

Bakers Solar Farm Sidlesham West Sussex

Archaeological Watching Brief

for Bester Generacion on behalf of Sidlesham Renewables Ltd

> CA Project: 770182 CA Report: 15171

> > April 2015

Bakers Solar Farm Sidlesham West Sussex

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CA Project: 770182 CA Report: 15171

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SUMMARY

Project Name:	Bakers Solar Farm, Sidlesham
Location:	West Sussex, Chichester District Council
NGR:	485193 96646
Туре:	Watching Brief
Date:	06 th – 27 th February
Planning Reference:	SI/14/00870/FULEIA
Location of Archive:	Chichester Museum
Accession Number:	CHCDM 2014.23
Site Code:	BSFS 15

An archaeological watching brief was undertaken by Cotswold Archaeology during groundwork's associated with the development of a solar farm at Bakers Farm, Sidlesham, West Sussex.

An evaluation undertaken by Cotswold Archaeology at the site prior to the commencement of the development identified occupational evidence dating to the Late Bronze Age. This took the form of several ditches, postholes and pits. The particular aim of the watching brief was to •ascertain whether there might be further, as yet unrecorded prehistoric activity on the Site.

However, no further features or deposits of archaeological interest were observed during the development groundworks and no artefactual material pre-dating the modern period was recovered.

1. INTRODUCTION

- 1.1 In February and March 2015 Cotswold Archaeology (CA) carried out an archaeological watching brief for Sidlesham Renewables Limited at Bakers Solar Farm, Sidlesham, West Sussex centred on National Grid Reference (NGR) 485193 96646 (Figure 1; hereafter referred to as the Site).
- 1.2 Planning permission for the Solar Farm was granted by Chichester District Council (ref: SI/14/00870/FULEIA), conditional on a programme of archaeological work, comprising of the monitoring of construction groundwork and reporting of the results.
- 1.3 The watching brief was carried out in accordance with a detailed *Written Scheme of Investigation* (WSI) produced by CA (2015). The fieldwork also followed the *standard and guidance for an archaeological watching brief* (IfA 2009), the *Management of Archaeological Projects 2* (English Heritage 1991) and the *Management of Research Projects in the Historic Environment (MORPHE): Project Manager's Guide* (EH 2006).

The site

- 1.4 The proposed development site is *c*. 14.7ha in size and is located south of the village of Sidlesham, West Sussex and *c*. 7.5km south of the city of Chichester (Figure 1). The Site currently contains six agricultural fields. The Site resides within the parish of Sidlesham and is *c*. 2.5km north of the English Channel.
- 1.5 The proposed solar site is located at an average height of 0m aOD. The highest part of the Site is close to the north-western border in the area of the site which is a height of c. 3m aOD, and the lowest location in the site is the south-western corner which is a height of c. -3m aOD. The surrounding land within the study area is predominantly rural, comprising agricultural fields although the land to the north is dominated by horticultural activity and small business premises.

Archaeological background

1.6 A desk-based assessment (CA 2014a) identified two heritage assets recorded within the Site. A Roman road is believed to have run from Chichester to Selsey. Although no archaeological evidence for the road has been found within the Site, if the alignment of the road is continued from Street end in Sidlesham, where it has been recorded, and is projected to the end of the headland – it would have run diagonally across the Site (CA 2014b).

- 1.7 However, during a recent trial trench evaluation at the Site two trenches were targeted on this projected alignment and no remains that might be associated with a Roman road were identified (CA 2014b). Trenches 1, 4 and 5 contained no archaeology (see Figure 3). Trench 2 contained occupational evidence dating to the Late Bronze Age. This took the form of several ditches, postholes and pits. The most notable feature was a possible double ditched boundary (ditches 203 and 210). Ditch 203 contained a large quantity of Late Prehistoric pottery, and this would appear to be confirmed by the palaeoenvironmental evidence as detailed in Section 3 below. A pit in Trench 3 may be peripheral to the main occupation within Trench 2.
- 1.8 Although very little other prehistoric material has been found in the immediate vicinity of the Site, suggesting that the potential for archaeology of this period is generally low, the Site's proximity to the coast, where considerable prehistoric activity has been identified, suggests further potential of this period should not be discounted. The proximity and abundance of recorded Roman sites to the north-east of the Site, notably a Romano-British bath house, and the potential alignment of the Roman road, indicates a potential for currently unrecorded Roman period archaeology to exist within the Site limits.

Archaeological objectives

- 1.9 The objectives of the archaeological works were:
 - to monitor groundworks, and to identify, investigate and record all significant buried archaeological deposits revealed on the site during the course of the development groundwork;
 - to ascertain whether there might be further, as yet unrecorded prehistoric activity on the Site

• to produce an integrated archive for the project work and a report setting out the results of the project and the archaeological conclusions that can be drawn from the recorded data.

Methodology

- 1.10 The watching brief comprised of the observation of all intrusive groundwork, including the excavation of all groundwork for such elements of the construction programme as track ways, cable routes and inverter locations (see Figure 2). Non-archaeologically significant deposits were removed by the contractors under archaeological supervision. Where mechanical excavators were used, these were equipped with a toothless ditching bucket.
- 1.11 Where archaeological deposits were encountered written, graphic and photographic records were compiled in accordance with CA Technical Manual 1: *Fieldwork Recording Manual* (2013).
- 1.12 The archive and artefacts from the evaluation are currently held by CA at their offices in Andover. Subject to the agreement of the legal landowner the complete site archive of all fieldwork undertaken at the site (Evaluation and watching brief) will be deposited with Chichester Museum under accession number CHCDM 2014.23. A summary of information from this project, set out within Appendix A, will be entered onto the OASIS online database of archaeological projects in Britain.
- 1.13 CA will comply fully with the provisions of the Treasure Act 1996 and the Code of Practice referred to therein.

2. RESULTS (FIGS 2-4)

2.1 No archaeological features or deposits were identified during the course of the watching brief and despite visual scanning of spoil, no artefactual material pre-dating the modern period was recovered except from the topsoil. It is worth noting that boundary ditch **[1103]/[1303]** is seen in the 1948 and 1972 aerial photographs produced in the desk based assessment (CA 2014a). The other modern ditch **[1105]** filled with modern CBM, was perhaps associated with field drainage.

2.2 The stratigraphic sequence found across site broadly consisted of a mid greyish brown clay silt topsoil of an average depth of 0.3m. Below the topsoil was a light greyish brown silty clay subsoil had an average depth of 0.5m, the natural substrate consisted of dark orangey brown clay sand with common sub angular flint.

3. POTTERY

3.1 Finds recovered from watching brief consisted entirely of pottery.

Pottery: Medieval

3.2 Topsoil **100** produced two joining rimsherds from a jar with an out-curving rim in a coarse fabric tempered with quartz, flint and probable mudstone. A date range in the 11th to 13th centuries is likely for this pottery.

4. PALAEOENVIRONMENTAL EVIDENCE

- 4.1 During the previously undertaken evaluation at the site (CA 2014b) a number of bulk samples were recovered from Late Bronze Age features in Trenches 2 and 3 and an initial assessment of the results was presented in the evaluation report. After initial assessment (CA 2014), fill **214** (sample 5) from pit/ditch terminus **203** was recommended for further assessment and analysis. The results of this are presented below.
- 4.2 No further archaeological deposits were identified during the course of the watching brief that were suitable for palaeoenvironmental sampling.

Plant Macrofossils

4.3 During the course of the trial trench evaluation three environmental samples (40 litres of soil) taken from fills within the terminus of Late Bronze Age ditch **203** were processed with the intention of recovering evidence of industrial or domestic activity and material for radiocarbon dating. The samples were processed by standard flotation procedures (CA Technical Manual No. 2). The samples contained a large assemblage of almost perfectly preserved charred plant macrofossils. After initial assessment (CA 2014), fill **214** (sample 5) was recommended for further work. Due to the large number of charred grains within the assemblage (estimate in excess of

30,000), only 20% of the assemblage was fully counted which resulted in the identification of 8055 individual items.

Late Bronze Age

- 4.3 Plant macrofossils from fill **214** (sample 5) identified emmer wheat (Triticum dicoccum), spelt wheat (Triticum spelta), barley (Hordeum vulgare) and oat (Avena) cereal grains. Smaller numbers of cereal chaff including emmer and emmer/spelt wheat glume bases, emmer and emmer/spelt wheat spikelet forks, wild oat palea (Avena fatua) and a culm node were also identified. Emmer wheat and barley were the dominant cereals identified within the assemblage. The almost 1:1 ratio of symmetrical/asymmetrical barley grains suggests both 2-rowed and 6-rowed varieties of barley may have been cultivated. A number of oat grains were identified, however given the identification of a number of wild oat palea, it can be suggested that the oats were intrusive (weed contamination) within the main emmer and barley crops. Other species recorded included hazelnut (Corylus avellana) shells, vetches/peas (Vicia/Lathyrus), bromes (Bromus), black-bindweed (Fallopia convolvulus) and dock (Rumex) seeds.
- 4.4 Emmer wheat and barley were known to be the dominant cultivated crop from the Neolithic into the Middle Bronze Age Period. From the Middle Bronze Age however, spelt wheat started to be introduced and had overtaken emmer as the dominant wheat crop by the Early Iron Age. It could be argued that fill **214**, dominated by emmer wheat, contradicts this trend. However there is a disparity recorded in the uptake of spelt wheat. For example, further north in the Thames Valley, Late Bronze Age sites are characterised by emmer and spelt wheat grains, where as in the Kennet River Valley, emmer wheat and barley tend to dominate. This suggests that people within the Kennet River Valley adopted spelt wheat later than those of in the Thames River Valley (Campbell and Straker 2000, 22–23).
- 4.5 It is possible a similar trend occurs in this area, however, since only one sample is represented, the results may be skewed and a larger number of samples would be required to determine the spatial and temporal adoption of spelt wheat. These results will however make a valuable contribution to future regional research reviews which will hopefully clarify these trends.
- 4.6 The reasoning for the placement of this grain assemblage within the ditch terminus is less clear. It is possible the deposit represents grain that had become accidently

burnt, perhaps whilst being dried and hardened prior to grinding. However, since grain was an important component within Bronze Age diet, it is more likely that this assemblage points towards some form of structural deposition, perhaps ending some form of ritual or feasting event. This event may be connected to the ending of life cycles, and hope for a successful harvest the following year or may be related to the abandonment of a site.

5. DISCUSSION

- 5.1 Despite the archaeological potential of the application area as recorded during the evaluation (CA 2014b), no further pre-modern archaeological deposits or features were identified during the course of the watching brief.
- 5.2 The palaeoenvironmental evidence following the further work on the sample from the evaluation is of interest as it would appear to indicate that the site fits in with a pattern seen in the Kennet River Valley where emmer wheat and barley tend to dominate in to the Late Bronze Age period. It is possible a similar trend occurs in this area, however, since only one sample is represented, the results may be skewed and a larger number of samples would be required to determine the spatial and temporal adoption of spelt wheat. The results will however make a valuable contribution to regional research reviews, which hopefully, following further sampling strategies across the region will start to clarify and define these trends.

6. CA PROJECT TEAM

Fieldwork was undertaken by Oliver Good and Jeremy Clutterbuck. The report was written by Oliver Good and Jeremy Clutterbuck. The illustrations were prepared by Leo Heatley. The archive has been compiled by Adam Howard, and prepared for deposition by James Johnson. The project was managed for CA by Richard Greatorex.

7. REFERENCES

BGS (British Geological Survey) online 2014

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CA 2014a Bakers Farm, Sidlesham, West Sussex - Desk-Based Assessment

- CA 2014b Bakers Solar Farm, Sidlesham, West Sussex Archaeological Evaluation Report
- CA 2015 Bakers Solar Farm, Sidlesham, West Sussex Written Scheme of Investigation for an Archaeological Watching Brief

APPENDIX A: CONTEXT DESCRIPTIONS

Trench No.	Conte xt No.	Туре	Fill of	Context interpretation	Description	L (m)	W (m)	Depth/ thickne ss (m)	Spot- date
1	100	Layer		Topsoil	Mid greyish brown clayey silt with moderate ≤50mm sub angular flint	30	10	0.3	Modern
1	101	Layer		Subsoil	Light greyish brown silty clay with common ≤60mm sub angular flint	30	10	0.2	
1	102	Layer		Natural	Dark orangey brown clayey sand with common ≤100mm sub angular flint	30	10	0.7	
2	200	Layer		Topsoil	Dark brown silt	18	0.9	0.3	Modern
2	201	Layer		Subsoil	Mid grey clayey sand with moderate ≤60mm sub angular flint	18	0.9	0.2	
2	202	Layer		Natural	Dark orangey brown clayey coarse sand with common ≤100mm sub angular flint towards north end	18	0.9	0.5	
2	203	Layer		Natural	Dark bluish grey coarse sand	18	0.9	0.2	
3	300	Layer		Topsoil	Mid greyish brown clayey silt	18	0.6	0.3	Modern
3	301	Layer		Subsoil	Light grey clayey sand with moderate ≤60mm sub angular flint	18	0.6	0.4	
3	302	Layer		Natural	Dark orangey brown clayey Sand, coarse sand and clay	18	0.6	1.3	
4	400	Layer		Topsoil	Mid greyish brown clayey silt	15	15	0.4	Modern
4	401	Layer		Subsoil	Light greenish grey silty fine sand	15	15	0.4	
4	402	Layer		Natural	Dark orangey brown medium sand and clay with occasional ≤100mm sub angular flint	15	15	0.5	
4	403	Layer		Natural	Light bluish grey medium sand and clay	15	15	0.7	
5	500	Layer		Topsoil	Mid greyish brown silt	13	0.6	0.36	Modern
5	501	Layer		Subsoil	Light greyish brown silt	13	0.6	0.3	
5	502	Layer		Natural	Dark orangey brown clayey sand with common ≤100mm sub	13	0.6	0.54	

					rounded flint				
6	600	Layer		Topsoil	Mid greyish brown silt	30	9.5	0.3	Modern
6	601	Layer		Subsoil	Light greyish brown silty clay	30	9.5	0.2	
6	602	Layer		Natural	Dark orangey brown silty clay with common ≤100mm sub rounded flint	30	9.5	0.44	
7	700	Layer		Topsoil	Mid greyish brown clayey silt	118	0.6	0.3	Modern
7	701	Layer		Subsoil	Light greenish grey silty fine sand	118	0.6	0.2	
7	702	Layer		Natural	Dark orangey brown medium sand and clay with occasional ≤100mm sub angular flint	118	0.6	0.5	
8	800	Layer		Topsoil	Mid greyish brown silt	15	3.5	0.4	Modern
8	801	Layer		Subsoil	Light greyish brown silty clay	15	3.5	0.2	
9	900	Layer		Topsoil	Mid greyish brown clayey silt with occasional ≤40mm sub rounded flint	54	0.45	0.3	Modern
9	901	Layer		Subsoil	Light greenish grey silty clay with occasional ≤50mm sub rounded flint	54	0.45	0.1	
9	902	Layer		Natural	Light greenish grey and orange silty clay and clayey sand with moderate ≤100mm sub rounded flint	54	0.45	0.4	
10	1000	Layer		Topsoil	Mid greyish brown silt with occasional sub angular ≤40mm flint	149	0.3	0.3	Modern
10	1001	Layer		Natural	Mid orangey brown silty clay and clay with occasional ≤100mm sub angular flint	149	0.3	0.4	
11	1100	Layer		Topsoil	Mid greyish brown clayey silt with occasional ≤60mm rounded flint	118	0.45	0.3	Modern
11	1101	Layer		Subsoil	Light greenish grey silt and clayey sand with moderate ≤70mm sub angular flint	118	0.45	0.2	
11	1102	Layer		Natural	Light yellowish brown, mid orangey brown and light grey clayey sand, silty sand and clay with common ≤150mm rounded flint	118	0.45	0.5	
11	1103	Layer		Cut	Boundary Ditch	>0.45	1.55	0.48	
11	1104	Layer	1103	Fill	Mid greyish brown silty fine sand with moderate ≤30mm angular flint	>0.45	1.55	0.48	
11	1105	Layer		Cut	Ditch	>2	1.9	0.6	
11	1106	Layer	1105	Fill	Light yellowish brown and red compact cbm and clay with moderate ≤50mm mortar/cement	>2	0.8	0.34	
11	1107	Layer	1105	Fill	Mid greyish brown clayey sand with moderate ≤30mm angular flint and occasional cbm	>2	1.1	0.2	
11	1108	Layer	1105	Fill	Mid reddish brown silty clay with common ≤50mm cbm	>2	1.6	0.11	
12	1200	Layer		Topsoil	Mid greyish brown clayey silt with occasional ≤60mm rounded flint	64	0.45	0.3	Modern
12	1201	Layer		Subsoil	Light greenish grey silt and clayey sand with moderate ≤70mm sub angular flint	64	0.45	0.2	
12	1202	Layer		Natural	Light yellowish brown, mid orangey brown and light grey clayey sand, silty sand and clay with common ≤150mm rounded flint	64	0.45	0.2	
13	1300	Layer		Topsoil	Mid greyish brown clayey silt with occasional ≤60mm rounded flint	85	0.45	0.3	Modern

13	1301	Layer		Subsoil	Light greenish grey silt and clayey sand with moderate ≤70mm sub angular flint	85	0.45	0.2	
13	1302	Layer		Natural	Light yellowish brown, mid orangey brown and light grey clayey sand, silty sand and clay with common ≤150mm rounded flint	85	0.45	0.2	
13	1303	Cut		Cut	Boundary Ditch	>0.45	1.4	0.53	
13	1304	Fill	1303	Fill	Mid greyish brown silty fine sand with moderate ≤30mm angular flint	>0.45	1.4	0.53	

APPENDIX B: OASIS REPORT FORM

PROJECT DETAILS

Project Name	Bakers Solar Farm, Sidlesham, West Su	ssex		
•				
Short description (250 words maximum)	An archaeological watching brief was undertaken by Cotswold Archaeology during groundwork's associated with the development of a solar farm at Bakers Farm, Sidlesham, West Sussex. No features or deposits of archaeological interest were observed during groundwork's and no artefactual material pre-dating the modern period was recovered.			
Project dates	February – March 2015			
Project type (e.g. desk-based, field evaluation etc)	Watching brief, further to a previous CA e	evaluation		
Previous work (reference to organisation or SMR numbers etc)	CA Desk-Based Assessment CA Archaeological Evaluation Report			
Future work	Unknown			
PROJECT LOCATION				
Site Location	Bakers Solar Farm, Sidlesham, West Sussex, PO20 7NE			
Study area (M ² /ha)				
Site co-ordinates (8 Fig Grid Reference)	485193 96646			
PROJECT CREATORS				
Name of organisation	Cotswold Archaeology			
Project Brief originator	Chichester District Council			
Project Design (WSI) originator	CA			
Project Manager	Richard Greatorex			
Project Supervisor	Jeremy Clutterbuck			
MONUMENT TYPE				
SIGNIFICANT FINDS	Palaeoenvironmental and pottery e evaluation	vidence from CA prio		
PROJECT ARCHIVES	Intended final location of archive (museum/Accession no.) Recipient of each type of archive	Content (e.g. pottery animal bone etc) Indicate the contents o each archive box		
Physical		For example ceramics animal bone etc		
Paper		Context sheets, matrices		
Digital		Database, digital photos etc		
BIBLIOGRAPHY				

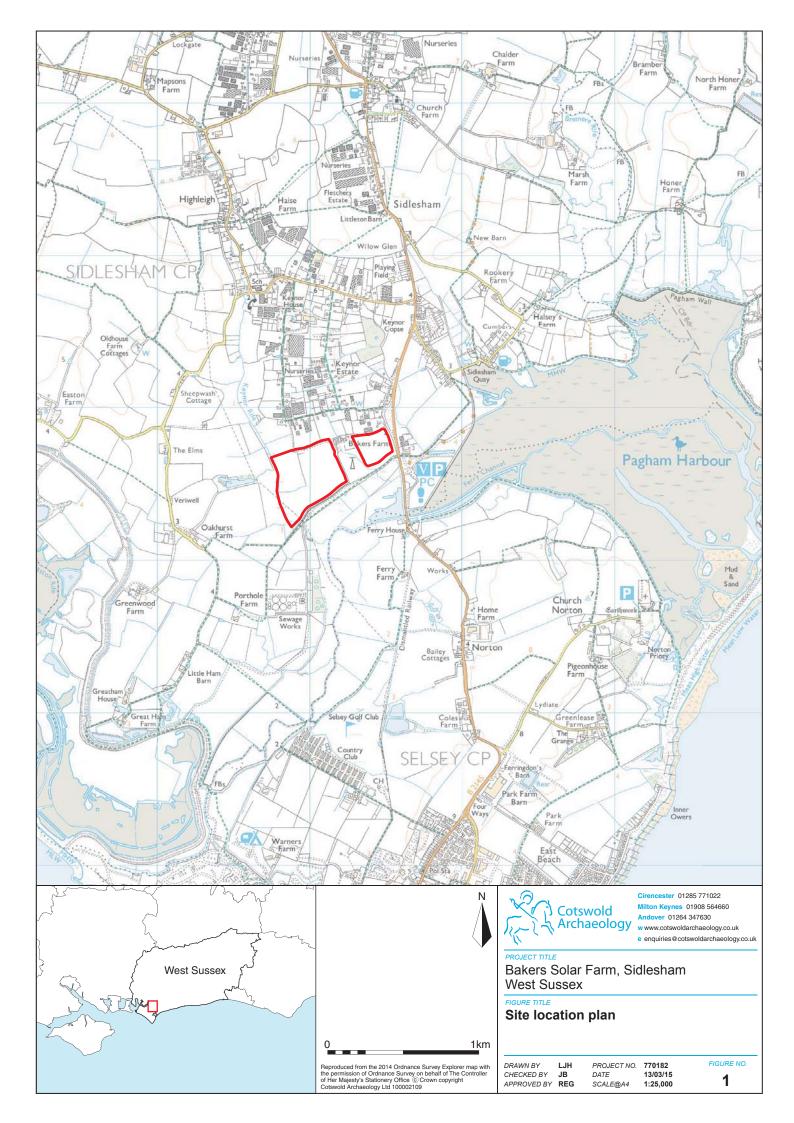
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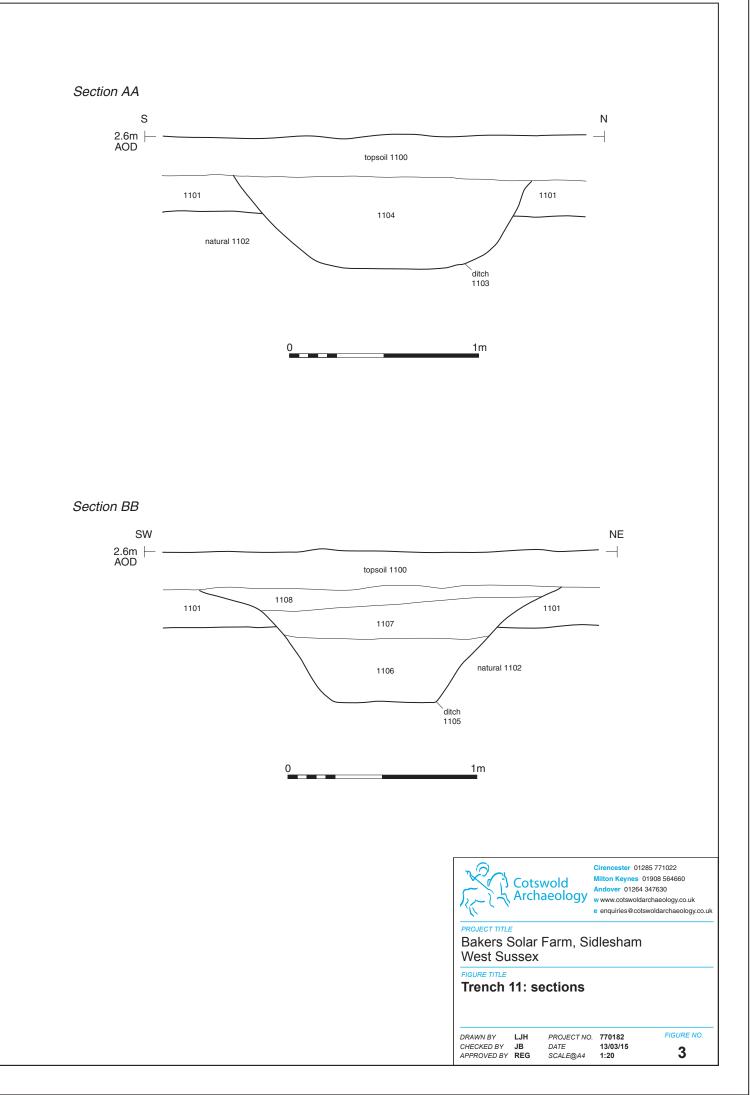
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CA 2014b Bakers Solar Farm, Sidlesham, West Sussex - Archaeological Evaluation Report

CA 2015 Bakers Solar Farm, Sidlesham, West Sussex - Written Scheme of Investigation for an Archaeological Watching Brief









4 Extract from aerial photograph of 1972	Cirencester 01285 771022 Milton Keynes 01908 564660 Andover 01264 347630 w www.cotswoldarchaeology.co.uk e enquiries@cotswoldarchaeology.co.uk
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	FIGURE TITLE Photograph
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