SECTIONS 120 & 122

ROSS REMEDIAL WORKS

ON THE BRECON TO TIRLEY PIPELINE

Archive Report

Archaeological Monitoring & Recording

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Northern Office
15 Beaumont Fee Lincoln LN1 1UH
Tel: 01522 532621
Email: enquiries@netarch.co.uk

network archaeology

Southern Office
22 High Street Buckingham MK18 1NU
Tel: 01280 816174
Email: enquiries@netarch.co.uk

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NON-TECHNICAL SUMMARY

This archive report presents the results of an archaeological watching brief undertaken during repair works to the existing Brecon to Tirley pipeline.

Following construction of the pipeline, a small number of possible defects were detected in the pipe. Remedial works took place at two locations, one in Construction Section 120, near Brampton Abbotts (NGR 360930 227480) and one in Construction Section 122, near Crow Hill (NGR 363770 227700).

At both locations, a cross-country access track was stripped to the existing pipeline and a working area was also stripped around the identified defect prior to re-excavation of the pipe. In addition, a mobilisation yard was established to facilitate works. All groundwork was subject to archaeological monitoring and recording in accordance with the Archaeological Framework Document, as drawn up for the construction phase.

In plot 461 of Construction Section 120, a Roman site was discovered and excavated within the confines of the access track. Three main phases of activity were identified: clearance and establishment of a small settlement in the late Iron Age or very early Roman period, expansion in the later first century AD and the early part of the 2nd century AD, followed by a reduction in activity from the later part of the 2nd century AD.

Although no coherent structures were positively identified there was a sufficient volume of domestic waste to indicate that settlement took place on the site throughout its life. The most notable activity at the site was an emphasis upon metallurgy. All aspects of metal working took place from the importing of ore from the Forest of Dean, the smelting of ore (probably in a slag-tapping furnace), to the smithing of the iron that was produced. Little evidence of post-Roman exploitation of the area was found.

No significant remains were found in any of the other plots in Construction Section 120, nor in Construction Section 122. Overall, the recent work has added to the existing corpus of knowledge relating to the Roman settlement of Herefordshire and Roman exploitation of the Bristol Channel orefields.

1 INTRODUCTION

1.1 About the Project

This report presents the results of archaeological monitoring and recording undertaken during remedial work carried out in two locations of the existing Brecon to Tirley pipeline. These were Construction Section 120, situated c.1km north of Brampton Abbotts, and Construction Section 122, c.0.5km north of Crow Hill, both being located approximately 2-3 km north east of Ross-on-Wye in Herefordshire (figure 1).

The remedial work was intended to identify and correct possible defects in the pipe coating identified during recent testing of the pipeline.

1.1.1 Permissions

The remedial works were undertaken using National Grid's emergency powers.

1.1.2 Parent project

The remedial works along the Brecon to Tirley pipeline were part of a parent project, known as the South Wales Pipeline Scheme. The Brecon to Tirley pipeline represented the easternmost component of the parent scheme.

1.2 Archaeological Background

Previous archaeological investigations relating to the parent project identified a number of known sites in the locale, but none of these were affected by the recent remedial works (CA 2006). The most relevant of these to the Roman discoveries during the remedial works was the projected line of the Ariconium to Ashton Roman road (Margary 613; CA ID 4965), which at this point seemed to roughly follow the alignment of the modern B4224 (c.2km to the east), with a possible road towards Leominster (CA ID 6088).

Archaeological investigations undertaken during construction of the Brecon to Tirley pipeline in 2007 revealed seven sites within 3km of the affected plots. These are summarised below in table 1.1 and presented on figure 2.

Table 1.1: Summary of sites identified in relation to the Brecon to Tirley pipeline project

Plot Number	Construction Section	Site Description	Date
454	119	Multi-phase enclosure site	LIA/Roman
459	120	Pit containing burnt material	PM/Mod
461	120	Cremation	IA
462	120	Spread of industrial waste	Unknown
464	120	Pit and cremation site	EBA/Preh
467	121	Dump of Beaker pottery	BA
468-469	121	Rectilinear structures detected by geophysical survey, but not excavated as pipeline rerouted	Probably Roman

Abbreviations: LIA – Late Iron Age; PM – Post Medieval; Mod – Modern; IA – Iron Age; BA – Bronze Age; Preh – Prehistoric; EBA – Early Bronze Age

These sites are described in greater detail in the Brecon to Tirley pipeline assessment report (Network Archaeology 2010) and subsequent analysis report (Network Archaeology forthcoming).

1.3 Natural Environment Background

Both sections were located within open arable farm land over freely draining, slightly acid, loamy soils derived over Lower Old Red Sandstone (BGS, 2012). Local hydrogeology resulted in low rates of ground infiltration and rapid surface run-off into field ditches which drained west into the River Wye.

The site located on the access track at section 120 was situated near the brow of a south and west facing slope, above Vicarage Wood.

Detailed description of the wider natural environment can be found within the archaeological assessment report for this scheme (Network Archaeology 2010).

2 METHODOLOGY

2.1 Remedial Works

The remedial work necessitated the establishment of working areas around each of the proposed dig down locations, accessed via temporary tracks and supported by a compound.

For Construction Section 120, a mobilisation compound, occupying 0.12 ha, was first established in plot 464, alongside the A449 just south of Old Gore, by the mechanical removal of topsoil and laying of geo-textile and stone. From here, an existing farm track, running west for 1440m across two previously unaffected plots (600 and 601), was 'improved' by the removal of gravel and the laying of new stone. At the boundary of plots 601 and 461, a new track, heading south west across several fields (plots 461, 460, 459 and 458), was mechanically stripped of topsoil. This 'cross-country' track zigzagged down the slope for 850m, passed Vicarage Wood, to the location of the proposed dig down in plot 459 on the existing Brecon to Tirley Pipeline (NGR 360930 227480) (figure 2). The track averaged 4-5m wide on the straights but was up to twice as wide at the corners. The boundary between plots 460 and 461 had been removed since the previous phase of works. As such, for the purposes of this work, plot 460 was considered void, and all work undertaken in this plot was recorded as being carried out in plot 461.

In plot 461, an area of approximately 0.51 ha was mechanically stripped of topsoil to provide soil storage and a working area. Mechanical re-excavation and widening of the existing pipe trench then took place above the suspected defect in plots 458 and 459 and repairs were made.

For Construction Section 122, a 'cross-country' access road was established from a point on the B4224, just north of Primrose Cottages, to the dig down location above the existing pipeline in Plot 472 (NGR 363770 227700). This access track ran north west and then to the north east for a total of 360m. In plot 472, an area of approximately 0.10 ha was mechanically stripped of

topsoil to provide soil storage and a working area (figure 2).

2.2 Archaeological Works

The archaeological response followed the approaches laid out in the existing documentation for the parent project (National Grid/RSK 2006).

All mechanically stripped areas and the two dig downs were monitored by an archaeologist.

In Construction Section 120, where archaeological remains were located along an 80m stretch of the access track, the decision was made (in liaison with Murphy Pipeline Limited, National Grid and Herefordshire County Council) to temporarily protect the discovered archaeology beneath wooden bog matting whilst the remedial work was being undertaken. Once completed, the bog mats were lifted and the access track was mechanically cleaned along a length of 300m from the north side of Vicarage Wood to the east boundary of Plot 461, and archaeological excavation took place. At the completion of these works, the access track was subsoil ripped and reinstated.

2.3 Aims & Objectives

The **primary purpose** of the watching brief was to identify, appropriately manage and fully mitigate the archaeological resource potentially affected by the proposed remedial works.

No **specific** aims were identified.

The **general** aims were to:

- Determine, where preservation *in situ* was not desirable or achievable, an appropriate strategy for preservation by record;
- Develop, where possible, knowledge and understanding of the historic landscape and archaeological resource through recording of threatened remains;
- Determine and understand the nature, function and character of

any archaeological remains in their cultural and environmental setting;

- Establish the ecofactual and environmental sequence and context of archaeological deposits and features;
- Engage in a programme of post excavation, archiving, synthesis and study, leading to publication and dissemination of results; and
- Ensure the long-term survival of the information through deposition of a project archive.

2.4 Regional Research Frameworks

No new research objectives were identified prior to commencement of the Ross Remedial works, other than those already flagged in the existing documentation (National Grid/RSK 2006).

2.5 Archaeological Resourcing & Programme

The investigation was undertaken by a team of between one and three archaeologists between April and July 2012.

3 RESULTS & INTERPRETATION

3.1 Summary

Archaeological remains were identified along a 300m section of the access track in Plot 461 in Construction Section 120 (figure 3). No archaeological remains were observed elsewhere in this section or in Construction Section 122 (figure 2)

For Construction Section 120, three broad phases of Roman activity and a Modern phase have been recognised. Phasing has been determined primarily on the basis of ceramic dating, and partly on stratigraphic relationships and spatial configurations. These are:

- Phase 1: Earliest Activity
- Phase 2: Expansion
- Phase 3: Decline & Abandonment
- Phase 4: Modern Use
- Unphased

The results are presented below in phase order. In this section, context numbers relating to cuts are in **bold**, whilst those relating to deposits (layers, fills *etc*.) are in normal type. Additionally, where features are thought to relate to one another and form part of a 'group', they have been assigned a collective number prefixed with a **G**.

3.2 Phase 1: Earliest Activity

3.2.1 Description

A total of eight features were determined to belong to this phase, comprising ditch sections **602071** and **602092**, gulley **602106**, pits/postholes **602095**, **602097** and **602099**, tree holes **602050** and **602108** and indeterminate feature **602037**.

Ditches & gulleys

Ditch sections 602071 and 602092 were located 1-2m apart towards the eastern side of the excavation area. Although no physical relationship between the excavated sections was visible in plan (due to later activity over section 602092), and their dimensions varied (from 1.6m to 1.9m wide and from 0.36m deep to 0.5m deep), the two are thought to be the same feature - a straight ditch, oriented NNW-SSE, with concave sides and an uneven base. From the single surviving fill of section 602092 a small group of Severn Valley Ware sherds was recovered. These could not be dated more accurately than as Roman, though they may be as early as AD30.

Gulley (602106) was oriented NNE-SSW and measured 0.6m wide by 0.25m deep. It had gradually sloping sides, a concave base and a single fill which produced no finds. The gulley ran parallel for at least 5m on the south east side of a hollow (602104) belonging to phase 2, by which it was cut. Both features terminated at the same point.

Pits & postholes

A small cluster of pits (602095, 602097 and 602099) were located in the centre of the excavation area. The three pits were all different in size and form, ranging from a possible posthole (602099) 0.38m in diameter and 0.16m deep, to a large sub-circular pit (602095) measuring 0.75m wide x 0.56m deep and over 1.5m long with concave sides and an uneven base. Pit 602097 was different again, measuring 1.45m long by 0.65m wide and 0.26m deep, with an allantoidal form and a concave profile. All of these features had a single fill, none of which produced any dating evidence, but they were all truncated by phase 2 pit 602101 (figure 4b).

Tree boles & indeterminate feature

Two tree boles (602050 and 602108) have been assigned to this phase, on the basis that both are most likely to be the result of vegetation clearance at the beginning of phase 1, and they are truncated by features belonging to phases 2 and 3. Tree bole 602108 was an amorphous feature with irregular sides and an uneven base, measuring over 1.2m long, 0.7m wide and 0.29m deep. It contained a single, disturbed fill, which produced no finds and was cut by hollow 602104, belonging to phase 2.

Tree bole 602050 had uneven sides and a humped base and measured 0.5m in diameter and 0.3m deep. No finds were recovered from its single, root-disturbed fill which was cut by phase 3 ditch 602048.

Feature 602037 was shallow and curvilinear with a diameter of c.1.5m and measured 0.42m wide and 0.07m deep. The feature had a single fill, which produced a single Roman pottery sherd. It was truncated by phase 2 ditch G.602041. It was uncertain whether the curvilinear feature (602037) was man-made or natural in origin.

3.2.2 Interpretation

Ditch **602071/602092** ran along the contours and appeared to drain towards the south east, suggesting that its purpose was to prevent surface run-off from reaching the area down slope to the south west. The significance of its changes in profile is uncertain. Whilst the pottery was dated broadly to between AD 30 and AD 400, the stratigraphy indicated that the ditch was more likely to date towards the early part of that range; the ditch was cut by a rectilinear arrangement of ditches belonging to phase 2, one of which contained diagnostic sherds dating to between 500 BC and 200 AD (see below).

Although the function of gulley **602106** is uncertain, its spatial relationship with phase 2 hollow **602104** suggests that the two shared a related function, despite their different form and fill content.

In contrast, whilst all three pits (**602095**, **602097** and **602099**) appeared to have filled naturally over a prolonged period of disuse, their differing sizes and profiles suggested that they were unrelated. Their individual purposes are unknown.

Tree boles **602050** and **602108** were probably evidence of early vegetation clearance at the beginning of this phase.

The curvilinear feature (**602037**) was most likely a natural feature, such as an animal burrow.

3.3 Phase 2: Expansion

3.3.1 Description

A total of 14 features, comprising six ditches (**G.602041**, **602046**, **602068**, **602081** and **602084**), a gulley (**602060**), five pits (**602039**, **602044**, **602094, 602101** and **602110**), two large postholes or pits (**G.602026**), a hollow (**602104**) and a possible beam slot (**602042**) were attributed to this phase.

Ditches & gulley

Ditch **602046** was excavated near the easternmost extent of the site. The ditch, oriented roughly NNW-SSE across the access track was 0.64m wide and 0.18m deep. It had concave sides, a concave base and had a single fill which contained two sherds of Roman pottery.

To the west of ditch **60246** was an interconnected rectilinear arrangement of three ditches (**602060**, **602081** and **602068/602084**). Ditch sections **602068** and **602084** appeared to be part of the same ditch, oriented roughly NNW-SSE, which truncated phase 1 ditch **602071**. Section **602068** measured 2.29m wide, and only 0.22m deep, whilst section **602084** was greater than 0.6m wide, but considerably deeper at 0.75m. This may indicate that the two sections were not part of the same feature, or the difference in depth may be because an east-west spur ditch, **602081**, had been cut into the east side of the ditch at the point where section **602084** was investigated (see below).

This spur ditch, **602081**, measured more than 1m wide, and 0.49m at its deepest, which was the point it joined **602084**. Two pieces of pottery, dated between 500 BC and 200 AD, were recovered from the fill of the spur ditch. The interleaving of the fills of ditches **602081** and **602084** suggested that the latter was in use for some time before the spur was excavated, as it appeared that **602084** had partially filled with deposit 602085 when **602081** was joined to the drainage network. During their combined use, deposit 602082 accumulated in both ditches. When the whole network fell into disuse, both ditches filled with an apparent natural accumulated deposit (602083) (figure 4a).

At the east end of the spur ditch, **602081**, was a fragment of a narrow north-south aligned gulley (**602060**) with steep sides and a concave base. It averaged 0.6m wide and 0.38m deep and contained a single, naturally accumulated fill. Although the gulley was only visible across the access track for 1.15m, being truncated at either end as a result of recent vehicular activity, the alignment of the gulley could be extrapolated from where it survived on the edges of the trackway.

Ditch **G.602041** was the westernmost ditch belonging to this phase and was investigated by three sections. Oriented NW-SE, the ditch terminated with an abrupt rounded end 4.6m into the excavation area. It averaged *c.*1m wide and was up to 0.55m deep, near the terminus (plates 3 and 4, figure 4d). Truncation from recent vehicular activity along the track meant that the original profile of the terminus could not be ascertained.

The ditch had two fills along most of its length. These were very similar in nature to the two fills of group **602026**, which suggested that the features were all active and then abandoned at the same times. The fills of **G.602041** produced large quantities of calcined bone, suggesting the bone was either exposed to high temperatures or burned for a long time. They comprised a single identifiable bone, from a sheep or goat, four from large mammals, eight from medium mammals and 22 unidentifiable bones. None showed evidence of butchery, gnawing or pathology. Three iron nails were also recovered from the upper fill of one of the ditch sections, as was a piece of iron furnace slag, or smithing hearth cake. The upper fill of the ditch also produced 178 sherds of pottery dated between AD30 and 150, 97% of which could be more tightly dated to between AD30 and 100, and of those 40% could be dated specifically between AD30 and 70. The basal fill produced a further 65 potsherds also dating between AD30 and 150, and that assemblage also included a fragment of possibly earlier prehistoric pottery. A sample taken from the ditch had only sparse palaeo-environmental evidence, but it did contain large quantities of charcoal, charred wood and burnt bone, suggestive of hearth waste.

Small pits/postholes & beam slot

Pit/posthole **602039** was possibly circular and was 0.6m in diameter and

0.55m deep. It had steep, *c*.70° sides and contained a single, dumped fill. It was located immediately to the west of phase 2 ditch **602068**, where it truncated the fill of phase 1 ditch **602092** (figure 4a). Two samples were recovered from the pit, one composed almost entirely of fired clay, possibly hearth or furnace lining though the other indicated little other than a few flecks of charcoal and a piece of burnt bone.

Two similar pits or large postholes (**G.602026**) were located further to the west of ditch **602068**. They measured about 0.7m in diameter and 0.25m deep. Both features had two fills, a primary fill which appeared to have accumulated during their use or immediate disuse, and a later fill which appeared to be a deliberate dump or backfill using domestic waste. In the southern posthole **602023**, this later fill produced two iron nails, whilst the northern (**602021**) produced three pieces of iron smelting slag and a small lump of geothitic iron ore, as well as four sherds of pottery dated between AD30 and 150, including part of a Severn Valley Ware necked jar. The primary fill in posthole **602023** produced a fragment of a Severn Valley Ware tankard that could not be dated any more accurately than as Roman. The edges of pit **602023** were undercut on the eastern side of the feature, whilst those of pit **602021** were vertical. Samples taken from both of these features contained high densities of burnt cereal processing waste.

Another pit or posthole, **602044**, and possible beam slot **602042** (plate 2) were located immediately to the west of pits/postholes **G.602026**. The former was an ovoid pit or posthole, measuring 0.7m long by 0.36m wide and 0.44m deep. Beam slot **602042** lay just west of this, and measured 2m long by 0.44m wide and 0.22m deep. This had steep, near vertical sides and a flat base. Both features had very similar fills which met on the west side of **602044** and the east side of **602042** though the former also contained six angular, cobble-sized stones, possibly remnant packing for the beam, a dense lump of iron smelting slag as well as two nails, one of which may have been a hobnail. The fill of **602042** also produced 43 sherds of Roman pottery, including a Black Burnished Ware bowl and jar, the whole assemblage dating to between AD120 and 200. A sample taken from **602042** produced a range of cereal grains, predominantly cultivated oats and harvested wild oats.

A single pit/posthole, **602094**, was located to the south west of the above. It had concave sides and a flat base, which measured 0.65m in diameter and 0.1m deep. It contained a single, charcoal rich fill. A sample of the pit produced cereal grain and charcoal, indicative of hearth waste.

Larger pits & hollow

To the south of the small pits and postholes were three larger pits. Pit **602101** measured over 4m long, over 1.6m wide and was 0.42m deep. It had irregular sides and base and contained a single fill which produced four fragments of pottery dated to between AD 30 and 70.

Hollow **602104** appeared to be elongated and oriented NE-SW. It was over 6m long, 2-3m wide but only *c*.0.1m deep. The base of the feature was uneven and had an appearance of being poached by heavy foot traffic. The deposit which filled the hollow produced 27 sherds of pottery, dated to the later half of the 1st century AD.

Possible pit **602110** (plate 5) was located on the south side of the hollow (**602104**). The pit appeared to be ovoid. It measured more than 1.5m long, 1.05m wide, and 0.82m at its deepest (figure 4c). The pit protruded from the baulk to the west and hence may in fact have been the terminal end of a larger feature, but as no continuation of such a feature was identified further along the track it was assumed to have been most likely a discrete pit. It contained three fills: a shallow, silty, primary fill 0.13m deep which seemed to be confined to a narrow channel at the base of the pit; a dark, charcoal rich fill which contained large amounts of domestic or light industrial debris, including the apparent remains of a hearth incorporating two smithing hearth cakes; and a dumped deposit, similar to the natural substrate which appeared to be a deliberate capping of the feature. The central fill also produced 124 sherds of pottery, including a large proportion of a necked and cordoned Severn Valley Ware storage jar and the base of a Samian dish trimmed to a disc and perforated in the centre. The entire assemblage was dated to between AD120 and 150. A sample of the deposit around the pottery and apparent hearth dump contained a high quantity of charred wood, charcoal and burnt bone, at least some of which was animal.

3.3.2 Interpretation

The site appears to be divided into three sub-areas in this phase. In the middle, structural activity is represented by a beam slot, small pits and postholes. To the south is an area of larger pitting and to the east is a rectilinear arrangement of ditches.

Looking first to the structural features, the two postholes forming **G.602026** would have been very substantial, almost certainly structural and probably load-bearing in nature. No obvious structural configuration cold be discerned with any other features of this phase, including posthole **602044** and beam slot **602042**, located close by to the west, the alignment of which was askew to that of **G.602026**. If the postholes (**G.602026**) were part of a fenceline, any related posts must have been more widely spaced and located outside the area of investigation.

The undercutting within posthole **602023** (the southernmost of the two postholes of **G.602026**) would be satisfactorily explained by “waggling” of a large post within the soft, sandy natural substrate during its removal. This indicates that the structure formed by postholes **G.602026** was dismantled once its functional life had come to an end.

Ditch **G.602041** is the only ditch and non-structural feature in the central area. And, whilst it is oriented obliquely to all other ditches on the site, it is roughly parallel to the beam slot and may well be directly related to the postulated structure formed by the beam slot. Its course may also mark the division between an area of domestic structural activity to the north east and one of different activity to the south west.

In terms of dating the activity in this central area, quite a large portion of the pottery recovered from this ditch (**G.602041**) could be dated fairly tightly to the mid-late 1st century AD. However, pottery recovered from the posthole (**602044),** located alongside the beam slot, suggested that the associated structure was built later in phase 2. And, a copper alloy brooch discovered in the subsoil directly above, and which could originate from the use of the postulated structure, may push the dating into phase 3, as the brooch was dated to between AD150 and AD250.

The features discussed above produced a significant group of material remains, which gave insight into industrial, agricultural and domestic life at the site. The presence of burnt animal bones in the fills of ditch **G.602041** was consistent with hearth sweepings resulting from domestic cooking. The presence of iron nails in beam slot **602042** and **602023** may point toward a structural element, though one of the nails in **602042** appeared to be a hobnail, and hence more likely to be domestic detritus. The slag and ore included in the backfills of **602020** (the northernmost of the postholes belonging to **G.602026**), beam slot **602042** and ditch **G.602041** were likely to be industrial waste products from nearby smelting or smithing.

The samples taken from these particular features were considered to be the most significant gathered from site, as they contained mixed refuse deposits including high densities of burnt cereal processing waste. This material may have been produced on site, or imported for tinder or fuel. The grains present indicated that wheat was the principal crop being utilised, with oats and barley as the main crop contaminants. The samples also revealed that the crop was being produced on particularly fertile ground. This may have been the nearby floodplain of the River Wye. The remainder of the sample was consistent with hearth waste.

Turning attention to the east, ditches **602046, 602081**, **602068/602084** and gulley **602060** all appeared to be part of the same rectilinear network of drainage ditches, with **602068** and **602084** potentially representing a reiteration of phase 1 ditch **602071/602092**. The absence of material content is notable and suggests that the ditch system is removed from areas of domestic and industrial activity.

Moving south and west, the focus appears to shift towards industrial activity. Pit **602110** was substantial and unusual in form. The silted up channel at its base suggested that it was initially designed to hold or drain liquid away from some (uncertain) activity above, taking place in the bulk of the feature. Following its active life, the pit was reused for the disposal of a considerable amount of industrial debris, including what appeared to be a hearth. The two large smithing hearth cakes recovered from this secondary fill might indicate that the hearthstones dumped here were part of a smithing hearth, and the original function of the pit might therefore be related to iron-

working, though the primary silting of the feature contained less charcoal or other industrial indicators than might be expected of an industrial waste channel. The pottery specialist remarked that the assemblage contained several large fresh fragments of pottery suggesting deposition of entire, newly made pots, which might have indicated deliberate deposition in a 'special' context. The recovered soil sample showed no other unusual traits, which suggests that the deposit is simply a primary dump containing a mix of domestic/industrial material.

Pit **602094**, which lay close by to the north of pit **602110**, may have been a disposal pit for either hearth waste (based on the environmental sample), or it may have been light industrial material, The lack of *in-situ* burning indicated that this feature was not itself a hearth.

Pit **602039**, which had been dug into the top of the phase 1 ditch **602071/602092**, was also large and of uncertain function. The palaeo-environmental sample indicated that the pit was also used to dispose of hearth waste during its backfill, indicating that the spread of industrial waste also extended over to the rectilinear arrangement of ditches on the east side of the site.

Returning to the south west area, the purpose of hollow **602104** is unclear. The deposit it contained may represent the accumulation of detritus during the disuse phase of a trackway, or may more likely be the result of intense localised activity – perhaps related to the postulated industrial activities taking place in this area during this phase.

The irregular form of the large pit-like feature, **602101**, suggested that it may not have been man-made and was perhaps the result of uprooting of a tree. It may be significant that the phase 2 "pit" (**602101**) was situated directly over three phase 1 pits (**602095**, **602097** and **602099**). Invasion by rooting would also help explain the "disturbed natural" layer 602103 which surrounded all these features. The pottery recovered from pit-like feature, **602101** was dated fairly early within the site sequence, which suggested that the phase 1 pits had gone out of use before the more substantial occupation of the site.

3.4 Phase 3: Decline & Abandonment

3.4.1 Description

Four features were assigned to this phase, including a ditch (**602048**), a gulley (**G.602067**), a pit (**602079**), and a posthole or small pit **602030**.

Ditch & Gulley

At the eastern extent of site was a substantial curvilinear ditch (**602048**), measuring 2.05m wide and 0.75m deep (plate 1), and which appeared to enclose an area to the south and east of the excavation area. The ditch had a single, naturally accumulated fill, which produced 14 sherds of Roman pottery dated between AD120 and 200, a probable iron nail and a large piece of iron smelting slag (weighing 3kg), shattered into 16 pieces.

At the south west end of the site was a gulley (**G.602067**), which ran NE from the southern baulk for 4m, before ending with a rounded concave terminus. The gulley averaged 0.6m wide and 0.26m deep. It contained a single fill which produced three fragments of iron slag, one of which was a smithing hearth cake, one was tapslag and one was smelting slag, and eight sherds of pottery including a Black Burnished ware jar rim. The whole assemblage dated to between AD120 and 200.

Pit & posthole

Pit **602079** had been dug into the junction of ditches **602084** and **602081** and also into pit **602039** (figure 4a), all of which belonged to phase 2. The pit (**602079**) had steep, straight sides and a concave base and was substantial, measuring at least 1.5m wide and 0.85m deep. Initially, silt accumulated at the base of the feature, followed by the disposal of industrial and domestic waste. Two burnt bones, one from a cow and one from a medium mammal were recovered from the upper fill, neither of which showed evidence of butchery, gnawing or pathology. The fills also produced hearth or similar heat-affected stone, a single fragment of iron smelting slag and 18 sherds of pottery, dating to between AD30 and 200. Three samples were taken, but all of them contained very sparse palaeo-environmental material, composed

almost entirely of wind dispersed refuse. The sequence in pit **602079** was similar to phase 2 pit **602110.**

Pit **602030** was small, measuring just 0.36m in diameter and only 0.09m deep. It had steep sides and a flattish base, and was cut into the top of phase 2 ditch **G.602041**. It contained a single fill, a sample taken from which contained low densities of burnt cereal processing waste, similar in nature to phase 2 features **G.602026**.

3.4.2 Interpretation

The substantial curvilinear ditch **602048**, on the eastern side of the site, is likely part of an enclosure lying to the south east of the access track. This postulated enclosure would most certainly have been crossed by the Brecon to Tirley pipeline, yet no such discovery was made during construction, as with the rectilinear arrangement of ditches a short distance to the west.

In terms of the purpose of the postulated enclosure, there is little to go on apart from a single piece of slag. Despite its large size, it is estimated to represent only 20% of the tapslag cake from which it came, giving an estimated 15 kg to the whole piece. This would have been an unusually large piece of tapslag cake and suggests a significant level of metalworking was occurring in the near vicinity at this time. Perhaps this specialist activity took place within the postulated enclosure? Of possible relevance, is a report that ‘a complete circle of slag’ can be seen following ploughing in the field to the north (Plot 461) (*pers. comm.* Mark Woods, Farm Manager). The precise location of this purported phenomenon is unknown.

Gulley **G.602067** appeared to have been dug to drain an area of activity at its north east end. The mix of iron slag within the gulley appeared to be the accumulation of waste material from nearby iron working but nothing was found in its vicinity.

Whilst the primary function of pit **602079** was unknown, its secondary use was for waste disposal. Although some of this material might be redeposited, it is indirect evidence of continued domestic and light industrial activity taking place in close proximity, despite no such features being

positively assigned to this phase.

The flat base of feature **602030** suggested that it was intended to have something placed within it, either the base of a post or perhaps even a vessel. The presence of considerable quantities of charcoal and burnt bone led to suspicions that this might have been a cremation pit, but assessment of the sampled material indicated that it was most likely backfilled with what appeared to be hearth waste. This waste was similar in nature to that from the phase 2 features which might indicate continuity in the local agricultural economy or perhaps simply that the material had been redeposited.

3.5 Phase 4: Modern Use

Two modern features, pit **602054** and layer 602075, were identified.

Pit **602054** protruded from the corner of the access track on the east side. The pit had concave sides and a concave base and measured was over 0.7m long, over 0.4m wide and 0.23m deep. Its fill had a 'mixed' appearance and was judged to have been relatively recently backfilled.

Layer 602075 was a large spread of apparently redeposited natural that covered much of the central area of the site, measuring *c.*17m long, by 13m wide and 0.06m thick. The layer contained fragments of wood and modern paper coffee cups, amongst other detritus

3.5.1 Discussion

Both modern features **602054** and layer 602075 appeared likely to be the result of activity during, or associated with, the construction of the Brecon to Tirley pipeline approximately five years prior to the remedial works.

Layer 602075 lay outside of the pipeline's working area and as such may have related to the removal of the boundary between plots 460 and 461.

3.6 Unphased

3.6.1 Description

A total of six features remain unphased. These include 3 ditches (**602077, 602087** and **602089**), 2 pits (**602052** and **602056**) and a layer (602074).

On the south west side of the excavation area were three parallel linear features (**602077**, **602087** and **602089**). The earliest of these was ditch **602087**. It had concave sides and a flat base and measured 1.46m wide and 0.36m deep. It contained a single fill. This appeared to have been recut at some later point as a narrower ditch (**602077**), which measured 0.4m wide and 0.32m deep. This recut had steeper sides and a concave base. Alongside this was a broad, shallow ditch (**602089**) which measured 1m wide but only 0.2m deep, and had a steep, concave profile and an uneven, water-worn base. This ditch also contained a single, silty fill.

Pit **602052** was partially visible protruding from the northern baulk of the access track. It had concave sides and a concave base, measured 1.24m wide and 0.3m deep, and contained a single fill.

Pit **602056** was ovoid, had steep, irregular sides and an uneven base, and measured 1.4m long, 1.14m wide and 0.15m deep.

Layer 602074 was a spread of silty sand with frequent degraded sandstone fragments, measuring over *c.*13m long and over *c.*5m wide, but was only 0.02m thick. It completely covered phase 2 gulley **G.602067.**

3.6.2 Discussion

Ditch **602087** appeared to be a field boundary or drainage ditch, the alignment of which differed from the rectilinear arrangement of Roman ditches to the north east, and hence may well be of a different date. The ditch was apparently later recut as two separate features – a deeper boundary ditch (**602077**) and a shallower drainage ditch (**602089**). This division of the feature may indicate a change in the nature of the boundary, with **602089** forming part of a more extensive drainage system, whilst **602077** was a simple boundary marker.

So little of pit **602052** protruded into the site that it was impossible to say, with certainty, that it was not a ditch terminus. It could, for instance, have been a return of phase 2 ditch **G.602041**.

Pit **602056** appeared to have a root disturbed base and could even have been just a root bowl, in which case it might be the result of land clearance early in phase 1.

Layer 602074 appeared to be the result of weathering and degrading of the natural sandstone. This might indicate that, once phase 2 gulley **G.602067** went out of use, the area it previously drained became waterlogged and the sandstone present there became eroded and decayed.

3.7 Finds Summary

Ten finds types, comprising Ceramic Building Material (CBM), Fired Clay, Clay Pipe, Faunal Remains, Metalwork, Pottery, Post Production Residue (PPR), Charred Plant Macrofossils, Post Roman Pottery and Stone were recovered from the archaeological investigations in Construction Sections 120 and 122.

These finds were sent to appropriate specialists for assessment, and their reports are included in Appendix B. Below are short summaries of those reports, presented in alphabetic order.

3.7.1 Archaeo-metallurgical Residues (Tim Young)

A total of 41 fragments of post production residues totalling 4.8kg were recovered from plot 461 (Construction Section 120). Some of these fragments were parts of the same original piece, and 23 discrete pieces of residue could be identified.

Of the total, 3.3kg (6 pieces) was identifiable as smelting slag (of which 3kg was a single original lump), 0.8kg (3 pieces) was probably, but not certainly, smithing slag, 0.5kg (7 pieces) was indeterminate iron slag, 0.1kg (3 pieces) was furnace/hearth lining, 0.02kg was a piece of iron ore and 0.02kg was a small piece of coal-fuelled slag, probably a smithing slag.

The evidence from the residues indicated that both iron smelting and smithing were undertaken close to the investigated area. Most of the smelting slags were clearly from a slag-tapping furnace and the remainder were compatible with such an origin. The single fragment of iron ore was compatible with ore recovered from the Forest of Dean.

3.7.2 CBM and Fired Clay (Rachel Hall)

The assemblage comprised 5 fragments of CBM weighing a total of 229g, from 2 topsoil contexts, and a single fired clay object weighing 20g. The fired clay and all of the CBM came from the excavations in plot 461 in Construction Section 120, apart from a single fragment of CBM from plot 472 in Construction Section 122.

All five fragments of CBM were tiles, two having curved surfaces, and most being positively identified as roof tiles. Three tiles from plots 460 and 461 may be Romano-British, whilst the remaining fragments were undatable.

The fired clay object had a curved surface and one edge, and was probably part of a portable object such as a kiln bar or loomweight. It was likely Romano British in date, and was found pressed into the natural substrate amongst the Roman features identified in Construction Section 120.

3.7.3 Charred Plant Macrofossils (Val Fryer)

Fourteen samples were recovered from thirteen deposits investigated during the Ross Remedial works in plot 461 (Construction Section 120).

Of the fourteen assemblages studied, those from pits **G602026** are of the most significance, as they all contain mixed refuse deposits including high densities of burnt cereal processing waste. Whether this waste was directly derived from on-site processing, or whether it was imported to the site for use as tinder or fuel, is not known, but assuming that the material was generated within the general locale, it would appear that wheat was the principal crop, with the oats and barley occurring as main crop contaminants. Notably, the robust size of some of the spelt chaff suggests that the land on which the crops were grown was particularly fertile.

Seven of the assemblages also contained fragments of burnt bone, small pieces of fired clay, fragments of charred hazel nutshell and a moderate density of charcoal/charred wood, all of which were probably derived from hearth waste. The remaining assemblages were relatively sparse.

3.7.4 Clay Pipe (Chris Caswell)

Two undecorated clay pipe stems were recovered from topsoil, one from plot 461 (Construction Section 120) and one from plot 472 (Construction Section 120). Based on the stem bore, the pipe from plot 461 could be dated to the late seventeenth or early eighteenth century, whilst the stem from plot 472 was probably seventeenth century in date.

3.7.5 Faunal Remains (Jen Wood)

A total of 37 (14g) refitted fragments of bone were recovered by hand during the archaeological excavation work in plot 461 (Construction Section 120). A total of 95% of the assemblage was represented by burnt bone. All of the bone had been fully calcined which suggested the remains were subject to burning at high temperatures (c.300°) or for prolon ged periods of time. It was possible that the entire burnt assemblage represented incidental burning events or hearth sweepings.

No evidence of pathology, butchery or gnawing was noted on any of the remains, and only two bones could be identified to taxa, one from a cow and one from a sheep or goat.

3.7.6 Iron Age & Roman Pottery (Ian Rowlandson)

A total of 699 fragments of pottery, from 52 contexts, weighing *c*.7.05kg, were recovered from plot 461 (Construction Section 120).

The majority of the pottery was from local sources, with only three Samian sherds and a single fragment of Mancetter/Hartshill mortaria representing international imports, and 11 sherds of Dorset Black Burnished ware representing regional imports.

The assemblage contained a range of material dating from the late Iron Age to the early Roman period, with a few groups suggesting the

possibility of occupation into the 3rd century AD and beyond. Of note, were the Roman pottery assemblages from Group **602041** which date from the middle of the first century AD until perhaps as late as the early to mid 2nd century AD.

The most important assemblage was from pit **602110**. This group contained large, fresh fragments from Seven Valley storage jars, a Samian dish base trimmed to a disc and a fragment from a handmade limestone-gritted jar. The majority of these sherds were fresh and many of the vessels may have been deposited either complete or nearly complete when the feature was backfilled. The association of this group with burning and burnt bone might suggest these vessels formed part of a 'structured deposit' such as a ritual offering or primary cremation pit or secondary cremation burial, as one or two of the sherds showed signs of being discoloured.

3.7.7 Metalwork and Special Finds (Dr Kevin Leahy)

Nine metal finds, comprising eight iron objects and one copper alloy, were recovered from plot 461 (Construction Section 120). All eight of the iron objects were likely to be nails, and only the hobnail from beam slot **602042** was datable as Roman. The remaining nails were also from Roman contexts and hence could be dated by association.

The other object was a cast copper alloy brooch of the 'knee' type, its bow tapering sharply from a broad head. The brooch was in poor condition, heavily corroded and broken. The bow was plain, but there are traces of a possible rib running down its back with a similar rib on its underside. Its pin was missing, but seven loops of the coiled spring were present, secured by an iron axial spring which passed through lugs on each side of the head. Knee brooches are very widespread but the Portable Antiquities Scheme's database shows that they do seem to have been particularly popular in Southern Herefordshire and this find helps confirm an established pattern. The style of brooch has been dated to between AD150 and AD250.

3.7.8 Post-Roman Pottery (Luke Barber)

Four sherds of post Roman pottery were recovered from all elements of the remedial works. One of these, a sherd of 19th century yellow

ware, was recovered from subsoil (602001) in plot 461, the remainder came from topsoil in section 122 (608000). These consisted of a slightly abraded sherd from a mid/later 19th century serving/meat dish with green floral transfer-printed design around its rim; a relatively fresh 19th century bowl rim in local glazed red earthenware and a slightly abraded flattened D-club rim from an unglazed earthenware flower pot of 19th to 20th century date.

3.7.9 Stone (Luke Barber)

A single 80g fragment from an elongated pebble whetstone was recovered from topsoil in plot 461. The whetstone had a flattened D-shaped profile. The original length of the stone could not be determined, but it was in excess of 65mm. No use wear was evident on any of the surfaces. Although this piece could easily have been of Roman date, the unstratified context meant such dating was uncertain as similar pebble whetstones were used in other periods.

4 DISCUSSION & CONCLUSIONS

The watching brief afforded an opportunity to undertake archaeological investigations of an area for which previous monitoring during construction of the Brecon to Tirley Pipeline had been relatively unproductive, despite knowledge of several sites in the immediate vicinity.

4.1 Previous knowledge of the local area

Two sites were found in close proximity during previous works. The most significant of these was a unurned cremation (GPS 60152, figure 3), dated using AMS to around 300BC, in the middle Iron Age. This discovery might suggest that the immediate area (including the present area of investigation) had funerary, maybe even some ritual significance during the middle Iron Age, perhaps explaining why the site was not particularly exploited prior to the late Iron Age/Roman periods.

The other site located was in plot 462, but within 10m of the boundary between plots 461 and 462. This was an undated spread of metallurgical residues, incorporating iron production slags and refractory material (McKenzie 2008). Without context little could be determined about the nature of the spread during the pipeline works, but given its proximity to the activity in plot 461 it is probable that this site was related to the iron working suggested by the findings in plot 461.

1.1km to the east of plot 461 was the Bronze Age activity at plot 464, including pits, postholes, ditches and cremation material (Network Archaeology 2010), and c.1.8km to the northeast was the reported location of a hoard of Bronze Age Celts (SMR 6629), ploughed up in 1791.

Known Roman activity in the area included the Roman sites located during the Brecon to Tirley pipeline near Foy and Upton Bishop (plots 454 and 468-9: Network Archaeology 2010), as well as the possible Roman road from Ariconium to Ashton (Margary 613) and a Romano-British carved stone at Upton Bishop (SMR 6630).

4.2 Phase 1: Earliest activity

The present investigations demonstrated that the first significant impact upon the local landscape took place in the late Iron Age or early Roman period when people cleared the land and established some simple drainage and boundary features (ditches **602071** and **602092** and gulley **602106**) and dug a series of pits (**602095**, **602097** and **602099**) of uncertain function. Given the lack of uniformity in these pits it is likely that they do not form a group nor share a common function.

As the boundary and/or drainage features were located further to the north and east of the pits, it was postulated that they lay outside of an occupation site located closer to the brow of the hill, and as such were more likely to be disposal pits for waste that was not wanted within the occupation boundaries.

4.3 Phase 2: Expansion

As the Roman occupation of the area intensified in the 1st century AD, the activity at the site increased and it was likely that during the latter half of the 1st century AD the site expanded significantly.

A new boundary ditch (**G.602041**) was excavated, presumably to define areas within the developing settlement and to assist with the control and movement of people/animals. The hollow **602104** is likely an area of intensive trample related to activities at pits **602094**, **602101** and **602110** with which it appeared to be associated.

4.3.1 Metalworking

Hollow **602104** occupied an area of light industrial activity, possibly including blacksmithing, as evidenced by a hearth pit, or disposal pit for hearth waste (**602094**) and another pit (**602110**) which appeared to be related to blacksmithing.

Evidence of metalworking was recovered from four of the investigated features that were active at this time, and included material from both

smelting and smithing of iron. The smelting slag was clearly from a slag-tapping furnace, or compatible with such an origin, and the whole assemblage was indicative of this activity occurring in the near vicinity.

The increase in activity at the site was accompanied by the creation of a more elaborate network of gullies and ditches (**602046**, **602068**, **602081** and **602084**). All stages of the metalworking process require significant quantities of water, and the site lacked a readily identifiable source. The network of ditches and gulleys may have been established to catch and redirect the flow of rain water across the slope to the north and south to the postulated areas of iron working, rather than for drainage which would more likely have run down slope to the west.

4.3.2 Postulated structure

Whilst no coherent structural configurations could be discerned at the site, a cluster of structural type features, including a beam slot and postholes (**602042**, **G.602026** and **602044**), is notable. It is likely that related structural components exist immediately outside the area of investigation. The function of this postulated structure is unknown.

4.4 Phase 3: Decline & abandonment

Activity at the site began to wane around the middle of the 2nd century AD, despite the establishment of a sizeable ditched feature (**602048**) on the eastern limit of the excavation area. This large ditch formed a postulated enclosure extending to the south and east of the access track. The presence of a substantial lump of tap-slag in the backfill of this ditch might indicate a continuance of significant metalworking in the area into the later 2nd century AD and beyond, or it may be that this was a residual fragment from the more intensive workings of the late 1st and early 2nd centuries AD.

Further evidence of ongoing metalworking in this phase comes from a small gulley (**G.602067**) which contained slag from a variety of stages of the metalworking process amongst its fill, and which may have related to ongoing industrial workings upslope to the north of it.

Further activity outside the postulated Phase 3 enclosure was limited to a large probable storage pit (**602079**), which remained unused for some time, before being backfilled with hearth waste. Also, a single posthole (**602030**), on the line of phase 2 ditch **G.602041** may have been part of a fence line constructed to reiterate that boundary, or its location may have been purely coincidental.

4.5 Unphased

Several ditches (**602087**, **602077** and **602089**) did not accord with the Roman template, and these may well represent medieval or later field divisions and drainage.

4.6 Economy

The palaeo-environmental samples recovered, particularly from phase 2, suggested that the primary crop being utilised was wheat, which was supplemented by both cultivated and wild oats and to a lesser degree barley. This profile was typical of Roman agriculture. The wheat grains were indicative of being grown on particularly rich and fertile soils which might suggest they were grown on the alluvial soils of the nearby Wye floodplain.

The presence of a possible Romano-British loom-weight fragment, albeit out of context, suggests that domestic crafts or activities were also being undertaken.

4.7 Metalworking

Most of the samples also contained a black porous “cokey” material, probably residues from the combustion of organic remains, including cereal grains, at very high temperatures. Given the evidence of metalworking in the close vicinity it is possible that this material represented fuel waste from industrial processes as well as domestic hearths.

The metallurgical evidence from the site was consistent with existing knowledge of Roman metal working technology, as established at several local sites in the Forest of Dean, including Ariconium, near

Weston-under-Penyard, less than 5km to the south east and three sites on the Brecon to TIrley Pipeline, these being plot 454 (near Hole-in-the-wall, *c.*1km to the west), plot 496 (near Kempley Green, *c.*7km to the east north east) and plot 430 (near Peterstow, *c.*5.5km to the south west).

The present site appears to have closest affinity to the bloomery site in plot 430. At that site, two of the bloomery furnaces were identified, which produced tapslag similar in nature to that from the plot 461, and of a similar 1st century AD date, though the Peterstow site showed more definitive evidence of being originally established in the late Iron Age. The site at plot 430 appeared to be divided into separate areas for metalworking and habitation. Whilst it is not possible to establish with certainty the arrangement at plot 461 (due to the limited nature of the investigation), the combination of domestic and industrial waste in the backfills of many features suggests that occupation and metalworking may have been taking place together in a limited area and may therefore represent a smaller operation than those at plot 430.

As with plot 430, the primary metal working centre at plot 461 appeared to be situated near the brow of the slope. A metal working site would most likely be located with consideration of three factors: proximity to an ore source; proximity to processing resources such as timber and water; and proximity to lines of communication for distribution of the finished product. The ore at this site appeared to be derived from the Bristol orefields, and hence was likely to have come from the Forest of Dean rather than a more proximal mine. The fuel source is unlikely to have been a deciding factor in site location, as large areas of the Marches were forested at this time. And, although no water source has been identified at the site by the recent investigations, it has been suggested that this issue was overcome by channelling water via a network of ditches and gulleys (4.3.1). The most likely reason for the site's location at the brow of a slope, rather than nearer to water, was either proximity to local demand (i.e. nearby settlement) or proximity to a road network to facilitate transport of the ore to the site and a more widespread distribution of the finished metal. As the settlement evidence from plot 461 is not indicative of a large habitation, the latter is considered more likely.

In addition to the above, it is worth mentioning that approximately 2.3kg of undated iron slag, including smelting slag, refractory slag and fuel ash slag, was recovered from plot 462, less than 25m to the north east of recent investigation, during monitoring of construction of the Brecon to Tirley pipeline, and there are reports of a ring of iron slag in the field to the north – perhaps suggesting that the metalworking activities at this site are more extensive than revealed by the narrow window of observation allowed by the current investigations.

4.8 Meeting aims & objectives

This section is an appraisal of the success of these investigations in meeting the original aims and objectives of the parent project, the Brecon to Tirley gas pipeline.

Though no specific aims were established prior to commencement of the remedial works, the findings in plot 461 can be seen to have contributed to three out of the four English objectives highlighted in the AFD (National Grid/RSK 2006).

RESEARCH OBJECTIVE 1

"*To extend the use of proven methodologies for site location and interpretation, and encourage the development of new techniques, within the project area*."

Whilst no new techniques have been identified by the recent works, the limitations of archaeological monitoring during construction of the Brecon to Tirley pipeline are exposed by the discovery of the recent archaeological remains which almost certainly extended into the course of the existing pipeline, but went unobserved at the time. The reason for this is probably the use of bulldozers to remove topsoil from *c.*75% of the pipeline's working width.

No appreciable depth of subsoil was recorded either along the access track or within the working width of the original pipeline, which might have masked archaeology, except along the hedge boundary between plots 461 and 462.

In addition, it is worth noting that the approaches adopted for the temporary preservation *in-situ*, whilst the remedial work took place, had variable success. For the most part, the use of bog mats was quite successful, with soil damage being less than 20mm on average. However, on one bend, heavy rains resulted in the accumulation of surface water beneath the bog mats which caused them to move whilst vehicles tracked by and resulted in soil damage to 0.3m.

RESEARCH OBJECTIVE 2

"Encourage works of synthesis within and across periods, settlements, monuments and areas, for the project as a whole"

The discoveries in plot 461 included both Roman metalworking and possibly also Roman settlement enclosure. Consideration of these findings alongside the results of the original Brecon to Tirley project, where eight Roman enclosure sites and four Roman metalworking sites were uncovered, could be highly productive, equally any publication of the Brecon to Tirley material should also take into account the discoveries at plot 461 when discussing the Roman exploitation of eastern Herefordshire.

RESEARCH OBJECTIVES 17 & 18

"Improve the quality and quantity of environmental data and our understanding of what it represents, from within the pipeline spread".

The palaeo-environmental data recovered from plot 461 was notably more productive than that recovered from the original Brecon to Tirley pipeline, and, whilst not containing any particularly surprising or unusual information helps to expand upon both the quantity and quality of the data gathered from the original pipeline work. As above, these findings would benefit from consideration alongside the results of the original Brecon to Tirley project.

WEST MIDLANDS RESEARCH AGENDA

The data recovered from the recent investigations might also be considered to help toward another research aim suggested by the West Midlands Research Agenda:

"Identify more rural sites and disentangle the local settlement pattern" (Guest, 2002).

The site at plot 461 would appear to have been on the fringe of a Roman bloomery and smithing site, possibly providing metalwork for the surrounding locale.

As with the Roman bloomery site located at plot 430 on the Brecon to Tirley pipeline, it is unlikely that such a site existed independently of habitation, and indeed the palaeo-environmental samples suggest that both domestic and industrial activities were taking place from the early Romano-British period into the 2nd century AD at or in close proximity to the excavated site.

CONSIDERATIONS FOR FURTHER WORK

Whilst outside the scope of the present report, associated with the remedial works at plot 461, there may be value to considering further work, such as the comparison of the material from plot 461 to those from other Roman sites nearby, particularly those with large metallurgical assemblages but no apparent on-site metalworking (e.g. plots 454 and 468-9).

Such work might indicate whether the site at plot 461 was a local hub for metal production and distribution to nearby sites, or a smaller industrial operation providing metal just for the usage of its own inhabitants.

The above could potentially be addressed by widening the scope of the analysis stage of the Brecon to Tirley pipeline, which is currently in progress.

The recent investigations at plot 461, suggest that the discovered site might benefit from future investigation to determine its limits, particularly to the north and east, towards the brow of the slope. Both the exposed archaeology and the comments of the landowners suggest a significant metalworking site within a short distance of the discovered site.

5 ARCHIVE

The documentary archive comprises:

- a copy of this report;
- relevant and non confidential documents and correspondence relating to the site held by Network Archaeology;
- original notes relating to the finds or post excavation assessments; and
- site records, as detailed in the table below:

Table 5.1 Archive summary

Archive	**Count**
Number Record	1
Construction Plot Record	0
Context Registers	12
Context Sheets	124
Drawing Registers	3
Drawing Sheets	17
Plan drawings	24
Section drawings	28
Sample Registers	1
Sample Sheets	14
Special Finds Registers	0
Special Finds Sheets	0
Level Registers	0
GPS Register	4
Photographic Registers	7
Black and White films	1
Colour Slide films	1
Black and White Photographs	32
Colour Slide Photographs	32
Digital Photographs	45
Total archive components	**294**

The recipient museum is Hereford Museum & Art Gallery, Broad Street, Hereford, Herefordshire, HR4 9AU

The accession code is yet to be issued.

The recipient museum will receive the document archive, and with the permission of the landowners, any finds generated from the archaeological works.

Prior to the deposition of the archive, the necessary arrangements will be made with the landowners regarding the transfer of ownership of any archaeological finds to the recipient museum. In the event that deposition of the archive cannot be concluded, Network Archaeology will store the archive to a suitable standard until deposition can be arranged. In this event, Network Archaeology will retain ownership of the document archive until the document archive and its ownership is passed to the recipient museum.

6 ACKNOWLEDGEMENTS

Network Archaeology would like to thank the following for their contribution to the project:

Table 6.1 Acknowledgements

Organisation	Name	Position	Contribution
NG	Phil Allen	Project Manager	Commission
Groundwork Archaeology	Linda Bonnor	Archaeological Advisor	NG review
MPL	Richard Pope	Project Manager	MPL Financial
	Tom Leeke	Agricultural Liaison Officer	Day-to-day liaison on site
	Jon O'Sullivan	Construction Manager	Construction information
HCC	Julian Cotton	Development Officer	External review
Network Archaeology	David Bonner	Senior Project Manager	Review & QA
	Graham Cruse	Senior Project Officer	Report text
	Adele Horton	Resources Officer	Project resourcing
	Susan Freebrey	GIS & CAD Officer	Illustrations
	Chris Caswell Steve Thorpe	Project Officer	Fieldwork
	Martin Campbell	Project Supervisor	Fieldwork
	Ian Price Stephen Cox	Project Assistants	Fieldwork

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McKenzie, R.	2008	Archaeometallurgical Assessment in *Brecon to Tirley Gas Pipeline: Assessment of Potential for Analysis*, 2010	Unpublished Report
National Grid/RSK	2006	Felindre to Tirley Natural Gas Pipeline: Archaeological Framework Document	Unpublished Report
Network Archaeology	2010	Brecon to Tirley Gas Pipeline: Assessment of Potential for Analysis	Network Archaeology Ltd; Report 413
Network Archaeology	Forthcoming	Brecon to Tirley Gas Pipeline: Archaeological Analysis of Controlled Strip and Watching Brief	Network Archaeology Ltd

Appendix A

CONTEXT SUMMARY

Context	Type	Fill of	Dimensions Length (max) Width (max) Depth/Thickness (max)	Description	Interpretation
602000	Layer		0.3m thick across site	Light grey brown loose silty sand with occasional charcoal flecks and small rounded and angular stones	Topsoil
602001	Layer		0.12m thick across site	Mid grey brown friable silty sand with occasional charcoal flecks and small rounded and angular stones	Subsoil
602002	Cut		0.5m L x 2.34m W x 0.55m D	NNW-SSE oriented linear, with an irregular, stepped U shaped profile	Segment through possible boundary or drainage ditch associated with Roman occupation of the site 602041.
602003	Fill	602002	0.5m L x 1.76m W x 0.26m D	Mid brown grey friable sandy silt with occasional charcoal flecks and patches and small-large angular stones	Fill accumulated during disuse phase of ditch, probably representing abandonment of the site.
602004	Fill	602002	0.5m L x 1.98m W x 0.27m D	Mid brown red clayey sandy silt with very occasional charcoal flecks, occasional small-medium rounded and angular stones	Primary weathering during usage phase of the ditch, possibly also indicative of bank slip from the NNE side
602005	Fill	BRT pipe trench	Within modern pipetrench x 1.8m thick	Loose mid red brown clayey silt with frequent small and medium stones	Backfill of Brecon to Tirley pipetrench
602006	Fill	BRT pipe trench	Within modern pipetrench x 0.36m thick	Loose mid grey clayey silt with sparse small pebbles	Primary backfill of Brecon to Tirley pipetrench

Context	Type	Fill of	Dimensions Length (max) Width (max) Depth/Thickness (max)	Description	Interpretation
602007	Layer		1.0m thick across pipeline excavation area	Firm red clay with large sandstone blocks	Natural stone/bedrock layer
602008	Layer		0.5m thick across pipeline excavation area	Mid to pale brown soft clayey silt with occasional small stones	Apparently recently redeposited soil, possibly backfill of benching during construction of BRT pipeline
602009	Layer		0.2m thick across pipeline excavation area	Firm pink clay	Redeposited natural layer during reinstating of BRT pipeline easement
602010	Layer		1.2m thick across pipeline excavation area	Moderately compact mid pink brown clayey silt with sparse small stones	Redeposited natural layer during reinstating of BRT pipeline easement
602011	Layer			Mid red brown friable clayey sand with moderate degraded sandstone fragments and manganese flecks and occasional blue grey marl lenses	natural substrate
602012-602019		UNUSED	UNUSED	UNUSED	UNUSED
602020	Cut		0.74m Diameter x 0.24m D	Circular feature with steep, near vertical sides, and an uneven, flattish base	Small pit of unknown function or large post pit
602021	Fill	602020	0.69m Diameter x 0.17m D	Dark grey friable sandy silt with common charcoal flecks and rare small angular stones	Deliberate backfill of feature following disuse

Context	Type	Fill of	Dimensions Length (max) Width (max) Depth/Thickness (max)	Description	Interpretation
602022	Fill	602020	0.74m Diameter x 0.24m thick	Mid grey red friable clayey sand with rare charcoal flecks	Either natural accumulation during use or immediate disuse, or if post-pit, then primary backfill around post
602023	Cut		0.68m x 0.61m x 0.31m D	Sub-circular feature with steep, near vertical sides, undercutting on eastern edge, gradually breaking to a flattish base	Pit of unknown function or large post pit. If the latter, then undercutting may be caused by "waggling" the post to remove it
602024	Fill	602023	0.68m x 0.61m x 0.25m D	Mid grey brown friable silty sand with moderate charcoal flecks and fragments and occasional small quartzite pebbles	Possible secondary use of pit for disposal of hearth waste, or deliberate backfill of feature following disuse
602025	Fill	602023	0.63m x 0.62m x 0.16m D	Mid red brown friable silty sand with occasional charcoal flecks and occasional sandstone and quartzite pebbles	Either natural accumulation during use or immediate disuse, or if post-pit, then primary backfill around post
602026	Group			Pair of pits/large postholes 602020 and 602023. Set 1.5m apart in a N-S line, if there were other features in the line then they lay beyond the narrow easement for the site	Two very similar pits, possibly performing the same function or part of a large structure the remainder of which was beyond the scope of excavation
602027	Cut		2m L x 0.9m W x 0.38m D	NW-SE linear feature with slightly convex sides breaking sharply to a very slightly concave base	Section through possible boundary ditch 602041

Context	Type	Fill of	Dimensions Length (max) Width (max) Depth/Thickness (max)	Description	Interpretation
602028	Fill	602027	2m L x 0.9m W x 0.23m D	Dark brown grey friable silty sand with occasional small rounded and angular stones, moderate charcoal flecks and patches and degraded sandstone patches	Fill with evidence of domestic burning debris, including burnt bone. Likely to be deliberate backfill using hearth or destruction event material
602029	Fill	602027	2m L x 0.9m W x 0.19m D	Mid red brown friable sandy silt with occasional charcoal flecks and small quartzite and sandstone fragments	Natural accumulation during usage or immediate post-usage
602030	Cut		0.36, Diameter x 0.09m D	Circular feature with steep sides, and a gradual break to a flattish base	Small pit or posthole, apparently utilised for disposal of burnt waste, either as a primary or secondary function. Sampled due to presence of burnt bone, and slight possibility of cremation.
602031	Fill	602030	0.36, Diameter x 0.09m D	Dark brown grey friable silty sand with occasional charcoal flecks, fragments, rare small quartzite pebbles and occasional burnt bone flecks and fragments	Deliberate backfill of feature, probably disposal of hearth waste, or - much less likely - cremation material
602032	Fill	602079	0.25m W x 0.15m thick	Triangular patch of charcoal rich dark grey brown clayey sand	Lense of material within deposit 602080, numbered separately as sampled for possible dating
602033	Fill	602079	0.8m Diameter x 0.15m D	Pale mid red brown clayey silt with moderate heat affected angular sandstone and degraded sandstone	Apparent dump of hearth

Context	Type	Fill of	Dimensions Length (max) Width (max) Depth/Thickness (max)	Description	Interpretation
602034	Cut		1m L x 0.98m W x 0.36m D	NW-SE linear feature with slightly convex sides breaking sharply to a flattish base	Section through possible boundary ditch 602041
602035	Fill	602034	1m L x 0.98m W x 0.24m D	Dark brown grey friable silty sand with moderate charcoal flecks and fragments and occasional stones, some heat affected and degraded	Deliberate backfill of feature, probably disposal of domestic debris or demolition event
602036	Fill	602034	1m L x 0.98m W x 0.16m D	Mid red brown friable sandy silt with occasional charcoal flecks and patches and small quartzite and sandstone pebbles	Naturally accumulated fill in ditch, either during use or immediate post usage
602037	Cut		c.1.5m L x 0.42m W x 0.07m D	Spiral linear with concave sides and base	No clear function for such an unusual feature, but possibly naturally formed, such as an animal burrow
602038	Fill	602037	c.1.5m L x 0.42m W x 0.07m D	Mid brown grey friable sandy silt with occasional-moderate charcoal flecks and patches of daub or degraded fired clay	Fill similar in nature to 602028, and probably deposited during similar process
602039	Cut		0.6m Diameter x 0.55m D	Sub-circular pit with rounded base and regular c.70° sides, though the eastern edge was very diffuse	Pit of uncertain function, possibly for mineral extraction or deposition of waste
602040	Fill	602039	0.6m Diameter x 0.55m D	Mid red brown silty sand with occasional angular sandstone fragments	Apparently dumped fill of pit 602039

Context	Type	Fill of	Dimensions Length (max) Width (max) Depth/Thickness (max)	Description	Interpretation
602041	Group		c.4.6m L X C.1m W x 0.24 - 0.36m D	NW-SE linear with convex sides and a generally flattish base, comprising 602004, 602027, 602034 and 602058	Probable boundary or drainage ditch. No clear reason for terminus at NW end, and may have been a deliberate break in boundary, or point to which the ditch drained. Upper fill may represent a re-cut, but this was not conclusive
602042	Cut		2m L x 0.44m W x 0.22m D	NW-SE linear with steep, concave sides and a flat base	Linear feature of unknown function, steep sides indicate limited exposure to erosion, so possibly a rapidly closed feature such as a beam slot
602043	Fill	602042	2m L x 0.44m W x 0.22m D	Mid red brown friable sandy silt with frequent flecks of charcoal and 6 angular cobble sized stones	Deliberate backfill of feature with domestic waste, possibly during disuse
602044	Cut		0.7m L x 0.36m W x 0.4m D	Ovoid pit, longed N-S than E-W, with steep sides and a concave base	Pit of uncertain function, possibly a large posthole?
602045	Fill	602044	0.7n L x 0.36m W x 0.4m D	Mid red brown friable sandy silt with frequent flecks of charcoal and patches of redeposited natural	Deliberate backfill of feature with domestic waste, possibly during disuse, possibly same event as deposition of 602043?
602046	Cut		>6.2m L x 0.64m W x 0.18m D	N-S linear feature with concave sides and a largely flat base	Probable drainage gully, designed to drain to the south

Context	Type	Fill of	Dimensions Length (max) Width (max) Depth/Thickness (max)	Description	Interpretation
602047	Fill	602046	>6.2m L x 0.64m W x 0.18m D	Mid orange brown friable sandy silt with occasional degraded sandstone patches, charcoal flecks and occasional small, rounded pebbles	Natural accumulation during usage or immediate post-usage
602048	Cut		>5.2m L x 2.05m W x 0.75m D	Curvilinear feature with concave sides and a flat base	Probably enclosure ditch, enclosing an area to the south and east of the excavation area
602049	Fill	602048	>5.2m L x 2.05m W x 0.75m D	Mid red brown silty sand, with increasing silt quotient as it neared the base and rare charcoal flecks and degraded sandstone patches	Naturally accumulated fill in ditch, either during use or immediate post usage
602050	Cut		0.5m Diameter x 0.3m D	Circular feature with irregular concave sides and an uneven, humped base	Tree/shrub root hole
602051	Fill	602050	0.5m Diameter x 0.3m D	Mid red brown silty sand	Disturbed natural fill of roothole
602052	Cut		1.24m W x 0.3m D	Half-oval feature protruding from limit of excavation to the north. Moderately sloping sides and a concave base	Appears to be a shallow pit, but may be the terminal end of a larger feature to the north.
602053	Fill	602052	1.24m W x 0.3m D	Mid yellow brown compact sandy silt	Deposit was sterile and compact, and may have represented a naturally formed feature

Context	Type	Fill of	Dimensions Length (max) Width (max) Depth/Thickness (max)	Description	Interpretation
602054	Cut		>0.7m L x >0.4m W x 0.23m D	Quarter-round feature protruding from corner of excavation area with relatively concave sides and base as seen.	Modern feature, recently excavated
602055	Fill	602054	>0.7m L x >0.4m W x 0.23m D	Mix of non-homogenised mid red brown silty sand, mid red brown clayey silt and dark brown red sandy silt	Recent backfill of feature with mixed, redeposited material
602056	Cut		1.4m L x 1.16m W x 0.15m D	Ovoid pit, longer E-W than N-S, with steeply sloping concave sides and an uneven base	Possible tree hole, or root-disturbed pit
602057	Fill	602056	1.4m L x 1.16m W x 0.15m D	Mid red brown firm sandy silt with rare small gravel stones	Natural accumulation during usage or immediate post-usage, or natural disturbed by tree roots
602058	Cut		2.0m L x 0.53m W x 0.23m D	NW-SE terminus of linear feature, with U shaped concave profile and rounded terminus	Terminal end of possible boundary ditch 602041, heavily impacted by construction disturbance, resulting in top 0.3m being truncated
602059	Fill	602058	2.0m L x 0.53m W x 0.23m D	Mid red brown friable sandy silt with occasional small charcoal flecks and fragments, small degraded sandstone fragments and small rounded pebbles	Sole surviving fill of terminus 602041, though likely to be the silting of the feature during usage or immediate post-use. Upper fill which appears throughout remainder of feature likely lost to truncation

Context	Type	Fill of	Dimensions Length (max) Width (max) Depth/Thickness (max)	Description	Interpretation
602060	Cut		>1.15m L x 0.6m W x 0.38m D	N-S linear feature with steep sides and a concave base, southern half of feature more disturbed by modern vehicle tracks	Fragment of a linear feature disturbed by modern vehicle tracks. Impossible to determine function of ditch from small surviving element
602061	Fill	602060	>1.15m L x 0.6m W x 0.38m D	Mid red brown silty sand, becoming siltier towards base of feature	Naturally accumulated fill in ditch, either during use or immediate post usage
602062	Fill	602060	1.05m L x 0.1m W x 0.3m D	Dark red brown silty sand with frequent degraded sandstone gravel	Lense of material within deposit 602061, possibly indicative of a bank slippage event during natural accumulation of 602061
602063	Cut		1.15m L x 0.58m x 0.26m D	NE-SW linear with generally concave profile, but with a slight convex "step" on SE slope for part of length	Section through possible drainage gully 602067
602064	Fill	602063	1.15m L x 0.58m x 0.26m D	Mid red brown friable sandy silt with occasional degraded stone fragments and charcoal flecks	Natural accumulation during use or immediate post-usage of feature
602065	Cut		0.41m L x >0.29m W x 0.18m D	NE terminal of NE-SW linear with broadly concave profile and rounded terminus	Terminus of probable drainage gully 602067, and given fall, this would be the point of origin from which fluid drained, though no obvious reason for the gully to originate here survived

Context	Type	Fill of	Dimensions Length (max) Width (max) Depth/Thickness (max)	Description	Interpretation
602066	Fill	602065	0.41m L x >0.29m W x 0.18m D	Mid red brown friable sandy silt with moderate small to medium degraded stones and occasionl charcoal flecks	Natural accumulation during use or immediate post-usage of feature, increased quantity of stones in comparison to 602064 may indicate presence of a stone structure nearby, or may be coincidental
602067	Group		>3.9m L x 0.6m W x0.26m D	NE-SW linear with generally concave profile, but with a slight convex "step" on SE slope for part of length and a rounded terminus at the NE end. Comprised sections 602063 and 602065	Probable drainage gully, designed to drain to the southwest
602068	Cut		1m L x 2.29m W x 0.22m D	NW-SE linear feature with U shaped profile, though noticeably steeper on NE bank	Possible field boundary ditch
602069	Fill	602068	2.09m W x 0..2m D	Mid red brown compact sandy silt mottled with dark red brown sandy silt patches	Probable natural accumulation during use/immediate post-uasge of the feature
602070	Fill	602068	0.95m W x 0.22m D	Mid red brown compact sandy silt mottled with light grey sand patches	Secondary episode of natural deposition within ditch 602068
602071	Cut		1m L x 1.6m W x 0.36m D	NW-SE linear feature with steep, concave sides and an uneven base	Possible boundary or hedge-line ditch
602072	Fill	602071	1.6m W x 0.21m D	Mid red brown compact sandy silt	Probable natural accumulation during use/immediate post-uasge of the feature

Context	Type	Fill of	Dimensions Length (max) Width (max) Depth/Thickness (max)	Description	Interpretation
602073	Fill	602071	1.24m W x 0.19m D	Mid-pale red brown compact sandy silt with light grey sand mottling	Secondary episode of natural deposition within ditch 602068
602074	Layer		c.13m x c.5m x 0.02m D	Dark brown grey friable silty sand mottled with light green grey sandy silt patches and frequent degraded sandstone patches and fragments	Layer deposited after gully 602067 fell into disuse, and may represent waterlogging of the area as a result of the failure of that drainage
602075	Layer		c.13m x c.17m x 0.06m D	Light brown red clayey sand with blue grey marl patches and occasional manganese flecking	Layer of redeposited natural, possibly relating to works from the Brecon to Tirley pipeline
602076	Group			Number assigned to group of features investigated in a sondage, incorporating linear features 602081, 602084 and 602092 and pits 602039 and 602079	Sondage to investigate nature of several intercutting features
602077	Cut		1m L x 0.4m W x 0.32m D	NW-SE linear feature with steep, V shaped sides and a concave base	Possible recut, or reiteration of boundary ditch 602087
602078	Fill	602077	1m L x 0.4m W x 0.32m D	Mid red brown compact sandy silt with rare charcoal flecks	Probable natural accumulation during abandonment of the feature
602079	Cut		1.5m Diameter x 0.85m D	Sub circular feature with steep, straight sides and a concave base	Pit for the disposal of waste, most notably the dump of hearthstones and associated material 602033
602080	Fill	602079	0.8m W x 0.4m D	Mid red brown silty sand with occasional sandstone fragments	Deliberate levelling dump within pit, during post-usage

Context	Type	Fill of	Dimensions Length (max) Width (max) Depth/Thickness (max)	Description	Interpretation
602081	Cut		>1.5m L x >1m W x 0.49m D	E-W linear feature, only half exposed within excavation area, but appearing to have a steep V shaped profile	Drainage ditch, apparently contemporary with ditch 602084 into which it seems to drain
602082	Fill	602081	>1.5m L x >1m W x 0.30m D	Mid red brown silty sand with frequent light green sandstone gravel	Material accumulated within ditch 602081 during usage, and tipping at its western end into ditch 602084
602083	Fill	602081	>1.5m L x >1m W x 0.25m D	Mid red brown silty sand	Natural accumulation of material following end of active use of feature
602084	Cut		>0.6m W x >1m L x 0.75m D	NW-SE linear feature with steep sides and a sharp break to an undulating base	Appeared to be a continuation of ditch 602068 further to the north, except that the depth is dramatically increased over a very short space. This may be to allow for additional drainage from 602081 to the east.
602085	Fill	602084	>0.6m W x >1m L x 0.75m D	Mid red brown sandy silt with frequent patches of decayed dark grey sandstone	Possible primary silting of ditch 602084
602086	Fill	602092	1.9m W x 0.5m D	Mid red brown silty sand with occasional light green sandstone fragments and some redeposited natural patches near edge	Natural accumulation within ditch, some evidence of bank slippage in form of redeposited natural on western edge
602087	Cut		1m L x 1.46m W x 0.36m D	NW-SE linear feature with steep, concave sides and a flat base	Possible boundary or hedge-line ditch

Context	Type	Fill of	Dimensions Length (max) Width (max) Depth/Thickness (max)	Description	Interpretation
602088	Fill	602087	1m L x 1.46m W x 0.36m D	Mid red brown firm sandy silt	Natural accumulation within boundary ditch following abandonment
602089	Cut		1m L x 1m W x 0.2m D	N-S linear with steep concave profile and an uneven base	Small gully, possibly intended for field drainage
602090	Fill	602089	1m L x 1m W x 0.2m D	Mid brown red compact sandy silt	Natural accumulation within drainage gully following abandonment
602091	Fill	602079	0.7m W x 0.3m D	Dark-mid red brown sandy silt	Primary fill of pit, possibly a natural accumulation in an open refuse pit
602092	Cut		>1m L x 1.9m W x 0.5m D	NW-SE linear feature with concave sides and a broadly concave, but irregular base	Probable boundary ditch, likely to be a continuation of 602071 to the north
602093	Fill	602094	0.65m Diameter x 0.1m D	Dark grey brown compact sandy silt with flecks of charcoal and degraded sandstone fragments	Possible dump or accumulation of hearth waste
602094	Cut		0.65m Diameter x 0.1m D	Circular pit with concave sides and a flat base	Possible hearth, or pit for disposal of hearth or light industrial waste
602095	Cut		c.1.5m L x 0.75m W x 0.56m D	Pit of uncertain form, as only partially exposed to north and east due to limit of excavation, and truncated to the south, but presumed to be sub-circular. Pit has an irregular concave profile with an uneven base	Pit of uncertain function, though truncation by pit 602101 might indicate an attempt to reinstate the same function following disuse

Context	Type	Fill of	Dimensions Length (max) Width (max) Depth/Thickness (max)	Description	Interpretation
602096	Fill	602095	c.1.5m L x 0.75m W x 0.56m D	Mid brown grey friable sandy silt with mottled lenses of red orange sand and occasional patches of degraded sandstone, and flecks of manganese and charcoal	Natural accumulation over prolonged period of disuse
602097	Cut		1.45m x 0.65m x 0.26m D	NE-SW linear feature with concave sides and base and rounded terminals at either end	Allantoid pit of unclear function
602098	Fill	602097	1.45m x 0.65m x 0.26m D	Dark brown grey friable sandy silt with occasional small rounded pebbles and occasional rare charcoal flecks	Natural accumulation during disuse phase of feature
602099	Cut		0.38m Diameter x 0.16m D	Sub-circular feature only identified in section, with a concave profile	Small pit or eroded posthole. No clear function, but may be related to 602097, though in what way or for what purpose is unknown
602100	Fill	602099	0.38m Diameter x 0.16m D	Dark brown grey friable sandy silt	Natural accumulation during disuse phase of feature, similarities with 602098 might suggest both features filled during the same event

Context	Type	Fill of	Dimensions Length (max) Width (max) Depth/Thickness (max)	Description	Interpretation
602101	Cut		>1.6m L x >1.03m W x 0.42m D	Sub-circular, though irregular edged, pit with irregular sides, steeper to NE and more gradual at SW with a concave base	Large pit of uncertain function, possibly an attempt to reinstate the function of pit 602095, though the location may be coincidental. Irregularity of shape and profile may indicate natural origins
602102	Fill	602101	>1.6m L x >1.03m W x 0.42m D	Mid reddish brown friable sandy silt with occasional degraded sandstone patches	Natural accumulation over prolonged period of disuse
602103	Layer		c.2m x 1.03m x 0.5m	Mid reddish brown friable sandy silt with moderate degraded sandstone patches and occasional manganese flecks and lenses of pale yellow sand	Weathered natural
602104	Cut		>1.2m L x 2.05m W x 0.1m D	N-S linear feature with gradually sloping sides and a flattish base	Possible trackway or similar area reduced by regular foot traffic
602105	Fill	602104	>1.2m L x 2.05m W x 0.1m D	Dark red brown sandy silt with occasional charcoal and decayed sandstone	Natural accumulation of disturbed natural material caused by poaching
602106	Cut		>1.2m L x 0.6m W x 0.25m D	N-S linear feature with gradually sloping sides and a concave base. Eastern side very diffuse against disturbed natural	Possible drainage gully

Context	Type	Fill of	Dimensions Length (max) Width (max) Depth/Thickness (max)	Description	Interpretation
602107	Fill	602106	>1.2m L x 0.6m W x 0.25m D	Mid red brown clayey silt	Accumulation of water-borne material within drainage gully, probably during usage/ immediate post usage
602108	Cut		>1,2m L x 0.7m W x 0.29m D	Amorphous shaped feature with irregular convex sides and an uneven, undulating base	Tree/shrub root hole
602109	Fill	602108	>1,2m L x 0.7m W x 0.29m D	Mid red brown silty sand with occasional sandstone fragments	Disturbed natural fill of roothole
602110	Cut		>1.5m L x > 1.05m W x 0.82m D	NNE-SSW oriented pit feature, though hard to define at NNE end. Sides are steep and slightly concave, base was flattish	Probable pit with oddly channeled base, as though designed to hold either fluid or an object such as a beam
602111	Fill	602110	>1.5m L x > 0.9m W x 0.56m D	Dark brown grey friable silty sand with frequent charcoal and burnt bone flecks and fragments, a layer of large-medium stones, some heat affected	Apparent secondary usage of pit as dump for hearth material following disuse
602112	Fill	602110	>1.5m L x > 1.05m W x 0.29m D	Mid red brown friable sandy silt with occasional charcoal flecks and degraded sandstone patches	Deliberate dump of material similar to the natural substrate in order to complete backfill of pit
602113	Fill	602110	>1.5m L x 0.15m W x 0.13m D	Pale red grey friable sandy silt with occasional degraded sandstone and charcoal flecks	Basal fill of pit, probably primary silting of channel/beam slot during usage or immediate post use of feature

Context	Type	Fill of	Dimensions Length (max) Width (max) Depth/Thickness (max)	Description	Interpretation
608000	Layer		0.3m thick across site	Pale red brown clay silt with occasional small stones	Topsoil
608001	Layer		c.0.1m thick across site	Firm red sandy clay	Natural substrate
608002	Layer		>3m thick across site	Pale solid grey mudstone	Bedrock

Appendix B

FINDS SUMMARY TABLE

Context	Data	Animal Bone	CBM	Clay Pipe	Fired Clay	Metal	Pottery Post-Medieval	Pottery Roman	PPR	Stone	Grand Total
602000	Count		4	1				28		1	34
	Weight		184	1				337		80	602
602001	Count					1	1	170	11		183
	Weight					6	3	804	312		1125
602003	Count	5						19	3		27
	Weight	1						294	278		573
602004	Count							2			2
	Weight							25			25
602011	Count				1						1
	Weight				20						20
602021	Count							4	4		8
	Weight							15	90		105
602024	Count					2					2
	Weight					22					22
602025	Count							2			2
	Weight							3			3
602028	Count	28						100			128
	Weight	4						473			477
602029	Count							36			36
	Weight							36			36
602033	Count	2									2
	Weight	7									7
602035	Count					3		63			66
	Weight					11		347			358
602036	Count	1						20			21
	Weight	2						93			95
602038	Count							1			1
	Weight							2			2
602043	Count					2		43	1		46
	Weight					3		286	4		293
602047	Count							2			2
	Weight							1			1
602049	Count					1		14	19		34
	Weight					34		26	3194		3254
602059	Count	1						7			8
	Weight	1						56			57
602064	Count							8	3		11
	Weight							55	220		275
602076	Count							18	1		19
	Weight							186	26		212
602083	Count							2			2
	Weight							13			13
602086	Count							4			4
	Weight							55			55
602102	Count							4			4
	Weight							9			9
602105	Count							27			27
	Weight							226			226
602111	Count							125	2		127
	Weight							3715	638		4353
608000	Count		1	1			3				5
	Weight		45	2			53				100
Total Count		**37**	**5**	**2**	**1**	**9**	**4**	**699**	**44**	**1**	**802**
Total Weight		**15**	**229**	**3**	**20**	**76**	**56**	**7057**	**4762**	**80**	**12298**

Appendix C

SPECIALIST FINDS REPORTS

Archaeo-metallurgical Residues

By Tim Young

Summary

The site produced a small assemblage (4.7kg) of residues produced mainly during iron smelting in a slag-tapping furnace. A few pieces were indicative of iron smithing. The assemblage also included a piece of iron ore which would appear to have a texture compatible with iron ores from the Forest of Dean. The assemblage would be typical of material generated during the smelting of iron in the Forest of Dean area during the Roman period.

Methodology

All materials were examined visually with a low-powered binocular microscope where required. As an evaluation, the materials were not subjected to any high-magnification optical inspection, not to any form of instrumental analysis. The identifications of materials in this report are therefore necessarily limited and must be regarded as provisional.

Assessment

Description of residues

General

The assemblage as a whole is a small collection of iron slags and related materials (4.8kg; 23 original pieces, some now broken). Of the total, 3.3kg (6 pieces) was identifiable as smelting slag (of which 3kg was a single original lump), 0.8kg (3 pieces) was probably, but not certainly, smithing slag, 0.5kg (7 pieces) was indeterminate iron slag, 0.1kg (3 pieces) was furnace/hearth ling, 0.02kg a piece of iron ore and 0.02kg was a small piece of coal-fuelled slag, probably a smithing slag.

Iron smelting slags

The smelting slags were mainly pieces which showed evidence for a maroon coloured, ropey textured surface indicative of a slag tapped from the furnace.

One piece of smelting slag and one piece of the strictly indeterminate material comprised accumulations of lobate slags with maroon surfaces (from contexts 602021 and 602076). Such pieces are suggestive of flowed slags which did not come into contact with air, but cooled within the fuel bed. Such materials may form in a slag-tapping furnace, but will be the dominant waste material in non-slag tapping furnaces.

The main piece of smelting slag was a large (3kg) block from context 602049, now shattered into sixteen fragments. This mass shows a deep accumulation of slag (>105mm deep) within a steep side tapping pit. The

piece is a small fragment (estimated to be less than 20%) of the whole original tapslag cake (which would therefore have weighed at least 15kg).

Smithing hearth cakes (SHCs)

The material identified as probably being from SHCs is difficult to interpret. One 450g piece from 602111 may be an essentially complete, low density, prilly SHC. Two other pieces are probably fragments of SHCs (from contexts 602064 and 602111) but give little indication of overall size and shape. The size of the only relatively complete SHC (450g) is on the borderline between slags produced during secondary blacksmithing (the end use of iron) and those produced during primary bloomsmithing (part of the process of iron manufacture) in the Roman period. The material from context 602064 is too encrusted to provide evidence, but the pieces from context 602111 would appear to have been fuelled by charcoal.

Indeterminate iron slags

The material in this category is not certainly referable to either smelting or smithing. This are mostly pieces without any preserved external surface to give morphological evidence, or with any evidence for flow lobes being preserved internally.

Coal-fuelled slag

Although most of the slags show evidence for the use of charcoal as fuel, one piece (a small 20g fragment from context 602001) showed inclusions of coal residues. Coal was widely used for end-use blacksmithing (but not for the process of smelting and primary bloom smithing) in the Roman period, and later again from around the 13th century onwards.

Lining

The collection included three pieces of vitrified hearth or furnace lining. None contained any morphological evidence for a precise interpretation of origin.

Ore

The assemblage included a single piece of goethitic iron ore (20g; context 602021). The texture was largely granular, with tabular voids suggestive of now leached out carbonate inclusions, but the granular material was locally overgrown by botryoidal layers. The piece was mainly formed of dark, greyish goethite, but the surface was reddened – though whether by contact with ochre (the fine-grained iron oxides which often accompany the consolidated ores) or by roasting (iron ores are typically roasted in air prior to smelting) it was not possible to determine by inspection.

Distribution of residues

The distribution of archaeo-metallurgical residues is as small quantities of material present in a range of different contexts and context groups. There is no focus of distribution of residues – suggesting they were produced elsewhere and incorporated into deposits within the excavated area as isolated fragments. Such a pattern is probably indicative of accidental patterns of deposition, rather than a deliberate pattern of waste disposal.

The occurrence of the two major pieces of SHC within a single context may suggest a more deliberate pattern – but the evidence is very slight.

Interpretation

The evidence from the residues indicates that both iron smelting and smithing were undertaken close to the investigated area. The small quantities of residue recovered preclude detailed comment on the smelting process, however, most smelting slags are clearly from a slag-tapping furnace and the remainder are compatible with such an origin.

The fragment of iron ore shows features compatible with an origin in the Bristol Channel Orefield (Young & Thomas 1998, 1999); an origin of the ore piece recovered in that area would appear very likely. The site lies well within the hinterland of the Dean ore resources in the Roman period as that is currently understood.

Further Work

The residues from the site occur in contexts where they are probably derived or residual and there was no evidence for associated metallurgical structures. The investigated features are apparently largely or entirely of Roman age and the residue assemblage is entirely compatible with the technology of that period. Although the occurrence of residues on this site is of interest, there is little potential for further detailed analysis to add greatly to present understanding of process, technology or the nature of the resource. No further work is therefore recommended.

References

Young, T.P. & Thomas, G.R. 1998. The cargo: iron ore analysis. pp. 105-111 *In:* Nayling, N. *The Magor Pill Medieval Wreck*, CBA Research Report 115, Council for British Archaeology.

Young, T.P. & Thomas G.R. 1999. Provenancing iron ore from the Bristol Channel Orefield: the cargo of the Magor Pill Boat. *In:* Pollard, A.M. (ed) *Geoarchaeology: exploration, environments, resources*, Geological Society of London, Special Publication, 165, 103-121.

CBM and Fired Clay

By Rachel Hall

Summary

A total of six fragments of Ceramic Building Material and Fired Clay were recovered from the remedial works at sections 120 and 122.

Methodology

The assemblage was counted, weighed, visually inspected and identified.

Assessment

CBM (Ceramic Building Material)

A total of 5 fragments of CBM, weighing 229g were recovered from three contexts (see Table 1). The assemblage comprises tile fragments. With the exception of one reduced fabric, the fragments are all coarse sandy and oxidised. The condition of the assemblage is fair.

The tiles were recovered from topsoil layers (602000, 608000 and GPS 6108027). The majority of the tile fragments are roof tiles, with two having slightly curved surfaces. There are three fragments, that based on form and fabric may date to the Romano-British period. These were recovered again from topsoil layers 602000 and GPS. 6108027. They have a soft and micaceous oxidised fabric with sparse to moderate Iron Oxides fragments.

Fired Clay

A single fragment of fired clay was recovered from natural substrate layer 602011. The fragment is oxidised with a micaceous, sandy fabric. It has a curved surface with one edge. It is probably part of a portable object, such as a loomweight or kiln bar. Based on both form and fabric it may be Romano-British in date. No further work is required on this material.

Further Work

There are no further recommendations for further work on this assemblage.

Plot	Context	Material	GPS	Form	Date	Count	Weight (g)
461	602000	CBM		Tile	?RB	1	118
461	602000	CBM		Tile	PMed	1	22
472	608000	CBM	6108223	Tile	PMed	1	45
460 (461)	602000	CBM	6108027	Tile	?RB	1	33
461	602000	CBM	6108168	Tile	?RB	1	11
461	602011	Fired Clay		Object	?RB	1	20
Total						6	249

Table 1: CBM and Fired Clay by Plot, Context, Material, GPS, Form, Date, Count and Weight (g).
RB- Romano-British; Pmed: Post-medieval

Charred Plant Macrofossils, Organic Remains & Residues

By Val Fryer

Summary

Excavations, undertaken by Network Archaeology as part of an ongoing series of works along the route of the Brecon to Tirley pipeline, recorded a limited number of pits, ditches and other discrete features of Roman date. Samples for the retrieval of the plant macrofossil assemblages were taken from across the excavated area and fourteen were submitted for assessment.

Methodology

The samples were processed by manual water flotation/washover and the flots were collected in a 300 micron mesh sieve. The dried flots were scanned under a binocular microscope at magnifications up to x 16 and the plant macrofossils and other remains noted are listed in Table 1. Nomenclature within the table follows Stace (1997). All plant remains were charred. Modern roots and seeds were also recorded.

The non-floating residues were collected in a 1mm mesh sieve and will be sorted when dry. Any artefacts/ecofacts will be retained for further specialist analysis.

Results

Cereal grains, chaff and seeds of common weeds were present at varying densities within all but three assemblages. Preservation was variable, with some grains and seeds being extremely well preserved, whilst other specimens were puffed and distorted, probably as a result of combustion at very high temperatures. Many of the macrofossils were also coated with fine silt particles and small grits but, in most instances, the remains were still identifiable.

Oat (Avena sp.), barley (Hordeum sp.) and wheat (Triticum sp.) grains were recorded, with wheat being predominant throughout. Most of the wheat grains were of an elongated ‘drop’ form, typical of emmer (T. dicoccum) or spelt (T. spelta), although a small number of more rounded hexaploid type forms were also noted. Both emmer and spelt glume bases were recorded (with some of the latter being especially robust), and individual bread wheat (T. aestivum/compactum) type rachis nodes were noted within the assemblages from samples 2 (pit [602020]) and 4 (pit [602023]). Oat grains were recorded within four of the assemblages studied, and wild oat (A. fatua) floret bases, with diagnostic ‘sucker-mouth’ basal abscission scars, were noted within samples 3 (pit [602023]) and 8 (fill of linear feature [602042]). As is typical of assemblages of Roman date, barley was scarce, with only three possible grains being recorded. In addition to the cereals, a

cotyledon fragment of an indeterminate large legume (Fabaceae) was noted within the assemblage from sample 3.

Weed seeds were scarce, with most occurring as single specimens within an assemblage. All were of common segetal weeds/grassland herbs, and taxa noted included brome (Bromus sp.), small legumes (Fabaceae), black bindweed (Fallopia convolvulus), goosegrass (Galium aparine), ribwort plantain (Plantago lanceolata), grasses (Poaceae), wild radish (Raphanus raphanistrum) and dock (Rumex sp.). Small fragments of hazel (Corylus avellana) nutshell were recorded within the assemblage from sample 4. Charcoal/charred wood fragments, including some larger pieces >10mm, were present throughout, but other plant macrofossils were scarce.

The fragments of black porous material, which were present within all but five assemblages, were all probable residues of the combustion of organic remains (including cereal grains) at very high temperatures. Small fragments of bone, many of which were burnt/calcined, were present within most assemblages, along with small fragments of burnt or fired clay. Possible pottery fragments were noted within sample 7 (ditch [602034]) and were abundant within sample 11 (pit [602039]).

Discussion

Of the fourteen assemblages studied, those from pits [602020] and [602023] (samples 1, 2, 3 and 4, from group 602026) are of the most significance, as they all contain mixed refuse deposits including high densities of burnt cereal processing waste. Whether this waste was directly derived from on-site processing, or whether it was imported to the site for use as tinder or fuel, is not known, but assuming that the material was generated within the general locale, it would appear that wheat was the principal crop, with the oats and barley occurring as main crop contaminants. It is definitely of note that the robust size of some of the spelt chaff suggests that the land on which the crops were grown was particularly fertile. These four assemblages also contain fragments of burnt bone, small pieces of fired clay, fragments of charred hazel nutshell and a moderate density of charcoal/charred wood, all of which are probably derived from hearth waste. Similar material is also present within the assemblages from pit/post-hole [602030] (sample 5), linear [602042] (sample 8) and dump [602094] (sample 13), although at a far lower density.

The remaining assemblages are relatively sparse. Those from ditch [602034] (sample 7) and pit [602110] (sample 14) both contain very high densities of charcoal/charred wood and numerous small fragments of burnt and calcined bone. Although visually similar to small, dispersed cremation deposits, there is nothing to suggest that either of the features from which the samples were taken had any ritual significance and it is, therefore, assumed that the remains are derived from culinary waste and/or hearth detritus. The three assemblages associated with pit [602079] (samples 6, 9 and 10), are particularly sparse, containing little other than probable wind-dispersed refuse. Sample 11 is possibly of note as the assemblage is almost entirely composed of what appears to be either coarse pottery or possibly hearth lining, but the other assemblage from pit [602039] (sample 12) contains little other than a few flecks of charcoal and a small piece of burnt bone.

Conclusions

In summary, although some of the current assemblages are almost certainly derived from specific activities which were occurring on or near the site, and most particularly within the area incorporating the features of group 602026, others are almost entirely composed of scattered or wind-dispersed detritus, much of which was probably accidentally included within the feature fills. Evidence suggests that the local land may have been especially rich and ideally suited to the production of wheat, a crop which thrives well on fertile soils.

Further work

Although at least two of the current assemblages to contain a sufficient density of material for quantification (i.e. 100+ specimens), analysis of a small number of samples in isolation would probably add little to the data already contained within this assessment. Therefore, no additional work is recommended at this stage. However, it is essential that the results from this work are incorporated with all data from the Brecon to Tirley pipeline and included within any publication of data from the entire project.

Reference

Stace, C., 1997 *New Flora of the British Isles*. 2nd edition. Cambridge University Press

Sample No.	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**
Context No.	**602021**	**602022**	**602024**	**602025**	**602031**	**602032**	**602035**	**602043**	**602033**	**602091**	**602040**	**602040**	**602093**	**602111**
Feature No.	**602020**	**602020**	**602023**	**602023**	**602030**	**602079**	**602034**	**602042**	**602079**	**602079**	**602039**	**602039**	**602094**	**602110**
Feature type	**Pit**	**Pit**	**Pit**	**Pit**	**Pit/ph**	**LAWP**	**Ditch**	**Linear**	**DAWP**	**Pit**	**Pit**	**Pit**	**DAWH**	**Pit**
Group No.	**602026**	**602026**	**602026**	**602026**			**602041**							
Cereals and other food plants														
Avena sp. (grains)	x		xx	x				x						
(floret base)				x										
(awn frags.)				x										
A. fatua L. (floret bases)			x					x						
Hordeum sp. (grains)			xcffg					x						xcf
(rachis node)								x						
Triticum sp. (grains)	x	x	xx	xx	x	xcf	x	x					x	x
(glume bases)			x	x	x								x	
(spikelet bases)		x	x	x				x						
(rachis internodes)	x		x	x				x						
T. dicoccum Schubl (glume bases)			xcf	xcf										
T. spelta L. (glume bases)	x	xx	xxx	xxx	x		x	xx					x	
(spikelet forks)			x	x										
T. aestivum/compactum type (rachis nodes)		x		xcf										
Cereal indet. (grains)	xfg	xfg	xxxfg	xx	x	x	x	x					xfg	x
(sprout frag.)				x										
(detached embryo)				x										
Large Fabaceae indet.			xcoty											
Herbs														
Bromus sp.	x	x			xcf		xcf	x		xcf				
Fabaceae indet.		x	x					x						xcf
Fallopia convolvulus (L.)A.Love														x
Galium aparine L.								x						
Plantago lanceolata L.				x										

Sample No.	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**
Context No.	**602021**	**602022**	**602024**	**602025**	**602031**	**602032**	**602035**	**602043**	**602033**	**602091**	**602040**	**602040**	**602093**	**602111**
Feature No.	**602020**	**602020**	**602023**	**602023**	**602030**	**602079**	**602034**	**602042**	**602079**	**602079**	**602039**	**602039**	**602094**	**602110**
Feature type	**Pit**	**Pit**	**Pit**	**Pit**	**Pit/ph**	**LAWP**	**Ditch**	**Linear**	**DAWP**	**Pit**	**Pit**	**Pit**	**DAWH**	**Pit**
Group No.	**602026**	**602026**	**602026**	**602026**			**602041**							
Small Poaceae indet.	xcf		x	x										
Ranunculus sp.			xcf											
Raphanus raphanistrum L. (siliqua frag.)								x						
Rumex sp.			x											x
Tree/shrub macrofossils														
Corylus avellana L.				x										
Other plant macrofossils														
Charcoal <2mm	xxx	xxx	xxx	xx	xxxx	xxxx	xxxx	xxx	xx	xx	xx	x	x	xxxx
Charcoal >2mm	xx	xxx	xx	xx	xx	xxx	xxxx	xx	x	x	x			xxxx
Charcoal >5mm		x	x	x	x	x	xx		x	x				xx
Charcoal >10mm							x							xx
Charred root/stem	x	x		x		x	x	x						x
Indet.culm nodes	x													
Indet.seeds			x	x				x						
Indet.thorn		x												
Other remains														
Black porous 'cokey' material	xx	x		x	x	x	x	x	x			x		
Black tarry material	x													
Bone		xb	xb	xb	xb	x	xxb	xb	xx	x		xb		xxb
Burnt/fired clay		xx	x	x	x		x	x			xxxx			x
Pottery							x				xxx			
Small coal frags.	x		x					x	x		x			
Sample volume (litres)	**28**	**28ss**	**26ss**	**27**	**14**	**12**	**28**	**26**	**14**	**14**	**16**	**14**	**16**	**35**
Volume of flot (litres)	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**0.1**	**<0.1**	**<0.1**	**<0.1**
% flot sorted	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Clay Tobacco Pipe

By Chris Casswell BA (Hons)

Summary

Two fragments of clay tobacco pipe were recovered from archaeological works on the Brecon to Tirley gas pipeline

Methodology

The material was counted and weighed in grams, then examined visually to identify any diagnostic pieces and the overall condition of the assemblage. Where no other identification has been possible, stems have been dated by established stem bore guidelines (Oswald 1975). It should be noted that dates provided by stem bore size can have an appreciable margin for error and are intended only as a general guide.

Results

Two fragments of undecorated clay tobacco pipe stem, weighing 1g and 2g, were recovered from topsoil in Plot 472 (contexts 602000 and 608000 respectively).

Discussion

The clay tobacco pipe from context 602000 had a stem bore of 5/64 inch, suggesting a late seventeenth to mid- eighteenth century date. The stem from context 608000 had a bore of 7/64 inch, suggesting a seventeenth century date. The thickness of the stem from context 608000 would also indicate it was manufactured before the eighteenth or nineteenth centuries.

Further Work

The artefact is in a stable condition and requires no further conservation. It is of limited archaeological value for future research and could be discarded.

Reference

Oswald, A, 1975 *Clay Pipes for the Archaeologist* BAR 14, Oxford

Faunal Remains

By Jennifer Wood

Summary

A total of 37 (14g) refitted fragments of animal bone were recovered during Archaeological watching brief works undertaken by Network Archaeology Ltd at the Ross remedial works on the Brecon to Tirley gas pipeline. All of the remains were recovered from possible Romano-British Boundary ditch cuts **602002**, **602027**, **602034**, **602058** (all part of ditch group **602041**) and pit **602079**.

Methodology

The bone was weighed and counted, with fragments that could be refitted counted as a single bone. The bone was inspected for evidence of butchery, gnawing or pathology and rated as to condition based on the Lyman criteria (1996).

Assessment

The remains were generally of a moderate to poor overall condition, averaging at grade 3 on the Lyman criteria.

No evidence of butchery, gnawing or pathology was noted on any of the remains.

A total of 95% of the assemblage was represented by burnt bone. All of the bone had been fully calcined (white colouration) which suggests the remains were subject to burning at high temperatures (*c.*300°) or for prolonged periods of time. It is possible that the entire burnt assemblage represents incidental burning events or hearth sweepings.

Taxon	**Boundary/ Drainage Ditch [602002]**	**Boundary Ditch [602027]**	**Boundary Ditch [602034]**	**Boundary Ditch Terminus [602058]**	**Pit containing hearth waste [602079]**	**Total**
Cattle					1	1
Sheep/Goat			1			1
Large Mammal		3		1		4
Medium Mammal	4	4			1	9
Unidentified	1	21				22
N=	**5**	**28**	**1**	**1**	**2**	**37**

Table 1, Summary of Identified Bone

As can be seen from Table 1, only single cattle and sheep/goat fragments could be identified to species, the remaining assemblage was only identifiable to taxa. Due to the limited size of the assemblage, little further information can be gained, the presence of the remains on site.

Further Work

No further work is required on this assemblage.

References

Lyman, R L, 1996 *Vertebrate Taphonomy*, Cambridge Manuals in Archaeology, Cambridge University Press, Cambridge

Ctxt No	Taxon	Element	Side	Z1	Z2	Z3	Z4	Z5	Z6	Z7	Z8	Prox	Dist	Path	Butch	Worked	Burnt	Gnaw	Fresh Break	Assoc'd	Measured	Tooth Wear	Surface	Condition	No	(g)	Notes
602003	Medium Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	Y	N	N	N	N	N	X	3	4	0	Burnt White
602003	Unid.	Unid.	X	N	N	N	N	N	N	N	N	X	X	N	N	N	Y	N	N	N	N	N	X	3	1	0	Burnt white
602059	Large Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	Y	N	N	N	N	N	X	2	1	1	Burnt white
602028	Large Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	Y	N	N	N	N	N	X	3	3	1	Burnt white
602028	Medium Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	Y	N	N	N	N	N	X	3	3	0	Burnt white
602028	Medium Mammal	Rib	X	N	N	N	N	N	N	N	N	X	X	N	N	N	Y	N	N	N	N	N	X	3	1	0	Burnt white
602028	Unid.	Unid.	X	N	N	N	N	N	N	N	N	X	X	N	N	N	Y	N	N	N	N	N	X	3	21	3	Burnt white
602033	Cattle	Tooth	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	Y	N	N	N	X	4	1	4	Fragmentary PM
602033	Medium Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	Y	N	N	N	X	3	1	3	
602036	Sheep/ Goat	Humerus	L	N	N	N	N	N	N	Y	Y	X	X	N	N	N	Y	N	Y	N	N	N	X	3	1	2	Burnt white

Table 2 Catalogue

Iron Age and Roman Pottery

By I.M. Rowlandson

Summary

The assessment below follows MAP2 Appendix 4 (Management of Archaeological Projects, English Heritage, 1991).The ceramics presented for totalled 699 fragments, weighing 7.057kg, Total Rim Equivalency (RE) 3.38, from 52 contexts from a scheme of archaeological excavation.

Methodology

The pottery has been archived using count and weight as measures according to the guidelines laid down for the minimum archive by The Study Group for Roman Pottery (Darling 2004) based on the databse codes developed by the City of Lincoln Archaeological Unit- CLAU (see Darling and Precious forthcoming). This report uses the Worcestershire On-line fabric series (Worcester County Council n.d., Bryant and Evans 2004) with concordance to the Gloucestershire fabric series (Ireland 1983, Timby 1990). Rim equivalents (RE) have been recorded and an attempt at a 'maximum' vessel estimate has been made following Orton (1975, 31). Following the Lincolnshire Handbook and current museum deposition practices the pottery has been sub bagged within each context by fabric. The samian, amphora, mortaria and pottery suitable for illustration have been bagged separately with a 'D' number for ease of further study. The archive record, tabulated below, is an integral part of this report and will be curated in an Access database, available from the author in a digital format. The report was produced on the basis of site context list and matrix

Results

Provenance and dating

The detailed archive is presented at the end of this report. The dating summary for pottery has been tabulated by context provides a spot dating summary, exclusively based on the pottery, by context. A large proportion of the contexts consist of pottery from topsoil and subsoil. The remaining groups are almost exclusively from pits, ditches and gullies.

This assemblage includes a range of later Iron Age and early Roman pottery. Most of the groups can be dated from just before the Roman conquest through into the middle of the 2nd century AD. Some of the groups with Black burnished Ware 1 and greyware TF005 may represent activity into the later Roman period. Many of the smaller groups that lack diagnostic forms have broad dates as many of the locally produced fabrics were manufactured throughout the Roman period. Varying dates have been given by researchers for some of the fabric groups; for example handmade limestone gritted wares have been given an end of production date of between AD100-200 (cf. Willis 2011 and Worcestershire County Council n.d.). A date of AD150 has been used for the basis of this report given the occurrence of this fabric with wheelmade Roman pottery typically dated to

AD120 or later. This report has also followed Timby's pre-conquest date for the commencement of Seven Valley ware production (1990).

Of note are the good groups of Roman pottery from Group 602041 contexts that can be dated from the middle of the first century AD until perhaps as late as the early to mid 2nd century AD. The most important assemblage is from unusual pit 602110 (context 602111). This group contained large fresh fragments from Seven Valley storage jars, a samian dish base trimmed to a disc and a fragment from a handmade limestone gritted jar. The majority of these sherds are fresh and many of the vessels may have been deposited either complete or nearly complete when the feature was backfilled. The association of this group with burning and burnt bone might suggest these vessels formed part of a 'structured deposit' such as a ritual offering or primary cremation pit or secondary cremation burial as one or two of the sherds showed signs of being discoloured. Further investigation of the function of this feature should be considered as part of a final report when the information from other finds classes may help with interpretation and the significance of this group could be paralleled and further discussed.

Range and variety

Please note that the date '400' represents the end of Roman pottery production which for some types may be around the end of the 1st quarter of the 5th century AD. As highlighted above the latest date for fabric WO004.1 has been suggested as AD150 although it is possible that this may have been either later or earlier in the 2nd century AD. The Gloucester code TF5 has been used as a good comparison could not be found for these sherds listed on the online Worcestershire fabric series; in the event of further work the code for these sherds should be clarified.

The majority of the pottery present is probably from local sources. A very small amount of samian is present and this includes one sherd that had been reworked to a disc before deposition. A single fragment from a hook-rimmed mortarium from the Mancetter/Hartshill represents the only vessel in this class amongst the assemblage and it must be presumed that other vessels were used for grinding foodstuffs. A small proportion of Dorset Black Burnished Ware 1 is present, probably partly due to the early date bias of the majority of the groups.

The majority of the pottery from this project falls into the Severn Valley category with the majority of the sherds fired to an orange oxidised surface colour. The relatively high proportion of Late Iron Age to Early fabric variants (12.2, 12.3, 12.6) and the range of forms including necked storage jars with cordoned decoration, necked jars, fragments from a carinated bowl and a carinated dish all support this early date. A small quantity of a coarse greyware (TF005) was also present where the potters had sought to mimic Black Burnished ware forms. This was one of the few diagnostically later fabrics although on the basis of the forms present these vessels may still have been manufactured in the later 2nd century AD.

The most common of the handmade fabrics is the Palaeozoic Limestone gritted fabric with small quantities of the Malvernian and mudstone fabrics. These sherds are all from simple cooking pots mostly with simple stubby everted rims. A small fragment of briquetage and small fragments from an earlier prehistoric vessel were also present. A fragment of tile from the

topsoil may either Roman or post-medieval; given evidence from the rest of this assemblage the latter is much more likely.

Condition

The condition of the Roman pottery is reasonably good and a number of the groups retrieved from cut features are very fresh. However many sherds show surface abrasion especially considering that much of the pottery as retrieved from topsoil and subsoil contexts.. This is to be expected as the handmade and Seven Valley wares are easily abraded. As noted above one samian vessel has been trimed to make a disc. A small amount of carbonised residue survives on some of the handmade jars (notably a vessel from context 602036) and under the rim of a Black Burnished ware 1 vessel from context 602064. Both of these residues suggest evidence of cooking.

Further Work

Further work should characterise this assemblage and place it in a wider local and regional framework investigating comparisons with both the rural and more nucleated settlement sites in the area (eg those highlighted by Willis 2011). It would be worthwhile to include this assemblage with the pottery from the previous work along the Brecon to Tirley Pipeline route as part of an overall report or publication of the results from the scheme (see Timby 2010, 9122 sherds of later prehistoric and Roman pottery). This would also help to place the pottery from this site into a local context.

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Dating summary								
Group	**F No**	**F Type**	**Context**	**Spot date**	**Comments**	**Sherd**	**Weight (g)**	**Total RE %**
-	602037	Burrow	602038	ROM	A small group	1	2	0
-	602042	Beam slot?	602043	AD120-400	A medium sized abraded group including fragments from a Black Burnished ware bowl and a jar with an everted rim. Also present is Seven Valley ware including rim fragments from two necked jars.	43	286	25
-	602046	Gully	602047	AD30-400	A small abraded group of Seven Valley ware.	2	1	0
-	602048	Ditch	602049	AD120-200	A small abraded group including a fragment from a samian form 37 bowl, Seven Valley ware and handmade limestone gritted ware.	14	26	0
-	602076	Group	602076	AD30-200	A small group including fragments from large necked and cordoned jars in Seven Valley ware and sherds of Malvernian ware.	18	186	7
-	602081	Ditch	602083	500BC-AD200	Rim fragments from handmade limestone gritted jars.	2	13	4
-	602092	Ditch	602086	AD30-400	A small group of Seven Valley ware.	4	55	0
-	602101	Pit	602102	AD30-70	A small group including Seven Valley ware and sherds of handmade sandy ware	4	9	0

Dating summary								
Group	**F No**	**F Type**	**Context**	**Spot date**	**Comments**	**Sherd**	**Weight (g)**	**Total RE %**
-	602104	Trackway	602105	AD50-70+	A small group including a fragment from a large jar in an oxidised Seven Valley ware, a greyware sherd, sherds of handmade sandy ware and fragments from a Malvernian ware globular jar with a Flatterned lip and a rounded edge (Peacock 1967, Fig. 1.11).	27	226	12
-	602110	Pit	602111	AD120-150	A large fresh group including: the base from a samian dish trimmed to a disc , a large proportion of a necked and cordoned storage jar in an oxidised Seven Valley ware (Timby 1990 Fig.4.51, Rawes 1982 Fig.3.42) and fragments from three other similar vessels.	125	3715	81
G.602026	602020	Pit	602021	AD30-?AD150	A small group including a fragment from a necked jar in an oxidised Seven Valley ware fabric and sherds of Limestone gritted ware.	4	15	7
G.602026	602023	Pit	602025	AD30-400	A small group of Seven Valley ware including a fragment from a tankard.	2	3	6
G.602041	602002	Ditch	602003	AD30-?AD150	A small group of pottery including a fragment from a large Seven Valley ware jar and fragments of limestone gritted handmade jar with a simple rounded everted rim.	19	294	9
G.602041	602002	Ditch	602004	AD30-?AD150	A small group including Seven Valley ware and handmade limestone gritted sherds.	2	25	0

Dating summary								
Group	**F No**	**F Type**	**Context**	**Spot date**	**Comments**	**Sherd**	**Weight (g)**	**Total RE %**
G.602041	602027	Ditch	602028	AD30-100	A large group including fragments from a Seven Valley ware jar and fragments of handmade limestone gritted jars including a rounded everted rim form.	100	473	35
G.602041	602027	Ditch	602029	AD30-?AD150	Fragments of limestone gritted ware and a single small fragment of Seven Valley ware.	36	36	0
G.602041	602034	Ditch	602035	AD30-70	A medium sized group including a fragment from a large jar in a Severn Valley ware fabric, handmade mudstone fabric sherds including an everted tapered rim and fragments from a handmade jar with an everted rounded rim in a Limestone gritted fabric.	63	347	42
G.602041	602034	Ditch	602036	500BC-?AD150	Fragments from a handmade limestone gritted jar with a simple rounded everted rim.	20	93	14
G.602041	602058	Ditch	602059	AD30-?AD150	A small group of Seven Valley ware and handmade limestone gritted ware.	7	56	0
G.602067	602063	Gully	602064	AD120-200	A small group including Seven Valley ware and a rim fragment from a Black Burnished ware 1 jar with an everted rim.	8	55	11
Subsoil	602001	Layer	602001	AD120-400	A large sized group including wheel made Malvernian ware jar, two large bowls and a carinated bowlin a Seven Valley ware and Black Burnished ware 1 jar.	121	546	51

Dating summary								
Group	**F No**	**F Type**	**Context**	**Spot date**	**Comments**	**Sherd**	**Weight (g)**	**Total RE %**
Subsoil	602001	Layer	602001 GPS6108047	AD30-400	A small group including Severn Valley ware.	3	15	0
Subsoil	602001	Layer	602001 GPS6108053	AD30-400	A small group including Severn Valley ware.	2	44	0
Subsoil	602001	Layer	602001 GPS6108089	AD30-400	A single abraded sherd of Seven Valley ware.	1	3	0
Subsoil	602001	Layer	602001 GPS6108132	AD120-400	A small group including Seven Valley ware and Black Burnished ware 1 sherds.	8	10	0
Subsoil	602001	Layer	602001 GPS6108133	AD30-400	A small group including Severn Valley ware.	2	3	0
Subsoil	602001	Layer	602001 GPS6108135	AD30-400	A small group including Severn Valley ware.	2	5	0
Subsoil	602001	Layer	602001 GPS6108136	AD100-400	A small group including a fragments from a flanged bowl and a tankard from in an oxidised Seven Valley ware fabric.	8	37	11
Subsoil	602001	Layer	602001 GPS6108137	AD30-400	A single sherd of Seven Valley ware.	2	14	0
Subsoil	602001	Layer	602001 GPS6108147	AD100-250	A small group including Severn Valley ware and a small fragment from a Mancetter/Hartshill mortarium.	3	15	1
Subsoil	602001	Layer	602001 GPS6108150	AD100-400	A small group including fragments of reduced and oxidised Seven Valley ware including a bowl with a flared rim.	10	92	7

Dating summary								
Group	**F No**	**F Type**	**Context**	**Spot date**	**Comments**	**Sherd**	**Weight (g)**	**Total RE %**
Subsoil	602001	Layer	602001 GPS6108151	AD30-400	A small group including Severn Valley ware.	3	13	0
Subsoil	602001	Layer	602001 GPS6108152	AD30-400	A small group including Severn Valley ware.	5	7	0
Topsoil	602000	Layer	602000	AD30-400	A small group of Seven Valley ware sherds.	4	21	0
Topsoil	602000	Layer	602000 GPS6108131	AD30-400	A single Severn Valley ware sherd.	1	5	0
Topsoil	602000	Layer	602000 GPS6108157	AD30-400	A single abraded sherd of Seven Valley ware.	1	5	0
Topsoil	602000	Layer	602000 GPS6108159	AD30-400	A small group of Severn Valley ware sherds.	3	30	0
Topsoil	602000	Layer	602000 GPS6108160	AD100-400	A wheel finished Malven ware sherd.	1	4	0
Topsoil	602000	Layer	602000 GPS6108161	AD30-400	A small group of Severn Valley ware sherds.	2	28	0
Topsoil	602000	Layer	602000 GPS6108162	AD30-400	A single abraded sherd of Seven Valley ware.	1	6	0
Topsoil	602000	Layer	602000 GPS6108163	AD30-400	A single abraded sherd of Seven Valley ware.	1	4	0
Topsoil	602000	Layer	602000 GPS6108164	AD30-400	A single abraded sherd of Seven Valley ware.	1	3	0
Topsoil	602000	Layer	602000 GPS6108165	AD30-400	A single abraded sherd of Seven Valley ware.	1	4	0

Dating summary								
Group	**F No**	**F Type**	**Context**	**Spot date**	**Comments**	**Sherd**	**Weight (g)**	**Total RE %**
Topsoil	602000	Layer	602000 GPS6108166	AD120-400	A small group including a fragment from a large jar or bowl in a Severn Valley ware fabric and a sherd of Black Burnished ware 1.	4	85	9
Topsoil	602000	Layer	602000 GPS6108201	AD100-400	A fragment from a Severn Valley ware bowl	1	13	0
Topsoil	602000	Layer	602000 GPS6108202	AD30-400	A single abraded sherd of Seven Valley ware.	1	8	0
Topsoil	602000	Layer	602000 GPS6108203	AD50-400	A handle, probably from a flagon, in a Seven Valley ware fabric.	1	11	0
Topsoil	602000	Layer	602000 GPS6108204	AD30-400	A rim fragment from a large jar or bowl in a Seven Valley ware fabric.	1	37	6
Topsoil	602000	Layer	602000 GPS6108205	AD30-400	A single abraded sherd of Seven Valley ware.	1	33	0
Topsoil	602000	Layer	602000 GPS6108206	AD30-400	A single abraded sherd of Seven Valley ware.	1	4	0
Topsoil	602000	Layer	602000 GPS6108207	AD120-400	A single basal sherd from a Black Burnished Ware 1 jar.	1	10	0
Topsoil	602000	Layer	602000 GPS6108208	AD30-400	A single reduced Severn Valley ware sherd.	1	26	0

Fabric summary										
Fabric	**Fabric group**	**Fabric details**	**Gloucester code**	**Earliest date**	**Latest date**	**Sherd**	**Sherd %**	**Weight (g)**	**Weight %**	**Total RE %**
WO043.2	Samian	Lezoux	TF008	120	200	3	0.43%	91	1.29%	0
WO032	Mortaria	Mancetter/Hartshill	TF009D	100	350	1	0.14%	3	0.04%	1
WO012	Oxidised	Oxidised Severn Valley ware	TF011B	30	400	170	24.32%	1124	15.93%	85
WO012.2	Oxidised	Severn Valley ware- organic inclusions	TF17	30	200	115	16.45%	1120	15.87%	33
WO012.6	Oxidised	Severn Valley Ware- abundant ?mudrock and Fe	TF11D	30	120	90	12.88%	1488	21.09%	29
TF005	Reduced	Micaceous greyware (mid-late Roman)	TF5	200	400	24	3.43%	139	1.97%	7
WO005.1	Reduced	Iron Age Sandy ware	-	500BC	50	6	0.86%	24	0.34%	0
WO012.1	Reduced	Reduced Severn Valley ware	TF011B	30	400	45	6.44%	1979	28.04%	42
WO012.3	Reduced	Severn Valley ware- organic inclusions	TF17	30	200	7	1.00%	174	2.47%	9
WO015	Reduced	Coarse sandy greyware	TF11A	50	120	1	0.14%	2	0.03%	0
WO022	Reduced	Dorset Black Burnished ware 1	TF004	120	410	11	1.57%	48	0.68%	0
WO004.1	Calcareous	Palaeozoic limestone tempered ware (Peacock B1)	-	500BC	150	167	23.89%	578	8.19%	76
WO003	Rock tempered	Malvern ware: Handmade IA (Peacock Group A)	TF018	500BC	100	13	1.86%	61	0.86%	7
WO009	Rock Tempered	Mudstone tempered Ware (Peacock D)	-	500BC	50	14	2.00%	43	0.61%	17
WO019	Rock tempered	Malvern ware: Roman wheel made	TF018?	100	400	9	1.29%	56	0.79%	16
FCLAY	Fired Clay	Fired Clay	-	-	-	6	0.86%	18	0.26%	0
RTMISC	Tile	Roman or post-Roman tile	-	-	-	3	0.43%	15	0.21%	0
WO002	Fired Clay	Organic Droitwich briquetage	-	700BC	100	5	0.72%	22	0.31%	0
WO005.15?	Prehistoric?	Grog and organic tempered?	-	3500BC	2700BC	2	0.29%	8	0.11%	0

Form summary							
Form	**Form Type**	**Form Description**	**Sherd**	**Sherd %**	**Weight (g)**	**Weight %**	**Total RE %**
37	Bowl	Samian form- see Webster 1996	1	0.14%	4	0.06%	0
BCAR	Bowl	Carinated	2	0.29%	18	0.26%	0
BFL	Bowl	Flange rimmed	7	1.00%	41	0.58%	13
BFLL	Bowl-large	Flange rimmed	1	0.14%	46	0.65%	6
BL	Bowl-large	Large	1	0.14%	37	0.52%	6
BD	Bowl/dish	-	4	0.57%	79	1.12%	0
CLSD	Closed	Form	119	17.02%	670	9.49%	0
18/31	Dish	Samian form- see Webster 1996	1	0.14%	84	1.19%	0
FJ	Flagon/jar	Unclassified form	1	0.14%	11	0.16%	0
J	Jar	Unclassified form	10	1.43%	313	4.44%	5
JBR	Jar	Bead rimmed	5	0.72%	28	0.40%	7
JCUR	Jar	Curved	7	1.00%	41	0.58%	11
JEV	Jar	Everted rim	6	0.86%	48	0.68%	27
JEVS	Jar	Everted rim-stubby	124	17.74%	498	7.06%	89
JL	Jar	Large	35	5.01%	932	13.21%	0
JNK	Jar	Necked	10	1.43%	212	3.00%	46
JRR	Jar	Rounded rim	2	0.29%	13	0.18%	4
JS	Jar	Storage	37	5.29%	2641	37.42%	72
JBKNK	Jar/Beaker	Necked	1	0.14%	8	0.11%	7
JB	Jar/Bowl	Unclassified form	1	0.14%	7	0.10%	7
JBL	Jar/Bowl	Large	8	1.14%	181	2.56%	6
JBNK	Jar/Bowl	Necked	3	0.43%	13	0.18%	7
LBIF	Lid	Bifurcated rim	1	0.14%	7	0.10%	2
TANK	Misc	Tankard	6	0.86%	31	0.44%	16
TBCAR	Misc	Tankard/Carinated bowl	1	0.14%	2	0.03%	6
MHK	Mortaria	Hook-rimmed as Gillam 237-45	1	0.14%	3	0.04%	1
OPEN	Open	Form	7	1.00%	71	1.01%	0
PD	Plate/Dish	Form	1	0.14%	18	0.26%	0
-	Unknown	Form uncertain	294	42.06%	948	13.43%	0

BRT186- Iron Age and Roman pottery archive												
Context	Fabric	Form	Decoration	Vessels	Alt	Drawing	Comments	Join	Sherd	Weight	Rim diam	RE %
602000	RTMISC	-		2			FRAGMENTS FROM 2 OXIDISED TILES WITH A MUCH SANDIER FABRIC THAN THE SEVERN VALLEY WARE; ROMAN OR POST ROMAN		3	15	0	0
602000	WO012	-		1	VAB		BS		1	6	0	0
602000 GPS6108131	WO012	CLSD		1	ABR		BS		1	5	0	0
602000 GPS6108157	WO012	-		1	VAB		BS		1	5	0	0
602000 GPS6108159	TF005	-		1	ABR		BS		1	2	0	0
602000 GPS6108159	WO012	CLSD		2	VAB		BS		2	28	0	0
602000 GPS6108160	WO019	J		1	ABR		BS NECK		1	4	0	0
602000 GPS6108161	WO012	-		1	VAB		BS; SCRAP		1	2	0	0
602000 GPS6108161	WO012.1	JL		1	ABR		BS		1	26	0	0
602000 GPS6108162	WO012.2	CLSD		1			BS		1	6	0	0
602000 GPS6108163	WO012	-		1	VAB		BS		1	4	0	0
602000 GPS6108164	WO012.2	-		1	VAB		BS; BURNT		1	3	0	0
602000 GPS6108165	WO012	CLSD		1	ABR		BASE		1	4	0	0
602000 GPS6108166	WO012	CLSD		1			BS HARD FIRED INCLUDES QU AND FELDSPAR IGNEOUS ROCK FRAG		1	7	0	0
602000 GPS6108166	WO012.3	-		1	ABR		BS		1	9	0	0
602000 GPS6108166	WO012.3	JS		1			RIM; FORM AS WEBSTER 1976 FIG.5.21		1	60	36	9
602000 GPS6108166	WO022	BS	BSC	1			BASE; BURNISHED SCROL DECORATION		1	9	0	0
602000 GPS6108201	WO012	BFL		1	ABR		RIM; INTERNAL LIP AS RAWES 1982 FIG.5.91-3		1	13	0	0
602000	WO012	CLSD		1	ABR		BS		1	8	0	0

BRT186- Iron Age and Roman pottery archive												
Context	Fabric	Form	Decoration	Vessels	Alt	Drawing	Comments	Join	Sherd	Weight	Rim diam	RE %
GPS6108202												
602000 GPS6108203	WO012	FJ		1			HANDLE; THREE RIBS- PROBABLY FROM A FLAGON		1	11	0	0
602000 GPS6108204	WO012	BL		1			RIM; CURVED NECK WEBSTER 1976 FIG.4.21		1	37	32	6
602000 GPS6108205	WO012	-		1	WORN EDGES		BS; WORN EDGES (ROUNDED) BROKEN SO FULL EXTENT NOT PRESERVED TO FORM A ?OBJECT 63MM WIDE- PERHAPS USED AS A RUBBER?		1	33	0	0
602000 GPS6108206	WO012	-		1	VAB		BS		1	4	0	0
602000 GPS6108207	WO022	CLSD		1			BASE		1	10	0	0
602000 GPS6108208	WO012.3	JBL		1	ABR		BS		1	26	0	0
602001	TF005	-		6	ABR		BS		6	11	0	0
602001	TF005	JEV		1			RIM SCRAP		1	1	0	1
602001	WO010	J		1			RIM		4	10	18	5
602001	WO012	-		29	ABR		BS		29	48	0	0
602001	WO012	-		1			BS		3	9	0	0
602001	WO012	-		8			BS		8	16	0	0
602001	WO012	-		2	ABR		BS		2	4	0	0
602001	WO012	BCAR		1	ABR		BS CARINATION		1	8	0	0
602001	WO012	BFL		1			RIM; WITH INTURNED RIM WEBSTER 1976 FORM F		1	10	24	3
602001	WO012	BFLL		1	ABR		RIM FORM AS TOMBER 1985 F10.74.3; RAWES 1982, FIG 5.91		1	46	40	6
602001	WO012	CLSD		1			BASE		1	6	0	0
602001	WO012	JEV		1	VAB		RIM		1	4	14	6
602001	WO012	JEV		1	VAB		RIM SCRAP		1	1	0	1
602001	WO012	TANK		1			RIM		2	5	14	5
602001	WO012.1	-		4	ABR		BS		4	8	0	0
602001	WO012.2	-		32	ABR		BS		32	126	0	0
602001	WO012.2	BCAR		1	ABR		BS		1	10	0	0
602001	WO012.2	CLSD		2			BS		3	19	0	0
602001	WO012.2	CLSD		1	ABR		BS		1	13	0	0
602001	WO012.2	CLSD		1	ABR		BASE		1	16	0	0

BRT186- Iron Age and Roman pottery archive												
Context	Fabric	Form	Decoration	Vessels	Alt	Drawing	Comments	Join	Sherd	Weight	Rim diam	RE %
602001	WO012.2	CLSD		1	ABR		BASE		1	22	0	0
602001	WO012.2	JS	CORD	1			RIM; WHEEL FINISHED?; CORDON BENEATH RIM AS TIMBY 1990 FIG. 4.51		1	54	30	8
602001	WO012.2	OPEN		1	ABR		BS		1	9	0	0
602001	WO012.2	PD		1			BS CARINATION NEAR BASE AS TIMBY 1990 FIG.4.59		1	18	0	0
602001	WO012.3	-		1	VAB		BS		1	2	0	0
602001	WO019	JCUR		1			RIM BRYANT & EVANS 2004 FIG164.1-2		7	41	20	11
602001	WO019	JEV		1			RIM		1	11	16	5
602001	WO022	CLSD		1			BASE		1	5	0	0
602001	WO022	J	BDL	1			BS; BURNISHED DIAGONAL LINE		1	4	0	0
602001	WO022	OPEN		1			BS		3	9	0	0
602001 GPS6108047	WO012	CLSD		1	ABR		BS		3	15	0	0
602001 GPS6108053	WO012	JL		1			BS		2	44	0	0
602001 GPS6108089	WO012	-		1	ABR		BS		1	3	0	0
602001 GPS6108132	WO005.1	-		1	VAB		BS SCRAPS ?ID		2	2	0	0
602001 GPS6108132	WO012	-		1	VAB		BS COARSE		1	2	0	0
602001 GPS6108132	WO012	-		4	VAB		BS		4	5	0	0
602001 GPS6108132	WO012.1	-		1	VAB		BS SCARP		1	1	0	0
602001 GPS6108133	WO012	-		1	ABR		BS		2	3	0	0
602001 GPS6108135	WO012	-		1	ABR		BS		2	5	0	0
602001 GPS6108136	WO012	-		4	ABR		BS		4	8	0	0
602001 GPS6108136	WO012	BFL		1			RIM WEBSTER 1976 FORM F; RAWES 1982 FIG6.106		1	6	24	4
602001 GPS6108136	WO012	TANK		1			RIM AS WEBSTER 1976 FIG7.39-40		2	10	18	7

BRT186- Iron Age and Roman pottery archive												
Context	Fabric	Form	Decoration	Vessels	Alt	Drawing	Comments	Join	Sherd	Weight	Rim diam	RE %
602001 GPS6108136	WO012	TANK		1			BS HANDLE SCAR		1	13	0	0
602001 GPS6108137	WO012	-		1			BS		1	9	0	0
602001 GPS6108137	WO022	CLSD		1			BS		1	5	0	0
602001 GPS6108147	WO012	CLSD		1	ABR		BS		2	12	0	0
602001 GPS6108147	WO032	MHK		1	ABR		RIM FRAGMENT		1	3	0	1
602001 GPS6108150	WO012	BFL		1			RIM AS RAWES 1982 FIG.5.106		1	6	20	3
602001 GPS6108150	WO012	CLSD		2			BS		3	8	0	0
602001 GPS6108150	WO012	OPEN		1			BASE		1	34	0	0
602001 GPS6108150	WO012	TANK		1	ABR		RIM WITH GROOVE		1	3	12	4
602001 GPS6108150	WO012.1	CLSD		4			BS		4	41	0	0
602001 GPS6108151	WO012	CLSD		3	ABR		BS		3	13	0	0
602001 GPS6108152	WO012	-		1	ABR		BS		5	7	0	0
602003	FCLAY	-		3			FORMLESS FRAGMENTS		3	9	0	0
602003	WO004.1	CLSD	HM	1			BS; OX/R/OX		5	24	0	0
602003	WO004.1	JEVS	HM	1			RIM; R; BARREL JAR; BURNISHED UNDER RIM; FORM AS WILLIS 2011 FIG.4.2.6		2	15	18	5
602003	WO004.1	JEVS	HM	1			RIM; R; BARREL JAR; BURNISHED UNDER RIM; FORM AS WILLIS 2011 FIG 4.2.5		1	14	16	4
602003	WO012	-		1	ABR		BS		1	1	0	0
602003	WO012.2	-		1	VAB		BS SCRAP		1	2	0	0
602003	WO012.2	-		1			BS		2	35	0	0
602003	WO012.2	JL		1			BS		1	31	0	0
602003	WO012.2	JL		1			BS SHOULDER		1	123	0	0
602003	WO012.3	-		1	ABR		BS		2	40	0	0

BRT186- Iron Age and Roman pottery archive												
Context	Fabric	Form	Decoration	Vessels	Alt	Drawing	Comments	Join	Sherd	Weight	Rim diam	RE %
602004	WO004.1	CLSD	HM	1			BS; OX/R		1	14	0	0
602004	WO012	CLSD		1	ABR		BS		1	11	0	0
602021	WO003	-		3			BS; R		2	6	0	0
602021	WO012	-		1	VAB		BS		1	1	0	0
602021	WO012.2	JBKNK		1	ABR		RIM		1	8	16	7
602025	FCLAY	-		1			BS FORMLESS		1	1	0	0
602025	WO012	TBCAR		1	VAB		RIM		1	2	14	6
602028	WO004.1	JEVS	HM	1			RIM; IRF; IRREGULAR FIRING FORM AS WILLIS 2011 FIG.4.3.3		67	202	20	35
602028	WO012	-		11	VAB		BS; ?NUMBER OF VESSEL		11	9	0	0
602028	WO012	CLSD		1			BS		1	10	0	0
602028	WO012.1	-		1	ABR		BS		3	5	0	0
602028	WO012.2	-		1	ABR		BS		1	5	0	0
602028	WO012.2	-		1	VAB		BS		3	14	0	0
602028	WO012.2	CLSD		1	ABR		BS SHOULDER		2	34	0	0
602028	WO012.2	JL		1			BS SHOULDER; WHEEL FINISHED?		3	115	0	0
602028	WO012.2	JL		1	ABR		BASE		9	79	0	0
602029	WO004.1	-		35	ABR		BS; R; UNCLEAR HOW MANY VESSELS ARE PRESENT AMONGST THESE SCRAPS		35	35	0	0
602029	WO012	-	HM	1	ABR		BS; TINY SCRAP		1	1	0	0
602035	FCLAY	-		1			TINY FORMLESS ?FIRED CLAY FRAGMENT		1	2	0	0
602035	WO004.1	JEVS	HM	1		D005	RIM BASE; IRF (IRREGULAR FIRING); FORM AS WILLIS 2011 FIG4.2.17		19	95	15	12
602035	WO005.15?	-	HM	1	ABR		BS; OX/R/OX; VERY COARSE POORLY MIXED FABRIC LIKELY TO BE OF EARLIER PREHISTORIC DATE- PERHAPS A POORLY MIXED EXAMPLE OF THE MUDSTONE FABRIC WO009?; SEND TO EARLIER PREHISTORIC POTTERY SPECIALIST FOR CONSIDERATION BEFORE FINAL REPORT		2	8	0	0
602035	WO009	JEVS	HM	1		D006	RIM SHLDR; REDUCED; FORM AS WILLIS 2011 FIG4.18.5		14	43	14	17
602035	WO012.2	-		1	ABR		BS		2	18	0	0

BRT186- Iron Age and Roman pottery archive												
Context	Fabric	Form	Decoration	Vessels	Alt	Drawing	Comments	Join	Sherd	Weight	Rim diam	RE %
602035	WO012.2	-		12	VAB		BA; SCRAPS		12	12	0	0
602035	WO012.2	CLSD		1	ABR		BS		2	10	0	0
602035	WO012.2	CLSD		1	ABR		BS		2	15	0	0
602035	WO012.2	JBL		1			BS		3	24	0	0
602035	WO012.2	JBL		1			RIM		3	107	40	6
602035	WO012.2	JBNK		1	ABR		RIM		2	9	16	7
602035	WO012.2	JBNK		1	ABR		BS		1	4	0	0
602036	WO004.1	JEVS	HM	1	CARBON DEP INT		RIM BASE; R; FORM AS WILLIS 2011 FIG.4.2.17; INTERNAL CARBONISED DEPOSIT ON BASE		20	93	13	14
602038	WO003	-	HM	1			BS; R; TINY SCRAP		1	2	0	0
602043	TF005	-		3	ABR		BS		3	6	0	0
602043	TF005	BD		1			BASE		2	36	0	0
602043	TF005	BD		1			BASE		1	31	0	0
602043	TF005	BD		1			BASE		1	12	0	0
602043	TF005	BFL		1			RIM; POSSIBLE BEAD AND FLANGE? DIFFICULT TO TELL		3	6	22	3
602043	TF005	CLSD		1	ABR		BS		1	4	0	0
602043	TF005	CLSD	LA	1			BS; BURNISHED LATTICE		2	3	0	0
602043	TF005	JEV		1	ABR		RIM; DIAM UNCLEAR AS ABRADED		1	6	0	3
602043	WO012	-		14	ABR		BS		14	86	0	0
602043	WO012	JB		1			RIM; CURVED		1	7	22	7
602043	WO012	JNK		1			RIM		3	17	15	12
602043	WO012.1	-		8	ABR		BS		8	19	0	0
602043	WO012.2	CLSD		1	ABR		BS		1	12	0	0
602043	WO012.6	-		1	ABR		BS		1	5	0	0
602043	WO012.6	CLSD		1			BS		1	36	0	0
602047	WO012	-		2	VAB		BS		2	1	0	0
602049	WO004.1	-		9	ABR		BS SCRAPS		9	15	0	0
602049	WO012	-		3	VAB		BS SCRAP		3	5	0	0
602049	WO015	-		1			BS SCRAP		1	2	0	0
602049	WO043.2	37	MOULD	1	VAB		BS; ABRADED FRAGMENT DECORATION APPEARS TO BE A MEDALION AND FIGURE BUT ABRADED AND FRAGMENTARY		1	4	0	0
602059	WO004.1	-	HM	1			BS; R		2	6	0	0
602059	WO004.1	CLSD	HM	1	CARB DEP		BS; R		1	3	0	0

BRT186- Iron Age and Roman pottery archive												
Context	Fabric	Form	Decoration	Vessels	Alt	Drawing	Comments	Join	Sherd	Weight	Rim diam	RE %
					INT							
602059	WO012	CLSD		1			BS		2	18	0	0
602059	WO12.6	CLSD		1			BS		2	29	0	0
602064	WO012	-		2	VAB		BS		2	3	0	0
602064	WO012	CLSD		1	VAB		BS		4	24	0	0
602064	WO043.2	OPEN		1	VAB		BS		1	3	0	0
602064	WO22	JEV		1	SOOT EXT		RIM ; SOOT UNDER RIM		1	25	18	11
602076	TF005	-		1			BS		1	5	0	0
602076	WO002	-	HM	1			BS; OXID- ?SALT SURF EXTERNAL; NO INTERNAL SURFACES; APPEARS LIKELY TO BE FROM A VESSEL		5	22	0	0
602076	WO003	-		1			BS; R		2	18	0	0
602076	WO004.1	-	HM	1			BS; R		1	8	0	0
602076	WO012	-		1			BS		2	3	0	0
602076	WO012	JBL		1			BS		1	24	0	0
602076	WO012	JL		1	ABR		BS		1	29	0	0
602076	WO012	JS		1	ABR		RIM SHLDR		2	36	30	5
602076	WO012	JS		1	ABR		BS SHLDR		1	21	0	0
602076	WO012	LBIF		1	ABR		BS		1	7	20	2
602076	WO012.6	CLSD		1	ABR		BS		1	13	0	0
602083	WO004.1	JRR		1			RIM; ROUNDED- ?TUBBY COOKING POT?		2	13	34	4
602086	WO012	-		1			BS		2	16	0	0
602086	WO012	-		1			BS		1	2	0	0
602086	WO012.3	JL		1			BS		1	37	0	0
602102	WO005.1	-	HM	2	ABR		BS		2	7	0	0
602102	WO012.2	-		2	ABR		BS		2	2	0	0
602105	TF005	OPEN		1			BASE		1	16	0	0
602105	WO003	-	HM	1	ABR		BS; R; SCRAPS		2	2	0	0
602105	WO003	JBR	HM	1			RIM; R; BARREL JAR FORM; RIM AS STANFORD 1974 TYPE J FIG 93.19 PERIOD VII 150BC ONWARDS; BROADLY RIM FORM AS PEACOCK 1967 FIG1.11		5	28	18	7
602105	WO005.1	-	HM	2	ABR		BS; R		2	15	0	0
602105	WO012.2	-		14	ABR		BS		14	67	0	0
602105	WO012.2	JL	WF?	1			BS; WHEEL FINISHED?		2	48	0	0

BRT186- Iron Age and Roman pottery archive												
Context	Fabric	Form	Decoration	Vessels	Alt	Drawing	Comments	Join	Sherd	Weight	Rim diam	RE %
602105	WO012.2	JS		1			RIM		1	50	29	5
602111	FCLAY	-		1			FORMLES FRAGMENT; OXIDISED		1	6	0	0
602111	WO003	-	HM	1			BS; R; SCRAP		1	5	0	0
602111	WO004.1	-	HM	1			BS; R; SCRAP		1	5	0	0
602111	WO004.1	JEVS	HM	1			RIM SHOULDER; R; BURNISHED UNDER RIM; RIM FRAGMENTARY NO DIAM.		1	36	0	2
602111	WO012	J		1		D001	BASE; NEAT BASE		3	218	0	0
602111	WO012	JNK	CORD	1			RIM; NECK WITH CORDON; RIM FORM AS TIMBY 1990 FIG.4.53		1	21	18	5
602111	WO012	JNK		1	ABR		RIM; BROADLY AS TIMBY 1990 FIG.4.52		2	21	26	3
602111	WO012.1	JS	CORD; HB/WF	1		D004	RIM SHOULDER AND LOWER WALLS; CORDON BENEATH NECK AND SCORED GROOVES; HAND BUILT THIN WALLED WHEEL FINISHED; FORM AS TIMBY 1990 FIG.4.51 AND RAWES 1982 FIG.3.42		24	1879	28	42
602111	WO012.6	-		2			BS		2	53	0	0
602111	WO012.6	JL	HB/WF	1	BURNT/ MISFIRED		BS; PATCHY REDUCTION; HAND BUILT/ WHEEL FINISHED; BURNT OR MISFIRED		1	43	0	0
602111	WO012.6	CLSD		1			BS		58	167	0	0
602111	WO012.6	J		1			BASE; NEAT WHEEL THROWN		1	77	0	0
602111	WO012.6	JL		1	OVERFIRED/ BURNT		BS; HIGH FIRED FLAKING SURFACE		3	195	0	0
602111	WO012.6	JL		11			BS; ?NUMBER OF VESSELS		11	205	0	0
602111	WO012.6	JNK		1		D002	RIM SHOULDER SCORED GROOVES		4	153	17	26
602111	WO012.6	JS	HB/WF	1	BURNT/ MISFIRED		BASE; PATCHY REDUCTION; HAND BUILT/ WHEEL FINISHED; BURNT OR MISFIRED		3	365	0	0
602111	WO012.6	JS		1		D003	RIM SHOULDER SCORED GROOVE		4	176	22	3
602111	WO022	-		1	ABR		BASE		3	6	0	0
602111	WO043.2	18/31		1	DISC; WORN BASE	P001	BASE; FTR; TRIMMED TO DISC; POSSIBLE PIERCED HOLE; ?WORN UPPER SURFACE; SUITABLE FOR PHOTOGRAPH		1	84	0	0

Metalwork & Special Finds

By Dr Kevin Leahy, FSA, MIfA

Summary

The finds were received in an as found condition and no radiographs were available at the time of examination. This archive consisted of nine items of which eight were iron and one copper alloy. The iron objects were corroded, but relatively well preserved, although all detail was hidden by corrosion products. The copper alloy brooch is in poor condition, corroded, with much loss of surface detail and broken.

Methodology

Finds were examined at x10 magnification, sketched and described in detail. Materials were identified visually and dimensions were recorded using vernier callipers. Masses were obtained on an electronic balance to an accuracy of 0.01g.

Results

With the exception of the Roman brooch (602001) and the possible hob-nail (602043) none of the material recovered during this project could be dated except by context. While the brooch was unstratified, the hob nail did come from a Roman context. 'Knee' brooches are widespread but the Portable Antiquities Scheme's database shows a concentration of them around the head of the Severn Estuary making a find from South Wales entirely appropriate.

Further Work

It is not believed that any of the material recovered during this project requires any further analysis and that it will be possible to go to final report on what has been written below. The brooch (602001) should be described and illustrated and the iron objects summarised in the report.

The Assemblage

Context	Description	Material	Mass	Dating
602001	Brooch of 'Knee' type	Copper alloy	6.00g	AD150-250
602024A	Nail?	Iron	19.94g	?
602024B	Nail?	Iron	1.57g	?
602035A	Nail?	Iron	5.09g	?
602035B	Nail?	Iron	4.55g	?
602035C	Nail?	Iron	1.62g	?
602043A	Nail?	Iron	2.70g	?
602043B	Nail, hobnail?	Iron	0.71g	?
602049	Nail?	Iron	33.64g	?

Catalogue

Context:	**(602001)**	**GPS 6108149**
Material	Copper alloy	
Condition:	Corroded and damaged.	
Description:	Cast copper alloy brooch of ‘knee’ type, its bow tapering sharply from a broad head. Corroded with much loss of surface detail, foot and catch plate missing. The bow is plain, but there are traces of a possible rib running down its back with a similar rib on its underside. Pin missing, but seven loops of the coiled spring are present, secured by an iron axial spring which passed through lugs on each side of the head.	
Dimensions:	Length 28.9mm, Width 15.1mm, Height 15.3mm	
Mass:	6.00g	
Identification:	Roman brooch of ‘Knee’ type	
Dating of find:	AD 150-250	
Context description	Layer 0.12m thick across site, interpreted as subsoil, not therefore, found in a useful context.	
Further action	Illustrate and describe in report.	

Context:	**(602024)A**
Material	Iron
Condition:	Corroded with much of its surface obscured by concretions, broken at one point revealing a corroded iron section.
Description:	Iron concretion, mushroom shaped, its upper part 25.8 x 24.6mm, its ‘stalk’ 16.8 x 8.9mm, broken at its base to reveal a 7.2 x 7.2mm iron section.
Dimensions:	Length 37.6mm
Mass:	19.94g
Identification:	Nail?
Dating of find:	Not independently datable

Context description	Possible secondary use of a pit/posthole 602023 to dispose of hearth or light industrial waste. Spot date form primary fill 602025, AD30-400
Further action	Mention in report

Context:	**(602024)B**
Material	Iron
Condition:	Corroded with much of its surface obscured by concretions, truncated at one point revealing a corroded iron section.
Description:	Iron bar, broken at one end to reveal a 7.0 x 7.0mm section.
Dimensions:	Length 14.9mm
Mass:	1.57g
Identification:	Nail?
Dating of find:	Not datable
Context description	Possible secondary use of a pit/posthole 602023 to dispose of hearth or light industrial waste. Spot date form primary fill 602025, AD30-400
Further action	Mention in report

Context:	**(602035)A**
Material	Iron
Condition:	Corroded with much of its surface obscured by concretions, broken at one point revealing corroded iron.
Description:	Iron concretion, mushroom shaped, broken at its base to reveal a 5.0mm diameter iron ‘stalk’. The expanded area suggests that it might be the head of a nail.
Dimensions:	Width 21.1 x 15.2mm, Height 16.9mm
Mass:	5.09g
Identification:	Nail head?

Dating of find:	Not datable
Context description	Interpreted as deliberate backfill of a probable boundary ditch (group 602041), possibly dumps of hearth or light industrial waste or a demolition/destruction event. Spot date from pottery, AD30-70, and from primary fill 602036 below BC500-AD200
Further action	Mention in report

Context:	**(602035)B**
Material	Iron
Condition:	Corroded and obscured by concretions, truncated at one end.
Description:	Bar, the section of which cannot be determined.
Dimensions:	Section c. 9.1 x 8.4mm, Length 40.0mm
Mass:	4.55g
Identification:	Nail?
Dating of find:	Not datable
Context description	Interpreted as deliberate backfill of a probable boundary ditch (group 602041), possibly dumps of hearth or light industrial waste or a demolition/destruction event. Spot date from pottery, AD30-70, and from primary fill 602036 below BC500-AD200
Further action	Mention in report

Context:	**(602035)C**
Material	Iron
Condition:	Corroded and obscured by concretions.
Description:	Bar, the section of which cannot be determined.
Dimensions:	Section c. 7.4 x 5.4mm, Length 27.2mm
Mass:	1.62g
Identification:	Nail?
Dating of find:	Not datable

Context description	Interpreted as deliberate backfill of a probable boundary ditch (group 602041), possibly dumps of hearth or light industrial waste or a demolition/destruction event. Spot date from pottery, AD30-70, and from primary fill 602036 below BC500-AD200
Further action	Mention in report

Context:	**(602043)A**
Material	Iron
Condition:	Corroded and obscured by concretions.
Description:	Iron object, mushroom shaped; head 13.8 x 12.1mm, stalk 7.8 x 6.2mm.
Dimensions:	Length 16.1mm
Mass:	2.70g
Identification:	Nail or tack?
Dating of find:	Not datable
Context description	Apparently the deliberate backfill of short linear feature 602042 with domestic waste. Function of 602042 is unclear: its form suggests a possible beam slot, but no other elements of a structure were identified. Spot date from pottery, AD120-400
Further action	Mention in report

Context:	**(602043)B**
Material	Iron
Condition:	Corroded and obscured by concretions.
Description:	Iron object, mushroom shaped; head 11.8 x 10.9mm, stalk 6.4 x 5.0mm.
Dimensions:	Length 13.0mm
Mass:	0.71g
Identification:	Hob nail from boot?
Dating of find:	Roman?

Context description	Apparently the deliberate backfill of short linear feature 602042 with domestic waste. Function of 602042 is unclear: its form suggests a possible beam slot, but no other elements of a structure were identified. Spot date from pottery, AD120-400
Further action	Mention in report

Context:	**(602049)**
Material	Iron
Condition:	Massive iron concretion, broken at one point to reveal corroded iron.
Description:	Iron concretion from one end of which protrudes the end of an iron rod, 4.9 x 4.6mm of which 5.0mm is showing.
Dimensions:	Length 48.0mm, Width 36.5mm, Thickness 22.7mm
Mass:	33.64g
Identification:	Nail?
Dating of find:	Not datable
Context description	Apparent natural accumulation during disuse of curvilinear 602048, which was a probable enclosure ditch, the centre of which lay outside excavated area. Spot date from pottery, AD120-400
Further action	Mention in report

Post-Roman Pottery

by Luke Barber

Summary

The archaeological work recovered just four sherds of post-Roman pottery from the site. All is of the late post-medieval period.

Methodology

The material was counted and weighed in grams, then examined visually to identify any diagnostic pieces and the overall condition of the assemblage.

Results

Subsoil (602001) produced a single heavily abraded bodysherd of 19th-century Yellow ware, with the remaining sherds being recovered from topsoil (608000) in plot 472. These consist of a slightly abraded sherd (31g) from a mid/later 19th- century serving/meat dish with green floral transfer-printed design around its rim (GPS 6108224); a relatively fresh 19th- century bowl rim in local glazed red earthenware (GPS 6108226: 13g) and a slightly abraded flattened D-club rim from an unglazed earthenware flower pot of 19th- to 20th- century date (GPS 6108209: 9g).

Further Work

The post-Roman pottery from the site consists of unstratified isolated sherds. No further work is proposed.

Stone

by Luke Barber

Summary

A single 80g fragment from an elongated pebble whetstone was recovered from topsoil (602000).

Methodology

The material was counted and weighed in grams, then examined visually to identify the nature of the piece and its overall condition.

Results

The stone appears to be in a non-calcareous dark grey quartzite and measures 41mm wide by 16mm thick, with flattened D-shaped profile. The original length of the stone is not known, but it was in excess of 65mm. No use wear is evident on any of the surfaces. Although this piece could easily be of Roman date, the unstratified context means this is uncertain as similar pebble whetstones were used in other periods.

Further Work

As the whetstone is an intrinsically undatable find from an unstratified context it is not considered to hold any potential for further work.

Appendix D

PLATES

Plate 1: North facing section of curvilinear enclosure ditch 602048

Plate 2: Oblique view of posthole 602044 and possible beam slot 602042, looking southeast

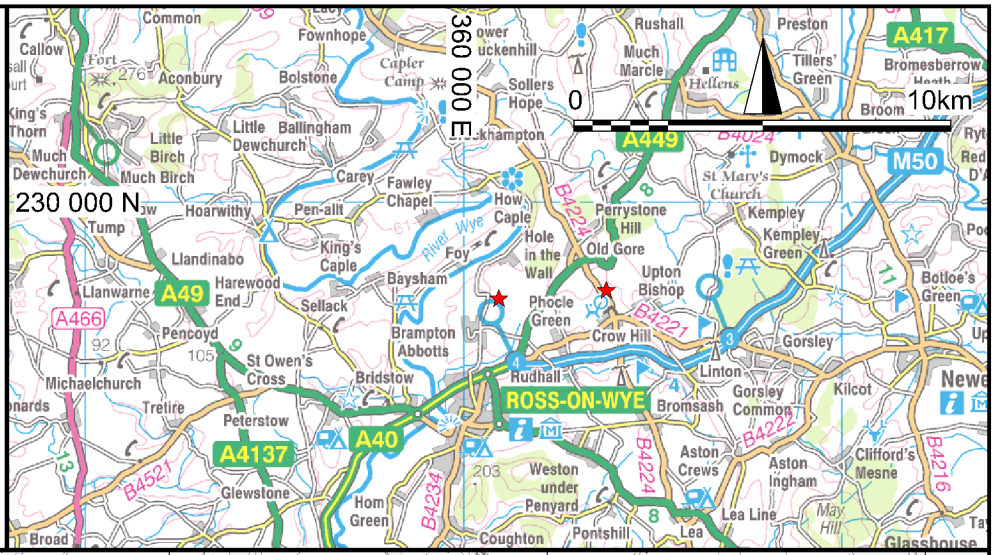
Plate 3: NW facing section of ditch group 602041

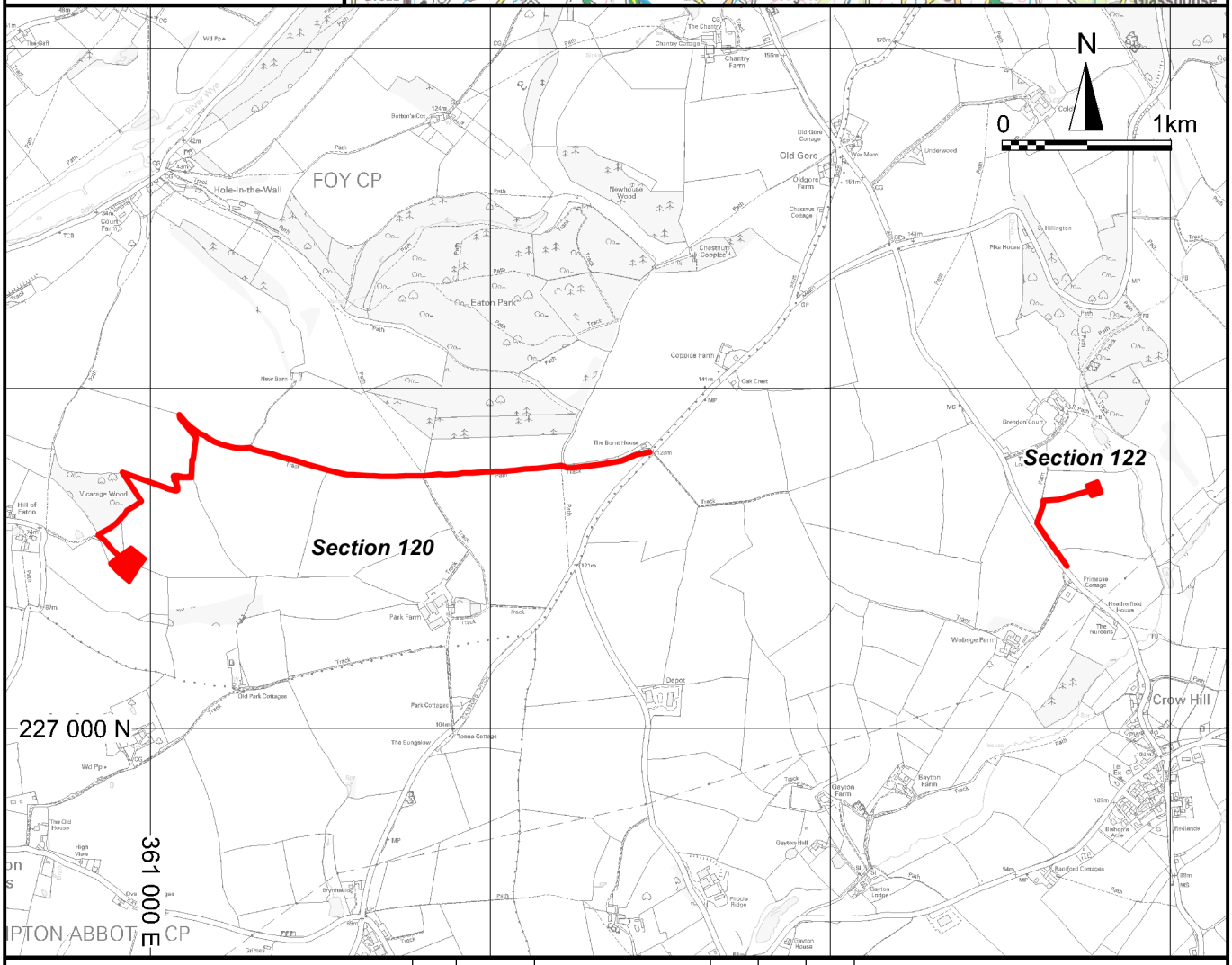
Plate 4: NW facing section of ditch group 602041 terminus

Plate 5: South facing section of pit 602110

Appendix E

FIGURES





Watching brief areas

Ver	Date	Description	Drn	Chk	App
3.00	11/02/13	No change	AH	GC	DB
2.00	01/02/13	No change	AH	GC	DB
1.00	11/12/12	First issue	SAF	GC	DB

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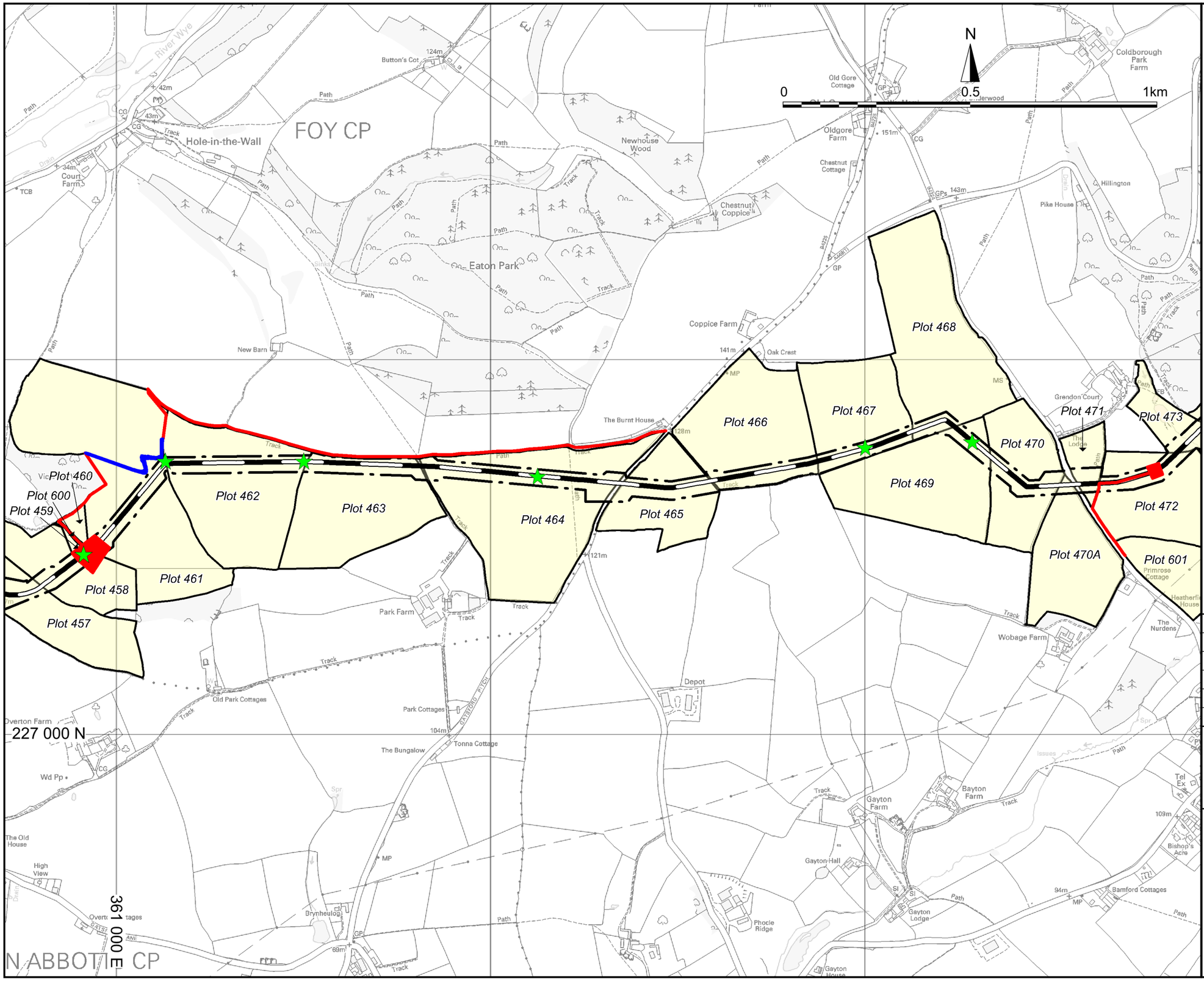
network archaeology

Brecon to Tirley Pipeline Ross Remedial Works

Figure 1
General location of the Ross Remedial Works and Construction Sections 120 and 122

Scale: 1:200 000 and 1:20 000

FILE NAME: BRT\186\report\illustrations\mapinfo\ver03.00\workspaces\figure01.wor



Pipeline

Original working width of pipeline

Plots

Access track

Remedial works area

Compound

Excavated area of access track

Sites identified during construction

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Ver	Date	Description	Drn	Chk	App
3.00	11/02/13	Added access track	AH	GC	DB
2.00	01/02/13	No change	AH	GC	DB
1.00	19/12/12	First issue	SAF	GC	DB

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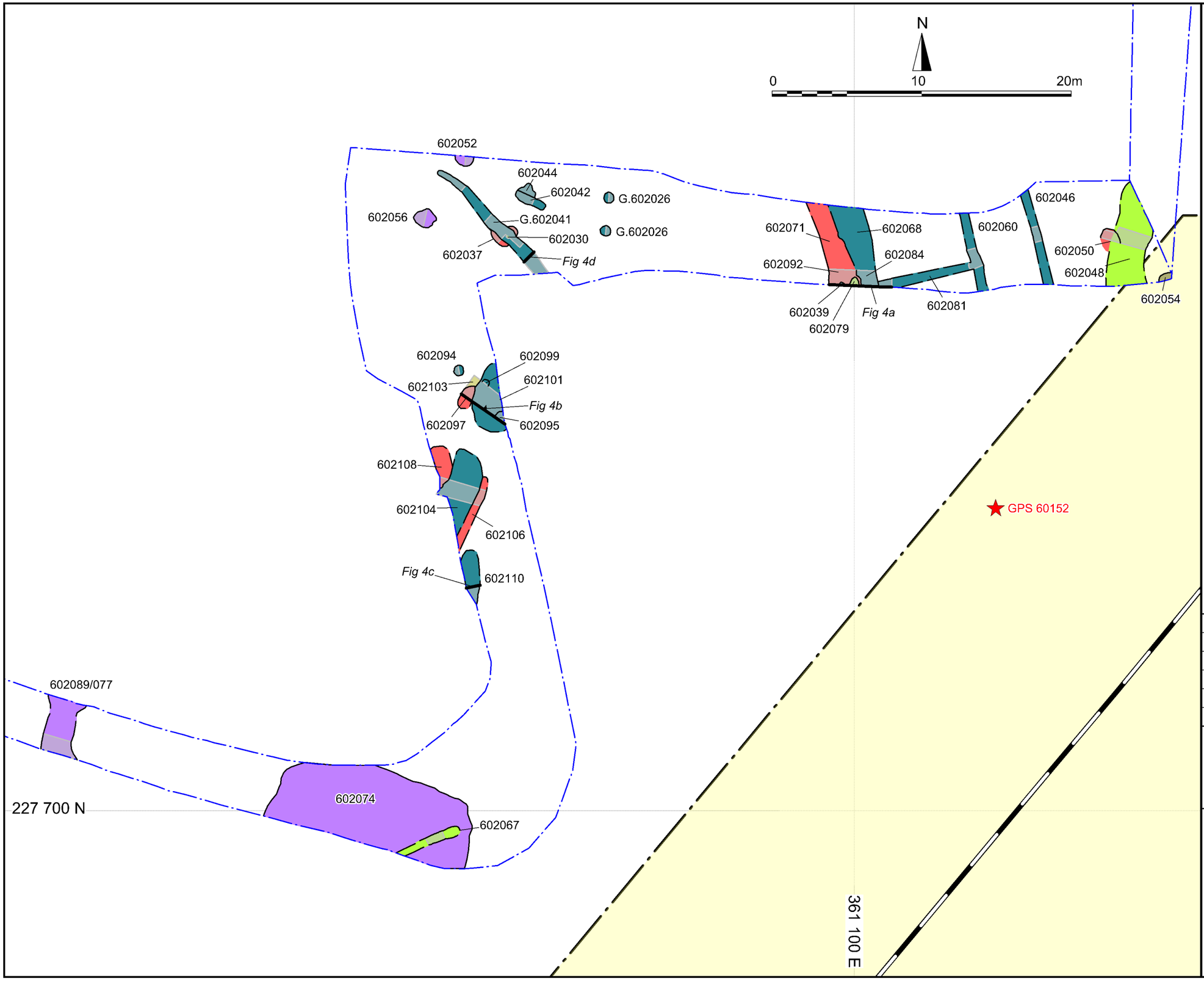
Brecon to Tirley Pipeline
Ross Remedial Works

Figure 2
Construction Sections 120 and 122, showing excavation area in Plot 461

Scale: 1:10 000

FILE NAME:BRT\186\report\illustrations\mapinfo\ver03.00\workspaces\figure02.wor



Pipeline

Limit of excavation

Cut line

Section line

Working width

Phase 1: Earliest Activity

Phase 2: Expansion of the site

Phase 3: Decline and abandonment

Phase 4: Modern

Unphased

Natural

Excavated sections

GPS spot find

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Ver	Date	Description	Drn	Chk	App
3.00	11/02/13	No change	AH	GC	DB
2.00	01/02/13	No change	AH	GC	DB
1.00	06/12/12	First issue	SAF	GC	DB

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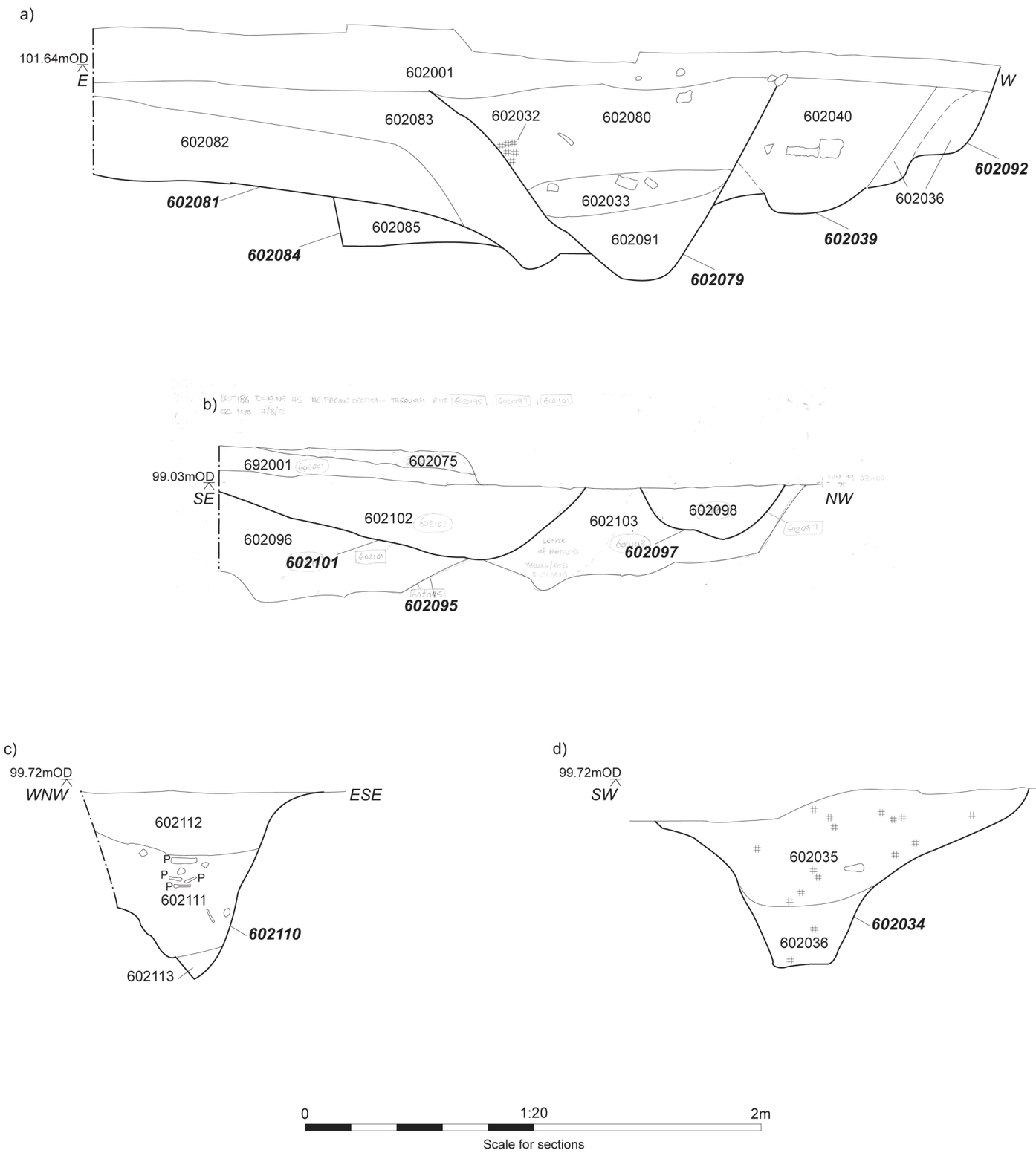
Brecon to Tirley Pipeline
Ross Remedial Works

Figure 3
Construction Section 120:
Plot 461 - Phased site plan

Scale: 1:250

FILE NAME:\GUM\14\report\illustrations\GIS\ver03.00\workspaces\figure02.wor



Limit of excavation

Cut line

Layer/fill line

1234 Cut number

1233 Layer/fill number

Charcoal

Stones

Pottery

Projected line

Ver	Date	Description	DM	Chk	App
3.00	11/02/13	No change	AH	GC	DB
2.00	01/02/13	No change	AH	GC	DB
1.00	22/11/12	First issue	SAF	CC	CT

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Brecon to Tirley Pipeline

Figure 4: Construction Section 120: Plot 461 - Selection of key sections

a) Section through junction of ditches 602081, 602084 and 602092 and pits 602039 and 602079
b) Section across pits 602095, 602097 and 602101
c) Section through pit 602110
d) Section across probable boundary ditch G. 602041

Scale 1:100 and 1:20

FILE NAME: BRT\186\report\illustrations\illustrator\ver03.00\figure04.pdf