



# CFA ARCHAEOLOGY

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## Land at Brotherton Farm, Livingston, West Lothian

Archaeological Evaluation  
Report No. 3637

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standard operating procedures.

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West Lothian.**

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## **CONTENTS**

1.	Introduction	3
2.	Working Methods	3
3.	Archaeological Results	4
4.	Conclusions	4

## **Appendices**

1.	Summary of Evaluation Trenches	5
2.	Photographic Register	7
3.	Context Register	9
4	Discovery & Excavation in Scotland Entry	10

## **Illustrations (bound at rear)**

Fig. 1 Site location and location of trenches

Fig. 2 General view of site pre-excavation, southern field, looking north

Fig. 3 Trench 1 showing shallow depth of trench, modern plough scarring and water logging

Fig. 4 Trench 6, ceramic field drain

## **1. INTRODUCTION**

### **1.1 General**

This report presents the results of an archaeological evaluation undertaken by CFA Archaeology Ltd (CFA) in January and February 2018 in advance of a residential development. The work was commissioned by Miller Homes Ltd.

A Written Scheme of Investigation (WSI) was produced by CFA (dated 05 September 2017), and agreed in advance with West of Scotland Archaeological Service (WoSAS), on behalf of West Lothian Council.

### **1.2 Objectives**

The objectives of the project were:

- To establish the presence/absence, extent, condition, character, quality and date of any archaeological features or deposits within the proposed development area through trial trenching evaluation
- To establish the vulnerability of any archaeological features to the proposed development
- To propose mitigation measures where appropriate to avoid, reduce or offset any predicted negative impacts on the archaeological resource.

## **2. WORKING METHODS**

### **2.1 General**

Work was conducted with regard to the Chartered Institute for Archaeologists' (CIfA) Standard and Guidance as appropriate.

### **2.2 Evaluation Strategy**

An 8% (9920m<sup>2</sup>) trial trenching evaluation was required by the planning authority as advised by WoSAS and a total of 111 trenches were excavated to provide a total trenched area of 11,018m<sup>2</sup> (Fig. 1). Appropriate stand-off zones were maintained around overhead and underground services, including the Medium Pressure Gas Main along the eastern side of the site.

The trenches were excavated by machine under direct archaeological supervision to remove topsoil and other soil deposits down to natural subsoil or the first significant archaeological horizon, whichever was reached first.

Samples of all features of archaeological interest were hand excavated in order to establish their likely date, nature, extent and condition.

All hand excavation and on-site recording was carried out according to standard CFA procedures, principally by drawing, by photography and by completing standard CFA record forms.

Trench locations were recorded using industry standard surveying equipment.

### **3. ARCHAEOLOGICAL RESULTS**

#### **3.1 General**

The trenches contained no features other than field drains (Fig. 4). Appendix 1 contains a tabulated summary of all the trench dimensions and a description of the trench. Numbers in bold and parentheses are context numbers and are described in Appendix 3.

Topsoil (**001**) was generally 0.3-0.4m deep. Only four trenches, Tr. 3, Tr. 6, Tr. 33 and Tr. 108, contained a thin subsoil layer (**002**) 0.1m to 0.2m deep. In all the other trenches the topsoil lay directly over the natural substrate (**003**). This generally comprised a pale orange to beige sandy clay with occasional areas of grey clay and rare stones. Bedrock was recorded in Trench 5.

Trenches 1-43, were excavated in the southern field and trenches 44 -111 were excavated in the northern field.

In the southern field the ground conditions were very wet especially in the western end of the field (Fig. 3). The northern field was drier but had a large pool of standing water near its centre.

No archaeologically significant features or deposits were identified.

### **4. CONCLUSIONS**

Overall, 111 evaluation trenches were excavated which covered 11,018m<sup>2</sup>, slightly more than the 8% scheduled for evaluation.

No features other than field drains were identified.

Based on the results of the evaluation CFA recommend no further work; however, it is recognised that the final decision lies with West Lothian Council as advised by WoSAS.

The project archive, comprising all CFA record sheets, maps and reports will be deposited with the NHRE and copies of reports will be lodged with the SMR.

A summary statement of the results of this evaluation will be submitted for publication in *Discovery and Excavation in Scotland* and an online OASIS entry submitted on completion of the project.

## APPENDIX 1: Summary of Evaluation Trenches

Trench No.	Size (m)	Depth of Trench (m)	Topsoil Depth (m)	Subsoil Depth (m)	Description
1	50 x 2	0.3	0.3		Clay field drains
2	50 x 2	0.3	0.3		Clay field drains
3	30x 2	0.4-0.6	0.3	0.1-0.3	
4	52 x 2	0.3	0.3		Clay field drains. Deep ploughmarks
5	51 x 2	0.25-0.3	0.25-0.3		Bedrock
6	50 x 2	0.5	0.3	0.2	Clay field drains
7	50 x 2	0.25	0.25		
8	50 x 2	0.25	0.25		
9	50 x 2	0.3	0.3		
10	50 x 2	0.4	0.4		
11	40 x 2	0.4	0.4		
12	50 x 2	0.4	0.4		Clay field drains
13	50 x 2	0.3	0.3		Clay field drains
14	50 x 2	0.3	0.3		Clay field drains
15	50 x 2	0.3	0.3		
16	50 x 2	0.3	0.3		
17	51 x 2	0.35	0.35		
18	51 x 2	0.3	0.3		Clay field drains
19	50 x 2	0.3	0.3		Clay field drains
20	50 x 2	0.3	0.3		
21	50 x 2	0.35	0.35		
22	51 x 2	0.3	0.3		
23	53 x 2	0.3	0.3		
24	38 x 2	0.3	0.3		
25	45 x 2	0.3	0.3		Clay field drains
26	51 x 2	0.25	0.25		
27	51 x 2	0.3	0.3		
28	52 x 2	0.3	0.3		
29	52 x 2	0.3	0.3		
30	52 x 2	0.3	0.3		
31	46 x 2	0.3	0.3		
32	42 x 2	0.35	0.35		
33	30 x 2	0.5	0.35	0.15	
34	50 x 2	0.35	0.35		
35	52 x 2	0.3	0.3		Clay field drains
36	50 x 2	0.35	0.35		
37	51 x 2	0.3	0.3		Clay field drains
38	51 x 2	0.3	0.3		
39	50 x 2	0.35	0.35		
40	51 x 2	0.35	0.35		
41	57 x 2	0.35	0.35		
42	50 x 2	0.25	0.25		
43	50 x 2	0.2	0.2		
44	52 x 2	0.35	0.35		
45	52 x 2	0.35	0.35		
46	52 x 2	0.35	0.35		
47	51 x 2	0.35	0.35		
48	51 x 2	0.35	0.35		
49	52 x 2	0.35	0.35		
50	53 x 2	0.35	0.35		
51	53 x 2	0.3	0.3		
52	53 x 2	0.3	0.3		

Trench No.	Size (m)	Depth of Trench (m)	Topsoil Depth (m)	Subsoil Depth (m)	Description
53	51 x 2	0.3	0.3		
54	51 x 2	0.3	0.3		
55	52 x 2	0.3	0.3		
56	52 x 2	0.3	0.3		
57	52 x 2	0.3	0.3		
58	5 x 2	0.3	0.3		
59a	51 x 2	0.3	0.3		
59b	50 x 2	0.3	0.3		
60	50 x 2	0.3	0.3		
61	52 x 2	0.3	0.3		
62	52 x 2	0.35	0.35		
63	50 x 2	0.3	0.3		
64	52 x 2	0.3	0.3		
65	53 x 2	0.3	0.3		
66	50 x 2	0.3	0.3		
67	53 x 2	0.3	0.3		
68	50 x 2	0.3	0.3		
69	52 x 2	0.3	0.3		
70	53 x 2	0.3	0.3		
71	52 x 2	0.3	0.3		
72	51 x 2	0.3	0.3		
73	51 x 2	0.3	0.3		
74	50 x 2	0.35	0.35		
75	51 x 2	0.3	0.3		
76	52 x 2	0.35	0.35		
77	51 x 2	0.3	0.3		
78	51 x 2	0.35	0.35		
79	52 x 2	0.35	0.35		
80	51 x 2	0.35	0.35		
81	52 x 2	0.3	0.3		Clay field drains
82	50 x 2	0.3	0.3		Clay field drains
83	51 x 2	0.35	0.35		
84	51 x 2	0.3	0.3		
85	51 x 2	0.3	0.3		
86	50 x 2	0.35	0.35		
87	50 x 2	0.35	0.35		
88	50 x 2	0.3	0.3		
89	50 x 2	0.3	0.3		
90	50 x 2	0.35	0.35		
91	50 x 2	0.35	0.35		
92	50 x 2	0.3	0.3		
93	50 x 2	0.3	0.3		
94	51 x 2	0.3	0.3		
95	50 x 2	0.3	0.3		
96	50 x 2	0.3	0.3		
97	50 x 2	0.3	0.3		
98	50 x 2	0.3	0.3		
99	50 x 2	0.3	0.3		
100	51 x 2	0.25	0.25		Deep ploughscores and disturbance from farm vehicles
101	51 x 2	0.3	0.3		
102	51 x 2	0.3	0.3		
103	50 x 2	0.3	0.3		Deep ploughmarks
104	50 x 2	0.3	0.3		
105	52 x 2	0.35	0.35		

<b>Trench No.</b>	<b>Size (m)</b>	<b>Depth of Trench (m)</b>	<b>Topsoil Depth (m)</b>	<b>Subsoil Depth (m)</b>	<b>Description</b>
106	50 x 2	0.35	0.35		
107	51 x 2	0.4	0.35	0.05	
108	51 x 2	0.35	0.35		
109	51 x 2	0.35	0.35		
110	51 x 2	0.35	0.35		Clay field drains
111	50 x 2	0.3	0.3		Clay field drains

## APPENDIX 2: Photographic Register

<b>Shot No.</b>	<b>Summary description of subject</b>	<b>Facing</b>
1	General view of evaluation area	N
2	Trench 1	NW
3	Trench 2	NW
4	Trench 8	SW
5	Trench 7	SW
6	Trench 4	N
7	Trench 5	N
8	Trench 6	W
9	Trench 6 Drainage cut	E
10	Trench 3	E
11	Trench 10	W
12	Trench 9	NE
13	Trench 11	SE
14	Trench 12	SE
15	Trench 22	SE
16	Trench 20	SW
17	Trench 25	SE
18	Trench 26	S
19	Trench 19	SW
20	Trench 17	E
21	Trench 18	E
22	Trench 15	SE
23	Trench 13	NW
24	Trench 14	N
25	Trench 16	SW
26	Trench 23	SE
27	Trench 24	SE
28	Trench 27	E
29	Trench 28	E
30	Trench 29	SW
31	Trench 30	SW
32	Trench 37	SE
33	Trench 35	N
34	Trench 31	SE
35	Trench 32	NW
36	Trench 33	N
37	Trench 34	N
38	Trench 36	SW
39	Trench 38	SW
40	Trench 40	NW
41	Trench 39	NW
42	Trench 41	N
43	Trench 21	NW
44	Trench 42	SW



<b>Shot No.</b>	<b>Summary description of subject</b>	<b>Facing</b>
45	Trench 43	SW
46	Trench 44	NW
47	Trench 45	NW
48	Trench 46	N
49	Trench 47	NW
50	Trench 48	SW
51	Trench 49	SW
52	Trench 50	SW
53	Trench 51	NW
54	Trench 52	N
55	Trench 54	N
56	Trench 53	NW
57	Trench 57	NE
58	Trench 55	N
59	Trench 56	N
60	Trench 58	NW
61	Trench 63	NW
62	Trench 62	SE
63	Trench 59	NE
64	Trench 71	E
65	Trench 60	N
66	Trench 61	N
67	Trench 70	NE
68	Trench 69	E
69	Trench 65	NW
70	Trench 68	NE
71	Trench 64	NE
72	Trench 67	N
73	Trench 66	N
74	Trench 88	E
75	Trench 87	SW
76	Trench 86	N
77	Trench 85	N
78	Trench 72	SW
79	Trench 73	NW
80	Trench 74	N
81	Trench 84	NE
82	Trench 77	N
83	Trench 76	SW
84	Trench 75	E
85	Trench 78	N
86	Trench 79	N
87	Trench 80	NW
88	Trench 82	NW
89	Trench 83	NW
90	Trench 100	NW
91	Trench 101	SW
92	Trench 99	SE
93	Trench 98	SE
94	Trench 103	NE
95	Trench 102	NE
96	Trench 104	NW
97	Trench 97	SW
98	Trench 96	SW
99	Trench 95	E
100	Trench 94	E
101	Trench 91	N

Shot No.	Summary description of subject	Facing
102	Trench 90	N
103	Trench 93	SW
104	Trench 89	N
105	Trench 105	NE
106	Trench 106	NE
107	Trench 107	NE
108	Trench 108	NW
109	Trench 109	NW
110	Trench 110	N
111	Trench 111	NE
112	Trench 92	NW

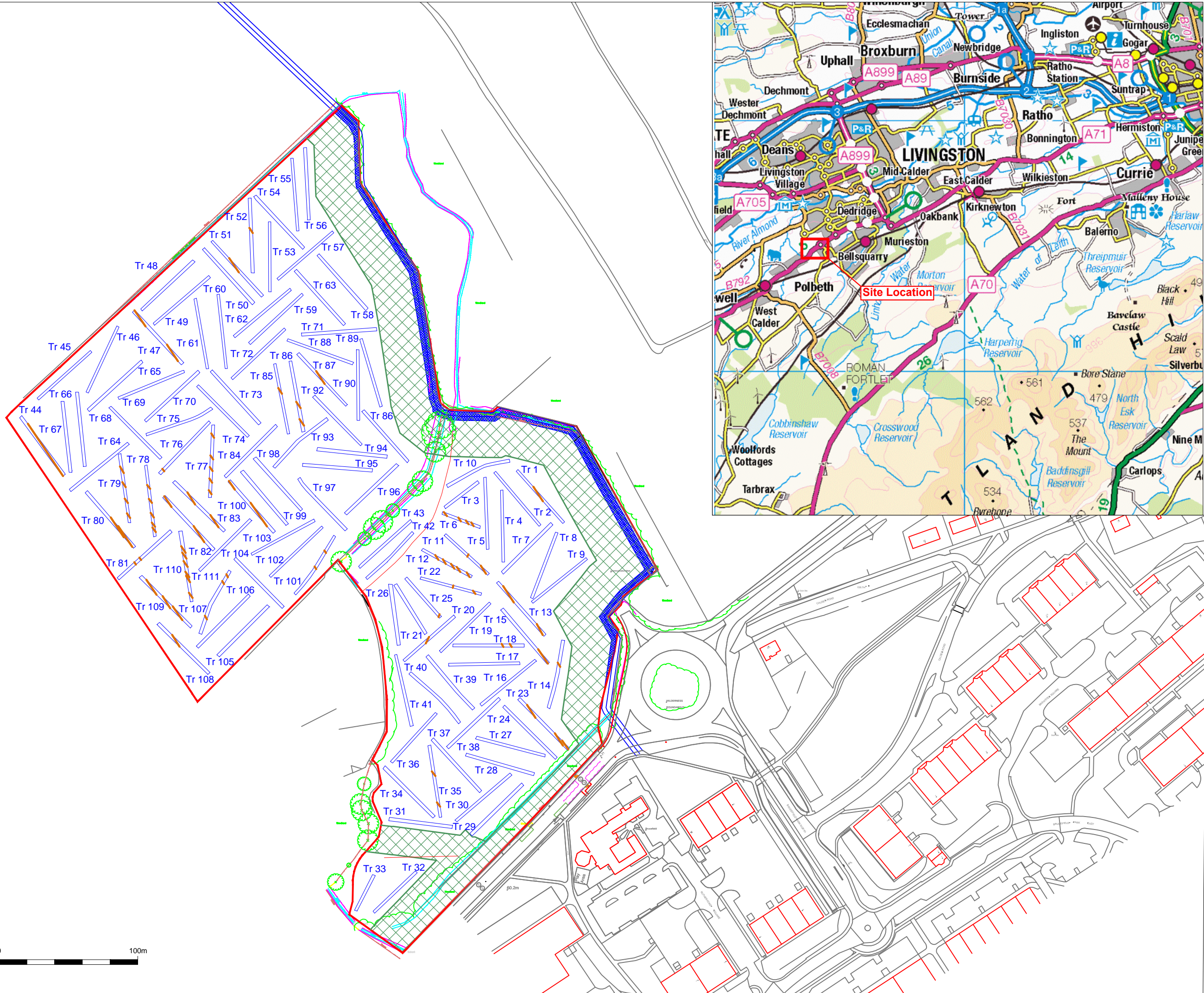
### APPENDIX 3: Context Register

Context no.	Fill of	Type	Description
001		Deposit	Topsoil
002		Deposit	Subsoil: mid grey to brown fine silt. Diffuse horizon with underlying natural
003		Deposit	Natural. Very varied across the site but in general it was a orange-grey firm silty sand with areas of more yellow-orange clayey sand and stones

#### APPENDIX 4: DISCOVERY AND EXCAVATION IN SCOTLAND ENTRY

<b>LOCAL AUTHORITY:</b>	West Lothian
<b>PROJECT TITLE/SITE NAME:</b>	Land at Brotherton Farm, Livingston, West Lothian
<b>PROJECT CODE:</b>	BROT
<b>PARISH:</b>	West Calder
<b>NAME OF CONTRIBUTOR:</b>	Bruce Glendinning
<b>NAME OF ORGANISATION:</b>	CFA Archaeology Ltd
<b>TYPE(S) OF PROJECT:</b>	Evaluation
<b>NMRS NO(S):</b>	N/A
<b>SITE/MONUMENT TYPE(S):</b>	N/A
<b>SIGNIFICANT FINDS:</b>	N/A
<b>NGR (2 letters, 6 figures)</b>	NT 0384 6497
<b>START DATE (this season)</b>	January 2018
<b>END DATE (this season)</b>	February 2018
<b>PREVIOUS WORK (incl. <i>DES</i> ref.)</b>	None
<b>MAIN (NARRATIVE) DESCRIPTION:</b> (May include information from other fields)	<p>In advance of a large greenfield residential development an archaeological evaluation was requested in order to identify whether any archaeological features or deposits were present. In total, 111 evaluation trenches were excavated which covered 11,018m<sup>2</sup>, slightly more than the 8% scheduled for evaluation.</p> <p>No features other than drains were identified.</p>
<b>PROPOSED FUTURE WORK:</b>	None
<b>CAPTION(S) FOR ILLUSTRS:</b>	None
<b>SPONSOR OR FUNDING BODY:</b>	Miller Homes
<b>ADDRESS OF MAIN CONTRIBUTOR:</b>	CFA Archaeology Ltd, Old Engine House, Eskmills Park, Musselburgh, EH21 7PQ.
<b>EMAIL ADDRESS:</b>	bglendinning@cfa-archaeology.co.uk
<b>ARCHIVE LOCATION (intended/deposited)</b>	Archive to be deposited in NHRE, Reports lodged with SMR.





**Key:**

- Site Boundary
- Trench Location
- Services Buffer
- Field Drain

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Title:  
Site location and location of trenches

Project:  
Land at Brotherton Farm,  
Livingston, West Lothian.  
Archaeological Evaluation

Client:  
Miller Homes Ltd

Scale at A3:  
1:2,500

Drawn by: SW	Checked: BG	Date: 27/02/2018
Report No: 3637	Fig. No: 1	





Fig. 2 - General view of site pre-excitation, southern field, looking north



Fig. 3 - Trench 1 showing shallow depth of trench, modern plough scarring and water

Project:  
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**Miller Homes Ltd**

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Report No: <b>3637</b>		Fig. No: <b>2 - 3</b>





Fig. 4 - Trench 6, ceramic field drain

Project:  
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Report No: <b>3637</b>		Fig. No: <b>4</b>



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