

QWTF13



Quarrendon Wind Farm, Buckinghamshire

Strip, Map, and Sample (SMS) Excavation, Preservation in-situ of selected areas, and Watching Brief

Prepared on behalf of AWE Renewables Ltd



HEADLAND
ARCHAEOLOGY Ltd

PROJECT SUMMARY SHEET

Client

AWE Renewables Ltd

National Grid Reference

SP 8010 1673

Parish:

Quarrendon

Council:

Buckinghamshire

OASIS ref.:

Headland4-184864

Archive will be deposited with:

Buckinghamshire County Museum

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Schedule

Report

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Signed off by



Joe Abrams

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QUARRENDON WIND FARM, BUCKINGHAMSHIRE

Strip, Map and Sample Excavation (SMS), Preservation in situ, and Archaeological Watching Brief

Headland Archaeology (UK) Ltd undertook a programme of archaeological work, consisting of Strip, Map, and Sample Excavations, preservation in situ of certain areas, and a watching brief, on land at Quarrendon Fields. This was in response to a planning condition for the construction of a single wind turbine on the site. The archaeological work uncovered the remains of probable Iron Age / Romano-British activity, consisting of a single large ditch and another linear observed in section. The remains of medieval agricultural furrows and a pit and tree-throw also potentially related to medieval agriculture were also uncovered.

1 INTRODUCTION

AWE Renewables Ltd (the client) have been granted planning consent (10/00136/APP) for the construction of a single wind turbine, plus associated trackways and cable runs, on land at Quarrendon Fields, to the north of Aylesbury in Buckinghamshire (SP 8010 1673). This site is henceforth referred to as the Development Area (DA) (Illus 1).

Because of the archaeologically sensitive nature of the DA, the Buckinghamshire County Archaeological Services (BCAS) requested that a programme of archaeological evaluative works (comprising field-walking, a geophysical survey, cropmark analysis, and trial-trenching) be carried out, before determination of the planning application. This was in relation to the earlier planning application for housing. The pre-determination evaluative works demonstrated that the DA lay within an area of archaeological potential for the Iron Age and Romano-British periods, comprising a series of regionally-significant settlement enclosures. Remains of medieval ridge-and-furrow and pre-enclosure parliamentary enclosure boundaries were also identified.

The planning application for housing was not granted, however a revised application for the construction of a single wind-turbine was granted. A Condition (16) was placed on the planning consent which required a scheme of archaeological work to be undertaken. Headland Archaeology, acting on behalf of the client, agreed a scheme of archaeological works for this with BCAS - a Strip, Map and Sample excavation of the turbine base and access tracks which require stripping of the overburden, preservation in situ of any tracks where there was no ground disturbance, and archaeological monitoring of all other groundworks.

The client commissioned Headland Archaeology to prepare a Written Scheme of Investigation (WSI) for the archaeological work (Headland Archaeology 2014), undertake the site works and prepare a report (this document) on the results. The WSI was approved by BCAS prior to commencement of the project.

2 SITE LOCATION AND DESCRIPTION

The DA is located c.3km to the north-west of Aylesbury, in the parish of Quarrendon (centred at SP 8010 1673). It is bounded by a tributary of the River Thames to the west, the Western Link Road to the south, and hedgerows and open fields to the north and east.

The DA comprises two open fields in use for agriculture, separated by hedgerows. The ground is highest in the northern part of the DA (where the turbine is to be placed), around 88mOD, dropping to c.85mOD towards the centre, and dropping to 70-74mOD at its southern end.

The underlying solid geology comprises the Kimmeridge Clay Formation, a mudstone formed in the Jurassic Period in an environment dominated by shallow seas. Superficial deposits of alluvium are recorded overlying this (www.bgs.ac.uk).

3 ARCHAEOLOGICAL BACKGROUND

The pre-development evaluative works have provided a clear indication of the types of archaeological remains which survive across the DA.

Regionally-significant remains of Iron Age – Romano-British date were revealed during the evaluative works (Albion Archaeology 2010) (Illus 2). This comprised the truncated remains of three rectilinear and curvilinear settlement areas within the central and eastern parts of

the DA. That in the northwestern part of the DA, AZ2, was divided into two enclosures, contained linear remains, pitting, post-holes, and a cobbled surface, and with the density of artefacts recovered indicating settlement occupation. Enclosure AZ3 contained the remains of a probable late Iron Age banjo enclosure, and a complex series of curvilinear and rectilinear enclosure with sub-enclosures, potentially used for the management of livestock. AZ5 was the most complete and had clear evidence of internal divisions and a distinct trackway connecting it to the river.

Other investigations in this area have also revealed evidence for Iron Age – Roman activity, with archaeological work during the laying of a gas pipeline in the northwestern part of the DA revealing the presence of Roman settlement and industrial remains (HER 6299).

The DA is also positioned to the north of the medieval village of Quarrendon and demolished church of St Peter (Scheduled Ancient Monument: 1013416). The land within the DA is thought to have been used for agriculture during the medieval period, as is demonstrated by the discovery of medieval ridge-and-furrow during the trial trenching (Albion Archaeology 2010).

The DA lies within part of the land controlled by the Lee family from the Tudor period, and is positioned to the north of the earthworks of the Tudor gardens associated with them. In the 16th century the Lee family instigated a programme of early (pre-parliamentary) enclosure on this land. Cropmark evidence for these early enclosure boundaries has been identified, and they were also identified during the trial trenching (Albion Archaeology 2010). From this date, the DA has comprised open fields in use for agriculture.

4 AIMS & OBJECTIVES

In general the purpose of the investigation was to identify and assess the particular significance of any element of the historic environment that would be affected by the development. This was achieved by determining and understanding the nature, function and character of any remains on the site, in their cultural and environmental setting. Specifically the aims of the investigation included:

- Establishing the location, extent, nature and date of any archaeological features or deposits that may be present.
- Establishing the integrity and state of preservation of any archaeological features or deposits that may be present.
- Securing where appropriate, the assessment, analysis, conservation, and long-term storage of

any artefactual/ecofactual material recovered from the site.

The local and regional research contexts are provided by the *Solent Thames Research Framework Research Agenda* (Lambrick 2009). National research agendas are provided by *English Heritage Archaeology Division Research Agenda* (1997) and period research strategies are provided by *Understanding the British Iron Age: An Agenda for Action* (Haselgrove *et al* 2001). Any evidence retrieved during the works are analysed in light of the objectives contained in these documents. Specific aims taken from these documents include:

- What can the evidence tell us about long-term settlement change between the Iron Age and medieval periods (English Heritage 1997, 52).
- More work is required on whether the form of settlements is related to their socio-economic role or to other non-morphological factors and the existence of geographical and chronological variations (Lambrick 2010, 4).
- The size of communities in the Iron Age, their social and economic relationships and the degree of economic specialisation need more investigation (Lambrick 2010, 5).

The Phase 1 evaluation report also outlined several site-specific research questions (Albion Archaeology 2010, 27):

- Can contextual and palaeo-environmental evidence reveal clear divisions between domestic, industrial and farming areas within the settlement enclosures?
- Is it possible to determine the way in which the wider landscape was divided between arable and pastoral farming?
- What is the relationship between settlement location, topography and the position and use of resources?
- What is the significance of the material remains of portable kiln furniture recovered? Was pottery production a seasonal activity and where was it taking place?

5 METHODOLOGY

5.1 Site works

Strip, Map, and Sample Excavations

The Strip, Map, and Sample Excavations were undertaken between the 21st and 29th August 2014 on the area of the turbine base and access track. The turbine base area measured 62m by 36m; and the access track measured 1.6km in length by c.6.5m in width. The overburden was removed using a 360degree tracked excavator using a flat ditching bucket and under

archaeological supervision. This removed the overburden down to the top of the natural geological deposit, around 0.4m beneath the present ground-surface, where archaeological features were present. Hand excavation of all archaeological features and environmental sampling was undertaken as per the methodology in the WSI (Headland Archaeology 2014).

Preservation in situ

Archaeologically sensitive areas of the development were removed from the programme of intrusive groundworks, with remains in these areas being preserved in situ. This covered the existing farm track, to the west of the new track, which was simply levelled, preserving any archaeological remains in situ.

Watching Brief

Archaeological monitoring of other groundworks comprised the monitoring of the excavation of the cable trenches along the eastern side of the track. This was carried out on several visits between the 3rd and 21st November 2014. These trenches were all c.0.8m in width by c.1.25m in depth, and ran for a length of c.850m. Monitoring was carried out in accordance with the WSI (Headland Archaeology 2014) and involved archaeological observation, investigation and recording during all groundworks.

5.2 Recording

All recording was in accordance with the code of practice of the Chartered Institute for Archaeologists (CIfA). Contexts were given unique numbers. All recording was undertaken on pro forma record cards that conform to accepted archaeological standards. All stratigraphic relationships were recorded.

An overall site plan at an appropriate scale and relative to the National Grid was compiled. The site plan was accurately tied in to the National Grid and a scale version is shown in Illus 1.

A digital photographic record was taken and a metric scale was clearly visible in record photographs.

5.3 Reporting and Archives

The results of the works are presented below. A summary report has been prepared for submission to the OASIS database (headland4-184864).

There resultant archive will be deposited at Buckinghamshire County Museum. All archive preparation will be undertaken in accordance with guidelines published by the CIfA on behalf of the Archaeological Archives Forum (July 2007).

6 RESULTS

6.1 Introduction

The technical detail of contextual information can be found in Appendix 1. The following narrative is designed to interpret that technical detail and attempt to categorise its significance. Context numbers for deposits are expressed in parenthesis, i.e. (001), cuts of features are expressed in brackets, i.e. [003].

The topsoil (001), a loose dark brown-grey silty-clay, was observed for a depth of between 0.15m and 0.25m across the whole DA. This overlay the subsoil (002), a light brown-grey silty-clay with occasional small flints, chalk fragments, and stones. This was between 0.15 and 0.25m deep. This is with the exception of the area of the existing farm trackway, which revealed modern rubble deposits to depths of 0.5m (limit of excavation).

The natural geological deposit (003) was a light brown-grey silty-clay, with occasional small stones and patches of gravel. This was alluvium, and was observed between 0.4 and 0.5m beneath the modern ground-surface.

Archaeological remains were observed within the area of the turbine base, the new access track, and the cable trenches. These comprised remains thought to have been associated with Iron Age / Romano-British activity on the site, most notably the remains of a large ditch across the area of the turbine base and a linear feature observed during the cable trench excavations; and the remains of medieval agricultural furrows alongside other probable medieval agricultural activity. They are discussed here by area (Illus 3).

6.2 Strip, Map, Sample Excavation of Turbine Base

6.2.1 NE-SW orientated ditch (Illus 4, 5 and 6)

A NE-SW orientated ditch was observed during the excavation of the turbine base: [011], [013], [017], and [021]. This crossed the entire turbine base area and ran for a length of c.57m. The ditch was between 0.65m and 1.5m in width, by 0.15-0.45m in depth. It generally had regular gradual sides and a flat base, although this was more uneven and irregular in places.

The ditch contained a single fill, a firm yellow-grey silty-clay with occasional small stones and chalk flecks. The only find recovered was a single piece of patinated flint, possibly part of a core and presumably prehistoric in date. This is not, however, enough to securely date the ditch as could be residual.

None of the evaluation trial trenches or the geophysical survey covered this area, and so it is not possible to

reconcile this ditch with any of the previously identified features (Illus 2). It is, however, within an area of general Iron Age / Romano-British activity, and so it seems most likely that it is of this date. This is supported by the fact that it is on the same broad alignment as many of the Iron Age / Romano-British features to the south. Furthermore, the ditch was truncated by the medieval furrow [019] (Illus 5).

6.2.2 *Furrows (Illus 5 and 7)*

The remains of nine agricultural furrows were observed within this area, all orientated NW-SE, and positioned approximately 5m apart. Slots were excavated in three of these: [007], [015], and [019].

The furrows were observed for a maximum length of 26m, generally petering out to the NW. They measured between 0.85m and 1.75m in width, by between 0.11 and 0.15m in depth. They had gradual regular sides and a flat base, and a single yellow-grey-brown silty-clay fill with occasional chalk and small stone inclusions. No finds were recovered from any of the furrows.

These furrows are part of the medieval agricultural landscape. They are identified on the geophysical survey, all on this NW to SE alignment, with some just to the southeast of the turbine base (Illus 2). Examples of these furrows were also identified during the trial-trenching evaluation. This further demonstrates the agricultural use of this area during the medieval period, outside of the settlement at Quarrendon.

6.2.3 *Pit and Tree-Throw (Illus 6)*

One pit [009] was excavated within this area. This was sub-circular and measured 1.1m by 0.8m, by 0.13m in depth. It had regular gradual sides and a concave base, and contained a single firm dark orange-grey silty-clay with occasional small stones and chalk flecks. No finds were recovered from this pit, however it truncated the fill (010) of ditch [011], demonstrating that it is of later date than this ditch. This suggests that it may have been related to the medieval agricultural activity taking place, particularly as it was located in an area which would have fallen between two furrows.

A single tree-throw, [005], was also recorded in this area. This measured 2.3m by 1.6m by 0.12m in depth, was irregularly shaped with irregular sides and an uneven base, had rooting in its base, and contained a firm grey-orange silty-clay fill. No finds were recovered from the tree-throw, and it cannot be placed within any particular period.

6.3 Strip, Map, Sample Excavation of Access Track and Levelling of Farm Track

The new access track was excavated down to the level of the natural geological deposit (between 0.4 and 0.5m deep), revealing the overlying topsoil and subsoil stratigraphy as outlined in Section 6.1 (Illus 8). The levelling of the existing farm track, to the west of the new track, only revealed deposits of modern rubble hardcore (brick, concrete and mortar), to depths of 0.5m, with the natural deposit not being reached and any archaeological remains being preserved in situ.

The only features identified during the excavation of the new access track were seven NW-SE orientated furrows, positioned towards the southern end of the access track. These measured a maximum of 9m in length (the maximum area excavated for the access track), by between 0.85 and 1.1m in width. They contained a mid brown-grey silty-clay fill, with occasional chalk patches and very occasional flint patches. These furrows are positioned within an area of furrows identified on the geophysical survey, within the wider landscape of agricultural furrows. Other furrows were not identified elsewhere along the access track, presumably because of variations in survival.

6.4 Watching Brief on Cable Trenches

The stratigraphy in the cable trenches generally comprised topsoil (001) overlying subsoil (002) over the natural geological deposit (003) (Illus 9). In places deposits of modern made-ground, grey silt with brick rubble, were observed to depths of around 0.6m. These were sometimes overlying the topsoil (and had simply been deposited over the previous ground-surface), and were sometimes overlying the natural deposit (where the previous topsoil and subsoil deposits had been stripped and the made-ground imported). This happened in conjunction with the excavations for the new access track.

One probable linear feature [101] was observed in section of the cable trenches, approximately halfway along the length of the cable trench (Illus 10). This measured 1.1m in width by 0.45m, and was sealed by the topsoil (001) and subsoil (002). The feature had moderately-sloping sides and a concave base, and contained a single black-brown clay fill. No finds were recovered from the feature, and the nature of the cable trench excavations meant that its complete form and function could not be discerned. Nonetheless, it lies within an area of intensive Iron Age / Romano-British activity, based on the results from the geophysical investigation and trial-trenching, and so it is most likely related to this.

6.5 Finds Report, Julie Lochrie

A single piece of patinated flint was retrieved from ditch [011] (010). The flint is a small sub-oval, thin piece with one entirely cortical face. The side which has been flaked shows multi-direction removal mostly with no clear striking point. One edge, however shows crushing and the removal of several flakes from the same point of impact, either freehand or possibly bipolar. The latter removals are indicative of deliberate working.

A prehistoric date is implied for this find, but it cannot be closely dated. As an isolated find it may be residual and cannot be used to date the feature in which it was found or any activity on site.

6.6 Environmental Report, Laura Bailey and Tim Holden

One 10 litre sample was received for palaeoenvironmental assessment. The sample was from the fill (012) of Ditch [013]. The aim of the assessment was to assess the presence, preservation and abundance of any environmental remains in the samples. The environmental remains are quantified in Appendix 1.6 and 1.7.

Bulk samples were subjected to flotation and wet sieving in a Siraf-style flotation machine. The floating debris (the flot) was collected in a 250 µm sieve and, once dry, scanned using a binocular microscope. Any material remaining in the flotation tank (retent) was wet-sieved through a 1mm mesh and air-dried. All samples were scanned using a stereomicroscope at magnifications of x10 and up to x100. Identifications, where provided, were confirmed using modern reference material and seed atlases including Cappers *et al.* (2006).

The sample was archaeologically sterile and contained no material suitable for AMS (Accelerated Mass Spectrometry) radiocarbon dating.

6.7 Significance of Heritage Assets

The local and regional research contexts are provided by the *Solent Thames Research Framework Research Agenda* (Lambrick 2009). In Section 4 of this document we identified research aims relating to Iron Age activity (particularly the form of settlements, the size of communities, their social and economic relationships, and economic specialisation); and the longer-term settlement change between the Iron Age and medieval periods. The results of the Strip, Map, Sample Excavations and watching brief did not really provide any information in relation to these research aims, as many of the remains could not be securely dated and nor could their function or relationship to other features be

discerned. Nonetheless, the following Heritage Assets were identified during this work.

Description of Heritage Asset	Area	Feature Number	Significance of heritage asset on Local, Regional, National, International scale
NE-SW aligned ditch, possibly Iron Age / Romano-British in date.	Turbine base	011, 013, 017, 021	Low local significance
Possible linear feature, undated.	Cable Trench	101	None
Medieval ridge-and-furrow.	Turbine base; Access track	007, 015, 019	Low local significance
Pit and tree-throw, undated	Turbine base	005, 009	None

HA1 refers to the main ditch observed running across the turbine base. This is thought to be Iron Age – Romano-British in date, based on its location within an area of Iron Age / Romano-British activity, and the fact that it was truncated by a medieval furrow. However its function cannot be ascertained, with no information on nearby activity being gained from finds or environmental evidence. It is therefore considered to have low local significance, simply adding to the information known about Iron Age / Romano-British activity in this area.

HA2 comprises the probable linear feature observed in a section of the cable trench. This is undated and its function is not known, although it is thought to potentially be related to the Iron Age – Romano-British activity in this area. It is considered to have no significance.

HA3 consists of the remains of medieval agricultural furrows, identified in the area of the turbine base and the new access track. These were also identified on the geophysical survey and in the trial-trenching evaluation. They are considered to have low local significance, adding to the picture of medieval agriculture in this area.

HA4 refers to the undated pit and tree-throw excavated in the area of the turbine base. These may have been related to medieval agricultural activity, particularly as the pit truncates the NE-SW ditch, although this cannot be proved. They are therefore considered to have no archaeological significance.

7 CONCLUSION

This investigation was a successful use of a 'preservation in-situ' approach. It was the culmination of several years of successful collaboration between the developer, their design team and their archaeological advisors. Sensitive areas were, wherever possible, removed from intrusive groundworks (Illus 2). As a result, Strip, Map and Sample tested the highest impact / largest area of groundworks (Turbine Base and Access Track, which had been micro-sited as a result of early stage masterplanning by the client and their archaeological advisor(s). This resulted in a suitably modest impact – itself evidence of how effectively the client had designed impacts out of their scheme.

The Watching Brief approach was utilised on less well understood areas and could have revealed remains, which it did. These were also relatively modest.

As a result, the archaeological work on the construction of the single wind turbine at Quarrendon uncovered some archaeological features related to extensive and previously investigated Iron Age / Romano-British activity, and remains associated with medieval agriculture. The evidence for probable Iron Age / Romano-British activity comprised a single large NE-SW aligned ditch and another possible linear feature. The evidence for medieval agriculture comprised the remains of ridge-and-furrow cultivation, with a pit and tree-throw also potentially being related to this.

This adds to the knowledge gained during the geophysical survey and trial-trenching evaluation about activity in this area in the past. It does not, however, provide any further information about the nature of Iron Age / Romano-British settlement in this area, and nor does it add any further information concerning the picture of medieval agriculture here.

8 REFERENCES

- Albion Archaeology 2010, *Quarrendon Fields Aylesbury Buckinghamshire: Archaeological Field Evaluation*
- Archaeological Archives Forum *Archaeological Archives: a guide to best practice in creation, compilation, transfer and curation* (published by the IfA 2007).
- Brickley M & McKinley J 2004 *Guidelines to the standards for recording human remains* (IfA Paper No 7).
- British Geological Survey website, www.bgc.ac.uk (accessed February 2015)
- Cappers RTJ, Bekker RM and Jans JEA 2006 *Digital seed atlas of the Netherlands*. Barkhuis Publishing and Groningen University Library, Groningen.
- Communities and Local Government 2012. *National Planning Policy Framework, Government National Planning Policy*.
- English Heritage 1997, *Archaeology Division Research Agenda (DRAFT)*
- English Heritage 2011, *Environmental Archaeology: a guide to the theory and practice of methods, from sampling and recovery to post-excavation*
- Headland Archaeology 2014, *Strip Map and Sample Excavation and Preservation in situ for the proposed wind turbine at Quarrendon Fields, Buckinghamshire: Written Scheme of Investigation*.
- Gurney, D 2003, *Standards for the Field Archaeology in the East of England*
- Haselgrove, C et al 2001, *Understanding the British Iron Age: An Agenda for Action*
- Lambrick, G 2010, *Solent Thames Research Framework Research Agenda: the Later Bronze Age and Iron Age Period*
- Watkinson D & Neal V *First aid for finds*, (Third Edition 1998).

9 APPENDICES

9.1 Appendix 1 – Site registers

Appendix 1.1: Context register

Context No.	Dimensions	Description
001		Topsoil
002		Subsoil
003		Natural
004	2.3m (N-S) X 1.6m (E-W) X 0.12m	Fill of tree-throw [005]. Mid grey-orange firm silty-clay, with occasional small stones and chalk flecks.
005	2.3m (N-S) X 1.6m (E-W) X 0.12m	Cut of tree-throw. Irregular-shaped with irregular sides and an uneven base. Moderate rooting in base.
006	2m+ (NW-SE) X 1.3m X 0.15m	Fill of furrow [007]. Mid yellow-grey firm silty-clay with moderate chalk flecks and occasional small stones.
007	2m+ (NW-SE) X 1.3m X 0.15m	Cut of furrow. Aligned NW-SE with regular sides and flat base.
008	1.1m (NE-SW) X 0.8m (NW-SE) X 0.13m	Fill of pit [009]. Dark orange-grey firm silty-clay with occasional small stones and chalk flecks.
009	1.1m (NE-SW) X 0.8m (NW-SE) X 0.13m	Cut of pit. Sub-circular with regular gradual sides and a concave base. Truncates [010].
010	2m+ (NE-SW) X 0.9m X 0.22m	Fill of ditch [011]. Mid yellow-grey firm silty-clay with occasional small stones and chalk flecks.
011	2m+ (NE-SW) X 0.9m X 0.22m	Cut of ditch. Aligned NE-SW, with regular gradual sides and an uneven base.
012	2.5m+ (NE-SW) X 1.5m X 0.45m	Fill of ditch [013]. Mid yellow-grey firm silty-clay with occasional small stones and chalk flecks.
013	2.5m+ (NE-SW) X 1.5m X 0.45m	Cut of ditch. Aligned NE-SW, with irregular sides and a flat base.
014	2m+ (NW-SE) X 0.85m X 0.11m	Fill of furrow [015]. Light grey-brown compact silty-clay with occasional chalk inclusions.
015	2m+ (NW-SE) X 0.85m X 0.11m	Cut of furrow. Aligned NW-SE, with gentle sides and a shallow-concave base.
016	2m+ (NE-SW) X 0.65m X 0.15m	Fill of ditch [017]. Mid grey-brown compact silty-clay.
017	2m+ (NE-SW) X 0.65m X 0.15m	Cut of ditch. Aligned NE-SW, with gentle sides and a shallow-curved base. Same as [11], part of the NE-SW linear running across site.
018	3.1m+ (NNW-SSE) X 1.75m X 0.11m	Fill of furrow [019]. Light yellow-grey firm silty-clay, with occasional small stones.
019	3.1m+ (NNW-SSE) X 1.75m X 0.11m	Cut of furrow. Aligned NNE-SSE, with gradual sides and flat base. Truncates [012].
020	2m+ (NE-SW) X 0.68m X 0.17m	Fill of ditch [021]. Mid yellow-grey firm silty-clay with occasional small stones.
021	2m+ (NE-SW) X 0.68m X 0.17m	Cut of ditch. Aligned NE-SW, with gradual regular sides and a flat base.
101	1.1m in width by 45m in depth.	Cut of linear feature. Moderate sides with concave base. Seen in section.
102	1.1m in width by 45m in depth.	Fill of linear [101]. Black-brown clay.

Appendix 1.2: Photographic register

Photo No.	Direction facing	Description
001	-	ID shot
002	NW	SE-facing section of tree-throw [005]
003	NW	SE-facing section of furrow [007]
004	NE	SW-facing section of pit [009] and ditch gully [011]
005	NW	Working shot
006	NW	General site shot showing furrows
007	NW	General site shot showing furrows
008	NW	General site shot showing furrows
009	NW	General site shot showing furrows
010	SE	General site shot and NE-SW ditch
011	W	General site shot and NE-SW ditch
012	NW	Furrow [015]
013	NE	Ditch [017]
014	NE	Ditch [017]
015	NE	Ditch [017]
016	NE	SW-facing section of ditch [013]
017	N	S-facing section of furrow [019]
018	SW	NE-facing section of furrow [19] and ditch [013]
019	NE	SW-facing section of ditch gully [021]
020	NE	SW-facing section of ditch gully [021]
021	SW	NE-facing section and general shot of ditch gully [021]
022	S	Working shot of watching brief on cable track
023	S	Working shot of watching brief on cable track
024	N	Cable trench
025	E	Section of cable trench
026	E	Photogrammetry of linear [101]
027	E	Photogrammetry of linear [101]
028	E	Photogrammetry of linear [101]
029	S	Working shot of watching brief
030	E	W-facing section of linear [101]
031	S	Working shot of watching brief
032	SE	Working shot of watching brief on cable trench
033	SE	Working shot of watching brief on cable trench
034	NE	Working shot of watching brief on cable trench
035	SE	Working shot of watching brief on cable trench
036	NW	Working shot of watching brief on cable trench
037	NW	Working shot of watching brief on cable trench
038	SW	Working shot of watching brief on cable trench
039	NW	Working shot of watching brief on cable trench
040	NW	Working shot of watching brief on cable trench
041	NW	Working shot of watching brief on cable trench
042	SW	Working shot of watching brief on cable trench

Photo No.	Direction facing	Description
043	NW	Working shot of watching brief on cable trench
044	NW	Working shot of watching brief on cable trench
045	NW	Working shot of watching brief on cable trench
046	SW	Working shot of watching brief on cable trench
047	NW	Working shot of watching brief on cable trench
048	NW	Working shot of watching brief on cable trench
049	NW	Working shot of watching brief on cable trench
050	NW	Working shot of watching brief on cable trench
051	SW	Cable trench by hedge
052	NW	Working shot of watching brief on cable trench by hedge
053	SW	Working shot of watching brief on cable trench by hedge
054	NW	Working shot of watching brief on cable trench by hedge
055	SW	Working shot of watching brief on cable trench by hedge
056	SE	Section of cable trench
057	SE	Section of cable trench
058	NE	Cable trench
059	NE	Section of cable trench
060	SE	Cable trench
061	SE	Section of cable trench
062	SE	Section of cable trench
063	NW	Section of cable trench
064	NW	Section of cable trench
065	NW	Section of cable trench
066	N	Working shot of watching brief on cable trench
067	SE	Section of cable trench
068	S	Cable trench
069	N	Cable trench
070	E	Section of cable trench
071	NE	Cable trench through compound
072	NE	Cable trench through compound
073	SW	Cable trench through compound
074	NE	Cable trench through compound
075	NW	Cable trench through compound
076	NW	Cable trench through compound

Appendix 1.3: Drawing Register

Drawing No.	Plan	Section	Description
001	-	1:10	SW-facing section of [9] and [11]
002	-	1:10	NE-facing section of [13] and [19]

Appendix 1.4: Sample Register

Sample No.	Context No.	Description
001	12	Basal fill of ditch gully [13]

Appendix 1.5: Finds Catalogue

Context	Quantity	Weight (g)	Material	Object	Description	Spot Date
010	1	15	Lithics	Core?	Possible core, flint	PH

Appendix 1.6: Retent Sample Results

Context	Sample Number	Feature	Sample Vol (l)	Lithics	Charcoal		Material available for AMS Dating	Comments
					Quantity	Max Size (mm)		
012	1	Fill of Ditch [013]	10	++	+	4	No	Charcoal not retained
Key: + = rare (0-5), ++ = occasional (6-15), +++ = common (15-50) and ++++ = abundant (>50) NB charcoal over 1cm is suitable for identification and AMS dating								

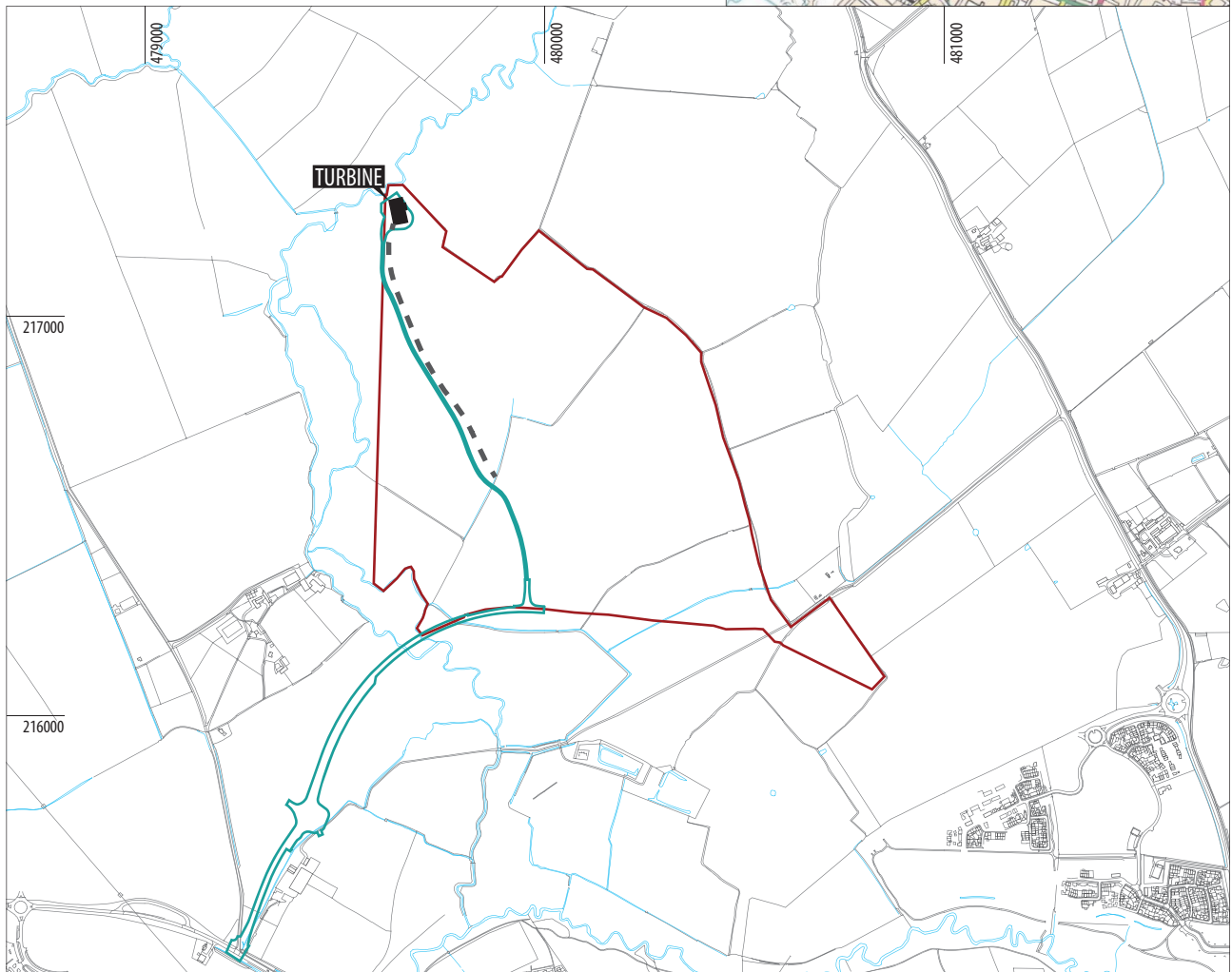
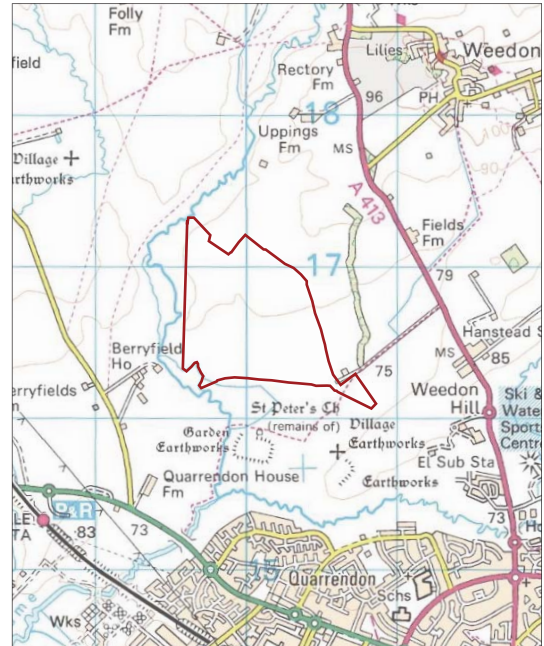
Appendix 1.7: Flotation Sample Results

Context Number	Sample Number	Feature	Total flot Vol (ml)	Material available for AMS	Comments
012	1	Fill of Ditch [013]	30	No	Modern roots and seeds. Archaeologically sterile
Key: + = rare (1-5), ++ = occasional (6-15), +++ = common (16-50) and ++++ = abundant (>50) NB charcoal over 1cm is suitable for identification and AMS dating					

QUARRENDON WIND TURBINE (QWTF/06)

land at Quarrendon Fields
Aylesbury
Buckinghamshire

0 200km



KEY

- development boundary
- turbine application location
- cable trench

0 1km
scale 1:18,000 @ A4

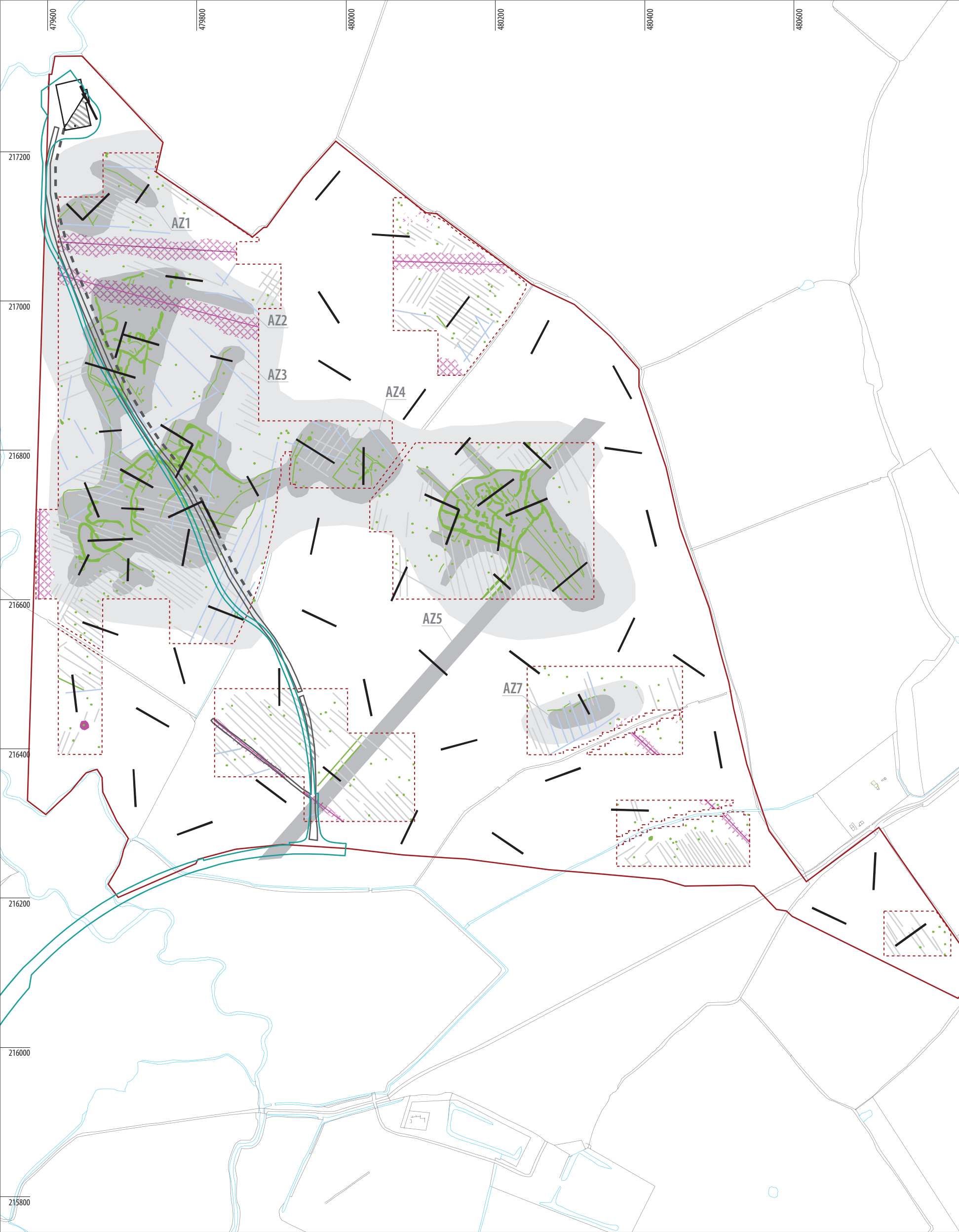
HEADLAND
ARCHAEOLOGY

SOUTH & EAST

Building 68C, Wrest Park
Silsoe
Bedfordshire MK45 4HS
01525 861 578
www.headlandarchaeology.com

ILLUS 1
Site location

Ordnance Survey © Crown copyright 2012. All rights reserved. Licence no. AL 100013329

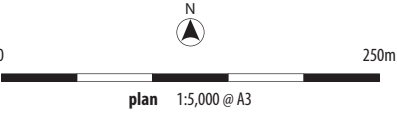


- KEY**

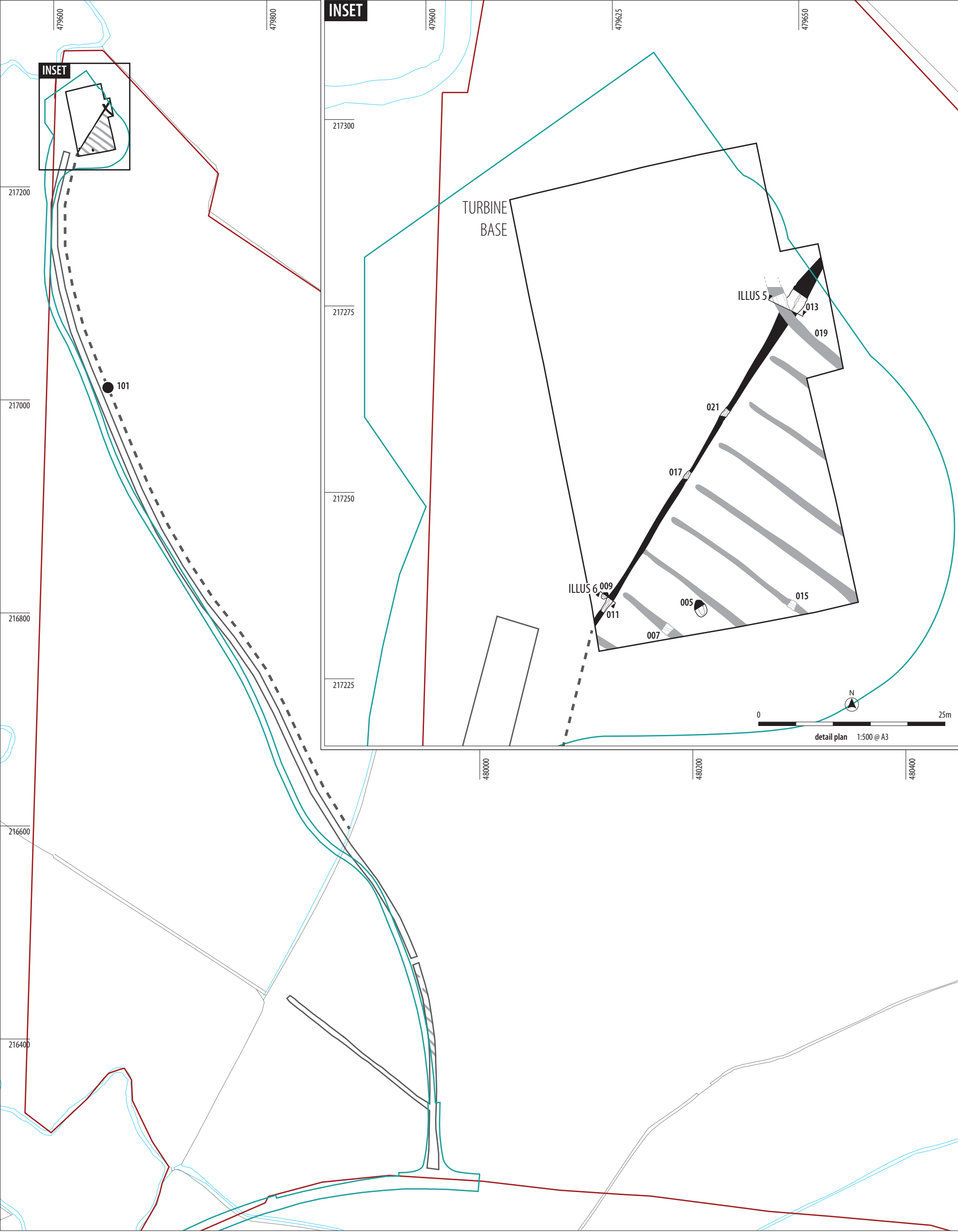
 - development boundary
 - turbine application location
 - access track
 - cable trench
 - archaeological features
 - furrows
 - trenches
- GEOPHYSICS**

 - geophysics boundary
 - possible archaeology
 - linear feature; agricultural
 - linear feature; poss. land drain
 - ferrous object
 - disturbance associated with service or field
- ZONES OF ARCHAEOLOGICAL POTENTIAL**

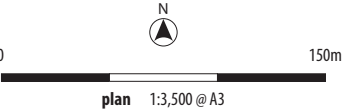
 - high (potential) (AZ1–AZ5, AZ7)
 - moderate (AZ6)
 - low (AZ8)



ILLUS 2
Plan showing areas monitored / excavated in relation to the results from the geophysical survey and previous trial trenching evaluation



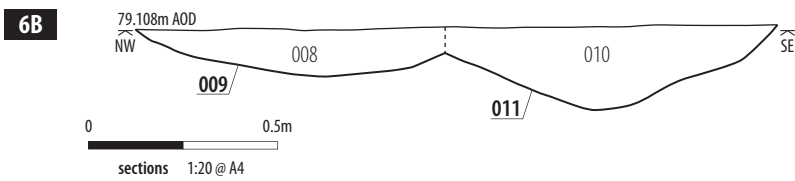
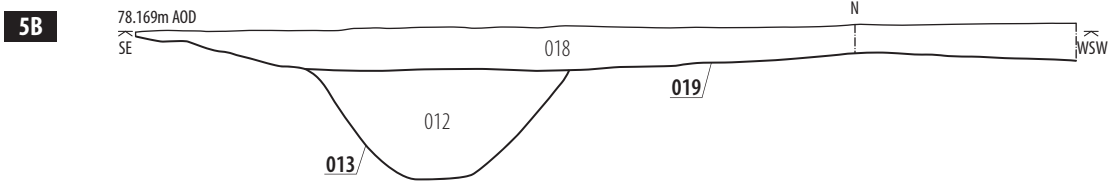
- KEY
- | | |
|------------------------------|-------------------------|
| development boundary | cable trench |
| turbine application location | archaeological features |
| access track | furrows |



ILLUS 4

SW facing photo of ditch [021]





ILLUS 5
NE facing section and photo of ditch [013] and furrow [019]

ILLUS 6
SW facing section and photo of pit [009] and ditch [011]

ILLUS 7

Photo showing the furrows in the turbine base area



ILLUS 8

Photo showing watching brief on access track



ILLUS 9

Photo showing representative sample of cable track



ILLUS 10

Photo of linear [101], looking E

