

New Solar Farm on Land at Wilton farm Trerulefoot Cornwall

Archaeological Watching Brief



for Martifer Solar UK Limited

CA Project: 5272 CA Report: 15161

June 2015



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А	29 June 2015	Sikko van der Brug	Laurent Coleman	Internal review		Simon Cox	

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SUMMARY

Project Name: New Solar Farm on Land at Wilton Farm, Trerulefoot, Cornwall

Location: Trerulefoot, Cornwall

NGR: SX 3108 5843

Type: Watching Brief

Date: 10 February to 13 March 2015

Planning Reference: Cornwall Council PA12/11941; Appeal Ref. APP/D0840/13/2198088

Location of Archive: Cornwall Record Office

Site Code: WTF 15

An archaeological watching brief was undertaken by Cotswold Archaeology at the New Solar Farm on land at Wilton Farm, Trerulefoot, Cornwall. Groundworks associated with the excavation of cable trenches and foundations for transformers and inverters were observed.

Field boundary ditches (some corresponding with features depicted on the 1840 Tithe Map), hedgebanks and a curvilinear ditch were identified.

1. INTRODUCTION

- 1.1 In February and March 2015 Cotswold Archaeology (CA) carried out an archaeological watching brief for Martifer Solar UK Limited at a New Solar Farm on land at Wilton Farm, Trerulefoot, Cornwall (centred on NGR: SX 3108 5843; Fig. 1). The watching brief was undertaken to fulfil a condition (10) of planning permission granted following an appeal (Cornwall Council (CC) ref. PA12/11941; APP/D0840/13/2198088).
- 1.2 The watching brief was carried out in accordance with a Written Scheme of Investigation (WSI) produced by AC Archaeology (AC 2014) and a Method Statement produced by Cotswold Archaeology (CA 2015). The fieldwork also followed Standard and guidance: Archaeological watching brief (ClfA 2014), and the Management of Archaeological Projects 2 (English Heritage 1991), the Management of Research Projects in the Historic Environment (MORPHE): Project Manager's Guide (EH 2006).

The site

- 1.3 The site comprises an irregular area of land extending to around 14.7 ha and comprising parts of two arable fields. It is located to the south-west of Wilton Farm on a steep south-east facing slope at heights between *c.* 80m to *c.* 120m AOD.
- 1.4 The underlying solid geology comprises sedimentary slates, sandstones, siltstones and mudstones of the Bin Down Formation and the Whitsand Bay Formation. Igneous rocks are also recorded within the site (BGS 2015). Weathered slates and shales were identified during the archaeological watching brief.

2. ARCHAEOLOGICAL BACKGROUND

2.1 The site has been subject to a Historic Environment Assessment (AC Archaeology 2012) and a geophysical survey (Stratascan 2013). The assessment identified evidence for early medieval and medieval settlement and agriculture in the vicinity of the site. Post-medieval and modern sites were also identified: These include upstanding historic structures, extraction quarries and the former site of a Second World War prisoner of war camp. No recorded sites are located within the site.

Historic mapping shows a reduction in the number of fields, from seven on the Tithe Map of 1840, to two present. The boundaries of these two fields have remained unchanged over this time (AC 2012).

2.2 The geophysical survey identified a number of linear anomalies (1, 2 and 3) which corresponded to former field boundaries depicted on historic mapping. A small number of discrete and curvilinear features were also identified by the survey (Statascan 2013).

3. AIMS AND OBJECTIVES

- 3.1 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 groundworks;
 - At the conclusion of the project, 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.

4. METHODOLOGY

- 4.1 The fieldwork followed the methodology set out within the WSI (AC 2014) and Method Statement (CA 2015). An archaeologist was present during intrusive groundworks which comprised of the excavation of high and low voltage cable trenches and excavations for the foundations of transformers and inverters (Fig. 2).
- 4.2 Groundworks were undertaken by mechanical excavator equipped with a toothless grading bucket. All machine excavation was undertaken under constant archaeological supervision to the top of the first significant archaeological horizon or the natural substrate, whichever was encountered first. Where archaeological deposits were encountered they were excavated by hand in accordance with CA Technical manual 1: Fieldwork Recording Manual. Areas were surveyed in accordance with CA Technical Manual 4 Survey Manual.

- 4.3 Deposits were assessed for their palaeoenvironmental potential in accordance with CA Technical Manual 2: *The Taking and Processing of Environmental and Other Samples from Archaeological Sites.* No deposits of palaeoenvironmental potential were identified and no samples were recovered.
- 4.4 The archive and artefacts from the watching brief are currently held by CA at their offices in Kemble. The site archive will be deposited with Cornwall Record Office. A summary of information from this project, set out within Appendix B, will be entered onto the OASIS online database of archaeological projects in Britain.

5. RESULTS (Figs 2-5)

- 5.1 This section provides an overview of the watching brief results; detailed summaries of the recorded contexts are to be found in Appendix A.
- 5.2 The natural geological substrate identified within the site was typically revealed at depths of between 0.2m and 0.8m below present ground level (bpgl). It consisted of mid red-brown clay and weathered shale fragments and was generally overlain by between 0.1m and 0.5m of subsoil. In Trenches 3 and 5 the natural substrate was overlain by between 0.1m and 0.45m of colluvium. The subsoil and/or colluvial deposits were overlain by topsoil.
- 5.3 Trenches 2, 3 and 7 were entirely devoid of archaeological features.

Field 1 (Figs 2-3)

Trench 1

Two parallel ditches, orientated north-east/south-west, were identified in Trench 1. Ditch 1002 and 1004 contained single undated fills, 1003 and 1005, which were sealed by topsoil (Fig. 6, section AA). Ditch 1006 was located to the south of these ditches, was east/west aligned and contained a single undated fill, 1007. This fill was sealed by the topsoil and the feature had been disturbed by tree roots.

Trench 9

5.5 East/west orientated ditch 9005 was identified in the western part of Trench 9. The single fill, 9006, was undated and sealed by subsoil.

Field 2 (Figs 2, 4 and 5)

Trench 4

A pair of east/west orientated ditches was identified in Trench 4. Ditch 4002 and 4004 both contained single undated fills, 4003 and 4005, both of which were covered by topsoil.

Trench 5

5.7 Three north/south orientated ditches was identified in Trench 5. Ditches 5003, 5005 and 5007 all contained single undated fills, 5004, 5006 and 5008, which were covered by topsoil.

Trench 6

- 5.8 Ditches 6002 and 6004 were identified in Trench 6. Both were east/west orientated and ditch 6002 contained a single undated fill, 6003. Ditch 6004 contained primary, 6008, and secondary, 6005, fills. All three fills were undated and were sealed by topsoil. Ditch 6002 may correspond to anomaly 2 and ditch 6004 corresponds to anomaly 5.
- A further ditch, 6006, was identified *c*. 70m to the east of ditch 6002. The single fill, 6007, was undated and was sealed by topsoil (Fig. 7, section BB). It is possible that this feature is associated with the curvilinear geophysical anomaly (4) which is located immediately to the west of the trench.

Trench 8

North-west/south-east aligned ditch 8003 was identified in the north-eastern part of Trench 8; the single undated fill, 8004, was sealed by subsoil. Ditch 8003 may represent a north-westward continuation of ditch 6002 and may relate to anomaly 2. Ditch 8005 was located 70 m to the west and was orientated north/south. The single fill, 8006, was undated. A pair of ditches, 8007 and 8002, was identified *c*. 130m to the west of ditch 8005 and both ditches were orientated north/south. Both contained single undated fills, 8008 and 8003, which were sealed by subsoil.

Trench 10

5.11 Ditch 10004 was identified in the south-western part of Trench 10. It was orientated south-west/north-east and contained single undated fill 10005 which was sealed by topsoil Fig. 8, section CC. Ditch 10006 was identified in the eastern part of Trench 10 and the single undated fill, 10007, was sealed by subsoil. To the north, ditch 10008 contained two undated fills; primary 10009 and secondary 10010. The upper fill was sealed by topsoil.

8. DISCUSSION

Medieval and/or post-medieval

8.1 The geophysical survey(Stratascan 2013) identified a number of linear anomalies corresponding to field boundaries depicted on the Tithe Map of 1840 (or which are parallel to existing field boundaris). Ditches, 8003, 6004 and 6002, in the eastern part of Field 2, corresponded to these features and are almost certainly of medieval/post-medieval date.

Undated

- 8.2 Pairs of ditches (4002 and 4004, 8007 and 8009, and 1002 and 1004) probably represent the remains of ploughed out hedgebanks. As these are not depicted by the Tithe Map, an earlier post-medieval/medieval date is probable.
- 8.3 Ditch 6006 may correspond to a curvilinear geophysical anomaly (4) and further undated ditches, 8005, 10004, 10006 and 10008 were also identified.

9. CA PROJECT TEAM

Fieldwork was undertaken by Sikko van der Brug. The report was written by Sikko van der Brug. The illustrations were prepared by Leo Heatly. The archive has been compiled by Sikko van der Brug, and prepared for deposition by Hazel O'Neill. The project was managed for CA by Laurent Coleman.

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10. REFERENCES

AC Archaeology 2012 A Proposed Solar Farm on Land at Wilton Farm, Trerulefoot, Cornwall: Historic Environment Assessment. Report no ACD514/1/1

AC Archaeology 2014 A New Solar Farm on Land at Wilton Farm, Trerulefoot Cornwall: Written Scheme of Investigation for Archaeological Watching Brief

CA (Cotswold Archaeology) 2015 New Solar Farm on Land at Wilton Farm, Trerulefoot, Cornwall: Watching Brief: Outline Method Statement

Stratascan 2013 Geophysical Survey Report, Wilton Farm, Trerulefoot, Cornwall. Report no **J3334**

BGS (British Geological Survey) 2014 Geology of Britain Viewer http://maps.bgs.ac.uk/geology viewer google/googleviewer.html

APPENDIX A: CONTEXT DESCRIPTIONS

Trench No.	Context No.	Туре	Fill of	Context interpretation	Description	L (m)	W (m)	Depth/ thickness (m)	Spot- date
1	1000	Layer		topsoil	mid to dark brown silty-clay			0.25	
1	1001	Layer		natural	light grey brown silty-clay				
1	1002	Cut		hedgebank	concave ditch, east/west orientated	>0.5	2.2	0.32	
1	1003	Fill	1002	fill of ditch	light to mid brown silty-clay	>0.5	2.2	0.32	
1	1004	Cut		ditch	concave ditch, east/west orientated	>0.5	1.2	1.42	
1	1005	Fill	1004	fill of ditch	light grey to reddish-brown silty- clay	>0.5	1.2	1.42	
1	1006	cut		possible field- boundary	irregular feature, disturbed by treerooting	>0.5	5.2	0.5	
1	1007	fill	1006	fill of ditch	light brown silty-clay,fragmented shale c.5%	>0.5	5.2	0.5	
2	2000	layer		topsoil	mid to dark brown silty-clay			0.4	
2	2001	layer		subsoil	mid brown-grey silty clay			0.4	
2	2002	layer		natural	light grey brown silty-clay				
3	3000	layer		topsoil	dark brown-grey silty-clay and fragmented shale			0.3	
3	3001	layer		subsoil	dark brown-grey silty-clay and fragmented shale			0.1	
3	3002	layer		natural	grey to grey-brown-blue silty-clay and fragmented shale				
3	3003	layer		Colluvium, occurs at south end of trench 3	light to mid reddish-brown silty- clay and fragmented shale			0.4	
4	4000	layer		topsoil	dark brown-grey silty-clay and fragmented shale			0.28	
4	4001	layer		natural	dark brown-grey silty-clay and fragmented shale				
4	4002	Cut		hedgebank	concave ditch, n-s orientated	>0.5	1.66	0.72	
4	4003	Fill	4002		mid to dark brown silty clay	>0.5	1.66	0.72	
4	4004	Cut		hedgebank	concave ditch, n-s orientated	>0.5	1.1	0.4	
4	4005	Fill	4004		mid to dark brown silty clay	>0.5	1.1	0.4	
5	5000	Layer		topsoil	dark brown-grey silty-clay and fragmented shale			0.25	
5	5001	Layer		Colluvium, occurs in south- end of trench 5	mid brown silty-clay and shale fragments			0.1-0.45	
5	5002	Layer		natural	dark brown-grey silty-clay and fragmented shale				
5	5003	Cut		fieldboundary	concave ditch, n-s orientated	>0.5	0.94	0.64	
5	5004	Fill	5003	fill of ditch	mid reddish-brown silty clay and fragmented shale	>0.5	0.94	0.64	
5	5005	Cut		fieldboundary	concave ditch n-s orientated	>0.5	1.2	0.3	
5	5006	Fill	5005	fill of ditch	mid reddish-brown silty clay and fragmented shale	>0.5	1.2	0.3	
5	5007	Cut		fieldboundary	concave ditch n-s orientated	>0.5	1.64	0.42	
5	5008	Fill	5007	fill of ditch	mid reddish-brown silty clay and fragmented shale	>0.5	1.64	0.42	
6	6000			topsoil	dark brown-grey silty-clay and fragmented shale			0.3	
6	6001	_		natural	light yellow-brown silty-clay and fragmented shale				
6	6002	Cut		ditch	flat bottomed ditch, probably e-w orientated	>0.5	5	0.3	
6	6003	Fill	6002		mid to dark brown silty clay, fragments of shale	>0.5	5	0.3	
6	6004	Cut		ditch	concave ditch, orientation unknown	>0.5	11	0.4	

6	6005	Fill	6004		mid brown silty clay	>0.5	11	0.4	
6	6006	Cut		ditch	flat based curvilinear ditch,	>0.5	15.4	0.45	
6	6007	Fill	6006		curving to the east mid reddish brown silty-clay,	>0.5	15.4	0.45	
	0000	F::::	0004		small fragments of shale,c.4%	0.5	44	0.00	-
6	6008	Fill	6004		light orangey grey-brown silty- clay	>0.5	11	0.28	
6	6009	Layer		subsoil	light to mid brown-grey silty clay and fragmented shale			0.1	
7	7000	Layer		topsoil	dark brown-grey silty-clay with fragmented shale			0.25-0.45	
7	7001	Layer		subsoil	light to mid brown-grey silty clay			0.1-0.5	
7	7002	Layer		natural	light yellowish- brown to light blue silty-clay with fragmented shale and bands of shale				
8	8000	Layer		topsoil	dark brown-grey silty-clay with fragmented shale			0.27	
8	8001	Layer		subsoil	light to mid brown-grey silty clay and fragmented shale			0.24	
8	8002	Layer		natural	light yellowish- brown to light blue silty-clay with fragmented shale and bands of shale				
8	8003	Cut		ditch	Flat based boundary ditch, probably e-w aligned	>0.5	4	0.38	
8	8004	Fill	8003		mid grey-brown silty-clay and fragmented shale, occ. charcoal	>0.5	4	0.38	
8	8005	Cut		ditch	large Ditch, possibly n-s aligned	>0.5	7.42	>0.5	
8	8006	Fill	8005		mid reddish-brown silty clay and fragmented shale	>0.5	7.42	>0.5	
8	8007	Cut		ditch	large flat based ditch, n-s aligned	>0.5	<3.5	0.84	
8	8008	Fill	8007		mid brown silty-clay with fragmented shale	>0.5	<3.5	0.84	
8	8009	Cut		ditch	Irregular v-shaped ditch, n-s aligned	>0.5	2.36	0.64	
8	8010	Fill	8009		reddish light brown silty clay, fragmented shale and occ. charcoal	>0.5	2.36	0.64	
9	9000	Layer		topsoil	mid to dark brown silty-clay			0.25	
9	9001	Layer		subsoil	light to mid brown-grey silty clay			0.1	
9	9002	Layer		natural	light grey brown silty-clay				
9	9003	Cut		treethrow					
9	9004	Fill	9003						
9	9005	Cut		ditch	concave ditch, ne/sw aligned	>0.5	0.88	0.66	
9	9006	Fill	9005			>0.5	0.88	0.66	
10	10000	Layer		topsoil	mid reddish-brown silty clay and fragmented shale			0.25	
10	10001	Layer		subsoil	mid brown-grey silty clay and fragmented shale			0.3	
10	10002	Layer		natural	Mid grey and reddish-brown clay with degraded shale and layers of shale and slate				
10	10004	Cut		ditch	e-w aligned large ditch	>0.5	2.5	0.54	
10	10005	Fill	10004		Mid orangey-brown silty-clay and fragmented shale, occ . charcoal	>0.5	2.5	0.54	
10	10006	Cut		ditch	Small e-w aligned, concave ditch	>0.5	0.85	0.42	
10	10007	Fill	10006			>0.5	0.85	0.42	
10	10008	Cut		ditch	Large e-w aligned, flat based ditch	>0.5	<5	0.9	
10	10009	Fill	10008	Initial fill	Light to mid yellow-brown silty- clay and degraded shale	>0.5	<2	0.28	
10	10010	Fill	10008	Final fill	Light to mid yellow-brown-grey silty clay and fragmented shale	>0.5	<5	0.6	
			1						
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APPENDIX B: OASIS REPORT FORM

PROJECT DETAILS				
Project Name	A New Solar Farm on Land at Wilton F	arm, Trerulefoot Cornwall		
Short description	An archaeological watching brief was undertaken by Cotswold Archaeology at the New Solar Farm on land at Wilton Farm, Trerulefoot, Cornwall. Groundworks associated with the excavation of cable trenches and foundations for transformers and inverters were observed. Field boundary ditches (some corresponding with features depicted on the 1840 Tithe Map), hedgebanks and a curvilinear ditch were identified.			
Project dates	10 February- 13 March 2015			
Project type	Watching Brief			
Previous work	None			
Future work	Unknown			
PROJECT LOCATION				
Site Location	Wilton Farm, Trerulefoot, Cornwall			
Study area (M²/ha)				
Site co-ordinates (8 Fig Grid Reference)	SX 3108 5843			
PROJECT CREATORS				
Name of organisation	Cotswold Archaeology			
Project Brief originator				
Project Design (WSI) originator	AC Archaeology			
Project Manager	Laurent Coleman			
Project Supervisor	Sikko van der Brug			
MONUMENT TYPE	None			
SIGNIFICANT FINDS	None			
PROJECT ARCHIVES	Cornwall Record Office			
Physical	n/a	none		
Paper	Cornwall Record Office	Site records; context sheets, permatrace etc		
Digital	Cornwall Record Office	Survey data, images		
BIBLIOGRAPHY	CA (Cotswold Archaeology) 2015 A New Solar Farm on Land at Wilton Farm, Trerulefoot, Cornwall: Archaeological Watching Brief. CA typescript report 15161			



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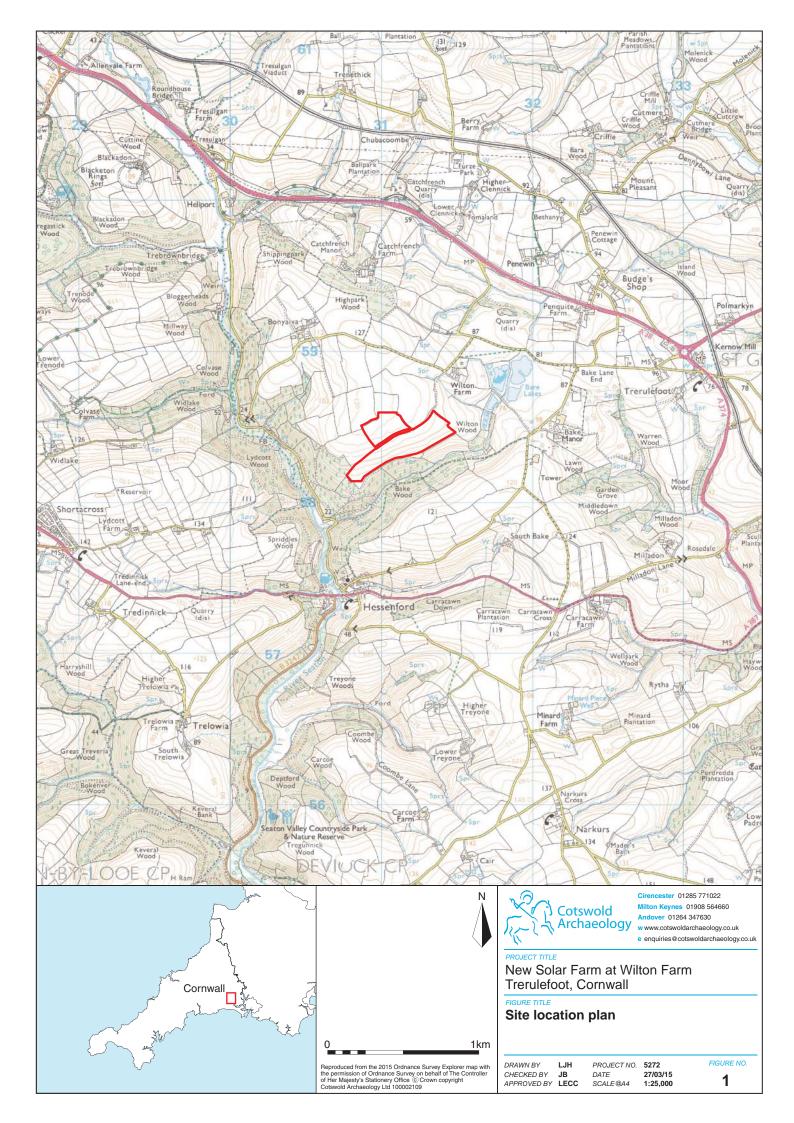
t: 01285 771022

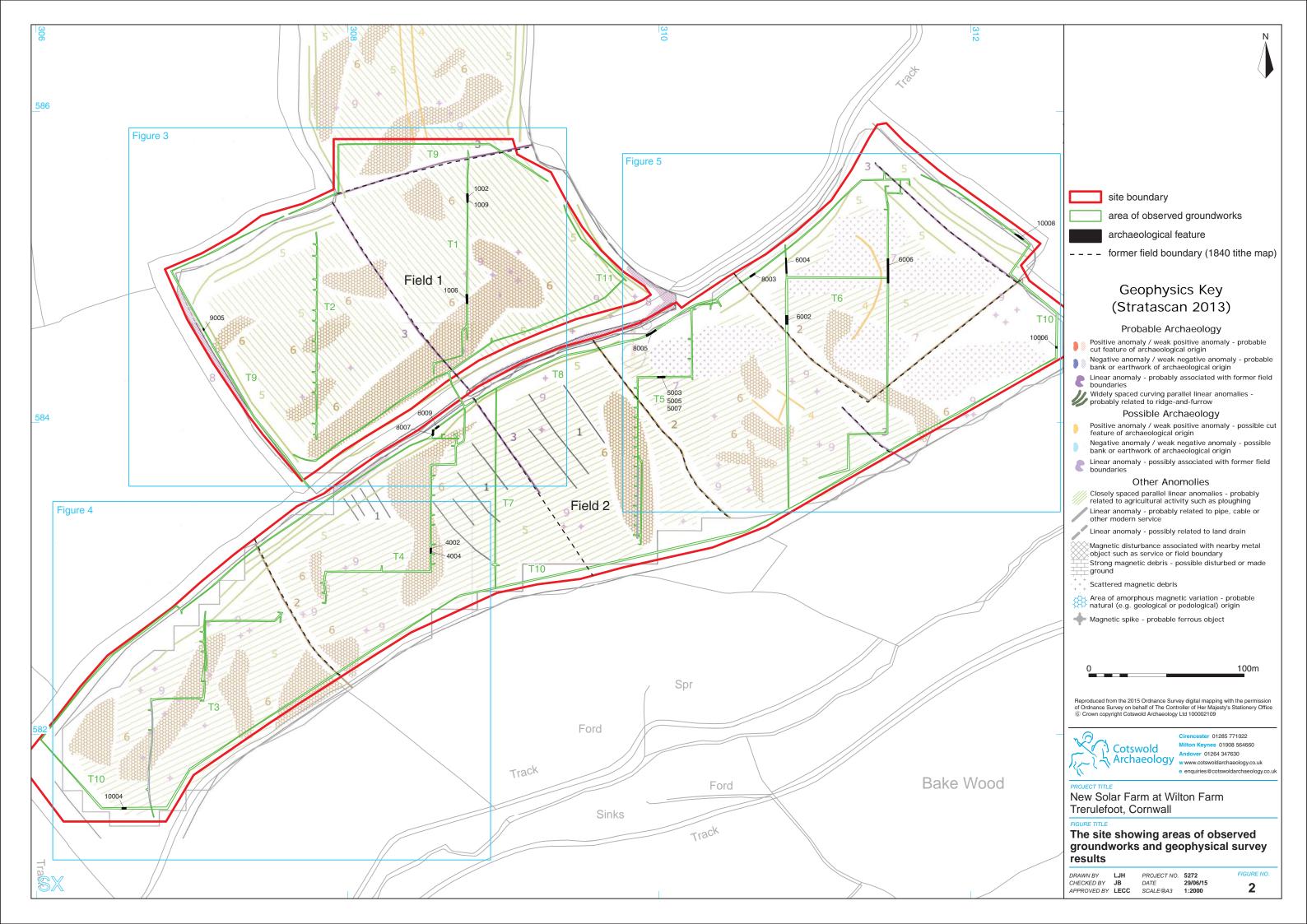
Milton Keynes Office

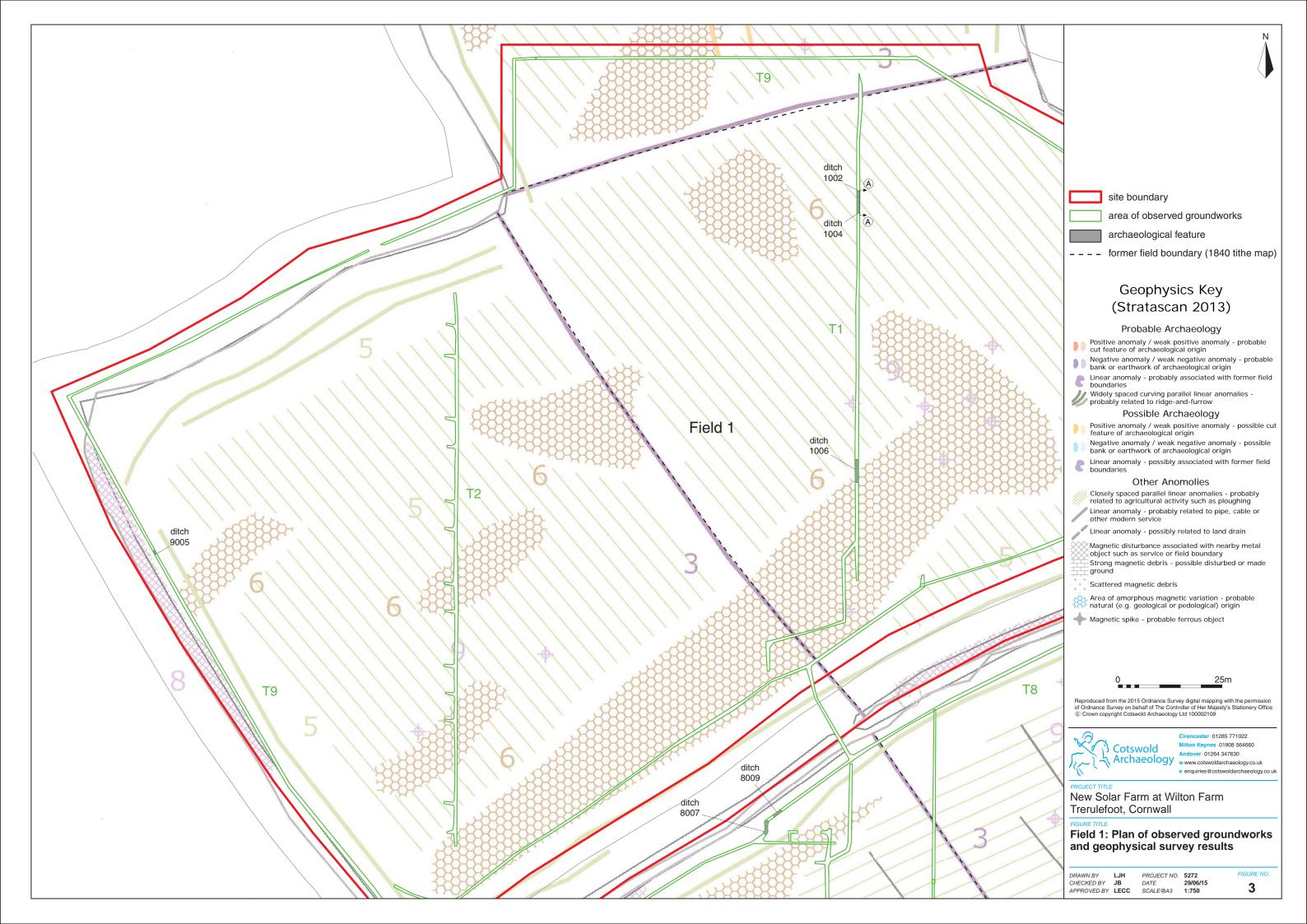
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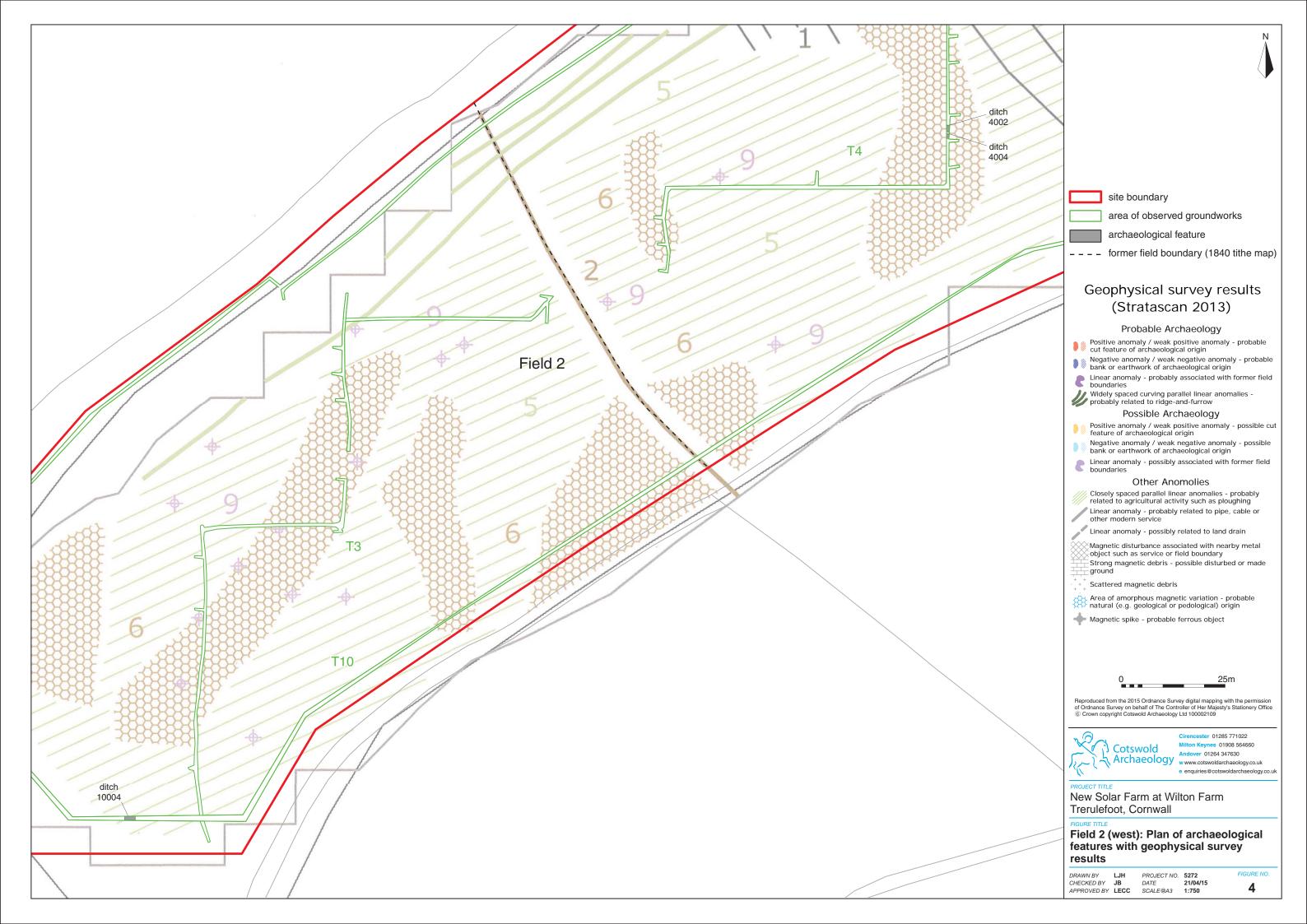
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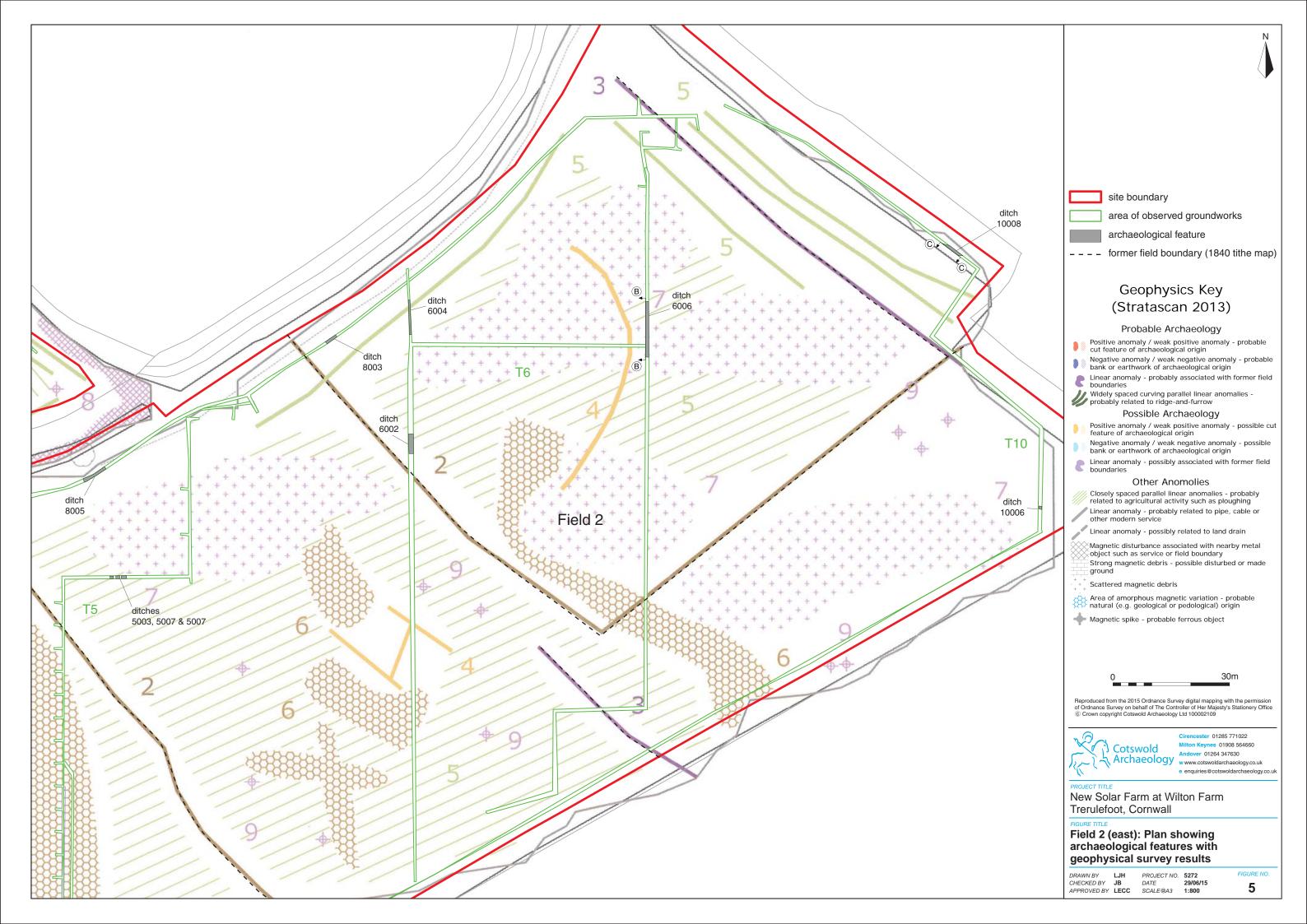




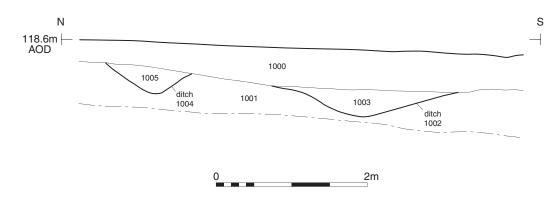








Section AA





West-facing section of ditches 1002 and 1004 (1m scale)



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PROJECT TITLE

New Solar Farm on Land at Wilton Farm Trerulefoot, Cornwall

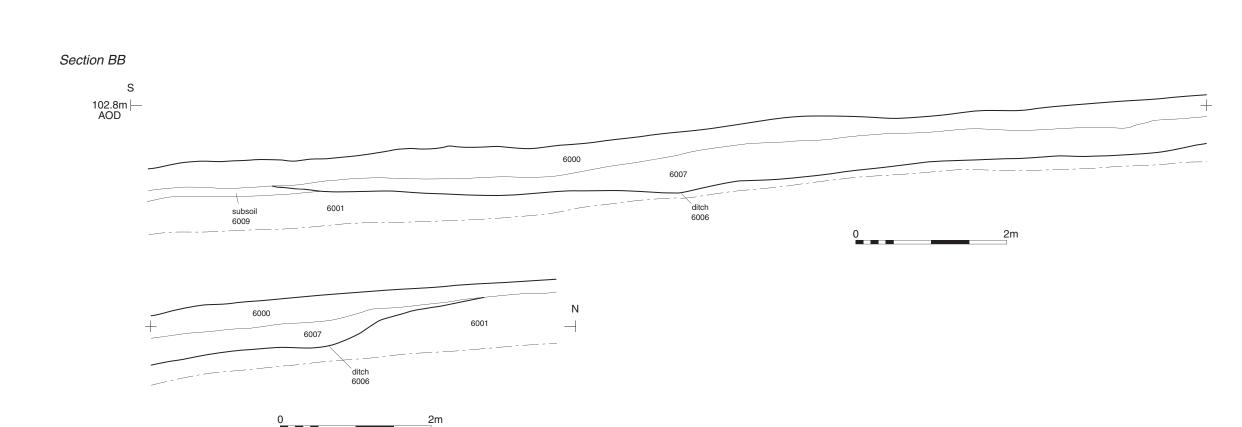
FIGURE TITLE

Ditches 1002 and 1004: Section and photograph

DRAWN BY LJH
CHECKED BY JB
APPROVED BY LECC

PROJECT NO. 5272 DATE 29/06/15 SCALE@A4 1:50

FIGURE NO.





Northern end of south facing section of curvilinear ditch 6006 (1m scale)



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New Solar Farm on Land at Wilton Farm Trerulefoot, Cornwall

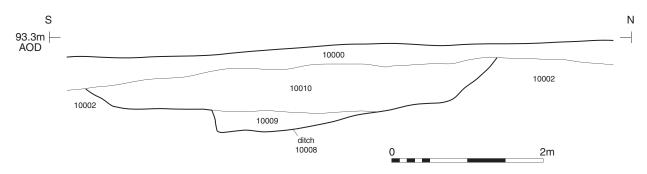
Ditch 6006: Section and photograph

 DRAWN BY
 LJH
 PROJECT NO.
 5272

 CHECKED BY
 JB
 DATE
 29/06/15

 APPROVED BY
 LECC
 SCALE@A3
 1:50

Section CC





Ditch 10008, east-facing section (1m scale)



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New Solar Farm on Land at Wilton Farm Trerulefoot, Cornwall

FIGURE TITL

Ditch 10008: Section and photograph

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PROJECT NO. 5272 DATE 29/06/15 SCALE@A4 1:50

FIGURE NO

8