

THE CLWYD-POWYS ARCHAEOLOGICAL TRUST

FOUR CROSSES STW GROWTH
ARCHAEOLOGICAL EVALUATION



CPAT Report No 874

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ARCHAEOLOGICAL EVALUATION

By I Grant
August 2007

Report for Severn Trent Water Ltd


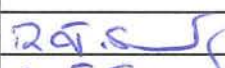
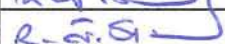
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1 INTRODUCTION

- 1.1 In February 2007 the Field Services Section of the Clwyd-Powys Archaeological Trust (henceforth CPAT) was invited by Severn Trent Water Ltd to prepare a specification of works for undertaking an archaeological assessment in connection with proposals to install a new pipeline to the east of Four Crosses, in northern Powys. The Curatorial Section of the Clwyd-Powys Archaeological Trust, acting as archaeological advisors to the local planning authority, had determined that an archaeological assessment should be undertaken to assess the potential impact of the proposals on the archaeological resource, and a brief was prepared detailing the works required (INV 659).
- 1.2 The initial assessment was undertaken during March 2007 and following the production of a report summarising the results (Jones 2007) a meeting was held between Severn Trent Water Ltd, their engineering contractors Tomlinsons, CPAT and the Curator, to discuss the potential impacts of the proposed pipeline and formulate a mitigation strategy. It was agreed that although most of the archaeological features revealed during the assessment could be avoided by minor changes to the alignment of the pipeline, a number of features at the southern end of the route were likely to be directly affected and a programme of excavation was therefore accepted as mitigation. A specification for the work was prepared by CPAT and accepted by the Curator and the excavations were undertaken in late May 2007.

2 LOCATION, TOPOGRAPHY AND GEOLOGY

- 2.1 The proposals relate to the construction of a new 1.3km-long pipeline across land to the north-east and east of Four Crosses, between SJ 27681842 and SJ 27331969, within a 10m-wide working width (Fig. 1).
- 2.2 Four Crosses is situated on an outwash plain between the Rivers Severn and Vyrnwy which is composed of glacial or fluvioglacial deposits that form shallow depressions and low ridges overlying glacio-lacustrine alluvium. The ridges support well-drained brown earths, favourable to arable, dairy farming and beef farming. The soils to the north and south are unsuitable for arable production: to the north there is alluvium on the Vyrnwy floodplain and to the south are poorly drained stagnogleys (Owen and Britnell 1989, 27).
- 2.3 The excavations were undertaken at the southern end of the route, principally within the area of a playing field (SJ 277185), but with one trench in an adjacent field.

3 HISTORICAL BACKGROUND

- 3.1 The initial assessment identified a number of significant archaeological sites within close proximity of the pipeline corridor, most of which were elements of a complex of prehistoric monuments known from cropmark evidence and through a series of excavations during the 1980s (Warrilow *et al.* 1986; Owen and Britnell 1989).
- 3.2 The field at the southern end of the proposed route contains a series of linear cropmarks (PRN, Public Record No, 50522) which do not follow the same alignment as the present field boundaries and are likely to be part of an earlier, possibly prehistoric, field system. Possibly associated with this field system is what appears to be a small rectangular enclosure (PRN 7065) 32m across, although the southern part of this feature, running towards the stream is not visible as a cropmark.

- 3.3 Within the southern section of the corridor a cluster of features (Site 4) was identified by the geophysical survey, including two possible pits and other anomalies that suggested significant archaeological potential.

4 EXCAVATION

- 4.1 The excavations consisted of five trenches (Fig. 1) which were located to examine a group of anomalies identified by the geophysical survey, together with a series of ditches revealed from cropmark evidence. The trenches were positioned along the line of the pipeline, rather than specifically focussed on the archaeological features. In each trench the overburden was removed by machine under close archaeological supervision, with all cleaning and subsequent excavation being undertaken by hand. A full drawn, written and photographic record was maintained throughout, details of which are provided in Appendix 1. Numbers in brackets in the following text refer to individual context records in the site archive.

Trench 1 (Fig. 2)

- 4.2 Trench 1 was located in the corner of a pasture field to investigate two possible pits and other features identified by the geophysical survey. The trench measured 12m by 1.5m and was aligned south-west to north-east.
- 4.3 The overburden consisted of up to 0.2m of topsoil (01) above a 0.12m thick layer of greyish brown silty clay (02), which overlay a mottled light orange-brown silty clay (03) up to 0.2m thick. This deposit was interpreted as an early soil/ground surface that post-dated the features discussed below. Removal of this deposit revealed a variable surface of natural subsoil (04) across the length of the trench which consisted of a light brownish grey clay interspersed with occasional patches of river gravels, through which three features had been cut.
- 4.4 At the south-western corner of the trench, at a depth of 0.5m below the ground surface, a ditch (06), aligned north to south, was partially visible. The ditch had relatively steep sides and was excavated to a depth of 0.44m, but its base could not be established as this lay beyond the limits of the excavation. The feature contained a single fill (05) consisting of a mottled orange-brown silt clay with occasional charcoal flecks, but contained no artefacts.
- 4.5 Two large sub-circular, pit-like features (08 and 11) were identified at the northern end of the trench, both extending beyond the limits of the excavation. The pit 08, located on the western side of the trench at a depth of 0.4m below the ground surface, was 2.7m in diameter and 0.38m deep. It contained a single fill (07) of orange-brown silty clay (see Plate 1). The second pit (11) was located at the northern end of the trench. Its visible diameter was at least 2m with a depth of 0.55m. The basal fill (10), a soft orange-brown silty clay containing numerous river rounded pebbles, was sealed by a friable orange brown silty clay (09) 0.2m thick (see Plate 2). No dateable artefacts were recovered from the pits and it is possible that they were tree pits, though the possibility that they are prehistoric features of a different origin should not be discounted.



Plate 1 Trench 1, Pit 08 from the south. Photo CPAT 2369-008



Plate 2 Trench 1, Pit 11 from the west. Photo CPAT 2369-010

Trench 2 (Fig. 3)

- 4.6 Trench 2 was located to investigate a ditch, aligned west-south-west to east-north-east, which had been revealed as a linear cropmark in the northern corner of the playing field to the south-west of Trench 1. The trench measured 11.6m by 1.5m and was aligned south-west to north-east.
- 4.7 The overburden consisted of up to 0.22m of topsoil (64) above a 0.2m thick layer of very firm, compacted, yellowish brown clay (65). This deposit, which contained numerous 19th and 20th - century ceramics, appeared to be a redeposited levelling layer, possibly associated with the modern housing estate to the west of the site. A large, modern rubbish pit (69), up to 1m in depth and extending to the north-west beyond the limits of excavation, truncated the deposit 65 across the entire width of the north-eastern end of the trench. Removal of deposit 65 revealed a variable surface of natural subsoils (66 and 67), consisting of a light yellow clay interspersed with occasional patches of river gravels.



Plate 3 Trench 2, Ditch 63 from the south-south-west. Photo CPAT 2369-058

- 4.8 At a point midway along the trench, at a depth of 0.42m below the ground surface, a ditch (63) cut into the natural subsoil (66) (see Plate 3; Fig 3). The ditch was aligned east to west, and measured 2m wide and up to 0.9m in depth, with steep sloping sides and a fairly flat base, into which had been cut two shallow, irregularly shaped features (82 and 83). The lower fills of the ditch were characterised by lenses of blue-grey, sharp, gritty gravels and fine silty clay, consistent with the early phases of natural weathering of the ditch sides. Overlying these fills was a deposit of brownish grey clay (73) containing iron-panned, mineral staining throughout. This was sealed by two brownish clayey silt and clay deposits (71 and 72), up to 0.5m thick, and a deposit of orangey-brown silt clay (62), which was similar to the fill (40) (containing Roman pottery) within the corresponding ditch revealed in Trench 4. On the southern, presumed internal, side of ditch 63 was a deposit of modified yellow clay (70), which may be the slumped remnants of the internal bank associated with the ditch. The deposits on the northern side of the ditch had been severely truncated by the modern rubbish pit (69).

Trench 3 (Fig. 4)

- 4.9 Trench 3 was located to investigate a ditch, aligned west-south-west to east-north-east, which had been photographed as a linear cropmark traversing the central part of the playing field. The trench measured 12m by 1.6m and was aligned north-west to south-east.
- 4.10 The overburden consisted of up to 0.3m of topsoil (26) above a 0.25m-thick layer of greyish brown silty clay (27). Deposit 27 appeared to be fairly uniform throughout the length of the trench, resembling an old ploughsoil, probably of post-medieval origin. Removal of deposit 27 revealed the natural subsoil (28) consisting of a firm greenish-yellow clay interspersed with bands of a loose grey gravel mixed with concreted mineralised patches of manganese.
- 4.11 At the south-eastern end of the trench a ditch (34) was revealed cut into the natural subsoil. The extent of the feature went beyond the limits of the excavation, to the west and the south-east, and unfortunately the eastern side had been truncated by a modern service trench (30), up to 0.9m wide, which traversed the length of the evaluation trench. The ditch measured 1.7m wide and 0.54m deep, and had relatively steep sides with a slightly concave base and contained four fills. The primary fill (31), a yellowish-grey mix of clay and gravel 0.1m thick, probably resulted from slumped bank material as it appeared to have been originated primarily from the south-east side of the ditch. Overlying this was a deposit of greyish-yellow, soft, silty clay (32/33), 0.2m thick. Both of these fills were truncated by a later re-cut (55) of the ditch, 0.83m wide and 0.26m deep, which contained a single fill (54). The upper-most deposit (56), a yellowish brown silty clay 0.3m thick, sealed all of the underlying deposits within the ditch. No dateable artefacts were recovered from the ditch but its profile might suggest that it is of Romano-British or possibly earlier origin (see Plate 4 and Fig. 4).



Plate 4 Trench 3, Ditch 34 from the north. Photo CPAT 2369-043

Trench 4 (Fig. 5)

- 4.12 Trench 4 was located to investigate a ditch, aligned approximately north-north-west to south-south-east, which had been revealed as a cropmark that possibly related to the linear feature recorded in Trench 2. The trench measured 11.7m by 1.6m and was aligned north-west to south-east.
- 4.13 The overburden consisted of up to 0.26m of topsoil (35) above a 0.2m thick layer of greyish brown silty clay (39), very similar to the old ploughsoil (27) recorded in Trench 3, which contained sherds of 19th-century pottery. Removal of deposit 39 revealed the natural subsoil (53) consisting of a riverine matrix of grey silty clay, gravel and rounded pebbles.



Plate 5 Trench 4, Ditch 43 from the south-east. Photo CPAT 2369-048

- 4.14 From the south-east corner of the trench to a point centered on the north-western side, a ditch (43) was cut into the natural subsoil. The extent of the feature went beyond the limits of the excavation, to the south-east and north-west, and the north-western end had been truncated by a modern service trench (37), almost certainly the same service utility (30) previously noted in Trench 3. The ditch measured 1.5m wide and up to 0.65m deep, and had relatively steep sides with a slightly concave base and contained seven fills. The primary fill (87), a yellowish-grey mix of clay and small rounded pebbles 0.17m thick, survived only on the eastern edge of the ditch, having been truncated elsewhere by a later re-cut (88) of the ditch, 1.1m wide and 0.65m deep, containing six fills. Other early fills (86/85 and 84) consisted of fine pea-grit, pebbles

and gravel which were sealed by a sequence of grey and grey-brown silty clays (42/41) up to 0.35m thick, from which a single body sherd of Romano-British Severn Valley Ware was recovered. A shallow post-hole (45), 0.35m in diameter and 0.1m deep and located at the south-eastern corner of the trench, cut the upper fill 41. The upper/most deposit of the ditch, a firm, yellowish brown silty clay (40) 0.3m thick, sealed both the post-hole and all of the underlying deposits within the ditch (see Plate 5; 6 and Fig. 5; Section C-D and E-F). Four sherds from the shoulder of a Severn Valley Ware vessel were recovered from deposit 40. The vessel had parallel-grooved decoration and could have been a jar or bowl.

- 4.15 Another post-hole (48), 0.38m wide and 0.2m deep, containing a single fill (47) of brown silty clay, was partially revealed along the western edge of the trench. This feature, located alongside the western edge of the ditch 43, pre-dates the post-hole 45 as it was sealed by a deposit of re-deposited natural subsoil consisting of yellowy brown clay and gravel, presumed to be the remains of an internal embankment associated with the earlier construction phase of the ditch (43).
- 4.16 Two further post-holes (50/52) were recorded in section at the north-western end of the trench. However, both features truncated the old ploughsoil (27) and their origins must therefore post-date the 19th century.



Plate 6 Trench 4, Ditch 43 from the west-north-west. Photo CPAT 2369-056

Trench 5 (Fig. 6)

- 4.17 Trench 5 was located to investigate the north-eastern side of the possible enclosure (PRN 7065), which had been revealed as a cropmark. The trench measured 13.2m by 1.6m and was aligned south-west to north-east.
- 4.18 The overburden consisted of up to 0.1m of topsoil (12) above a 0.24m thick layer of very firm, compacted, yellowish brown mottled clay (13). This deposit is a modern levelling layer,

possibly associated with the landscaping of the playing field to the north-west of the trench. Underlying deposit 13 were two similar deposits, 14 and 15, consisting of bands of grey and grey-brown soft clay with a combined thickness of 0.2m. These deposits resembled the truncated remains of an old ploughsoil, comparable with similar ploughsoil deposits recorded in the other trenches. Two land-drains (58/59), located at the south-west end of the trench and a modern service trench (23), located centrally, all 0.3m wide and orientated north-west to south-east, cut through the lower overburden deposits. Removal of these deposits revealed a variable surface of natural subsoils (21 and 22), consisting of a light yellow clay interspersed with occasional patches of river gravels across the extent of the trench.

- 4.19 1.5m from the north-east end of the trench, at a depth of 0.5m below the ground surface, a ditch (20) cut into the natural subsoil (22) and the remains of an old ground surface of light grey clay (57) (0.1m thick). The deposit 57 was only observed in section and appeared to survive on the inner side of the enclosing ditch (20) (see Plate 7; Fig 6). The ditch was aligned north to south and measured 2m wide and up to 0.75m in depth, with steeply sloping sides and a fairly concave base. The lower fills of the ditch (19/18) were characterised by lenses of soft blue-grey silt and mottled iron-panned clay mixed with gritty gravels and small rounded stones. The combined thickness of these two fills was 0.35m. The upper fill 18 was sealed by a deposit of light brown sandy clay (17), 0.2m thick, which was in turn sealed by a firm fill of orangey brown silty clay (16), 0.2m thick. No dateable artefacts were recovered from the ditch but its profile might suggest that it is of Romano-British or possibly earlier origin.



Plate 7 Trench 5, Ditch 20 from the south-south-east. Photo CPAT 2369-032

5 WATCHING BRIEF (Fig. 7)

- 5.1 Following the completion of the excavations a watching brief was requested by the curator during the removal of topsoil along the south-eastern side of the playing field, and along the entire 9m-wide wayleave in the field to the south-west, a distance of approximately 320m (see Fig. 07).
- 5.2 Unfortunately, the stripping of topsoil adjacent to the playing field was undertaken ahead of schedule and without notification so that there was no direct archaeological monitoring as part of the watching brief. The area was thoroughly examined on 7 June 2007, after the topsoil stripping had been completed but the extremely dry conditions severely limited the effectiveness of this process and no archaeological features were identified.
- 5.3 The removal of topsoil along the remainder of the route was undertaken on 14 and 15 June. The topsoil and underlying ploughsoil deposits were stripped to a maximum depth of 0.2m. The depth of stripping was such that remnant ploughsoil deposits, of 18th/19th-century date, remained along the entire length of the 9m-wide wayleave, effectively masking any potentially earlier archaeological features which may have been present (see Plate 8). Due to severe weather conditions which altered the scheduling of on-site groundworks at short notice, the excavation of the pipe-trench, which was 0.6m in width, was only partially monitored as part of the watching brief. No archaeological features were identified during this process.



Plate 8, Topsoil stripping of wayleave. Watching Brief. Photo CPAT 2369-066

6 CONCLUSIONS

- 6.1 The results from the evaluation have 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, with one forming part of a possible enclosure. Artefactual evidence, in the form of sherds of Severn Valley Ware recovered from both upper and lower deposits within one of the ditches, indicates that the field system, as well as possible post-hole features recorded in Trenches 2 and 4, can be tentatively dated to the Romano-British period. Although the form of the ditches suggests that they may all be contemporary, the results from the evaluation produced no conclusive evidence to support this .
- 6.2 The two pits and the linear gully recorded in Trench 1 remain un-dated. Although the pits appeared to be of natural origin, it is possible that they are part of a wider complex of features, possibly associated with one of the known pit-alignments in the general area which are thought to be of prehistoric date.
- 6.3 The artefactual evidence indicates the existence of a Romano-British settlement within the immediate vicinity of the field system, and finds of a similar date have been recorded elsewhere in Four Crosses.

7 ACKNOWLEDGEMENTS

- 7.1 The writer would like to thank the following people for their assistance during the project: David Bull, Fiona Grant, Richard Hankinson, Nigel Jones, Bob Silvester of CPAT, Nigel Bowen of Bowens Plant Hire; the staff of the National Library of Wales in Aberystwyth; and the staff at the Powys County Archives in Llandrindod.

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1799 Enclosure Award for Llandrinio, Llandysilio and Llansantffraid (NLW, Aberystwyth).

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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

SITE ARCHIVE

88 Context record forms

03 A1 site plans

68 digital images

Photographic catalogue

Context register

Drawings register

Levels register

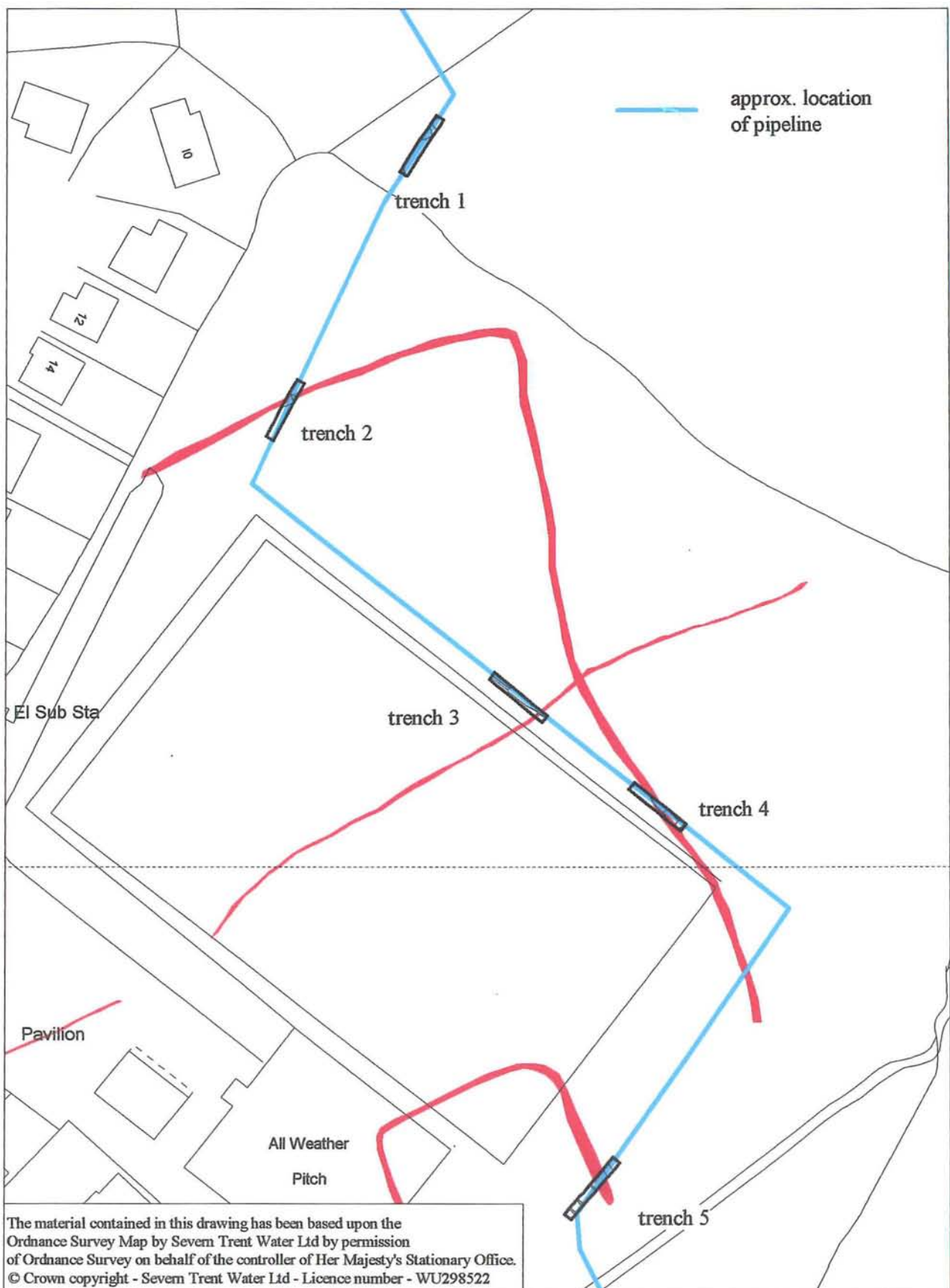


Fig. 1 Trench locations and cropmarks, scale 1:1,000

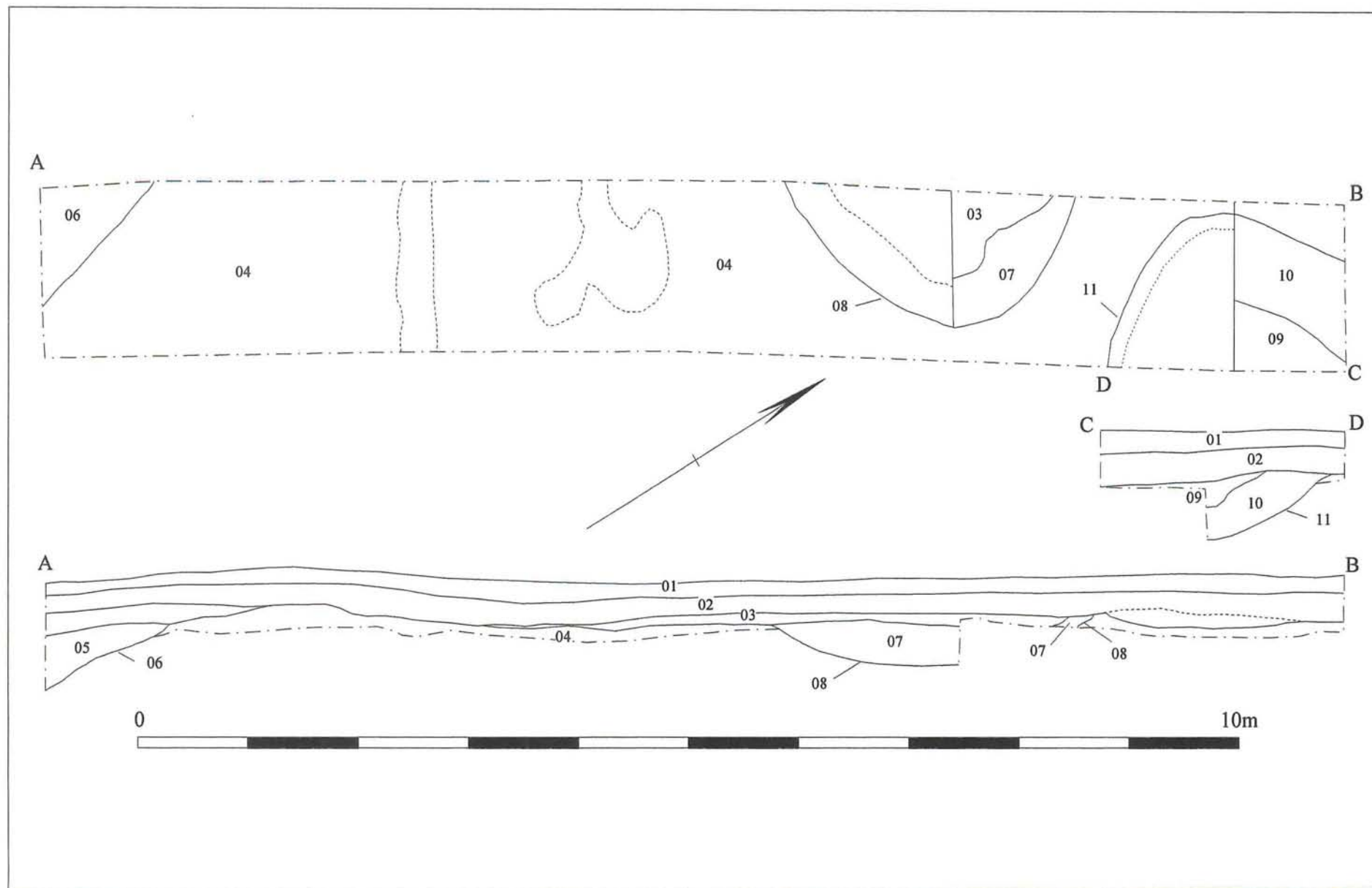


Fig. 2 Trench 1 plan and section, scale 1:50

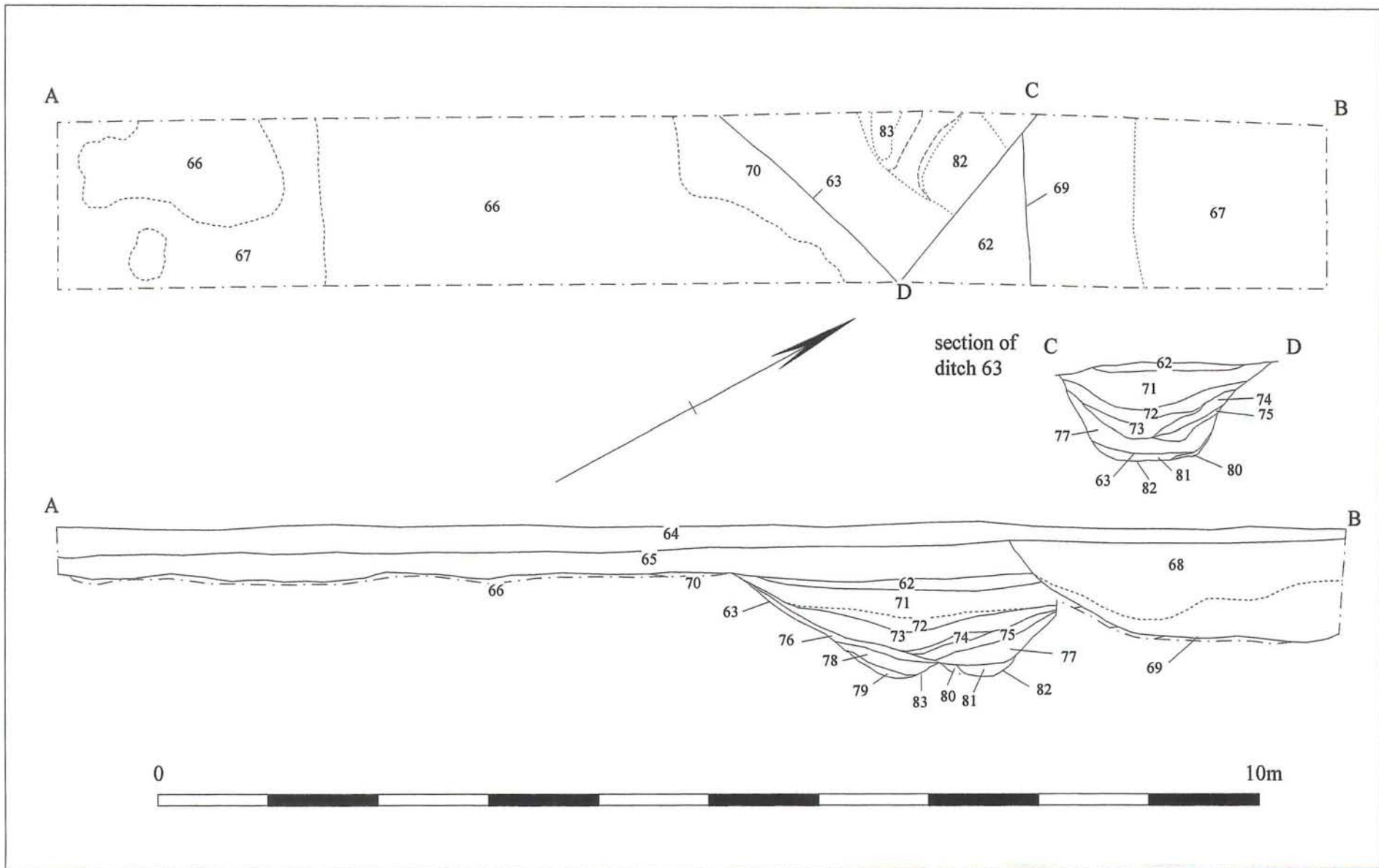


Fig. 3 Trench 2 plan and section, scale 1:50

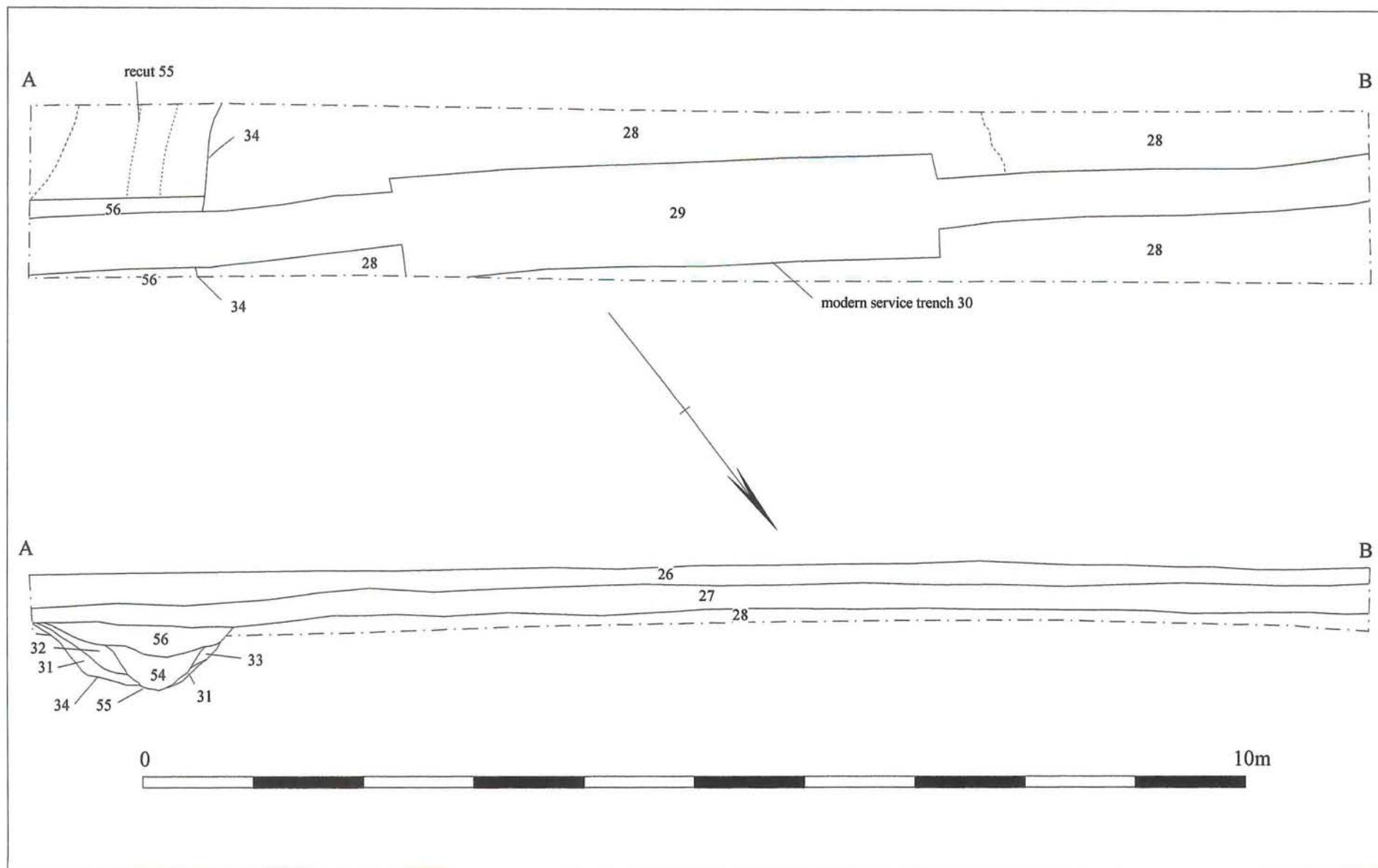


Fig. 4 Trench 3 plan and section, scale 1:50

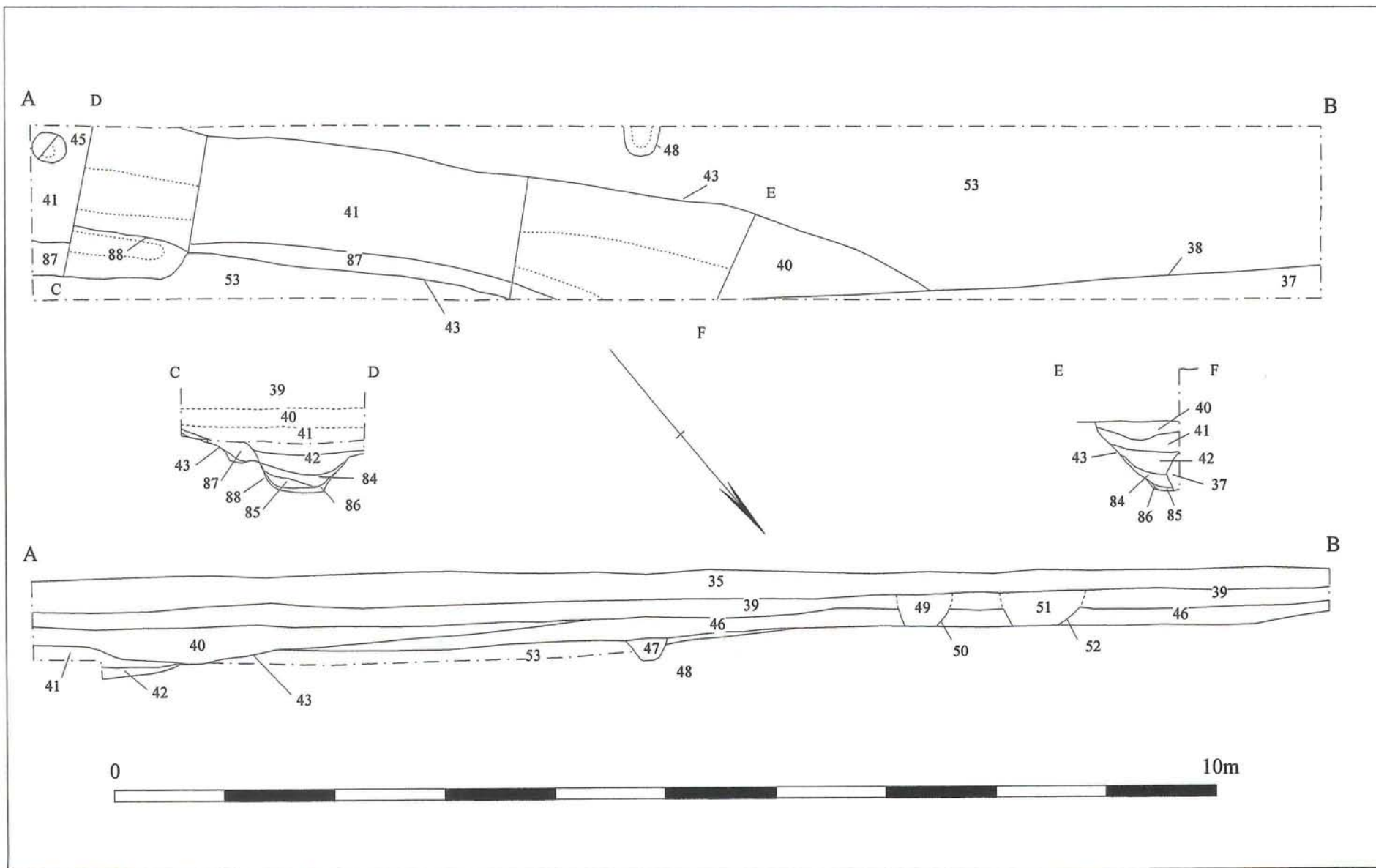


Fig. 5 Trench 4 plan and section, scale 1:50

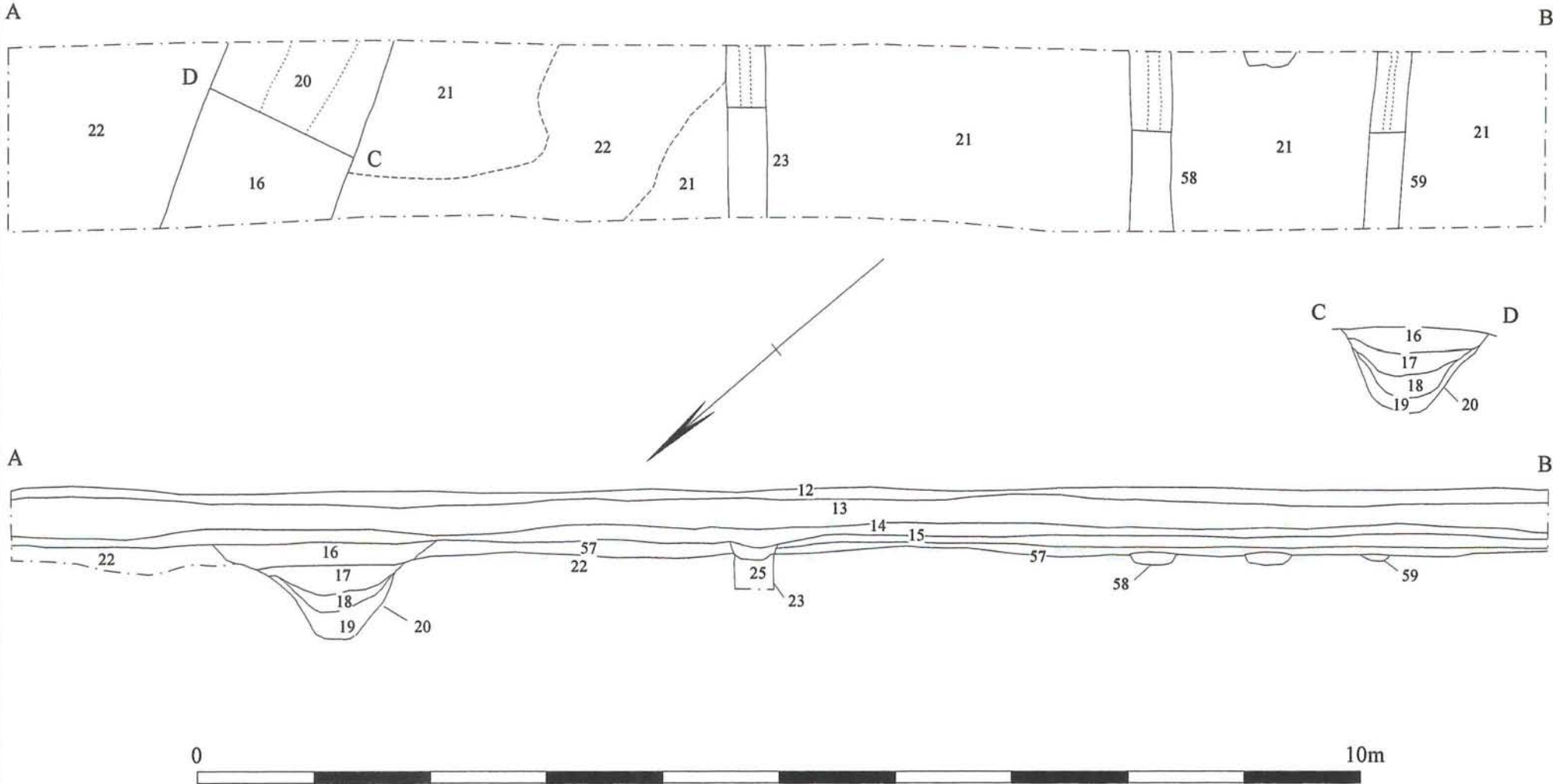


Fig. 6 Trench 5 plan and section, scale 1:50

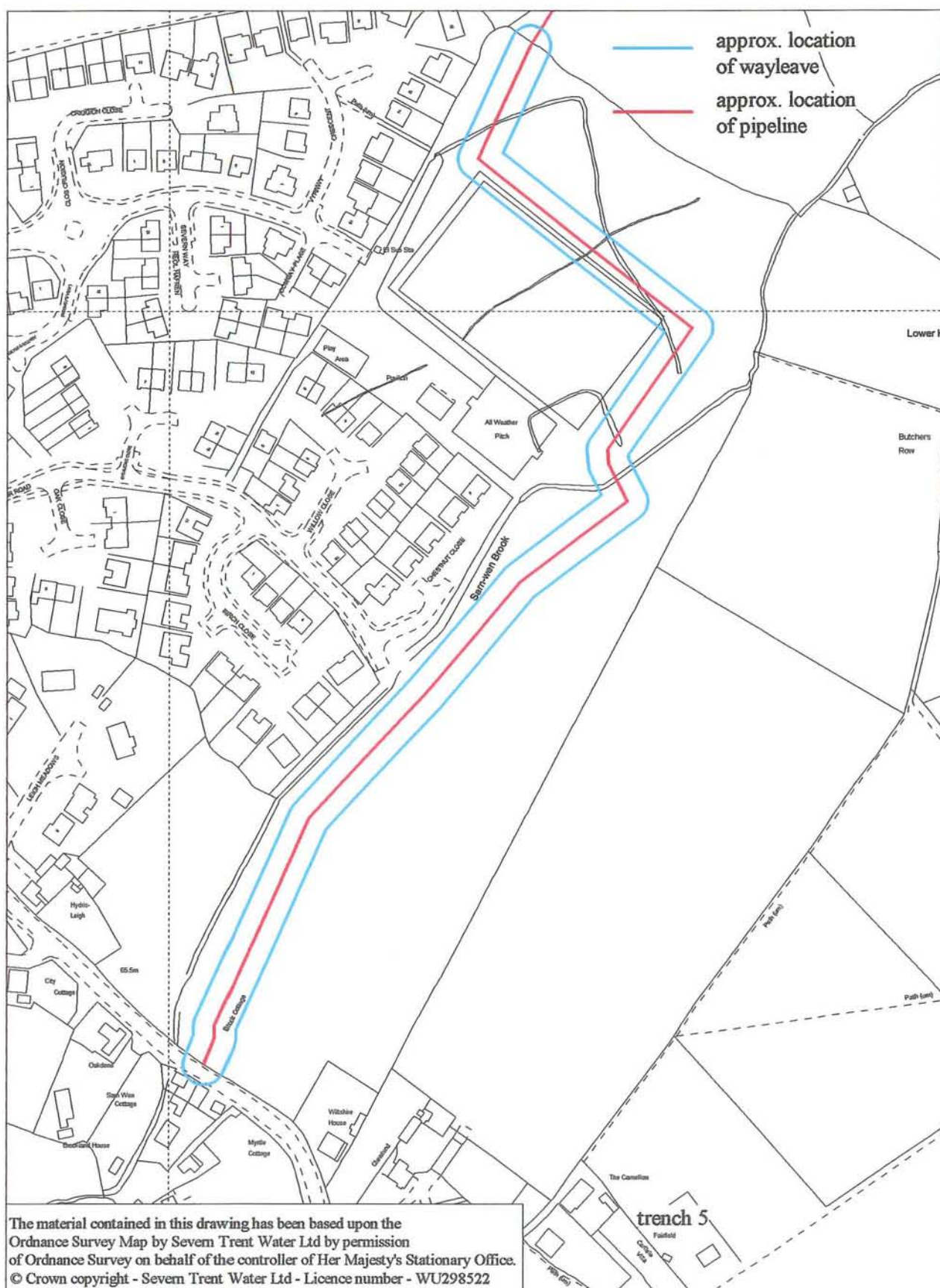


Fig. 7 Southern section of pipeline, scale 1:2,500