BRAN14-001

Programme of Archaeological Observation, Investigation and Recording on the Bran Ditch Scheduled Ancient Monument, Cambridgeshire

Prepared for Seearo Group Ltd

BRAN14-001

Programme of Archaeological Observation, Investigation and Recording on the Bran Ditch Scheduled Ancient Monument

Client: Seearo Group Ltd

V1. 14.01.2015

Client: Seearo Group Ltd
Grid Reference: TL 4145 4320
Address: Land Adjacent to the Bran Ditch, Nr Flint Cross, Royston, Cambridgeshire SG8 7PJ
Parish: Royston
Council: Cambridgeshire County Council
Project Manager: Michael Tierney
Text: Simon Mayes
Illustrations: Anna Sztromwasser
Fieldwork: Simon Mayes
Oasis ref: headland3-191515

Schedule
Fieldwork: 30th September 2014
Report: January 2015

Headland Archaeology (UK) Ltd
Building 68c
Wrest Park
Silsoe
Bedfordshire
MK45 4HS

Contents

Illustrations

Programme of Archaeological Observation, Investigation and Recording on the Bran Ditch Scheduled Ancient Monument, Cambridgeshire

Due to the unintentional disturbance of an area of ground within the boundary of the Bran Ditch (Scheduled Monument 1410907), Headland Archaeology (UK) Ltd were commissioned by Seearo Group Ltd, at the request of English Heritage, to undertake a programme of archaeological observation, investigation, and recording. This was in order to examine and evaluate the impact from the unauthorised works, whilst mitigating the damage involved during the restoration of the Scheduled Area.

In co-operation with Seearo Group Ltd, Headland Archaeology and the Assistant Inspector of Ancient Monuments for English Heritage agreed upon a programme of archaeological works. This involved the excavation of an evaluation trench over the line of the Bran Ditch, the removal of an earth-constructed bund from within the Scheduled Area, and the reinstatement of the original topsoil that had been removed from the Scheduled Area during the unauthorised works.

The results of the evaluation trench identified the location and extent of the Bran Ditch whilst illustrating that the unauthorised removal of the original topsoil had had little impact on the overall integrity of the monument. The majority of the Bran Ditch was still protected by a shallow layer of subsoil.

To protect the Monument, it was agreed with the Assistant Inspector of Ancient Monuments that the imported soil within the Scheduled Area need only be levelled and graded to match the original landscape. It was felt that the complete removal of the imported soil layer would cause more damage than being left in situ, due to the shallowness of the surviving subsoil layer protecting the monument. The previously removed topsoil used to create the earthen bund was also reused to re-level the site.

1. Introduction

Seearo Group Ltd commissioned Headland Archaeology to undertake a programme of archaeological observation, investigation and recording on a section of the Bran Ditch - a Scheduled Monument near Melbourn, Cambridgeshire.

As part of ongoing works on land to the southeast of Melbourn (NGR TL 4145 4320), a section of the Bran Ditch was unintentionally stripped and then re-covered under a deposit of imported soil, while an earthen bund was constructed using the previously removed topsoil.

English Heritage requested that immediate remedial works, including an archaeological watching brief on the removal of the imported soil and earthen bund, would be necessary to mitigate and investigate the impact of the unauthorised works that had taken place within the boundary of the Scheduled Ancient Monument.

2. Site Location, Description and Setting

The site is currently uncultivated farmland, on a triangular plot of land directly to the north of the A505 and south of London Road. It is centred on NGR TL 4121 4324. The site lies at a height of around 35-37m OD.

The Bran Ditch (Scheduled Monument Number: 1410907), runs north - south and forms the eastern extent of the site. The Bran Ditch is a linear feature of Anglo Saxon origin which extends for 5km from Black Peak in Fowlmere parish (NGR TL 4045 4490) to Heydon village (NGR TL 4307 4052).

3. Geology

The underlying solid geology within the area of works comprises Holywell Nodular Chalk Formation, a sedimentary bedrock formed approximately 89 to 100 million years ago in the Cretaceous Period and indicative of a local environment previously dominated by warm chalk seas. Superficial deposits consist of Alluvial Fan deposits, a mixture of clay, silt, sand and gravels laid down up to 3 million years ago in the Quaternary Period (British Geological Survey website, Accessed 30-09-2014; (http://www.bgs.ac.uk).

4. Archaeological and Historical Background

The Bran Ditch is one of four parallel linear monuments, referred to as the Cambridgeshire Dykes, which cross the Cambridgeshire chalk plain. These are Anglo-Saxon monuments (with evidence from Bran Ditch indicating a post-Roman, probably early Anglo-Saxon, origin), which may have had a defensive function (potentially constructed by the early Germanic settlers of East Anglia as a deterrent to British incursions). However it is also possible that they may have functioned as some form of land division, being positioned approximately 8-10km apart. Bran Ditch runs on a NNW-SSE alignment for *c.*5km, between Black Peak in the north and Heydon to the south.

The Bran Ditch has been the focus of several archaeological investigations. The first, undertaken by Cyril Fox and W.M. Palmer in 1924, demonstrated that the structure was made up of a large bank, *"up to four meters high"* (EH, 2014), with a ditch and counterscarp bank to the west. Investigations by Cambridge Archaeological Unit (CAU) in 1993 showed that the ditch was at least 2 metres deep, and varied in width between five and ten metres. The CAU excavations also demonstrated a complex structure within the bank, with the possibility of a buried soil which could have been bunded into a low ridge possibly as a *"marker bank"* (EH, 2014). Evidence for a timber revetment was also demonstrated during these investigations.

5. Aims and Objectives

The objectives of this program of works were as follows:

- To conduct a programme of archaeological monitoring in tandem with the removal, by machine, of the unauthorised earthen bund which has been constructed on part of the monument.

- To investigate the survival of the Anglo-Saxon bank and ditch in relation to the impact from the unauthorised works.

- The resulting archive (finds and records) will be organised and deposited in Cambridge Museum to facilitate access for future research and interpretation for public benefit.

6. Methodology

In consultation with the Assistant Inspector of Ancient Monuments, Sarah Poppy, a scheme of archaeological works was agreed upon. This consisted of a limited archaeological investigation involving the excavation of a single evaluation trench in the area of unauthorised works. This approach was considered by the Assistant Inspector of Ancient Monuments to be the best method of investigating the impact of the unauthorised works, whilst protecting the integrity of the Scheduled Monument from any further damage that may be caused through the complete removal of the imported topsoil.

A small evaluation trench (12.7m x 2.1m) was excavated by mechanical excavator using a toothless bucket under archaeological supervision, and in the presence of the Assistant Inspector of Ancient Monuments. On completion of machine excavation, all faces of the trench were cleaned using appropriate hand tools. The stratigraphic sequence was recorded in full and the trench and the position of the Bran Ditch were located using differential GPS, which was also used to provide absolute heights above OD. Following the archaeological recording work, the evaluation trench was backfilled using the previously removed material.

After an initial examination of the earthen bund, both visually and with a metal detector, it was removed. Soil from it (the previously removed topsoil) was reinstated over the monument, to form a levelled area. The imported soil within this area was also graded level with the surrounding landscape.

All recording followed standard archaeological guidelines as set out by the Chartered Institute for Archaeologists CIfA). All contexts were given unique numbers. All recording was undertaken on pro forma record cards that conform to accepted archaeological norms. Photographs of archaeological features and deposits were taken using 35mm monochrome and colour slide film. Registers were kept for context records, photographs and drawings.

7. Results

A full description of the deposits identified in within the evaluation trench is provided in Appendix 1 and the location of the Bran Ditch recorded on Illustration 1.

The evaluation trench was located within the area of the Scheduled Monument affected by the unauthorised works. It was aligned ENW – WSW and measured 12.7m by 2.10m. It was excavated to a depth of approximately 0.2m (western end); and 0.55m (eastern end) below the present ground level (35.2m to 35.67m OD).

The geological deposits (1005) remained fairly consistent across the site and comprised a crumbly chalk deposit – the Holywell Nodular Chalk formation. The geological deposit was cut by the line of the Bran Ditch [1006].

Mechanical excavation ceased when the extent of [1006], the Bran Ditch, was exposed, and the area hand-cleaned. The extent of the Bran Ditch was clearly visible in contrast to the surrounding geological deposits of chalk (Illus 3 and 4). It measured approximately 5.92m in width and was aligned NNW-SSE.

The Bran Ditch contained two fills, (1003) and (1004). The upper fill, (1004), consisted of a dark grey silty-loam in which a steel nail (round-headed with a length of 0.13m) and a small pearl-handled pocket knife were observed. The lower fill, (1003), consisted of a brown-orange silty-loam, with charcoal flecks. No finds were observed in this deposit.

The upper fill of the Bran Ditch (1004) was sealed by deposit (1002) which consisted of a thin layer of a red-brown sandy soil (depth 0.06 - 0.15m) with inclusions of small irregular shaped gravel. This is the subsoil. No finds were recovered from this deposit.

An imported soil horizon (1001) sealed layer (1002) and consisted of a mixed deposit of gravel, grit and irregular-shaped stone and concrete rubble, in a grey sandy soil matrix. This had been spread to a depth of 012m - 0.31m over the site.

8. Discussion

The line of the Bran Ditch was identified within the evaluation trench. This cut the natural chalk deposits and contained a sequence of fills. The relatively modern date of the steel nail and a small pocket knife indicates that (1004) represents the last infilling of the Bran Ditch.

The Bran Ditch deposits were sealed by a thin layer of subsoil or plough soil (1002). The relatively shallow depth of (1002) observed within the evaluation trench was probably as a direct result of the unauthorised works - the deposit having been truncated during the removal of the topsoil.

No indication of a large bank or counterscarp bank was observed during the evaluation, although it was visible in the excavated section that the natural chalk deposit (1005) rose at the NNE edge of the ditch line (Illus 6). This may represent part of the former large bank. The lack of evidence for the bank is due to the level of preservation, rather than damage done though the unauthorised works. This area has been subject to agricultural activity and the construction of the A505 and associated layby, flattening the area somewhat and potentially removing any evidence for the bank. This is seen in the profiles through the scheduled area (Illus 7 and 8).

9. Conclusion

The evaluation trench was located within the area of the Bran Ditch, a Scheduled Monument that had been affected by the unauthorised removal of the topsoil and construction of an earthen bund. This evaluation showed that, despite the removal of the original topsoil, the integrity and contextual information of the Bran Ditch remained largely unaffected by the unauthorised works. A thin layer of the original subsoil covering the ditch remained intact and protected the monument.

In agreement with the Assistant Inspector of Ancient Monuments, Sarah Poppy, it was felt that the protection of the monument would be best served if the imported soil was left in place, as the removal of the imported soil by mechanical excavator was considered to pose a greater risk to the integrity and survival of the monument due to the shallowness of the surviving subsoil layer protecting the monument. The earthen bund was then removed, the previously-removed topsoil reinstated over the monument, and the imported soil graded level.

10. Acknowledgments

The author of the report is particularly grateful for the assistance and guidance given by the Assistant Inspector of Ancient Monuments, Sarah Poppy.

11. References

British Geological Survey (Website) http://bgs.ac.uk.

Communities and Local Government, 2012, *National Planning Policy Framework.*

CIfA, 2007, *Archaeological Archives Forum Archaeological Archives: a guide to best practice in creation, compilation, transfer and curation.*

English Heritage, 2011, *Environmental Archaeology: a guide to the theory and practice of methods, from sampling and recovery to post-excavation.*

English Heritage, *List Entry for Bran Ditch Scheduled Ancient Monument*: http://list.english-heritage.org.uk/resultsingle.aspx?uid=1410907

CIfA, 2008, *Standards and Guidance for archaeological field evaluation.*

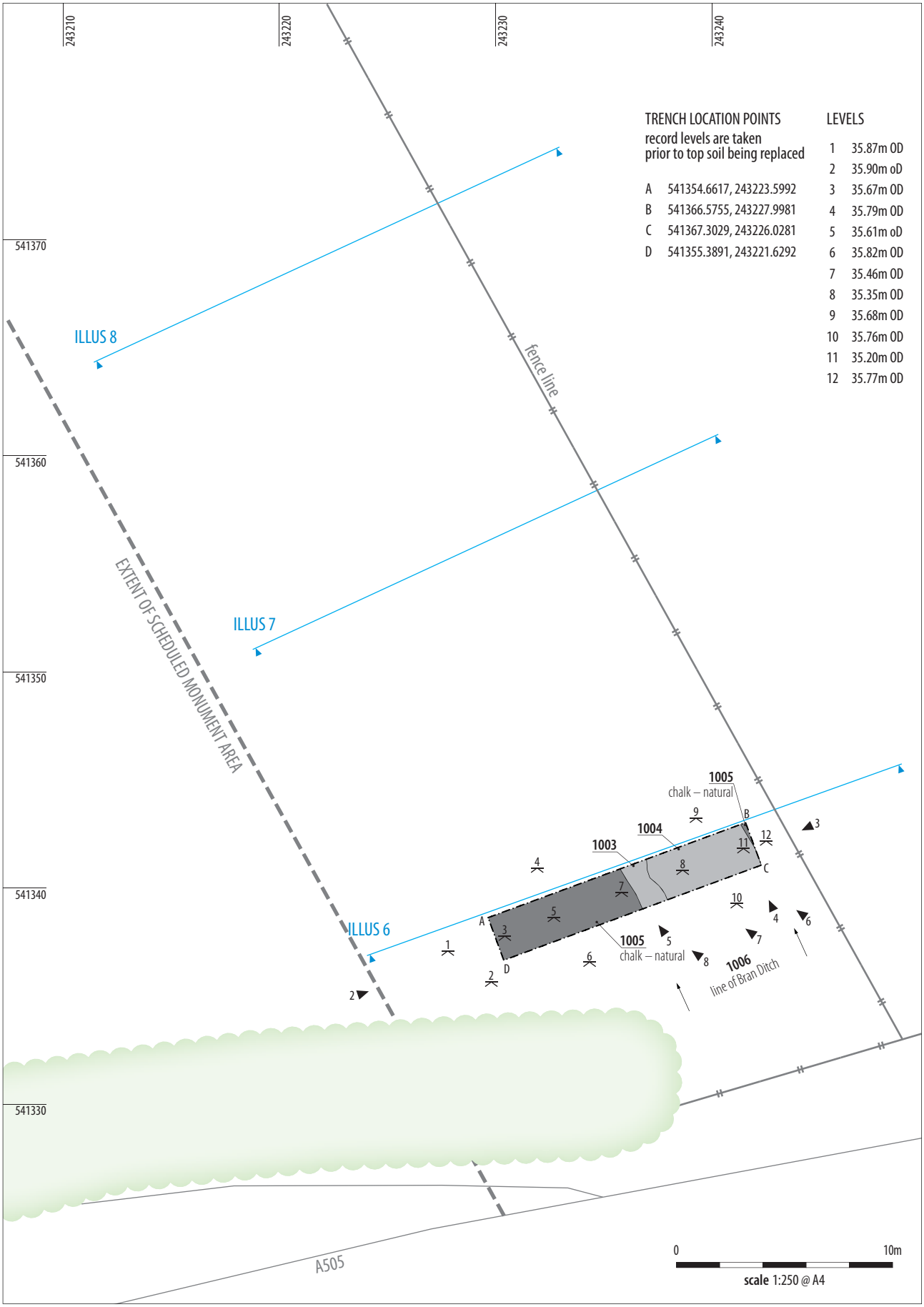
Appendix 1 - Context Descriptions

Evaluation Trench	Context number	Description	Dimensions	Deposit depth
1	1001	Imported soil - a mixed deposit of gravel, grit and irregularly-shaped stone and concrete rubble in a grey sandy matrix.	12.70m (L) x 2.10m (W). Maximum depth of excavation 35.20m OD.	012m - 0.31m
	1002	Subsoil – a red-brown sandy-silty soil with inclusions of small irregularly-shaped gravel. No finds were observed.		0.06 - 0.15m
	1003	Lower fill of [1006] - brown-orange silty-loam with flecks of charcoal.		Not Excavated
	1004	Upper fill of [1006] - a dark grey-brown silty-loam. Steel nail and small pearl-handled pocket knife observed.		Not Excavated. Max depth 35.20m OD
	1005	Natural geological deposit – crumbly chalk. Part of the Holywell Nodular Chalk formation. The chalk deposit rises slightly in comparison to the natural chalk level at the NNE end of the evaluation trench.		Not Excavated. Max depth 35.46m OD
	1006	Cut for Bran Ditch - cuts 1005.		Not Excavated
	1007	Re-deposited soil horizon, originally removed from the area of the Scheduled Monument - a red-brown silty soil with inclusions of relatively modern material. The deposit represents a mixture of the original topsoil and the subsoil.		Spread to a depth of 0.08 – 0.27m above [1001]. Re-instated surface level 36.19m – 36.10m OD.
Summary of excavation				
Within the trench the line of the Bran Ditch was identified, cutting the natural chalk deposits. The ditch was seen to contain a sequence of fills, from which a steel nail and a small pocket knife were observed - the relatively modern date of theses artefacts indicating that (1004) represents the last infilling of the Bran ditch. The unauthorised works had resulted in the removal of a mixture of the topsoil and subsoil to a depth of approximately 0.40m across the site, however a shallow layer of subsoil remained in place.				

Appendix 2 - Photographic Register

Photo Number	Colour Slide	Black and White	Digital	Direction Facing	Description
0	29	29	001	-	Film ID shot
1	28	28	002	NNE	General view of the Bran Ditch
2	27	27	003	SSE	General view of the Bran Ditch
3	26	26	004	NNW	South Southeast facing section of the Bran Ditch- SSE end
4	25	25	005	NNW	South Southeast facing section of the Bran Ditch- NNE end
5	24	24	006	NNW	South Southeast facing section of the Bran Ditch-
6	-	-	007	NNW	South Southeast facing section of the Bran Ditch-
7	-	-	008	NNW	South Southeast facing section of the Bran Ditch-
8	-	-	009	NNW	South Southeast facing section of the Bran Ditch-
9	-	-	010	NNW	South Southeast facing section of the Bran Ditch-
10	-	-	011	NNW	South Southeast facing section of the Bran Ditch-
11	-	-	012	NNW	South Southeast facing section of the Bran Ditch-
12	-	-	013	NNW	South Southeast facing section of the Bran Ditch-
13	-	-	014	NNW	South Southeast facing section of the Bran Ditch-
14	-	-	015	NNE	General view of the Bran Ditch
15	-	-	016	NNE	General view of the Bran Ditch- showing cut
16	-	-	017	NNE	General view of the Bran Ditch

ILLUS 1
Site location



ILLUS 2
Site plan

ILLUS 3

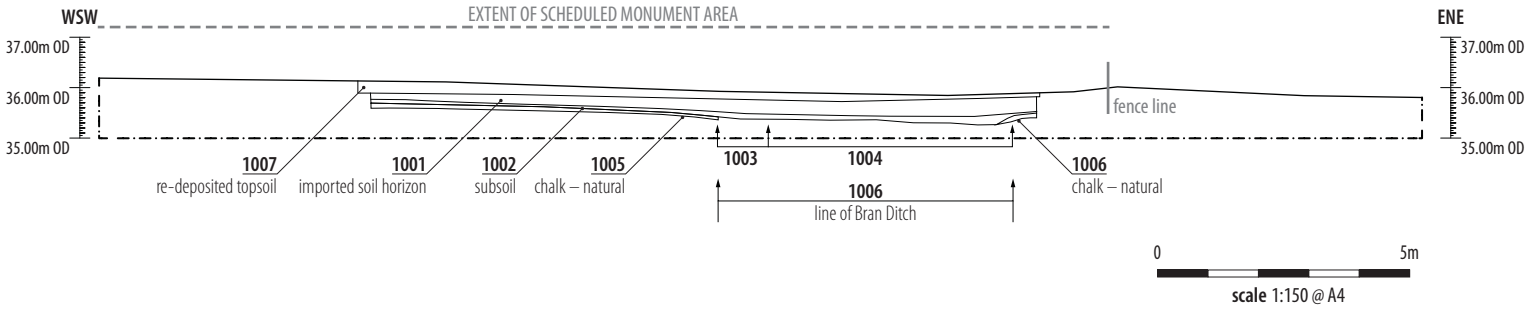
NNE facing view of the Bran Ditch

ILLUS 4

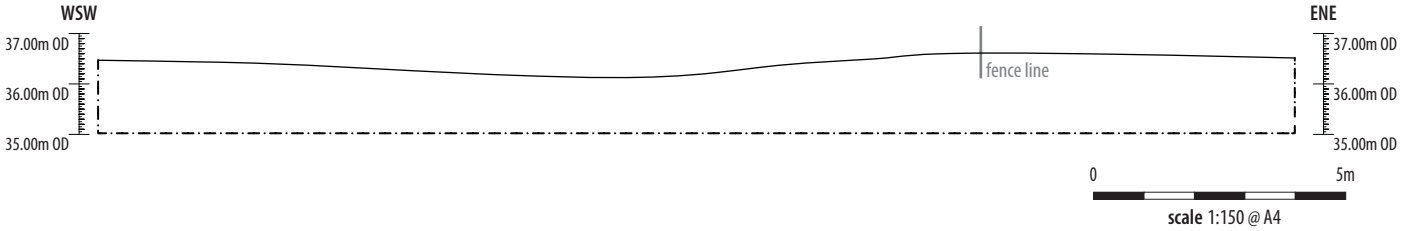
SSW facing view of the Bran Ditch

ILLUS 5

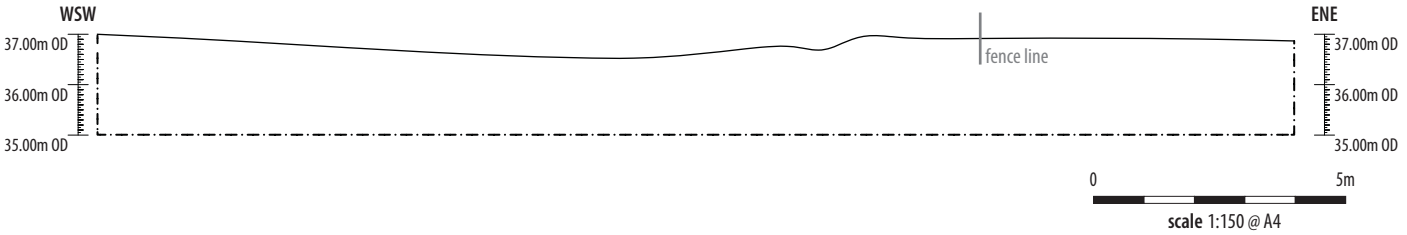
SSE facing section of the Bran Ditch



ILLUS 6
Section of evaluation trench



ILLUS 7
Profile across the scheduled monument area



ILLUS 8
Profile across the scheduled monument area