SCOUT MOOR WIND FARM,
Rochdale

Archaeological Evaluation and Watching Brief Report

Oxford Archaeology North

November 2005

Oxford Archaeological Assosicates and Peel Environmental Ltd

Issue No: 2005-6/435
OAN Job No: L9602
NGR: SD 8333 1798

Document Title: **SCOUT MOOR WIND FARM, ROCHDALE**

Document Type: **Archaeological Evaluation and Watching Brief**

Client Name: **Oxford Archaeological Associates and Peel Environmental Ltd.**

Issue Number: **2005-6/435**
OA Job Number: L9602
Site Code: SMR 05

National Grid Reference: **SD 8333 1798**

Prepared by:	Andy Lane	
Position:	Supervisor	
Date:	November 2005	
Checked by:	Jamie Quartermaine	Signed…….
Position:	Project Manager	
Date:	November 2005	
Approved by:	Alan Lupton	Signed…….
Position:	Project Manager	
Date:	November 2005	

Oxford Archaeology North
Storey Institute
Meeting House Lane
Lancaster
LA1 1TF
t: (0044) 01524 848666
f: (0044) 01524 848606

w: www.oxfordarch.co.uk
e: info@oxfordarch.co.uk

Janus House
Osney Mead
Oxford
OX2 0EA
t: (0044) 01865 263800
f: (0044) 01865 793496

Oxford Archaeological Unit Limited is a Registered Charity No: 285627

CONTENTS

SUMMARY

Oxford Archaeology North undertook a programme of evaluation and watching brief on Scout Moor (SD 8333 1797). The work was undertaken in conjunction with a programme of geotechnical testing in advance of a proposed wind farm development. The archaeological work entailed the excavation of 52 evaluation trenches and the observation of 30 geotechnical pits.

The work followed on from a programme of desk-based study and walkover survey that was undertaken and presented as part of the Environmental Impact Assessment for the development (Collcutt 2004). The evidence for prehistoric activity within the application site is very limited, and comprises mainly Mesolithic and Neolithic lithic scatters and individual find spots across the landscape concentrating around Knowl Hill (SD 8420 1680). Two burial cairns represented the Bronze Age and there was no evidence of Iron Age or Roman activity within the environs of the study area. There is very little evidence from the early medieval period although some settlement in the area may be inferred from place-names. Agricultural settlements comprising farmsteads and field systems, with their origins in the medieval period, have been identified. From the post-medieval period there is considerable evidence of remains relating to mineral extraction processes.

Most of the trenches revealed no archaeological remains; however, the evaluation did locate a linear sandstone feature close to the top of Whittle Hill (Site **22**). This had no extant dry-stone character and was possibly a stone bank or boundary marker. It was sealed by peat, and though it was not dated, may be of prehistoric date. This feature was only viewed in section and has the potential to be one element of a complex of similar features. The stone bank type feature is of unknown date and unknown extent but has the potential to be archaeologically significant. It is therefore recommended that a further phase of investigation should precede development works to establish the character and extent of the remains.

A watching brief was undertaken on 26 test pits at each of the wind turbine sites to determine the depth of peat and glacial deposits to a competent rock head. A further four test pits were watched in advance of the installation of an electrical sub station for the wind farm project in a field south of the A680 (SD 82408 16485). These test pits produced no evidence of archaeological features or horizons and no finds were recovered.

ACKNOWLEDGEMENTS

Oxford Archaeology North (OA North) would like to thank Simon Collcutt, Oxford Archaeological Associates, and Richard Brewster of Peel Environmental Ltd for commissioning the project. We would also like to thank Mark Bruton and the staff of Scott Wilson for their help on and off the moor. The excavation for the geotechnical pits was undertaken by WA Developments.

Andy Lane, David Tonks and Jason Clarke undertook the evaluation and watching briefs. Andy Lane and David Tonks wrote the report and the drawings were produced by Andy Lane and Jamie Quartermaine. The report was edited by Alan Lupton and Jamie Quartermaine, who also managed the project.

1. INTRODUCTION

1.1 CIRCUMSTANCES OF PROJECT

1.1.1 OA North was commissioned by Oxford Archaeological Associates (OAA) and Peel Environmental Ltd to undertake an evaluation and watching brief during a programme of geotechnical investigations on Scout Moor (SD 8333 1797), between Ramsbottom and Rawtenstall, extending across the boundary between Lancashire and Greater Manchester. The evaluation trenches and test pits were targetted on the proposed locations of the wind turbines. The work was undertaken in accordance with a specification compiled by OAA and agreed with the County Archaeologists of both Lancashire and Greater Manchester (*Appendix 1*). The fieldwork was undertaken during September and October 2005.

1.1.2 This report sets out the results of the evaluation and watching brief outlining the results, followed by a statement of the archaeological potential and significance, and an assessment of the impact of the proposed development.

2. BACKGROUND

2.1 LOCATION, TOPOGRAPHY AND GEOLOGY

2.1.1 The proposed wind farm is situated approximately 6 km to the north-west of Rochdale (Fig 1) and extends from Scout Moor (SD 81 192) to Knowl Moor (SD 842 168). The terrain ranges in altitude from 350m to 470m AOD.

2.1.2 The solid geology is thick, coarse-grained sandstone (gritstone), which are generally horizontal and separated by softer mudstone and siltstone beds. This creates a terraced landscape of plateaux and interlocking escarpments corresponding to the layers of sandstone and mudstone. The region is cut by numerous faults and has several deeply trenched glacial erosion features (Countryside Commission 1998, 107). The geology is reflected in the disused and open sandstone quarries on the edge of, and within, the vicinity of the development site, and is evident in the numerous sandstone buildings locally.

2.1.3 The majority of the soil coverage is raw oligo-fibrous peat soils of the Winter Hill group with some typical brown earths of the Rivington 2 group (Ordnance Survey 1983). The area is predominately upland heather moorland, acid grassland and rough pasture. The main agricultural land use is sheep grazing (Countryside Commission 1998, 109).

2.2 ARCHAEOLOGICAL INTERVENTIONS

2.2.1 A survey of Rossendale Quarries was undertaken by Lancaster University Archaeological Unit (now OA North) assessing the archaeological character and survival of each of the major quarries that extend across the Rossendale parish. The quarries are an important archaeological group as they have provided much of the building stone for each stage of economic growth in the area. The stone was of sufficient quality that it was widely exported across the country and even onto the continent (LUAU 1997). A number of prehistoric find spots have been identified within the application area especially in the location of Knowl Hill where neolithic flint implements and chippings of mesolithic flints were recovered (NMR SD 81 NW3). Gifford and Partners and OAA undertook a preliminary archaeological assessment of the study area as part of the Environmental Impact Assessment for the present windfarm development (Collcutt 2004).

2.3 HISTORICAL AND ARCHAEOLOGICAL BACKGROUND

2.3.1 ***Introduction***: this historical background is largely compiled from the cultural heritage report for the wind farm development (Collcutt 2004). It is intended only as a brief summary of the archaeological development of the general area with specific reference to the study area where possible. The dates cited for the time periods are given as a general guide only.

2.3.2 ***Prehistoric period***: the evidence for prehistoric activity within the application site is limited. The Lancashire and Greater Manchester SMRs list only three findspots between them dating to this period (Collcutt 2004):

County	SMR PRN	Description	Period
Lancs	1855	Flint Core findspot – Scout Moor	Mesolithic
G Manch	2690	Flint artefacts findspot – Scout Moor	Prehistoric
G Manch	2750	Flint artefacts findspot – Great Ding	Prehistoric

2.3.3 ***Mesolithic period***: the only confirmed Mesolithic find was a flint core (Lancashire SMR PRN 1855) which was recovered from the northern slopes of Whittle Hill (SD 827 190). However, recent work by the Littleborough Archaeological Society has also recovered finds from nearby Knowl Hill and Great Ding (SD 84 16). Despite the relative paucity of finds within the application site, Lancashire and Greater Manchester as a whole has one of the highest concentrations of Mesolithic (*c*8000 - 4000 BC) findspots in Britain (Cowell 1996, 21) and several sites, comprising single and multiple stone tool scatters, are known to underlie Holocene upland peat in the area (*ibid*). The highest concentration of Mesolithic sites is located *c*15.0 km east of Burnley and Nelson, to the north-east of the application sites (Collcutt 2004). Other sites in the wider region include the excavated occupation floor at Rushy Brow, Anglezarke (Howard-Davis 1996), which is to the west of the study area, and comprised lithic working debitage in association with a small temporary structure.

2.3.4 Although records for finds in this area are relatively poor, they do indicate that there is a clear likelihood for encountering Mesolithic materials within, and immediately around, the application site. The survival of this material is dependent upon a number of factors, primarily the location and period of exposure. Areas presenting evidence of specific activities, such as butchery, are likely to be located on higher land within the application site. While small, temporary camps and their associated finds would probably be located within a lowland area, which would have provided a higher degree of shelter and access to a fresh water supply (Collcutt 2004). The known topography of the application sites would indicate an excellent chance of recovering invaluable information about this period. The locating and documenting of any potential clusters should be regarded as being nationally important.

2.3.5 ***Neolithic period***: activity from this period comprises mainly lithic sites from the environs of the study area and includes a small Neolithic lithic scatter from Brandwood Moor (Lancashire SMR PRN 1127) at SD 850 200. Probably the most significant site is a substantial antiquarian flint tool assemblage from neighbouring Knowl Hill (Greater Manchester SMR PRN 348) comprising over one thousand artefacts from four collection sites (Collcutt 2004). Other lithic sites include finds from Cheesden Pasture, and Great Ding which include Early Neolithic (*c*4000 - 3200 BC) arrowheads, scrapers and blades (*ibid*).

2.3.6 ***Bronze Age***: the Bronze Age period (*c* 2500 - 700 BC) is represented by two burial cairns within the study area, one at Whitelow Hillock (Lancashire SMR PRN 1939) (SD 8050 1626) and another located east of Bank Lane, Shuttleworth (Lancashire SMR PRN 1940) (SD 805 172). The Whitelow cairn was excavated by the Bury Archaeological Group between 1961 and 1965 producing a rich assemblage of grave goods, including five ceramic urns and eight cremations (Collcutt 2004). The primary burial was one of a female with associated grave goods. The Shuttleworth cairn, which was delineated by a series of kerb stones, was the subject of a rescue

excavation in advance of quarrying and was found to comprise an inhumation within a stone cist; the remains of an infant lay below the cist (*ibid*). These are the only known Bronze Age sites within the study area, but it is considered likely that other, less conspicuous, monuments may exist nearby (*ibid*).

2.3.7 ***Iron Age***: there are no known archaeological remains from the Iron Age within the study area or within the immediate environs.

2.3.8 ***Romano-British period***: no known archaeological remains survive from this period (AD 43-410) within the study area, and no evidence to support occupation or exploitation of the application site during this period (Collcutt 2004). However, a hoard of coins and other metal artefacts was recovered from Nangreaves, approximately 1 km to the south of the study area (*ibid*). The date range from the assemblage covers the period AD 253 - 293. The nearest known major Roman road led from Manchester to Ribchester and can be seen at Edgworth, *c*10km west of the study area (*ibid*).

2.3.9 ***Early medieval period***: as with other parts of Lancashire, and the north-west region as a whole, very little evidence for the early medieval period (AD *c*410-1066) survives. Some settlement in the broad area may be inferred from place-name evidence, wherein Old English elements survive. The first part of the name Rossendale is connected to the Welsh *rhos*, meaning moor, which indicates some British contribution (*ibid*) and the Oldham area, some 15km to the south-east of the study area, does have a high proportion of place-names with Brithonic elements (Eckwall 1932). The name of Scout Moor itself is thought to originate from the Old Norse *skut* meaning high overhang or protruding rock (Collcutt 2004). There is, however, no evidence to support occupation or exploitation of the application site during this period (*ibid*).

2.3.10 ***Medieval***: place-name evidence implies that many of the local settlements would have been established during the earlier years of this period. For example, the name Shuttleworth dates to the early thirteenth century (*ibid*), but again, the SMRs list no sites from this period (1066-1485). A walkover survey undertaken in 2003 (*ibid*) has identified evidence for farmsteads and field systems, such as that at Cheesden Pasture (SD 830 170), which may have ahd medieval origins. This settlement has a dwelling with associated outbuildings, and has a radial field system incorporating fossilised ridge and furrow. Such settlements, although undated, typically have their origins in the medieval period (Collcutt 2004). Topographical evidence of medieval activity might also be inferred from the Ordnance Survey sheets for the area. These show field patterns whose irregularity suggests that they may originate from the medieval period (*ibid*).

2.3.11 ***Post-medieval period***: literature covering the application sites themselves is limited, but there are extensive cartographic and documentary sources available to cover the general area. The SMRs list 227 post-medieval sites within the study area, the majority of which are industrial sites from the mid-nineteenth to the early twentieth centuries (*ibid*). Many of these are shown on the first and second edition Ordnance Survey maps, and many are related to the continuing mineral (stone and coal) extraction process, including mine shafts, adits, dams, sluices, reservoirs, tramways and quarry workings (*ibid*). As well as mineral extraction industries, towards the end of the eighteenth century a small woollen industry was supported on the moor within the study area (*ibid*). A number of mills exist along Cheesden

Brook and several abandoned millponds known as "lodges" are present on the moors.

2.3.12 In addition to the extensive industrial heritage, there are sites that are classified as agricultural (Collcutt 2004), and include farmsteads, field systems settlements and water supplies (*ibid*), however, some of those which developed during the post-medieval period may have had their origins in the medieval period. Settlements that were constructed from the eighteenth century onwards are consistent with parliamentary enclosure field systems, such as at Scout Corner (*ibid*). Many of these also possess small coal pits, suggesting that mining might have supplemented upland farming at this time (Simpson 2003, 26).

2.3.13 Most of the industrial activity declined between the late nineteenth and mid-twentieth centuries owing to the exhaustion of economically viable materials. However, Scout Moor Quarry, which began in the earliest years of the nineteenth century (*ibid*) and closed in the 1950's, re-opened in the late 1960's to provide stone for the motorway building programme and is still a working quarry today.

3. METHODOLOGY

3.1 PROJECT DESIGN

3.1.1 An archaeological specification (*Appendix 1*) was compiled by Simon Collcutt (OAA) and was agreed with Norman Redhead, Greater Manchester Assistant County Archaeologist (Greater Manchester Archaeological Unit), and Peter Iles, Lancashire County Archaeologist (Lancashire County Archaeological Service). The project specification was adhered to in full, and the work was consistent with the relevant standards and procedures of the Institute of Field Archaeologists, and generally accepted best practice.

3.2 EVALUATION

3.2.1 In total 52 evaluation trenches were excavated, two at each wind turbine site. The trenches were designated a site number from the respective wind turbine sites with the addition of letters B-C or D-E for each of the two trenches at the site (Fig 2). The locations of the trenches were pre-defined (*Appendix 3*) and their positions on the ground were defined by means of GPS. Each trench was *c*17 m long and 1.5 m wide and was excavated using a tracked 360º mechanical excavator with a toothless ditching bucket.

3.2.2 The peat was mechanically excavated to a depth of *c*100 mm above the peat base with the material placed alongside the trench. Careful mechanical and manual excavation was undertaken, taking particular attention to the interface between the mineral soil and the peat, as there was the potential for artefactual and structural elements at this horizon. The horizon was manually cleaned and soil samples were taken of the deposit immediately overlying the mineral soil. Excavation was then undertaken through the interface to confirm that the mineral soil was naturally deposited. Following the recording of the trench it was backfilled in the reverse order that the deposits were removed so that the upper deposit of the backfill was the peat.

3.2.3 ***Recording:*** the evaluation trenches were recorded using a system devised from the Centre for Archaeology (English Heritage). The archive includes both a photographic record and accurate large-scale plans and sections at an appropriate scale (1:10 and 1:20). Recording was principally in the *pro-forma* Trench Record sheet for each trench, which notes the orientation, dimensions and description of the peat, subsoils and natural present in the trench. Features thought to be of possible archaeological potential were recorded using *pro-forma* Context Record sheets.

3.3 WATCHING BRIEF

3.3.1 The watching brief comprised the field observation of 26 test pits excavated at each of the wind turbine sites by WA Developments; in addition four test pits were excavated on the site of a proposed electrical sub-station to the south of the A680 (SD 824 165). The test pits were intended to examine the geological potential at each of these proposed turbine sites, and in addition a series of test pits were excavated to examine the geology at the site of the proposed transformer station.

These test pits were designated with the turbine site number and then with the letter A; their locations were pre-defined (*Appendix 3*). The positions of the test pits were defined on the ground by means of GPS; however their final position was, where possible, altered slightly to avoid crossing the evaluation trenches. The archaeological watching brief examined the upper levels of the pits down to the level of the natural bedrock or mineral soil, below that depth the test pits were excavated by the contractor unsupervised.

3.3.2 The programme of field observation by OA North staff accurately recorded the extent, and character of any surviving archaeological features. This work comprised observation during the excavation of the test pits, the examination of any horizons exposed, and the accurate recording of all archaeological features, horizons and any artefacts found during the excavations. The test pits were excavated by WA Developments using a 360º tracked mechanical excavator with a toothed or ditching bucket.

3.3.3 The recording comprised a full description and preliminary classification of features or structures revealed on OA North *pro-forma* sheets and their accurate location in plan. In addition, a photographic record in colour slide and monochrome formats was compiled.

3.4 ARCHIVE

3.4.1 A full professional archive has been compiled in accordance with the project specification (*Appendix 1*), and in accordance with current IFA and English Heritage guidelines (English Heritage 1991). The paper and digital archive will be deposited with the Lancashire Record Office on completion of the project. A copy of the report will also be deposited with the Lancashire and Greater Manchester Sites and Monuments Records.

4. RESULTS

4.1 EVALUATION

4.1.1 The evaluation examined the locations of the proposed 26 turbines, with two trenches excavated (each 17 m by 1.5 m) at each site (Fig 1). The trenches were undertaken to assess the archaeological potential of the areas to be developed, concentrating in particular on the observation of the interface between the peat and underlying sediments, as this horizon has a recognised potential for archaeological remains. The excavation of the trenches at Sites **1**–**19**, **21**, and **23**–**26** revealed no archaeological remains and no finds were recovered. Descriptions of the individual contexts are presented in *Appendix 4*, and the general stratigraphy is presented below.

4.1.2 ***General Stratigraphy:*** in the majority of the trenches the peat lay directly on top of weathered sandstone natural, albeit with some having limited subsoil between the peat and natural sandstone. This is exemplified at Trench 26 D-E, where the peat, ***1045***, overlies an area of subsoil, ***1048***, to the north, with blue-grey soft clay natural deposits, ***1049,*** to the south extending up to a rock outcrop at the extreme southern end of the Trench (Plates 1 and 2). The clay substrata were deposited during a period of glaciation and for a time have been exposed to the elements, and repeated freeze/thaw episodes has resulted in the weathered, fragmentary appearance of these deposits.

4.1.3 ***Identified Archaeological Remains:*** two trenches, however, did reveal potentially significant remains: some well-preserved birch tree fragments were observed at Site **20** and at Site **22** (Trench **22** D-E) (Plates 3 and 4) a linear sandstone feature was revealed.

4.1.4 ***Site 20:*** at Site **20** Trenches **20** B-C and **20** D-E were excavated (Fig 2). They were aligned east/west, parallel to each other, and revealed fragments of probable birch tree at a depth of 0.3 m and 0.55 m respectively, which was the maximum depth of the peat. The peat, ***1020*** and ***1023***, overlay a thin layer of grey-brown soft sandy-clay, ***1021*** with occasional small angular stones; the deposit was at least 7m long, and 0.05m deep and was only found in the eastern extent of Trench **20** B-C. This was in turn underlain by soft grey clay, deposited by glacial action, ***1022*** and ***1024***. The observance of what appeared to be birch suggests that these trees were growing at the point of peat inception.

4.1.5 4.1.5 ***Site 22:*** Trench **22** D-E was located at the top of Whittle Hill, and was aligned north/south (Fig 3); it was 17 m long, 1.5 m wide and had a maximum depth of 0.6 m. The trench revealed one course of unworked, irregular, but moderately flat edged selected sandstone stones (410 mm x 300 mm x 250 mm). They formed a north/south aligned linear feature, ***1036***, (Plates 3 and 4) which was 5.54 m in length and only seen in the western section of the trench (Plate 5). This course of sandstone stones (Fig 4) was 0.58 m thick with moderately large gaps between the stones, and no mortar or bonding material was present. The feature extends between a flat area of bedrock to the north and two large boulders to the south. A terraced break of slope descended from north to south and was observed, firstly extending from the bedrock plateau to the two large boulders and then again to the south of the boulders. The linear feature was sealed by a 0.26 m deep accumulation of peat, ***1038***, and was resting on a 0.3 m deep, mid-brownish-grey,

flecked white and orange, moderately firm, sandy-clay with occasional small abraded sandstone fragments, ***1037***. This layer overlay an orange, compact weathered sandstone natural, ***1039*** (Plate 6). Due to the lack of an associated spread of stone material, or collapse, it is doubtful that this feature represents a wall, as there was insufficient material for a dry-stone wall. However, it is apparent that there was a deliberate intention to the selection and placement of the stones, following the natural slope down the hillside, and could possibly have been a stone bank or some form of boundary marker. Owing to the fact that this linear feature was only seen in the east facing section, its extent or nature to the west could not be resolved. The terracing effect could have reflected an episode of peat cutting or the natural erosion of material down the hillside to the south. The break of slope seems to correspond with the end of the natural bedrock plateau and again, after the two large boulders to the south, a steeper descending gradient was observed at this point. No finds were recovered from this trench.

4.2 WATCHING BRIEF

4.2.1 Geotechnical test pits were excavated under archaeological supervision at each of the 26 sites measuring approximately *c*3 m by 1 m. The test pits were intended to determine the depth of peat and glacial deposits down to the rock head, the presence of groundwater inflows, the ability to excavate materials to allow for sampling for laboratory testing, and to give an indication of the stability of superficial deposits during construction.

4.2.2 The test pits revealed no archaeological features and no finds were recovered; however the recording of the depth of peat across the wide survey area will prove useful at an ecological level and for further research.

4.2.3 Four further Geotechnical test pits, numbers 27-30, were excavated, prior to the installation of an electrical sub station for the wind farm project in a field south of the A680, centred on SD 82408 16485 (Test Pit 27). The test pits revealed no archaeological features or finds. One further test pit was excavated on the Scout Moor quarry haul road, centred on SD 812047 18814. The test pit was abandoned at a depth of 0.2m when natural bedrock was encountered. No archaeological features were observed or finds recorded.

5. DISCUSSION

5.1 INTRODUCTION

5.1.1 Twenty six proposed turbine sites were investigated by two trenches and a test pit and only two of these sites (Sites **20** and **22**) were there remains of archaeological significance. These comprised the discovery of possible birch tree remains at the interface between the peat and clay substrata in Trenches **20** B-C and D-E, and a linear sandstone stone bank-type feature was located at Trench **22** D-E.

5.2 SIGNIFICANCE

5.2.1 The evidence of probable birch tree remains indicates that they were growing at the point of peat inception and were, therefore, preserved in the peat; and the probability is that the local landscape was partially forested at the time of inception. To date there has been no analysis of peat inception on the wider summits of Scout Moor, and not in the vicinity of Site **22**, so we have no direct evidence to indicate when peat formed in this area. However, typically, tree populations across the region have decreased on the higher fells towards the present and therefore the presence of the birch (*Betula*) is more likely to indicate a prehistoric peat inception date than an historic one (E Huckerby pers comm).

5.2.2 The sandstone linear feature (Trench **22** DE), which was possibly a stone bank or boundary marker suggests that people were utilising the natural resources to demarcate and therefore possibly agriculturally exploit the landscape. While it is evident that the feature predates the peat inception, the date of the peat inception from this area is unknown. On the present evidence it is not possible to establish its chronology and consequently the significance of the feature; however, simple stone banks have been found within Bronze Age contexts and there exists the possibility that this was also of prehistoric date. Further excavation is needed to resolve the true nature and extent of this feature and to establish if it is part of a wider complex.

6. IMPACT AND RECOMMENDATIONS

6.1 IMPACT

6.1.1 The impact upon the archaeological resource within the assessment area will be the construction of the wind turbines, and associated access roads and service trenches that will extend inbetween the turbine sites. In addition, there will be a crane base at each turbine site, necessary in order to erect the turbine. Were archaeological remains to be present, there would be an adverse impact localised within the footprint of the turbines and the crane base; however, the physical extent of these will be very limited by comparison with that of the access tracks and the development site as a whole.

6.1.2 The evaluation has established that there is a palaeoenvironmental resource preserved at Site **20** and a stone bank-type structure at Site **22**, but otherwise no archaeological resource has been identified. The full extent of the feature or any associated complex of features is unknown.

6.2 RECOMMENDATIONS

6.2.1 It is evident that at Site **22** there is an archaeological resource of uncertain significance and uncertain extent. It is therefore recommended that should the proposed turbine need to extend to within 50m of the identified remains, then there would need to be a programme of further archaeological investigation to define its extent and character in advance of the construction works.

6.2.2 In conjunction with the future investigation programme it is recommended that a programme of carbon dating be undertaken to provide some indication of the chronology of the feature / complex and also the peat inception across the ridges where turbines are proposed.

6.2.3 Subject to the results of the future investigation there may be a need for further mitigation recording in advance of the construction programme.

7. BIBLIOGRAPHY

7.1 PRIMARY AND CARTOGRAPHIC SOURCES

Ordnance Survey 1983, Soil Survey of England and Wales

7.2 SECONDARY SOURCES

Collcutt, SN (ed), 2004 *Scout Moor Wind Farm, Supplementary Environmental Information: Cultural Heritage,* Chapter of Scout Moor Wind Farm EIA Report, by OAA and Gifford and Partners Ltd

Countryside Commission, 1998 *Countryside Character, Volume 2: North West,* Cheltenham

Cowell, R, 1996 The Upper Palaeolithic and Mesolithic. In R, Newman (ed), *The Archaeology of Lancashire,* 19-33, Lancaster

Eckwall, E, 1932 The *Place-Names of Lancashire,* Manchester

English Heritage, 1991 *The Management of Archaeological Projects,* 2nd edn, London

Hall, D, Wells, CE, and Huckerby, E, 1995 *The Wetlands of Greater Manchester, North West Wetlands Survey 2,* Lancaster

Howard-Davis, C, 1996, Seeing the Sites: Survey and Excavation on the Anglezarke Uplands, Lancashire, *Proc Prehist Soc,* **61**, 133-66

LUAU, 1997 *Rossendale Quarries: Archaeological Assessment Report,* unpubl. rep

Simpson, J, 2003 A *History of Edenfield and District,* Edenfield Local History Society

APPENDIX 1: PROJECT SPECIFICATION

1 DIVINITY ROAD
OXFORD OX4 1LH

OXFORD ARCHAEOLOGICAL
ASSOCIATES LIMITED

Telephone (01865) 247374
Facsimile (01865) 242487
Email *oaa-consult@btconnect.com*

Directors: Catherine A.F. Laoué
Jacqueline Russell
Simon N. Collcutt

6th. September, 2005.

N. Redhead, Esq.
Assistant County Archaeologist,
Greater Manchester Archaeological Unit,
The University of Manchester,
Oxford Road,
Manchester M13 3LP.

P. Iles, Esq.
SMRO Archaeology,
Environment Directorate,
Lancashire County Council,
PO Box 9,
Guild House, Cross Street,
Preston PR1 8RD.

BY URGENT EMAIL

Dear Colleagues,

Re. Scout Moor Wind Farm, Rochdale/Rossendale

I am writing to confirm the Brief for the forthcoming integrated Site Investigation (SI) at Scout Moor. The primary objective of this SI is to provide the required level of information to support the detailed design and final micro-siting of the wind turbines (and the associated construction areas), the access track corridors and the electricity sub-station. This will enable the Developer to satisfy both the relevant conditions precedent on the d..ned Planning Permission (including that calling for a scheme of archaeological investigation) and the requirements for the exchange of Common Land.

Since the development construction proposals drive the need for information, the SI will be conducted by specialist contractors in the applied geotechnical and physical sciences (ecological and hydrological advice already having contributed to the SI design). These contractors will be responsible for site surveying and various types of ground interventions (including reinstatement). Many of the proposed steps will not need archaeological supervision, although the results may well prove useful in future archaeological contexts; the steps in question comprise pegging-out, topographical survey, geological mapping (surface observation), probing and dynamic cone penetration testing (as a supplement to the existing results, to investigate the depth and nature of the peat cover along track routes), and rotary coring (to test the substrates to c.20 m depth within turbine areas).

The elements of the SI which will benefit from archaeological collaboration involve open machine excavations. The geotechnical objectives of such excavations are: to prove depth of peat and glacial deposits, depth to competent rock head, presence of groundwater inflows, excavatability of materials, to allow sampling for laboratory testing and to give an indication of the stability of superficial deposits during construction. Whilst

the exact number and scale of excavations will depend upon revealed site conditions at each relevant location, both 'trial pits' (c.3-4 m length) and 'trial trenches' (c.17 m length) will be needed to fulfil all objectives (including the archaeological ones – see below). At present, it is envisaged that the following elements will be required: along the access road within the existing quarry (almost certainly already disturbed to a depth below any archaeological interest, c.4 pits); electrical sub-station (c.4 pits); at points along track routes near eroded peat gullies (c.4 pits); at points along track routes near stream crossings (c.8 pits); and at each turbine area, across the preferred turbine base itself and across the adjacent crane pad zone (2 x 26 trenches).

Turning to the specific archaeological objectives, the archaeological contractors (and the Developer intends to appoint Oxford Archaeology North to the role of ACs, from whom a Method Statement will be forthcoming very shortly) will be instructed: to advise upon any surface material/features of interest (although the SI locations are not thought to contain any structural remains), to observe peat removal (although there is no significant archaeological potential in this material on current information) and, most importantly, to observe conditions in proximity to the interface between the peat and the underlying sediments, there being a recognised potential for Mesolithic (and, at an even lower probability, Neolithic and perhaps Early Bronze Age) material at this general level. The ACs will be provided with a copy of the Cultural Heritage section from the SEI to inform their work.

The specific procedure envisaged (a procedure already discussed with the project managers, Messrs. Scott Wilson) is as follows:

- ACs (normally 2 persons) to be on site throughout the excavation work, directing the excavator in order to achieve maximum productivity.
- Excavation of peat (with material placed alongside pit/trench) by normal methods, to a depth of approximately 100 mm above the peat base.
- Careful excavation (with material placed separately alongside pit/trench) of the basal peat and first c.100 mm of underlying sediment (in the absence of peat, the careful excavation shall involve an appropriate thickness of soils, as requested by the ACs).
- In most of the locations to be investigated (especially at the turbine sites), the peat is unlikely to be greater than 1 m in depth; the ACs shall not enter into any excavation unless they are reasonably satisfied that it is safe to do so and, in any case, they shall not enter into an excavation in excess of 1.5 m in total depth (for safety purposes, the ACs should have a light-weight rigid ladder available at all times and should not rely upon being able to climb excavation sides unaided).
- ACs to take a view on archaeological potential (and to make an appropriate watching brief record) as rapidly as reasonably possible at each location. Excavator to switch from toothless to toothed bucket in the interim.
- ACs to release an individual trial pit (or trial pit zone at one or other end of a trial trench) as quickly as reasonably possible, to enable continued excavation to c.3 m from the surface, into deeper mineral substrates.
- Excavations to be backfilled as soon as all geotechnical testing/sampling has been carried out and the ACs have indicated that there are no further archaeological requirements.
- Any amendments the ACs might consider appropriate (including standing of excavation equipment, interruption of a particular excavation, or delay in backfilling) shall be only as agreed with Scott Wilson's full-time site representative; in the event of the need for a significant amendment, both the ACs and Scott Wilson shall notify the Developer and the Developer's archaeological advisors (who shall be OAA unless otherwise advised) at the earliest available opportunity.

The ACs will be instructed to report regularly to OAA on progress, especially if significant archaeological finds are made. In turn, my colleagues and I will keep you informed and it is my expectation that it should be

2

possible to offer you an opportunity to visit the site, either in the event of a significant find or simply to observe the procedure; the only proviso would be that we would ask you to try to respond rapidly, in order to minimise delays, costs and additional tracking of equipment on the moor. After the fieldwork, the ACs will produce a watching brief report to appropriate professional standards, which will be copied to you.

It is currently planned that the SI should begin on Monday 19th. September and that the work should continue for up to 4 weeks. I will confirm commencement to you in due course.

Finally, may I remind you of our change of communication addresses (see letterhead) since last year.

Yours sincerely,

Dr. Simon Collcutt
Managing Director

APPENDIX 2
LOCATIONS OF THE TEST PITS AND EVALUATION TRENCHES

New Location A = Co-ordinates of Test pit at each site

Location B and C = Ends of Trench 1 at each site

Location D and E = Ends of Trench 2 at each site

Turbine No.	Old Location A		New Location A		Location B		Location C		Location D		Location E	
	Eastings	Northings	Eastings	Northings	Eastings	Northings	Eastings	Northings	Eastings	Northings	Eastings	Northings
1	383658	416799	383661	416806	383664	416814	383658	416798	383641	416823	383635	416807
2	384862	416771	384856	416765	384850	416759	384862	416771	384832	416777	384845	416789
3	383300	417009	383308	417009	383316	417008	383299	417009	383318	417033	383301	417034
4	384697	417097	384691	417090	384686	417084	384697	417097	384666	417100	384677	417113
5	384399	417190	384394	417183	384388	417177	384399	417190	384369	417192	384379	417205
6	383922	417310	383924	417302	383928	417294	383921	417310	383905	417285	383898	417300
7	383505	417384	383513	417382	383521	417382	383504	417382	383521	417407	383504	417407
8	383476	417695	383483	417694	383492	417694	383475	417694	383492	417719	383475	417719
9	384510	417671	384504	417665	384499	417658	384509	417671	384479	417674	384490	417687
10	384147	417872	384140	417867	384133	417861	384147	417872	384118	417881	384131	417892
11	382427	418104	382427	418096	382427	418087	382426	418104	382452	418088	382451	418105
12	383337	417962	383337	417978	383337	417961	383337	417961	383362	417978	383362	417960
13	382078	418169	382074	418161	382070	418154	382078	418169	382093	418143	382100	418158
14	382747	418054	382748	418061	382749	418070	382747	418053	382725	418074	382722	418057
15	383975	418094	383968	418089	383962	418083	383974	418094	383945	418101	383958	418113
16	383701	418416	383708	418415	383717	418415	383700	418415	383717	418440	383700	418440
17	382501	418469	382508	418466	382516	418464	382500	418468	382511	418440	382494	418444
18	384649	418341	384656	418342	384665	418343	384648	418341	384661	418368	384645	418365
19	384612	418650	384618	418655	384622	418658	384609	418648	384607	418678	384594	418667
20	383047	418565	383054	418562	383062	418560	383046	418565	383069	418584	383069	418584
21	384125	418680	384120	418686	384116	418694	384125	418679	384095	418680	384104	418666
22	382477	418780	382476	418787	382475	418796	382476	418779	382500	418797	382501	418780
23	382883	418801	382885	418808	382887	418816	382883	418800	382862	418822	382858	418806
24	382152	418847	382154	418854	382157	418862	382151	418846	382181	418853	382175	418837
25	384558	418942	384556	418934	384555	418925	384557	418942	384530	418928	384533	418945
26	382495	419273	382496	419280	382498	419289	382494	419272	382522	419283	382518	419267

APPENDIX 3: CONTEXT INDEX

Contexts are ordered initially by Trench No and then by Context No

Trench	Context No	Description	Max. depth
1 B-C	1114	Dark brown soft peat – layer	0.74m
1 B-C	1115	Light brown-buff compact weathered sandstone fragments in a sandy-clay matrix natural	
1 D-E	1116	Dark brown soft peat – layer	0.56m
1 D-E	1117	Off white compact weathered sandstone fragments in a clayey-sand matrix natural	
2 B-C	1110	Dark brown-black soft sandy-clay peat – layer	0.25m
2 B-C	1111	Mid-grey soft sandy-clay weathered sandstone natural in a clay matrix natural	
2 D-E	1112	Dark brown-black soft sandy-clay peat – layer	0.2m
2 D-E	1113	Mid to light grey firm clayey-sand changing to orange compact clayey-sand and weathered sandstone natural	
3 B-C	1118	Black soft peaty topsoil – layer	0.26m
3 B-C	1119	Orange-brown compact weathered sandstone in a sand matrix natural	
3 D-E	1120	Dark brown-black soft peat – layer	0.23m
3 D-E	1121	Orange brown compact weathered sandstone fragments in a sand matrix natural	
4 B-C	1106	Brownish-black soft peat – layer	0.48m
4 B-C	1107	Orange moderately compact weathered sandstone banded with light grey-brown loose clayey-sand with frequent sandstone fragments natural	
4 D-E	1108	Brownish-black soft peat – layer	0.43m
4 D-E	1109	Orange moderately compact weathered sandstone banded with off white compact	

		sandstone fragments natural	
5 B-C	1102	Dark brown soft peat – layer	1.18m
5 B-C	1103	Light brown-grey-buff with orange patches firm sandy-clay natural	
5 D-E	1104	Dark brown soft peat – layer	0.85m
5 D-E	1105	Orange-buff soft to firm clayey-sand with weathered sandstone fragments natural	
6 B-C	1098	Dark brown soft peat – layer	1.52m
6 B-C	1099	Buff-grey with white patches soft to very hard sandy-clay headrock natural	
6 D-E	1100	Dark brown soft peat – layer	1.14m
6 D-E	1101	Off white-grey hard weathered bedrock natural	
7 B-C	1092	Dark brown soft peat – layer	0.59m
7 B-C	1093	Mid to light brown soft sandy-clay subsoil – layer	0.19m
7 B-C	1094	Mid to light grey soft clay natural	
7 D-E	1095	Dark brown soft peat – layer	0.48m
7 D-E	1096	Mid-grey-brown moderately loose sandy-clay subsoil – layer	0.22m
7 D-E	1097	Grey firm clay natural	
8 B-C	1086	Dark brown-black soft sandy-clay peat – layer	0.35m
8 B-C	1087	Off white-grey friable weathered sandstone silty-sand subsoil – layer	0.15m
8 B-C	1088	Orange-grey-white friable to hard weathered sandstone natural	
8 D-E	1089	Dark brown-black soft sandy-clay peat – layer	0.4m
8 D-E	1090	Greyish-brown loose silty-sand subsoil – layer	0.18m
8 D-E	1091	Orange compact weathered sandstone banded with off white compact sandstone fragments natural	
9 B-C	1082	Dark brown soft peat – layer	1.66m

9 B-C	1083	White-grey friable weathered sandstone natural	
9 D-E	1084	Dark brown soft peat – layer	1.55m
9 D-E	1085	Off white-grey-brown friable weathered sandstone natural	
10 B-C	1076	Dark brown soft peat – layer	0.75m
10 B-C	1077	Orange-brown with patches of grey friable weathered sandstone natural	
10 D-E	1078	Dark brown soft peat – layer	0.42m
10 D-E	1079	Orange-brown with grey patches weathered sandstone natural	
11 B-C	1007	Black peaty topsoil – layer	0.1m
11 B-C	1008	Light greyish-purplish-brown silty-sand – layer	0.1m
11 B-C	1009	Mid to light orange-brown fine soft sand weathered natural	
11 D-E	1010	Black peaty topsoil – layer	0.2m
11 D-E	1011	Light grey occasionally purple sandy-silt – layer	0.05m
11 D-E	1012	Orange-brown weathered soft sand natural	
12 B-C	1122	Dark brown soft peat – layer	0.56m
12 B-C	1123	Light grey-brown firm sandy-clay with weathered sandstone fragments natural	
12 D-E	1124	Dark brown soft peat – layer	0.29m
12 D-E	1125	Very light brown firm sandy-clay with weathered sandstone fragments natural	
13 B-C	1000	Dark brown soft peat – layer	0.6m
13 B-C	1001	Mid to light orangey-brown loose sand natural	
13 D-E	1002	Light purplish-grey friable sandy-silt – layer	0.15m
13 B-C	1003	Millstone grit natural	
13 D-E	1004	Dark brown soft peat – layer	0.4m
13 D-E	1005	Grey-purple friable sand natural	

13 D-E	1006	Millstone grit natural	
14 B-C	1013	Black peat – layer	0.4m
14 B-C	1014	Grey sand-silt subsoil – layer	0.2m
14 B-C	1015	Orange-brown weathered sandstone natural	
14 D-E	1016	Black peat – layer	0.2m
14 D-E	1017	Mid orange-brown clay-sand natural	
15 B-C	1074	Dark brown soft peat – layer	1.58m
15 B-C	1075	Orange-brown with grey patches friable weathered sandstone natural	
15 D-E	1080	Blackish-brown soft peat – layer	1.3m
15 D-E	1081	Orange-buff hard weathered sandstone natural	
16 B-C	1051	Dark brown soft peat – layer	1.3m
16 B-C	1052	Light grey to buff soft clay natural	
16 D-E	1053	Dark brown soft peat – layer	0.45m
16 D-E	1054	Mid-brown-buff soft sandy-clay subsoil – layer	0.1m
16 D-E	1055	Light creamy-grey with occasional black shale flecks soft clay natural	
17 D-E	1029	Black-brown soft peat – layer	0.46m
17 D-E	1030	Grey soft clay natural	
17 B-C	1031	Black-brown soft peat – layer	0.4m
17 B-C	1032	Grey soft-loose sandy-clay natural	
18 B-C	1070	Dark brown peat – layer	0.92m
18 B-C	1071	Mid-grey-brown mottled cream moderately firm weathered sandstone in a brown sand matrix subsoil – layer	
18 D-E	1072	Black-brown soft peat – layer	1.2m
18 D-E	1073	Mid-grey-brown mottled cream firm weathered sandstone in a mixed brown sand matrix natural	

19 B-C	1064	Black soft peat – layer	0.3m
19 B-C	1065	Mid to light brown soft sandy-clay subsoil – layer	0.11m
19 B-C	1066	Orange-brown friable weathered sandstone natural	
19 D-E	1067	Black soft peat – layer	0.41m
19 D-E	1068	Grey-brown firm sandy clay subsoil – layer	0.07m
19 D-E	1069	Orange hard weathered sandstone natural	
20 B-C	1020	Black soft peat – layer	0.3m
20 B-C	1021	Mid-grey-brown soft sandy-clay subsoil – layer	0.05m
20 B-C	1022	Grey soft clay natural	
20 D-E	1023	Black very soft peat – layer	1m
20 D-E	1024	Mid-grey flecked brown soft clay natural	
21 B-C	1056	Dark brown very soft peat – layer	2.26m
21 B-C	1057	Mid to light brown biscuity sandstone natural	
21 D-E	1058	Dark brown very soft peat – layer	2.04m
21 D-E	1059	Light brown-buff friable sandstone natural	
22 B-C	1033	Black soft sandy-clay peat – layer	0.1m
22 B-C	1034	Light grey-brown moderately firm sandy-clay subsoil -–layer	0.3m
22 B-C	1035	Light grey mottled orange moderately firm clay with sand lenses natural	
22 D-E	1036	Stone Bank/boundary feature	0.58m
22 D-E	1037	Mid-brownish grey flecked white and orange moderately firm sandy-clay – layer	0.3m
22 D-E	1038	Black peat – layer	0.25m
22 D-E	1039	Orange hard weathered sandstone natural	
23 B-C	1025	Mid to light brown soft matted peat – layer	0.7m

23 B-C	1026	Greyish-white hard weathered sandstone natural	
23 D-E	1027	Mid to dark brown soft peat – layer	0.7m
23 D-E	1028	Off white-grey hard weathered sandstone natural	
24 B-C	1040	Black-brown soft silty clay peat – layer	0.15m
24 B-C	1041	Grey hard weathered sandstone natural	
24 D-E	1042	Black soft sandy-clay peat – layer	0.1m
24 D-E	1043	Orange-brown flecked yellow with grey patches soft sandy clay subsoil – layer	0.2m
24 D-E	1044	White-orange-yellow fragmented hard weathered sandstone natural	
25 B-C	1060	Dark brown soft sandy-clay peat – layer	0.3m
25 B-C	1061	Light creamy white with orange patches friable sand weathered sandstone natural	
25 D-E	1062	Black-brown soft peat – layer	0.46m
25 D-E	1063	Light grey mottled orange hard weathered sandstone natural	
26 B-C	1045	Black dark brown soft peat – layer	1.4m
26 B-C	1046	Dark grey soft clay-silt with occasional sand natural	
26 D-E	1047	Black with brown patches soft peat – layer	0.9m
26 D-E	1048	Grey-brown mottled cream soft sandy-clay natural	
26 D-E	1049	Blue-grey soft clay with occasional sand natural	
26 B-C	1050	Orange yellow brown soft clay silt with occasional sand natural	

ILLUSTRATIONS

FIGURES

PLATES

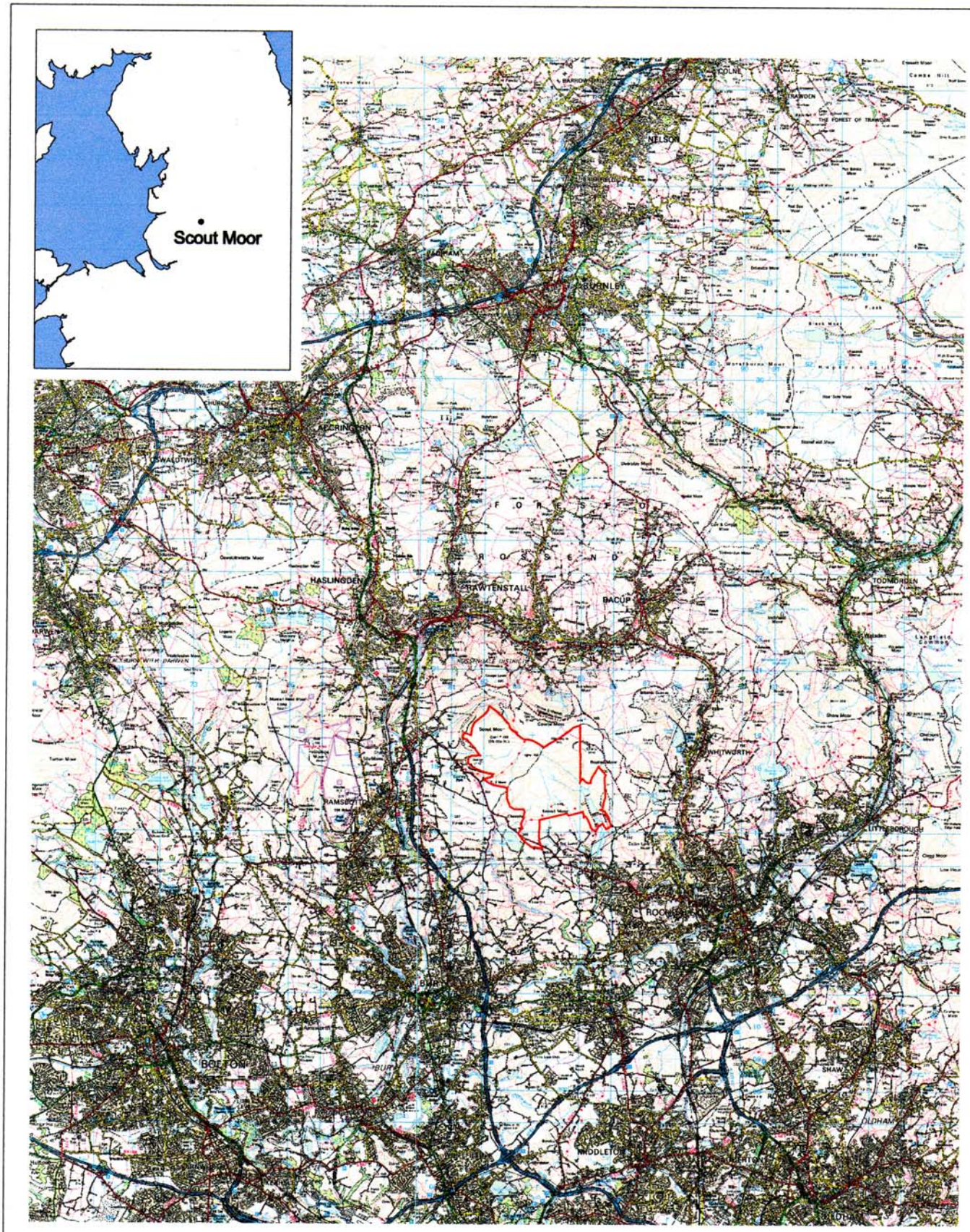


Figure 1: Site Location Map

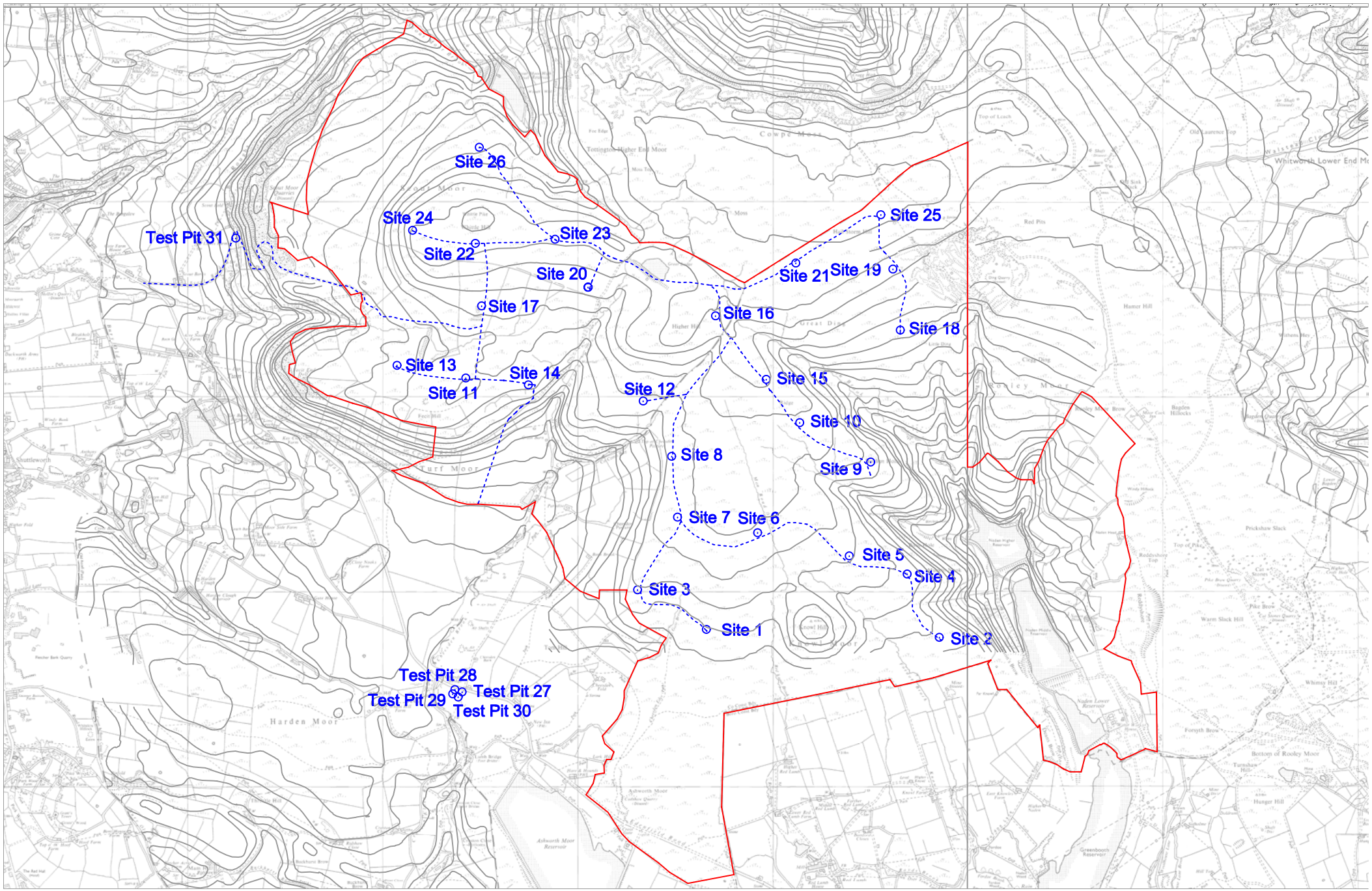


Figure 2: Location plan of the Sites and Test Pits

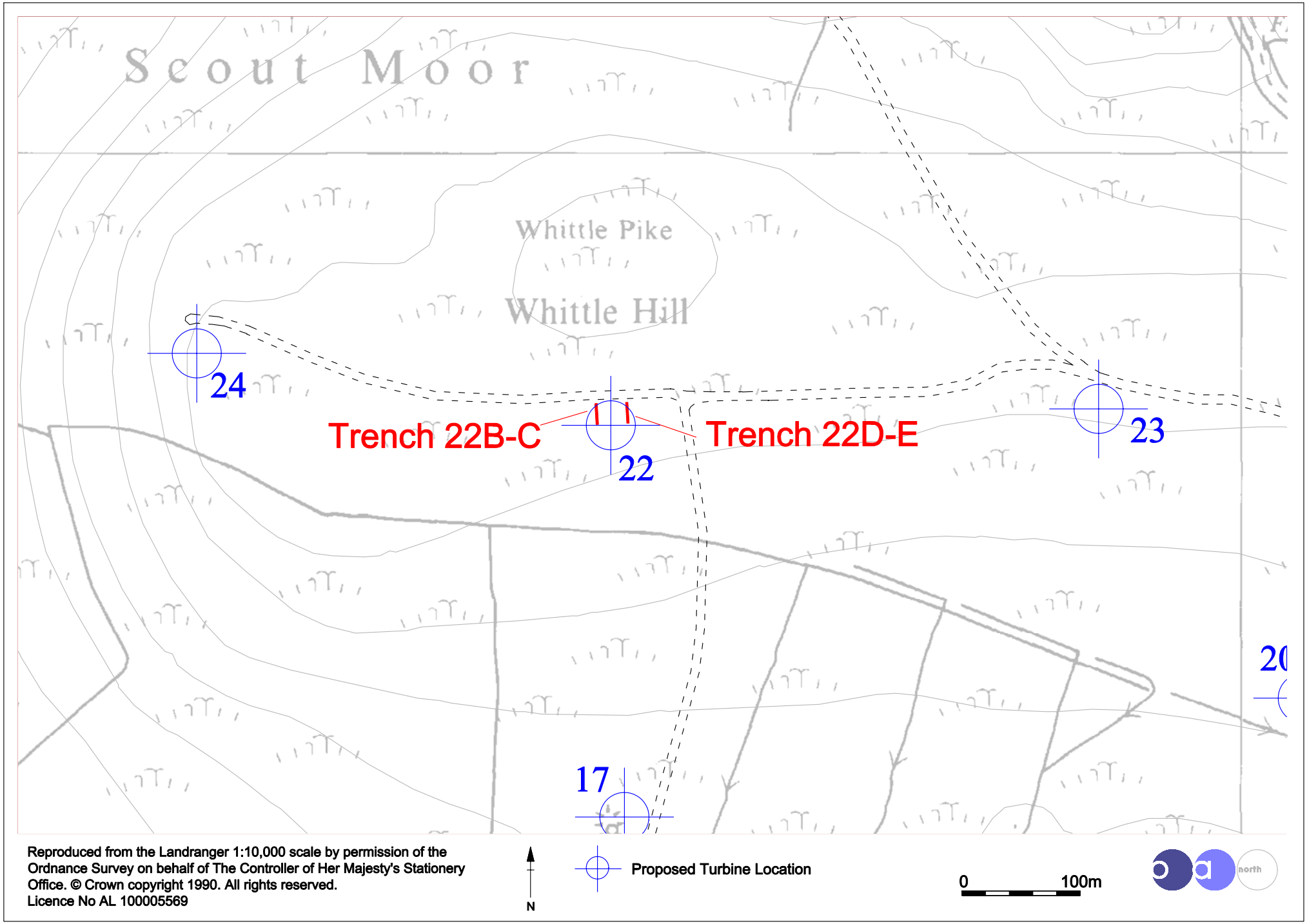
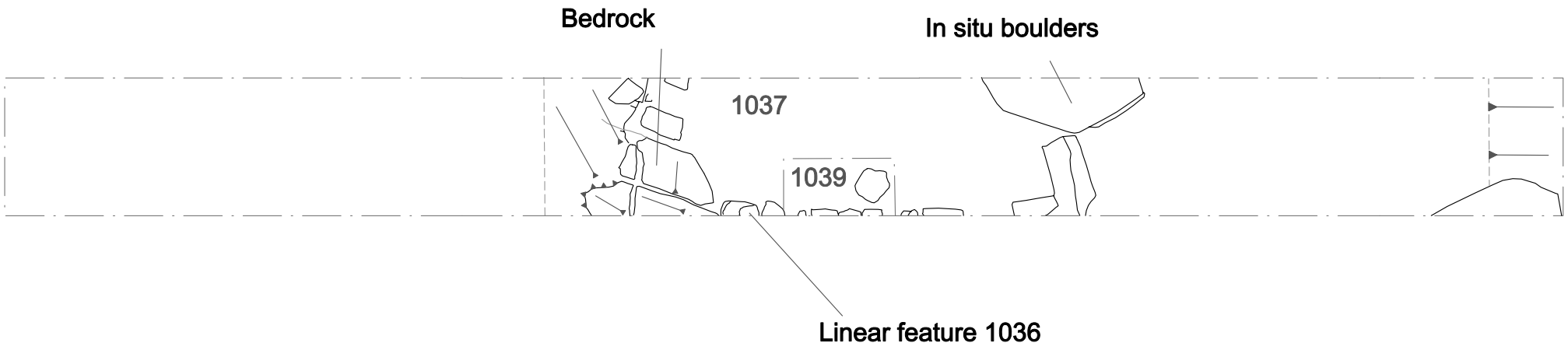


Figure 3: Location Plan of Trenches 22B-C and 22D-E



N

0 2m

Figure 4: Plan of Trench 22 D-E

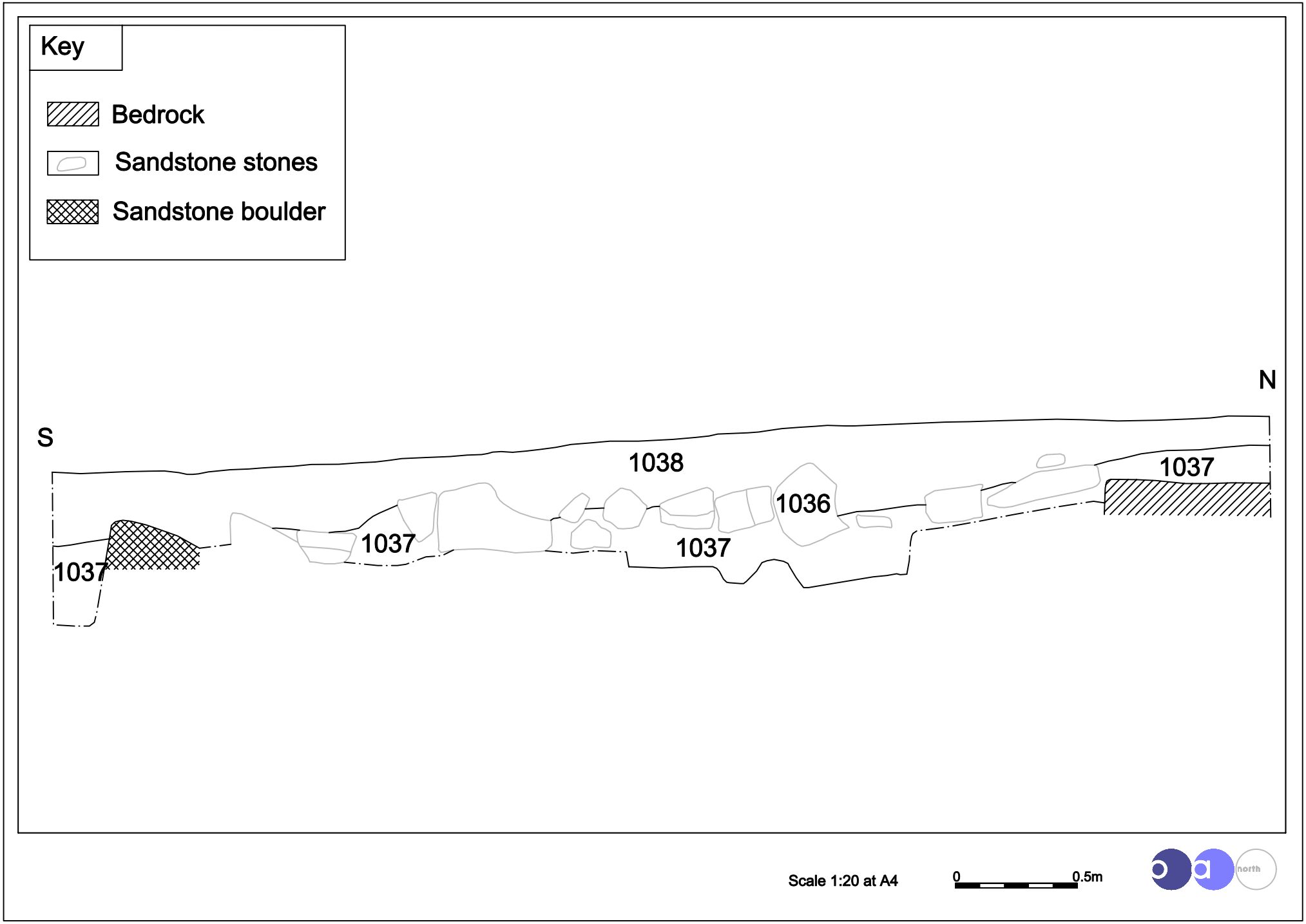


Figure 5: East-Facing Section of Sandstone Linear Feature 1036

Plate 1: Plan view of Trench **26** D-E looking south

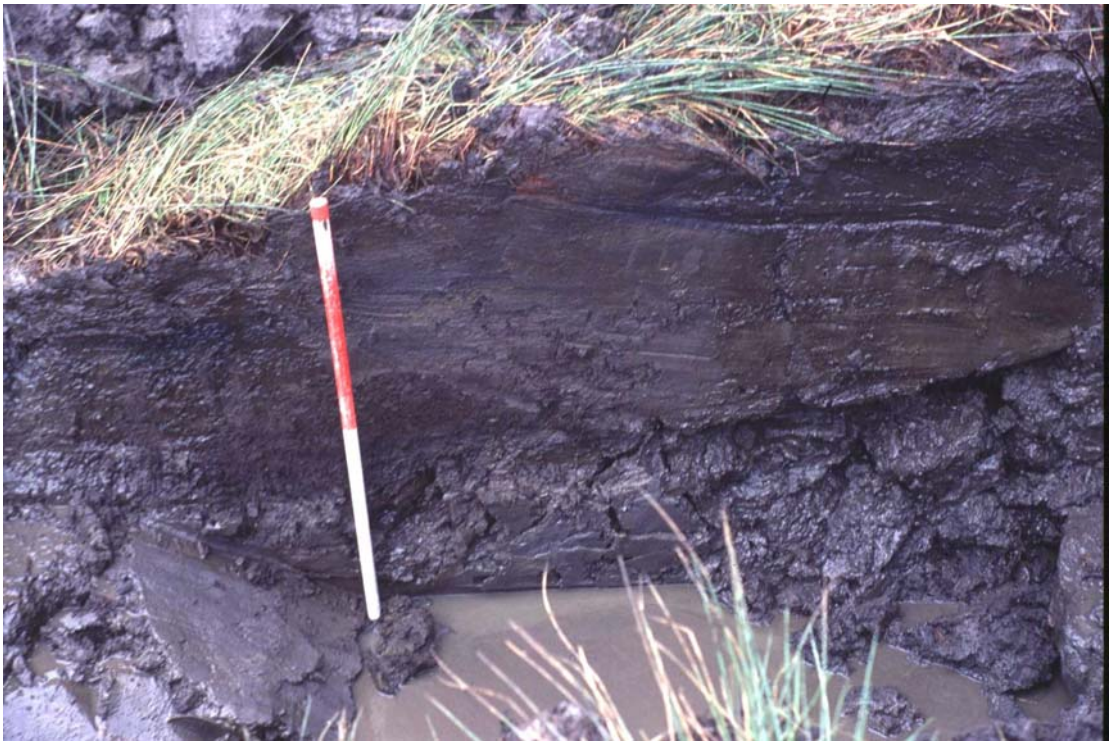


Plate 2: West-facing section of Trench **26** B-C showing the peat overlying a soft-weathered clay natural deposit

Plate 3: Plan view of Trench **22** D-E looking north

Plate 4: Plan view of Trench **22** D-E looking south

Plate 5: East-facing section of Trench **22** D-E

Plate 6: East-facing section of Trench **22** D-E sondage