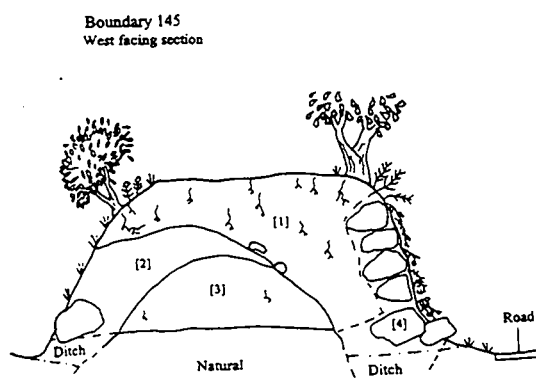
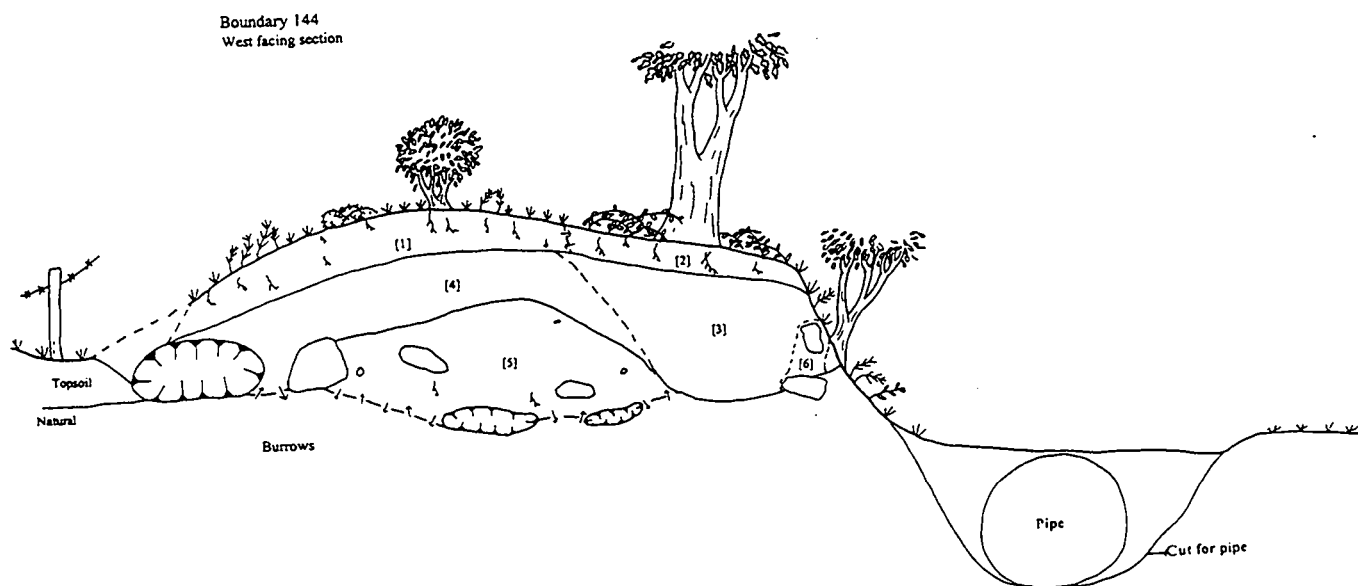
### **3.3.4 Boundaries**

Seven boundaries were located within this section, numbered from north to south 147 to 141. Boundaries 147, 145 and 144 were recorded in section; 141 was not recorded because it was very recent (ie. constructed following recent A39 improvements); 146 was not breached due to the presence of a wide gateway; and 143 and 142 were missed due to excavations being carried out further south along the pipeline.

Six of the seven boundaries feature on the Tithe map and are potentially Medieval in origin. The three northern most ones are related to Higher Gluvian and the southern three are related to Gluvian itself - SMR number 21637 (although on the Tithe map boundary 142 was referred to as belonging to Tregamere - SMR number 21682).

Of the three boundaries recorded in section, boundary 144 is much the largest being 5.3m wide and over 1.7m high. The basal elements were not unfortunately seen due to a large ditch located to the immediate south, which was waterlogged, (preventing deeper excavation prior to trenching). However, past burrowing had exposed either the underlying natural or a primary core of redeposited natural from a ditch. Five different contexts were recorded, the lowest and earliest one of which, [5] although mixed and disturbed through burrowing, did appear to represent the original boundary. Occasional stones possibly representing a remnant stone facing were also recorded. The boundary was seen to a sufficient depth to record the presence of associated ditches. Context [4] may or may not represent part of the original boundary, but contexts [3], [2] and [1] were definitely subsequent.

Boundary 144 was considerably wider at the point breached than elsewhere along its length. The substantial width did not appear to relate to a boundary or field junction but does show a deliberate build up of material; possibly this might represent an artificially constructed warren associated with the settlement of Gluvian. Free standing 'pillow mounds' - specifically constructed for the housing of rabbits, have recently been discussed for Godolphin (Herring 1998, 252), while warrens associated with earlier boundaries etc. have been recorded on Legis Tor (Sheeps Tor), Dartmoor by Linehan (1966, 141) etc. The associated southern ditch, machine excavated in its current form, appears to have been substantial prior to SWW's excavation work and probably provided the majority of the material contained by 144.



0 0.5 1 2 m

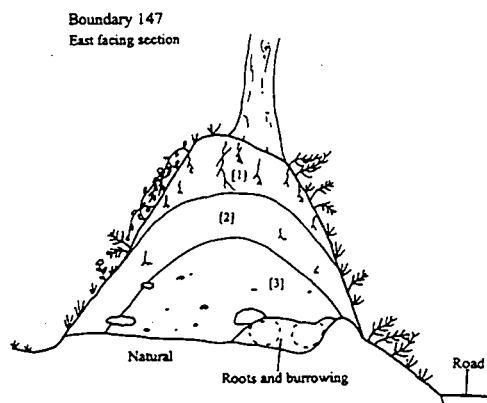


Fig 15 Boundary sections within the Glurian section

Boundary 145 showed two early flanking ditches in section, and a centrally located core of crumbly clay loam directly overlying a ridge of natural clay shillet. Above and to the east of this core was a later build up of boundary material, which was then added to from the western (lane) side. Only the western stone facing survived intact - probably as a direct result of lane maintenance. Much of the earliest boundary has been preserved within this later build-up. Its subsequent considerable increase in size rendering it more stockproof. Boundary 147 had three contexts showed a relatively simple build up of deposits. The underlying natural was clearly seen, and there was no sign of either flanking ditches or a stone face.

### **3.3.5 Conclusions**

This length of the pipeline represents the smallest section. It has produced very little in the way of newly discovered archaeological features. Pottery associated with the known Medieval settlement of Gluvian (SMR site 21637) was found, reflecting fifteenth and sixteenth century field fertilisation, ie. the disposal of domestic waste in fields adjacent to the settlement (see Talskiddy section for comparison).

## **3.4 Lanhainsworth**

### **3.4.1 Assessment**

The Lanhainsworth section of the pipeline runs between grid references SW 9192 6449 and SW 9202 6353, and includes field numbers 27 to 22 (although historically some of the southern fields probably belonged to Tregatillian). The area is located amidst undulating Anciently Enclosed Land. Lanhainsworth has Medieval origins, and is first mentioned as a settlement in 1302. It is recorded within the SMR as PRN 21640. The boundary located at the northern most edge of this area belonged to the Tregamere field system (Johns 1998, 16). Tregamere is recorded within the SMR as number 21682 with its earliest reference dating to 1372.

Three of the sites recorded within the assessment for this section are removed boundaries. Two are curvilinear anomalies located by geophysical survey and one is the site of a removed building. A good variety of features were found during this stretch of the watching brief, and a relatively large fifteenth to nineteenth century assemblage of pottery was collected.

### **3.4.2 Geophysical survey**

All six fields within this section were scanned during the geophysical survey. Fields 26 and 23 were then surveyed in detail. Fields 22, 24, 25 and 27 did not produce evidence for any major archaeological remains. Field 26 revealed a truncated, curvilinear probable enclosure ditch plus scattered internal pit-like anomalies, and short external linear anomalies. Field 23 produced four pit-like anomalies arranged in a near straight line at the northern end of the field, plus short linear anomalies to the south.

It became apparent during the watching brief that the suspected Field 26 enclosure was indeed such. Archaeological recording was complicated by the presence of a deep and very stony subsoil within and around the enclosure representing an archaeological deposit with possible *insitu* stone alignments. Its presence made the recognition and interpretation of individual features very difficult. Field 23 when stripped revealed, quite unexpectedly, two inter-connected ring ditches, but not the pit features recorded during the geophysical survey. This was because the topsoil stripped corridor and the geophysical survey were not located in the same area, but ran parallel to each other.

### **3.4.3 Field work - features and finds**

Three of the six fields in this section of the pipeline contained notable sites, one of which remains rather enigmatic.



When field 27 (Fig 16) was stripped of topsoil a substantial, sealed subsoil [235] was revealed. Context [235] contrasted markedly with the overlying, near stone-free, grey-brown topsoil. It was a very dark blackish-brown clay loam, which contained a substantial number of stones (and occasional boulders), with a depth in excess of 0.3m. This layer or spread covered the southern third to half of the field and did not appear to relate to any visible archaeological features. It was not stripped off the underlying natural, - although a sondage trench measuring 1.0m x 0.5m in plan was excavated down to the natural clay shillet. The prior geophysical survey did not pick up any substantial anomalies in the field that might help to explain its presence, a presence that is all the more hard to explain or interpret when one considers that this soil had been preserved below an actively farmed topsoil on the top of a fairly pronounced hill. The removed boundary (Assessment site no. 29) found on aerial photographs of the field may well denote the northern edge of this layer. It does not feature on maps of the area, and is likely to relate to the Medieval period. This would give a Medieval or earlier date to layer [235].

Layer [235] is partly the result of Medieval field fertilisation, (based on a small but notable artefact assemblage of 15th to 17th century stoneware, almost certainly attributable to the layer based on a similarly dated assemblage from an identical layer in field 26). The layer was 'held in place' by probably long standing boundaries. In view of the very similar material found sealing and merging with the enclosure in field 26, it may be that this build up of material dates back to the late prehistoric / Romano-British period, (when the enclosure is likely to have been constructed - see text for field 26).

- ❑ Later material, plus a Neolithic flint came from the topsoil stripped along the length of field 27.
- ❑ The flint reflects prehistoric activity sealed beneath and mixed or redeposited within layer [235].

Field 26 (Figs 16, 17, 18) is positioned on the brow of a hill, and was shown by the geophysical survey to contain an enclosure. Topsoil stripping of the field revealed an identical underlying subsoil to that found in field 27. The layer in this field has been given two separate numbers because it was not continuous. The northern part of this layer was given context number [234]. It produced an array of finds spanning the late Medieval period through to the nineteenth century. A very similar spread or layer, located to the south, was given number [232].

- ❑ Context [232] overlies the area defined as an enclosure (Assessment site 28) by the geophysical survey, and to some extent shielded it from view during the watching brief. Recorded within layer [232] and on the same alignment as the known edge of the enclosure was a slightly curvilinear, 7.0m long alignment of stones [466]. The stones within this alignment were up to 0.5m in size, but fairly loosely fitting. They may represent the remains of a defensive wall or rampart running along the internal edge of the ditch. Unfortunately the pipeline trench at this point did not clarify the relationship between [466] and the recorded section of the enclosure ditch [256]. The stones rested upon natural, but did not extend any deeper. It may be that stones [466] represent the remains of a medieval structure or boundary in close proximity to the later prehistoric enclosure.

Trenching through layer [232] revealed substantial ditch [256], which represented the southern enclosure ditch seen on the geophysical survey. Its profile was steep and deep. It was in excess of 1.4m deep and 2.0m wide at the top. Its base was flat and narrow. In appearance it was very similar to the enclosure ditches found during the Little Quoit Farm enclosure excavations located further south along this pipeline. The northern section of the ditch could not be located within the trench section, probably because the trench cut through the western 'entranceway' plotted on the geophysical survey. Where the ditch was seen in section this is likely to represent a partially truncated profile (in terms of its original depth).

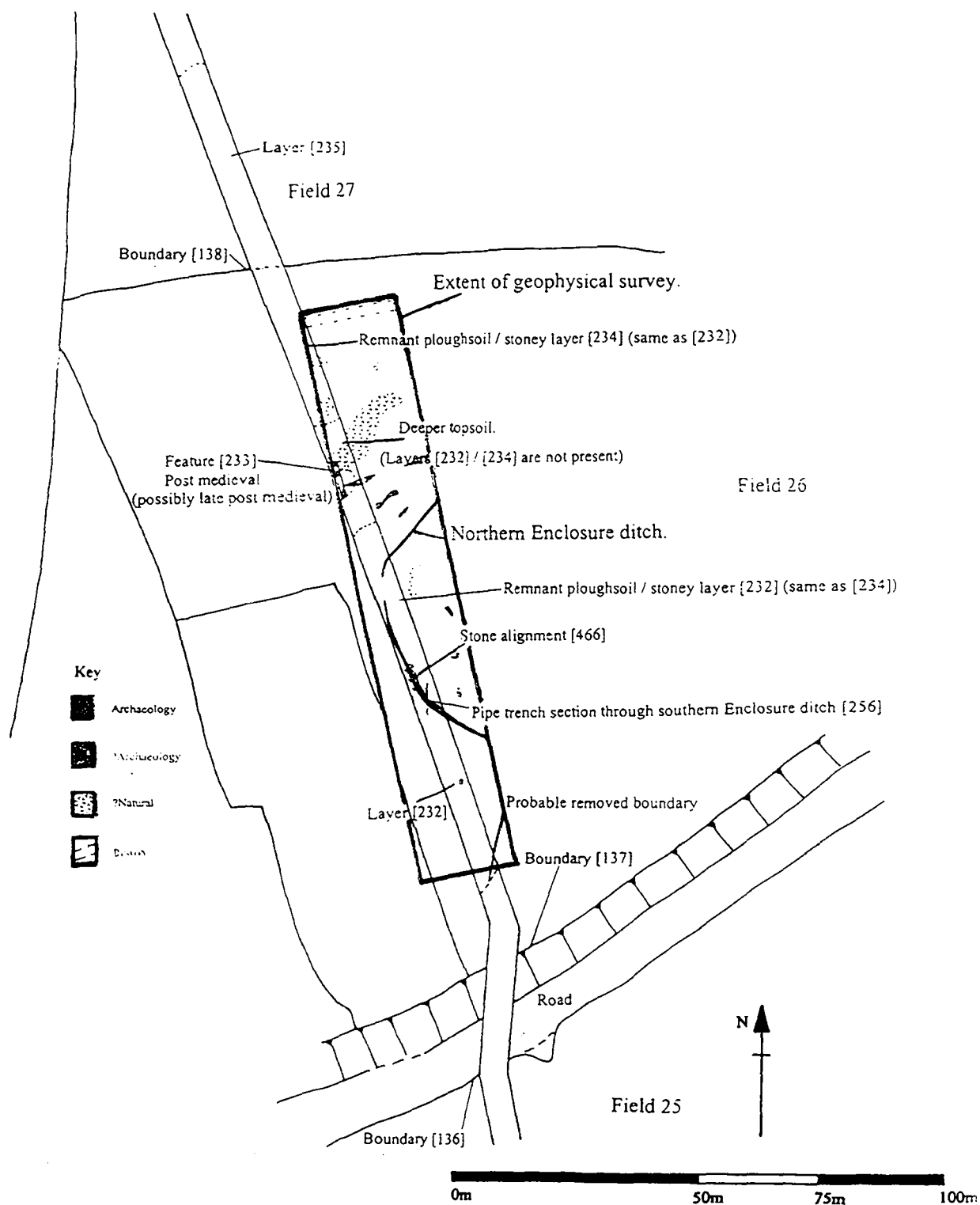


Fig. 16 Plan of the Lanhainsworth enclosure, Field 26, combining the results of the geophysical survey and the watching brief.

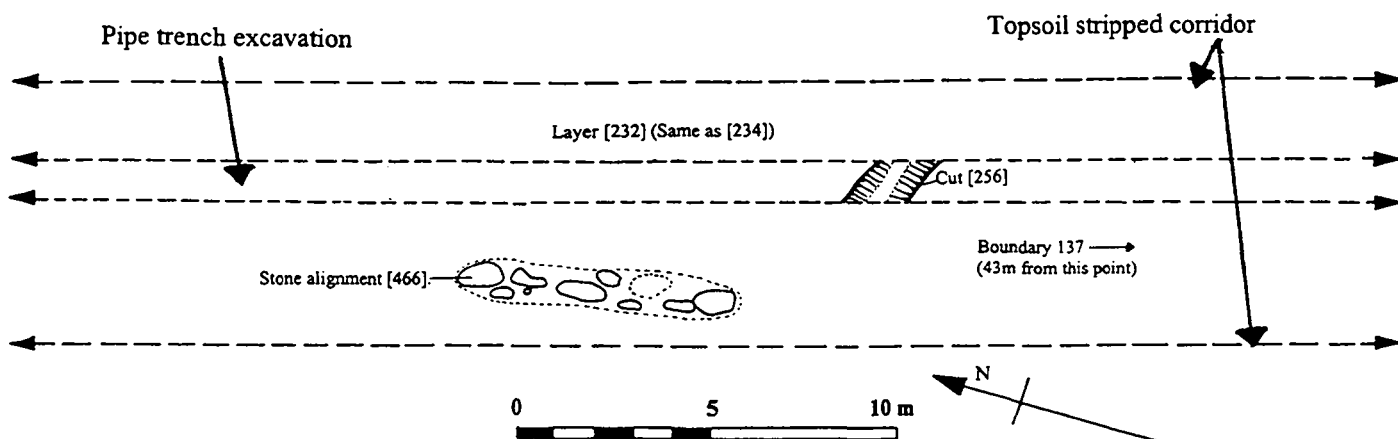


Fig 17 Plan showing ditch [256] and stone alignment [466]

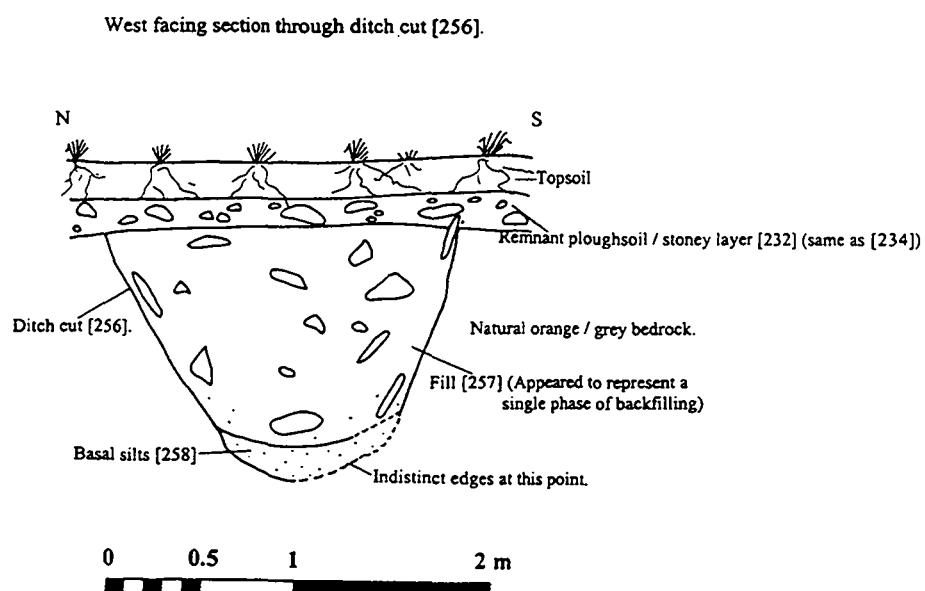


Fig 18 Section through ditch at [256]

Unfortunately no specific finds were found in association with either the enclosure ditch [256] or the possible inner stone circuit [466]. Similarly no specific finds were collected from sealing layer [232]. Unstratified finds from the immediate vicinity include twelve late Medieval pottery sherds indicating that later activity took place above, or over the immediate area of the enclosure or round.

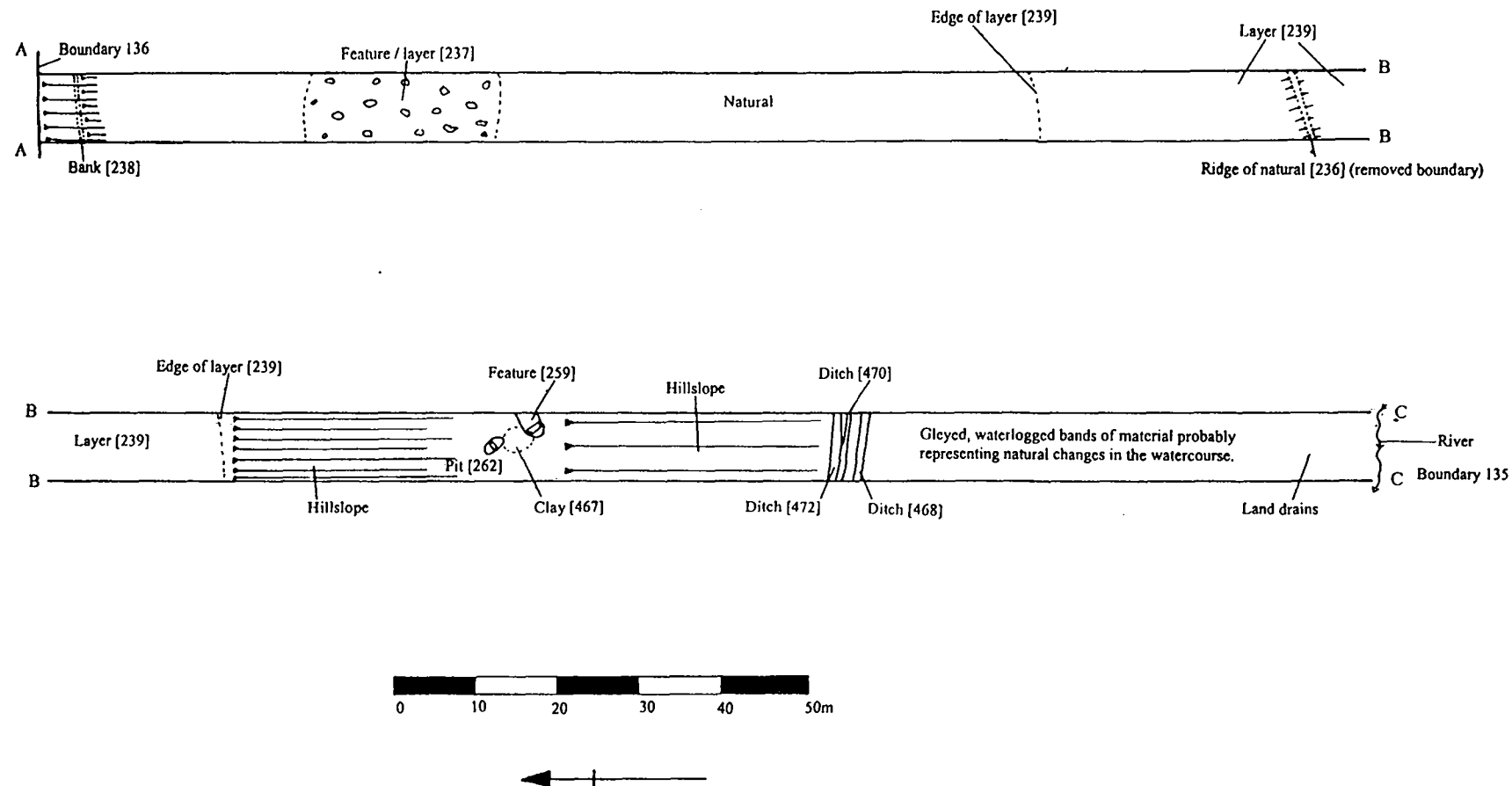
Located between identical layers [234] and [232], (and to the north of the enclosure) was a single, late oval (or possibly linear) feature [233] extending west beyond the stripped corridor. Layers [234] and [232] stopped a few metres short of [233], where they were replaced by a greater depth of topsoil. A single find from feature [233] of a Cornish stoneware handle dated to the fifteenth to sixteenth century would appear to suggest that layers [235]/[234] and [232] were part of the same layer, and that it was in existence prior to the fifteenth century. The two layers would have originally merged to form a single spread across the top of the hill, extending north to cover half of today's field 27 and south to the southern periphery of field 26, at a point where the field starts to drop rapidly down slope towards the road, where the geophysical survey picked up a linear anomaly. This anomaly is included within the assessment as site 28. Its date is unknown, but it is likely to be Medieval (or earlier) since it does not feature on historic maps of the area.

Field 25 (Figs 19-22) produced three ditches, a removed, lynched boundary, two pit features, a stone filled feature, and boundary associated bank [238]. Bank [238] runs east to west along the southern side of the road and marked the northern most extent of this field. It was composed in part of quartz blocks and appeared to mark a lynched boundary, which dropped down very steeply on its southern side. Located just to the south of this was a stony expanse [237] which could possibly mark the vicinity of a removed building (Assessment site number 27) shown on the Tithe map. Approximately 70m further south is the start of sealed subsoil layer [239]. As with layers found in fields 26 and 27 this layer was markedly more stony than the current topsoil. Spanning an approximate 80m length of the corridor this layer was dissected by a central ridge of surviving natural shillet [236] marking the remains of a removed boundary. The boundary had preserved the original underlying natural bedrock, and was located on aerial photographs of the area (Assessment site number 26). It was not found on historic maps of the area which suggests a potential Medieval date. As with bank [238] it appeared to follow the contour of the hill. South of this feature the hill sloped down towards the Menalhyl stream, with the southern edge of layer [239] marking a sudden steepening of slope, probably the site of a lynched boundary of Medieval or earlier date.

Located to the immediate south of the point where the slope levels out to form a terrace were two pit features linked by a near circular clay pad or platform - [467]. Both pit features had slots excavated through them. To the immediate north of [467] was oval, steep sided, flat bottomed pit [262], full of burnt material. Soil samples taken from contexts [263] and [264] both provided sufficient charcoal for a radiocarbon dating. A Bronze Age date of 1521-1431 BC was obtained from context [264]. Unfortunately environmental information was limited to wood/fuel charcoal. No other plant/seed/grain remains were found. (See sections 4.4, 4.5 and 4.7).

To the south-east of the clay pad or working area was the western terminal of elongated pit feature [259] running off towards the north-east. Again the fills exhibited some signs of burning (see contexts [260] and [261]). Neither of these pit features produced any finds, making their interpretation problematic. Unfortunately although a date was obtained from the soil samples, no evidence at all was found with regard to function. It is assumed to be a processing site, presumably for agricultural produce or food, perhaps for cooking. No pottery was found, suggesting that it was not associated with pottery production. This discreet, small complex of features was located upon a terrace, likely to be partially artificial.

Fig 19 Plan showing features in field 25





*Detailed plan of field 25 - showing natural and archaeological features*

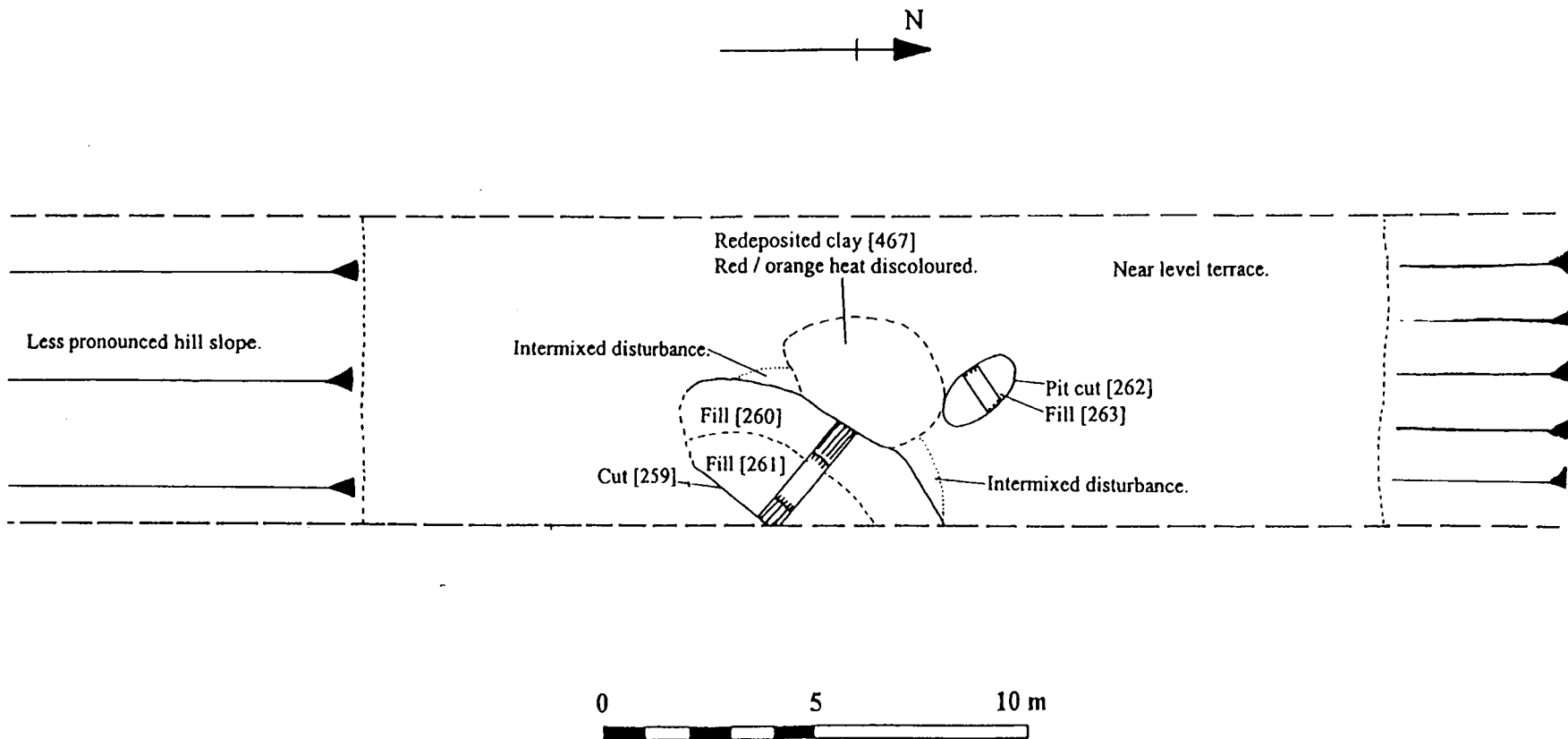
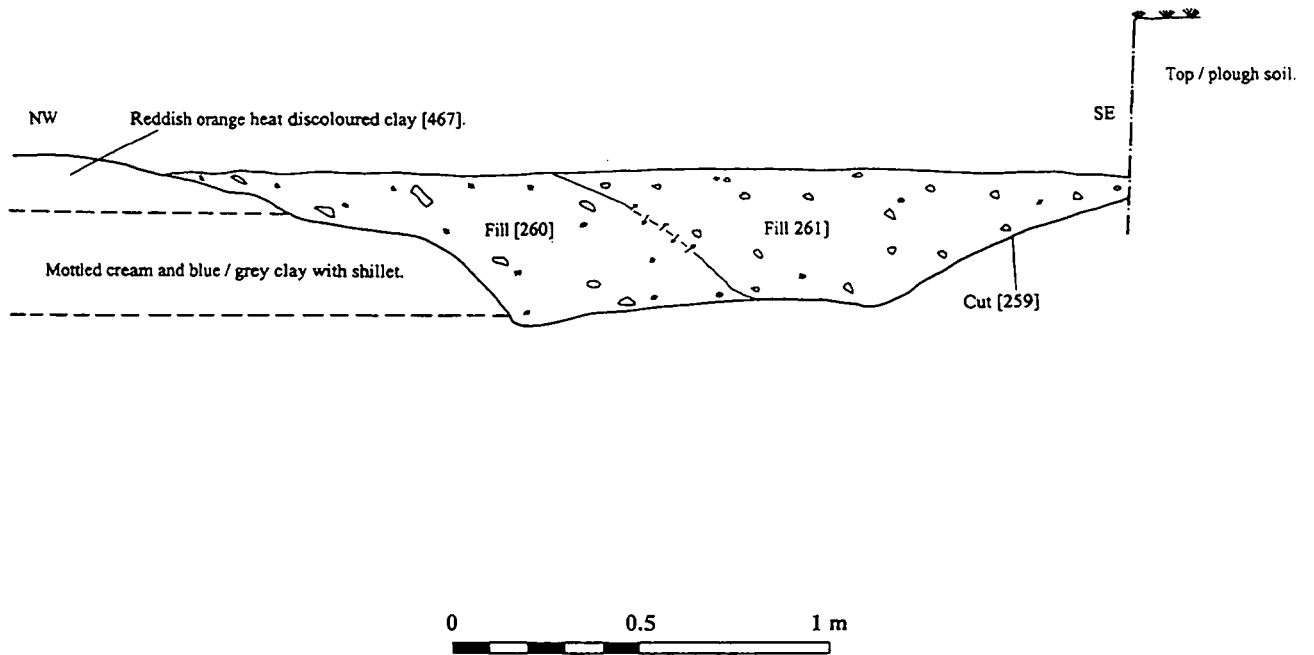


Fig 21 Plan showing pits [262] and [259]

South west facing section through feature [259].



South east facing section through pit [262].

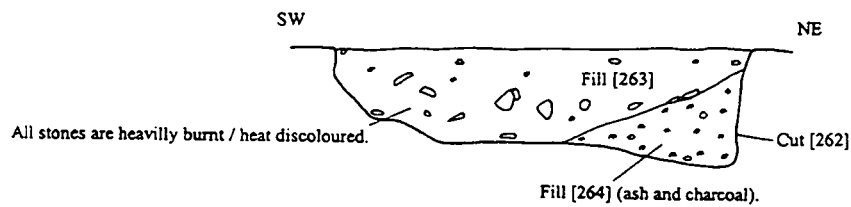


Fig 22 Sections through pits [262] and [259]



Fig 23 Plan showing all features within field 23

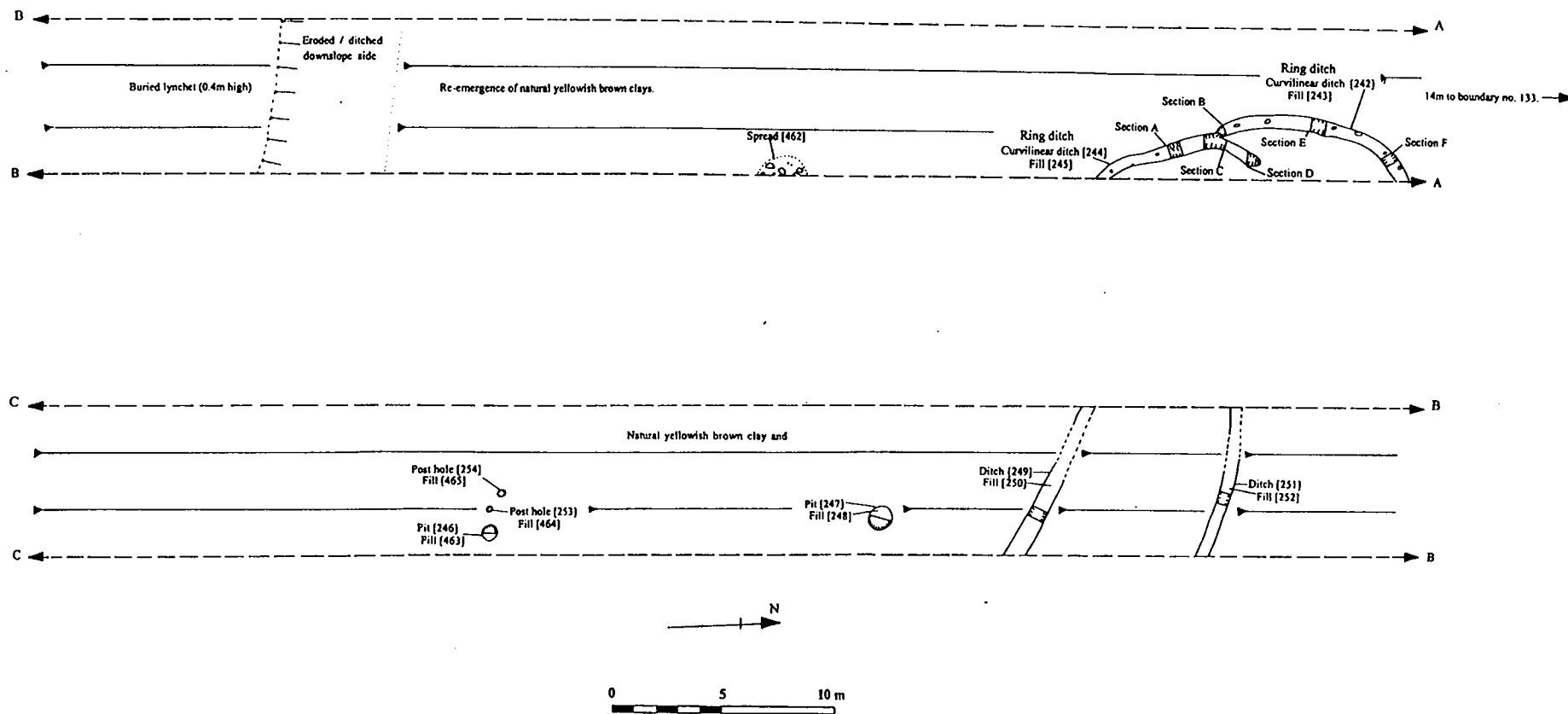
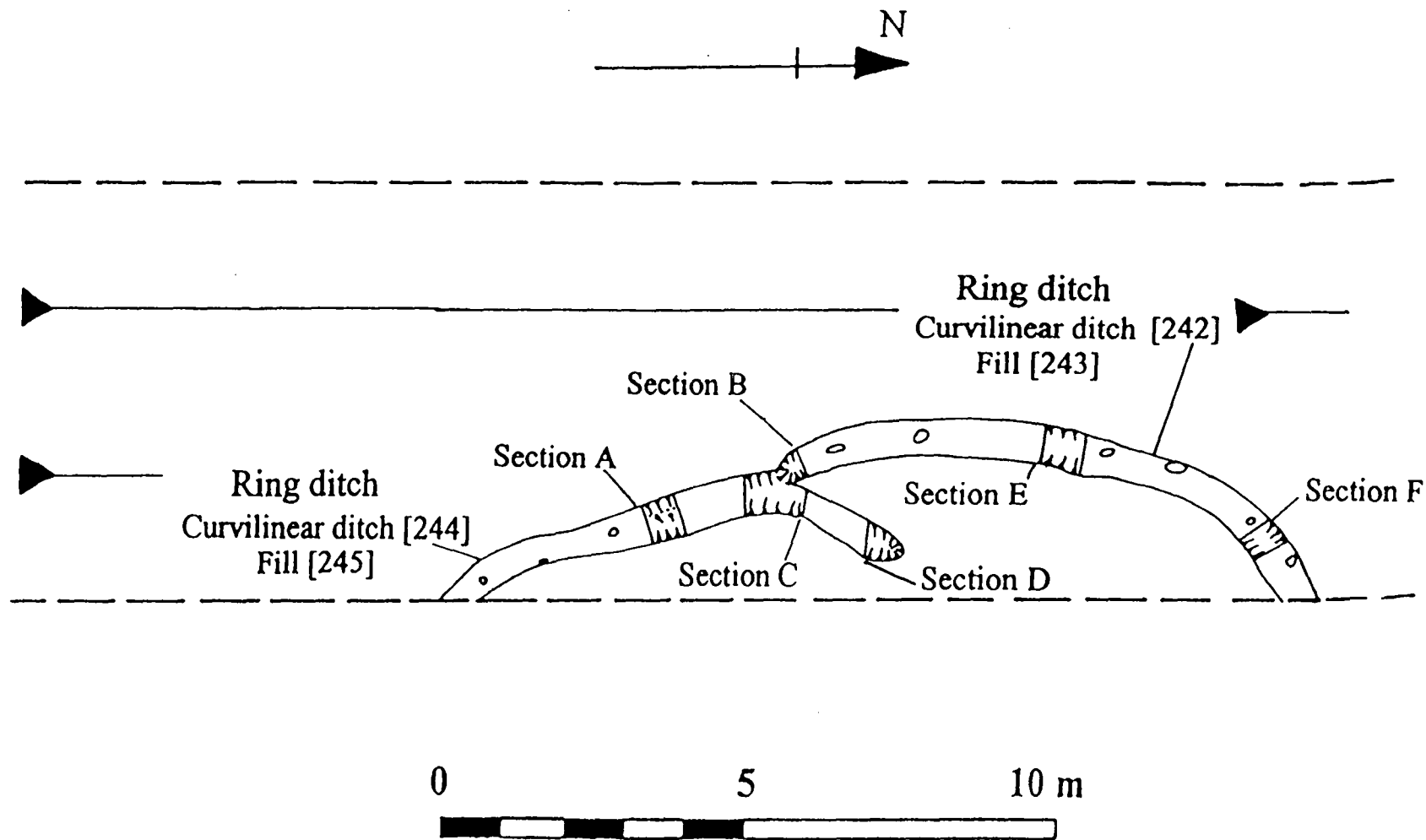


Fig 24 Plan showing ring ditches [242] and [244]



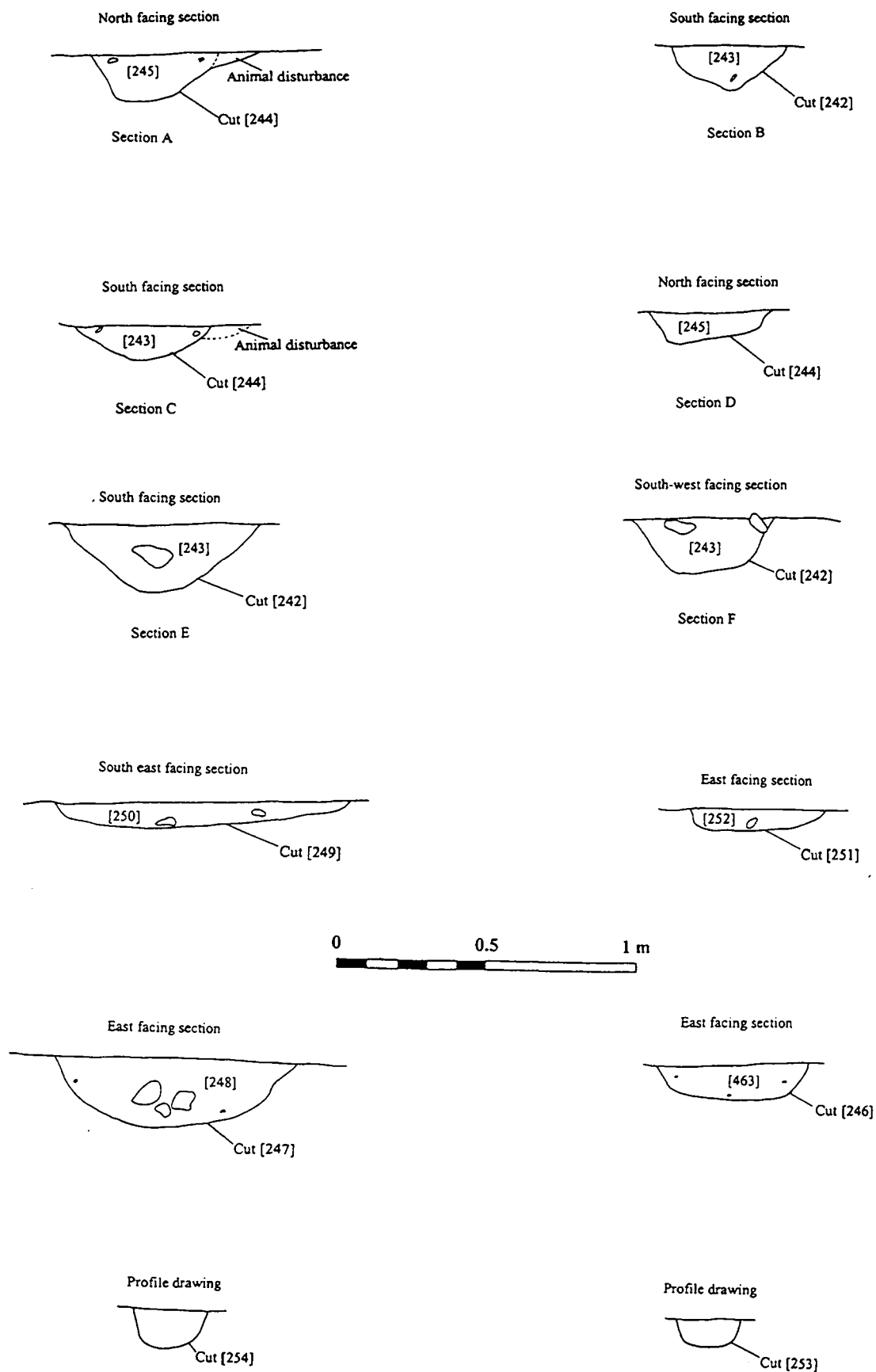


Fig 25 Sections drawn through ring ditches [242] and [244] and features [249], [251], [247], [246], [254] and [253]

Beyond the 'terrace' the field slowly drops down towards the low-lying southern end of the field. Here a series of three ditches were recorded. These represent the removed, probable Medieval boundary referred to in the assessment as site 25. Ditches [468], [470] and [472] suggest that a boundary had stood in the vicinity for some time, necessitating the re-cutting or fresh excavation of at least one of the ditches. The watching brief additionally recorded a number of naturally formed bands of gleyed, waterlogged material and probable course changes of the Menalhyl stream in the past.

Finds from this field include a range of fifteenth to twentieth century artefacts including various forms of pottery and clay pipe fragments. Five undiagnostic potentially Bronze Age prehistoric flints were also found, possibly related to the pit activity discussed above (to the south of the Menalhyl stream, in field 23.)

Field 24 did not produce any archaeological features during the watching brief. Only a single unstratified post Medieval sherd was found. The Menalhyl (a small stream) forms the northern boundary of this field which is narrow, low-lying and partially waterlogged with visible bands of gleying.

Field 23 (Figs 23, 24, 25) produced a number of features, the most significant of which are the adjoining potentially circular ditches located at the northern, lowest lying, end of the field. Ditch [242] was the most northerly. Its northern most extent ran off towards the east beneath the corridor edge. The southern end terminated at its junction with ditch [244]. Ditch [244] had a similar round-ended terminal at its northern end while the southern end extended east beyond the edge of the corridor. Three slots were excavated through each ditch, including a section at the point where they abutted. Both features were very truncated and despite careful excavation the chronological relationship between the two could not be ascertained. The southern terminal of curvilinear ditch [242] was marginally deeper than curvilinear ditch [244]. They varied in width from 0.37m to 0.65m, and in depth from 0.18 to 0.22m. Each contained a single fill, and each contained diagnostic pottery (of disparate date). See section 4.3.

Ditch features [242] and [244] probably form part of two circular, ditched features with an approximate diameter of 10m each, one probably pre-dating the other. The identification of part of an almost certainly, residual Early Bronze Age probable collared urn from ring ditch [244] (fill [245]) originally suggested that both should be seen in terms of a funerary (ritual) context. The sherd has an unusual character in terms of its incised decoration for Cornwall, giving rise to the possibility that it is 5<sup>th</sup> or 6<sup>th</sup> century AD in date (a period during which we know very little about), which would appear to be most unlikely.

The similarity of the two ring ditches, along with their proximity strongly suggests that they are broadly contemporary. However, in addition to the Bronze Age pottery a probable Romano-British 4<sup>th</sup> century AD sherd was found within ditch [242] (fill [243]) – although this could perhaps extend into the 5<sup>th</sup> (perhaps even the 6<sup>th</sup> century – according to Quinnell's report, section 4.3.3). An unstratified piece of Early Iron Age pottery from slightly further south in the same field was also found. Thus we have three very differently dated sherds. Things are further complicated in terms of the ditches interpretation in that the charcoal from the soil sample produced an early medieval date of the 5th to 6th centuries AD (see section 4). Early Medieval features are notoriously few and far between in Cornwall, and are often difficult to adequately interpret. These fall within this category. At the moment it is felt most likely that they represent somewhat elusive domestic structural remains of this period.

It is unfortunate that the results of the watching brief and the geophysical survey do not correspond. However, as a consequence it has shown that the ditches represent part of a dispersed complex of features, probably of variable date. The pit alignment located by the geophysical survey is not directly dateable, but its proximity to the ditches suggests that they too are either Early Medieval in date or prehistoric (based on the pottery found in the field).

Located approximately 15m to the south was a small, ephemeral stony spread [462] extending east, beneath the edges of the corridor. Its function and date is unknown. Positioned 25m to the south of this was the line of a removed lynchet boundary, demarked by a sudden rise in slope and deepening of soil depth. Further to the south again were two ditches, set 10m apart, contexts [251] (north) and [249] (south). Both had slots excavated through them, but no artefacts were found. They were not seen on the geophysical survey and do not feature on either the Tithe or later maps. Again it is likely that they relate to a Medieval (or a late prehistoric) landscape. Five metres south of ditch [249] a 1.6m diameter, circular pit, 0.5m deep, was discovered - context number [247]. It produced a single Mesolithic microlith, plus an undated notched slate. Located c20m south, were two further postholes and a small pit - numbers [254], [253] and [246]. None produced finds. It is considered very likely that pit [247] and [246], plus postholes [253] and [254] are prehistoric, and that originally there may have been significantly more in the area.

Unstratified finds from the field range from a prehistoric bodysherd and a flint, through to fifteenth century pottery, eighteenth century clay pipes, and twentieth century vitrified fire-bricks.

Field 22 did not produce any archaeological features. Finds ranged in date from the late Medieval period through to the nineteenth or twentieth century. The vast majority of it was stoneware.

#### **3.4.4 Boundaries**

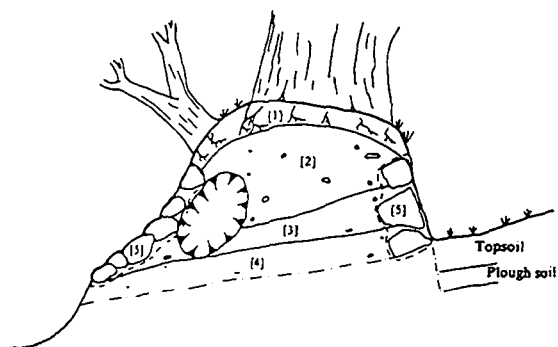
The Lanhainsworth area was recorded in the assessment as containing ten boundaries, numbered 140 to 131. Boundary 134 had been removed prior to the watching brief starting, and boundary 138 was not affected due to a slight route alteration. Boundary 131 was not breached because it had a gate in the immediate vicinity of the corridor. Of the remaining seven boundaries, 139, 137, 136, 135, 133 and 132 were recorded in detail. Boundary 140 was not recorded because it was known to be modern in date.

All the boundaries within this area featured on the Tithe map, and some may be Medieval in date. (Evidence for the removal of other boundaries, referred to in the section 2.4.3, can be assumed to relate to earlier post-medieval or earlier field systems, only part of which survive today as extant boundaries). Boundary 139 was associated with Tregamere settlement (SMR site number 21682). Boundaries 136 and 135 relates to Lanhainsworth settlement (SMR number 21640). Boundaries 131, 132, 133 and alignment 134 were all related to Tregatillian (SMR settlement 21649).

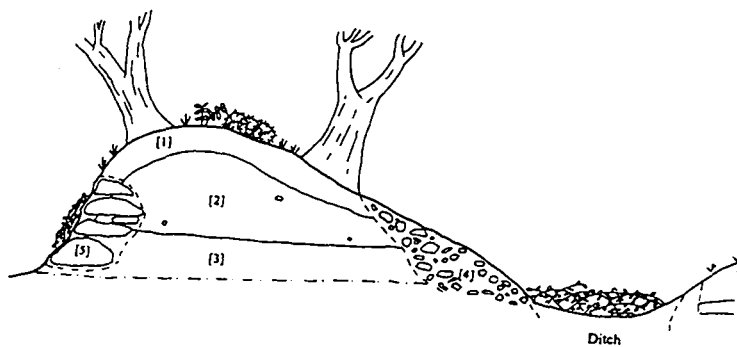
Boundaries 132, 133, 136, 137 and 139 all had at least four contexts recorded in their sections. Boundary 135 had five, and was considerably larger than the others. It was in excess of 4.0m wide and 3.0m high, and flanked by River Menalhyl on its southern side. Few of these recorded boundaries were seen down to a buried soil or the underlying natural, and as a result few have revealed their associated ditches. Boundary 136, as mentioned in the previous section, was mirrored by bank [238] on its southern side, suggesting that the two were designed to function together and perhaps that they have equally early, potentially medieval, origins.

None of the boundaries produced clear evidence for undisturbed buried soils, hidden stone faces, or gradual shifting through time. However, this is likely to be more of a reflection of the limited sections available for recording at depth. Boundaries 135 and 139 appear to contain the completely submerged remains of previous, smaller (but still stock-proof boundaries) which have become completely swamped by their gradual expansion and continuation of use.

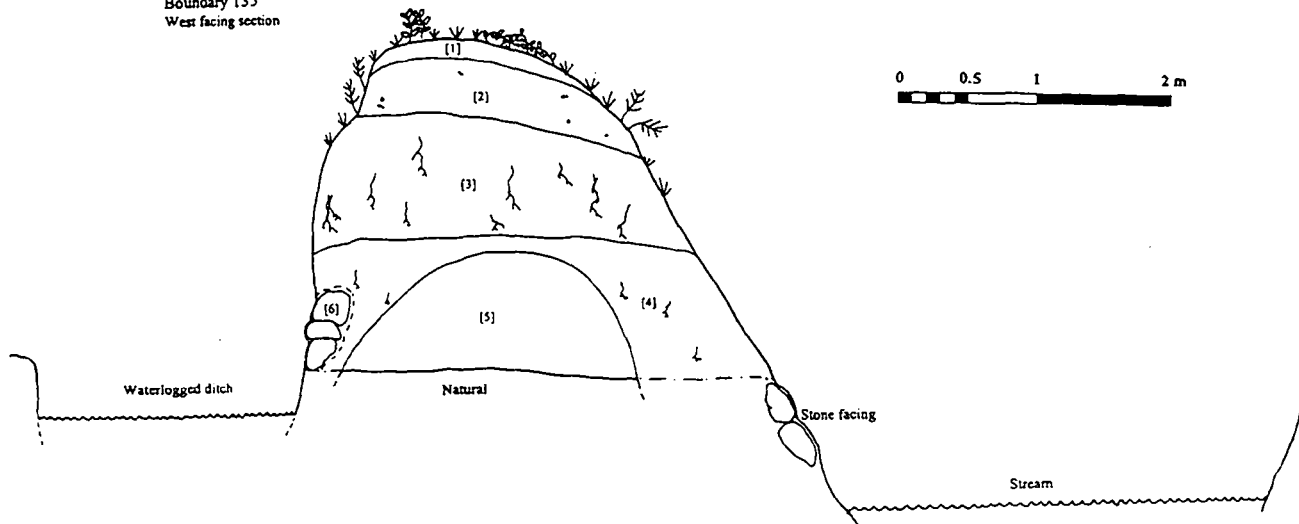
Boundary 132  
West facing boundary



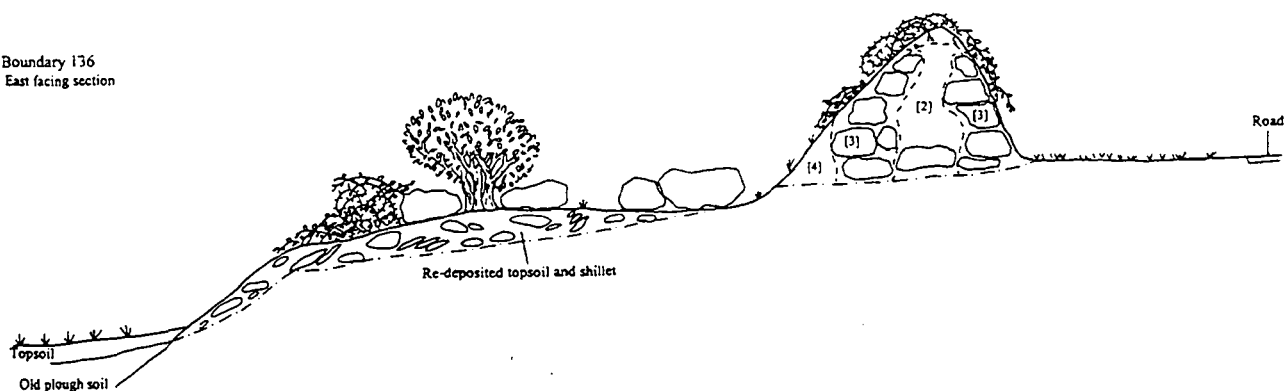
Boundary 133  
West facing section



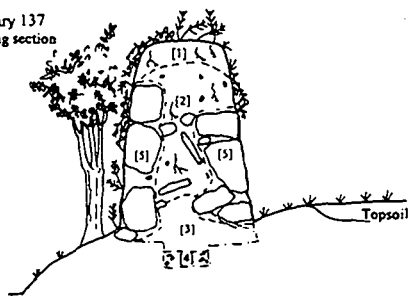
Boundary 135  
West facing section



Boundary 136  
East facing section



Boundary 137  
East facing section



Boundary 139  
East facing section

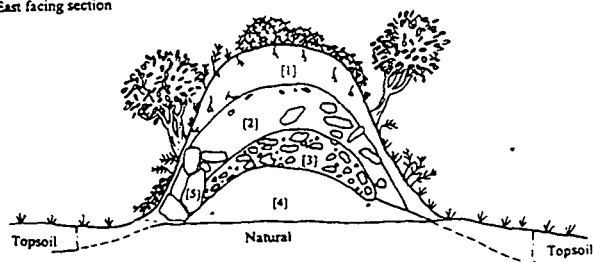


Fig 26 Boundary sections within the Lanhainsworth area.

### 3.4.5 Conclusions

This section of the pipeline has produced a significant array of boundaries, features, sites and finds. Extending from one hill top plateau in the north, down a periodically steep slope into a low-lying level valley bottom, occupied by the Menalhyl stream, and then back up the other side. It traverses a wide variety of environments, which are clearly shown by the watching brief to have been used both extensively and differently through time. This picture is what might have been predicted given that it lies amidst Anciently Enclosed Land, with evidence of settlement activity in the Middle Bronze Age, Early Iron Age, Iron Age or Romano-British period, and 5th to 6th centuries AD. Two of the sites, however, the Bronze Age pits and the early medieval ring-ditches, are not typical of what is known in Cornwall, in form and in setting, and are therefore of particular interest and importance.

An unexpected Bronze Age date was obtained by radiocarbon dating for the two pit features in field 25. This small and difficult to interpret group of features appeared to represent a localised processing area, presumably of agricultural produce or perhaps of a natural material eg clay working; they were located in close proximity to a known source of gleyed material (clays and sorted silts associated with the Menalhyl stream. The site's location low on a valley side may be related to its function, and is also an important indication of the archaeological potential of such locations. Unfortunately these extremely interesting and unusual Bronze Age features were not seen fully in plan, were not fully excavated, and as a consequence are not fully understood. They would most certainly merit further research.

Late prehistoric / Romano-British small, univallate enclosures, of the sort found in field 26, (and field 12) are frequently found in Cornwall, (where they are referred to as 'rounds'). Many have been ploughed out and thus only come to light via aerial photography (Griffith 1985, 149-155) or geophysical survey. They can be found on hilltops and slopes, or in lower, less obviously defensible settings. The majority have simple entrances and surrounding ditches which rarely exceed 2.0m in depth, (Quinnell 1986, 115). They can often be found in groups of two or three (Rose and Johnson 1983, 101). Some enclosures appear to have continued to have had some relevance during the earlier Medieval period (Rose and Johnson 1983, 102), although comparatively few have been excavated in their entirety. In general excavation has been limited to portions affected by development, eg Trethurgy (forthcoming), Reawla (Appleton-Fox 92), Penhale (Nowakowski 1998), Killigrew (Cole, forthcoming), Little Quoit Farm (Lawson Jones, forthcoming). The majority of the above have been looked at recently. They show that the function of a round varied, including the enclosure of primarily domestic activity, or the containment of industrial (metalworking) activity. Additional functions may also be applicable for example the safeguarding of animal stock and / or grain supplies and potentially the people themselves.

Features similar in plan have been found in Cornwall in recent years, primarily as a result of geophysical survey in advance of landscape development or as research. Excavated examples are generally of Iron Age date, and include Trevisker (structure Z1) at Threemilestone and (early gully 1) at St Mawgan, which were both interpreted as defining houses (see Appleton-Fox 1992, 75). At Carngoon (Mc Avoy *et al*, 1980) a similar feature was interpreted as a drainage gully, and at Trevinnick (Fox and Ravenhill, 1969) two such 'ring' features were interpreted as small stock enclosures. More recently the Trispen bypass revealed two single entranced ring ditches in a very similar low lying position, just to the north of Trispen (Cole, 1996). Interestingly large pits were also in the vicinity, much like this site. Recent geophysical work at Pentireglaze, overlooking the Camel Estuary revealed a series of probable mid to late Iron Age structures, (Anderson and Pulley, 1998). At Lelissick an area geophysical survey revealed some seventy, 10-13m diameter structures, many of them intercutting (suggestive of house replacement and settlement longevity) were found. Central features were interpreted as hearths; (although the possibility of the ring ditches representing a funerary complex with central graves is also mentioned as a secondary

interpretative theory), (Payne, 1998). Our two ditches produced not only diversely dated pottery but also an unexpected earlier Medieval date via radiocarbon dating. Combined, these dates for Field 23 strongly suggest prolonged activity in the immediate vicinity - spanning the prehistoric period through to the Medieval. As with the Bronze Age site in field 25, the location of the site close to the valley floor is unusual, and certainly not typical of later prehistoric and medieval sites.

Elsewhere along this section the removal of long standing boundaries, which have preserved old ground levels or caused visible breaks in the slope (via lyncheting) were recorded. These fit nicely with the picture of an anciently enclosed landscape. Assemblages of fifteenth and sixteenth century pottery reflect the known Medieval farming settlements of the immediate vicinity. The presence of such material is a direct result of domestic waste disposal and past local soil improvement regimes. The fact that this activity is still visible as a clearly definable subsoil layer, associated in part with what were contemporary (but now removed) field divisions and domestic, dateable refuse, is perhaps more notable, ie. field 26.

The two 'ring' ditches in field 23, dated to the 5th and 6th centuries AD, are more unusual. Sites of this period are exceptionally rare in Cornwall, making this potentially a very important site for understanding the character of settlements in the post Roman period. The current project allowed only a key-hole glimpse of the site, and it is also unfortunate that preservation is not good. The ring-ditches have over the centuries been truncated by ploughing (perhaps severely), making field interpretation initially difficult. The contemporary ground levels or surfacing have now vanished, along with associated sherds of contemporary pottery. The fact that the centres of these features were not exposed means that any central or focal features could not be recorded.

### **3.5 Tregatillian / Roserrans**

#### **3.5.1 Assessment**

This section of the pipeline is located between grid reference SW 9202 6353 and SW 9245 6239. The assessment focuses on the known Medieval (or earlier) boundaries which were marked on the 1840s Tithe map, some of which have since been removed. These boundaries were associated with the Medieval settlements of Tregatillian, first recorded in 1327 (and located in the northern part of this segment), and Roserran, first recorded in 1321 (and located in the southern part of this stretch). Tregatillian is listed within the SMR as PRN 21649, and Roserrans as PRN 21646.

This whole area falls within land categorised as an Anciently Enclosed Landscape. Topographically the landscape drops gently down from the north and the south to form a centrally located broad valley to the immediate west of Tregatillian.

Fields for the area are numbered 21 to 15, and tend to be fairly large and angular (primarily due to the removal of internal Medieval field boundaries, but also perhaps to early post-medieval reorganisation of agricultural land.

#### **3.5.2 Geophysical survey**

Geophysical survey on this section of the pipeline did not take place due to the presence of mature crops in each of the fields along the route.

#### **3.5.3 Field work - features and finds**

Despite this stretch of the pipeline being walked numerous times no archaeological features were found. Topsoil stripping was periodically patchy (but no more so than along much of the rest of the route). The reason behind this lack of features would appear to be the result of prolonged agricultural use of these fields. The frequency and depth to which ploughing has taken place over



the centuries has cut down in to the underlying natural clay shillet, removing cut features and intermixing finds of varying date. Only the most durable or the most recent of finds have survived this activity.

Field 21 produced thirteen later Medieval coarseware sherds, twenty nine pieces of seventeenth to twentieth century pottery and glass, a fragment of roofing tile, clay pipe fragments, undated pebbles, a flint and part of a probable prehistoric quernstone. The quernstone indicates prehistoric settlement in the vicinity and should probably be seen in conjunction with the flint. The removed boundary (Assessment Site number 23) was not seen within the corridor, having been ploughed out in recent years.

Field 20 did not produce any features or finds. It is the only field in this section not to have produced a finds assemblage. Field 19 produced an array of 13th to 20th century material including pottery, glass, and a 'Christmas tree' ridge tile fragment. Pebbles and a flint were also found.

Field 18 produced two pieces of prehistoric pottery and five flints - all suggestive of ploughed out, probable prehistoric settlement activity. This assemblage would suggest that a relatively undisturbed Medieval ploughsoil had been preserved beneath today's topsoil, prior to the topsoil stripping of this corridor. Prehistoric pottery could certainly not have withstood prolonged ploughing. In addition a selection of 15th to 20th century material (primarily pottery) was found. This field did not produce any evidence for the removed, probable Medieval trackway (assessment site no. 22). It had been totally ploughed away and levelled.

Field 17 produced fifteen pieces of 13th to 14th century pottery, plus material dating from the 15th to 19th century. A piece of modern land drain was also picked up. Fourteen flints (some nodular and probably Neolithic in date) and nine undated pebbles were also collected. The flint is likely to relate, (at least in part), to the prehistoric material found within fields 16 and 18.

Field 16 produced two, near centrally located, but separate scatters of material which were remarkably similar in date range and character. Both assemblages were picked up from within the topsoil stripped corridor and neither had associated features. The material from which the assemblages came represented the basal 'skim' of a surviving old topsoil (possibly a plough soil) which contained late prehistoric and earlier Medieval pottery. The presence of natural undulations appears to have preserved small pockets of this layer from later, deeper ploughing. The layer was no more than 5cm thick, mixed and compact. It had occasional flecks of charcoal and merged with the natural underlying clay shillet. It did not extend out to the edges of the corridor section, and where it did remain it was both ephemeral and amorphous in plan. The northernmost spread was named F.16 A and the southernmost one F.16 B. Both scatters contained six pieces of flint (including burnt material which is often seen as indicative of settlement activity). In addition pottery has been dated to the 4th to 1st centuries BC, and the Medieval period. It is likely that there was an Iron Age settlement in the vicinity.

Spreads F.16 A and F.16 B are very similar in terms of both mixing, and the number and type of pieces. They almost certainly represent a fairly early Medieval plough soil which intermixed material from underlying prehistoric features and settlements with contemporary (13th century) domestic waste. It is probable that the surface of the field was far more hummocky than today, - some of these undulations being the result of prehistoric activity. Over the years these undulations have been levelled by consecutive seasons of ploughing. This would account for the lack of expected settlement features such as ditches, gullies and postholes, all of which would have been severely truncated and eventually lost.

Apart from the two pockets of material described above, field 16 also produced other, related material from today's topsoil. Seven pieces of thirteenth to sixteenth century coarsewares, forty pieces of seventeenth to twentieth century stone wares and glass, four undated pebbles and a

single flint. The constant disturbance of this material via ploughing will have gradually broken down the more friable artefactual material, such as prehistoric pottery, while also gradually shifting material according to slope.

The assessment located two removed boundaries within the northern half of this large field (assessment sites 20 and 21), but neither was seen during the watching brief. Assessment site number 19, located in the southern part of today's field 16 marks the central position of Higher Cross Close, suggesting a probable stone cross site associated with Roserrans settlement (Assessment site 19). No evidence for the cross was found.

Field 15 produced a fifteenth to nineteenth century collection of material, plus three undated fragments of slag, an undated shillet whetstone and two flint pieces. Assessment site number 18 was located within this field, but was not seen during the watching brief.

Despite the lack of features from this section of the pipeline, the fields have produced a noticeably large prehistoric and earlier Medieval assemblage of finds. This is to a large extent a predictable reflection of the area having been anciently enclosed. The finds represent long term settlement activity in the area, while the lack of features represents the erosive effects of long term agricultural ploughing across the area, which probably started during the prehistoric period, but did not start becoming a threat to the archaeology until the later Medieval period.

#### **3.5.4 Boundaries**

The assessment noted nine extant boundaries for this stretch of the pipeline. Numbered 130 to 122, all nine featured on the Tithe Map and were considered to be Medieval in date. Boundaries 127 and 128 were shown on the Tithe Map as associated with Tregatillian Medieval settlement, while boundaries 122 and 123 were associated with Roserrans Medieval settlement. Boundaries 130, 129, 127-5 and 123 were recorded in section during the watching brief. Boundary 128 was missed, boundary 122 was avoided due to a slight re-route of the pipeline, and boundaries 124 and 122 were not breached due to available gateways.

None produced clear evidence for ditches, but this is more a reflection of the depth of the breach. Two of the boundaries had their basal deposits shielded from view due to the piling up of material in preparation for hedge reconstruction, and three were complicated by the presence of substantial tree roots within the section. Boundaries 123, 126, 127 and 130 all showed the remains of surface stone facing.

Boundary 130 may have had a preserved layer of old land surface, but tree root activity had caused quite severe intermixing of soil and natural. Boundary 129 produced both a probable buried soil, left standing above today's ground level, and the initial, basal quarried ditch material, in the form of redeposited natural. Past root activity and possibly mole burrowing had caused fairly severe disturbance between the two layers. Boundary 127 revealed at its base the remains of a possible earlier stone boundary. A marked, stony, compact pale 'dump' was seen in both sides of the breached boundary. It appeared to represent an initial build up of quarried material from a flanking ditch, plus an additional stone element - perhaps the result of early field clearance, (potentially of prehistoric or Medieval date). Boundary 123 also revealed the original quarried material, but the section was only seen at a very oblique angle.

Boundaries 126 (potentially 127), 129 and 130 all preserve an earlier boundary within the later enlarged boundary - in effect a process of fossilisation. Both 126 and 130 showed signs of lyncheting having taken place through their long existence.

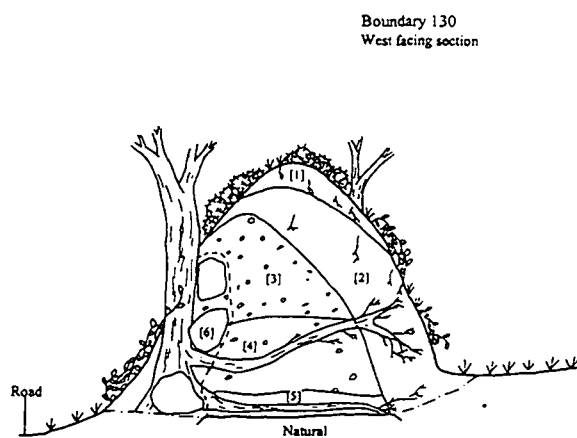
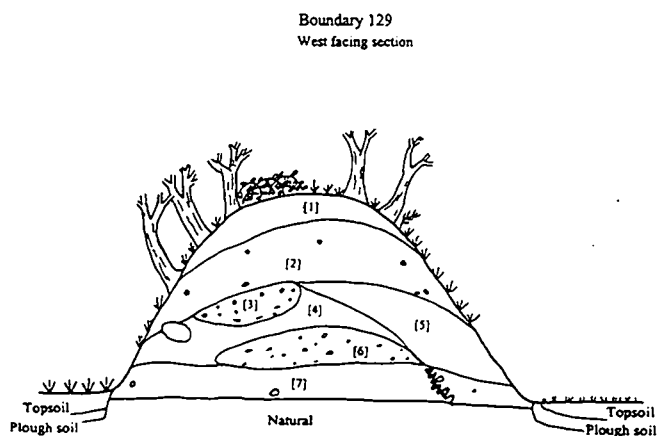
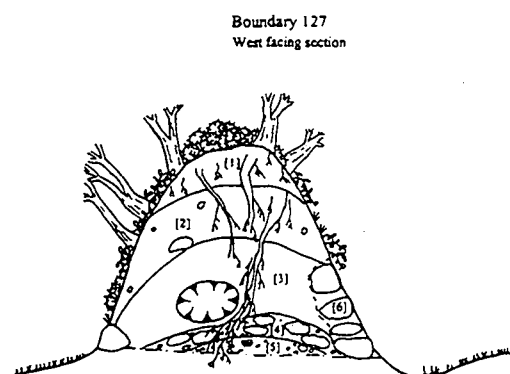
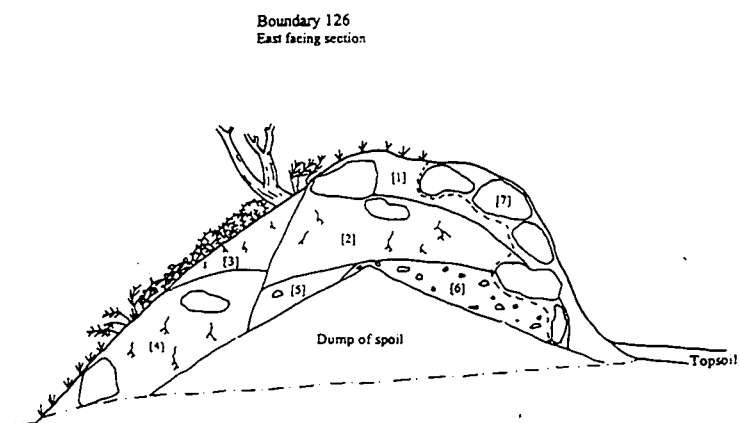
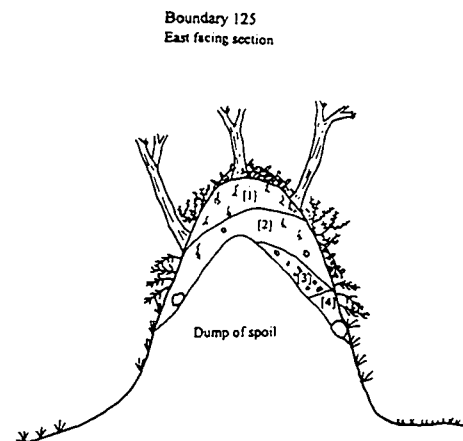
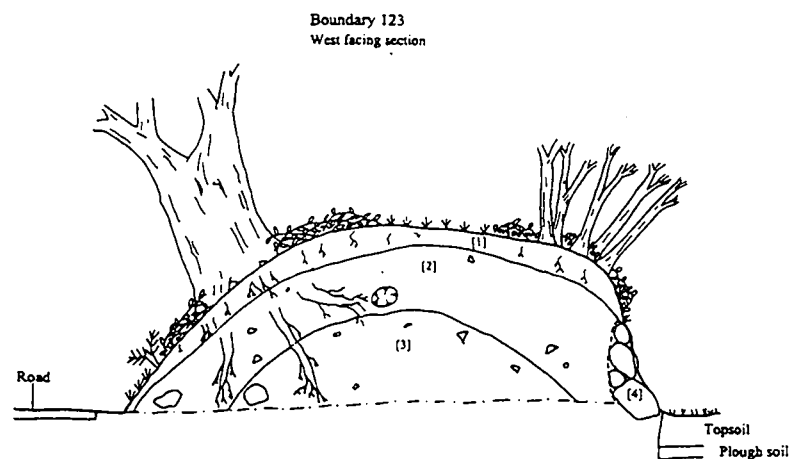


Fig 27 Boundary sections within the Tregatillian and Roserrans section.

### 3.5.5 Conclusions

Despite the lack of features from this section of the pipeline, this stretch has produced a noticeably large prehistoric and Medieval assemblage of finds. To a large extent this is a predictable reflection of the area having been anciently enclosed. The finds represent prolonged and widespread settlement use of the area. The lack of features representative of such continuous activity would appear to be the result of long term ploughing across the area. A good illustration of the erosive affect of ploughing on underlying archaeological features is the removal of all signs of the Medieval boundaries, and a trackway, known to have been removed since 1842.

Boundaries in the area, according to the map evidence, would appear to have seen little change in terms of re-organisation, (although at least four are known to have been removed). The sections show that there has been little shift in their position, (certainly during their later phases). In addition, some of the sections show that continued ploughing right up to the edges of the boundaries has substantially reduced the height of the original surrounding ground level, with the result that the buried topsoils are now higher in level than today's, stratigraphically later topsoil.

## 3.6 Quoit and Ennisworgey.

### 3.6.1 Assessment

This section of the pipeline runs north to south across the top of a broad hill, across the main Castle-an-Dinas road and then drops gradually (and then steeply) down into a low-lying, wet and wooded valley to the west of Ennisworgey. The northern section starts at SW 9245 6239, just to the north of Little Quoit Farm and the southern part ends at SW 9270 6116, to the south and east of Quoit Farm. The fields within this stretch are numbered 14/13 to 8.

Quoit is a known Medieval settlement, first recorded in 1296, and numbered 21643 within the SMR. It takes its name from *Devil's Coyt*, a cromlech or chambered tomb of Neolithic date (4th millennium BC). It was a notable landmark until its collapse in 1840. The probable site of the quoit was examined by CCRA in 1977, when the water main between Ruthvoes and Bear's Down was first installed. It was surmised that, excepting the capstone, the monument had been broken up and the stone dispersed or re-used in near-by hedges (Johnson 1979, 3-11). The Devil's Coyt is located at grid reference SW 9232 6103, in the angle formed between the Spurline and the main north to south pipeline.

The assessment located four removed boundaries within the main north to south line of the pipe, all of which pre-dated the 1842 Tithe Map. In addition a whole series of strong linear and curvilinear anomalies were located within field 12 by geophysical survey. This site was excavated within the width of the topsoil stripped corridor and revealed a Romano-British defended 'round' site with evidence for iron working. The results of this excavation will be dealt with in a separate report (Lawson Jones, forthcoming). Located to the immediate south of this site, (and north of the main road), the assessment also noted the location of field barns shown on the Tithe Map, but now removed.

### 3.6.2 Geophysical survey

Field 14/13 was not accessible for geophysical survey due to the ground conditions. Field 12, (as already stated) produced a series of strong linear and curvilinear anomalies (to be dealt with in a separate report). Fields 10 and 11 did not produce any clear archaeological anomalies. Access was not granted for fields 8 and 9, which is unfortunate since both features and artefacts were located across this area during the watching brief.

### 3.6.3 Field work - features and finds

Field 14/13 produced seventeenth to twentieth pottery, plus a complete leaf shaped arrowhead of Neolithic date (notable perhaps for its proximity to Devil's Coyt). Three ditch features, were located in the southern half of field 14/13. Ditches [477] and [478] relate to a removed boundary, probably that listed in the assessment as site 17, (a removed Medieval boundary). Located approximately 15m to the south was single ditch [479], which because it does not feature on maps and was well sealed is likely to be Medieval or earlier in date (note it is very close to Little Quoit Farm Round).

Field 12 has been dealt with separately. It entailed the excavation of the corridor width through Little Quoit Farm Round (located by geophysical survey and numbered 16 within the assessment), plus the excavation of features to the north (2 pits, 2 ditches and 2 metalled paths) and south of the Round (2 ditches and a broad, linear stony feature). These are all discussed in the forthcoming excavation report.

Field 11 produced a small seventeenth to twentieth century pottery assemblage. The field is very long and narrow with a very recently constructed southern boundary forming the northern boundary for the Castle-an Dinas road. The assessment located field barns within the area, (assessment site 15) which were in existence when the Tithe map was drawn up in 1842. No sign of these structures were seen within the corridor, although the stripped corridor was much narrower at this point due to the proximity of the road and the north to south narrowness of the field. The earlier material within this field's pottery assemblage may in fact relate to the use of these pre 1840 barns.

Field 10 (Fig 28) is located on the brow of a hill. The geophysical survey recorded 'increased levels of background noise' in this field, but no distinct anomalies. This is presumably a reflection of the degree of feature truncation caused by later (post -medieval) ploughing. It produced a small eighteenth to twentieth century assemblage, plus two prehistoric nodular flints of probable Neolithic date (note the proximity to Devil's Coyt). As regards features, four ditches and three spreads or possible pits were located. Three of these ditches - [513], [488] and [490] relate to assessment sites 13 and 14 (removed Medieval boundaries). From north to south ditch [513] and [488] represent the flanking ditches of one boundary (site 14). Ditch [513] (based on fill) may have silted up faster, or fallen into disuse quicker than [488]. Ditch [490] represented removed boundary 13. The northern edge of ditch [490] was still stone strewn, marking the position of the upstanding boundary.

Ditch [489] may relate to the removed boundaries just discussed. If so then it must have been removed at an earlier date, because it does not feature on maps consulted for the assessment. Three spreads or possibly severely truncated pits were found in the northern half of the field. Feature [512] had a 1.9m diameter and a 0.10m depth; feature [511] had a 1.8m diameter and a 0.15m depth; and [510] had a 2.0m diameter and a 0.3m depth. All appeared ashy with occasional spongy charcoal inclusions and small clay lumps within a mixed silty loam matrix. All had suffered from severe worm and past mole activity. None produced finds. Soil samples were not taken due to the degree of disturbance, (and the fact that they had been exposed for a week or so during the ongoing excavations). These features are as a result undateable, but it is tempting to suggest that they are the remains of prehistoric activity due to the lack of associated, mapped features attributable to them, their ephemeral appearance, and perhaps the proximity of both a known Neolithic monument and a later prehistoric/Romano-British site.



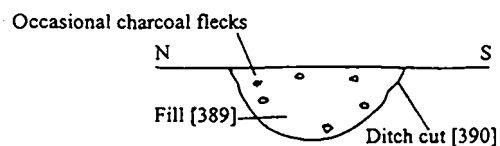
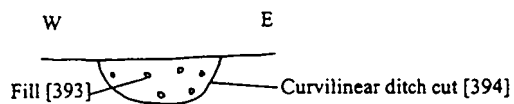
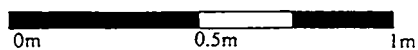
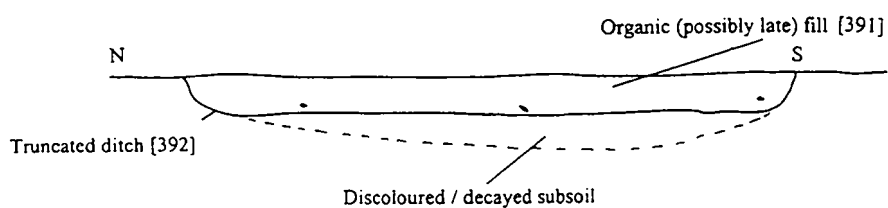
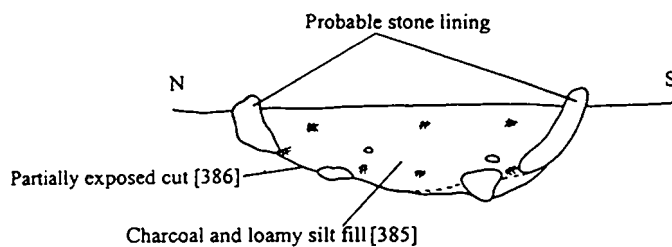
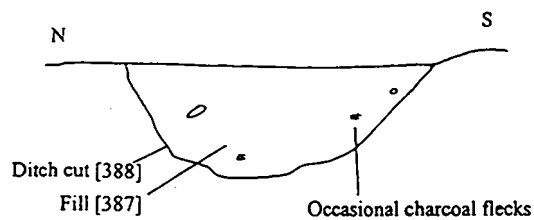


Fig 29 Sections through selected Ennismurphy features

The most significant aspect of the Field 9 finds assemblage is the nineteen prehistoric flints, the majority of which may well be Neolithic in date (eight are nodular and a further two are diagnostically Neolithic). In addition to the finds, a complex of varied features were located across this field, including ditches, gullies, spreads / basal truncated features, and truncated amorphous, linear features (Figs 28 and 29). The lack of a geophysical survey for this field is unfortunate, since it is likely to have helped significantly in the understanding of these features and their spatial organisation. However since many of the features had clearly suffered from truncation, a similar result to the geophysical survey of field 10 is likely to have been produced. The assessment did not locate any sites within this field.

The ditches within field 9, from north to south [388], [509], [390] and [394] all appear to relate to an early, potentially prehistoric field system of broadly north-west to south-east aligned ditches. All are truncated and narrow, while [390] and [394] are distinctly curvilinear. They do not appear to relate directly to the remnant Medieval system of fields visible today. Ditch [392] is substantially wider and may relate to probable linear features [506] and [386], which come in from the east and the west, and terminate within the corridor. It is assumed that they are all removed boundaries. A possible stone lining, dislodged by subsequent truncation was recorded within feature [386], (although it is possible that this represents the collapse of an associated boundary wall into the ditch). A soil sample taken from context [385] within feature [386] provided sufficient charcoal for a radiocarbon date to be attained in the future if required.

Other features found in the field include a large, 3.0m diameter in plan, circular feature [507]; and a north-east to south-west aligned slightly amorphous, linear feature [508]. Neither feature was excavated, but based on similarities in their visible fills, they may have been contemporary. The significance of the possible stony spreads and a large boulder extending beyond the edge of the corridor is difficult to interpret. The un-numbered stony patches may simply reflect the underlying geology, while the boulder may represent a grounder (too large to move and so left). Disturbance noted in the vicinity may relate to either the presence of the boulder or feature [506].

Spatially the arrangement of features within this field would seem to reflect at least two phases of activity. The earliest would appear to be the fragmentary and frequently ephemeral, truncated field system - ditch features [394], [390], [509] and [388]. In contrast, features [386], [506], [508] and [507] all appear later. Ditch [392] is definitely later. It is tempting to suggest that these phases of activity (with reference to the finds and the proximity of Neolithic monuments and Little Quoit Farm Round) relate to the prehistoric ie. Neolithic / Bronze Age period and perhaps the later Iron Age / Romano-British period. It is possible that some of the stratigraphically later features actually continued on into the Medieval period, but were removed by the time that the Tithe Map was drawn up.

Field 8 (Fig 28) did not produce any finds. The assessment noted a single removed boundary of Medieval date running across this field, (assessment site no. 12). It is possible that ditch [505] relates to this site, although it was surprisingly shallow and ephemeral (and was perhaps more akin to the early ditches seen in adjacent field 9. This would imply that had a geophysical been carried out on fields to the north of field 8, many of the features would have registered. In addition, a cobbled farm track was recorded beneath a thin skim of topsoil. It is shown as extant on maps of the area, although it was not immediately recognisable prior to topsoil stripping. It ran between boundaries 115 and recently removed 114. Approximately 16m north of extant boundary 113, a short line of boulders was recorded. These may have represented a removed boundary, perhaps of Medieval date. It does not feature on maps of the area.



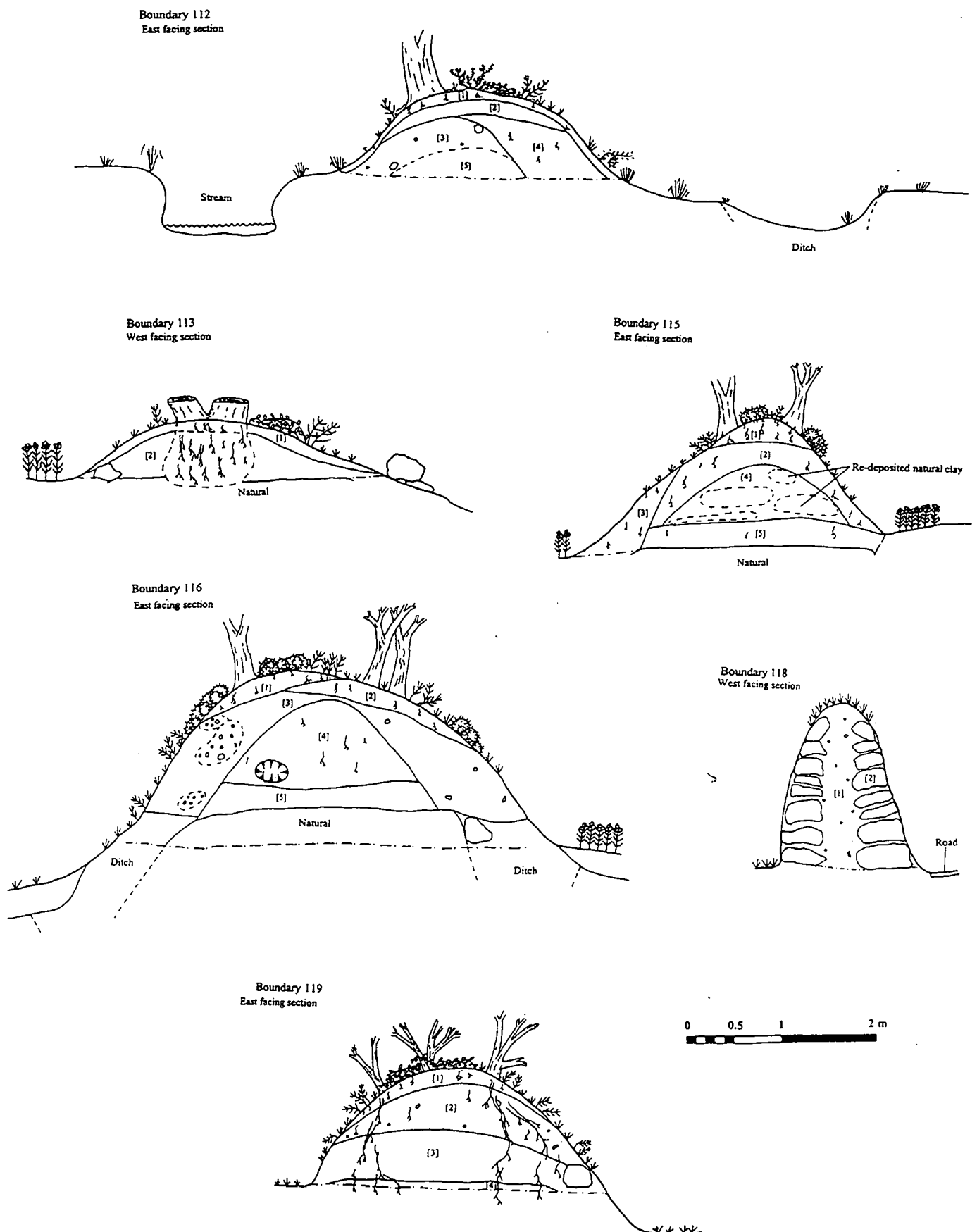


Fig 30 Boundary sections within the Qvort and Ernisworgey area.

#### 3.6.4 Boundaries

Boundaries within the main north to south stretch of the pipeline are numbered 121 to 112. With the exception of boundary 113 (which is post-Medieval in date), they all feature on the Tithe Map of the area. Boundaries 121 to 118 were all associated with the Roserrans settlement at this period, while 114 and 112 were associated with Quoit and represent part of the settlement's strip field system. However, boundary 118 was found to have been recently reconstructed, despite following the same alignment as its precursor.

Boundaries 119, 118, 116, 115 113 and 112 were recorded in section during the watching brief. Boundaries 121, 120 and 117 were not breached (one was tunnelled under, and the other two had gates), while boundary 114 had already been removed.

Boundary 119 had a simple four context build up and no real stone facing. The lowest layer recorded may have represented a rooty buried soil. Boundary number 118 was typical of many recently constructed or reconstructed boundaries in that it was tall and narrow with an intact stone facing of relatively thin, horizontally laid stones as opposed to primary / early field clearance grounders. Its core was composed of topsoil and occasional stone.

Boundaries 116 and 115 were more complicated than the above boundaries. Boundary 116 contained eight contexts, the upper three of which were latest. Context [4] represented the original core of the boundary which overlay a disturbed old land surface, which in turn overlay and preserved the original level of the underlying natural. On either side of this upstanding, broad ridge of natural were contexts which are probably representative of the upper fill of original flanking ditches. Gradually the boundary expanded and spread to preserve this fill. With the continued ploughing on either side of this boundary the ground surface has sunk down, eating in to the external edges of the ditches, which were then revealed in plan during corridor topsoil stripping. Boundary 115 revealed the inner, redeposited natural core of the original boundary, which overlay a rooty, buried soil. The upper layers represent the subsequent development or expansion of the boundary. Neither boundary 116 or 115 revealed extant stone faces.

Boundary 113 is gradually spreading and reducing in height due to a prolonged lack of maintenance, large-scale tree growth and the frequency of flooding. The whole of the central part of the boundary was taken up with a tree trunk and upper roots. On either side of this was a silty clay loam deposit, topped by leaf litter. The once extant stone face was represented by occasional loose boulders. Located to the south of this boundary and continuing on towards boundary 112 was a series of low, water-logged banks, hollows and tree holes etc. Boundary 112 contained a redeposited natural core, plus a later phase of build-up on its northern side prior to the latest layers of naturally formed leaf litter. On the southern side of boundary 112 was a fast flowing stream which was in the process of undercutting its banks.

#### 3.6.5 Conclusions

This section of the pipeline has produced a number of concentrations of activity. The lack of geophysical survey results is unfortunate since it would have helped both in the interpretation of this activity and in our understanding of their extent. The proximity of the Neolithic Quoit may imply that some, at least of this activity is Neolithic in date. Similarly, the proximity of the Little Quoit Farm Round is also likely to have had an affect on the surrounding archaeology.

The presence of burnt flint and the variety and density of different features seen within fields 9 and 10 strongly suggest the presence of a settlement site within the vicinity. These fields have also shown the existence of an earlier field system (presumably associated with this settlement activity), which has since been over-ridden by a new pattern of field divisions and settlement. Since the limited excavation of the Round provided little unequivocal evidence for habitation, it follows that there must be some contemporary settlement and agricultural activity in the near

vicinity.

Related to the Medieval settlement of Quoit and its associated field system are many of the boundaries which have been recorded in section, plus a number of removed boundaries located during the assessment and the watching brief. Although many of these are likely to relate to the Medieval period, it must be borne in mind that some may reflect or incorporate earlier field systems. A number of the boundaries recorded along the pipeline have revealed their original core of material. Although not dateable in itself, the presence of an original core - particularly when overlain by a series of later build-ups, or when the preserved old ground surface (on which the core stood) stands proud of today's field level, implies that the boundary has essentially remained unchanged in terms of alignment and that agricultural practice to either side has either been very long term or severe in terms of erosion ie deep ploughing on a slope.. The watching brief has additionally shown that the pattern or alignment of removed and lost boundaries and ditches can be tentatively phased.

### **3.7 The Spurline**

#### **3.7.1 Assessment**

This section of the pipeline has been dealt with separately as regards fieldwork and boundaries. It represents a fairly substantial addition to the original project outline, and did not undergo either a prior assessment or a geophysical survey, both of which would have aided significantly in the interpretation of the features and boundaries found. The Spurline ran east to west from just north of Little Quoit Farm - SW 9255 6206 to just north east of Quoit Farm (near Walhalla)- SW 9180 6225. It ran across the southern part of field 13, across a lane and then west across four fields, merging with the main Castle-an-Dinas road at its western end. The fields were not given individual numbers (to avoid confusion with the main length of the pipeline), but are instead referred to in terms of their boundaries, lettered A to E from east to west along the line of the route.

Quoit is a known Medieval settlement, first recorded in 1296, and numbered 21643 within the SMR. It takes its name from *Devil's Coyt*, a cromlech or chambered tomb of Neolithic date (3rd millennium bc). It was a notable landmark until its collapse in 1840. As previously referred to the probable site of the quoit was examined by CCRA in 1977, when the water main between Ruthvoes and Bear's Down was first installed. It was surmised that, excepting the capstone, the monument had been broken up and the stone dispersed or re-used in near-by hedges (Johnson 1979, 3-11). The Devil's Coyt is located at grid reference SW 9232 6103, in the angle formed between the Spurline and the main north to south pipeline.

#### **3.7.2 Geophysical survey**

The Spurline was not covered by geophysical survey, since the decision to include it within this project was taken after completion of the main geophysical survey.

#### **3.7.3 Field work - features and finds**

Field 13 to Boundary A (Fig 31) runs west from the main pipeline, parallel to the northern side of boundary 120, up to boundary A which marks the eastern side of the Quoit to Tregatillian road. Located in the western corner of this field was a single north-west to south-east running ditch [498]. It is probably early (perhaps Medieval) and runs counter to today's road and field boundaries. Its dark, organic looking clay fill was quite different to today's ploughsoil which consists of intermixed natural clay/shillet and loam (due to prolonged truncation of the underlying bedrock via ploughing). Between ditch [498] and the main pipeline, the topsoil stripped spurline showed a series of distinct east to west running plough scars cutting into the natural. This field produced the only finds found along the spurline - a prehistoric flint of

probable Neolithic date, found at the eastern end of the spurline, close to the main north to south running pipeline.

Field B to C (Fig 31) runs west from boundary B towards Walhala and Quoit Farm. To the immediate west of boundary B ran three probable land-drains, set between six and seven metre intervals. Running parallel to the road and boundary they are late in date. Approximately eight metres beyond the westernmost land-drain was a 0.4m wide linear band of stones [457]. These almost certainly represented the position of a removed boundary. There did not appear to be an associated flanking ditch. A long, clear expanse of natural was then recorded before a small, oval feature [455], located centrally within the corridor was seen. Measuring 0.5 x 0.3 x 0.07m deep, it almost certainly represents a severely truncated hearth pit (the natural clay in to which it had been cut had been scorched red). It is potentially prehistoric in date, although without the presence of sealed dateable finds or radiocarbon dating it is impossible to be sure.

Ditches [451] and [453], positioned 2.0m apart and located to the west of pit [455], represent a removed boundary (still shown on the 1960s OS map). Context [456] had a 1.4m width and flanked the immediate west of ditch [453]. It may represent a precursor to ditch [453] or it may represent a remnant plough soil, preserved against the western edge of the [451]/[453] field boundary. To the west again lay two amorphous, un-numbered patches of disturbance - perhaps associated with removed trees or past livestock activity.

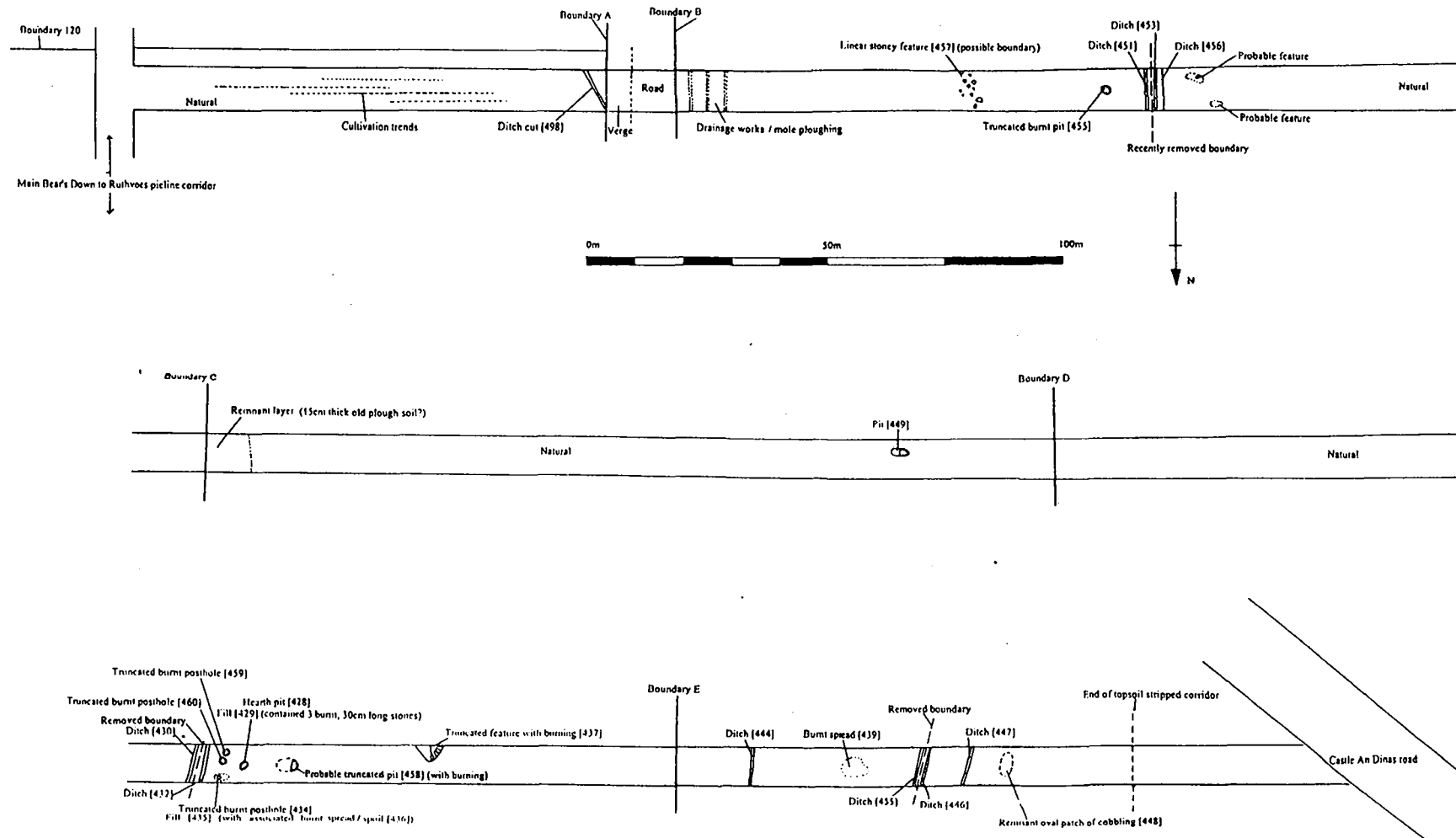
Field C to D (Fig 31) (due west of field B-C) contained a single pit and an un-numbered layer. Down the western side of boundary C ran 10m wide slightly stony layer. This appeared to represent a remnant of the old plough soil (potentially of Medieval date) rather than a track. It had a 0.15m (max.) depth in the excavated section, and did not produce any finds. It contrasted sharply, both with today's darker, near stone-free topsoil and with the underlying reddish coloured natural. It is likely to have been preserved due to its proximity to boundary C. Located in the western part of the corridor was an oval, east to west aligned pit [449]. It had a 1.2m length, a 0.6m width and a 0.15m depth. The rooty fill contained occasional charcoal flecks, but there was no sign of in situ burning or artefacts which might help to date it or assign a likely function.

Field D to E (Fig 31) (due west of field C-D) did not have any features in its eastern half. Located approximately centrally were two parallel flanking ditches [430] and [432], representing the remains of a removed, probably Medieval boundary. Positioned to the immediate west of ditch [432] a series of pits and / or large postholes were recorded - [459], [460], [428], [434] (and [436]). Features [459] and [460] were both shallow (0.05m deep), circular, with a c 0.5m diameter, and set within heat discoloured natural. Feature [428] was similar in terms of size and shape but significantly deeper, ie. 0.24m deep. Feature [428] also had three stones positioned in the base. The stones, plus the sides and base of this feature have been burnt. All three of these features ([459], [460] and [239]) appeared to be contemporary. Features [459] and [460] were interpreted as postholes which possibly burnt down), while [428] appeared to represent a hearthpit or shallow oven.

Feature [434] was a 0.35m diameter posthole with an associated 1.0m long spread [436] of heat reddened loamy clay and charcoal flecks. Pit [458] was larger ie. 1.0m x 0.6m x 0.07m deep. A much larger, but equally shallow feature [437] was located to the west of this main group of features. Feature [437] may represent a ditch terminal, or possibly a pit extending into the corridor from the south. It had a 1.2m length and width, and a 0.13m depth. Its fill was much darker than the charcoal-speckled, mixed silty clay loam seen in the other features, suggesting either a very different function for this feature or, (more likely) a later date. Again, no finds were associated.

Fig 31

Plan showing spurtime fields and features.



It is likely that the majority of the above mentioned features are early, probably prehistoric in date, and related. The complete lack of finds from this and adjacent fields, and from the features themselves, makes dating difficult. It is tempting to suggest a prehistoric date, based on the degree of truncation and the appearance / types of features. It is presumably part of a settlement or occupation site, though the lack of finds might suggest temporary or seasonal use. Post-medieval, and perhaps Medieval truncation will have removed some features, particularly associated spreads, layers and surfaces, plus the contemporary ground level, along with the majority of finds - particularly the more friable pottery remains.

**Field E to Castle-an-Dinas road (Fig 31).** This field produced a series of north to south-aligned ditches. From east to west these ditches are numbered [444], [445], [446] and [447]. All ran parallel to current boundary E. Lone ditch [444] was located some 15m west of boundary E. Midway between ditch [444] and [445]/[446] was a large 4.5m x 3.5m spread, 0.15m deep. It contained a silty loam with burnt clay, charcoal flecks and small stone fragments. No other associated features were recorded. Ditches [445] and [446] relate to a removed boundary. To the west again was another lone ditch [447], and four metres west of that a remnant cobbled patch or spread [448]. Aligned approximately north to south and measuring 4.0m x 1.5m it may well have extended further prior to topsoil stripping. There was a hint of it continuing beneath the southern edge of the corridor.

Beyond the boundary ditches, interpretation of these features is difficult. Based on the fill alone, spread [439] may very well be of a similar date to the small complex of probable prehistoric features found in field D-E (described above). The cobbled area is more problematic. The appearance of the metallised surface was very similar to that found in shallow linear features to the north of Little Quoit Farm Round, interpreted as paths. Truncation due to past ploughing has removed any hint of a possible cut in this case, but it is tempting to see [448] as a relatively broad remnant path of Medieval or earlier date.

### 3.7.4 Boundaries

The Spurline boundaries were lettered A to E from east to west from the main pipeline corridor. Boundary A flanked the eastern side of the Quoit to Tregatillian road. It contained four contexts. The lowest layer probably represented the old land surface. It was very disturbed with root activity, but did appear to be topped by the original ditch upcast of redeposited natural material - probably Medieval in date. Overlying this were two later layers, neither of which contained any clear evidence for a stone facing. This is probably more a reflection of the point breached than of the boundary as a whole, since it is unlikely that a boundary flanking a road would not have had a stabilising stone face. To its west was the remains of a broad silted ditch.

Boundary B contained three contexts. All appeared to have seen severe intermixing in the past, and any original core was not visible. There was not a visible stone face, which once again is noteworthy since boundary B flanks the western side of the Quoit to Tregatillian road.

Boundary C was much more massive, complex (and colourful - see boundary description). Nine different contexts were recorded. Upper and side contexts [1], [2], [3] and [4] all represent later phases of the boundary. Contexts [5], [6], [7] and [8] represent the original, probable Medieval boundary. Context [8] represents an early portion of redeposited natural. Context [7] is a mix of old topsoil and natural, representing the primary ditch upcast. Ploughing, particularly on the western side of the boundary, can be seen to have reduced the original ground level.

Boundary D also contained nine different contexts. Again the upper and side contexts [1], [2], [6] and [7] represent the latest phase and the stone facing. Contexts [3], [4], [5], [8] and [9] are all earlier. Contexts [8] and [9] may both represent natural layers, ie. a semi-decayed and root disturbed natural [8], which overlay a near black mineralised grainy layer [9]. Contexts [3], [4] and [5] appeared to represent the original Medieval boundary.

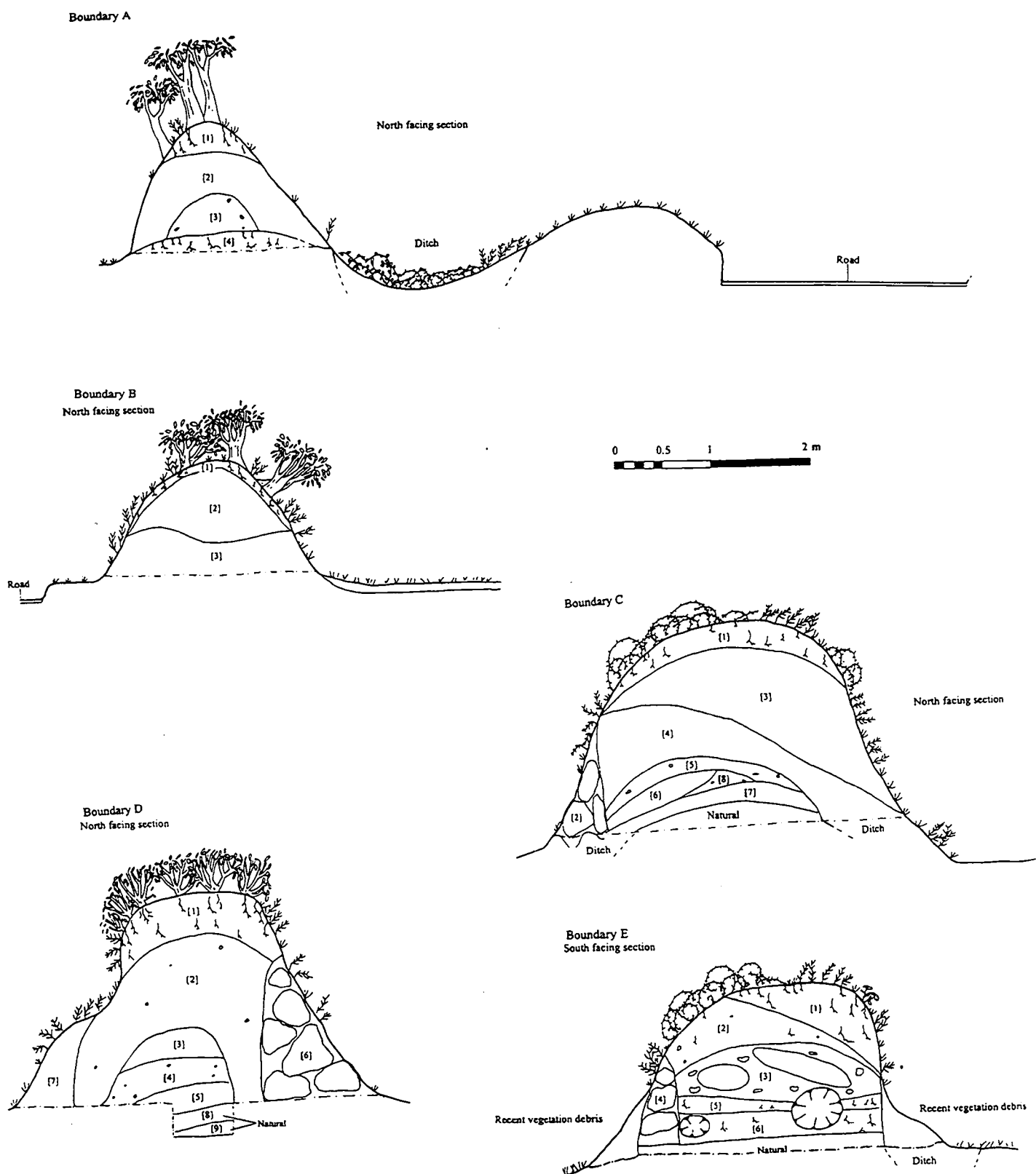


Fig 32 Boundary sections within the spurline section (Little Quoit Farm to Walhalla)

Boundary E contained seven contexts. A single, basal part of the stone facing survived on the western side, while a silted up ditch was recorded on the eastern side. Layer [6] (and perhaps [5]) represent the old land surface. Both [6] and [5] had been severely burrowed and much past root activity was recorded. Context [3] overlay these layers and appeared to represent ditch upcast. Contexts [1] and [2] were relatively late in the sequence. This boundary again is likely to be Medieval in origin.

Both boundaries C and D contain the 'fossilised' earlier boundary in section (prior to concerted enlargement rendering them fairly massive and definitely stock-proof. Boundary D was not unfortunately seen to its base.

### **3.7.5 Conclusions**

This section of the pipeline produced a concentration of activity. The proximity of the Neolithic Quoit implies that some of this activity could be Neolithic in date. However, the proximity of the late Iron Age/Romano-Cornish Little Quoit Farm Round is also likely to have had an affect on the surrounding archaeology and division of the landscape.

The truncated, burnt features seen along the **Spurline** probably represent a sporadic or seasonal pattern of activity, since there is a complete absence of finds, even the durable, inevitable prehistoric flint, implying something other than prehistoric occupation. Short term or seasonal activity may well account for the apparent sparsity of finds.

Related to the Medieval settlement of Quoit and its associated field system are the boundaries. Although many of these are likely to relate to the Medieval period, it must be borne in mind that some may reflect or incorporate earlier landscape divisions, associated with the Little Quoit Farm Round. Some of the boundaries, when seen in section, revealed their original core of material, early ditches and now raised original ground-level seen as a ridge. Although not dateable in itself an original core can, when seen in conjunction with a series of later phases, or when preserving an old ground surface (ie. as distinct from today's topsoil) imply some considerable date. The watching brief additionally suggests a long-term chronology or pattern based on the differential alignment of ditches / removed boundaries revealed along the Spurline in relation to today's landscape organisation.

## **3.8 Ruthvoes**

### **3.8.1 Assessment**

This southernmost section of the pipeline runs between grid references SW 9270 6116 and SW 9305 6010, through fields 7 to 1. Topographically the route runs up hill from the low-lying, waterlogged area described in section 3.6 to the top of a fairly broad and level hill, located to the east of Ruthvoes. The boundaries recorded within this section are numbered 111 to 101. To the south of the pipeline corridor is Goss Moor, an extensive, low-lying, waterlogged habitat, renowned in the past for its dangerous terrain.

Ruthvoes is a Medieval settlement, first recorded in 1296, and located within the Parish of St. Columb Major. Associated with Medieval Ruthvoes is a particularly well preserved pattern of fields, covering an area approximately 1km square. The pipeline corridor ran straight through the eastern side of this Anciently Enclosed Landscape.

The originally planned route was altered slightly at its extreme southern end, between assessment and the topsoil stripping. The route was shifted west, to run in part along the existent, probable Medieval trackway.

All the sites located within the assessment for this stretch relate to removed boundaries, seen either on the Tithe Map or as features on aerial photographs, or anomalies located by the



geophysical survey.

### 3.8.2 Geophysical survey

The geophysical survey could not take place within fields 6, 5, 4 and 3 due to the ground cover. Field 7 was rapidly scanned, despite the presence of a medium height crop, by using the crop tramlines as access. Three ditch features were located within the field, running approximately east to west across the corridor.

The two southernmost fields (fields 1 and 2) were scanned and then surveyed in more detail. (As mentioned above, they were not seen as part of the topsoil stripped corridor). The survey revealed two removed boundaries plus two long, and two very much shorter linear features, and two large and two small pit-like anomalies which may or may not have been archaeological in origin. The presence of these features appears to confirm that the archaeological features found during the watching brief extend eastwards, although they would appear to be less dense in nature. Severe truncation could have restricted subsurface feature visibility, although this did not appear to be the case in southernmost fields, which were actually topsoil stripped. The constant monitoring of the pipe trench itself in these southernmost fields confirmed that a number of the features located were probably sufficiently deep to have registered on a geophysical survey (had one been carried out over the same area).

### 3.8.3 Field work - features and finds

Topsoil stripping along the corridor of Field 7 was patchy, thus reducing clarity. No features were located during the watching brief, although geophysical scanning located three of the four removed boundary sites, listed in the assessment report as sites 8 to 11. Boundary 110 (Assessment site no.8) was shown on the Tithe Map but had been removed since 1979, according to the aerial photographs. The remaining three removed boundary sites were recorded on the aerial photographs only. All four of the removed boundary sites are referred to in the assessment as Medieval boundaries. The finds assemblage included a single, nodular Neolithic borer and an undated iron hook of probable post-medieval date.

Field 6 (Fig 33) contained ditch [426] (Fig 34) and a fairly massive stone alignment running along its southern uphill side. A huge grounders (up to 1.8m in size) plus other smaller stones (which were best preserved on the eastern side of the corridor) may well represent an original continuation on from the curvilinear, extant boundary seen forming the east-south-eastern corner of field 6. If so then it is likely that this feature represents part of an early (pre-current field system) enclosure. The boulders may well demark the base of a Medieval lynched boundary, since its position marks a distinct drop down from the brow of the hill to the south. The ditch on the down-slope, northern side had a maximum 1.8m width and a 0.6m depth and was filled with a series of silty clay bands - implying a gradual process of natural silting. The assessment did not locate this lost boundary on maps of the area, which would imply an early date for its construction. Located further down-slope were other large stones, but these did not have associated negative features.

The finds assemblage for this field ranged from fifteen prehistoric (Neolithic / Bronze Age) flints to a series of seventeenth to nineteenth / twentieth century pottery artefacts.

Field 5 (Fig 33) was located on the top of a fairly level hilltop. A distinct 0.1m to 0.25m deep layer [395] was found, which appears to have underlain the Medieval field system centred upon Ruthvoes, and was recorded along the line of the pipe trench underlying the current 0.35m deep topsoil. Layer [395] appeared to be a remnant, probably truncated, old land surface of probable late prehistoric/Medieval date. It produced Early Medieval pottery among other finds. Embedded within [395] were two ephemeral, parallel (8 or 9 metre apart) curvilinear stone arrangements, plus possibly unrelated large grounders. These probable arrangements were not given context numbers due to their lack of clarity. They were, however, seen in section during

trenching along the corridor, and did not appear to have any associated features i.e. pits or ditches and gullies, no recognisable floor surfaces or fills, and no continuation of stones below that exposed by topsoil stripping. It may be that they represent early stone clearance and field delineation, ie. the basal remains of small enclosures. Soil samples taken from layer [395] have provided sufficient charcoal for radiocarbon dates to be attained in the future if required - although due to the nature of the layer pursuance of this would be questionable.

Considering the small size of field 5, the stripped topsoil and subsoil layer [395] produced a notable assemblage of prehistoric finds. Forty two flint pieces ranging in date from the Late Mesolithic / Early Neolithic through to the Bronze Age were collected, including nodular and pebble flint pieces. A wide range of pieces, including arrowheads, knives, cores, blades and flakes, plus probable on-site flint knapping and occasional burnt pieces would all indicate the presence of a settlement in the vicinity. The Bronze Age portion of the flint assemblage is likely to relate to the probable stone arrangements referred to above, while layer [395] would appear to represent the remains of the prehistoric ground surface (including as it does a Late Mesolithic/ Early Neolithic flint assemblage).

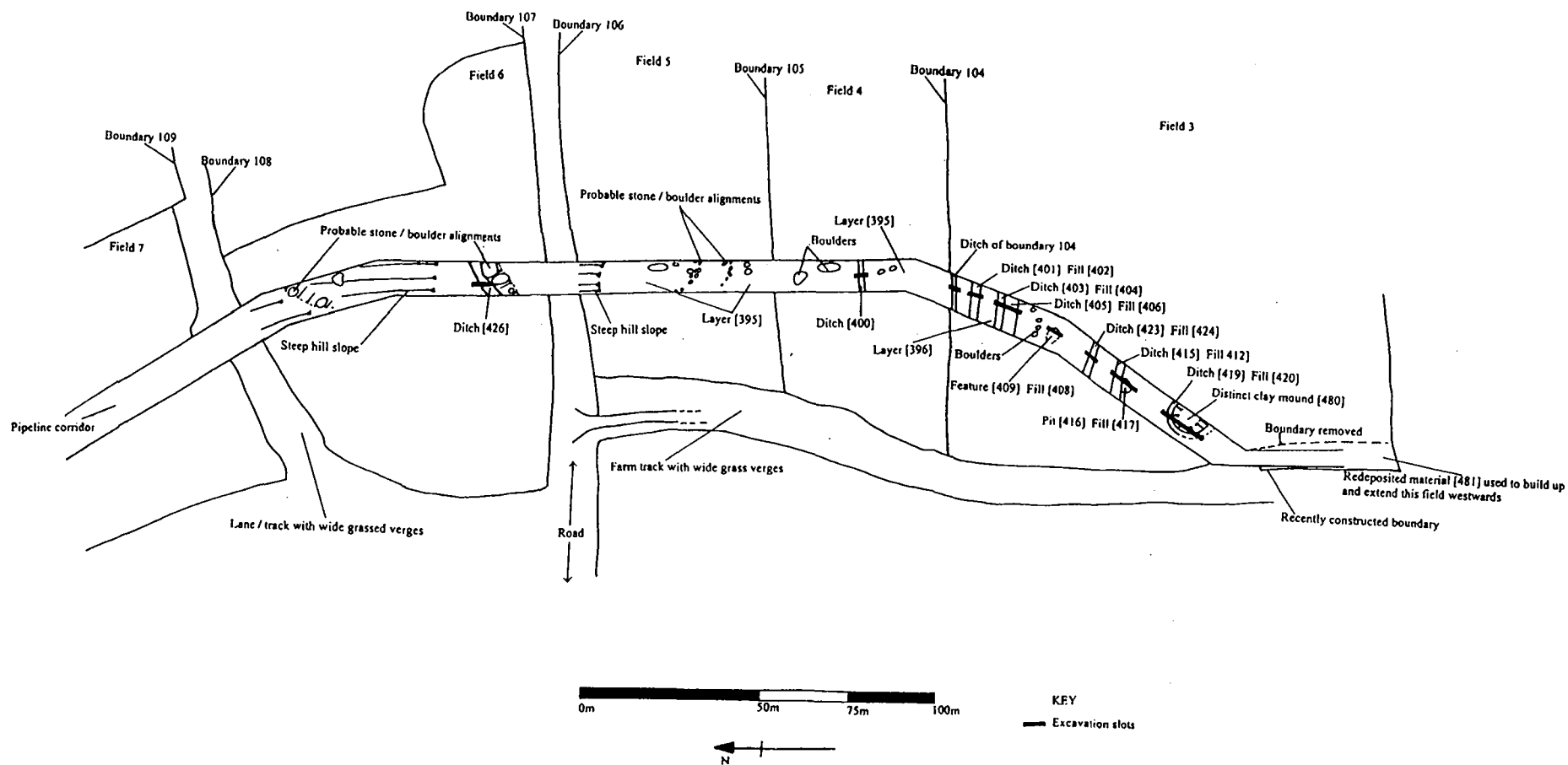
**Field 4** (Fig 33) contained the continuation of layer [395] from field 5. As with field 5 there were occasional large grounders plus a continuation of the flint spread. Eighteen flints were found along the corridor spoil heaps (which contained a mix of topsoil and subsoil [395], again showing similar characteristics to that of field 5.

A single ditch feature [400] (Fig 34) was located, running east to west across the central part of the field. The ditch was seen in section in the pipe trench, and was recorded as being 1.8m wide at top, 0.9m deep and 'U' shaped in profile. Its relationship to layer [395] was not clear, although it is likely to have cut through it. It presumably represents part of the Medieval strip field system. The ditch itself contained three fills, from top to bottom [397], [398] and [399]. The lower two fills at least appeared to represent a process of natural silting up, while the upper most fill was very similar to surrounding layer [395]. The ditch did not produce any finds.

**Field 3** (Fig 33) contained six ditches aligned east to west, two pit features, a layer, a spread, an un-numbered boulder alignment and a distinct clay mound surrounded by a ditch. The layer, layer [396] is the same as [395] recorded in fields 5 and 4 and probably represents a continuation of it. It covers the majority of the field, is cut by all the features recorded, contains flints and represents an old plough surface which appears to have been preserved below the later Medieval field system centred around the Ruthvoes settlement. The overlying, sealing, deep topsoil had a depth of 0.3m to 0.45m. Soil samples were taken of layer [396].

The northern most ditch is un-numbered and directly associated with boundary 104. Ditches [401], [403] and [405] (Figs 23 and 35) are all relatively substantial in terms of width and depth. Ditch [405] cuts, and thus post-dates ditch [403], and is substantially deeper (see appendices and relevant section drawings for feature details). Ditch [405] may represent a re-cutting of ditch [403]. The soil sample taken from context [411] within ditch [405] did not produce sufficient charcoal for a radiocarbon date. To the south of ditch [403] a probable curvilinear boulder arrangement was noted. As with those found in field 5, it was seen in the trench section but did not have any associated layers, fills or cut features, and was embedded within layer [396]. It almost certainly represents a lost (dis-used) boundary of medieval (or perhaps earlier date).

Fig 33 Plan showing the Ruttrices fields and features



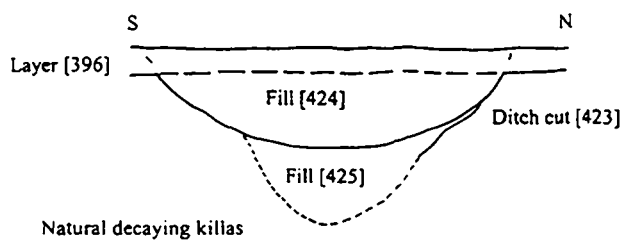
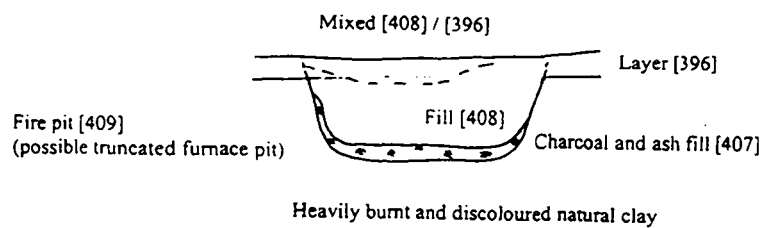
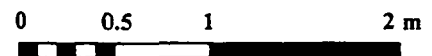
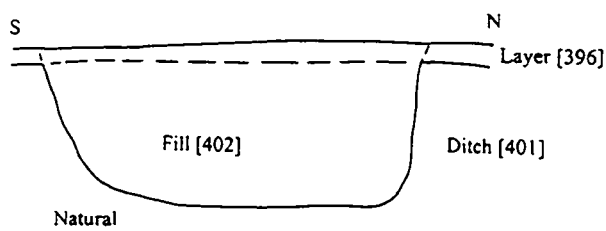
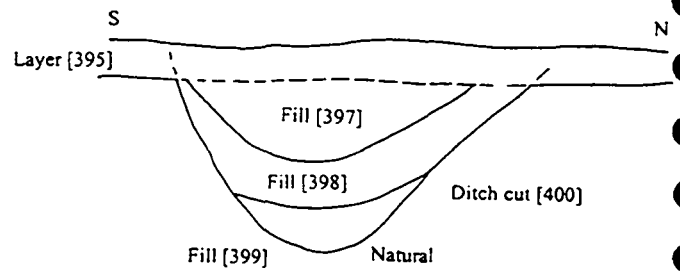
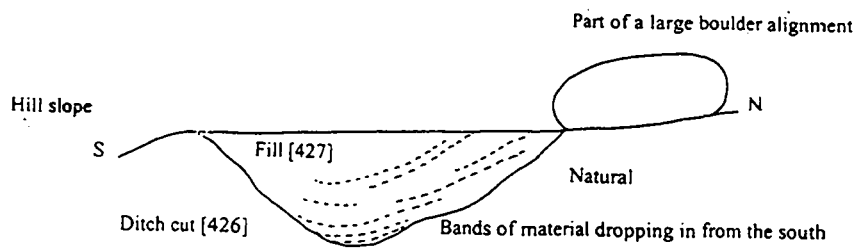
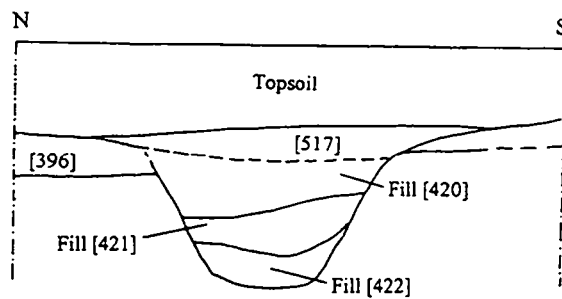
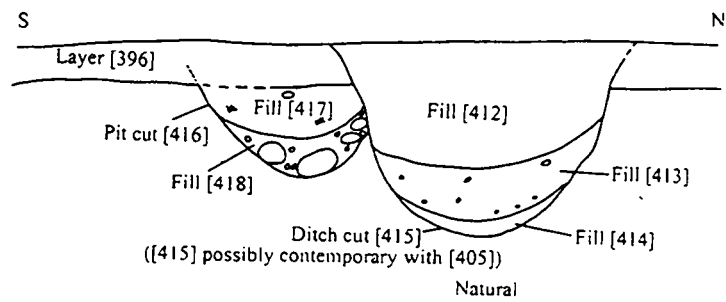
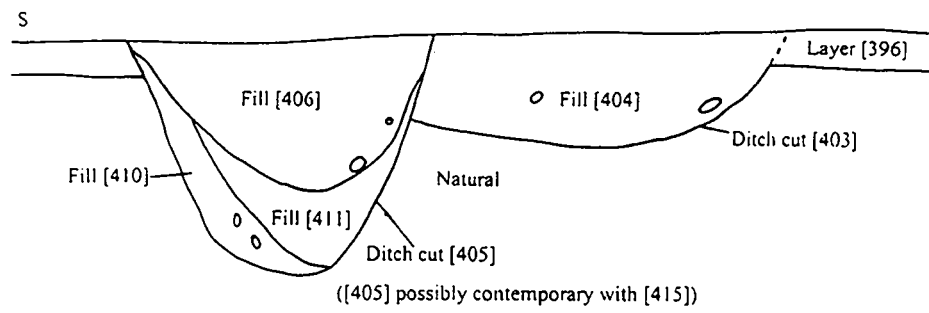


Fig 34 Selected feature sections from Ruthroes



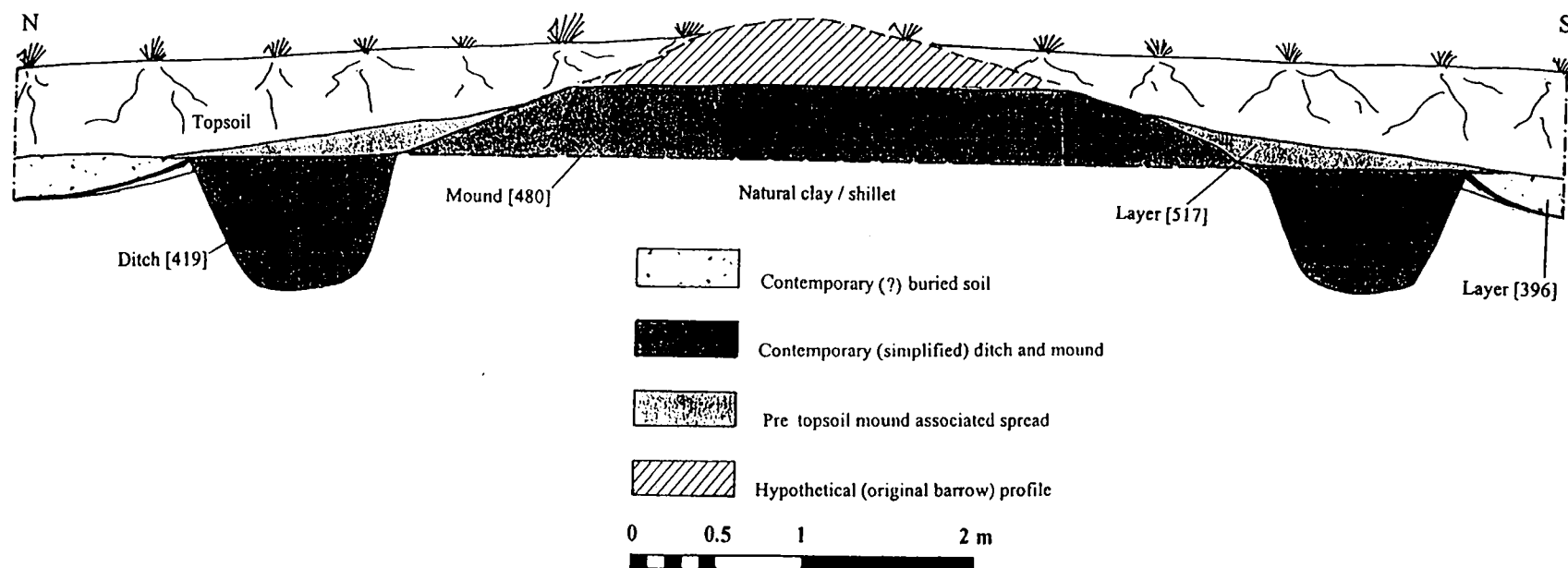
Recorded section through ditch [419]

Fig 35 Selected feature sections from Rathnoves

Fig 36

Composite section through the newly discovered Rutheas barrow

Composite barrow section  
(Combination of recorded ditch section, site plan,  
corridor section edge and hypothetical barrow profile)



To the south again, and not seen until cut by the trench was probable pit [409] (Fig 34). Feature [409] showed very clear signs of heavy burning. The surrounding, basal natural clay was scorched red in colour and deposits of silty charcoal were still present. Charcoal context [407] was sampled and has since produced a radiocarbon date of 440-599 AD - an early medieval date. This activity might well be seen as the earliest Medieval origins for the settlement of Ruthvoes. Environmental analysis of the soil sample found a notable concentration of barley grain (some of it hulled) plus more limited wheat and oat grains. This feature is thus interpreted as an oven - where the roasting? of predominantly prepared grain took place (see section 3.4). Located to the south of feature [409] were ditches [423] and [415] (Figs 34 and 35). Both were relatively wide and deep. Ditch [415] cut across the northern side of pit [416] (Fig 35). The function of pit [416] was not ascertained.

At the southern end of field 3 was a very clear mound [480] of clay, protruding in from the eastern edge of the corridor and surrounded by ditch [419], 1.2m wide at the top, 0.7m deep, with a 'U' shaped profile (Figs 35 and 36). It had three fills, numbered from top to bottom [420], [421] and [422]. Basal fill [422] was sampled, but unfortunately did not produce sufficient charcoal for a radiocarbon date. The mound itself was seen in plan only. It appeared featureless and to directly overlie natural clay shillet. However, it should be stated that no further excavation took place of the clay mound and that any potentially buried, more central features or artefacts are as a result still sealed and undisturbed. The mound was not excavated, based on a decision reached in the field when the exact route of the pipe trench was discussed with SWW staff and it was confirmed that the mound would not be disturbed in any way. In profile mound [480] had a 3.9m diameter, consisting today of a central, raised flat area - 0.4m high, surrounded by a skirting slope, the outer edge of which was defined by ditch [419]. The flattened top is the result of much later ploughing (which has removed or 'skimmed-off' the top of the original yellow clay mound).

Due to the lack of dating evidence for this feature, what follows is to some extent a hypothetical appraisal or interpretation of the evidence. It is considered likely that this feature - mound [480] and surrounding ditch [419] represents a sealed and undisturbed burial mound or barrow of Bronze Age date. Its flattened top reflects the lowest depth reached by ploughing. Spread [517], consisting of what appeared to be a mix of topsoil and layer [396] surrounded the mound and overlay ditch [419]. This was probably formed during the Medieval period (or perhaps earlier) as a result of ploughing around the mound. It probably incorporates material removed from the top of the mound. Ditch [419] demarks the outer circumference of the clay mound and since it cut through yellow clays is likely to have been the source for much of the clay contained within the mound.

Due to the shift of the topsoil stripped corridor from the geophysical surveyed corridor, it was not possible to identify which of the ditches, if any, relate to assessment site 7.

Finds for the field as a whole include eleven flints from the topsoil and layer [396], a single flint from context [408] at the top of feature [409], and a flint from boundary 104. Pottery finds dated from the Middle Iron Age, the Romano-British period, and through to the 15th to 20th century.

Field 2 followed a slightly altered course, and as such the features revealed by the geophysical survey were not seen, i.e. a ditch, a short linear feature, two large pits and two smaller pits or posthole features. The geophysical survey was carried out across the centre of the field, while the actual topsoil stripped corridor was located to the west, running parallel to the farm track. Finds found within the corridor were all post-Medieval in date, dating from the 17th to the 20th century.

The farmer who owned this field informed me that some landscaping had been carried out by his father in the vicinity, during the reduction of the track width (probably a short,

former driveway) and the expansion of field 2 westwards. As a result the finds that were found are both mixed and redeposited.

Field 1 again followed a different course to the geophysical survey, which located two probable ditch-flanked removed boundaries, a single large ditch and a possible linear feature on an opposite alignment. No finds were found or features located.

#### **3.8.4 Boundaries**

The boundaries listed in the assessment for this area are numbered 111 to 101. Of these boundary 111 and 109 to 104 were recorded in section. Boundary 110 was no longer extant, and boundary 103 was not breached due to the presence of a nearby gate. Neither 101 or 102 were affected, due to the change in route, although a new boundary was cut through, flanking the trackway.

All of the boundaries recorded were shown on the St. Columb Tithe Map and are likely to have Medieval origins. They represent part of the strip field pattern recorded within the SMR as PRN 2162, and associated with Quoit settlement 21643 (Johns 1998, Appendix 2).

Boundary 111 is very similar to boundary 113 (discussed in section 3.6.4). It is broad and low with an extensive covering of leaf litter and large trees. Its base was not seen, but a basal hump of redeposited natural gleyed clay may well represent the primary upcast from a flanking ditch.

Boundary 109 did not have its basal part exposed. Its section revealed five contexts, the main southern [5] one possibly representing a later build up. It did not have a stone face visible in the section recorded, although presumably it must have had one since it demarks a stream and a track. Flanking its southern side was a low flat topped, overgrown bank running along the edge of a farm track. This un-numbered bank directly overlay the track verge and consisted of upcast grey clay. It represents cleanings thrown on to the side of the trackway during track maintenance.

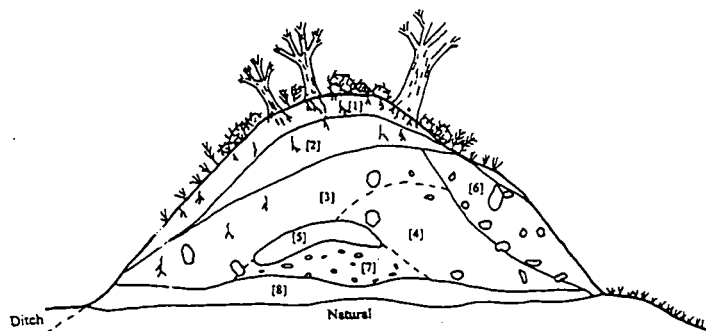
Located between boundary 108 and the farm track referred to above was a stream and another low, flat topped bank composed of trackway cleanings. Boundary 108 itself contained seven contexts, the lowest of which was a grey clay (recorded as possibly natural). Above this, and located centrally within the boundary was a redeposited brownish grey, silty clay which may well represent the original boundary. (This brownish grey context was identical to the basal context seen in boundary 109). The five stratigraphically later deposits represent a gradual settling (partly through tree growth and probably partly as a result of the surrounding water level) which has made the boundary substantially broader than it probably was originally. It did not have a stone face.

Boundary 107 was composed of five contexts. The lowest was the natural underlying clay. This was then overlain by three contexts, the southern one of which consisted of massive grounders and field clearance stone. It formed the northern boundary of the 'main' road through Ruthvoes.

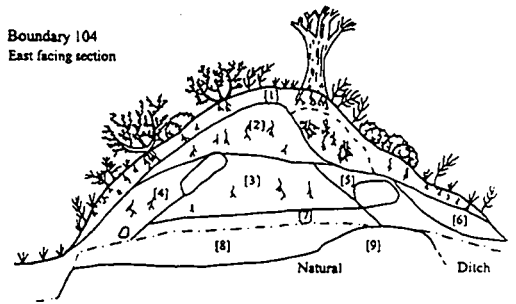
Boundary 106 contained seven contexts. The boundary marks the southern edge of the 'main' road through Ruthvoes. The lowest context was disturbed natural clay. This was then overlain by a series of later deposits, the lowest of which may well represent an early soil / plough soil. Although a stone face was not revealed in section, the boundary was visibly stone faced further along the road. This particular section clearly illustrates the degree to which this Medieval road has cut down in to the natural clay and shillet.



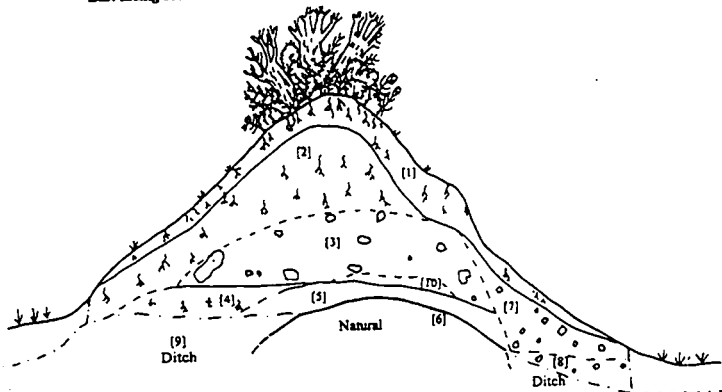
Boundary 100  
West facing section



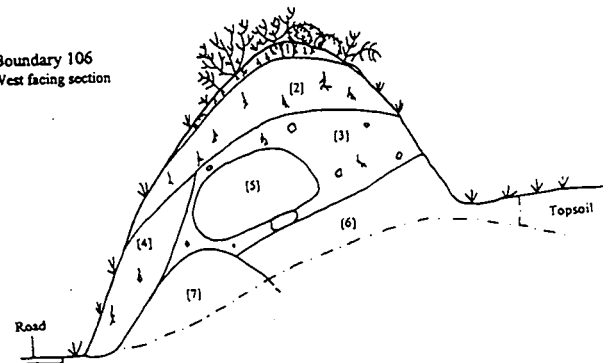
Boundary 104  
East facing section



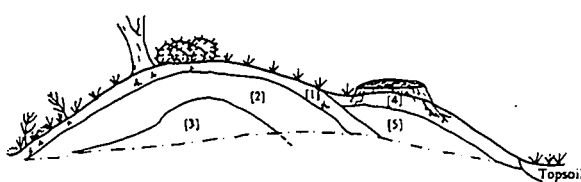
Boundary 105  
East facing section



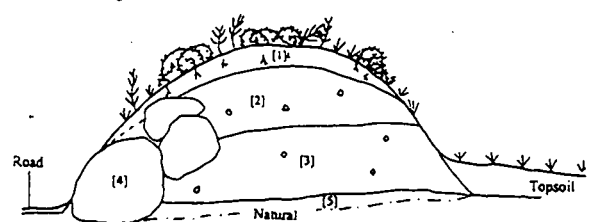
Boundary 106  
West facing section



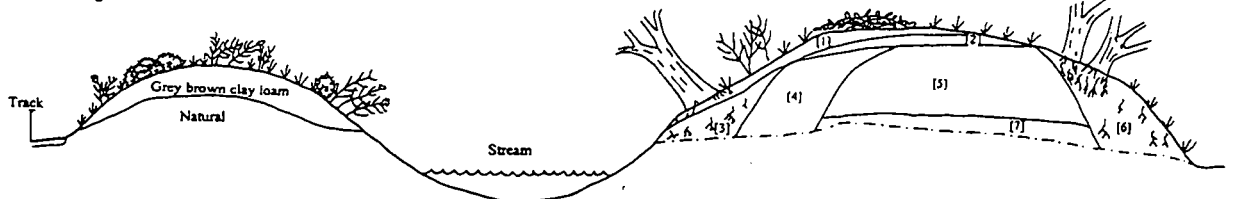
Boundary 111  
West facing section



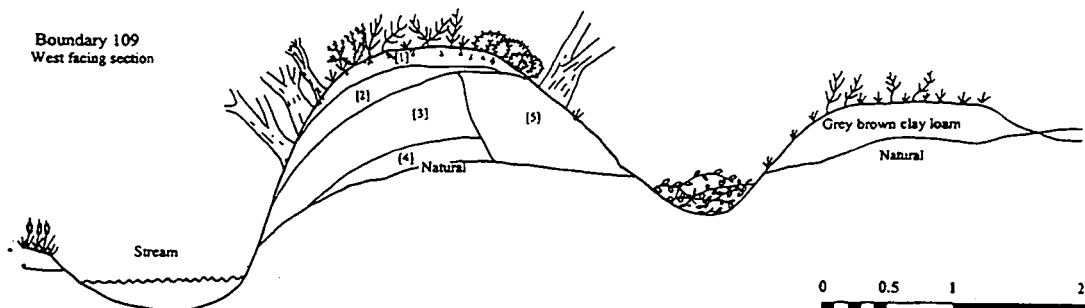
Boundary 107  
East facing section



Boundary 108  
West facing section



Boundary 109  
West facing section



0 0.5 1 2 m

Fig 37 Boundary sections within the Rathvoes area

Boundary 105 revealed ten contexts. These included the preserved level of original bedrock, and two flanking ditches. Between the ditches and lying on top of the natural shillet bedrock was a rooty, sealed topsoil level, overlain by a series of later build-up layers. Boundary 104 contained eight contexts. Again the original bedrock level could be seen plus the old land surface, topped by a series of later layers. It was clear that ditches had run along either side of the boundary, and that today's bedrock is substantially lower than the original level (ie. when the boundary was first constructed). The subdivision of the buried soil may reflect pre-enclosure activity ie. very shallow, early ploughing.

An additional boundary to those listed in the assessment was recorded. It was located on the western side of field 3, and was revealed through the widening of a gateway. A total of nine contexts were recorded, including the underlying natural clay, a rooty buried old land surface, and two contexts related to the original core of the boundary. The subsequent development of the boundary is seen in the five overlying contexts. A silted up ditch was visible to the east of this boundary, while to the west was a very broad, probable Medieval farm track - probably associated with the movement of ie. cattle between fields etc.

The relative complexity and high number of contexts visible in boundaries 100, 104 and 105, in conjunction with the preserved earlier level of natural ground level all illustrate well the age of these primarily medieval boundaries. In the case of boundaries 104 and 105 in particular a massive increase in the boundary size marks a change in boundary nature from little more than a long term division flanked by erosive agricultural practice to a large, more solid stockproof field division.

### 3.8.5 Conclusions

The fields for this section of the pipeline run through an Anciently Enclosed Landscape, formed in part by a classic Medieval strip field system, centred around Ruthvoes. The extant boundaries and interlinking farm tracks are known to be Medieval in origin, some elements of which may well stem from the later prehistoric period. The quantity of prehistoric (Neolithic and Bronze Age) finds, the old land surface, probable barrow, stone alignments, and quite possibly a number of the ditches all point towards a pre-Medieval enclosed and organised landscape.

Of significant interest is the apparent survival of an early land surface, sealed beneath Fields 3, 4 and 5 and numbered [395] / [396]. Although probably truncated by later farming activity (ie. ploughing), it seems to have retained the base of later prehistoric 'standing' features, as well as preserving a substantial number of cutting features; hence the somewhat surprising depth of features, in particular the ditches, many of which are a metre and more in depth. Many of these features underlie, and are apparently un-related to the Medieval field system. Some of the ditches, in particular [401], [403]/[405] and [415] may relate to settlement activity of later prehistoric or early medieval date, suggested by sherds of Iron Age and Romano-British pottery in the general area and the 5<sup>th</sup> to 6<sup>th</sup> century AD radiocarbon date from pit [409].

Between the prehistoric period and the Medieval period a significant thickening of the topsoil took place. The mechanics behind this thickening are somewhat mysterious. Fields 6 to 1 are located on the top of a hill, negating the possibility of material having been washed or ploughed in unintentionally from elsewhere. The most likely explanation for the presence of layer [395] / [396] (and [517]) is that a combination of long term factors prevailed. These would include the addition of domestic and kitchen midden waste, ie hearth sweepings, vegetable matter, bones and carcass material, other processing waste, and the ubiquitous flint and pottery etc associated with an agrarian, settled society. Most of this material would degrade through time via weathering and plough disturbance, with the exception of the lithic material. It may also be that more topsoil was bought in to improve

soil quality or depth. Added to this the seasonal tilling that would have originally eaten down slightly into the underlying natural clays, it is not perhaps so surprising that areas of long term occupation and ploughing /cereal cultivation have come to be associated with a thickening in the surrounding soils. A probably crucial pre-requisite to the soils development and survival is the long-term enclosure of the immediate vicinity. This would prevent the new soil from being eroded (ploughed or washed away) during on-going use of the area. As referred to above, some of the ditches located during the watching brief in the Ruthvoes area could have originated during the later prehistoric period, including perhaps the pre-current (Medieval) field system enclosure represented by [426] in field 6.

Thus it may be that the thick soils recorded around Ruthvoes (and other similar sites or areas) should be seen as a characteristic of long-term settlement and associated intensive cultivation. Similarly formed layers or deposits have been recognised elsewhere, sealed beneath either the current topsoil/plough soil or by a relatively rapidly and naturally produced layer ie alluvium. Pryor has recognised and recorded similar deposits at, for example Welland Bank and Borough Fen in the Fenlands, referring to it as a rural 'dark earth,' which "*seems to occur most frequently in the Late Bronze Age and is found in the Fen basin and also in Wessex*" (Pryor 1998, 118). At Welland, Pryor records that the 'dark earth' extended over an approximate three acre expanse, and at Borough Fen it was recorded as having a 0.3m thickness. At Tremough, Penryn (Lawson Jones forthcoming) a more recently recorded and very similar layer has been found associated again with an enclosed, hilltop, which has seen prolonged settlement since the prehistoric period.

At Ruthvoes the development of this thicker soil meant that the plough could no-longer reach its base, gradually preserving an ever thicker basal deposit, which over time has become distinguishable from the more recently ploughed topsoil. In terms of the finds generated by the topsoil strip across this area diagnostically Neolithic flint artefacts (dating to a time when settled activity started to have an impact on the environment) and the Iron Age pottery (plus a characteristically Bronze Age mound) would suggest that the formation of much of [395]/[396] dates to the prehistoric period. The Iron Age pottery, although found in an un-stratified context is likely to have come from [396] since it could not have survived prolonged Medieval and later ploughing etc.

On a more general note, the pipeline has produced evidence for a relatively constant coverage of Iron Age / Romano-British settlement and landscape usage elsewhere, ie. in field 12, field 16, and (by inference from the geophysical survey) field 26. Field 12, 16 and 26 were located on areas of raised land. Fields 12 and 26 produced evidence for the presence of substantial ditches, both had a later, known Medieval presence in the area, and neither produced much in the way of dateable finds during topsoil stripping. (It should be borne in mind that artefacts of clearly Iron Age / Romano-British date did not appear at Little Quoit Farm until larger scale excavation took place).

## 4 The finds reports

### 4.1 Medieval to modern pottery and the non-flint stone work.

By C.M.Thorpe BSC

#### 4.1.1 Introduction

A large number of artefacts, 1142 in total were recovered during the watching brief.

Pottery comprises the largest group (570), being 50% of the total. There were also flint and stone artefacts, other ceramics, iron, bone, shell, glass, and clay pipes.

The length of the pipeline was cleared of topsoil and examined for features, each individual field being treated as a separate area and numbered consecutively. Unstratified finds were collected from the resultant spoil heaps, while contexted finds were recovered as bulk finds from the features revealed as they were investigated.

The finds were air dried, then washed, dried and re-bagged by Imogen Wood.

Currently all the artefacts are being temporarily stored in the CAU finds store, Kennall building, Old County Hall, Truro, Cornwall.

The total number of finds from each area and context are summarised below; as flints are described in a separate report by Anna Lawson Jones (section 4.2), their presence is merely noted here.

#### 4.1.2 Results

Field No. / Context		Provisional date
<b>Field F2 u/str SW 9295 6033-9295 6000</b>		<b>Provisional Date</b>
13	Undiagnostic sherds Post-Medieval GRE	17th to 18th Centuries
2	Sherds Modern White Glazed Stoneware.	19th to 20th Centuries
1	Iron horse shoe	19th to 20th Centuries
5	Modern glass fragments	20th Century
<b>Field F3 u/str Topsoil/[396] SW 9295 6033-9303 6040</b>		<b>Provisional Date</b>
1	Bodysherd / collar, thick walled with incised line decoration Bronze Age collared Urn	Bronze Age
2	Undiagnostic bodysherds	1A / RB
1	Sherd Cornish Medieval Coarseware. St Germans Ware.	15th / 16th Centuries
2	Undiagnostic sherds Post-Medieval GRE	17th to 18th Centuries
1	Sherd Modern White Glazed Stoneware.	19th to 20th Centuries
8	Small water rounded pebbles	
3	Fragments vein quartz	
11	Flints	Prehistoric
<b>Field F3 Context [408] SW 9300 6037</b>		<b>Provisional Date</b>
1	Flint	Prehistoric
<b>Field F4 u/str Topsoil/[395] SW 9303 6040-9302 6045</b>		<b>Provisional Date</b>
3	Undiagnostic sherds Post-Medieval GRE	17th to 18th Centuries
1	Sherd Modern White Glazed Stoneware.	19th to 20th Centuries
1	Fragment clay pipe bowl.	17th Century
1	Fragment of green bottle glass.	19th Century
1	Fragment vein quartz	
1	Water worn pebble	
18	Flints	Prehistoric

Field F5 u/str Topsoil/[395] SW 9303 6040-9302 6045		Provisional Date
1	Rimsherd Cornish Medieval Coarseware. St Germans Ware.	15th / 16th Centuries
1	Handlesherd Cornish Late Medieval Coarseware. Lostwithiel Ware.	15th to 16th Centuries
4	Sherds Cornish Late Medieval Coarseware. Lostwithiel Ware.	15th to 16th Centuries
3	Undiagnostic sherds Post-Medieval GRE	17th to 18th Centuries
1	Sherd Modern White Glazed Stoneware.	19th to 20th Centuries
2	Iron fragments	
1	Slag fragment	
7	Water rounded pebbles	
42	Flints	Prehistoric
Field F6 u/str SW 9302 6052-9299 6059		Provisional Date
9	Undiagnostic sherds Post-Medieval GRE	17th to 18th Centuries
1	Sherd Post-Medieval Yellow GRE. Press Moulded, trail slip and comb decorated Bristol / Staffordshire Ware	18th Century
3	Sherds Modern Stoneware.	19th to 20th Centuries
5	Sherds Modern White Glazed Stoneware.	19th to 20th Centuries
1	Fragment notched slate	?
16	Fragments vein quartz	?
1	Quartz pebble	?
1	Iron fragment	?
1	Clay pipe stem fragment.	18th to 19th Centuries
15	Flints	Prehistoric
Field F7 u/str SW 9298 6060-9271 6107		Provisional Date
8	Water rounded pebbles	?
3	Fragments vein quartz	?
1	Iron hook	
1	Flint	Prehistoric
Field F9 u/str SW 9263 6137-9258 6170		Provisional Date
1	Sherd Modern White Glazed Stoneware.	19th to 20th Centuries
5	Water rounded pebbles	?
19	Flints	Prehistoric
Field F10 u/str SW 9258 6170-9257 6184		Provisional date
3	Sherds Modern White Glazed Stoneware.	19th to 20th Centuries
1	Clay pipe stem fragment.	18th to 19th Centuries
1	Water rounded stone	?
2	Flints	Prehistoric
Field F11 u/str SW 9257 6185-9257 6186		Provisional Date
3	Undiagnostic sherds Post-Medieval GRE	17th to 18th Centuries
3	Sherds Modern White Glazed Stoneware.	19th to 20th Centuries
Field F13 u/str SW 9255 6206-9245 6239		Provisional Date
1	Fragment of green bottle glass.	19th Century
1	Sherd, Cornish Post-Medieval Coarseware. Lostwithiel Ware.	17th Century
1	Sherd Modern Yellow Glazed Stoneware.	19th to 20th Centuries
1	Sherd Modern White Glazed Stoneware.	19th to 20th Centuries
1	Cockleshell	
1	Mussel shell	
1	Flint arrowhead	Prehistoric
Field F13 Spur line SW 9255 6206-9243 6210		Provisional Date
13	Water rounded pebbles	?
1	Flint	Prehistoric

Field F15 u/str SW 9245 6239-9236 6258		Provisional Date
6	Sherds Modern White Glazed Stoneware.	19th to 20th Centuries
5	Undiagnostic sherds Post-Medieval GRE	17th to 18th Centuries
1	Handlesherd, Cornish Post-Medieval Coarseware. Lostwithiel Ware.	17th Century
1	Rimsherd, Cornish Late Medieval Coarseware. Lostwithiel Ware.	15th to 16th Centuries
1	Sherd Raeren Stoneware	17th Century
2	slag fragments	
8	Water rounded pebbles	?
1	Shillet whetstone	?
2	Flints	Prehistoric
Field F16 u/str SW 9234 6259-9223 6288		Provisional Date
1	Rimsherd, Cornish Medieval Coarseware.	13th to 14th Centuries
5	Sherds, Cornish Medieval Coarseware.	13th to 14th Centuries
1	Handlesherd, Cornish Late Medieval Coarseware. Lostwithiel Ware.	15th to 16th Centuries
12	Undiagnostic sherds Post-Medieval GRE	17th to 19th Centuries
18	Sherds Modern White Glazed Stoneware.	19th to 20th Centuries
1	Sherd Modern Yellow Glazed Stoneware.	19th to 20th Centuries
9	Shards Modern glass	19th to 20th Centuries
4	Water rounded pebbles	?
bn1	Flint	Prehistoric
Field F16 (A) u/str SW 9230 6266		Provisional Date
1	Rimsherd gabbroic fabric, beaded rim Black burnished exterior	Iron Age
2	Sherds gabbroic fabric	IA / RB
1	Sherd, Cornish Medieval Coarseware.	13th to 14th Centuries
6	Flints	Prehistoric
Field F16 (B) u/str SW 9227 6280		Provisional Date
2	Sherds gabbroic fabric	IA / RB
1	Sherd, Cornish Medieval Coarseware.	13th to 14th Centuries
6	Flints	Prehistoric
Field F17 u/str SW 9223 6288-9220 6296		Provisional Date
1	Rimsherd, Cornish Medieval Coarseware.	13th to 14th Centuries
14	Sherds, Cornish Medieval Coarseware.	13th to 14th Centuries
1	Rimsherd, Cornish Late Medieval Coarseware. Lostwithiel Ware.	15th to 16th Centuries
9	Sherds, Cornish Late Medieval Coarseware. Lostwithiel Ware.	15th to 16th Centuries
2	Sherds Post-Medieval Yellow GRE. Press Moulded, trail slip and comb decorated Bristol / Staffordshire Ware	18th Century
9	Undiagnostic sherds Post-Medieval GRE	17th to 19th Centuries
25	Sherds Modern White Glazed Stoneware.	19th to 20th Centuries
1	Sherd Modern Yellow Glazed Stoneware.	19th to 20th Centuries
11	Fragments of green bottle glass.	18th to 19th Centuries
1	Glass goblet base partly melted	18th to 19th Centuries
1	Iron nail	?
1	Fragment Modern terracotta land drain	19th to 20th Centuries
9	Water rounded pebbles	?
14	Flints	Prehistoric
Field F18 u/str SW 9220 9296-9212 6319		Provisional Date
2	Sherds Prehistoric pottery	Prehistoric
2	Rimsherds, Cornish Late Medieval Coarseware.	15th to 16th Centuries

18	Sherds, Cornish Late Medieval Coarseware.	15th to 16th Centuries
10	Undiagnostic sherds Post-Medieval GRE	17th to 19th Centuries
3	Sherds Modern White Glazed Stoneware.	19th to 20th Centuries
3	Sherds Modern Yellow Glazed Stoneware.	19th to 20th Centuries
1	Sherd Modern Stoneware.	19th to 20th Centuries
3	Clay pipe stem fragments.	18th to 19th Centuries
1	Cockle shell	
1	Mussel shell	
1	Iron horse shoe	19th to 20th Centuries
1	Iron fragment	19th to 20th Centuries
<b>Field F18 u/str (Ctd) SW 9220 9296-9212 6319</b>		<b>Provisional Date</b>
8	Fragments of green bottle glass.	18th to 19th Centuries
7	Water rounded pebbles	?
2	Fragments fine grained granite. Natural ?	
5	Flints	Prehistoric
<b>Field F19 u/str SW 9212 6319-9209 6330</b>		<b>Provisional Date</b>
1	Rimsherd, Cornish Late Medieval Coarseware. Lostwithiel Ware.	15th to 16th Centuries
14	Sherds, Cornish Late Medieval Coarseware. Lostwithiel Ware.	15th to 16th Centuries
10	Undiagnostic sherds Post-Medieval GRE	17th to 19th Centuries
3	Sherds Post-Medieval Yellow GRE.	?
12	Fragments of green bottle glass.	18th to 20th Centuries
4	Water rounded pebbles	?
1	Granite fragment. Natural ?	
1	Flint	Prehistoric
<b>Field F21 u/str SW 9205 6341-9201 6352</b>		<b>Provisional Date</b>
3	Rimsherds, Cornish Late Medieval Coarseware. Lostwithiel Ware.	15th to 16th Centuries
3	Handlesherds, Cornish Late Medieval Coarseware. Lostwithiel Ware.	15th to 16th Centuries
7	Sherds, Cornish Late Medieval Coarseware. Lostwithiel Ware.	15th to 16th Centuries
6	Undiagnostic sherds Post-Medieval GRE	17th to 19th Centuries
2	Sherds Post-Medieval Yellow GRE. Press Moulded, trail slip and comb decorated Bristol / Staffordshire Ware	18th Century
10	Sherds Modern White Glazed Stoneware.	19th to 20th Centuries
3	Sherds Modern Yellow Glazed Stoneware.	19th to 20th Centuries
2	Sherds Modern Stoneware.	19th to 20th Centuries
1	Fragment roofing tile	18th Century
6	Fragments of green bottle glass.	18th to 20th Centuries
4	Clay pipe stem fragments.	18th to 19th Centuries
1	Fragment fine grained granite. Quernstone ?	Prehistoric ?
2	Water rounded pebbles	?
1	Flint	Prehistoric
<b>Field F22 u/str SW 9202 6353-9205 6366</b>		<b>Provisional Date</b>
13	Sherds, Cornish Late Medieval Coarseware. Lostwithiel Ware.	15th to 16th Centuries
25	Undiagnostic sherds Post-Medieval GRE	17th to 19th Centuries
1	Sherd Post-Medieval Yellow GRE. Press Moulded, trail slip and comb decorated Bristol / Staffordshire Ware	18th Century
17	Sherds Modern White Glazed Stoneware.	19th to 20th Centuries
5	Sherds Modern Yellow Glazed Stoneware.	19th to 20th Centuries
1	Sherd "Black basaltz" ware	19th to 20th Centuries

10	Clay pipe stem fragments.	18th to 19th Centuries
2	Roofing tile fragments	15th to 16th Centuries
12	Fragments of green bottle glass.	18th to 20th Centuries
3	Water rounded pebbles	?
1	Slate fragment. Natural ?	
1	Animal tooth	?
1	Iron nail	?
<b>Field F23 u/str SW 9205 6366-9209 6381</b>		<b>Provisional Date</b>
1	Undiagnostic bodysherd	Prehistoric ?
15	Sherds, Cornish Late Medieval Coarseware	15th to 16th Centuries
1	Rimsherds Post-Medieval Red Earthenware	16th to 17th Centuries
1	Rim / handle Post-Medieval Red Earthenware	16th to 17th Centuries
1	Handle Post-Medieval Red Earthenware	16th to 17th Centuries
6	Bodysherds Post-Medieval Red Earthenware	16th to 17th Centuries
28	Undiagnostic sherds Post-Medieval GRE	17th to 19th Centuries
1	Sherd Post-Medieval Yellow GRE. Press Moulded, trail slip and comb decorated Bristol / Staffordshire Ware	18th Century
11	Sherds Modern White Glazed Stoneware.	19th to 20th Centuries
1	Clay pipe bowl fragment	17th to 18th Centuries
17	Clay pipe stem fragments.	18th to 19th Centuries
11	Fragments of green bottle glass.	18th to 20th Centuries
1	Iron nail	?
1	Coal fragment	?
1	Ventilation brick fragment	19th to 20th Centuries
1	Firebrick, greatly vitrified	19th to 20th Centuries
5	Water rounded pebbles	?
<b>Field F23 [243] SW 9208 6378</b>		<b>Provisional Date</b>
2	Charcoal fragments	?
1	Iron object	?
1	Fine grained granite fragment, hammerstone ?	
1	Bodysherd, slight incised line decoration	IA / RB ?
<b>Field F23 [245] SW 9208 6378</b>		<b>Provisional Date</b>
1	Bodysherd with incised decoration	Bronze Age
2	Charcoal fragments	?
<b>Field F23 [248] SW 9207 6374</b>		<b>Provisional Date</b>
1	Notched slate	?
1	Flint	Prehistoric
<b>Field F24 u/str SW 9209 6381-9210 6387</b>		<b>Provisional Date</b>
1	Undiagnostic sherd Post-Medieval GRE	17th to 19th Centuries
1	Water rounded pebble	?
<b>Field F25 u/str SW 9210 6388-9202 6419</b>		<b>Provisional Date</b>
3	Rimsherds, Cornish Late Medieval Coarseware	15th to 16th Centuries
1	Handle, Cornish Late Medieval Coarseware	15th to 16th Centuries
5	Sherds, Cornish Late Medieval Coarseware	15th to 16th Centuries
18	Undiagnostic sherds Post-Medieval GRE	17th to 19th Centuries
30	Sherds Modern White Glazed Stoneware.	19th to 20th Centuries
3	Sherds Modern Yellow Glazed Stoneware.	19th to 20th Centuries
2	Sherds Modern Stoneware.	19th to 20th Centuries
25	Clay pipe stem fragments.	18th to 19th Centuries



2	Clay pipe bowls	17th to 19th Centuries
3	Water rounded pebbles	?
1	Chalk lump	?
1	Iron object	?
5	Flints	Prehistoric
<b>Field F26 u/str SW 9203 6421-9199 6436</b>		<b>Provisional Date</b>
12	Sherds, Cornish Late Medieval Coarseware	15th to 16th Centuries
13	Undiagnostic sherds Post-Medieval GRE	17th to 19th Centuries
6	Sherds Modern White Glazed Stoneware.	19th to 20th Centuries
7	Clay pipe stem fragments.	18th to 19th Centuries
2	Iron objects	?
2	Slag fragments	?
5	Fragments of green bottle glass.	18th to 20th Centuries
1	Water rounded pebble	?
1	Flint	Prehistoric
<b>Field F26 [233] SW 9201 6428</b>		<b>Provisional Date</b>
1	Handlesherd, Cornish Post-Medieval Coarseware. Lostwithiel Ware.	15th to 16th Centuries
<b>Field F26 [234] SW 9201 6428</b>		<b>Provisional Date</b>
1	Rimsherd, Cornish Late Medieval Coarseware	15th to 16th Centuries
1	Sherd, Cornish Late Medieval Coarseware	15th to 16th Centuries
4	Undiagnostic sherds Post-Medieval GRE	17th to 19th Centuries
2	Fragments of green bottle glass.	18th to 20th Centuries
3	Clay pipe stem fragments.	18th to 19th Centuries
<b>Field 26 u/str SW 9203 6421-9199 6436</b>		<b>Provisional date</b>
3	Lumps of slag	?
1	Metal object	?
<b>Field F27 u/str SW 9198 6446-9195 6448</b>		<b>Provisional Date</b>
1	Rimsherd, Cornish Late Medieval Coarseware	15th to 16th Centuries
1	Sherd, Cornish Late Medieval Coarseware	15th to 16th Centuries
3	Undiagnostic sherds Post-Medieval GRE	17th to 19th Centuries
3	Sherds Modern White Glazed Stoneware.	19th to 20th Centuries
1	Clay pipe bowl	17th to 19th Centuries
4	Clay pipe stem fragments.	18th to 19th Centuries
2	Fragments of green bottle glass.	18th to 20th Centuries
7	Water rounded pebbles	?
1	Flint	Prehistoric
<b>Field F31 u/str SW 9185 6466-9164 6477</b>		<b>Provisional Date</b>
1	Rimsherd, Cornish Late Medieval Coarseware	15th to 16th Centuries
1	Handlesherd, Cornish Late Medieval Coarseware	15th to 16th Centuries
5	Sherds, Cornish Late Medieval Coarseware	15th to 16th Centuries
12	Undiagnostic sherds Post-Medieval GRE	17th to 19th Centuries
4	Sherds Modern White Glazed Stoneware	19th to 20th Centuries
3	Clay pipe stem fragments.	18th to 19th Centuries
1	Granite fragment	?
1	Slate roofing tile fragment	?
9	Fragments of green bottle glass.	18th to 20th Centuries
7	Water rounded pebbles	?
<b>Field F32 u/str SW 9163 6477-9153 6489</b>		<b>Provisional Date</b>
3	Sherds Modern White Glazed Stoneware.	19th to 20th Centuries
3	Clay pipe stem fragments.	18th to 19th Centuries

1	Fragment of green bottle glass.	18th to 20th Centuries
3	Water rounded pebbles	?
3	Flints	Prehistoric
<b>Field F33 u/str SW 9152 6490-9143 6516</b>		<b>Provisional Date</b>
1	Clay pipe stem fragment	18th to 19th Centuries
1	Fragment of green bottle glass.	18th to 20th Centuries
1	Water rounded pebble	?
1	Flint	Prehistoric
<b>Field F34 u/str SW 9143 6516-9141 6535</b>		<b>Provisional Date</b>
1	Fragment of green bottle glass.	18th to 20th Centuries
<b>Field F35 u/str SW 9140 6356-9137 6552</b>		<b>Provisional Date</b>
1	Sherd Post-Medieval Yellow GRE. Press Moulded, trail slip and comb decorated Bristol / Staffordshire Ware	18th Century
1	Fragment of green bottle glass.	18th to 20th Centuries
1	Water rounded pebble	?
<b>Field F36 u/str SW 9137 6552-9131 6553</b>		<b>Provisional Date</b>
5	Sherds Modern White Glazed Stoneware.	19th to 20th Centuries
1	Clay pipe stem fragment	18th to 19th Centuries
<b>Field F38 u/str SW 9130 6554-9129 6559</b>		<b>Provisional Date</b>
9	Sherds Modern White Glazed Stoneware	19th to 20th Centuries
1	Fragment of green bottle glass.	18th to 20th Centuries
1	Iron boot heel guard	18th to 19th Centuries
3	Water rounded pebbles	?
1	Slate fragment perforated with countersunk holes, Tally or gaming board ?	19th to 20th Centuries
<b>Field F42 u/str SW 9086 6574-9078 6577</b>		<b>Provisional Date</b>
2	Sherds Modern White Glazed Stoneware.	19th to 20th Centuries
1	Quartzite whetstone	?
<b>Field F42 u/str SW 9086 6574-9078 6577</b>		<b>Provisional Date</b>
3	Sherds Modern White Glazed Stoneware.	19th to 20th Centuries
1	Water rounded pebble	?
1	Chalk fragment	?
<b>Field F44 u/str SW 9053 6580-9037 6595</b>		<b>Provisional Date</b>
1	Water rounded slate pebble, Hammerstone ?	Prehistoric ?
<b>Field F47 / 48 u/str SW 9001 6639-8981 6679</b>		<b>Provisional Date</b>
1	Rounded quartzite stone, polisher / whetstone	Prehistoric ?
2	Water rounded pebbles	?
1	Quartz fragment	?
3	Flints	Prehistoric
<b>Field F49 u/str SW 8981 6679-8966 6709</b>		<b>Provisional Date</b>
1	Rounded quartzite stone, polisher / whetstone	Prehistoric ?
<b>Field F51 u/str SW 8965 6713-8963 6741</b>		<b>Provisional Date</b>
4	Water rounded pebbles	?
2	Fragments vein quartz	?
<b>Field F52 u/str SW 8963 6741-8969 6769</b>		<b>Provisional Date</b>
1	Water rounded pebble	?
2	Fragments vein quartz	?
<b>Field F13 spur line u/str SW 9255 6206-9243 6210</b>		<b>Provisional Date</b>
5	Fragments of green bottle glass.	18th to 20th Centuries

5	Sherds Modern White Glazed Stoneware.	19th to 20th Centuries
1	Iron Ox shoe	18th to 19th Centuries
1	Slate fragment, whetstone ?	?

#### 4.1.3 Note on the Ceramic Assemblage.

##### Prehistoric.

Prehistoric and Roman period pottery is discussed in section 4.3.

##### The Medieval period (12th to 14th centuries AD )

The study of Cornish medieval pottery is still at an early stage. Most published sites are rural and lack stratified sequences, their dating being in relation to broad regional traditions. Close dating from a few rimsherds alone is not possible as coarseware forms can have a long duration; for example some rim forms from Exeter continued unchanged from the late 10th century to the early 14th century (Allan 1984).

Only one pottery kiln has been excavated in Cornwall, but fabric analysis has been able to suggest (along with documentary evidence) other areas where pottery was most likely produced; two well documented production centres are known, Lostwithiel in the Fowey valley, and St Germans in the Tamar valley, while fabric analysis has identified a type of pottery which is distinct from these, named *Burnings Park / Stuffle Ware* after the site where it was first recognised, though it is thought that it too may have been manufactured in the Lostwithiel area.

##### *Cornish Medieval Coarsewares.*

Hand made, thin walled vessels, with a micaceous fabric, often with rounded quartz inclusions, sometimes with other crushed rock filler (i.e. slate), sometimes wheel finished, and hard fired.

Vessels represented are mostly cooking pots (undecorated) or occasionally jugs, the centre of production is not known, but most probably based on an area where granitic clays are easily obtainable. They are long lived forms, unchanging practical designs, from the late 12th century, to the end of the 14th century.

##### *Cornish Medieval Coarseware, Burnings Park / Stuffle Ware.*

This pottery is hand made, often wheel finished, thin walled, micaceous fabric with common inclusions of rounded quartz grains, hard fired with a pink-buff exterior and a grey core. This ware was probably fabricated in the Lostwithiel area, though actual kiln sites are not known (it is possible that they were clamp fired without purpose built kilns).

Dating from the 13th and 14th centuries, forms include cooking pots, and jugs; bowls and rare cisterns coming into use at the end of the 14th, start of the 15th centuries, all with sagging bases. Decoration of feint incised lines, applied thumbbed strips, and stabbed handles is infrequent (O'Mahoney 1989 a/b and 1994).

##### *Cornish Medieval Coarseware, St Germans Ware.*

Cornwall; Wheel thrown, thin walled pottery with a micaceous fabric having a sandy / gritty quartz temper and black mica plates as inclusions. Hard fired with reduced buff-grey to dark grey exterior and an almost black core. Dating from the 13th to 15th centuries, forms are mostly cooking pots and jugs with sagging bases; bowls and cisterns being introduced during the 15th century. Decoration is often of simple white slip painted geometric motifs, stab or slashed handles, and occasional incised line decoration.

A kiln site was excavated at St Germans in East Cornwall in 1957 (Minter 1957), however

its widespread distribution through Devon and Cornwall (Broad in Fairclough 1976) perhaps indicates a large number of kiln sites so far unlocated. Fabric analysis indicates a clay with a source in one of the granitic masses of either Dartmoor, or Bodmin Moor.

### **The Late Medieval period (15th to 16th centuries AD)**

Again the understanding of Late Cornish Medieval pottery is limited, apart from the kiln at St Germans mentioned previously (which continued production until c 1500) no other kilns have been excavated, though documentation has indicate the presence of potters (Douch 1969), and small scale excavations uncovered a large number of pottery wasters at Lostwithiel (Miles 1976 and 1979).

#### *Cornish Late Medieval Coarsewares.*

Wheel thrown vessels with a micaceous fabric, often with rounded quartz inclusions, sometimes with other crushed rock filler such as slate. Hard fired. The centre of production is not known, could be various, anywhere granitic derived clays are easily obtainable.

Long lived forms, such as cooking pots are represented along with bowls, jugs, and occasional cisterns, all with sagging bases, sometimes thumbbed though markedly less than earlier forms decoration rare, but may include occasional stabbed rod handles or painted white slip bands.

#### *Cornish Late Medieval Coarseware, Lostwithiel Ware.*

Wheel thrown, thick walled pottery, similar to *Burnings Park / Stuffle Ware* fabric but has significant differences to make it distinct. Generally has large flakes of white mica, more angular white (feldspar) inclusions visible in the fractures, and lacks the small black platy inclusions and soft glistening reddish-brown patches found in *Stuffle* type ware. Pink to grey-brown exterior with a grey core, hard fired. The similarities in fabric suggest that *Lostwithiel Ware* replaces *Burnings Park / Stuffle Ware* in the 15th century.

Though called *Lostwithiel Ware*, no kilns have been found, however small scale excavations within the town (Miles 1976 and 1979) uncovered a large number of pottery wasters in this fabric. Firm documentary evidence for potting in Lostwithiel only exists for the 15th century onwards (Douch 1969) continuing into the 19th century. Forms include cooking pots, cisterns, lid seated jugs, with rod handles, two handled jars, and bowls / pancheons with complicated rims and shoulder carinations. Bases have a more rounded, gentle sloping angles (O'Mahoney, 1989a/b).

Decoration includes stabbed rod handles, horizontal painted bands of white slip, and lines of white slip forming simple geometric patterns, incised lines, and applied thumb pressed strips are also present, but rarer.

#### *Cornish Late Medieval Coarseware, St Germans Ware.*

This is a continuation of the medieval production, with the fabric as described above, the vessels are all wheel thrown, but now much thicker walled. Colour generally dark brown to grey, sometimes almost black. Forms are similar to those for *Lostwithiel Ware* as is decoration styles. Excavation of a kiln at St Germans (Miles 1976) showed the kiln sealed by layers containing 16th century material, indicating a floruit of c1500 for the kiln production (Fairclough 1979).

### **The Post-Medieval Period (Mid 16th to 18th centuries)**

#### *Post-Medieval Glazed Red Earthenware (GRE).*

This is by far the largest group in the whole assemblage, Glazed Red Earthenwares (GRE)

are present in such quantities and with so much variety that although no kiln sites have been found, it is certain that there was more than one source, most likely in Devon, Somerset, and perhaps Bristol.

It seems that GRE was produced from sometime in the first half of the 16th century and continuing throughout the 17th and 18th centuries with little evident change in fabrics.

The lead glaze is clear, taking most colour from the fabric, however green (copper) or red (iron) glazes also occur. Flatwares are always completely glazed on the interior, exterior can vary from completely glazed to wholly unglazed, and is usually patchy. Closed wares vary from careful, overall glazing to exterior glazing with random patches on the interior.

Many of the forms have a long survival with little or no change, and much of this pottery is only dateable in association with other artefacts, i.e. clay pipes. Forms include flatwares such as plates, dishes, and bowls, with and without handles, and pancheons while hollow wares comprise mainly storage jars, pipkins and jugs. Chafing dishes, mugs, drinking cups, standing costrels and cisterns are also forms found. Decoration is rare.

#### *Cornish Post-Medieval Coarseware, Lostwithiel Ware.*

Wheel thrown fabrics identical to those in Cornish Late Medieval Coarseware, Lostwithiel Ware. The only difference is that forms change to those found in Post-Medieval GRE. Bowls common, though there are some closed forms. Decoration includes total glazing (thick dark green) on the interior, patchy on the exterior, with painted white slip decoration sometimes occurring on rims, and exterior.

#### *Post-Medieval Yellow Glazed Red Earthenware, Bristol / Staffordshire Ware.*

Wheel thrown wares, fine buff to cream fabric, with no obvious inclusions produced in Staffordshire around Burslem and Hanley (Stoke on Trent), starting mid 17th century, reaching a height in the mid 18th century. Pottery of similar fabric and almost indistinguishable was manufactured in Bristol, but these appear to all be closed forms (and most probably made by potters originating from Staffordshire working in the city Allan 1984), the vast bulk of wares being traded being flatwares, especially press moulded plates coming from Staffordshire.

Forms include plates, often press moulded to give a "pie-crust" rim, and small numbers of possets, mugs, cups, and chamberpots. Decoration is usually white trail slip over a dark brown slip background, often marbled or combed and feathered into intricate patterns. Yellow glazed, though on flatwares being restricted to the interior surfaces only (Allan 1984; Barker 1993; and Jennings 1981)

### **The Modern Period (19th to 20th centuries)**

#### *Modern Saltglazed Stoneware.*

Wheel turned ware, hard fired stoneware, Saltglazed light brown, over a light grey to light buff fabric. Forms include tankards, mugs, and inkwells. 18th and 19th century production, continuing into the early 20th century was centred around Staffordshire and Nottingham.

#### *Modern White Glazed Stoneware.*

White Glazed Stonewares, Saltglazed, were first made in large quantities in the late 18th century and by the 19th century came to dominate the market. Fabric is white, fine, with an overall, even white saltglaze. Mostly domestic uses, plates, mugs, bowls, and chamber pots predominating, being utilitarian forms changed little so are difficult to date precisely unless a makers mark is present. decoration is plain or press moulded rims on plates during the

18th century; by the 19th century hand painted, or blue and white transfer printed common. The centre of production is around Staffordshire, especially Stoke on Trent.

#### *Modern Yellow Glazed Stoneware*

Similar to Modern White Glazed Stoneware, but a 19th century development. Fabric is white, fine grained with an even overall, yellow saltglaze. Again utilitarian domestic wares, mostly plates. Usually undecorated. Production centred around Staffordshire.

#### **4.1.4 Discussion**

By Anna Lawson Jones.

This project has produced a large and varied finds assemblage. Pottery constitutes a large proportion of this and is particularly suitable for dating purposes. A simple chronological analysis of the distribution of the scatters has produced some interesting results. A distinct pattern of zones of activity relating to settlement and domestic material/waste can be seen. The main result has been to show a very distinct and long lived preference for the southern half of the pipeline route. This is of significance because it clearly reflects zoning – not only between Recently and Anciently Enclosed Land, but also within the Anciently Enclosed Landscape itself (see section 2.4.1). The list below illustrates this:

##### **Prehistoric and Romano-British:**

Lanhainsworth	Field 23	2 sherds.
Roserrans & Tregatillian	Field 18 and 16	7 sherds.
Quoit and Ennisworkey	Field 12 (Little Quoit Farm – separate report forthcoming).	
Ruthvoes	Field 3	3 sherds.

##### **Medieval (13<sup>th</sup> & 14<sup>th</sup> century):**

Tregatillian	Fields 17 and 16	23 sherds.
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##### **Medieval (15<sup>th</sup> & 16<sup>th</sup> century):**

Gluvian	Field 31	7 sherds.
Lanhainsworth	Fields 27, 26, 25, 23 and 13	53 sherds.
Roserrans & Tregatillian	Fields 21, 19, 18, 17, 16 and 15	60 sherds.
Ruthvoes	Fields 5 and 3	7 sherds.

**Note:** It is probable that the prehistoric (and Romano-British) pottery collection is under represented within the assemblage. Its frequently friable character, and the length of time during which disturbance and exposure via ploughing is likely to have taken place will have substantially reduced its survival rate.

The above lists show that the northern fields were consistently treated as marginal in terms of domestic settlement. No Medieval or earlier pottery was found north of field 31. A broad expanse of fields located to the east of modern day St Columb Major appears to have always been favoured, particularly fields 27 to 15. A further zone of activity was located at the extreme southern end of the route, in the vicinity of Ruthvoes.

The quantities of early (pre-medieval) material are small but significant (and should be viewed in conjunction with the flint work scatters). In general the more resilient flint artefacts mirror the same pattern seen in the pottery (ie fields 27 to 1) although numerically there is a distinct increase in the number of pieces from fields 6 to 3 (at Ruthvoes). In each

case either prehistoric flint, remnant layers or features were found in close proximity. Some at least of these will have been contemporary with the residual pottery (with the exception of field 12). The location spots for this early material is of interest because they broadly correspond with the zoning seen in the later scatters, indicating that the same types of environment remained attractive to settlement/cultivation etc throughout the medieval and earlier period. This is a pattern typical of Anciently Enclosed Land. However, by separating out the post-medieval material it has become apparent that the northern end of the Anciently Enclosed Landscape (crossed by the pipeline) was regarded and used in a different way. Settlement seems to have been less intensive and the manuring of fields with domestic waste and midden material did not take place. The discovery of ditches etc to the north of field 31, ie around Talskiddy shows that despite this, the area was an Anciently Enclosed Landscape. It may be that enclosure here was of a different sort. Perhaps it was more closely concerned with the enclosure of pastoral land and livestock, or the production of foods less dependent on soil improvement.

A single scatter of Medieval pre-15th century material was found, dating to the 13th and 14th centuries. It was found near Tregatillian, and although this one scatter contained considerably more pieces of pottery than the earlier material for the entire pipeline (with the exception of field 12) it was notably smaller in number than the slightly later 15th and 16th century assemblage.

The vast majority of the medieval pottery assemblage was recovered from un-stratified layers associated with either current or old plough soils, ie contexts [395] and [396] at Ruthvoes. The locations and concentrations of this material is directly related to the then contemporary settlement pattern and associated agricultural practices. During the Medieval period, domestic waste tended to be locally generated and locally disposed of – primarily through the use of domestic and animal waste as a field fertiliser. At a later date beach sand was sometimes imported and ploughed into heavy, acidic clay soils (to improve drainage and reduce acidity levels). The very slight shift between the two groups of medieval pottery probably correlates most closely to an enlargement of the existent pattern than to a shift in settlement focus. Based on the post-medieval pattern of pottery this expansion of intensive agricultural use and settlement continued on until the twentieth century.

## **4.2 The flint assemblage.**

By Anna Lawson Jones

### **4.2.1 Introduction**

This relatively large flint assemblage has come from along the length of the pipeline corridor, primarily from unstratified topsoil and/or subsoil layers. It is mixed in terms of date, quantity and quality, and like the general finds report has been listed and described by area and field (from north to south).

A small assemblage located during the excavation of field 12 (Little Quoit Farm a Romano-British round) has been discussed within a separate report to SWW (Lawson-Jones forthcoming). However, since this material should be seen in conjunction with the rest of the assemblages for the Quoit area, reference has been made to it in this report.

Throughout the catalogue reference will be made to flint source, ie. whether it is pebble or nodular in origin. The following comments describe the relevance of the source.

Flint source, proximity and availability would obviously have played a part in the valuing of this essential commodity during the prehistoric period, particularly with regard to inland locations. As Tingle states "*...whatever the advantages of a raw material source, proximity alone will*

*not ensure that it will be exploited at the expense of more distant sources" (Tingle 1998). Philips postulates that "...the flake-based, heavily retouched style of flint in vogue in the Bronze Age made high quality raw material less necessary" (Philips 1989).*

Pebble flint and chert in Cornwall comes from the surrounding beaches and represents not only the nearest source for flint but also a surprisingly abundant one. Use of pebble flint in Cornwall is not in itself a dateable characteristic since it was a source used throughout the prehistoric period. However, due to the location of this pipeline all the pebble flint found must have been transported in. Where pebble material has been found without any sign of use, ie. knapped for tool production, 'bashed' during use as a hammer stone or rubbed smooth through use as a polisher etc. it is less easy to assign a prehistoric date, although such material can represent un-used caches of raw material, or sling shot.

Soil improvement practice, since the medieval period, has included the wholesale importation of beach sand, which was then ploughed into the soil. When such soil improvement has taken place the result is a fairly liberal scattering of beach pebbles, some of which will be flint. More recently introduced beach material will often have undergone crushing. In this case the flint is recognisably crushed as opposed to knapped. There is bound to be some uncertainty when a prehistoric assemblage coincides with a field that has undergone (non-crushed) soil improvement.

Nodular material does not occur naturally in Cornwall. Such material would have been imported or transported into Cornwall. This would have been in the form of un-modified nodules, partially prepared nodules (or cores), or occasionally perhaps as finished artefacts. The most likely and closest source would be from the chalk outcrop at Beer Head, on the south-east coast of Devon (Care 1982, and Tingle 1988). However, there are closer secondary sources, for example the Devon head and gravel deposits of western Devon (Wainwright and Smith 1980). In Cornwall the use of nodular flint is frequently considered indicative of the third and second millennia BC (Healy 1985, Berridge and Roberts 1986).

#### 4.2.2 Results

What follows below is a series of short tables which present a list of the fields which produced flint material, followed by a short description of each piece found.

- 1 The Bear's Down to Denzell Downs area consists of 11 fields. Only field 47 produced any flint material. An assemblage of 3 pieces was found.

Bear's Down / Denzell Down	
Field number	Flint description
Field 47	Probably nodular. End scraper. Neolithic.
"	Nodular. Knife fragment. Probably Neolithic.
"	Nodular. Point with use related abrasion. Probably Neolithic.

- 2 The Talskiddy area consists of 10 fields. Only field 33 produced any flint material. One piece of flint was found.

Talskiddy	
Field number	Flint description
Field 33	Pebble flint. Broken blade with tiny retouch along one edge. Broken knife. Undated.

- 3 The Gluvian area consists of 5 fields. Only field 32 produced any flint material. An assemblage of 3 pieces was found.



Gluvian	
Field number	Flint description
Field 32	Pebble flint. Broken blade. Abraded, possible retouch on one side. Undated
"	Pebble flint. Thick, near square primary flake. No modification. Undated.
"	Probable pebble flint. Broken knife blade. Retouched. Undated

4 The Lanhainsworth area consists of 6 fields. Only fields 27, 26, 25 and 23 produced any flint material. An assemblage of 8 pieces was found.

Lanhainsworth	
Field number	Flint description
Field 27	Nodular flint. Slightly abraded, retouched flake. Knife. Neolithic
Field 26	Pebble flint. Small flake. Unmodified. Debitage. Undated.
Field 25	Pebble flake. Slight serrations down one side and around distal end. Possible use wear. Undated.
"	Probable pebble flint. Thick, honey coloured flake. Has a scraper edge. Possible cutting related damage on edges. Undated.
"	Pebble flake. Two slightly retouched edges. Undated.
"	Pebble flake. Retouched. A knife. Undated.
"	Probable pebble flint. Fabricator ? Undated.
Field 23 [248]	Probable pebble flint. A complete, finely worked microlith. Trapezoidal. Mesolithic.

5 The Tregatillian area consists of 95 fields. Only fields 21, 19, 18 and 17 produced any flint material. An assemblage of 20 pieces was found.

Tregatillian	
Field number	Flint description
Field 21	Pebble flint. Cutting / chopping tool. Undated.
Field 19	Uncertain source. Snapped, unmodifieddebitage. Undated.
Field 18	Pebble flint. Cutting / chopping tool. Very abraded. Undated.
"	Uncertain source. Thin flakelette. Not modified, but some possible use related serrations. Undated.
"	Uncertain source. Faulted. Waste flake. Undated.
"	Pebble flint. Slightly abraded. Unmodified flake. Waste. Undated.
Field 17	Uncertain source. Unmodified flakelette. Debitage. Undated.
"	Uncertain source. Heat blistered flakelette. Undated.
"	Uncertain source. Distal end of flake / blade. Retouch on one short length. Miscellaneous piece. Undated.
"	Uncertain source. Bladelette. Not modified. Undated.
"	Uncertain source. Possible trimming flake. Undated.
"	Uncertain source. Bladelette. Possible retouch. Undated.
"	Uncertain source. Bulbar end of large, probable flake. Retouched edges. Snapped knife? Neolithic?
"	Nodular flint. Primary waste flake. Neolithic ?
"	Nodular flint. Thick, primary waste flake. Neolithic ?
"	Probable pebble flint. Honey brown miscellaneous retouched piece. Undated.
"	Nodular flint. Thick flake scraper. Neolithic.
"	Uncertain source. Slightly abraded point / awl with notches / retouch on either side of the point. Undated.
"	Uncertain source. Heat blistered point / awl. Notches on either side of the point. Undated.

"	Nodular flint. Thick, primary flake with multi-directional removals. Remnant core with scraper edge. Neolithic.
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6 The Roserrans area consists of 3 fields. Only fields 16 (scatters A and B) and 15 produced any flint material. An assemblage of 15 pieces was found.

Roserrans	
Field number	Flint description
Field 16	Uncertain source. Long, amorphous shaped flake with probable use related removals associated with one long, angular cutting edge. Possibly Neolithic ?
Field 16 - Scatter A.	Uncertain source. Heavily burnt flint chip. Undated.
"	Uncertain source. Heavily burnt flint flake. Undated.
"	Pebble flint. Tiny flakelette. Undated.
"	Pebble flint. Blade with one serrated side. Undated.
"	Uncertain source. Distal end of a triangular sectioned, probable blade. Undated.
"	Uncertain source. Long, amorphous shaped flake with probable slicing use related removals. Undated.
Field 16 - Scatter B.	Pebble flint. Heat blistered primary waste. Undated.
"	Nodular flint. Core tablet. No modification. Neolithic ?
"	Nodular flint. Snapped primary flake. Neolithic ?
"	Pebble flint. Abraded, crescent shaped flake with battered cortex suggestive of previous use as a hammer stone.
"	Pebble flint. Heat blistered core tablet. Undated.
"	Nodular flint. Thick, probable frost blistered flake. appears to show some cutting edge removals. Neolithic ?
Field 15	Uncertain source. Distal end of a long triangular sectioned, retouched piece. Broadens suddenly towards lost bulbar end. Knife ? Undated.
"	Uncertain source. Retouched distal end of a bladelette. Mesolithic / Neolithic ?

7 The Quoit area consists of 3 fields. Only fields 13 and 12 produced any flint material. An assemblage of 8 pieces was found.

Quoit	
Field number	Flint description
Field 13	Uncertain source. Complete leaf shaped arrow head. Neolithic.
"	Uncertain source. Bulbar end of a thick snapped flake with serrated retouch. Neolithic.
Field 12	<i>Six Neolithic flint pieces found within Field 12 - see separate report.</i>

8 The Ennisworgey area consists of 4 fields. Only fields 10 and 9 produced any flint material. An assemblage of 22 pieces was found.

Ennisworgey	
Field number	Flint description
Field 10	Uncertain source. Miscellaneous retouched bulbar end of a blade. Possible knife. Undated.
"	Nodular flint. Miscellaneous retouched piece. Neolithic ?
Field 9	Uncertain source. Tiny flint chip. Undated.
"	Nodular piece. Heat blistered, not modified. Neolithic ?
"	Uncertain source. Probably frost fractured. Undated.
"	Uncertain source. Debitage flake. Undated.
"	Pebble flint. Miscellaneous heat blistered piece. Undated.
"	Nodular flint. Debitage flake. Neolithic ?

"	Pebble flint. Primary flake. Possible retouch along cutting edge. Undated.
"	Nodular flint. Flakelette with possible use related or natural removals. Neolithic ?
"	Uncertain source. Bulbar end of a bladelette. Possible use related removals along cutting edge. Undated.
"	Uncertain source. Heat damaged, miscellaneous retouched piece. Undated.
"	Nodular flint. Core with rough modification on one edge and finer retouch modification on another cutting / slicing edge. Neolithic ?
"	Nodular flint. Blade with slight retouch along one cutting edge. Neolithic ?
"	Nodular flint. Unmodified flake. Neolithic ?
"	Nodular flint. Faulted primary waste flake. Neolithic ?
"	Chert. Waste flake with wide blade removals visible across dorsal surface. Possibly Neolithic ?
"	Chert. Long blade with fine retouch along one edge and around the whole of the distal end. Knife. Neolithic ?
"	Pebble flint. Re-used piece. Engraver (burin like). Undated.
"	Uncertain source. Near circular scraper, (large thumbnail or short horseshoe scraper). Neolithic ?
"	Uncertain source. Triangular shaped arrow head. Point missing - possibly used. Neolithic.

- 9 The Ruthvoes area consists of 11 fields. Fields 7, 6, 5, 4 and 3 produced flint material. An assemblage of 87 pieces was found.

Ruthvoes	
Field number	Flint description
Field 7	Nodular flint. Borer with minimal modification around the point. Neolithic.
Field 6	Uncertain source. Heat damaged, miscellaneous chip / flake. Undated.
"	Uncertain source. Heat damaged, miscellaneous flake. Undated.
"	Uncertain source. Debitage flakelette. Undated.
"	Uncertain source. Debitage bladelette. Undated.
"	Uncertain source. Bulbar end of a flake with retouch around the end. Fine bladelette removals visible across the dorsal surface. Slight heat damage. Potentially Neolithic.
"	Uncertain source. Retouched flake with pointed distal end. Undated.
"	Nodular flint. Flake with removals along cutting edges. Neolithic..
"	Pebble flint. Blade with possible retouch at distal end. Undated.
"	Pebble flint. Probable blade with distal and bulbar ends snapped off. Undated.
"	Probable pebble flint. Bulbar end of blade. Retouch running down one edge from the blade. Knife. Undated.
"	Pebble flint. Thick blade borer from a multi-platformed core. Also has a cutting edge. Undated.
"	Pebble flint. Thick blade with many tiny bladelette removals along the dorsal surface. Possible bulb preparation. Mesolithic / Early Neolithic.
"	Probable pebble flint. Long, thick, narrow, triangular sectioned blade with two opposing notches at bulbar end - hafting ? Mesolithic / Early Neolithic.
"	Probable pebble flint. Triangular sectioned bladelette. Possible use related removals along edges. Mesolithic / Early Neolithic.
"	Quartz. Blistered on one side. possibly worked. Undated.
Field 5 (Topsoil/[395])	Pebble flint, previously used as a hammer stone. Large primary flake. Unmodified. Conspicuous waste of material. Undated. (Same pebble as below ?).
"	Pebble flint, previously used as a hammer stone. Large flake. Unmodified. Conspicuous waste of material. Undated. (Same pebble as above ?).
"	Pebble flint, faulted, previously used as a hammer stone. Some modification along distal edge. Undated.
"	Pebble flint. A large multi-platformed core. Bronze Age?.

"	Pebble flint. Thick, primary blade with possible retouch on one edge. Miscellaneous glossy patches. Slicing knife ? Undated.
"	Pebble flint. Long, thick, primary blade. Unmodified. Previously part of a hammer stone. Undated.
"	Pebble flint. Waste flake. Undated.
"	Pebble flint. Broad, unmodified blade. Possible use related removals at distal end. Undated.
"	Pebble flint. Multi-platformed core, not exhausted. Used as a point or an engraver. Slight retouch around possibly broken tip. Undated.
"	Pebble flint. Pyramid- like blade core. Probably Neolithic (possibly late Mesolithic ?).
"	Pebble flint. Undiagnostic core. Undated.
"	Pebble flint. Tried core. Heavily heat blistered. Undated.
"	Pebble flint. multi-platformed core. Abraded. Undated.
"	Uncertain source. Pyramid core, made on a large recorticated (or previously used) piece. Undated.
"	Pebble flint. Thick, primary waste flake. Undated.
"	Nodular flint. Thick, primary flake made in to a steep sided end scraper. From a nodule possibly previously used as a hammer stone. Neolithic.
"	Uncertain source. Small, faulted, burnt bladelette. Undated.
"	Pebble flint. Primary waste flake. Undated.
"	Pebble flint. Waste debitage flake. Undated.
"	Pebble flint. Primary waste flake. Undated.
"	Pebble flint. Primary waste flake. Undated.
"	Uncertain source. Waste flake. Undated.
"	Pebble flint. Flake with retouch along one side. A slicing knife. Bronze Age?.
"	Uncertain source. Miscellaneous retouched flake. Undated.
"	Pebble flint. Central portion of a blade. Slight retouch on one side. A knife. undated.
"	Uncertain source. Miscellaneous serrated flake. Undated.
"	Nodular flint. Snapped blade with serrated retouch. Knife fragment ? Neolithic.
"	Uncertain source. Leaf arrowhead (rough-out). Neolithic.
"	Chert. Large flake with retouch down one edge and possible levering damage on opposing side. Undated.
"	Uncertain source. Waste chip. Undated.
"	Pebble flake. Heated, possibly retouched, miscellaneous piece. Undated.
"	Probable nodular flint. From a large multi-platformed core. Has a modified, crushed point. Neolithic
"	Pebble flint. Serrated primary blade, used for cutting / slicing. Undated.
"	Probable pebble. Broken, possibly serrated bladelette. Early Neolithic (Late Mesolithic).
"	Probable pebble. Tiny retouched bladelette. Early Neolithic (Late Mesolithic).
"	Probable pebble. Thick. triangular sectioned bladelette. Slight retouch on one edge. Early Neolithic (Late Mesolithic).
"	Probable pebble. Long, narrow, thick blade. Early Neolithic (Late Mesolithic).
"	Pebble flint. Long retouched blade. Early Neolithic (Late Mesolithic).
"	Probable pebble. Blade with possible use / slicing related removals on one edge. Early Neolithic (Late Mesolithic).
"	Probable pebble. Long unmodified blade. Early Neolithic (Late Mesolithic).
"	Probable pebble. Small damaged arrowhead ? Two opposing notches in hafting area. Early Neolithic (Late Mesolithic) ?
Field 4 (Topsoil [395])	Pebble flint. Bladelette. Undated.
"	Uncertain source. Frost damaged flake fragment. Undated.
"	Uncertain source. Frost damaged blade fragment. Undated.
"	Uncertain source. Miscellaneous retouched flake piece. Undated.

"	Uncertain source. Bulbar end of probable blade. Retouch on both edges. Broken knife ? Undated.
"	Pebble flint. Distal end of a retouched flake. Undated.
"	Uncertain source. Thick narrow bulbar end, broad central area and narrower, retouched distal end, with probable worked distal point missing. Point or awl. Possibly Neolithic.
"	Uncertain source. Miscellaneous retouched piece. Undated.
"	Uncertain source. Waste flake. Undated.
"	Nodular flint. Bulbar end of a serrated blade. Neolithic.
"	Pebble flint. Probable remnant core, possibly used as an engraver. Crushing visible on engraver end. Neolithic/Bronze Age.
"	Pebble flint. Thick triangular sectioned flake, possibly used as an engraver. Undated.
"	Chert. Unmodified chip. Waste. Undated.
"	Chert. Broken flake waste. Undated.
"	Pebble flint. Bladelette with slightly concave edges and tiny retouch. Undated, but possibly Neolithic.
"	Uncertain source. Heat damaged flake. Undated.
"	Uncertain source. Notched, narrowing retouch around the bulbar end. Some heat damage. Undated.
"	Pebble flint. Blade from a multi platformed core. Slight retouch on a single edge. undated.
Field 3 [408]	Pebble flint. Small debitage flakelette. Undated.
Field 3 Boundary 104	Uncertain source. Burnt distal end of a flake. Undated.
Field 3 (Topsoil [396])	Uncertain source. Broken flakelette. Undated.
"	Uncertain source. Distal end of a flakelette. Undated.
"	Uncertain source. Heavily heat blistered. Thick flake. Undated.
"	Pebble flint. One side of flake removed. Undated.
"	Uncertain source. Unmodified bulbar end of flake. Undated.
"	Nodular flint. Bulbar end of unmodified flake. Possible use related serrations on cutting edge. Neolithic ?
"	Pebble flint. Faulted, possibly modified flake. Undated.
"	Probable pebble flint. Blade. No retouched modification although use related removals along cutting edges. Undated.
"	Uncertain source. Heat blistered. Possible core remnant. Undated.
"	Probable nodular flint. Blade with distal end missing. Tiny serrations along one cutting edge with a deliberately created notch near the bulb. Retouched concave shaped opposing cutting edge. Knife ? Neolithic ?
"	Pebble flint. Long blade with dorsal retouch around corticated bulbar end. Slightly serrated edges. Knife / Neolithic ?

#### 4.2.3 Discussion

Spatially, the number of lithics increase significantly in quantity from north to south. The 31 northern fields (nos. 22 to 53) produced just 15 flints from seven fields, whilst the 21 southern fields (nos. 1-21) produced 152 flints from 15 fields. A good proportion of this material is not sufficiently diagnostic to allow a precise date to be given. However, the majority of the field assemblages, when looked at in total, do give an indication of their likely date range. Fields in the Bear's Downs, Denzell Down, and Quoit area produced lithics that were Neolithic in character; the Lanhainsworth fields produced Mesolithic to Neolithic material; Gluvian, Tregatillian and Ennisworrey's fields appeared to span the Neolithic and Bronze Age periods; Talskiddy's single artefact was not dateable; and the Roserrans and Ruthvoes' fields covered material dating from the Mesolithic, through

Neolithic to Bronze Age periods.

In broad terms the distributions seem to bear a general relationship to the areas of Recently Enclosed Land and Anciently Enclosed Land, suggesting that distinctive zones of land use were developing at an early stage and shaping later patterns of land use. Tregatillian, Roserrans, Ennisworkey and Ruthvoes in particular produced noticeable concentrations of material in relation to other areas along the length of the pipeline, notably fields 16-17, 9, and 3-6. It is likely that these assemblages relate to settlement activity, which in some cases was quite prolonged, and indicative of Anciently Enclosed Land. This interpretation is partly based on the quantity of material, partly based on the variety of lithic material collected and partly based on the number of burnt pieces (which when found in any noticeable quantity are good indicators of settlement activity). In contrast the pieces found on Bear's Down and Denzell Down appear more select in nature, ie. they are all comparatively large, all nodular and all were complete or near complete tools. They were also far fewer in number, reflecting the historically more marginal nature of the area. The fields looked at within the Talskiddy area, although within Anciently Enclosed Land have presumably always been prone to waterlogging and as such are unlikely to have been used during the prehistoric period for anything other than seasonal pastoral grazing and hunting. The majority of this flint assemblage (as with most Cornish assemblages) consists of pebble flint. However, a relatively high percentage was nodular in origin, suggesting a relatively intensive (if fleeting) Neolithic use of the landscape crossed by the pipeline. The nodular material covers the whole spectrum of tool types (and waste) implying a variety of different site types and functions including hunting (arrowheads), processing (scrapers, knives), knapping (cores and waste/debitage) and domestic (burnt material etc).

Much of the pebble flint is less easily dateable, but is likely to be Mesolithic, Neolithic and Bronze Age in date. Despite not being diagnostic it is felt that a good proportion of this material is likely to be Bronze Age in date. Later Mesolithic/Early Neolithic material is certainly represented by it.

It is likely that the majority of the lithic material discussed would have originally been associated with cut features, particularly the later prehistoric material which dates to a period when settlement was less fleeting or seasonal and more static in character. As longer-term structures, storage (and occasionally defence) etc grew in importance the quantities of residual lithic material would have increased through out the prehistoric period. As these settlements shifted or became abandoned, later agricultural activity in the form of ploughing etc would have taken place, removing the subsurface evidence for many of the shallower features. However, the resilient nature of the flint would mean that it survived. Recent research has shown that 'residual' material within plough soil horizons are not in fact significantly shifted from their original point of deposition in the case of level areas of cultivation (Gingell 1980). Significant lateral displacement of artefacts is only a problem in areas that slope.

### 4.3 The Prehistoric and Roman period pottery assemblage

By Henrietta Quinnell

#### 4.3.1 Field 3 Ruthvoes

Three un-stratified sherds were found in the topsoil / layer [396]. One sherd in well made gabbroic ware (3g), abraded, has traces of two incised lines forming parts of two converging arcs; it is entirely typical of South Western Decorated ware. Two other granitic sherds (8g, 9g) appear typical of South Devon ware, a ceramic of which most Cornish finds are probably 4<sup>th</sup> century AD; study of the extensive collection from Duckpool, Morwenstow has provided the most recent comment (Quinnell 1995,128).

Radiocarbon determination AA-36499, calibrating at 2  $\sigma$  to AD 426-637, from context [407] (the *in situ* burnt, basal fill of 'U' profiled cut [409] – a possible oven) in this field, may indicate that activity here extended beyond the Roman period into the early post-Roman period; it was not associated with any artefacts.

#### 4.3.2 Field 16

Scatter 16A produced two sherds of well made gabbroic ware. One (11g), abraded, had traces of lightly incised chevrons, the other (6g) is a rim from an upright necked jar with a black burnished exterior. This latter is entirely typical of South Western Decorated ware and the former most probably also belongs to this tradition. Scatter 16B produced two well made gabbroic sherds (8g together), most probably of the same later Iron Age date as South Western Decorated ware.

#### 4.3.3 Field 23 Lanhainsworth

Fill [243] of ring ditch [242] produced a body sherd (8g) in gabbroic fabric, rather softer and more open than standard gabbroic material; its exterior has traces of a series of parallel grooves. This context produced a radiocarbon date, which calibrates to AD 423-639 at 2  $\sigma$ . The fabric of this sherd is comparable to the Late Variant identified at Penhale (Quinnell in Nowakowski 1998).

Roman style gabbroic pottery continues to be manufactured through the 5<sup>th</sup> and 6<sup>th</sup> centuries AD but gradually becomes less well-made (Quinnell 1986, 129; Quinnell forthcoming (a). Ring ditch [242] and adjacent [245] are unusual in that they appear to belong to occupation of the post-Roman period only, and not to continue Roman period occupation.

P1 (60g) from [245] fill of ring ditch [244] is in a soft, oxidised, gabbroic fabric 17mm thick. Its form (Fig 38) and decoration of fine incised lines in an infilled triangle pattern (Longworth 1984, Fig 9, Motif H) suggested a possible collared urn of Early Bronze Age date. Its fabric was examined by Dr R T Taylor who comments 'abundant white altered feldspar, pyroxene and some angular, white, vein-quartz; typical Lizard-type gabbroic fabric'. This fabric is more comparable to Bronze Age ceramics than those of the Iron Age to Roman/post-Roman sequence. The decoration is more finely incised than that so far recognised on gabbroic fabrics at any date and appears likely to have been 'produced by using the sharp edge of a flint flake', a trait noted by Longworth for his North Western Style of collared urns (1984, 30). This characteristic has not been noted so far on collared urns in Cornwall; Longworth (*ibid*, 165) lists 13 collared urns of which only two, No 178 from Falmouth and No 179 from Gwinear-Gwithian, have incised decoration; neither design is closely comparable to the Lanhainsworth sherd and on both the incisions are much broader and coarser. Several collared urns can be added to Longworth's 1984 list, for example the plain vessel from Davidstow Site V (Christie 1988, Fig 46B), but none appear to provide closer comparanda. Context [245] produced a radiocarbon date which calibrates

to AD 398-600 at  $2\sigma$ ; this date and the general similarity of the ring ditch to the adjacent [242] with a similar radiocarbon date suggests both features are likely to belong to the 5<sup>th</sup> to 6<sup>th</sup> centuries AD. P14 is a little abraded. If it really is part of a collared urn it has been redeposited in the context in which it was found; collared urns tend to be rarely found away from funerary and barrow contexts even in areas with intensive fieldwork such as Stonehenge (Cleal 1990, 245) and P14 appears to be the only such find so far known from Cornwall. An alternative explanation would be that it belonged to the 5<sup>th</sup> to 6<sup>th</sup> centuries and that the lack of close comparanda is due to the period when so little pottery has been studied.

P2 (23g), unstratified and abraded, in a granitic fabric, comes from a wide carinated bowl or jar (Fig 38). The exterior surface is smoothed and sooted. These carinated vessels are typical of the broad Late Bronze Age to Early Iron Age ceramic sequence in Southern Britain (Barrett 1980) but are comparatively rare in Cornwall. The best assemblage comes from Bodrifty (Dudley 1956) where Nos 3, 4 and 15 provide comparanda for P15. Barrett divides the ceramic sequence into 'plain' 11<sup>th</sup> to 9<sup>th</sup> centuries BC and 'decorated' 8<sup>th</sup> to 5<sup>th</sup> but P15 is too small for the overall character of the vessel from which it came to be reconstructed. Recent finds eg from West Porth, Samson (Quinnell 1994) are beginning to show that this material is not as rare as once thought. Field 23 is only 2 km from the hillfort of Castle-an-Dinas, a site whose morphology suggests a long sequence, although the interim report published on the small scale excavations of the early 1960s (Wales 1963, 55) states that 'the few small sherds (found) can be provisionally be considered as late South-Western B Iron Age types'; Rampart III, regarded as the earliest, had no dateable material associated with it and could well belong somewhere in the Late Bronze Age to Early Iron Age.

#### 4.3.4 Fabrics

Gabbroic fabrics have been divided into three categories based on variations originally recognised at Trethurgy (Quinnell forthcoming (a)). *Well made* has a compact matrix, inclusions generally less than 2mm and an exterior surface often finished by burnishing; this fabric is used during the Later Iron Age and appears to continue until early in the 2nd century AD. *Standard* has a matrix which often contains small voids from poor mixing and inclusions which are generally 2-5mm although occasionally larger; surfaces are smoothed. *Coarse* has a poorly worked body and inclusions, which are frequently over 5mm; surfaces have little finish. Both standard and coarse gabbroic appear by the 2nd century. A Late Variant (LV) fabric, recently recognised in assessment of Penhale Round at Indian Queens (Quinnell in Nowakowski 1998) and thought to be broadly 4th century, or later, in date may occur in Field 23.



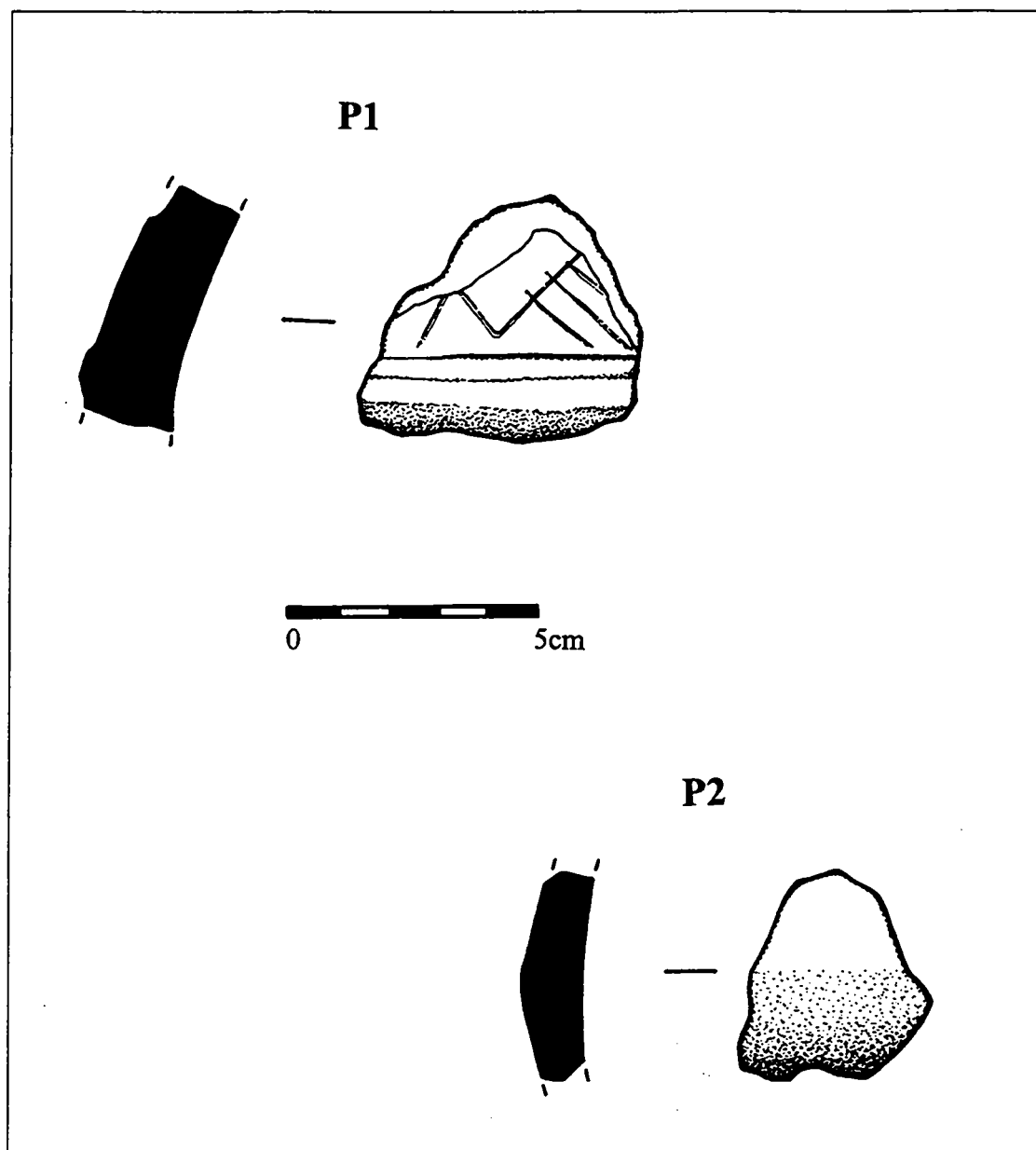


Fig 38. *Drawing of sherd P1 from context [245] and unstratified sherd P2, by Carl Thorpe.  
(Referred to in section 4.3 of the pottery report).*

## 4.4 Environmental report – Charred plant remains

By Julie Jones

### 4.4.1 Introduction

Note: The table of results is presented at the end of this report (section 8.5).

Samples were recovered by the Cornwall Archaeological Unit associated with the excavation of a pipeline from Bears Down to Ruthvoes in Cornwall. The contexts sampled were from the excavation of a 2<sup>nd</sup> to 3<sup>rd</sup> century Romano-British site at Little Quoit Farm. Many of the features found there were thought to be associated with metalworking with deposits containing quantities of slag and charcoal. Other features sampled were from a watching brief carried out on the remainder of the pipeline, which revealed features from various periods.

The samples were sieved in the School of Geographical Science at Bristol University in a flotation tank to a 250 micron float and 500 micron residue. The floats and residues were then dried before examination. While most of the samples produced charcoal, many contained no other plant remains and are indicated as 'assessed' on the table. Those samples that did contain plant macrofossils, included mostly very small assemblages of cereal grain, chaff and weed seeds and other remains. Full details are shown on Table 1. Nomenclature follows Stace (1991).

### 4.4.2 Watching Brief Fields

Samples were taken from features in fields at the southern end of the pipeline. The features sampled were of various dates and were examined for both charcoal and plant remains and with a view to obtaining material suitable for dating.

#### Field 3

Four samples were taken from features in this field thought to be associated with a Bronze Age barrow. A large spread/layer with flints (context 393) produced a single wheat grain with single examples of seeds of heath-grass and scarlet pimpernel (*Anagallis arvensis*). The basal fill of an oval pit (context 407), with evidence of *in situ* burning, included the richest assemblage recovered. This was predominantly barley grain, with a total of 123 grains including examples of hulled barley. A few wheat and oat grains were also present but no cereal chaff or weed seeds. Charcoal from this feature was been submitted for radiocarbon dating and produced a date of AD440-599.

Two further samples from ditch fills (contexts 411 and 422) produced no plant remains.

#### Field 5.

No plant remains were recovered from the large spread/layer with flints (context 395) examined in this field.

#### Field 9

The basal fill of a linear feature (context 385) produced no plant remains.

#### Field 23

The fill of a truncated ditch (context 243), thought to be part of a Bronze Age ring ditch included several grains of wheat, barley and oats with a few fragments of gorse stem, hazel nut shell and a single brome seed. The fills of the truncated ditch [244] and a circular pit [247] produced no plant remains. Charcoal from two fills of the ring ditch (thought from pottery dating, to be Early Bronze Age (context 245) and Iron Age (context 243)) was

submitted for radiocarbon dating. Context [245] produced a date of AD 424-540, and context [243] produced a date of AD 438-600. Both are of Early Medieval date.

## Field 25

No plant remains were recovered from features in this field. However charcoal from a pit with signs of *in situ* burning (context 264), thought to have an industrial function was submitted for radiocarbon dating and came back with a Bronze Age date – 1521 to 1431 BC.

### 4.4.3 Discussion

Some of the macrofossils which do occur can be related directly to the charcoal also present in the samples. Rowena Gale found that charcoal of gorse/broom (*Ulex/Cytisus*) was common and other evidence for the presence of gorse was recovered in the form of seeds, spines and stem fragments from several samples. Similarly hazelnut shells were probably collected along with the hazel wood for use as fuel. Gorse commonly occurs in grassy places, in open woods and on heath-land mostly on sandy or peaty soil and could have occurred in some of the pockets of heath-land that occur in places along the pipeline or from Bodmin Moor further to the north. Some of the other weeds present in the samples are also typical of heath-land. These include heath-grass, which also likes sandy or peaty soils on heaths and moors and sheep's sorrel, which prefers acid sandy soils. As well as occurring on heathy open ground, it can also thrive in short grassland and cultivated land (Stace 1991).

Charred remains of cereals are sparse from most features producing only a few examples of grains and chaff of wheat and barley with the addition of oat grains. Several of the weed species, again mostly present in singular numbers, include brome, clover/medick and scarlet pimpernel and are likely to be arable weeds, which grew with the crops. It is not possible to tell if the crops would have been grown nearby, although there would have been areas locally suitable for cultivation. Much of the route of the pipeline today crosses agricultural land and although the soils are acidic and fairly nutrient poor these would have been suitable for small-scale cultivation. The general paucity of cereal chaff and weeds may also suggest that cereals were not processed in the areas excavated.

One sample contained a much larger assemblage of cereal grain, although with no accompanying chaff or weed seeds. This was from the watching brief in Field 3 and came from the basal burnt fill of an oval pit [409], thought possibly to be associated with a Bronze Age barrow. However, it is uncertain whether this context (407) is late prehistoric or Medieval until radiocarbon dating of the charcoal confirms this. However one can speculate that as this sample produced the richest assemblage of cereals perhaps the latter date is correct.

### 4.4.4 Conclusion

The evidence gained from the charred plant remains is fairly limited. Remains of gorse and hazel in some deposits clearly relate to the use of the wood of these species, also identified from their charcoal as a fuel in metal-working activities carried out on site. Remains of cereal crops are sparse, but it is suggested that wheat, barley, and possibly oats were cultivated in the vicinity and may have reached the site in a processed form ready for use.

## 4.5 Charcoal from watching brief fields 3, 5, 9, 23 and 25

By Rowena Gale

### 4.5.1 Table of results

#### Key.

r: roundwood (diameter <20mm); s: sapwood (including roundwood diameter >20mm);

h: heartwood (including unknown maturity); n: nutshell; hp: hand-picked charcoal

Radiocarbon dating: with the exception of oak heartwood all the charcoal identified below is suitable for submission.

Context	Sampl	<i>Alnus</i>	<i>Betula</i>	<i>Corylus</i>	<i>Frag- trius</i>	<i>Pom- oideae</i>	<i>Prunus</i>	<i>Quercus</i>	<i>Salic- aceae</i>	<i>Samb- ucus</i>	<i>Ulex/ Cytisus</i>
<b>Field 3 [396] spread</b>											
[396]	35	?1	-	?1	-	-	-	-	-	-	2
<b>Field 3 [409] Early Medieval pit</b>											
[407]	36	1	1	3r	-	-	2	3h	-	-	-
<b>Field 3 [405] ditch</b>											
[411]	37	-	-	-	-	1	-	1h	-	-	-
<b>Field 5 [395] spread</b>											
[395]	34	-	-	-	-	-	-	1	-	-	2
<b>Field 9 [386] linear cut</b>											
[385]	33	-	-	3	-	3	-	-	-	-	-
<b>Field 23 [242] Early Medieval Ring ditch</b>											
[243]	27	-	-	4r,1n	-	-	2	16rh	-	-	2r
<b>Field 23 [244] Early Medieval Ring ditch</b>											
[245]	28	-	1	4	1	-	-	21rh	-	-	1
<b>Field 23 [247] circular pit</b>											
[248]	29	-	-	3	-	?2	3	2h	1	-	-
<b>Field 25 [259] linear feature</b>											
[260]	30	-	3	12	-	36	1	5h	-	-	-
<b>Field 25 [262] Bronze Age pits</b>											
[263]	31	3	48	18	-	103	-	-	-	-	-
[264]	32	21r	31	-	-	2r	23rh	1	-	-	-

### 4.5.2 Introduction

A watching brief undertaken along the pipeline, from fields 1 to 53, encountered features dating from various periods. Detailed analysis was carried out on charcoal from eleven bulk soil samples, to provide economic and environmental data, and to isolate suitable material for radiocarbon dating. The samples relate to the following field numbers:

Field 3 – 4 samples      Field 5 – 1 sample      Field 9 – 1 sample  
Field 23 - 3 samples      Field 25 – 2 samples

#### 4.5.3 Materials and methods

Bulk soil samples taken from various features along the course of the pipeline were processed by flotation and sieving at the Bristol Unit. The resultant flots and residues were scanned for charcoal. Hand-picked samples required no further processing.

Charcoal fragments measuring less greater than 2mm in cross-section were prepared for examination using standard methods. Fragments from each sample were fractured to expose fresh transverse surfaces and sorted into groups based on the anatomical features observed using a x20 hand lens. Representative fragments from each sample were selected for detailed study at high magnification. These were fractured to expose the tangential and radial planes, supported in washed sand, and examined using a Nikon Labophot microscope at magnifications of up to x400. The anatomical structure was matched to prepared reference slides.

Where possible the maturity (ie heartwood/sapwood) of the wood was assessed and number of growth rings recorded. It should be noted that measurements of stem diameters are from charred material; when living these stems may have been up to 40% wider.

#### 4.5.4 Results

The results of the charcoal analysis are summarised in the above table, and discussed in detail below. The anatomical structure of the charcoal was consistent with the taxa or groups of taxa given below. It should be noted that the anatomical structure of some related taxa can not be distinguished with any certainty, for example, members of the Pomoideae (*Crataegus*, *Malus*, *Pyrus* and *Sorbus*), Leguminosae (*Ulex* and *Cytisus*) and Salicaceae (*Salix* and *Populus*). Classification follows that of *Flora Europaea* (Tutin, Heywood *et al* 1964-80).

Betulaceae. <i>Alnus</i> sp., alder; <i>Betula</i> sp., birch.	Caprifoliaceae. <i>Sambucus</i> sp., elder
Corylaceae. <i>Corylus</i> sp., hazel.	Fagaceae. <i>Quercus</i> sp., oak
Oleaceae. <i>Fraxinus</i> sp., ash.	Leguminosae. <i>Cytisus</i> sp., broom; <i>Ulex</i> sp., gorse.

Rosaceae. Subfamilies :-

Pomoideae: includes *Crataegus* sp., hawthorn; *Malus* sp., apple; *Pyrus* sp., pear; *Sorbus* spp., rowan, service tree and whitebeam.

Prunoideae: *P. spinosa*, blackthorn. Salicaceae. *Salix* sp., willow and *Populus* sp., poplar.

Oak heartwood was common to almost all features. In the following text and tables heartwood is referred to as (h), while roundwood (diameter less than 20mm) and sapwood (including roundwood diameter greater than 20mm) are indicated by (r) and (s).

The samples included in this study originated from fields in the southern half of the pipeline.

### Field 3

There was some evidence to suggest that features at this site were associated with a Bronze Age barrow (or a pit with burning radiocarbon dated to the Early Medieval period). The charcoal was poorly preserved, friable and sparse. A large spread/ layer with flints [396] included gorse/ broom and alder/ hazel. The basal, burnt fill [407] of pit [409] included charred oak (r,h), hazel (diameter 3mm), alder, blackthorn and birch; while the basal fill [411] of ditch [405] included oak (h) and the hawthorn group. An origin from fuel debris seems likely, and deposits of cereal processing residues in the pit and spread could implicate the domestic waste.

### Field 5

A layer (probable old plough surface) [395] containing a number of prehistoric flint artefacts (close to field 3). Charcoal here was sparse and included oak and gorse/ broom.

### Field 9

The basal fill [385] of a linear feature, [386], included small fragments of hazel and the hawthorn group.

### Field 23

Truncated ring ditches [242] and [244]. The fills of the ditches [243] and [245] included oak (r,s,h), hazel, and gorse/ broom. In addition, hazel nutshell and blackthorn occurred in [243], while ash and birch were present in context [245]. Charcoal was equally sparse in the fill [248] of the truncated circular pit [247] and included oak (h), blackthorn, hazel, willow/ poplar, and possibly the hawthorn group. Contexts [243] and [245] have subsequently been dated to the Early Medieval period).

### Field 25

Charcoal from the contents of 2 pits (with a related clay platform) was more abundant (and subsequently radiocarbon dated to the Bronze Age). The initial fill [260] of pit [259] mostly consisted of the hawthorn group, but also included hazel, birch, blackthorn and oak (h). The charcoal-rich basal fill of pit, [262], included mostly birch, alder and oak (r,h); a high proportion of the alder and oak was from fast-grown roundwood, probably not exceeding 12mm in diameter (when charred). Willow/ poplar and narrow stems from the hawthorn group were also identified. The later fill [263] of the pit derived mainly from the hawthorn group (the structure of some fragments suggested rowan), birch and hazel, with alder poorly represented.

#### 4.5.5 Discussion: Environmental evidence

The route of the pipeline crosses fields and agricultural land between St Breock Downs and Goss Moor. Small local pockets of heathland are shown on the Ordnance Survey map close to some stretches of the pipeline. The soils of the region are generally thin, nutrient poor and acidic, except where sheltered or alluvial deposits provide richer conditions and deeper soils.

The generally harsh conditions prevalent in exposed areas of the Cornish landscape have reduced potential woodland to sparse, stunted trees and scrub. In the present landscape (and that of the past few centuries) climax woodland is predominantly oak (*Quercus*); in some places almost pure sessile oak woods exist, with little or no understorey (Marren 1992). Despite the abundance of oak, the trees rarely produce good quality timber except in sheltered woods, which allow the trees to develop to reasonable dimensions, as for example in the deep gorges at Draynes Wood, on the edge of Bodmin Moor (Marren 1992). In the past the main economic value of the woods was in the production of coppice

for wood fuel, charcoal, pit props for the numerous tin mines, and tanbark. In historic times such coppices usually lacked standard trees. Environmental evidence from the charcoal is based mainly on deposits from industrial contexts from the Romano-British site at Little Quoit Farm (field 12) – dealt with in a separate report.

The existence of managed oak woodlands is clearly demonstrated by the remains of coppiced rods in the residues of industrial fuel found at Little Quoit Farm (field 12). Although the site was some distance from coastal exposure, the effects of salt-laden winds and impoverished soils probably diminished the normally rapid growth rates of coppice stems (visible in the wood as wide annual increments, which reduce in width after the first few years). If below average wood growth persisted, then regenerating coppice stools would have been slower to attain useful dimensions, and, depending on the demands of the industry, wood supplies may have been rapidly depleted. Charcoal production, in particular, consumes huge quantities of wood; for example, it takes approximately 6 tons of wood to produce 1 ton of charcoal (Percy 1864; Edlin 1949).

The dominance of oak at or near field 12 (see separate report) is substantiated by its frequency in the charcoal residues, and accords with the typical Cornish woodland described above. Similarly, gorse (*Ulex*) and/ or broom (*Cytisus*) also appear to have been common in the region. Gorse typically grows on leached, acid or disturbed soils, sometimes in association with, although usually dominant over, broom (*Cytisus*). Although the anatomical similarity of gorse and broom prevents definitive identification of the charcoal, it is probably more likely to be gorse (see below – fuel). Certain modifications in structure allow gorse to grow in less favourable habitats, and although unpleasant to handle, the spiny branches and stems have had numerous economic uses. In some areas (eg. in Ireland) gorse has been managed and regularly coppiced (Lucas 1960). There was no evidence to suggest that coppiced wood was used here, but its abundance implies that it was probably common nearby, perhaps on heathland.

The paucity of other taxa in the charcoal residues may reflect the preferential selection of fuel woods, but it is probably also a measure of their distribution in the environment. Additional taxa, used sporadically and sparingly, include alder (*Alnus*), birch (*Betula*), hazel (*Corylus*), ash (*Fraxinus*), blackthorn (*P. spinosa*), hawthorn/ *Sorbus* group (Pomoideae), willow/ poplar (*Salix/ Populus*) and elder (*Sambucus*). Hazel may have grown as understorey in oak woodland but may also have flourished in open areas with marginal woodland species such as elder, hawthorn, blackthorn and birch. Birch typically grows on poor acid soils and possibly formed open communities with gorse, and perhaps with oak. There was some evidence (from field 25) to suggest that rowan (*Sorbus aucuparia*) also grew locally. Willows and alder usually require soils with a high water content.

The extent of tree/ shrub communities along the course of the pipeline would have varied according to the local topography and edaphic conditions. Tree cover may have been modified and managed to a greater or lesser extent to supply local settlements, industries, grazing and land for arable farming. Woody taxa identified from charcoal from the watching brief in the southern half of the pipeline indicated similar findings to those described above, although poor preservation of the charcoal resulted in a paucity of material from most fields. Only field 25 provided good-sized samples (from pit [262]). Interestingly, oak charcoal was exceedingly sparse compared to alder, birch, hazel, rowan/ hawthorn and blackthorn, which would imply:

- a) a significant reduction of the oak woodland
- b) the preferential selection of other taxa; or
- c) an area topographically unsuited to oak woodland.

The origin of charcoal deposits in contexts along the route of the watching brief is unknown, and could relate to domestic, agricultural, ritual or industrial use of fuel, or to other functions. With the paucity of material, and uncertainty of dating these deposits, it is difficult to comment, except to confirm the similarity of the taxa identified to those from the Romano-British features.

#### 4.5.6 Conclusion

Environmental and economic data from the charcoal analysis was obtained largely from the Romano-British contexts associated with the iron-working site at Little Quoit Farm. By implication the results from Little Quoit Farm must have some bearing on the surrounding environment. Charcoal from fields 3, 5, 9, 23 and 25, although sparse, is useful in that it provides suitable material for radiocarbon dating, and indicates that similar woodland resources were available in areas both south and north of Little Quoit Farm round. (Radiocarbon dates subsequently attained for features within these fields span the Bronze Age through to the Early Medieval period).

Fuel residues from the iron-working site indicates the use of coppiced oak (*Quercus*) wood, which included both narrow roundwood and poles old enough to have developed heartwood (probably exceeding 20 years of age). Gorse (*Ulex*) (and possibly broom, (*Cytisus*)) was also important in the fuel but other taxa, such as alder (*Alnus*), birch (*Betula*), hazel (*Corylus*), ash (*Fraxinus*), the hawthorn/ *Sorbus* group (Pomoideae), blackthorn (*P. spinosa*), willow/ poplar (*Salix/ Populus*), and elder (*Sambucus*) appear to have been used only sporadically.

It seems likely that, in common with Cornish woods of today and in historical times, the woodland element of the Romano-British landscape was dominated by oak coppices. The high frequency of gorse/ broom suggests that heathland or scrub was also common. Other taxa may have been comparatively infrequent.

## 4.6 The Metalwork Report

By Anna Lawson Jones

### 4.6.1 Results

This report looks at the results of a visual examination of all metalworking debris found during this pipeline watching brief. Justine Bayley gave advice concerning the identification and significance of this limited assemblage.

Field number	Context description	Weight (g)	Interpretation	Additional comments
Field 5	Unstratified	117g	Fuel ash slag lump  Iron handle Iron object	Probable iron smelting waste. Undated. Post-medieval ? Unidentified, undated piece.
Field 15	Unstratified	17g	Fuel ash slag lump	Probable iron smelting waste. Undated.
Field 26	Unstratified	14g	2 bits of slag  Broken iron object Long, thin metallic object	Iron smithing or smelting waste. Undated. Single, small, unidentified, concreted object. Undated. Unidentified metal / object



Field 38	Unstratified	45g	Metal object	'C' shaped metal plate with 2 nail holes at each terminal. Post-medieval 18 <sup>th</sup> /19 <sup>th</sup> century shoe fitting ? (Boot heel guard)
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#### 4.6.2 Discussion

##### Field 5

Field 5 is located amidst the fields surrounding the Medieval settlement of Ruthvoes. Settlement and activity in this immediate vicinity extends back in to the prehistoric period. Fuel ash slag is not visually dateable and was a by-product (probably of smelting, possibly of smithing) which was produced in the same way from the later prehistoric period through to the medieval period (pers. comm. Justine Bayley). The iron objects could be of medieval or post-medieval date, and represent fairly typical kinds of artefacts to be found in fields close to settlements.

##### Field 15

Field 15 is located between the two Medieval settlements of Quito and Roserrans (and Tregatillian). Fuel ash slag, as referred to above can potentially date to any time between the latter prehistoric and the medieval period. It is possible that this particular piece relates to the excavated Little Quito Farm round (Lawson Jones forthcoming) where iron smithing and probably smelting was taking place during the 2<sup>nd</sup> and 3<sup>rd</sup> centuries AD. It may be that this represents a fragment of waste material, brought out with midden material from the round (field 12) for fertilising the surrounding fields.

##### Field 26

Field 26 lies between the medieval settlements of Gluvian and Lanhainsworth, in a field that was identified by geophysical survey as containing a probable round of later Iron Age / Romano-British date. The watching brief did locate one of the encircling ditches. A distinctive subsoil layer was identified which possibly relates to occupation / activity within the round. The objects listed above could well be associated with this. Smithing has frequently been found in association with rounds, and iron slag is notoriously difficult to date (see above comments).

##### Field 38

Field 38 is positioned within the low-lying fields associated with medieval Talskiddy. The lack of other additional metal-related material is probably (in part) a result of the low-lying nature of these fields and the fact that they are prone to flooding which may account for an above average rate of metalwork decay. The shoe fitting listed above could well be the result either of field fertilising, or simply reflect chance loss by a field worker.

#### 4.6.3 Concluding comments

The short list of metal related finds associated with this watching brief represent a fairly typical picture of small-scale past metalworking (all insufficiently diagnostic to date), and chance losses.

**Note:** The lack of horseshoes reflect a fieldwork decision not to collect them due to their frequency and weight. The low quantity of slag in the assemblage is a reflection of its relative paucity (but also of its small size and lack of visibility when in its unwashed state). It was picked up whenever seen.

## 4.7 Radiocarbon dating

### 4.7.1 Introduction

Twelve bulk soil samples were taken during the general watching brief (not including Little Quoit Farm). Of these eight were found to contain a sufficient quality (quantity) of charcoal suitable for radiocarbon dating. This selection was made by wood anatomist Rowena Gale. Of the eight samples suitable for dating four were selected on the basis of usefulness and reliability of non-contamination.

Radiocarbon dating of the four selected charcoal samples was undertaken by the Scottish Universities Research and Reactor Centre, East Kilbride. The SURRC sample reference numbers were GU-8754 to GU-8760.

### 4.7.2 The selected samples

- Charcoal was selected from the context [264] bulk soil sample in order to date a small but distinct complex of features (a large pit, a smaller pit and a clay pad) with *in situ* burning in evidence but no finds. Despite excavation these features remained uncertain in terms of probable date and function.
- Two charcoal samples were selected from two different bulk soil samples ([245] and [243]) from two interconnected 'ring' ditches. Each ditch had produced markedly differently dated pottery (ie Bronze Age and late Roman) during excavation and as such once again both the likely function of the features and their date was uncertain.
- Context [407] represents a securely sealed, undisturbed charcoal rich deposit formed by in situ burning in one of a number of features clustered within and around field 3. Flints implied a strong prehistoric presence, and a probable round barrow in the immediate area suggested that some of this might be Bronze Age. Unfortunately the barrow ditch did not generate sufficient charcoal for radiocarbon dating, but Pit [409] did - allowing an otherwise undated feature to be dated.

Field number	Context number	Description	Function
Field 25	[264]	Basal burnt/charcoal fill of sheer sided, oval pit [262], closely associated with another larger pit and an adjacent clay 'surface'.	Processing agricultural produce?
Field 23	[245]	Ring ditch [244]. One of two interconnected ring ditches. Produced Early Bronze Age pottery.	?Domestic
Field 23	[243]	Ring ditch [242]. One of two interconnected ring ditches. Produced late Roman pottery.	?Domestic.
Field 3	[407]	Basal burnt/charcoal fill of (?) oval pit [409].	Oven/kiln

### 4.7.3 Radiocarbon results

**Sample:** AA-36502(GU-8757)

Context [264] has been dated to 1 $\sigma$  cal BC 1521-1431, cal BP 3470-3380

**Sample:** AA-36501(GU-8756)

Context [245] has been dated to 1 $\sigma$  cal AD 424-540, cal BP 1526-1410

**Sample:** AA-36500(GU8755)

Context [243] has been dated to 1 $\sigma$  cal AD 438-600, cal BP 1512-1350

**Sample:** AA-36499(GU-8754)

Context [407] has been dated to 1 $\sigma$  cal AD 440-599, BP 1510-1351

These results have clarified our understanding of the features listed above, in that we now know the kind of landscape and society into which they slot. The results were not entirely in keeping with dates predicted in the field, and as such are significant. The Bronze Age date for the pits (context [264], field 25) with *in-situ* burning and a clay platform is earlier than postulated. This would probably account for the apparent paucity of finds - in particular metalwork and pottery. It is still assumed that this discreet complex of features functioned as some kind of processing site, presumably of plant based material. Unfortunately the environmental analysis of the soil samples does not clarify the matter, although the lack of oak charcoal might suggest selective fuel usage.

The Early Medieval dates for the ring ditches (context [245] and [243] in field 23) was equally unexpected. It was considered likely that these features represented an Early Bronze Age funerary or ritual complex, based in part on analogy and in part on what appears to be a fragment of Early Bronze Age collared urn found within context [245]. It was (and is) felt most unlikely that this material could have been moved far due to its friable nature. However, two independent Early Medieval radiocarbon dates, one for each ditch, means that this complex is not the funereal/ritual based site originally interpreted. It is now felt that these features probably represent domestic activity - perhaps drip gullies for round house structures. Early Medieval Cornish archaeology is severely limited in terms of excavated, securely dated, recently appraised sites and as such these represent an intriguing glimpse into what used to be termed the 'dark age' (the post Roman period) of Cornwall.

The Early Medieval radiocarbon date for context [407] in field 3 further illustrates the longevity of Ruthvoes as a settlement. Archaeological evidence from field 3 alone spans the Neolithic through to the modern day, including Neolithic flintwork, a probable Bronze Age barrow, later Iron Age potter, late Roman/Romano-British Cornish pottery, an Early Medieval radiocarbon dated oven feature, a 13th century documented reference to Ruthvoes, 15th and 16th century pottery and later material continuing on to today's settlement. We thus have a prolonged, relatively intensive and concentrated range of activity associated with the immediate Ruthvoes area spanning five to six thousand years. Although there are gaps within the archaeological record, none are so long as to suggest abandonment of the area long term. It is considered likely that any further work in the vicinity would only add to this picture and reduce what gaps there are within the chronology.

## 5 Concluding discussion

### 5.1 General results

The project produced considerable data, summarised below.

#### *Key sites*

Early Bronze Age barrow identified at Ruthvoes (field 3).

Survey and partial excavation of two middle Bronze Age pits and a clay platform (16th-15th centuries BC), plus the survey of other natural and artificial features within the field; Lanhainsworth, field 25.

A later prehistoric (Iron Age or Romano-British) settlement enclosure or 'round' identified at Lanhainsworth (field 26).

A single large scale excavation took place within the pipeline corridor at Little Quoit Farm (field 12) a defended Iron Age / Romano-British round with much evidence for metal working (Lawson Jones, forthcoming report).

Early medieval settlement, 5th-6th centuries AD, identified at Lanhainsworth (field 23); Survey and partial excavation of two associated, inter-cutting circular ditches, plus other features within the field.

Early medieval pit (5th-6th centuries AD) identified at Ruthvoes (field 3), probably part of a settlement site; Iron Age and Romano-British finds in vicinity.

#### *Features and layers*

Sixty three ditches were located (some with associated ridges of surviving natural or stone alignments), the majority representing removed boundaries.

Forty six miscellaneous features including pits, spreads, non-ditched stone alignments, postholes etc.

Eight large subsoil layers were found, representing probable old land surfaces or plough soils.

Twelve soil samples were taken from a variety of different features (particularly where features or complexes of features were considered important, distinctive or sufficiently undisturbed).

#### *Boundaries*

Fifty three boundaries were measured, drawn and photographed, including one parish boundary.

#### *Finds*

Twenty two separate fields produced flint finds. Scatters ranged in size from one to forty one artefacts, with significant concentrations in three locations (fields 3-6; field 9; fields 16-17).

Three fields produced Iron Age and earlier pottery assemblages, suggesting the existence of later prehistoric settlements in the vicinity of fields 3, 16 and 23.

Thirty five fields produced a range of finds dating from the Medieval period to the later post-Medieval modern period. These included pottery, glass and metal work.

Twenty nine fields produced water rounded pebbles, the vast majority of which will have been introduced, either via soil improvement regimes (Medieval and Post -

Medieval date) or occasionally as lone artefacts of potential prehistoric date and introduction.

## **5.2 Historic character of the landscape**

One of the aims of this project and report was to study the changing archaeological character of the historic landscape. Anciently Enclosed Land (through which the pipeline mostly passed) is compared with the results from areas of Recently Enclosed Land and Steep Sided Valley (found in the northern section of the route). Topographically the route drops down from north to south. This corresponds with an increase in the number of finds and features towards the south. On a simple level this mirrors the change from Recently Enclosed Land to Anciently Enclosed Land.

Evidence for the zoning (or preferential use of the landscape) has been found within the earlier (Mesolithic and Neolithic) flint assemblage. A difference was found between not only the Anciently and Recently Enclosed Landscape, but also within the Anciently Enclosed area itself, with a bias towards activity at the southern end of the pipeline. In general the lithic scatters were found to be frequently small (although sometimes they were larger), often occurring in relatively discreet groups.

Bronze Age features, primarily those of a funerary character, ie. the barrows on Bear's and Denzell Downs, or the probable barrow found at Ruthvoes, span both the Recently and the Anciently Enclosed Landscape. This is a pattern seen across much of Cornwall. Barrows tend to occupy topographically distinct areas - ie high downland or ridges/plateaux of raised ground. They are therefore more commonly found in Recently Enclosed Land, which is characterised by this sort of topography; barrows also tend to survive better in Recently Enclosed Land because of the relatively less intensive history of land use. The Ruthvoes barrow was located on moderately high ground in Anciently Enclosed Land forming the northern periphery of Goss Moor, while those on Bear's and Denzell Downs (as the name suggests) were located on high exposed hills (around the northern portion of the pipeline route). Barrows typically belong to the Early Bronze Age, concentrating around 2000 to 1800 BC. The pits and clay platform in Anciently Enclosed Land at Lanhainsworth (field 25) are a little later than this, dated to the 16th-15th centuries BC, and presumably represent a settlement or occupation rather than a ritual site. This is an important discovery as few sites of this period have been identified in lowland Cornwall and there are no obvious parallels to it in form or location. It is low on a valley side, probably within a lightly wooded terrain, overlooking a periodically flooded valley floor; its position may relate to a specialist, perhaps temporary function. Definite (and probable) Bronze Age finds are concentrated within the Anciently Enclosed Landscape, with a dramatic increase particularly of the flint work towards the south.

The later second and first millennia BC is thought to be the period when distinctions between Anciently Enclosed Land and Recently Enclosed Land (at that time, areas of rough grazing) were being consolidated. The results from this project confirm this early distinction, with finds and features likely to be of later prehistoric date coming almost entirely from Anciently Enclosed Land. Possible exceptions are undated ditched field systems found in recently Enclosed Land below Denzell Downs (fields 45 and 46) and north of Talskiddy (field 41). Whether of prehistoric or medieval date these fields presumably represent the fluctuating margins of settlement and enclosure at the periphery of the two zones.

The evidence from the Anciently Enclosed Land includes finds of Iron Age and Romano-British pottery, the enclosures or rounds at Lanhainsworth and Little Quoit Farm, and areas of ditches, pits and post-holes (eg fields 3, 4/5, 9/ D/E), the latter mostly undated.

Rose and Preston Jones (1995, 57) refer to a later prehistoric enclosure density of up to four per square kilometre, and this would certainly appear to be the case based on aerial photographic evidence and the results of other pipeline projects. This project illustrates well this picture of a fairly dense pattern of later prehistoric enclosed, defined and / or defended sites scattered across the by then partially enclosed agricultural landscape. The sites found along the pipeline include two potential enclosures at Talskiddy and Ruthvoes, a probable defended enclosure (or round) at Lanhainsworth and a definite, excavated one at Little Quoit Farm. This dense pattern of sites would appear to equal that of the Medieval period for the area; Talskiddy, Ruthvoes, Lanhainsworth and Quoit are all known to have been in existence during the medieval period as settlements. In addition to this organised pattern of settlements and industrial sites, environmental data obtained from the excavated round at Little Quoit Farm provided evidence of woodland management to produce fuel. If timber supplies were carefully arranged it can be inferred that other requirements or necessities would have been equally well organised, for example animal grazing, the growing of crops, and perhaps hunting grounds for larger undomesticated game.

With the close of the later prehistoric period, the Iron Age and Romano-British defined, or defended enclosures and rounds (of variable function) appear to have started to be abandoned (although some continued on into the 5<sup>th</sup> and 6<sup>th</sup> centuries, for example Trethurgy and Grambla). Little Quoit Farm (dealt with in a separate report) appears to have been abandoned during the late 3rd, possibly early 4th century AD. Other 'similar' sites recently excavated within Cornwall, including Killigrew, near Trispen (Cole, forthcoming) and Reawla (Appleton-Fox, 1992) show a broadly similar pattern of abandonment. With the decline of these sites came the gradual emergence of a new pattern of early medieval settlement and potentially a rearrangement of landscape division, which will have owed much to the preceding pattern of landscape use.

Early Medieval activity has been radiocarbon dated in two areas along the pipeline. Two circular ditches, probably domestic, were found at Lanhainsworth in field 23, in a low-lying area close to a watercourse. These two interconnected, ringed features are very unusual. They do not have any known parallels (for this period) elsewhere in Cornwall, and are significant because they add another type of structure/feature to the known Cornish, Early Medieval repertoire. Their similarity in appearance to Bronze Age ring ditches strongly suggested a prehistoric date. However a radiocarbon date from each ditch produced an Early Medieval date.

The other radiocarbon dated Early Medieval feature found along the pipeline route was that of an 'oven' like feature found near Ruthvoes (field 3 - at the extreme southern end of the pipeline). It had been considered likely that this feature was of a slightly later date, but again scientific dating produced a different and unequivocal date. A similar situation recently occurred on the Sevenmilestone to North Country South West Water pipeline (Jones 1996) at Stencoose, where an unusual structure produced 5<sup>th</sup> to 6<sup>th</sup> century AD radiocarbon dates.

The above examples highlight the value of scientific dating for the interpretation of features which do not produce clearly associated, un-disturbed, diagnostic artefacts. The evidence for Early Medieval features in Cornwall is gradually increasing through projects like this, and the range of site types is as a result widening, but there are not as yet any feature/structure types which could be termed characteristic of this period. As a result the role and significance of radiocarbon dating for either enigmatic features or features not dated via artefactual evidence is likely to continue to be an important element of any watching brief.

The later Medieval period appears to show a perhaps less densely scattered form or pattern of settlement. A series of Medieval hamlets or very small villages emerged and are still recognisable via place-name evidence. Attached to some of these, most notably Talskiddy and Ruthvoes were their distinctive field systems. Other comparable settlements, ie. Gluvian, Lanhainsworth, Tregatillian, Roserrans and Quoit have lost their individually recognisable field systems to a large extent through subsequent post-Medieval alterations, primarily the removal of longstanding boundaries. This is most graphically shown by comparing the Tithe maps of the area with today's OS map coverage.

The post-Medieval period has seen to some extent a continuation of the Medieval pattern, although a number of the hamlets have now shrunk to little more than single farms, ie. Gluvian and Quoit, or expanded as with Talskiddy and Ruthvoes. Many of today's settlements in Cornwall have Medieval or earlier roots, and this pipeline is no different.

Each of the distinct and identifiable periods referred to above can be shown to reflect changes in landscape and settlement organisation. A general, scattered use of the environment (probably rooted within the earlier nomadic / hunter-gatherer lifestyle) gave way to a more 'zoned' arrangement of land use, ie. settlement and enclosure tended to focus on lower, undulating ground rather than on the higher more exposed downlands. Only funeral (ritual) monuments are excepted. Jones (1997, 37), in his Engelly to Sevenmilestone watching brief report comments on a similar difference between earlier and later prehistoric landscape zoning, and additionally notes an influx of activity at the margins of differently characterised zones (see below). Reynolds (1997, 47), however, finds an apparently, non-zonal scattering of earlier prehistoric activity, followed by a concentration of settlements within the later, Medieval periods.

The pronounced influx of finds and features towards the south of the pipeline route may well be a reflection of Goss Moor's proximity. Goss Moor, a large and watery expanse would in the past have represented an extremely valuable source for a variety of different resources. These would have included foods (ie. water fowl - not found away from the moor), metal ores - including iron and tin (Penhallurick, 1986,198), reeds and timber etc. It may be that the concentration of prehistoric activity found around Ruthvoes actually marks a once more clearly definable marginal zone or 'rim' of activity, focussed upon marginally higher ground overlooking the Moor. Settlements located along this line may well have been highly valued in terms of the number of areas or zones, and thus resources, that were readily available, ie. access to both the Moor (to the south) and the managed agricultural land (to the north). It is argued in the forthcoming Little Quoit Farm excavations report (Lawson Jones) that a good proportion of the raw iron came from deposits in Goss Moor.

Features located by the watching brief were mostly ditches, primarily representing removed field boundaries, often from portions of now lost field systems. This pattern is indicative of a landscape that has seen settlement, enclosure and prolonged agrarian use since antiquity. In some cases extant boundaries will follow the same routes or alignments as Medieval (and probably earlier) boundaries many of which were not obviously stockproof in character. Boundaries with early origins will frequently have developed into lynched boundaries due to long term ploughing etc to either side (natural slopes frequently had the effect of several exaggerating this erosion, thus forming a pronounced 'step' or lynchet. A number of lynched boundaries were found during the watching brief, all within Anciently Enclosed Land. In some cases the boundary itself had been removed, but the lynchet was still visible as a pronounced change of slope, for example in the Lanhainsworth area. In other cases a clear ridge of natural remained - preserved by the overlying up-standing stone based boundary.

Buried soils are frequently preserved below long standing boundaries, and although often

visibly disturbed by later burrowing activity or tree roots, they were usually recognisable as a fairly compacted, stone-free loam. Buried soils were located above today's ground level, on a pedestal-like arrangement (where intensive or prolonged ploughing had taken place on either side of a boundary) or below today's ground level (the result of soil shift down slope which sealed the underlying material). A significant number of buried soil layers were located during the watching brief. They were most obvious within the Ruthvoes and Lanhainsworth areas (fields 3, 4, 5 and 26, 27). In both areas the layers spanned a couple of fields. The mechanics behind their creation and survival have still to be satisfactorily understood, particularly when one notes that they have survived near continuous ploughing, and in both cases were situated on the top of a hill - negating the possibility of hill wash accounting for the formation of the upper, sealing (and thus preserving) topsoil of today. These layers (unlike those that can be preserved below a particularly long standing boundary) were not suitable for radiocarbon dating because the dating evidence they contain is mixed through ploughing.

The systematic recording of all boundaries along the route has produced a significant, if somewhat inconclusive picture. Many of the boundaries recorded were within the Anciently Enclosed Landscape, and are known to be at least medieval in date. The majority, although maintained in terms of vegetation were not regularly maintained as regards stone facings or ditch clearance etc. The vast majority of the boundary sections revealed between four and seven different contexts. However, not all were exposed down to their original basal layers. It may be that if they had been, a significantly higher average number of contexts for boundaries within the Anciently Enclosed Landscape would have been found. Where earlier boundary arrangements or profiles had been preserved or fossilised within larger boundaries it almost always marked a change in boundary character ie from perhaps a strip field division or other smaller scale boundary to a much more massive stock-proof boundary.

As regards the dating of boundaries, the most obvious characteristics are the survival of the old ground level, the creation of lynchets, or a change of boundary type. Environmental analysis can indicate significant differences in date, by recording the differences between a past vegetation pattern and that of today's pattern, while radiocarbon dating of securely located charcoal fragments can be used to date soils with relative accuracy, ie. to within a few hundred years in later prehistoric examples. In addition a boundary's antiquity can possibly be tentatively based on its degree of complexity, or the recognition of a significant series of phases. For example, the shifting of a built-up boundary on to the top of an original flanking ditch which had silted up and perhaps even been re-cut would strongly suggest that some time had elapsed, or the sealing in of an earlier boundary by later expansion (which may itself break down in to a series of distinct phases) might suggest early origins.

In conclusion, this pipeline has produced a very significant quantity of archaeological data. It has illustrated not only the differences between Anciently and Recently Enclosed Land, but also shown that historically variety existed within the use of the Anciently Enclosed Landscape. Evidence for this was recorded in the form of the differential survival of old land surfaces/buried soils, field systems, other subsurface remains and artefact scatters. The intensive use of areas has been shown to result in either the truncation of layers via long-term ploughing and cultivation or the preservation of layers and features beneath the continual build up of the ground surface (as at Ruthvoes and Lanhainsworth). In some cases the old ground level has been fossilised beneath early boundary alignments. In every case this was recorded above the level of the current ground level, for example beneath boundaries 105 and 116. In terms of the artefact scatters, some areas appear to have always been marginal, for example at Talskiddy (Fields 33 to 38) and at Quoit and Ennisworgy



(Fields 8 to 13) where finds were significantly low in number.

The fact that the route was not chosen or strongly influenced by archaeological concerns (with the exception of avoiding possible barrows at the northern end - on Bear's Down) means that the data produced gives an unbiased, and thus 'real' view of the archaeological landscape, both in terms of time depth and in terms of change. Shifts in settlement size, type and location, field systems, even burial and / or 'ritual' sites can all be tentatively compared, not only within the confines of this project but also with other similar non-archaeologically selected, projects (such as pipelines or road schemes).

**Note:** The excavation of Little Quoit Farm, a defended Iron Age / Romano-British round site with important evidence for contemporary metal working and significant environmental evidence for potentially wide scale landscape management, is dealt with in a separate report (Lawson Jones, forthcoming). Since Little Quoit Farm was located along the same line as this pipeline project, reference between this report and the forthcoming excavation report is strongly recommended.

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## 7 The CAU archive <sup>67</sup>

The CAU project number is 1998046

The project's documentary, photographic and drawn archive is housed at the offices of Cornwall Archaeological Unit, Cornwall County Council, Kennall Building, Old County Hall, Station Road, Truro, TR1 3AY. The contents of this archive is listed below:

1. A project file containing site records and notes, project correspondence and administration. Project no. 1998046
2. Field plans and sections, copies of historic maps stored in an A2 sized plastic envelope: GRE: 320 - 1 / 118
3. Inked plans and sections: GRH: 296 - 1 / 14
4. Monochrome photographs archived under the following index numbers: GBP: 869 - 30 / 35, 881 - 5 / 12, 881 - 15 / 23, 884 - 2 / 9, 873 - 13- / 26, 890 - 15, 17 / 35
5. Colour slides archived under the following index numbers: GCS: 24850 - 24887, 24947 - 24949, 25054 - 25069
6. A computer file containing the report text:

G\\ARCHAEOLOGY\\DATA\\DOCUMENT\\SITES\\SitesB\\Bear's Down  
to Ruthvoes SWW WB+ Round Excav 1998067\\ Report doc

- 7 Artefacts and environmental material retrieved during the project are stored at the offices of CAU, Truro; it is intended that they will be deposited at the Royal Cornwall Museum, River Street, Truro. Site code: BDR98 (WB).

## 8 The Appendices

### 8.1 List of contexts

Key: F.1-53 = Field numbers from south to north.

Context no.	Context description
[201]	F.53. Stone clearance hole / natural anomaly.
[202]	F.53. Fill of [201] Soft yellowish brown clay and dark grey brown loam.
[203]	F.53. Removed boundary ditch. Runs across corridor, 1m wide. Not excavated. Associated with [205].
[204]	F.53. Upper fill of [203]. Silty black fibrous loam.
[205]	F.53. Removed boundary ditch. Runs across corridor, 1m wide. Not excavated. Associated with [203].
[206]	F.53. Upper fill of [205]. Silty black fibrous loam.
[207]	F.52. Ditch cut. Runs across corridor, 0.8m wide and 0.3m deep. 'U' shaped in profile.
[208]	F.52. Fill of [207] Compact, dark grey brown silty loam, occasional stones.
[209]	F.52. Pit cut. 2.0m x 1.75m x 0.25m. Partially excavated. Concave sides and flat base.
[210]	F.52. Fill of [209]. Mixed grey brown silty loam and occasional small stones.
[211]	F.52. Ditch cut. Runs across corridor, 0.5m wide and 0.2m deep. Wide 'V' shaped profile.
[212]	F.52. Fill of [211]. Mid brownish grey loam with some intermixed natural clayey lenses.
[213]	F.46. Ditch cut. Runs across corridor, 0.4m wide and 0.2m deep. 'U' shaped in profile.
[214]	F.46. Fill of [213]. Stone free grey brown loam.
[215]	F.45. Probable ditch terminal. 2.0m visible length, 0.4m wide. Linear with a rounded end. Not excavated.
[216]	F.45. Upper fill of [215]. Brownish grey clay loam with occasional small stones.
[217]	F.44. Long oval cut, 1.9m x 0.6m x 0.2m deep. Rounded ends. Steep sides and near flat base.
[218]	F.44. Fill of [217]. Brown loamy clay with grey black patches. Small stones and very occasional charcoal flecks.
[219]	F.44. Post hole cut. Circular, 0.15m diameter and 0.10m deep. Beneath fill [218]. Sheer sides and a flat base.
[220]	F.44. Fill of [219]. Brown silty loam with small stone packing.
[221]	F.46. A slightly curvilinear arrangement of stones 0.25m in size - representing the base of a boundary? No associated ditch.
[222]	F.33. Ditch terminal / oval pit?. 1.8m visible length and 0.9m wide. Not excavated, but cut from high up.
[223]	F.33. Ditch cut. Runs across corridor, 0.6m wide and 0.15m deep. Deepest on upslope side, flattish base.
[224]	F.33. Fill of [223]. Brown clay loam, occasional small stones and charcoal.
[225]	F.33. Fill of [222]. Mixed nodular brown clay loam with charcoal. Appeared very recent.
[226]	F.35. Linear arrangement of stones - 40cm size and smaller. Approximately 2m wide.
[227]	F. 35. Linear arrangement of stones - 40cm size and smaller. Approximately 2m wide.
[228]	F.31. Probable bank boundary terminal. 1.5m length within the corridor - extends further west. 0.4m + wide and consists of stones and soil.
[229]	F.31. Ditch associated with [228]. 1.0m wide. Not excavated.
[230]	F.38. Slightly curvilinear area of disturbance. 2.0m long, 0.5m wide and 0.1-0.3m deep. Mixed brown loam with occasional clay pockets.
[231]	F.36. Ditch. Runs across corridor. 2.0m wide and 0.25m deep. Marks a break in slope. Filled with a dark grey brown, stone free clay loam.
[232]	F.26. Layer. A very dark blackish brown clay loam with many stones up to 40cm in size. Covered whole of field and had an approximate 0.3m depth. Equivalent to [235]. Sealed ditch cut [256] - as seen in the geophysical survey of the field.

[233]	F.26. A late oval depression cut in to natural, measuring 5.0m x 3.5m x 0.1-0.6m deep. Contains topsoil.
[234]	(Same as [232]).
[235]	F.27. Layer, 0.3 to 0.4m thick. A very dark blackish brown clay loam with many stones up to 30cm in size. Covered southern third of the field (ie. closest to field 26). Equivalent to [232].
[236]	F.25. Probable old boundary line marked by a 1-2m wide ridge of natural, with either buried plough soil or a ditch on either side. Not excavated.
[237]	F.25. Stony spread. 6.0m x 4.0m x 0.3m (max.) deep. Positioned on top of (or partially sunken in to) topsoil sealed layer [239].
[238]	F.25. Bank, demarked on either side by quartz and other stone. Runs across corridor - where surviving. 0.6m wide and 0.15 m high. Located on a lynchet.
[239]	F.25. Sealed layer beneath the topsoil 0.1-0.2m thick. A fairly stony, dark grey brown silty loam. Associated with [236]?
[240]	F.43. Ditch cut. Runs across corridor, 2.0m wide and 0.1m deep. Contains a mixed brown clay with occasional yellow clay fragments. Not properly excavated.
[241]	F.41. Ditch cut. Runs across corridor, 0.8m wide and 0.18m deep. Sheer sides with an uneven, flattish base. Dark grey brown peaty loam fill with occasional stones.
[242]	F.23. Curvilinear or Ring ditch. 0.37-0.65m wide and 0.22m deep. Concave sides and a flattish base. Partially excavated.
[243]	F.23. Fill of [242]. A grey brown silty loam with occasional pot, charcoal, shillet and quartz fragments.
[244]	F.23. Curvilinear or Ring ditch. 0.5m wide, 0.18m deep. Concave base and sides. Partially excavated.
[245]	F.23. Fill of [244]. Grey brown silty clay loam with small shillet and quartz stone inclusions and occasional pot and charcoal.
[246]	F.23. Truncated near circular pit. 0.5m diameter and 0.12m deep. [463] = fill. Does not correspond with geophysical located pit alignment in this vicinity.
[247]	F.23. Pit. 1.6m diameter and 0.5m deep. Circular with steep sides and a rounded base. Does not correspond with geophysical located pits in vicinity.
[248]	F.23. Fill of [247]. Pale grey brown clay loam with occasional charcoal.
[249]	F.23. Truncated ditch running across corridor. 1.9m (max.) wide and 0.2m deep. Short steep sides and an undulating flattish base.
[250]	F.23. Fill of [249]. A grey brown silty clay loam. No charcoal flecks.
[251]	F.23. Slightly curvilinear, truncated ditch. 0.9m wide and 0.16m deep.
[252]	F.23. Fill of [251]. A brownish grey silty clay loam. No charcoal flecks.
[253]	F.23. Post hole cut. 0.4m diameter and 0.18m deep. Steep sided with a slightly concave base. Fill = [464].
[254]	F.23. Post hole cut. 0.5m diameter and 0.3m deep. Steep sided with a flattish base. Fill = [465].
[255]	F.23. Layer extending across much of field. Beneath 0.2m deep modern topsoil and above natural. Visible in the corridor sections. A sticky loamy silty clay. Mid brown, 0.1-0.25m thick. Cut through by [244] and [251].
[256]	F. 26. Ditch cut. c 1.4m deep from the ground level and c2.0m wide. Very steep sides and a near flat, narrow base. Represents part of the pronounced enclosure ditch located by geophysical survey. Sealed by layer [232].
[257]	F.26. Main fill of [256]. A dark brown loamy clay with stones (up to 30cm). Appeared to represent one phase of backfilling.
[258]	F.26. Basal fill of [256]. 0.1m deep band of orange/brown clayey silt. The result of weathering.
[259]	F.25. Large, undated amorphous linear shaped feature (related / contemporary to adjacent pit [262]). Convex slopes and flattish base. Extended NE beyond corridor edge. Indistinct southern limit. 5m+ long, 2.6m wide and 0.4m deep. Two distinct tipped fills.
[260]	F.25. Initial northern-most fill of [259]. 0.4m deep. Dark blackish brown, partially burnt silty loam with many burnt shillet inclusions.
[261]	Fill of [259]. 0.35m deep. Mid to dark brown silty clay loam with occasional burnt stones. Possibly fill of a re-cut.
[262]	F.25. Oval, undated pit cut. Sheer E edge and uneven concave W side. Undulating base. 1.8m



	long, 1.05m wide and 0.3m deep. Two distinct fills.
[263]	F.25. Fill of [262]. Dark brown silty loam with much charcoal and small burnt stones.
[264]	F.25. Initial fill of [262]. Dark grey to black ashy charcoal and burnt shillet, located on E side of pit.
[383]	F.39. Ditch cut. 1.8m wide and 0.26m deep. Gradually sloping sides and a concave base. Located on the geophysical survey.
[384]	F.39. Fill of [383]. A stone free mid brown loamy clay. Very occasional charcoal flecks. Waterlogged.
[385]	F.9. Fill of [386]. A silty loam with pockets of ash and charcoal (particularly towards the base), enclosed within a partial stone lining.
[386]	F.9. Linear cut, E-W aligned, rounded E terminal, W end extends beyond corridor. 1.5m length visible, 0.9m wide and 0.22m deep. Possible stone element.
[387]	F.9. Fill of [388]. Brown clay loam with occasional charcoal flecks.
[388]	F.9. Ditch cut. Runs NW-SE across field (counter to the field boundaries). 1.0m wide and 0.3m deep. Part of early field system.
[389]	F.9. Fill of [390]. A mixed clay loam with occasional small stones.
[390]	F.9. Ditch/gully cut. Runs NW-SE across field (counter to today's field boundaries). 0.44m wide and 0.2m deep. SE terminal turns sharp due south. Part of early field system.
[391]	F.9. Fill of ditch [392]. An organic, slimy clay loam. Grey brown. (A quite different fill to other features within the field. Probably of a much later date).
[392]	F.9. Ditch cut. 1.6m wide and 0.10m deep. Concave in profile. Runs across corridor, parallel to current field boundary. Cuts [393], fill of [394].
[393]	F.9. Fill of [394]. Brown clay loam with occasional small stones.
[394]	F.9. Gully cut. 0.3m wide and 0.12m deep. Concave sides and a flat base. Curvilinear N-S with a western branch towards northern end. Main length of [394] may well link up with eastern end of [390]. Part of early field system.
[395]	F.4+5. Layer. Old land surface. A brown silty clay loam with possible curvilinear stone arrangements embedded within it. Variable depth of 0.1-0.25m deep - covers majority of F.4 and 5. (Appears undisturbed by the later, known medieval field system focused around Ruthvoes). Layer sealed beneath a 0.35m depth of medieval / modern topsoil. Merges with [396] in field 3.
[396]	F.3. Layer / old land surface. A brown silty loam with flint. Covers almost entire field. 0.1-0.2m depth and sealed below a 0.4-0.5m depth of medieval / modern topsoil. (Very similar to [395]). Merges with [395] in fields 4 and 5.
[397]	F.4. Upper fill of [400]. Mid brown silty clay loam, occasional small stones.
[398]	F.4. Middle fill of [400]. Dark brownish grey silty clay loam. No stones.
[399]	F.4. Lower fill of [400]. Grey silty clay and stones.
[400]	F.4. Ditch cut. 0.9m deep and 1.8m wide at top. Probably cuts [395]/[396]. Steep 'U' shaped profile. Recorded in pipe trench.
[401]	F.3. Ditch cut. 2.0m wide at top, 0.76m deep. Steep sides and a flat base. Recorded in pipe trench. E-W alignment.
[402]	F.3. Fill of [401]. Mixed clay loam, orangy brown with occasional small stones.
[403]	F.3. Ditch cut. 1.8m wide at top and 0.4m deep. Steep concave side and flattish base. Cut by [405].
[404]	F.3. Fill of [403]. A mid brown clay loam. Occasional stones. 0.4m thick.
[405]	F.3. Ditch cut. Near 'U' shaped profile. 1.0m deep and 1.5m wide. Cuts [403].
[406]	F.3. Upper fill of [405]. Dark golden brown loamy clay. 0.6m thick.
[407]	F.3. Basal fill of [409]. Silty burnt clay, ash and charcoal. Orangy red with grey and black lenses. 0.1m thick.
[408]	F.3. Upper fill of [409]. Brown silty loam and stones. (Very similar to [396]). 0.34m thick.
[409]	F.3. Oval pit cut. W-E aligned. Eastern edge recorded in pipe trench. A fire pit / oven 2.0m+ long, 1.3m wide and 0.44m deep. Cuts [396].
[410]	F.3. Lower fill of [405]. Located on the southern side of the cut and appeared to represent slumping in of the excavated material from this cut.

[411]	F.3. Fill of [405]. Pale grey basal silts with occasional tiny charcoal flecks.
[412]	F.3. Upper fill of [415]. Dark brown stone free clay loam. Very similar to layer [396]. 0.55m thick.
[413]	F.3. Middle fill of [415]. Dark grey brown clay loam with small shillet fragments. 0.24m thick.
[414]	F.3. Basal fill of [415]. Pale, fine grey silts. 0.06m thick.
[415]	F.3. Ditch cut. Runs across corridor, 1.6m wide and 0.85m deep. Steep 'U' shaped profile. W-E aligned. Cuts [416].
[416]	F.3. Pit cut. Seen in pipe trench. 0.8m diameter and a 0.5m depth. Concave profile. Cut by [415].
[417]	F.3. Upper fill of [416]. Dark reddish brown clay loam with occasional charcoal flecks. 0.26m thick.
[418]	F.3. Basal fill of [416]. Silty grey and orange flecks in a coarse grey silt. Many stones - some up to 0.2m size. 0.24m thick.
[419]	F.3. Ditch cut encircling the northern half of a distinct circular rise in the natural yellowish clay shillet [480]. Ditch was partially seen in plan and recorded in the pipe trench. 'U' shaped in profile. 1.2m wide at top and 0.7m deep. Cuts [396], sealed by [517].
[420]	F.3. Upper fill of [419]. Mottled dark orangy brown clay loam with very occasional stones. 0.3m thick. (Thickest on southern side where bordered by [480]).
[421]	F.3. Middle fill of [419]. Dark grey brown silty clay loam. 0.2m thick. Very occasional small stones and tiny charcoal flecks.
[422]	F.3. Basal fill of [419]. Mid to pale grey brown silty clay loam. 0.2m (max.) thick.
[423]	F.3. Ditch cut. Runs E-W across corridor. Rounded 'V' shape profile. 1.8m wide at top and 0.8m deep.
[424]	F.3. Upper fill of [423]. Dark brown silty clay loam. Very similar to [396]. 0.4m thick.
[425]	F.3. Lower fill of [423]. A blue grey clay with silty grey shillet lenses. 0.4m thick.
[426]	F.6. Ditch cut located on a lynchet / pronounced break in slope. Demarked on upper southern side by a huge 1.8m boulder plus other smaller ones. c1.8m wide at top and 0.6m deep. Slightly curvilinear in plan. Runs across corridor.
[427]	F.6. Fill of [426]. A mixed grey brown loamy fill with occasional small stones. Some silty banding visible dropping in from up-slope to the south, indicating that it was probably open for sometime.
[461]	F.41. Fill of ditch [241]. A dark grey brown loamy fill with occasional peaty patches.
[462]	F.23. Spread / miscellaneous feature. Max. depth of 0.16m. Max. width visible of 1.7m. Only a half circle exists within the corridor.
[463]	F.23. Fill of [246]. A grey brown clay loam with occasional small charcoal flecks.
[464]	F.23. Fill of [253]. A mixed silty clay loam. Greyish brown.
[465]	F.23. Fill of [254]. A mixed brown silty clay loam.
[466]	F.26. A broad N-S aligned stone feature consisting of up to 0.5m sized stones. Located on the western side of the corridor, within layer [232]. 7.0m long, 0.8m-1.0m wide.
[467]	F.25. A mound or platform of redeposited yellowish brown clay and decayed shillet. Located between features [262] and [259] and almost certainly represents their upcast - giving the appearance of a firm clay intervening platform.
[468]	F.25. Ditch cut. Runs across corridor. 2.0m wide. Unexcavated.
[469]	F.25. Upper fill of [468]. A mottled mid brown loamy clay.
[470]	F.25. Ditch cut. Runs across corridor. 0.75m wide. Western end merges with ditch [472] - an uncertain relationship. Unexcavated.
[471]	F.25. Upper fill of [470]. A silty brown clay loam.
[472]	F.25. Ditch cut. Runs across corridor. 2.0m wide. Merges with [470] - uncertain relationship. Unexcavated.
[473]	F.25. Upper fill of [472]. A silty brown clay loam.
[474]	F.13. Fill of [477]. Mixed dark grey brown clay loam.
[475]	F.13. Fill of [478]. Mixed dark brown clay loam. Occasional small yellow clay patches.
[476]	F.13. Fill of [479]. Pale grey brown silty clay and occasional shillet.
[477]	F.13. Ditch cut. Runs across corridor. Unexcavated. 1.6m wide. Removed boundary ditch - 1.5m N of [478].

[478]	F.13. Ditch cut. Runs across corridor. Unexcavated. 1.8m wide. Removed boundary ditch - 1.5m S of [477].
[479]	F.13. Ditch cut. Runs across corridor. Unexcavated. 1.0m wide.
[480]	F.3. Yellow clay and shillet mound (encircled by ditch [419]). Central 2.8m flat area - 0.40m max high, surrounded by a 1.1m wide skirting slope. Total width 5.0m. Was seen in plan as a semi-circular mound. Eastern edge extended beyond corridor. Pipeline trench revealed no significant layers within its make-up beyond 'natural' looking clay.
[481]	F.2. Recently redeposited material representing infilling of track way to enlarge southern perimeter of field 2. A dark grey brown loam with pockets of glass debris, pottery, metal waste and concrete blocks. 0.4m+ deep.
[482]	F.41. Ditch cut / fill. Unexcavated. 2.0m wide. Runs across corridor. Upper fill a brown sticky clay. Probable removed boundary related to [483].
[483]	F.41. Ditch cut / fill. Unexcavated. 3.0m wide. Runs across corridor. Upper fill a grey brown sticky clay. Probable removed boundary related to [482].
[484]	F.41. Ditch cut / fill. Unexcavated. 0.6m wide. Runs diagonally across corridor. Right angled junction with ditch [486] = contemporary ?. Upper fill a waterlogged dark grey brown loam.
[485]	F.41. Pit cut / fill. 1.0m diameter. A brownish grey gravelly silty clay. Unexcavated.
[486]	F.41. Ditch cut / fill. Unexcavated. 0.8m wide. Runs diagonally across corridor. Right angled junction with ditch [484] = contemporary ?. Upper fill a waterlogged dark grey brown loam.
[487]	F.41. Ditch cut / fill. 3.5m wide. Runs diagonally across the corridor. Pale grey brown silty clay and occasional stones.
[488]	F.10. Ditch cut / fill. Runs across corridor. 0.6m wide. Mid grey brown silty clay loam. Unexcavated.
[489]	F.10. Ditch cut / fill. Runs across corridor. 0.9m wide. Mixed grey brown loamy clay. Unexcavated.
[490]	F.10. Ditch cut / fill. Runs across corridor. 0.7m wide. Grey brown clay loam. Unexcavated.
[505]	F.8. Ditch cut and fill. Runs diagonally across corridor. 0.8 - 1.1m wide. 0.12m deep. Grey brown silty clay loam.
[506]	F.9. Eastern portion of a linear feature extending from beyond the corridor. Silty loam with occasional charcoal flecks. Not excavated.
[507]	F.9. Large spread / pit. 3m diameter. Unexcavated. Loamy clay silt fill with occasional small charcoal flecks.
[508]	F.9. Possible ditch feature. Widens markedly as it approaches the edge of the corridor. In excess of 0.4m deep, 3.0m long+ and 0.8 to 2.0m wide. Filled with a silty brown clay loam.
[509]	F.9. Ditch. Terminates in the centre of the topsoil stripped corridor. 0.5m wide and 0.3 to 0.6m deep. Grey brown clay loam.
[510]	F.10. Spread / truncated pit. 2m diameter. Circular in plan with clay fragments, ashy lenses and occasional charcoal flecks within a mixed silty loam matrix. 0.3m deep.
[511]	F.10. Spread / truncated pit. 1.8m diameter. Circular in plan with ash, charcoal and clay fragments in a mixed silty loam (same as [510]). 0.15m deep.
[512]	F.10. Spread / truncated pit. Circular. 1.9m diameter. Mixed silty loam with occasional charcoal flecks, ash lenses and small clay fragments. 0.1m deep.
[513]	F.10. Ephemeral ditch. Approx. 0.6m wide, 5cm deep max. Very pale brownish grey loamy silt fill.
[514]	F.52. Cut and fill of ephemeral ditch. 0.5 to 1.0m wide. 0.15m deep max. Pale grey brown stoney, silty loam. (Early based on the fill).
[515]	F.52. Cut and fill of an elongate (disturbed area). 4.0m long, 1.0 - 2.0m wide and 0.3m max. deep. Stony near black fill - very similar to today's topsoil. burrowing around periphery. Tree hole ? (recent).
[516]	F.52. Ditch cut and fill. 0.4 to 0.6m wide. 0.1m deep. Pale silty loam fill - no stones. (Early based on the fill).
[517]	F.3. Mix of [396] and topsoil. Built up in the vicinity of barrow mound [480] and encircling ditch [419]. Located below topsoil, but above [396].
[518]	F.35. Probable old plough soil located beneath topsoil. 0.2m deep. Mixed, silty grey brown loam with occasional stones.

[519]	F.34. Old land surface. 0.25m deep. Dark grey brown, mixed silty clay loam.
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## Spurline contexts

Context no.	Context description.
[428]	Field D-E. Pit cut. 0.45m diameter, 0.24m deep. Steep concave sides and a rounded base. Edges of feature were heat reddened.
[429]	Field D-E. Fill of [428]. Dark brown loamy clay silt with much burnt clay and charcoal. Three burnt basal / lining stones - 15 to 20cm in size.
[430]	Field D-E. Ditch cut. Runs across corridor. Not excavated. 1.2m wide. Removed boundary ditch - associated with [432].
[431]	Field D-E. Fill of [430]. Dark grey brown clay loam.
[432]	Field D-E. Ditch cut. Runs across corridor. Not excavated. 1.2m wide. Removed boundary ditch associated with [430].
[433]	Field D-E. Fill of [432]. Dark grey brown clay loam with occasional stones.
[434]	Field D-E. Post hole cut. 0.35m diameter, 0.08m deep with a flat base and sheer sides. Very distinct edges.
[435]	Field D-E. Fill of [434]. Grey brown silty loam with charcoal flecks. Associated with spread [436].
[436]	Field D-E. Spread of burnt clayey loam and natural with charcoal. 1.0m long and 0.5m wide.
[437]	Field D-E. Pit / ditch terminal cut. A semi-circular feature extending into the corridor from the baulk. 1.2m wide and 1.2m long. 0.13m deep.
[438]	Field D-E. Fill of [437]. A very dark grey black clay loam with charcoal flecks.
[439]	Field E-Rd. Spread of silty clay loam and burnt clay, small burnt stones and charcoal flecks. 4.5m long and 3.5m wide ovoid shape. 0.15m max. deep.
[440]	Field E-Rd. Upper fill of [444]. Dark brownish grey loamy clay silt.
[441]	Field E-Rd. Upper fill of [445]. Mid grey brown loamy clay.
[442]	Field E-Rd. Upper fill of [446]. Mid grey brown loamy clay.
[443]	Field E-Rd. Upper fill of [447]. Dark grey brown clay loam.
[444]	Field E-Rd. Ditch cut. Runs across corridor. Not excavated. 0.5m wide.
[445]	Field E-Rd. Ditch cut. Runs across corridor. Not excavated. 1.0m wide. Removed boundary ditch associated with [446].
[446]	Field E-Rd. Ditch cut. Runs across corridor. Not excavated. 1.0m wide. Removed boundary ditch associated with [445].
[447]	Field E-Rd. Ditch cut. Runs across corridor. Not excavated. 1.0m wide.
[448]	Field E-Rd. Spread. Oval in plan 4.0m by 1.5m. A compacted spread of small stones / metalling (cobbling ?). Probably extended further prior to topsoil stripping.
[449]	Field C-D. Truncated pit. Oval in plan. 1.2m by 0.6m, 0.15m deep. Steep concave sides and a near flat base.
[450]	Field C-D. Fill of [449]. Blackish grey silty loam. Very occasional charcoal flecks.
[451]	Field B-C. Ditch cut. Runs across corridor. Not excavated. 1.1m wide. Removed boundary associated with [453].
[452]	Field B-C. Upper fill of [451]. Mid brown clay loam.
[453]	Field B-C. Ditch cut. Runs across corridor. Not excavated. 1.3m wide. Removed boundary associated with [451].
[454]	Field B-C. Upper fill of [453]. Very dark brown sticky clay loam.
[455]	Field B-C. Oval truncated feature / pit. 0.5m by 0.3m in plan, 0.07m deep. Very heat reddened clay and occasional charcoal flecks.
[456]	Field B-C. Linear pale brown clay loam running parallel to western side of ditch cut [453]. May represent pre-cursor of [453].
[457]	Field B-C. A broken alignment of stones running across the corridor, probably representing a removed stone boundary. Stone size c0.4m. No obvious associated ditch.

[458]	Field D-E. Oval burnt spread / base of a truncated feature. 1.0m by 0.6m and 0.07m deep. Burnt clay natural and charcoal flecks.
[459]	Field D-E. Circular spread. 0.5m diameter and 0.05m deep. Burnt natural clay and charcoal flecks. Associated with [460].
[460]	Field D-E. Circular spread. 0.4m diameter and 0.05m deep. Burnt natural clay and charcoal flecks. Associated with [459].
[497]	Field 13-A. Upper fill of [498]. Dark brownish grey clay.
[498]	Field 13-A. Ditch cut. Runs diagonally across the corridor and is apparently unrelated to today's field system or road. 0.6m wide.

## 8.2 List of soil samples.

Key: F. denotes field number.

(1)=Soil sample number.

[1]=Context number.

Sampled context.	Description
(27) = [243]	F.23. Fill of truncated curvilinear ditch [242]. 3 sample bags.
(28) = [245]	F.23. Fill of truncated curvilinear ditch [244]. 3 sample bags.
(29) = [248]	F.23. Fill of truncated circular pit [247]. 2 sample bags.
(30) = [260]	F.25. Initial fill of large pit ? feature [259]. 2 sample bags.
(31) = [263]	F.25. Later fill of oval pit [262]. 1 sample bag.
(32) = [264]	F.25. Initial fill of oval pit [262]. 1 sample bag.
(33) = [385]	F.9. Basal charcoal fill of linear, stone lined feature [386]. 0.5 sample bag.
(34) = [395]	F.4+5. A layer / old land surface. 1 sample bag.
(35) = [396]	F.3. A layer / old land surface. 1 sample bag.
(36) = [407]	F.3. Basal, burnt fill of oval pit cut [409]. 0.5 sample bag.
(37) = [411]	F.3. A basal silty fill of ditch cut [405]. 0.5 sample bag.
(38) = [422]	F.3. Basal fill of ditch cut [419]. 0.5 sample bag.

### 8.3 Boundary recording results.

Key: M = Medieval, PM = Post Medieval.

Locations are based on the same areas as those listed within section 2.0 of this report. The areas are not based on current or past land ownership.

Boundary numbers are the same as those allocated within the assessment.

The additional Spurline boundaries are listed at the end of this table.

No.	Location	NGR	Origin	Record	Comments
100	Ruthvoes	SW 6033 9295	M	1.6m high, 3.8m wide. [1] Loose, rooty leaf litter. [2] Recent. Orange brown clay loam plus shredded plastic. [3] Dark grey brown loose loam. [4] Firm, pale brown silty loam, some stones. [5] Re-deposited natural yellow silty clay. [6] Slumped. Loose silty stone and loam with stones. [7] Brown stoney loam. [8] Possible buried soil. Two probable ditches.	Additional boundary, (ie.pipeline re-routed since assessment). Slight lynchet. Wide track or drove way to the south.
101	"	SW 6008 9304	PM post 1840	No record.	Railway embankment. Route was altered after the assessment. Not breached.
102	"	SW 6020 9304	M	No record.	Part of SMR site 2162 strip fields. Route was altered after assessm. Not breached.
103	"	SW 6028 9303	M	No record.	Part of SMR site 2162 strip fields. Gate used, not breached.
104	"	SW 6040 9303	M	1.35m high, 3.4m wide. [1] Loose rooty loam and leaf litter. [2] Firm, silty, grey brown loam. [3] Re-deposited silty loamy clay. [4] Firm, brown, organic loam plus a large stone - (remnant stone face). [5] (Same as [4]). [6] Late, loose boundary collapse. [7] Silty loam, grey brown. [8] Possible buried soil. [9] Pronounced ridge of natural. Two ditches noted.	Part of SMR site 2162 strip fields. ([9]-probably marks the line of the earliest boundary, potentially late prehistoric date).  The earliest boundary is represented by contexts [3], [7] and [8].
105	"	SW 6045 9302	M	1.6m high, 4.1m wide. [1] Loose leaf litter topsoil. [2] Firm, rooty, grey brown gritty and silty loam. [3] Mixed, stoney and rooty, silty grey brown, clay loam. [4] Pale brown, mixed silty loam. [5] Silty, brown, stone free loam - buried topsoil. [6] Naturally formed decayed silty natural located between buried soil and natural. [7] Loose, silty, stony grey brown loam. [8] Grey brown loam. [9] Mixed grey brown clay shillet - ditch fill (?). [10] Lense of re-deposited silty clay. Two ditches noted.	Part of SMR site 2162 strip fields, associated with SMR site 21643 Quoit settlement. Slight lynchet.  The original boundary is possibly represented by contexts [5] and [10].

106	"	SW 6051	9302	M	1.7m high, 2.9m wide. [1] Loose leaf litter. [2] Loose, rooty, grey brown topsoil. [3] Firm, rooty, grey brown silty clay loam. Some stones. [4] Loose, rooty brown, silty loam. [5] Large re-deposited lense of orangey brown silty clay. [6] Dark brown, compact, stone free loam - possibly a buried soil ?. [7] Orange silty clay - not sure if re-deposited or in-situ natural.	Part of SMR site 2162 strip fields, associated with SMR site 21643 Quoit settlement. Road to north. Lynchet.  Context [7] probably represents the original boundary.
107	"	SW 6052	9302	M	1.2m high, 3.0m wide. [1] Loose, rooty, brown natural. [2] re-deposited brownish orange clay and occasional shillet. [3] Loamy grey brown clay with some shillet. [4] Stone facing. [5] Probable natural grey brown clay.	Part of SMR site 2162 strip fields, associated with SMR site 21643 Quoit settlement. Road to south.
108	"	SW 6059	9299	M	0.8m high, 3.2m wide. [1] Brown, rooty leaf litter. [2] loose brown loam. [3] Mixed brown, rooty loam and leaf litter. [4] Organic, grey brown silty loam. [5] Pale brownish grey re-deposited silty clay. [6] Mid grey brown, rooty silty loam. [7] Compact, fine grey clay - possibly naturally formed.  Related bank. 0.5m high, 2.1m wide. Contains an upper grey brown clay loam, and a lower grey clay - possibly natural.	Part of SMR site 2162 strip fields, associated with SMR site 21643 Quoit settlement. Drainage ditch between boundary and bank. Track to north of associated, flanking bank. Early boundary consists of [5] and [7].  Related bank.
109	"	SW 6060	9298	M	0.9m high, 2.9m wide. [1] Loose leaf litter. [2] Firmer brown loam. [3] Re-deposited silty clay with loamy lenses. Orange and brown. [4] Compact, pale grey brown silty clay. [5] Grey brown loamy silt. Firm.  Related bank. 0.4m high, 1.9m wide. Contains an upper grey brown clay loam and a lower compact grey clay - possibly natural.	Part of SMR site 2162 strip fields, associated with SMR site 21643 Quoit settlement. Drainage ditch on one side and a flanking, associated bank to south marking edge of track.  Related bank.
110	"	SW 6080	9284	M	Removed in 1979 (APs)	Part of SMR site 2162 strip fields, associated with SMR site 21643 Quoit settlement.
111	"	SW 6107	9271	M	0.6m high, 3.6m wide. [1] Leaf litter topsoil. [2] reddish coloured, organic gleyed clay loam. [3] re-deposited silty clay. [4] Leaf litter cover. [5] Mixed and disturbed silty loam and organic matter - associated with large tree growth.	Part of SMR site 2162 strip fields, associated with SMR site 21643 Quoit settlement.
112	Quoit and Ennisworgy	SW 6116	9270	M	0.95m high, 2.9m wide. [1] Loose, brown leaf litter. [2]	Part of SMR site 2162 strip fields, associated with SMR



				Organic brown loam. [3] Gritty, brownish grey silty, loamy clay. [4] Mid creamy grey brown clayey, silty loam. Slightly gritty. [5] Slightly loamy re-deposited natural - ditch or stream clearance.	site 21643 Quoit settlement. Under-cutting stream on one side and the line of a probable silted up, waterlogged ditch on the other. The early boundary is represented by the contexts [4] and [5].
113	"	SW 6115	9270 PM	0.7m high, 3.3m wide. [1] Loose leaf litter. [2] Mid brown, silty, clayey loam. Very large tree roots. Probably once stone faced.	Large trees planted along its length. Defined more clearly by the trees than by the banked material - a near disused boundary Marks N. edge of low-lying bog area. Possible lynchet.
114	"	SW 6136	9263 M	Removed.	Part of SMR site 2162 strip fields, associated with SMR site 21643 Quoit settlement.
115	"	SW 6137	9263 M	1.35m high, 3.2m wide. [1] Loose, rooty, leafy brown loam. [2] Brownish grey, rooty, silty loam. [3] Slumped brown silty loam. [4] Mixed orange, brown and grey silty clay loam, with frequent large lenses of re-deposited natural. [5] Dark, fine grained buried soil (?). No ditch noted.	Remnant cobbled farm track. Contexts [2], [4] and [5] represent the early boundary.
116	"	SW 6170	9258 M	1.8m high, 4.6m wide. [1] Loose, rooty leaf litter. [2] Loose, brown silty loam. [3] Grey brown loam with lenses of re-deposited natural. [4] Tan coloured clay loam. Gritty mix of loam and natural - ditch cleanings (?). Burrowed. [5] Probable buried topsoil, but appears mixed. Two ditches noted.	Slight lynchet. Boundary stands on a pedestal of natural. The early boundary is represented by contexts [4] and [5].
117	"	SW 6184	9257 M	No record.	Used gate, not breached.
118	"	SW 6185	9257 M	1.7m high, 1.4 m wide. [1] Mixed grey brown, silty loamy re-deposited natural shillet. [2] Stone facing.	Part SMR site 21646 Rosurrants settlement. Recently rebuilt on line of original boundary.
119	"	SW 6186	9257 M	1.3m high, 3.0m wide. [1] Loose, brown, loamy topsoil. [2] Mixed orange and dark brown clay loam with shillet fragments. [3] Orange / grey brown, mottled silty, loamy clay. [4] Compacted silty loam. Only top portion seen - possibly a buried soil.	Part SMR site 21646 Rosurrants settlement. Lynchet.
120	"	SW 6206	9255 M	No record.	Part SMR site 21646 Rosurrants settlement. Not seen because tunnelled.
121	"	SW 6239	9245 M	No record.	Part SMR site 21646 Rosurrants settlement. Route was altered after the assessment. Not breached.

122	Tregatillian +Roserrans	SW 6241	9244	M	No record.	Part SMR site 21646 Rosurrants settlement. Gate = not breached.
123	"	SW 6258	9236	M	1.4m high, 3.9m wide. [1] Loose, brown rooty loam topsoil. [2] Firm, silty, brown clay loam and some shillet. Burrowed. [3] Re-deposited, natural silty pale grey brown clay. [4] Stone face. No ditch noted.	Part SMR site 21646 Rosurrants settlement. Road boundary.
124	"	SW 6259	9234	M	No record.	Gate used, not breached.
125	"	SW 6288	9223	M	1.9m high (1.0m max. recorded) 1.9m wide. [1] Loose, rooty, brown loam topsoil. [2] Firm, grey brown, silty clay loam. Some stones. [3] Re- deposited silty clay and shillet. [4] A brown loam, possibly incorporating a lower stone face. No ditch noted.	Heaped topsoil in front of boundary.
126	"	SW 6296	9220	M	1.8m high (1.0m max. recorded) 4.3m wide. [1] Loose, brown rooty topsoil and [7] large stones. [2] Firm, rooty, brown silty loam. [3] Very late organic soil. [4] Very firm brown silty loam. [5] Mixed orange brown silty clay loam. [6] Grey brown re- deposited natural stoney, silty clay. [7] Stone face (merging with [1]). No ditches noted.	Lynchet. Heaped topsoil in front of boundary.
127	"	SW 6319	9212	M	1.55m high, 2.1m wide. [1] Loose brown, rooty topsoil. [2] Firm brown silty clay loam, some stone. [3] Grey brown silty, loamy clay. Burrowed. [4] Stones - possible early field clearance boundary. [5] Re-deposited stoney natural. [6] Stone face. No ditch noted.	Part SMR site 21649 Tregatillian settlement
128	"	SW 6330	9209	M	Removed.	Part SMR site 21649 Tregatillian settlem.
129	"	SW 6341	9205	M	1.6m high, 2.9m wide. [1] Loose, brown clay loam. [2] Firm, grey brown silty clay loam. [3] Lense of re-deposited clay shillet. [4] Firm, brown silty clay loam. [5] Compact, orange grey/brown loamy clay. [6] Re-deposited clay / shillet. [7] Compact pale grey brown, silty clay loam. No ditches noted.	The early boundary is represented by contexts [3], [4] and [6].
130	"	SW 6352	9201	M	1.9m high, 2.5m wide. [1] Loose, rooty brown loam. [2] Loose, silty brown loam. [3] Re- deposited natural, brownish grey, silty loam. [4] Grey brown silty loam and shillet. [5] Compact buried soil (?) [6] Stone face. No ditches noted.	Slight lynchet. Road boundary.  Contexts [3], [4], [5] and [6] may relate to the early boundary.
131	Lanhains	SW 9202	9202	M	No record.	Part SMR site 21649

	-worth	6353			Tregarillian settlement Gate used not breached.
132	"	SW 6366	9205 M	1.3m high, 2.6m wide. [1] Loose, brown rooty loam. [2] Re-deposited stony clay and loam. Burrowed. [3] Compact brown loam, few stones. [4] Clay loam and shillet. [5] Stone face. No ditches noted.	Part SMR site 21649 Tregarillian settlement Lynchet, (plus another lynchet 15m to the north).
133	"	SW 6381	9209 M	1.0m high, 3.7m wide. [1] Silty brown loam topsoil. [2] Grey brown silty clay loam. Occasional stones. [3] Gleyed silty clay. Stony build up. [5] Stone face. Single ditch noted.	Part SMR site 21649 Tregarillian settlement
134	"	SW 6387	9210 M	Removed.	Part SMR site 21649 Tregarillian settlement
135	"	SW 6388	9210 M	2.5m high, 3.5m wide. [1] Loose, rooty, brown loam. [2] Loose, brown silty loam, some pebbles and stone. [3] Firm, silty brown clay loam. Some stone. [4] Brown, compact clay loam. [5] Gleyed, gravelly clay and loam. [6] Stone face. Deep streams on either side.	Part SMR site 21640 Lanhainsworth settlement. Streams on either side of boundary.  Context [5] reflects the earliest boundary.
136	"	SW 6419	9202 M	1.1m high, 1.6m wide. [1] Loose, rooty, brown loam topsoil. [2] Stone free brown loam. [3] Stone face. No ditch noted. [4] Late loamy build up at base.	Part SMR site 21640 Lanhainsworth settlement. Lynchet. Road boundary. .
137	"	SW 6421	9203 M/PM	1.55m high, 1.2m wide. [1] Loose, brown topsoil. [2] Mixed, rooty, brown topsoil and natural killas. [3] Stone free topsoil - not a buried soil. [4] Sondage - crushed silty loam and natural killas. [5] Stone face. No ditch recorded.	Recently re-built on the line of a Medieval boundary. Roadside.
138	"	SW 6436	9199 M	No record.	Removed.
139	"	SW 6446	9198 M	1.3m high, 2.0m wide. [1] Loose, rooty, brown loam topsoil. [2] Firm, stony, brown loam. [3] Very stoney re-deposited natural. [4] Stone free reddish brown loam. Buried soil (?) [5] Stone face. No ditches noted.	
140	"	SW 6448	9195 PM	No record.	A39 bypass. Not recorded / very recent
141	Gluvian	SW 6449	9192 PM	No record.	A39 bypass. Not recorded / very recent.
142	"	SW 6452	9190 M	No record.	Part SMR site 21682 Tregamere settlement. Missed due to Little Quoit Farm excavat. work.
143	"	SW 6458	9191 M	No record.	Part SMR site 21637 Gluvian settlement. Missed due to Little Quoit Farm

					excavate. work.
144	"	SW 6466	9185	M	1.7m high, 5.6m wide. [1] Loose, rooty, dark grey brown topsoil. [2] Mixed, redeposited clay and loam. Rooty. [3] Very loose, rooty, grey brown loam. [4] Firm, silty, grey brown loam and clay lenses. [5] Pale yellow grey silty clay. Some stones, burrowed at base. [6] Stone face. Part SMR site 21637 Gluvian settlement. The boundary appears very wide at this point (and may incorporate a rabbit warren (?)). Considerable past burrowing activity noted. Large machine cut drain to south. Contexts [4] and [5] represent the early boundary.
145	"	SW 6477	9164	M	1.3m high, 2.9m wide. [1] Dark, rooty grey brown loam. [2] Mid brown, loose, silty, loamy clay. [3] Pale orange brown, compact clay loam. [4] Stone face. Two ditches noted. Road on south side. The early boundary is represented by contexts [2] and [3].
146	"	SW 6477	9163	M	No record. Gate used, not breached.
147	"	SW 6489	9153	M	1.45m high, 2.7m wide. [1] Loose, rooty, brown loam. [2] Firm brown loam. [3] Dark brown loam and some stones. Burrowed at base. No ditches noted. Road-side boundary.
148	Talskiddy	SW 6490	9152	M	1.4m high, 2.1m wide. [1] Loose, rooty, brown loam. [2] Stone free, firm brown loam. [3] Firm loam and lenses of re-deposited natural clays. [4] Very compact loamy disturbed layer - possible buried soil. Single ditch noted. Roadside boundary.
149	"	SW 6516	9143	M	1.55m high, 2.0m wide. [1] Loose, mid brown, rooty topsoil. [2] Firm brown loam and clay lenses. [3] Mid brown loamy clay and small stones. [4] Pale brown loamy clay and small stones. [5] Stone face. No ditch noted. Part SMR site 2163 strip fields. Farm track boundary.
150	"	SW 6535	9141	M	1.4m high, 2.1m wide. [1] Loose, brown rooty topsoil. [2] Firm, pale brown silty clay loam. [3] Very compact, mid brown clay loam. [4] Stone face in rusty brown coloured loam. One possible ditch noted. Part SMR site 2163 strip fields. Farm track boundary. Early ditch and context [3] represent the first boundary.
151	"	SW 6356	9140	M	1.5m high, 3.0m wide. [1] Loose, brown rooty topsoil. [2] Firm brown clay loam. [3] Firm dark orange silty loam with lenses of natural. [4] Firm, mid brown clay loam. [5] Grey brown silty loam with much natural shillet. Possible ditch noted. Part SMR site 2163 strip fields. Farm track boundary. Early boundary contexts are [3], [4] and [5].
152	"	SW 6552	9137	M	1.35m high, 3.6m wide. [1] Loose, rooty, brown topsoil. [2] Part SMR site 2163 strip fields. Lynchet.

				Firm, grey brown clay loam. No stones. [3] Grey brown and orange, stony clay loam. Possible, very fine buried soil. Too dry to see properly. Single ditch recorded.	Early boundary contexts are [2], [3] and [4].
153	"	SW 6553	9131 PM	1.2m high, 2.1m wide. [1] Loose, brown, rooty topsoil. [2] Firmer, grey brown loam, some stones. [3] Re-deposited yellow clay. [4] Burrowed, brown loam with clay lenses. [5] Re-deposited natural clay. [6] Compact, brown clay loam - possible buried soil or upper ditch fill.	Possible lynchet. Large drainage ditches on either side.  Context [5] is the remains of the early boundary.
154	"	SW 6554	9130 PM	1.1m high, 1.8m wide. [1] Loose, brown, rooty, loam topsoil. [2] Mixed brown loam with clay pockets and stones. [3] Mixed loamy clay silt. Orange grey brown. No stones.	Road boundary and drainage ditch.
155	"	SW 6554	9130 PM	0.95m high, 2.2m wide. [1] Loose, brown, rooty topsoil. [2] Re-deposited grey natural, from ditch deepening. [3] Mixed grey brown clay loam. [4] Firm brown clay loam. [5] Sondage showing mixed, grey brown, clay loam. [6] Large ditch.	Road side boundary. Large machine cut drainage ditch to north.
156	"	SW 6559	9129 M	1.5m high, 2.0m wide. [1] Loose, brown, rooty / leaf litter topsoil. [2] Mid brown clay loam, some stone. [3] Re-deposited natural clay / quartz. No ditches noted.	Part SMR site 2163 strip field. Stream on south side.
157	"	SW 6568	9114 PM	1.5m high, 2.0m wide. [1] Loose, rooty, leaf litter topsoil. [2] Grey brown clay loam, some stones. [3] Gleyed, re-deposited clays / shillet. [4] Re-deposited topsoil and buried soil. Grey brown, silty clay loam. [5] Stone face.	Drainage ditches / stream on either side of boundary.
158	"	SW 6570	9106 PM	0.75m high, 2.0m wide. [1] Loose, rooty, brown topsoil. [2] Mottled mid brown and yellow, clay loam. Some stones. [3] Compact, brown silty loam.	Stream / drainage ditch on western side.
159	"	SW 6574	9086 PM	1.5m high, 3.2m wide (plus 3.8m wide 0.4m high parallel 'ledge'). [1] Loose, rooty brown topsoil. [2] Firm grey brown silty loam, small stones. [3] Mixed loam and natural clay / shillet. [4] Very mixed and compacted buried soil, some stones. [5] stone face. [6] Re-deposited natural clay. Single ditch recorded.	Build up of stones and soil against southern side of boundary.  Early boundary contexts [3] and [6].
160	"	SW 6577	9078 PM	No record.	Gate used, not breached.
161	Bear's and Denzell	SW 6577	9077 PM	No record.	Gate used, not breached.

	Downs				
162	"	SW 6580	9053	M	Missed due to Little Quoit Farm excavation work. St Columb Major / St Mawgan parish boundary.
163	"	SW 6595	9037	PM	No record. Slight re-route, not breached.
164	"	SW 6599	9033	PM	No record. Missed due to Little Quoit Farm excavate work.
165	"	SW 6622	9017	PM	0.9m high, 4.3m wide. [1] Firm, grey brown topsoil. [2] Mixed topsoil and natural killas. [3] Probable buried soil. Single ditch noted.
166	"	SW 6639	9001	M	1.9m high, 2.1m wide. [1] Loose, rooty brown topsoil. [2] Firmer, brown, slightly rooty silty loam. [3] Mixed orange natural and topsoil. [4] Probable compact buried soil. [5] Stone face each side, including grounders. No ditch noted.
167	"	SW 6679	8981	PM	No record. Gate used, not breached.
168	"	SW 6709	8966	PM	0.8m high, 2.7m wide. [1] Very dark grey silty loam and few quartz stones. [2] Mixed topsoil and natural. Flanking ditches.
169	"	SW 6713	8965	PM	1.5m high, 2.0m wide. [1] Loose, grey brown, rooty topsoil. [2] Firmer, grey brown, loam, some stones. [3] Mixed, loamy, silty clay and stones. Burrowed. [4] Dark brown loam. [5] Fine, dark brownish grey, compact buried soil. [6] ? Stone face. Single ditch noted.
170	"	SW 6741	8963	PM	1.6m high, 3.5m wide. [1] Loose, grey brown loam topsoil. [2] Firmer, grey brown loam with clay lenses, some stone. [3] Firm, fine, mid brown loam, some stones. [4] Mixed, brownish yellow, silty clay. Some stone. [5] Powdery, brown, silty loam. [6] Dark brown, compact, fine, silty loam. Buried soil. [7] Inner stone face. Natural has been substantially cut away on either side - leaving the boundary on a pedestal. Contexts [4], [5], [6] and [7] belong to the early boundary.
171	"	SW 6769	8969	PM	2.0m high, 3.0m wide. [1] Loose, grey brown, rooty topsoil. [2] Firmer, dark brown, stoney, clay loam. [3] Mixed orange and brown grainy clay. [4] Buried, blackish grey loam topsoil. Single ditch noted. Track to north.
172	"	SW 6770	8969	M	2.0m high, 2.6m wide. [1] Loose, rooty, brownish grey topsoil. [2] Firm grey brown silty loam. Some stones. [3] Mixed pale brown silty loam and clay lenses. Occ. stones. [4] Mixed yellow /brown silty clay with occ. Stones, and gritty patches. [5] Near black, St Mawgan / St Ervan parish boundary. Track to south. Contexts [3], [4] and [5] probably belong to the original boundary.

				compact, buried topsoil. [6] Stone face. Single ditch noted.		
A	Spurline	SW 6210	9243	M	01.3m high, 2.1m wide. [1] Loose, rooty leaf litter and topsoil. [2] Firm brown clay loam. [3] Orange clay silt core with occasional stones. [4] Buried brown loam soil. Single large ditch noted.	Additional boundary, not in the assessment. Road to west, with ditch and low lying bank (not seen in section).
B	"	SW 6210	9241	M	1.1m high, 2.1m wide. [1] Loose, rooty, leaf litter topsoil. [2] Orange clay loam. Firm. [3] Mixed grey brown loam. No ditch noted.	Additional boundary, not in the assessment. Road to the east.
C	"	SW 6209	9225	M	2.1m high, 3.8m wide. [1] Loose, rooty topsoil. [2] Stone facing.[3] Firm grey brown clay loam. [4] Firm grey brown silty (sealed) topsoil. [5] Redeposited yellow clay. [6] Fine blue grey silts - redeposited natural ?. [7] Coarse reddish brown clay and black loamy patches. [8] Redeposited yellow clay. (Contexts [5], [6], [7] and [8] all represent the early boundary core). Two ditches noted.	Additional boundary, not in the assessment. Slight lynchet.
D	"	SW 6208	9222	M	2.4m high, 3.7m wide. [1] Loose rooty topsoil. [2] Grey brown silty loam and some small stones. [3] Redeposited yellow silty clay [4] Coarse, blue grey silts and quartz. [5] Redeposited yellow silty clay. [6] Stone facing. [7] Late, silty loam slumping.	Additional boundary, not in the assessment. Sondage revealed variably coloured natural bands ([8] and [9]). Contexts [3], [4] and [5] represent the early boundary.
E	"	SW 6207	9204	M	1.7m high, 2.5m wide. [1] Loose, rooty, loam topsoil. [2] Firm grey brown loam. [3] Mixed blue grey and yellow redeposited natural. [4] Stone facing. [5] Band of compact, mid brown loam. Burrows. [6] Black silty loam with occasional stones. Burrows. Single ditch noted.	Additional boundary, not in the assessment.

#### 8.4 Assessment sites (watching brief record)

**Note:** The majority of the removed boundary sites (not seen during the watching brief) were missed due to a combination of factors. Variable topsoil / subsoil stripping and the fact that frequently loamy subsoils were encountered, resulting in the associated boundary ditches not having been sufficiently deep to cut down in to the underlying natural are the main reasons.

Ass. site no.	NGR	Watching brief record	Comments
1	SW 9310 6090	Recorded as separate boundaries.	Ruthvoes Medieval field system. PRN 21621
2	SW 9305 6010	Pipeline re-routed.	Removed Medieval boundary. Ruthvoes.
3	SW 9305 6013	Pipeline re-routed.	Curvilinear geophysical anomaly. Ruthvoes.
4	SW 9305 6017	Pipeline re-routed.	Removed Medieval boundary. Ruthvoes.
5	SW 9305 6018	Pipeline re-routed.	Linear geophysical anomaly. Ruthvoes.
6	SW 9305 6024	Pipeline re-routed.	Linear and other geophysical anomaly. Ruthvoes.
7	SW 9309 6035	Pipeline re-routed.	Removed Medieval boundary. Ruthvoes.
8	SW 9283 6080	Not seen.	Removed Medieval boundary. Ruthvoes.
9	SW 9282 6083	Not seen.	Removed (?) Medieval boundary. Seen on aerial photographs. Ruthvoes.
10	SW 9281 6085	Not seen.	Removed (?) Medieval boundary. Seen on aerial photographs. Ruthvoes.
11	SW 9277 6092	Not seen.	Removed (?) Medieval boundary. Seen on aerial photographs. Ruthvoes.
12	SW 9275 6130	[505] - ditch.	Removed Medieval boundary. Wainhouse Meadow.
13	SW 9257 6170	[490] - ditch	Removed Medieval boundary. Quoit.
14	SW 9256 6178	[513] + [488] - ditches.	Removed Medieval boundary. Quoit.
15	SW 9256 6185	Not seen.	Removed ? Medieval field barns. Quoit.
16	SW 9356 6195	Excavation of a Romano-British round	Little Quoit Farm - dense concentration of geophysical located anomalies. (Lawson Jones, forthcoming).
17	SW 9252 6231	[477] + [478] - ditches.	Removed Medieval boundary. Little Quoit.
18	SW 9237 6257	Not seen.	Removed Medieval boundary. Roserrans.
19	SW 9225 6270	Not seen.	Roserrans - Higher Cross Field . Site of Medieval cross (?)
20	SW 9225 6278	Not seen.	Removed Medieval boundary. Tregatillian.
21	SW 9225 6280	Not seen.	Removed Medieval boundary. Tregatillian.
22	SW 9218 6304	Not seen.	Removed Medieval trackway. Tregatillian.
23	SW 9204 6341	Not seen.	Removed Medieval boundary. Tregatillian.
24	SW 9207 6375	Ring ditches etc. excavated.	Curvilinear, pit and other anomalies picked up by geophysical, on a slightly different route). Near Trenilocs.
25	SW 9209 6395	[470] - ditch.	Removed Medieval boundary. Lanhainsworth.



26	SW 9270 6400	[236] - ridge of raised natural.	Removed (?) Medieval boundary. Seen on aerial photograph. Lanhainsworth.
27	SW 9202 6419	Amorphous stoney spread noted. Possibly represented base of 27	Removed (?) Medieval building. Lanhainsworth.
28	SW 6430 9205	[256] - enclosure ditch, etc.	Curvilinear enclosure ditch and other geophysical anomalies. Lanhainsworth.
29	SW 9195 6448	Probably seen as limit of layer [235].	Removed (?) Medieval boundary. Seen on aerial photograph. Lanhainsworth.
30	SW 9190 6459	Not seen.	Removed (?) Medieval boundary. Seen on aerial photograph. Gluvian.
31	SW 9185 6477	Not seen.	Removed (?) Medieval boundary. Seen on aerial photograph. Gluvian.
32	SW 9181 6478	[229] - ditch and stones.	Removed (?) Medieval boundary. Seen on aerial photograph. Gluvian.
33	SW 9138 6500	Un-numbered ditch seen.	Removed Medieval boundary. Trewan.
34	SW 9110 9490	Recorded as separate boundaries.	Talskiddy Medieval field system. PRN 21623
35	SW 9134 6517 - 6535	Not seen.	Removed Medieval boundary. Talskiddy.
36	SW 9139 6548	[226] - linear stone arrangement.	Removed (?) Medieval boundary. Seen on aerial photograph. Talskiddy.
37	SW 9128 6562	Not seen.	Removed (?) Medieval boundary. Talskiddy.
38	SW 9127 6566	[383] - ditch.	Linear and other geophysical anomalies. Talskiddy.
39	SW 9123 6567	Not seen.	Removed Medieval boundary. Talskiddy.
40	SW 9100 6571	Not seen.	Removed post-medieval boundary. Seen on aerial photographs and 1880 OS map. Talskiddy.
41	SW 9098 6572	[487] - wide, early ? ditch.	Crop mark enclosure - seen on aerial photographs. Talskiddy.
42	SW 9094 6573	[482] + [483] - ditches.	Removed post-medieval boundary. Seen on aerial photographs and 1880 OS map. Talskiddy.
43	SW 9067 6577	[240] - ditch.	Removed post-medieval boundary. Seen on aerial photographs and 1880 OS map. Pencrenny's Farm.
44	SW 9053 6580	Recorded as boundary no. 162.	St Columb Major / St Mawgan in Pydar parish boundary. Medieval.
45	SW 9044 6586	Not seen.	Removed (?) Medieval boundary. Seen on aerial photographs. Whitewater Farm.
46	SW 9041 6590	Not seen.	Removed (?) Medieval boundary. Seen on aerial photographs. Whitewater Farm.
47	SW 9037 6593	Un-numbered ditch seen.	Removed (?) Medieval boundary. Seen on aerial photographs. Whitewater Farm.
48	SW 9000 6720	Not seen within corridor.	WW2 military training camp. Denzell Downs. PRN 50545
49	SW 8990 6750	Not seen within corridor.	Probable ridge and furrow, identified from the aerial photographs. Denzell Downs. PRN 50621
50	SW 8969 6769	Recorded as boundary no. 172.	St Mawgan in Pydar / St Ervan parish boundary. Medieval.

51	SW 8969 6777	Pipeline route altered to avoid these circular anomalies.	Curvilinear, possible barrow anomaly seen on geophysical survey. Bear's Downs.
52	SW 8971 6783	Pipeline route altered to avoid these circular anomalies.	Curvilinear, possible barrow anomaly seen on geophysical survey. Bear's Downs.
53	SW 8990 6760	Seen as extant mounds outside the pipeline corridor.	Bear's Down barrows. PRN 21954
54	SW 8972 6783	[203] - ditch.	Removed (?) Medieval boundary. Seen on aerial photographs. Bear's Down.
55	SW 8973 6789	[205] - ditch.	Removed (?) Medieval boundary. Seen on aerial photographs. Bear's Down.

## 8.5 List of charred plant remains

### Watching brief fields 3, 5, 9, 23 and 25: charred plant remains

Sample No.	Context No.	Context Type	Sample Size (Kg / L)	Float Volume (ml)	Charred grain/chaff	cereal	Charred weeds/other plant remains	Comments
Field 3								
35	396	Large spread/layer with flints.	7.5 / 7.9	15	<i>Triticum</i> sp 1	(grain)	<i>Anagallis arvensis</i> (scarlet pimpernel) 1 <i>Danthonia decumbens</i> (Heath-grass) 1	
36	407	Basal, burnt fill of oval pit [409].	0.95 / 1.0	45	<i>Triticum</i> sp 2 <i>Hordeum</i> sp 25 c.f. <i>Hordeum</i> sp 7 <i>Hordeum</i> sp (hulled) 65 <i>Hordeum</i> sp (hulled/straight) 10 <i>Hordeum</i> sp (tail grain) 16 <i>Avena</i> sp 3 Cereal indet 3	(grain)		C14 dating from charcoal
37	411	Basal, silty fill of ditch [405].	2.75 / 2.1	<5				Assessed
38	422	Basal fill of ditch cut [419].	4.7 / 4.5	<5				Assessed

Field 5							
34	395	Large spread/layer with flints.	7.3 / 7.0	5			Assessed
Field 9							
33	385	Basal fill of linear feature.	1.25 / 1.1	5			Modern seeds
Field 23							
27	243	Fill of truncated ditch [242].	11.2 / 10.9	20	<i>Triticum</i> sp (wheat) 4 <i>Hordeum</i> sp (barley) 1 <i>Avena</i> sp (oat) 2	<i>Bromus</i> sp (brome) 1 <i>Corylus avellana</i> (hazel) 3f <i>Ulex</i> sp - stem (gorse) 3f	C14 dating from charcoal
28	245	Fill of truncated ditch [244].	16.9 / 16.4	15			Assessed C14 dating from charcoal
29	248	Fill of truncated circular pit [247].	10.9 / 10.2	10			Assessed
Field 25							
30	260	Initial fill of large pit? [259].	13.3 / 11.3	70			Assessed
32	264	Initial fill of oval pit [262].	4.8 / 4.5	130			Assessed C14 dating from charcoal
31	263	Later fill of oval pit [262].	5.6 / 4.6	70			Assessed