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Adwick Washlands, Bolton upon Dearne, South Yorkshire

Archaeological Desk-Based Assessment

ARCUS report 1314.1(1)

October 2009

Client: Dearne Valley Green Heart Partnership

Archaeological Desk-Based Assessment



Adwick Washlands, Bolton upon Dearne

Central Grid Reference: 446741, 402579 (SE 467 026)

Archaeological Desk-Based Assessment

Assessment Report No. 1314.1(1)

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Checked by:	Passed for submission to client:
Date:	Date:
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OASIS SUMMARY FORM

PROJECT DETAILS		
OASIS identifier	arcus2-66502	
Project title	Adwick Washlands, Bolton upon Dearne	
Short description of the project	<p>Opencast coal mining has reportedly been undertaken across about a third of the proposed wetland site. This land has been restored to farmland. Any archaeological remains in this area will have been removed by the mining activity. The main areas in which buried archaeology may survive are to the south of Lowfield Lane, the area to the north of Lowfield Farm and the area to north and south of West Moor Lane. Any topsoil and subsoil removal in these areas could impact on buried archaeological remains. There is a moderate potential for prehistoric to Romano-British remains within undisturbed areas of the site. There is also the potential for buried remains of relict courses of the River Dearne in the southern part of the site, including one loop which was recorded within the southwest arm of the site until the 1970s. The Cranewell Dike has also been straightened, and remains relating to an earlier course may survive. Palaeochannels could preserve waterlogged organic remains, which have the potential to provide information on the ancient environment and human activity. The proposed wetland habitat is adjacent to a WWII heavy anti-aircraft gun emplacement site, which is a Scheduled Ancient Monument (SAM 29993). The creation of the wetland is unlikely to impact on physical remains associated with the SAM, and the visual impact is considered to be low.</p>	
Project dates	09-09-2009 to 30-10-2009	
Previous/future work	None/unknown	
Monument type and period	None	
Significant finds (artefact type and period)	None	
PROJECT LOCATION		
County/Parish	South Yorkshire/Bolton-upon-Dearne	
Site address	Lowfield Lane.	
Site co-ordinates	SE 467 026	
Site area	70 hectares	
Height OD	Max: 20m; min: 12m	
PROJECT CREATORS		
Organisation	ARCUS	
Project brief originator	SYAS	
Project design originator	N/A	
Project supervisor	Rowan May	
Project manager	Glyn Davies	
Sponsor or funding body	Dearne Valley Green Heart Partnership/RSPB	
PROJECT ARCHIVES		
Archive Type	Location/Accession no.	Content (e.g. pottery, metalwork, etc)
Physical	None	N/A
Paper	South Yorkshire SMR	Report
Digital	South Yorkshire SMR	PDF copy of report
BIBLIOGRAPHY		
Title	Adwick Washlands, Bolton-upon-Dearne, South Yorkshire: Archaeological Desk-Based Assessment.	
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NON-TECHNICAL SUMMARY

In September 2009, ARCUS were commissioned by the RSPB to undertake an archaeological desk-based assessment on a site at Adwick Washlands, Bolton upon Dearne, South Yorkshire (SE 467 026). The assessment was required to inform proposals for the creation of wet grassland wildlife habitat. The assessment consisted of documentary and cartographic research, and a site visit.

Opencast coal mining has reportedly been undertaken across about a third of the proposed wetland site. This land has been restored to farmland. Any archaeological remains in this area will have been removed by the mining activity. The main areas in which buried archaeology may survive are to the south of Lowfield Lane, the area to the north of Lowfield Farm and the area to north and south of West Moor Lane. Any topsoil and subsoil removal in these areas could impact on buried archaeological remains.

Iron Age to Romano-British fields, trackways and enclosures have been recorded within the vicinity of the site, and a Bronze Age palstave was found in the River Dearne a short distance to the west. These suggest a low to moderate potential for similar remains within undisturbed areas of the site. There is also a moderate potential for buried remains of relict courses of the River Dearne in the southern part of the site, including one loop which was recorded within the southwest arm of the site until the 1970s. The Cranewell Dike has also been straightened, and remains relating to an earlier course may survive to the east of Cranewell Lane. Such palaeochannels could preserve waterlogged organic remains, which have the potential to provide information on the ancient environment and human activity.

The proposed wetland habitat is adjacent to a WWII heavy anti-aircraft gun emplacement site, which is a Scheduled Ancient Monument (SAM 29993). The creation of the wetland will not impact physically on the SAM, and the visual impact on the setting of the SAM is considered to be low.

1 INTRODUCTION

1.1 Scope of Report

This report presents the results of an archaeological desk-based assessment on a site at Adwick Washlands, Bolton upon Dearne, South Yorkshire. This was required to inform proposals for the creation of a new wet grassland wildlife habitat at the site, and was undertaken in line with Barnsley Metropolitan Borough Council's Unitary Development Plan policy BE3, and the government's guidance set down in PPG16. The assessment consisted of documentary and cartographic research, as well as a site visit, and was prepared in accordance with Institute for Archaeologists guidelines (IfA 2008) and with a brief prepared by South Yorkshire Archaeology Service (SYAS). ARCUS were commissioned by the RSPB and Dearne Valley Green Heart Partnership to undertake the assessment.

1.2 Site Location

The site (centred on NGR SE 467 026) is located in an area of washlands in the Dearne valley. It is situated to the east of Bolton upon Dearne, southwest of Barnburgh and north of Adwick upon Dearne, in the Barnsley District of South Yorkshire (**Illustration 1**). The site is bordered to the south by the River Dearne, to the east by Adwick Bridge and to the north by Far Moor Dike. Lowfield Lane runs through the site from west to east, and the West Moor Dike runs through from north to south. The site consists of low-lying fields.

The underlying geology consists of alluvium overlying shales, sandstones and mudstones of the Middle Coal Measures (BGS 1:50000 series sheet 87).

2 AIMS AND METHODOLOGY

2.1 Aims and Objectives

The general aim of the assessment is to determine the nature of the archaeological resource in areas affected by the proposed wetland habitat creation. This is achieved by collating existing archaeological and historical information relating to the site and its immediate environs and by placing it in its local, regional and national context.

The specific aims are:

- to assess the survival and potential significance of above-ground and buried archaeological remains within the application area; and
- to assess the extent of impact likely to be caused by the proposed development.

2.2 Methodology

All relevant and readily available published and unpublished documentary sources were consulted, including historic maps. Information on recorded archaeological sites was obtained from the regional authority. Data was collected from the following sources:

- South Yorkshire Sites and Monuments Record (SMR);
- Barnsley Archives;

- Barnsley Local Studies Library;
- Doncaster Archives;
- Doncaster Local Studies Library;
- Archaeology Data Service (ADS).

A site visit was made on the 29th October 2009, to assess the current land use and identify any visible archaeological or historic features. Areas of previous ground disturbance which may have affected the survival of buried archaeological deposits were also noted. Recording consisted of an annotated sketch plan and digital photography.

2.3 Geotechnical Data

A soil survey was undertaken as part of the Feasibility Study for the proposed wet grassland site (ELP 2007). This confirmed that soils consisted of alluvium and clay over most of the site, overlying coal measures mudstones and sandstones. A sandstone outcrop was recorded at the north end of the site, with deep to moderately deep sandy clay loam and sandy alluvium over coarse sands, silty clay and some gravel patches encountered in the lower-lying ground. Sandy loam and mixed rubble of Coal Measures spoil were encountered in the area where the opencast mine had been restored, overlying dark grey silty clay, often compacted. The sandy loam and mixed rubble layers were overlain by topsoil with coal chip inclusions. (see **Illustration 2** for location of opencast).

3 PLANNING FRAMEWORK

3.1 Designations

All cultural heritage designations were checked for the area, including Scheduled Monuments, Listed Buildings, Conservation Areas, Registered Parks and Gardens, and Registered Battlefield Sites. The proposed development site is not within a Conservation Area and contains no sites with cultural heritage designations. The southern part of the site curves around a Scheduled Ancient Monument. This is a World War II Anti-Aircraft gun site, SAM 29993. The site boundary does not run adjacent to the boundary of the SAM, and will not impact on any of the Scheduled remains.

3.2 Planning Policies

Barnsley UDP, adopted December 2000 and 'saved' in 2007, contains policies for the protection of the historic environment, covering issues such as Listed Buildings and Conservation Areas, development within sensitive areas and archaeological remains. The policies are based on the government's planning guidelines set down in PPG15 (Planning and the Historic Environment, 1994) and PPG16 (Planning and Archaeology, 1990). PPG 16 emphasises the need for archaeological issues to be considered early in the planning process and provides a framework for the investigation of sites and the management of archaeological remains, which are considered to be a finite and non-renewable resource (PPG16, paragraph 6).

Within areas which are considered to have the potential for the survival of archaeological deposits, an evaluation of the archaeological impact of the development will be required by the local planning authority (Policy BE3). Where

remains of national significance are identified, preservation *in situ* is the preferred option, although in cases of lesser significance, preservation by record may be an acceptable alternative (PPG16 paragraph 25; Policy BE3). Where preservation by record is considered appropriate, provision will need to be made by the developer for adequate archaeological recording prior to development (Policy BE4).

4 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

This section presents a summary of the historical and archaeological background of the area, focusing in particular on the proposed development site. Information on known archaeological sites, findspots and cropmark features within 1km of the site was compiled from the South Yorkshire Sites and Monuments Record (SMR). Historic maps and plans of the area were consulted, including the Ordnance Survey series. Relevant documents, databases and secondary sources, published and unpublished, were also consulted. A gazetteer of known archaeological sites and historic structures was compiled from this information, and is presented in Appendix 1, with the locations of the sites shown on **Illustration 2**.

Glossary of time periods referred to in the text:

Palaeolithic:	500,000-10,000 BC	Mesolithic:	10,000-4000 BC
Neolithic:	4000-2300 BC	Bronze Age:	2300-700 BC
Iron Age:	700 BC-AD 43	Romano-British:	AD 43-450
Early Medieval	450-1066	Medieval:	1066-1485
Post-Medieval	1485-1900	Modern:	1901-present

4.1 Prehistoric to Roman

The available sources list two Bronze Age sites within the 1km search area. One site consists of a looped bronze palstave found on the southern bank of the River Dearne, to the southwest of the proposed development area (site 9). The second is the site of three possible burial mounds, which were reportedly located on the common close to the village of Barnburgh in the 18th century (site 24). The barrows were lost following the enclosure, and their exact site is unknown. Barnburgh Common was located to the southeast of the village, and therefore the barrows would probably be outside the 1km search area.

A number of sites probably of Iron Age to Romano-British date are located within the search area. These consist of linear field boundary ditches and enclosures, recorded as cropmarks through aerial photography (sites 1, 2, 4, 5, 13, 20 and 23). The cropmark data supplied by the HER has been plotted on **Illustration 2**. The fragmentary remains are suggestive of a widespread system of fields and trackways, interspersed with small enclosures. Remains have been plotted close to the proposed wetland habitat, although none are recorded within the site itself. This may be due to deeper alluvium in the area close to the river masking the buried remains, or to the land-use within the site, which may not have been conducive to the formation of cropmarks.

The most extensive cropmark remains are the complexes at sites 1-2 and at site 13. The former is located just to the north of the proposed wetland site, and consists of a series of interconnecting linear features (interpreted as fields), and a possible trackway. The alignment of the southern features (site 1) suggests that they could continue into the wetland habitat, although any associated remains may have been removed during the opencast mining. Site 13 consists of a large rectilinear enclosure

bisected by Sticking Lane, possibly with some internal divisions, and adjacent fields. A cluster of small, sub-circular features in the southeast corner of the field to the south of Sticking Lane is of unknown nature, but could represent a number of pits.

No information relating to any excavation or evaluation of the cropmark sites within the search area has been found for the desk-based assessment. The interpretation of the remains as being of Iron Age to Romano-British date is based on their morphological similarity to other excavated cropmark sites. Aerial photography has revealed a widespread landscape of fields, trackways and enclosures of broadly similar appearance, across areas of South Yorkshire and north Nottinghamshire, where geological conditions are conducive to cropmark formation. Archaeological investigation of these remains has indicated that they date from the late Iron Age and Romano-British periods, and represent field boundaries and dispersed farmsteads, mainly with a mixed arable and livestock economy (Chadwick 2002).

Two cropmarks interpreted by the cropmark survey as Romano-British are located a short distance to the west of the proposed wetland habitat, and within the same zone of deeper alluvial soil. One of these (site 4) has very regular edges, including a probable trackway that appears to link directly to the World War II gun site to its immediate east (site 3). The shape and nature of this cropmark suggests that it is actually a 20th-century feature associated with the SAM, possibly a lane and compound, rather than a Romano-British feature. The linear feature to the west of this (site 5) could be prehistoric to Romano-British in date, but currently has no dating evidence, and could potentially be a later (medieval or post-medieval) field boundary or drainage ditch.

4.2 Medieval

The settlement at Bolton upon Dearne was founded in the early medieval period on a spur of land above the River Dearne near a river crossing (Hey 1979, 22). The church of St Andrew at Bolton upon Dearne is of early medieval origin. Anglo-Saxon stonework, which appears to have some Mercian influence, is visible in the nave, particularly on the exterior of the south wall. The place names from the area surrounding the site suggest a mixture of Anglo-Saxon and Anglo-Norse/Danish influence. This may indicate Norse settlement or authority in the area. Bolton was recorded in the Domesday Survey of 1086 as *Bodeltone*, from the Old English 'boðel tun, meaning 'an enclosure with its building' (Smith 1961, 83). The name Adwick probably derives from 'Adda's wic', meaning Adda's dairy farm, an Old English name (Smith 1961, 80).

Barnburgh was recorded in the Domesday Survey as *Berneburg*, probably meaning Biarni's fortification. The personal name is of Old Danish derivation (Smith 1961, 80-81). The name of Crane Well Dike, which runs through the proposed wetland habitat, has an Anglo-Norse origin, first recorded as *Tranelandehades* in a charter of Monk Bretton Priory dated to 1396 (Smith 1961, 84). 'Trane' is from the Old Norse for 'crane', and 'lande' from land, or tract of land, and 'hade' from Old English 'heafod', meaning hill, head of valley, or headland in common field. No early medieval finds have been recorded within the search area.

Medieval corn mills were recorded at Adwick on Dearne (site 8) and Bolton upon Dearne (site 12) in the Domesday Survey. Both were water-powered and sited on the River Dearne. This mill was last recorded in 1793, whilst Bolton upon Dearne Lower Mill was in existence until c.1928. Medieval earthworks have been recorded on the west side of Adwick upon Dearne, including a hollow-way and mounds (site 14) and a possible toft boundary near the church (site 16). The church at Adwick is of Norman

origin, and there is a medieval socket stone for a churchyard cross in the grounds (site 16).

Ridge and furrow remains have been recorded as earthworks at Barnburgh (site 19), and a cross shaft of post-Conquest date was found in the Barnburgh churchyard (site 21).

4.3 Sixteenth to Eighteenth Centuries

Barnburgh Mill was located a short distance to the east of the proposed wetland habitat. It was first mentioned in a bargain and sale of 1627. This sale of the manor of Harlington included a water corn mill on the River Dearne 'in Harlington and Barnburgh or one of them', and also watercourses in Harlington, Barnburgh, Adwick and Bolton. The mill was also known as Harlington Mill, and was close to the boundary between Barnburgh, Harlington and Adwick, but its location was in Barnburgh parish. The mill was mentioned in 1736, when an annual rent of £19.15s was paid by Jonathan White. The mill was shown on Jeffrey's map of 1771 (**Illustration 3**), and in 1770 it was owned by the Marquis of Rockingham (Umpleby 2000, 215). The 1771 map showed no features within the proposed wetland habitat site.

The common fields, meadows, common pastures and wastes of Bolton upon Dearne were enclosed in 1761. No accompanying map survives, but the award mentions Low Field and Bolton Common as part of area to be enclosed. It also mentioned that 'Crainwell' was within the Low Field (Crosland and Norris 1991). This suggests that the area to the north of Lowfield Lane was previously one of the open arable fields, whilst the area to the south was within Bolton Common. The land to the east of West Moor Dike was within the parish of Barnburgh.

4.4 Nineteenth to Twentieth Centuries

The Barnburgh enclosure map did not show West Moor Closes, which are within the eastern half of the proposed wetland site. The accompanying award referred to this land as "ancient enclosure... called West Moor Close". The West Moor Dike was at that date known as Gilbeck Brook, and marked the parish boundary between Barnburgh and Bolton upon Dearne (PR/BARN/2).

Tithe maps and awards exist for both Barnburgh and Bolton upon Dearne, both dated to 1839 (**Illustration 4**). The maps showed the site as being divided into many narrow fields. The Barnburgh tithe award indicates that the majority of the fields within the eastern part of the proposed site were known as 'West Moor Close', and were in a combination of arable and grass land use. The fields to the north were known as West Field and Broad Ing (P3/9/B1). The Bolton upon Dearne tithe award refers to many of the fields to the north of Lowfield Lane as 'Cranewell', the field to the west of Cranewell Lane as 'Syke', and fields to the south of the Lowfield Lane as 'East and West', 'Fleet' and 'Bradley Nooking'. The fields were again in use for either arable or grass (BA 55[2]).

The 1851 OS map (**Illustration 5**) depicted Barnburgh Mill to the east of the proposed wetland habitat (site 7). Curving cropmarks to the east of the mill site appear to be related to a lane and a field boundary shown on the 1851 map but no longer in existence. The map showed the head race for the mill running to the north of the River Dearne, through part of the proposed wetland habitat. The mill appears to have been closed between 1914 and 1917 (Umpleby 2000, 216).

The 1851 map showed Crane Well Lane continuing slightly further northwest than the current lane, with a bridge named 'Crane Well Bridge' over the dike of the same

name. The field pattern shown on the 1893 map was generally the same as on the 1839 tithe maps and 1851 map (**Illustration 6**), although an area of scrubland was shown at the north corner of West Moor Closes, named Barnburgh Gorse. A small gas works and a clay pit were shown in 1893 to the west of the proposed wetland habitat, south of Tan Pit Lane and adjacent to the railway line.

The 1948 OS map showed little change from 1893 (**Illustration 7**). The heavy anti-aircraft (HAA) gun battery to the south of Lowfield Lane was not shown, possibly due to military sensitivity, although perhaps because it had been decommissioned. The battery, now a Scheduled Ancient Monument (site 3) was known as Station H17. Its establishment date is unknown, but it was mentioned in a letter of June 1942, when it was unarmed. Between 1943 and 1944, the site was staffed by mixed-sex batteries known as 626 (m) HAA Battery and 646 Battery. Women from the Auxiliary Territorial Service were employed to operate radar and communication systems, whilst the guns were operated by men. There are few records relating to the site, but it is likely that it was linked to the defence of Sheffield (EH Scheduling).

The gun emplacements are of concrete construction, arranged in a semi-circle around the east side of the command post, which is roughly E-shaped in plan, semi-sunken and of breeze block construction. Bases of instrument mountings survive to the front of the building, which would have housed an identification telescope, a predictor and height finder, which fed information to the plotting room within the command post. The Nissen magazine has brick-built ends and a (partial) corrugated metal roof, and provided storage for reserve ammunition. A domestic camp was located to the northwest of the command post, in the area of a current small housing estate and not included in the scheduling. The complex would originally have included a radar platform, but its exact position is unknown (EH Scheduling). As mentioned in Section 4.1, it is likely that the cropmarks to the west (site 4) are in some way related to the HAA battery complex.

There was some loss of field boundaries within the site between 1944 and 1966 (**Illustration 8**), particularly from expansion of the very narrow fields in West Moor Closes. There have been further field expansions in the later 20th century, and the current field pattern retains very few remnants of the historic layout. The former curving route of Crane Well Dike was altered between 1966 and 1972, and currently runs on a southwest-northeast alignment through the centre of the site (**Illustration 9**).

A soil survey undertaken as part of the feasibility study for the proposed wet grassland creation mentions that opencast coal mining took place within part of the site in the later 20th century, possibly in the 1980s-90s, although it does not specify a date (ELP 2007, 20). No map evidence for this was identified. The opencast area (shown on **Illustration 2**) has since been restored to farmland. The remaining field boundaries within West Moor Close and west of the West Moor Dike may have been removed in association with the opencasting, although the route of the Dike does not appear to have been altered.

The route of the River Dearne was straightened between 1966 and 1976. A former loop of the river ran through the southwest arm of the proposed wetland site, just south of the SAM.

4.5 Site Inspection

A site visit was undertaken on the 29th October 2009. The majority of the land is currently in arable use, with an area of grassland and several areas of scrub and reed

vegetation. The location of photo viewpoints is shown on **Illustration 9**. The land is relatively flat, rising slightly to the northern edge (**Plates 1-4**). The southern boundary of the site is formed by a large, grass-covered riverside embankment, which appears from map evidence to have been constructed in the 20th century. There are several drainage channels running across the site, most have embankments to either side, generally ranging between 0.5m and 1.5m in height (**Plates 4-5**). Most of the drains have been straightened or re-routed in the later 20th century. The West Moor Dyke runs on a sinuous north-south course through the proposed wetland area (**Plate 6**). This was formerly known as the Gilbeck Brook, and its course to the north of Lowfield Lane appears to have been unchanged since the 19th century, although the route to the south of the lane appears to have been straightened. In the 19th century, it formed the boundary between the parishes of Bolton upon Dearne and Barnburgh; the boundary is now located further to the east.

There are some hedged field boundaries at the sides of Lowfield Lane, to the north of Cranewell Lane, and around the fields to the north and south of West Moor Lane (**Plate 7**). These appear to be on the line of boundaries shown on the 1839 tithe maps.

The WWII gun emplacement site (site 3) is located to the south of Lowfield Lane and west of the proposed habitat site (**Plate 8**). The site is relatively well preserved, with a semi-circle of concrete gun emplacements and a Nissen hut still standing, although the hut has lost most of its corrugated iron roof, and there is some recent graffiti on the structures. There also appear to have been some fires and fly tipping in the central area, and possibly some earth removal or disturbance.

5 ARCHAEOLOGICAL POTENTIAL AND SIGNIFICANCE

5.1 Assessment of Current State of Knowledge

The current state of knowledge of above-ground remains is considered to be good, and is based on HER records and the site visit. The current state of knowledge of the sub-surface archaeological resource is moderate to poor. No known archaeological investigations have been carried out within the site, therefore the current knowledge is based on the soil survey and recorded sites in the vicinity.

5.2 Significance Assessment Methodology

There is currently no nationally agreed methodology for measuring the relative significance of archaeological monuments. PPG16 (paragraph 8) draws a distinction between nationally important remains and those of lesser significance. On this basis, it is possible to distinguish between sites based on factors including period, rarity, documentation, group value, vulnerability and diversity. The archaeological significance of the sites is allocated to one of five categories:

International: World Heritage Site;

National: Scheduled Ancient Monuments, Grade I Listed Building, or site/ building suitable for scheduling, or considered to be of national importance but not covered by the Secretary of State's criteria for scheduling;

Regional or District: Grade II* Listed Building, site or building which consists of a significant example in a regional context;

Local or Borough: Other archaeological sites, Grade II Listed Building, locally important historic building;

Negligible: Areas in which investigative techniques have proved negative archaeological

results, or where large-scale destruction of deposits has taken place.

Significance ratings have only been assigned to the potential archaeological remains that are recorded cartographically, or in other documentation. No rating can be assigned to previously unrecorded deposits (e.g. medieval and earlier) although the potential for such deposits to exist must be acknowledged.

The potential for impact is an assessment of the likelihood of archaeological remains being affected by the proposed development. This is based on an analysis of the distribution of known archaeology in the vicinity, the current and historic land use, and the topographical situation. Based on this assessment, the potential for impact is assigned to one of four categories:

High: above average potential for encountering archaeological deposits, structures, artefacts or environmental remains;

Moderate: average potential for encountering archaeological deposits, structures, artefacts or environmental remains;

Low: below average potential for encountering archaeological deposits, structures, artefacts or environmental remains;

None: no potential for encountering archaeological remains due to previous disturbance or based on the results of prior investigations.

5.3 Potential for Survival of Archaeological Remains

The main archaeological potential is for remains associated with the former courses of the River Dearne and Cranewell Dike. Such features could include waterlogged palaeochannel deposits, which may contain artefacts and palaeoenvironmental remains associated with ancient environments and human activity. As well as the known former loop of the Dearne at the southwest corner of the site, palaeochannels associated with the river could survive anywhere within the area to the south of Lowfield Lane.

There is also the potential for waterlogged remains in the vicinity of the West Moor Dike, formerly known as the Gilbeck Brook, in any areas that have not been impacted by opencast coal mining. The lack of alteration in the route of the dike since the 19th century suggests that it may have been retained *in situ* during opencast mining. The opencasting may have impacted on the preservation of waterlogged remains in the vicinity, as pumping out of water will have lowered the water table in the adjacent land, possibly by around 1m (Davies 2005, 14). Palaeoenvironmental remains could be of local to regional archaeological significance, depending on their nature and state of preservation.

The potential for prehistoric to Romano-British remains is generally considered to be low to negligible, mainly due to the area of opencasting in the centre of the site. This is likely to have removed any remains associated with the cropmark trackway and field boundaries visible to the north of the site. In the area to the south of Lowfield Lane, which is likely to be less disturbed, the potential is considered to be moderate.

The potential for significant medieval to post-medieval remains within the proposed wetland habitat site is considered to be generally low, as the area appears to have been in agricultural use throughout these periods. An exception is the head race for Barnburgh Mill, which may survive as a buried feature at the southeast corner of the site. The extent of the complex associated with the WWII gun site is not known, and there is a slight potential that associated buried remains may survive to the east and south of the Scheduled Area.

Summary of archaeology potentially impacted by the development

Description	Archaeological significance	Potential for impact
Potential archaeological and palaeoenvironmental remains associated with former courses of River Dearne and Cranewell Dike.	Local to regional	Moderate
Potential for prehistoric to Romano-British remains in undisturbed areas of the site.	Local to regional	Low to moderate
Potential for remains of the head race for Barnburgh Mill.	Local	Moderate
Potential for remains associated with the WWII heavy anti-aircraft gunsite to the east and south of the SAM.	Regional to national	Low
Visual impact of proposed wetland habitat on SAM.	National	Low

5.4 Development Proposals and Potential Impact

The extent of the potential impact on archaeological remains cannot be assessed at present, as the nature of the proposed works is not known. If any topsoil or subsoil removal is planned, this may impact on any buried archaeological remains within the previously undisturbed areas to the south of Lowfield Lane, north of Lowfield Farm and surrounding West Moor Lane. Within the area previously subject to opencasting, there will be no impact on archaeological remains, as these will have already been removed. Where no topsoil or subsoil removal is planned, there will be no substantial impact on buried archaeological remains. Flooding of the area to create the wet grassland will not adversely impact the preservation of waterlogged remains associated with any palaeochannels within undisturbed areas.

The Scheduled Ancient Monument which is partially surrounded by the proposed wet grassland site will not be physically impacted by the proposals. The visual impact is considered to be low. The location of the WWII gun emplacement was not chosen for its visual surroundings, and the change will be from agricultural use to wet grassland, which will not have a significant visual impact on the setting of the monument.

6 CONCLUSIONS

The desk-based assessment has indicated that the potential for sub-surface archaeology within the site is low to moderate. Opencast mining has reportedly been undertaken within approximately a third of the site, which will have removed any archaeological deposits in this area. The main archaeological potential is for buried remains of palaeochannels associated with the River Dearne, Cranewell Dike and West Moor Dike. Such remains could provide information on ancient environments and human activity in the Dearne Valley. There is a moderate potential for prehistoric to Romano-British remains in the undisturbed areas of the site. The head race for Barnburgh Mill may survive as a buried feature in the southwest corner of the site. It is considered that the proposals will not impact physically on the SAM, and the visual impact will be low.

7 ARCHIVE

The assessment archive, including primary written documents, plans and digital photographs, will be retained by the University of Sheffield in the first instance, although it may be deposited with the relevant museum if any associated fieldwork is undertaken at the site at a later date. Copies of this report will be deposited with the South Yorkshire SMR, circulated to the client, and retained in the offices of ARCUS.

8 ACKNOWLEDGEMENTS

The author would like to thank Sarah Howard of South Yorkshire Archaeology Service, and the staff of Barnsley Archives and Local Studies Library and Doncaster Archives.

9 BIBLIOGRAPHY

References

Crosland, R. and Norris, W. 1991. *Inclosure Award of Bolton upon Dearne with Goldthorpe, 1761*. Transcript.

Chadwick, A. 1997. Towards a Social Archaeology of Later Prehistoric and Romano-British Field Systems in South Yorkshire, West Yorkshire and Nottinghamshire. *Assemblage 2* <www.assemblage.group.shef.ac.uk/2/2chad.html>.

Davies, G. 2005. *Planning Mitigation and Archaeological Conservation – Resource Assessment*. Unpublished ARCUS report 793.1 for English Heritage.

ELP. 2007. *Adwick Washland, Bolton-upon-Deerne, Deerne Valley, South Yorkshire: Wet Grassland Creation – Feasibility Study*. Unpublished Ecology Land and People report.

IfA. 2008. *Standard and Guidance for Archaeological Desk-Based Assessment*. Institute for Archaeologists.

Hey, D. 1979. *The Making of South Yorkshire*. Moorland Publishing: Ashbourne.

Smith, A.H. 1961. *The Place-Names of the West Riding of Yorkshire. Part 1*. EPNS Vol. 30. Cambridge University Press.

Umpleby, T. 2000. *Water Mills and Furnaces on the Yorkshire Dearne and its Tributaries*.

Primary documents

Barnburgh enclosure award, 1822. (Doncaster Archives PR/BARN/2)

Barnburgh tithe award, 1839. (Doncaster Archives P3/9/B1)

Bolton upon Dearne with Goldthorpe tithe award, 1839. (Barnsley Archives 55[2])

Historic maps

Thomas Jeffrey's map of Yorkshire, 1771

Barnburgh tithe map, 1839 (Doncaster Archives P3/9/B1)

Bolton upon Dearne tithe map, 1839 (Barnsley Archives 55[2])

1851 OS 6 inch: 1 mile map sheets Yorkshire 283 and 284.
1893 OS 6 inch: 1 mile map sheets Yorkshire 283 and 284.
1903 OS 6 inch: 1 mile map sheets Yorkshire 283 and 284.
1948 OS 6 inch: 1 mile map sheets Yorkshire 283 and 284.
1966 OS 1:10,560 map sheet SE 40 SE.
1976 OS 1:10,000 map sheet SE 40 SE.
1988 OS 1:10,000 map sheet SE 40 SE.

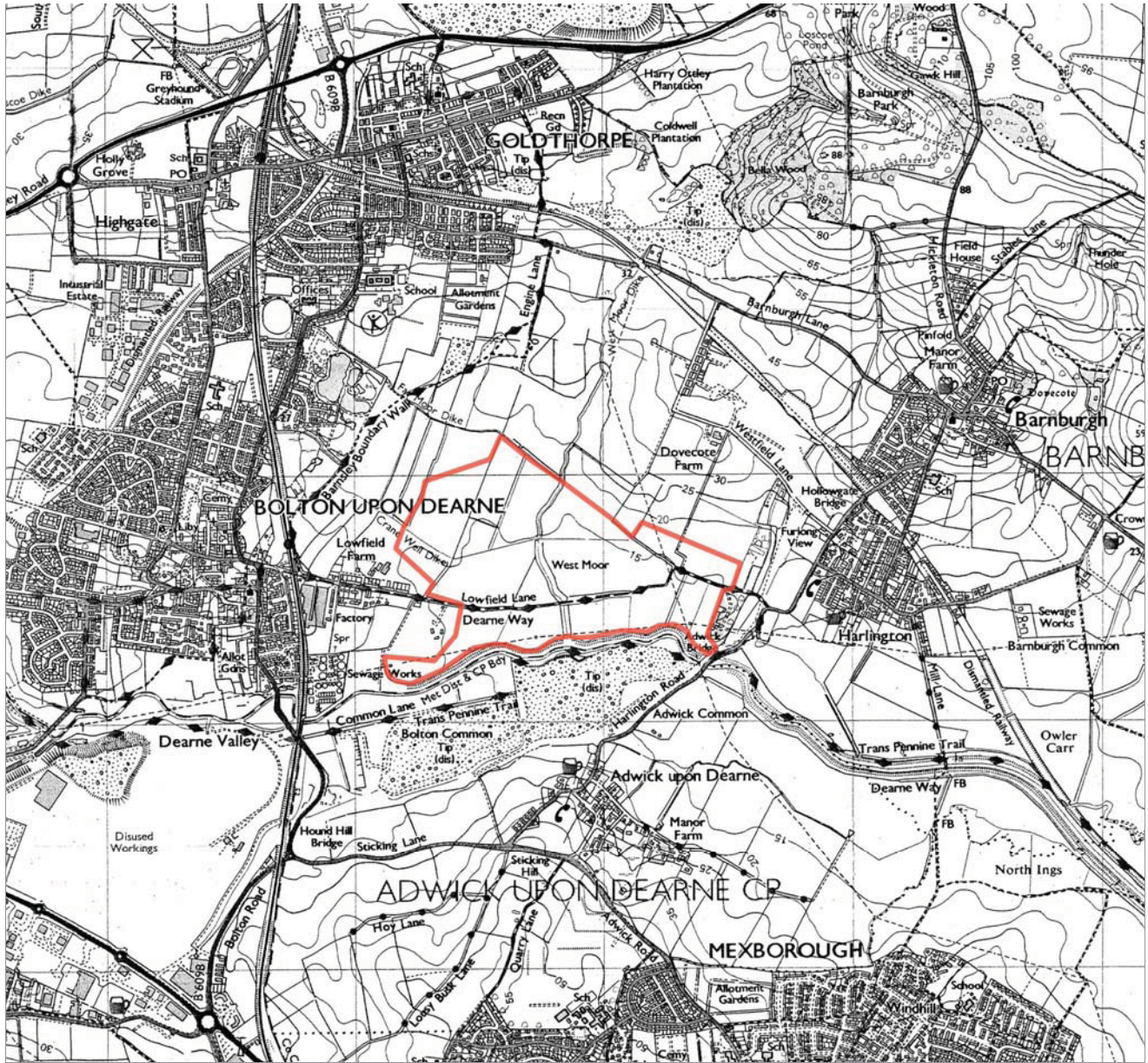
10 APPENDIX 1: GAZETEER OF KNOWN ARCHAEOLOGICAL SITES

Location of sites shown on **Illustration 2**.

Site no	Description	NGR	Identifier
1	Iron Age or Romano-British trackway and possible field boundary, Goldthorpe. Visible from aerial photographs.	SE 4699 0314	SMR 0087
2	Cropmark features of trackway and field boundaries, probably Iron Age to Romano-British, extending north from Site 1.	SE 471 034	Cropmark
3	H17 Heavy Anti-Aircraft Battery. Standing and buried remains of four gun emplacements, a command post, a Nissen magazine and part of the service track. It is unclear when the site was established, but it was recorded in June 1942. Staffed by mixed-sex batteries between 1943 and 1944. The site was probably used in the defence of Sheffield during WWII. The buildings still standing are well preserved. Scheduled Ancient Monument.	SE 4633 0238	SMR 4577, SAM 29993
4	Cropmark feature of square enclosure and track. Identified on cropmark plot as Romano-British, but adjacent to WWII SAM, and more likely to be an associated compound and road.	SE 4624 0240	Cropmark
5	Linear feature visible as a cropmark. Possibly part of an Iron Age to Romano-British field boundary.	SE 4595 0243	Cropmark
6	Dovecote at Dovecote Farm. No details.	SE 4748 0315	SMR 3591
7	Barnburgh Mill. The mill was mentioned in a bargain and sale of 1627. It was occupied by William Day in 1650. It was also known as Harlington Mill, and belonged to the Marquis of Rotherham in the 18 th century. It was in use until c.1914. Only slight earthwork traces are now visible above ground. Cropmark features visible to east may be associated with a lane and a field boundary shown on the 1851 OS map.	SE 4760 0234	Umpleby L8 Cropmark
8	Adwick-upon-Deerne Mill. Water was probably diverted by a weir at about SE 4647 0179 along a head race c.70m long to a wheel which was probably undershot. A tail race approximately 130m long probably had an outfall at c.SE 4666 0188. Recorded in 1086 as a corn mill attached to Adwick Manor. The mill was shown on a map of 1793, which is the last clear evidence for its existence.	c.SE 4655 0181	Umpleby L7
9	Bronze Age looped bronze palstave found in collapsing material on the southern bank of the River Deerne.	SE 4584 0202	SMR 3435
10	St Andrew's Church, Bolton upon Deerne. An early medieval church with later additions and alterations. The Anglo-Saxon work in the nave is particularly evident on the outside of the south wall.	SE 4560 0250	SMR 0378
11	Site of a medieval/early post-medieval timber-framed building, High Street, Bolton on Deerne. House and barn pulled down c.1976.	SE 4540 0250	SMR 1181
12	Bolton-upon-Deerne Lower Mill. Recorded in 1086 as a water-powered corn mill, and operated until c.1928. Possibly used as a flint mill in the late 18 th century.	SE 4568 0185	Umpleby L4
13	Iron Age or Romano-British enclosure and field boundaries visible as cropmarks. A large rectilinear enclosure, bisected by Sticking Lane. An odd cropmark is attached at the south side and there may be some internal divisions.	SE 4605 0149	SMR 3380 Cropmark
14	Hollow-way and mounds visible as earthworks within a field to the west end of Adwick upon Deerne village. Possibly medieval.	SE 4690 0170	SMR 1146
15	Dovecote, now outbuilding, of early 18 th century date, at Adwick on Deerne. Sandstone construction with slate roof. Grade II listed.	SE 4699 0179	SMR 3571
16	St John's Church, Adwick upon Deerne. Small Norman church with some 13 th -century work. Also a medieval socket stone from a churchyard cross. A medieval earthwork is located in a field to the north of the church.	SE 4700 0150 SE 4701 0148 SE 4700 0150	SMR 0374 SMR 0375 SMR 1145

Site no	Description	NGR	Identifier
17	A range of early 19 th -century farm buildings at Spring Well Farm, including a dovecote with stone slabbed eaves and an asbestos roof.	SE 4697 0151	SMR 3574
18	Remains of timber framing in a barn to the south of Harlington Inn. Possibly medieval or early post-medieval.	SE 4800 0253	SMR 1533
19	Well-preserved ridge and furrow remains in field now used as a paddock. The ridge and furrow runs up to a pond, which is surrounded by a definite bank and may be of a similar date.	SE 4840 0305	SMR 3549
20	Parallel linear cropmark features, possibly Iron Age to Romano-British.	SE 4845 0286	Cropmark
21	Medieval cross shaft, post-conquest, found in the churchyard at Barnburgh.	SE 4840 0320	SMR 0377
22	Green Farm, Barnburgh. A 17 th -century house with an earlier building at the south end, possibly medieval or early post-medieval.	SE 4849 0321	SMR 1536
23	Cropmark of square enclosure and part of a ditch. Possibly Iron Age to Romano-British.	SE 4826 0192	Cropmark
24	Site of three possible Bronze Age burial mounds, recorded prior to the enclosure act. Described as three small tumuli, on the common close to the village of Barnburgh. Exact location unknown.	SE 48 03	SMR 1214

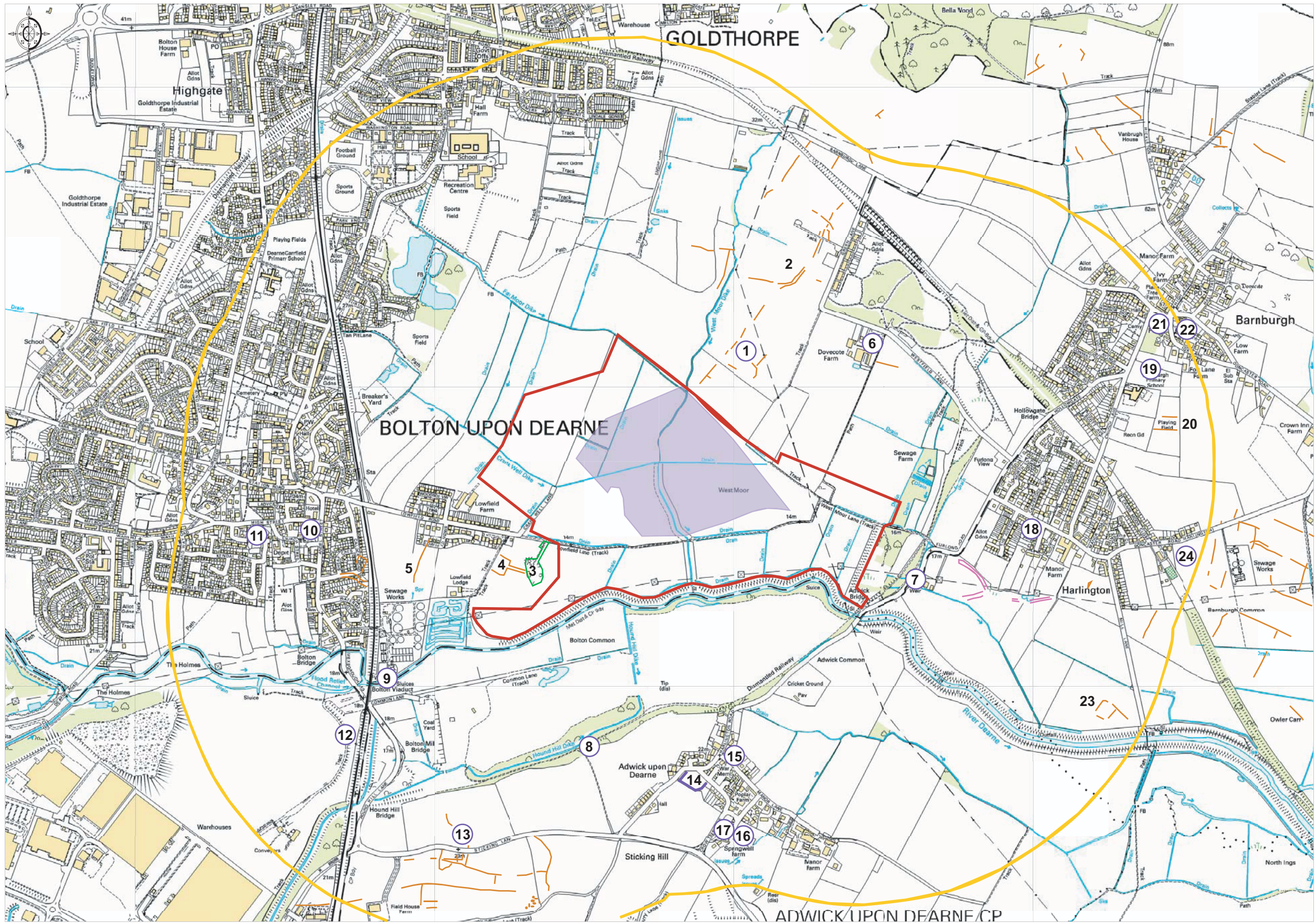
11 ILLUSTRATIONS AND PLATES



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ARCUS
 Unit 6, Riverside Block
 Sheaf Bank Business Park
 Prospect Road
 Sheffield S2 3EN
 Tel: 0114 2225106 Fax: 0114 2224346

Project:	Adwick Washlands	Scale:	Grid at 1km	Date:	October 2009
Title:	Site location map	NGR:	SE 467 026	Drawn:	R May
		Project No:	1314	Illustration No:	1

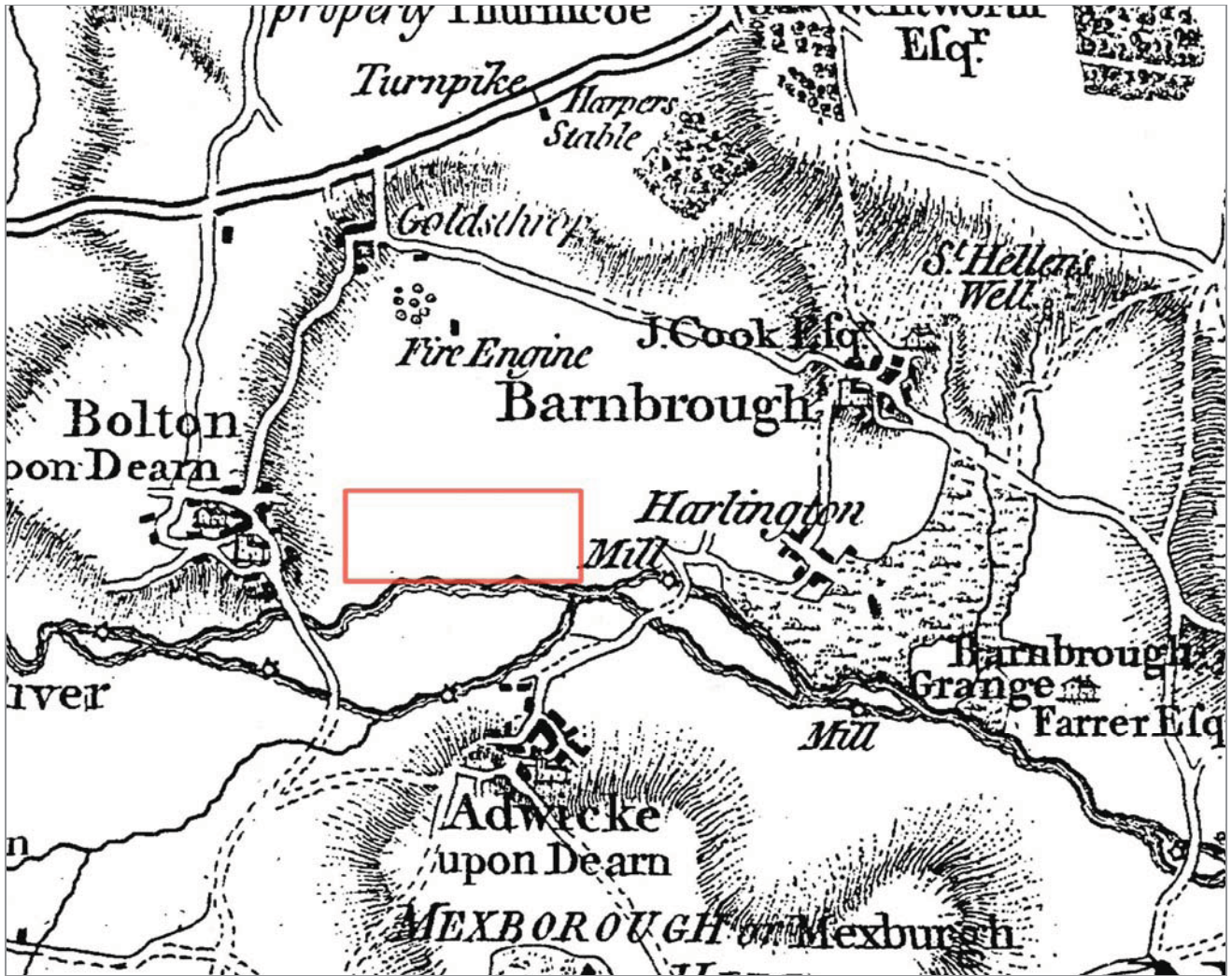


- Site boundary
- Search area boundary
- SAM
- Opencast area
- SMR site
- Iron Age/Romano-British cropmark
- Medieval cropmark
- Unidentified cropmark

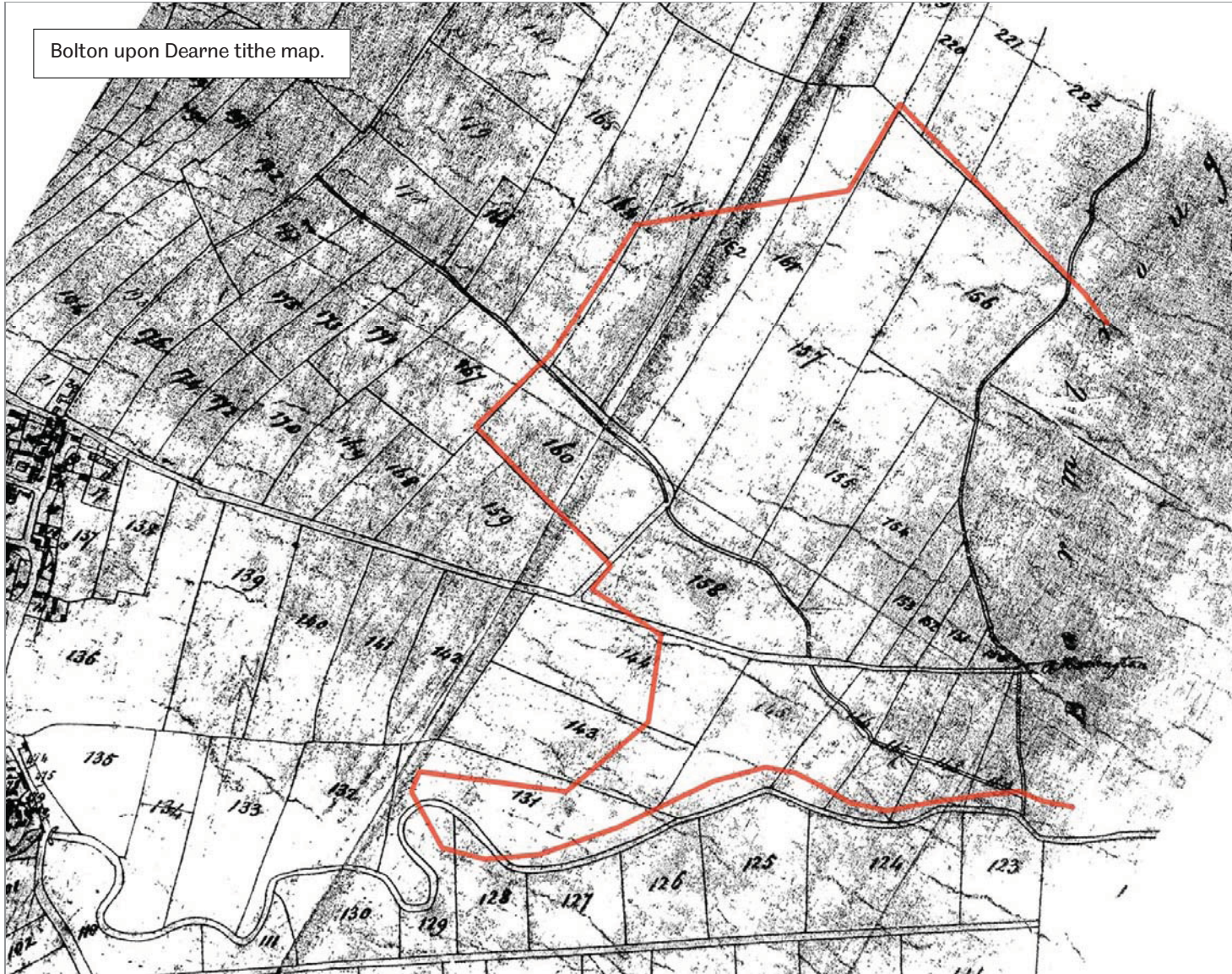

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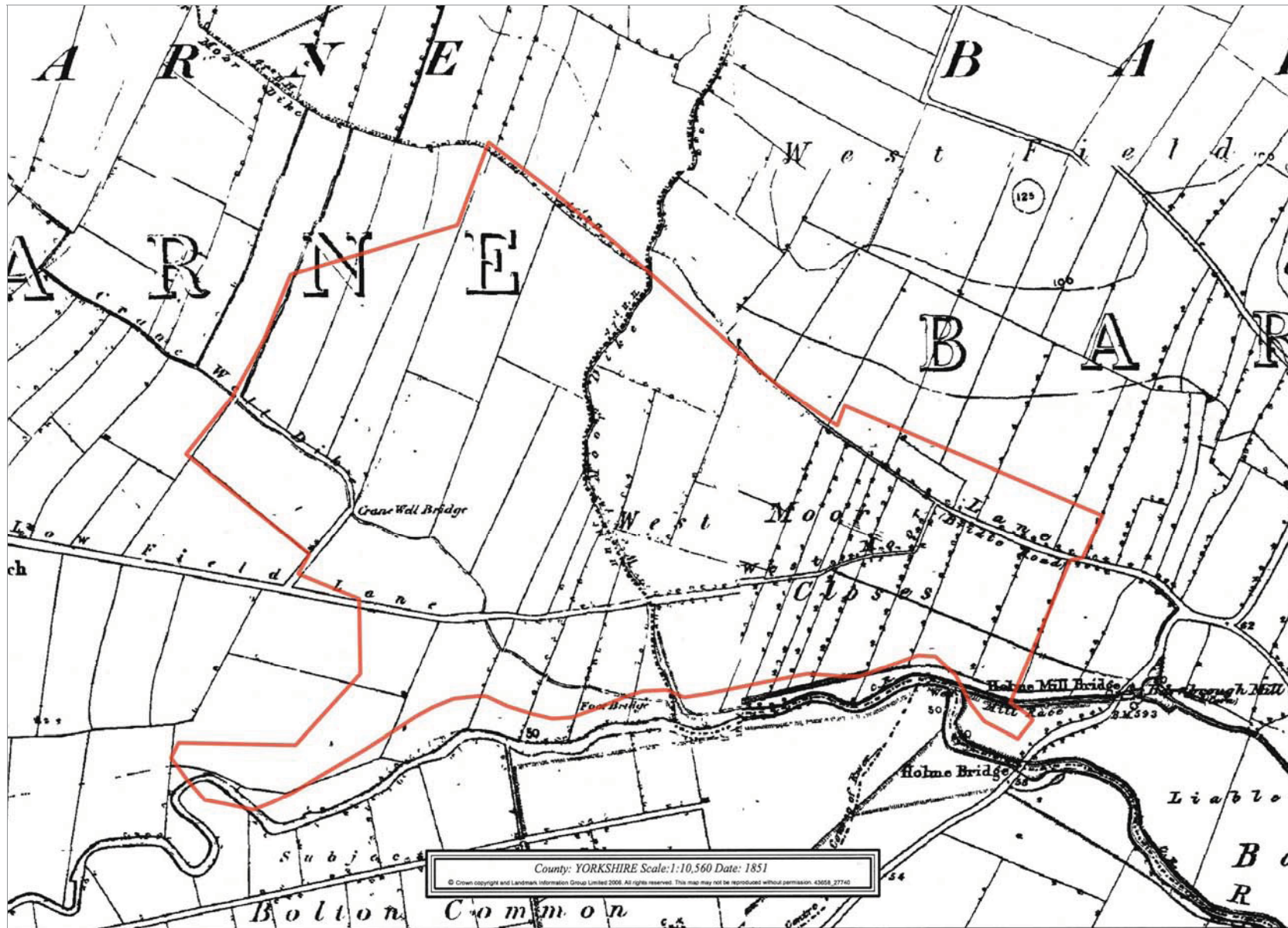
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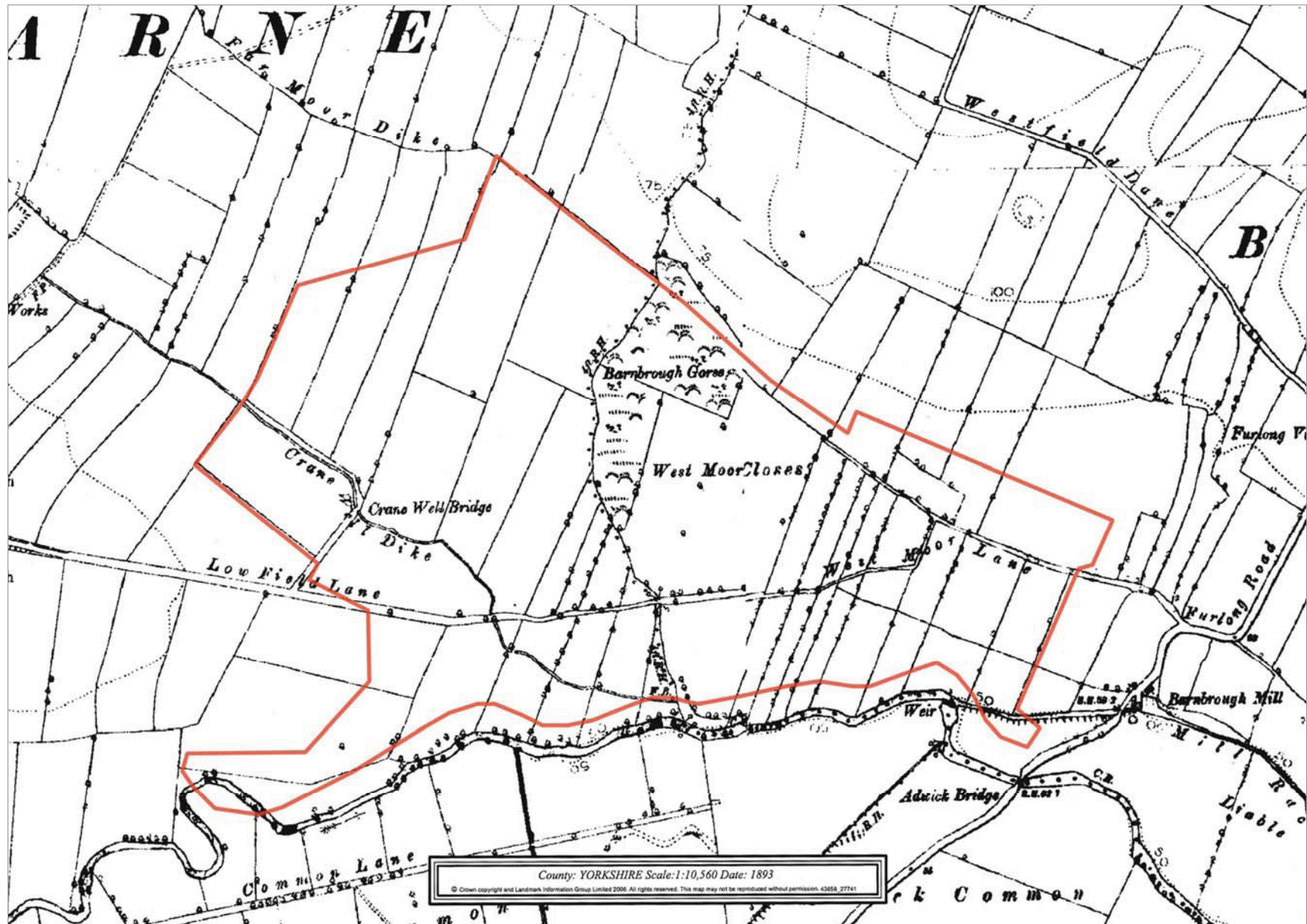
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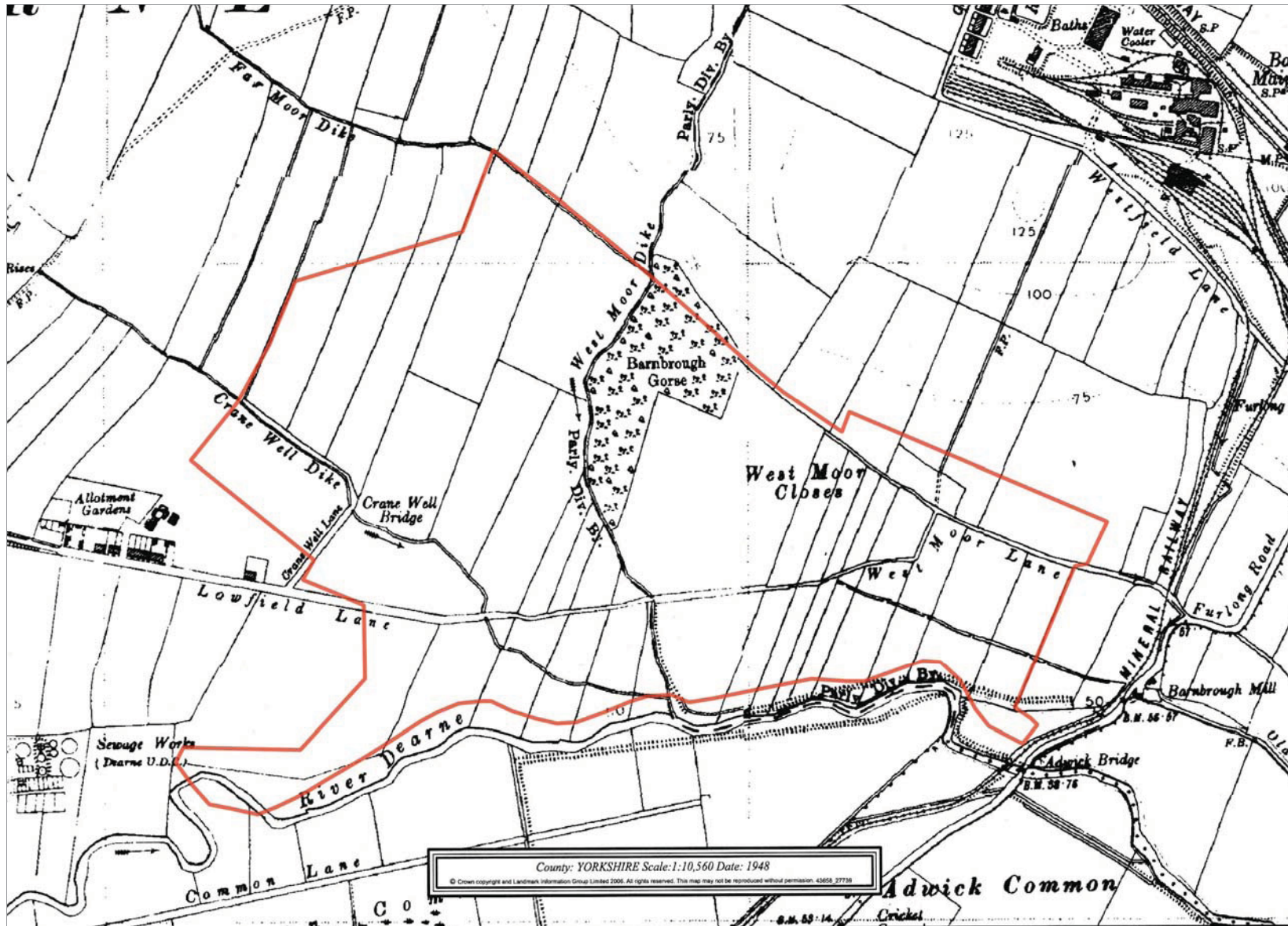
<p>Reproduced from Barnburgh tithe map (P3/9/B1) and Bolton upon Dearne tithe map (55[2]), © Doncaster Archives and Barnsley Archives.</p> <p>ARCUS Unit R6, Riverside Block Sheaf Bank Business Park Prospect Road, Sheffield, S2 3EN Tel: 0114 2225106 Fax: 0114 2224346</p>	<p>Project: Adwick Washlands</p> <p>Title: 1839 Barnburgh and Bolton upon Dearne tithe maps</p>	<p>Scale: Not to scale</p> <p>NGR: SE 467 026</p>	<p>Date: October 2009</p> <p>Drawn By R May</p>	<p>Project no: 1314</p> <p>Illustration no: 4</p>
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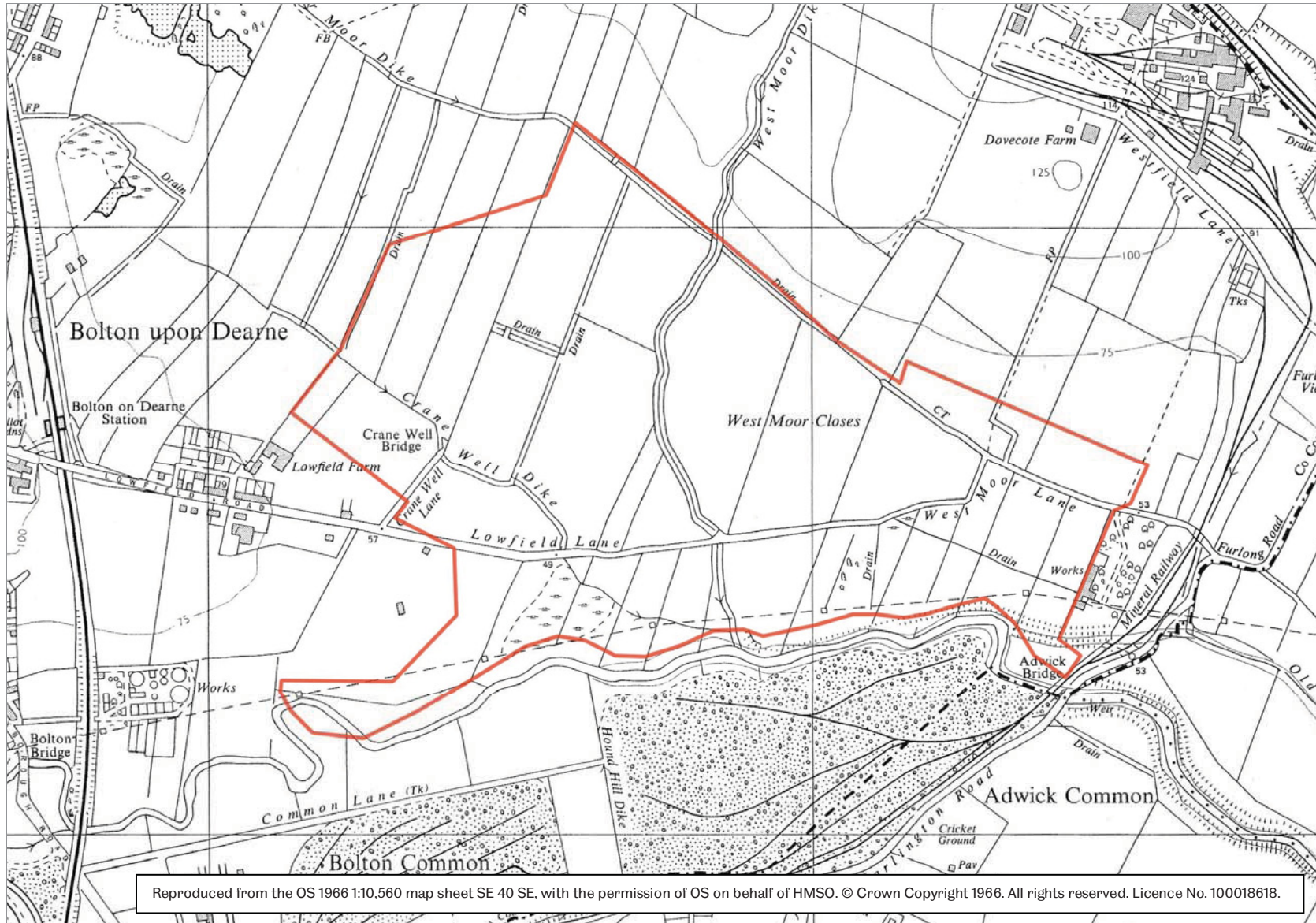
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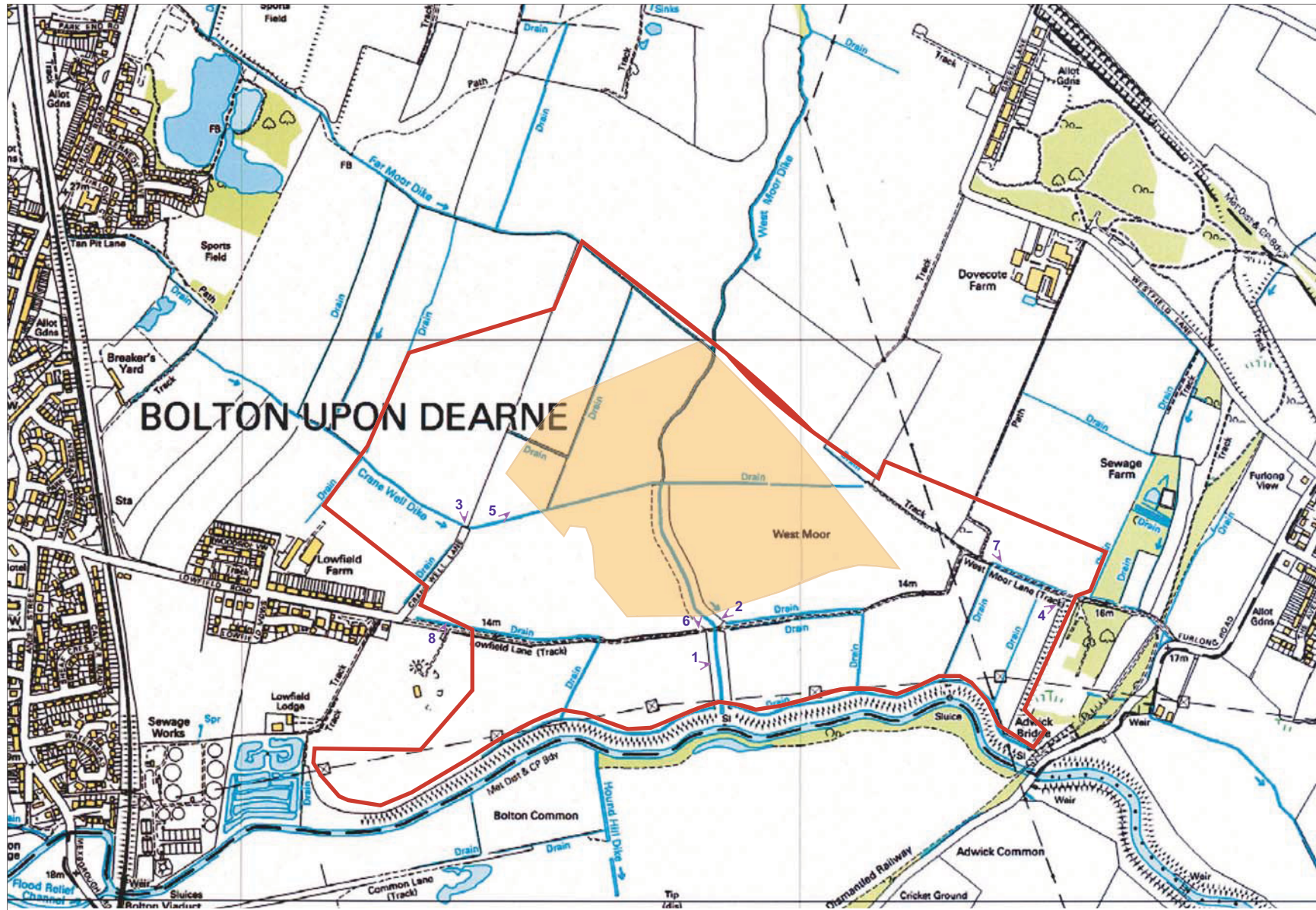
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	Title:	1966 OS map		NGR:	SE 467 026	Drawn by:	R May	Illustration No:	8



- Application area boundary
- V1 Photo viewpoint
- Restored opencast area (after ELP 2007 fig.6)

ARCUS

Unit R6, Riverside Block
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 Prospect Road, Sheffield, S2 3EN
 Tel: 0114 2225106 Fax: 0114 2797158

Project:

Adwick Washlands

Title:

Site plan showing photo locations

Scale:

Grid at 1km

NGR:

SE 467 026

Project No.

1314

Date:

October 2009

Drawn:

R May

Illustration No.

9

PLATES



Plate 1 – View west across fields to south of Lowfield Lane from West Moor Dike towards SAM at rear centre



Plate 2 – View northeast across West Moor, reed bed in centre



Plate 3 – View northwest across field to north of Crane Well Lane



Plate 4 – View southwest across fields at east end of site, towards embanked drain



Plate 5 – View west along Crane Well Dike showing concrete bridge



Plate 6 – View north along West Moor Dike from Lowfield Lane



Plate 7 – View of field boundary to north of West Moor Lane, facing north



Plate 8 – WWII gunsite (SAM), viewed facing south from Lowfield Lane

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