

**THE CLWYD-POWYS ARCHAEOLOGICAL TRUST**

# **Four Crosses effluent rising main, Powys**

**ARCHAEOLOGICAL WATCHING BRIEF**



**CPAT Report No 903**

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## **ARCHAEOLOGICAL WATCHING BRIEF**

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Report for Severn Trent Water Ltd

**The Clwyd-Powys Archaeological Trust**

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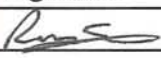


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## 1 INTRODUCTION

- 1.1 In October 2007, the Field Services section of the Clwyd-Powys Archaeological Trust (hereafter CPAT) was commissioned by Severn Trent Water Ltd to carry out an archaeological watching brief on the route of a new effluent rising main serving the village of Four Crosses in Powys.
- 1.2 The approximate route of the pipeline had been subject to an archaeological assessment (Jones 2007), in advance of the commencement of construction work and this had identified a number of potential and known archaeological features. Following from the assessment, an archaeological evaluation and watching brief was carried out at the southern end of the pipeline route in May and June 2007, where evidence of a field system of possible prehistoric date had been identified from aerial photographic sources. A total of five trenches were excavated along this section (Grant 2007).
- 1.3 The further watching brief reported on here comprised the remainder of the pipeline route and commenced on 30 October, continuing intermittently until 8 November, when the topsoil removal from the pipeline wayleave was completed. The natural subsoils were sufficiently visible after topsoil removal to preclude the need to continue the watching brief during the excavation of the trench for pipe installation. A schedule of the visits undertaken is listed in Appendix 2.

## 2 GEOGRAPHICAL BACKGROUND

- 2.1 The route of the pipeline has an overall north-south alignment and lies on the east side of the village of Four Crosses in northern Powys. It runs from the edge of the Foxen Manor housing estate at SJ 27651862, to the bank of the River Vyrnwy at SJ 27451965, a distance of approximately 1.1km.
- 2.2 Topographically, the route crosses the interfluvium between the Severn and Vyrnwy rivers, at a point where it becomes fairly narrow and it lies only some 6km to the west-north-west (upstream) of the confluence of the two rivers. The ground traversed has an average elevation of 65m OD, rising from the flood plain of the Vyrnwy to the gravel terrace on which Four Crosses lies.
- 2.3 The underlying rocks are Permian sandstones (1994 Geological Survey map), although these are not visible at the surface and are covered by large amounts of fluvio-glacial drift, mainly silts and gravels. The surface soils of the higher ground are represented by a combination of fine loamy soils belonging to the East Keswick 1 Association and fine silty and clayey soils of the Cegin Association, while the lower ground alongside the River Vyrnwy is occupied by stoneless river alluvium of the Teme Association (1983 Soil Survey map and legend).

## 3 ARCHAEOLOGICAL BACKGROUND

- 3.1 The immediate area is known to be rich in archaeological remains from prehistory through to the early medieval period. The principal prehistoric features are a series of ploughed-down burial mounds, an excavated example of which lay in close proximity to the route of the pipeline.
- 3.2 The burial mound in question (see Plate 1) was reported by Warrilow (*et al.* 1986, Site 5; SJ 27531919) and revealed a large multi-period ring ditch, comprising three successive ditches, respectively up to 21.7m, 16m and 26.4m in diameter, and varying between 1.2m and 2.6m in width. The ditches encompassed the period from the middle to late-Neolithic to the early Bronze Age. A burial pit was recorded in the central area, containing the remains of perhaps up to three crouched adult inhumations, and there was also a parallel grave of Beaker to early Bronze Age date.



which was thought to contain an extended inhumation, perhaps even with traces of a coffin. The final phase of the monument consisted of the larger outer ditch and remnants of a stake circle placed in the intermediate phase ditch. A small ring ditch, 5-6m in diameter and with a central pit, lay only 20m to the south-east of the main site, but this excavation produced no conclusive dating evidence.



Plate 1 Excavations in 1983 on the site of the large Bronze Age ring ditch, also showing the nearby pit alignments (Photo CPAT 83-C-0133)

- 3.3 The pit alignments visible in the photograph are believed to represent evidence of former field boundaries, although their date of construction has not yet been determined. Iron Age dates have been suggested for similar features elsewhere, but the excavation of three short stretches of alignment by CPAT between 1981 and 1984 did not provide any dating evidence. One section of pit alignment was crossed by the pipeline route, lying between the ring ditch mentioned in paragraph 3.2 and Domgay Lane (*i.e.* at the top centre of Plate 1), where excavations had revealed a total of eight pits of varying sizes and a shallow parallel ditch (Owen and Britnell, 1989, 32-33).
- 3.4 More recently, an extensive programme of excavation was undertaken in the village, in advance of a housing development. This revealed further evidence for prehistoric burial features, as well as Romano-British occupation. Details of these discoveries are not yet in the public domain.
- 3.5 The results from the evaluation undertaken prior to the first phase of pipeline installation (see paragraph 1.2, above) confirmed the presence of a number of linear features which were initially seen as cropmarks from the air, and which it was suggested were constructed as boundary ditches forming part of a field system and a possible enclosure. Artefactual evidence, in the form of sherds of Severn Valley Ware recovered from both upper and lower deposits in one of the ditches, indicated that the field system could be tentatively dated to the Romano-British period. Although the form of the ditches suggested that they were contemporary, the results from the evaluation produced no conclusive evidence to support this suggestion.



- 3.6 The line of Offa's Dyke runs through the centre of Four Crosses, on an approximate north-south alignment. The 8<sup>th</sup>-century earthwork, consisting of a large bank with a ditch on its west side, is generally accepted to have formed the western boundary to the kingdom of Mercia. The Dyke survives as a substantial earthwork bank in the field to the south of the school and adjoining car park and at that point is statutorily protected as a monument of national importance (Scheduled Ancient Monument Mg 033).
- 3.7 The assessment carried out prior to the commencement of pipeline construction included a programme of geophysical survey. This identified a total of four additional features which lay on the route of the pipeline, including two possible pits (Sites 1 and 4), a drain (Site 2) and a possible well (Site 3). Most of the features were undated, only the well being attributed a date in the post-medieval period. Examination of the regional Historic Environment Record (HER) also revealed a possible relict field system, recorded from aerial photographic sources, on the flood plain of the River Vyrnwy.

#### 4 WATCHING BRIEF

- 4.1 The watching brief consisted of a series of site visits during the removal of topsoil and overburden from the route of the pipeline. Any archaeological features observed were located in relation to the Ordnance Survey mapping and were investigated, photographed, drawn and described, as appropriate to their nature. A checklist of the visits undertaken is presented in tabulated form in Appendix 2.
- 4.2 The positions of the geophysical anomalies which had been identified during the pipeline assessment were also examined, but no evidence of archaeological features was observed. This may have been due either to the anomalies reflecting iron objects in the soil or to slight variations in the pipeline route leading to the avoidance of the features in question.
- 4.3 Topsoil stripping commenced on the south side of Domgay Lane, over a length of approximately 440m. Two features were observed in this area, namely an 18<sup>th</sup>/19<sup>th</sup>-century gully, 0.5m wide and 0.1m deep, between SJ 27601889 and SJ 27591891, and an undated oval scoop containing some charcoal and measuring 0.25m by 0.2m and 0.05m deep, at SJ 27621884. Neither of these features was considered to be sufficiently important to merit detailed recording.
- 4.4 On the north side of Domgay Lane, an undisturbed pit (see Plate 2), forming part of the pit alignment (L) which had been partially excavated in the early 1980s (Owen and Britnell, 1989), was observed during topsoil stripping. The pit was initially half-sectioned to provide a profile of the deposits and then completely excavated, the results of which are presented as Fig 2. The pit measured 2.15m north-east/south-west by 1.70m and was 0.70m deep, figures which compare closely with the next pit to the north-west, that had been excavated by Owen and Britnell. Unfortunately, as in the case of the earlier excavations, no material was forthcoming which could be used to date the creation of the pit.
- 4.5 The deposits revealed by the excavation compare closely to those described by Owen and Britnell, consisting of a primary fill (4) of pale grey and orange silty gravel, which appeared to have been deposited fairly rapidly after the creation of the pit. Subsequently, there was a more gradual accumulation of secondary silty material (3), which also contained an animal burrow (2). The lower part of the pit was more steep-sided than the upper part, the boundary appearing to relate to a change in the natural subsoil from orange (upper) to pale grey silty gravel (lower).





Plate 2 Completed excavation of the pit forming part of alignment L (Owen & Britnell, 1989)  
(CPAT Photo 2499-005)

- 4.6 Further north from the pit, the pipeline route passed the ring ditch excavated by CPAT in 1983. Some softer patches of soil were noted in the immediate locality, but, as the site had been completely excavated, these were not investigated. No evidence of the geophysical anomaly (Site 1) recorded as a possible pit was observed in the stripped area.
- 4.7 At the northern end of the field containing the ring ditch, the ground drops away to the Domgay Drain and the flood plain of the River Vyrnwy. No evidence of archaeological features was observed in this area, the only visible feature being a gully thought to represent a former course of the Domgay Drain. The position of this feature was noted, but it was not recorded in detail. The relict field system recorded in the HER was not evident.
- 4.8 In the course of the watching brief, the stripped soil was carefully examined for archaeological material. Some pottery belonging to the post-medieval period was noted, but none of this was significant in understanding the archaeology of the locality and none has been retained.

## 5 CONCLUSIONS

- 5.1 No evidence of any archaeological features was found at the location of the geophysical anomalies and it seems likely that they were either due to the presence of iron objects in the soil, or that the pipeline avoided their locations. Additionally, no significant artefacts were recovered from the stripped topsoil.
- 5.2 Two archaeological features were briefly noted on the south side of the Domgay Lane, a gully of 18<sup>th</sup> to 19<sup>th</sup>-century date and a small, undated scoop. More significantly, an undisturbed pit forming part of the pit alignment partially excavated in the 1980s was observed during the topsoil stripping;



the feature was completely excavated, drawn, photographed and described. The pit compared closely with adjacent pits described by Owen and Britnell, but, unfortunately, no datable material was found in the fill.

- 5.3 At the northern end of the pipeline, the route crossed a field in which a relict field system was noted in the HER. No trace of the field system was evident in the topsoiled area. The field is heavily ploughed and no surface features have survived elsewhere.

## 6 ACKNOWLEDGEMENTS

- 6.1 The writer would like to thank the following people for their help and assistance during the project: Mr M Dare, Severn Trent Water; Mr K Farmer, of Tomlinson's, the site contractor, and the construction staff. The writer would also like to thank his colleague at CPAT, Mr I Grant, for his assistance with the watching brief.

## 7 REFERENCES

### 7.1 Published sources

Barfoot, P M, Owen, W G, & Britnell, W J 1986. Iron spearhead and javelin from Four Crosses, Llandysilio, Powys. *Medieval Archaeology* 30, 103-106

Grant, I, 2007, *Four Crosses STW Growth: Archaeological Evaluation*, Welshpool: CPAT Report No 874

Jones, N W, 2007, *Four Crosses STW Growth: Archaeological Assessment*, Welshpool: CPAT Report No 851

Owen, G, & Britnell, W, 1989. Pit alignments at Four Crosses, Llandysilio, Powys. *Montgomeryshire Collections* 77, 27-40

Warrilow, W, Owen, G & Britnell, W, 1986. Eight ring-ditches at Four Crosses, Llandysilio, Powys, 1981-85. *Proceedings of the Prehistoric Society* 52, 53-87

### 7.2 Cartographic sources

1799 Enclosure Award for Llandrinio, Llandysilio and Llansantffraid.

1842 Tithe Survey and Apportionment (1839) for Llandysilio parish

1886 Ordnance Survey 1st edition 25", Montgomery 11.9, surveyed 1883

1983 Soil Survey of England and Wales map (Sheet 2 - Wales) and Legend (1:250,000 scale)

1994 British Geological Survey map of Wales (Solid edition at 1:250,000 scale)

## **APPENDIX 1**

### **NEW EFFLUENT RISING MAIN AT FOUR CROSSES, POWYS SPECIFICATION FOR AN ARCHAEOLOGICAL WATCHING BRIEF BY THE CLWYD-POWYS ARCHAEOLOGICAL TRUST**

#### **1 Introduction**

- 1.1 The Field Services Section of the Clwyd-Powys Archaeological Trust (CPAT) have been invited to prepare a specification for undertaking a watching brief during the construction of new effluent rising main at Four Crosses, Powys. The Curatorial Section of the Clwyd Powys Archaeological Trust, acting as archaeological advisors to the local planning authority, have determined that the watching brief should be undertaken to ensure the preservation by record of any archaeological remains revealed during the construction works and a brief has been prepared detailing the nature of the required works (CWAT 679).
- 1.2 The development lies in an area of known prehistoric activity the nature of was been identified during an archaeological assessment of the route. A desk-based study and geophysical survey revealed evidence for a variety of features in the area, including ring ditches, pit alignments and other ditches.

#### **2 Objectives**

- 2.1 The objectives are:
  - 2.1.1 to record any archaeological features identified during the archaeological monitoring of groundworks to ensure their preservation by record;
  - 2.1.2 to prepare a report outlining the results of the watching brief.

#### **3 Methods**

- 3.1 The watching brief will be undertaken to include: archaeological supervision during the removal of topsoil within the wayleave and any storage or compound areas. Where appropriate machined surfaces will be hand cleaned. Any area of archaeological potential will be secured by temporary fencing to provide a safe working environment and protect the area from vehicular damage. The discovery of any significant features will be reported immediately to the client and the curator. The archaeological excavation and recording of any significant features or deposits will only be undertaken following discussions with the client and curator and will be subject to agreed access and timing. The agreed watching brief rates provide for the monitoring of groundworks and limited investigation of features only. Any significant excavation may require additional funding, to be agreed in advance with the client.
- 3.2 All archaeological deposits and/or features noted during the watching brief will be recorded and, where appropriate, excavated by hand and recorded by drawn section/plan and/or photography. All photography will be in 35mm format black and white negative and colour slide, or digital photography to a minimum of 4 mega pixels. All features identified will be tied in locationally to points which are identifiable on modern Ordnance Survey mapping.
- 3.3 The on-site contractors are required to allow sufficient opportunity for appropriate archaeological excavation and recording to be undertaken. Every effort will be made to minimise any disruption to the overall scheme of works.



- 3.4 Following the on-site work an illustrated and bound report will be prepared. This will be in A4 format and contain, as necessary, conventional sections on: Site location, Topography and Geology; Historic Background; Watching Brief; Conclusions and References, together with any appropriate appendices on archives and finds.
- 3.5 The site archive will be prepared to specifications laid out in Appendix 3 in the Management of Archaeological Projects (English Heritage, 1991).

#### 4 Resources and Programming

- 4.1 The watching brief will be undertaken by an experienced field archaeologist and overall supervision will be by Mr RJ Silvester, a senior member of CPAT's staff who is also a member of the Institute of Field Archaeologists. The duration of the watching brief will be entirely determined by the contractor's programme of work.
- 4.2 All report preparation will be completed by or with the assistance of the same field archaeologist who conducted the fieldwork.
- 4.3 Copies of the report will be deposited with the client within one month of the completion of on-site works. If appropriate, a short report will be published in *Archaeology in Wales*.
- 4.4 The client should be aware that in the event that significant archaeological remains are revealed there may be a requirement for specialist services, such as radiocarbon dating and finds conservation and the following contingency sums should therefore be allowed. The need for such contingencies, and their potential cost, would be subject to discussions between CPAT, the client and the curator once the fieldwork has been completed. The following figures are therefore only for guidance and the final cost, should any of the services be required, may be more or less than the estimates provided.

Curatorial monitoring	£50 per visit
Finds conservation etc	£200
Dating	£300 each
Publication	<i>Archaeology in Wales</i> at no additional charge

- 4.5 Requirements relating to Health and Safety regulations will be adhered to by CPAT and its staff.
- 4.6 CPAT is covered by appropriate Public and Employer's Liability insurance.

N.W. Jones  
18 October 2007

## APPENDIX 2

## VISITS UNDERTAKEN DURING THE TOPSOIL STRIPPING

Visit date	Actions/results
30/10/07	Topsoil stripping observed to the south of Domgay Lane. 18 <sup>th</sup> /19 <sup>th</sup> -century gully, 0.5m wide and 0.1m deep, recorded between SJ 27601889 and SJ 27591891; undated oval scoop, 0.25m by 0.2m and 0.05m deep, with some charcoal at SJ 27621884.
31/10/07	Remainder of topsoil stripping to the south of Domgay Lane. No significant finds or features observed.
01/11/07	Topsoil stripping to the north of Domgay Lane. An undisturbed pit forming part of a pit alignment was noted. No other features or finds were revealed.
02/11/07	Topsoil stripping to the north of Domgay Lane. Nothing significant was observed in the stripped area; the pit identified on 01/11/07 was completely excavated and recorded.
05/11/07	Topsoil stripping to the north of Domgay Lane. No archaeological features observed, a possible abandoned line of the Domgay Drain was noted.
06/11/07	Topsoil stripping to the north of Domgay Lane. No archaeological features were revealed, particularly the alleged relict field system recorded in the HER.
08/11/07	Remainder of topsoil stripping to the north of Domgay Lane, as far as the Vyrnwy. No significant finds or features were observed in the wayleave or stripped spoil.



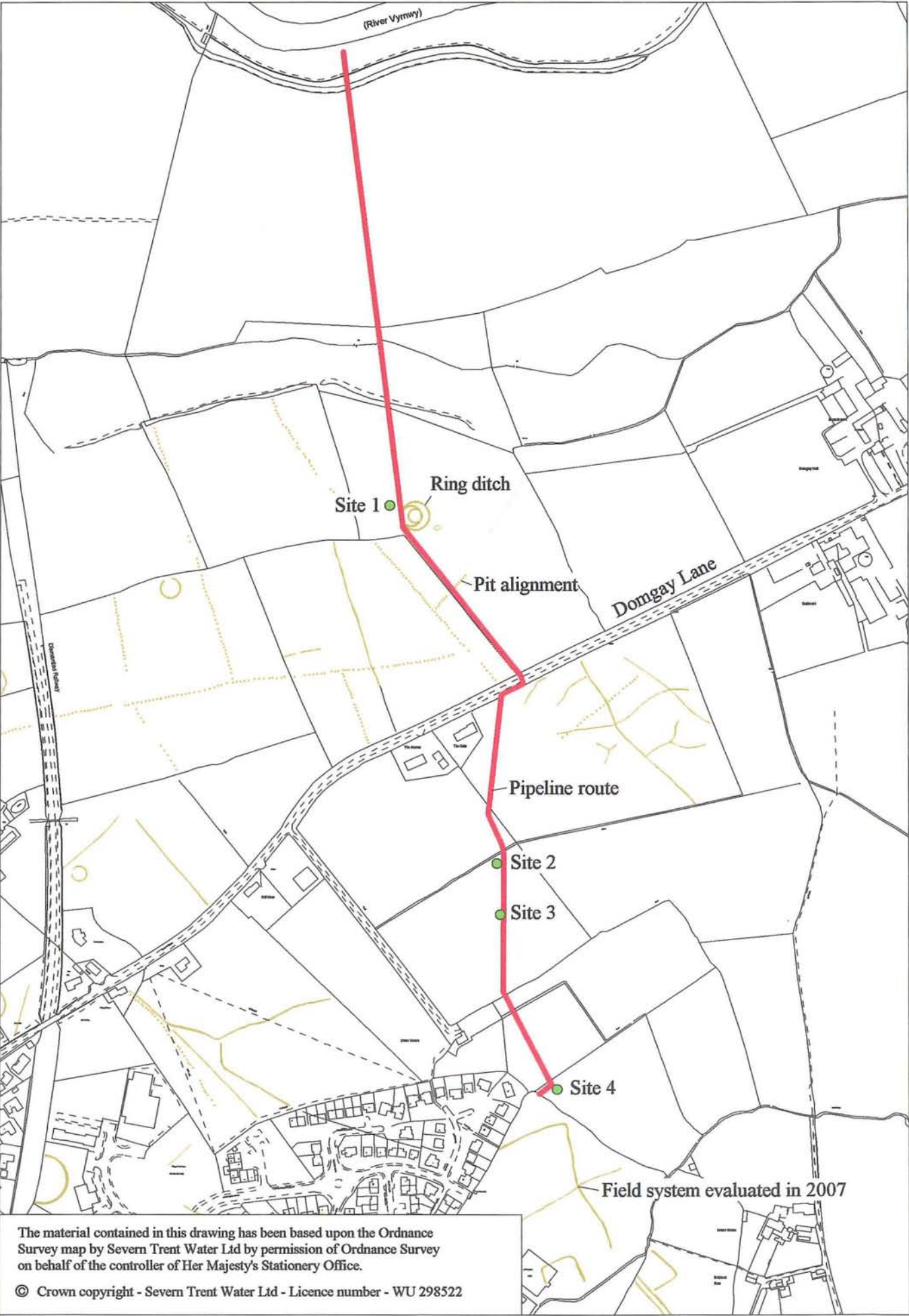


Fig 1 Pipeline route Scale 1:5,000

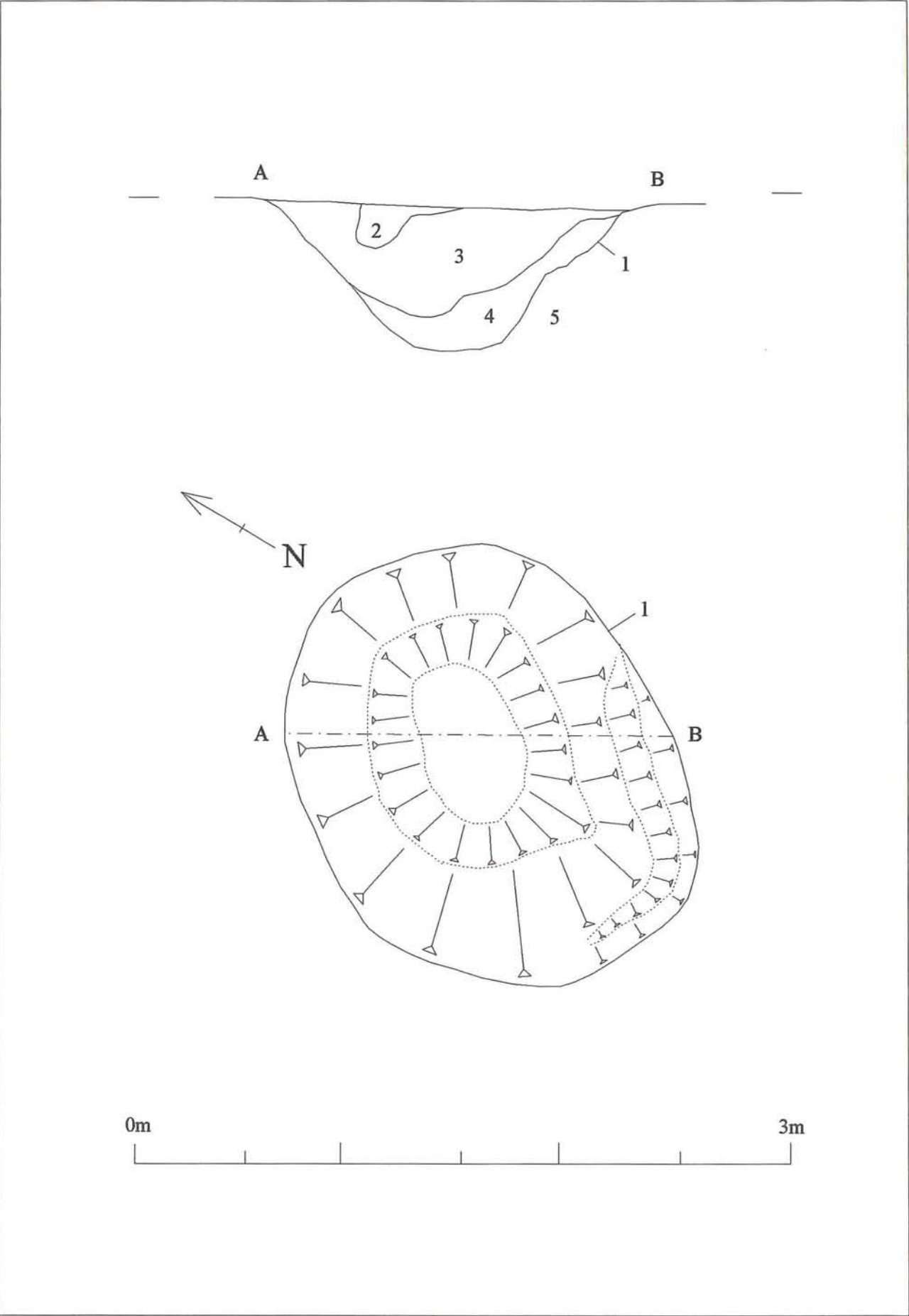


Fig 2 Plan and section of pit from alignment L (see Owen and Britnell, 1989) Scale 1:25