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Borders Railway Project Site 9 Archaeological Evaluation

Report no. 1996

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**Borders Railway Project, Site 9
Archaeological Evaluation.**

**Data Structure Report
No. 1996**

CONTENTS

1.	Introduction	3
2.	Working Methods	4
3.	Archaeological Results	4
4.	Conclusions and Recommendations	5
5.	Bibliography	5

Appendices

1.	Summary of Evaluation Trenches	6
2.	Photographic Register	8
3.	Context Register	8

Illustrations (bound at rear)

Fig. 1 Location Plan and location of evaluation trenches

Fig. 2 Tr. 1 south-facing section showing coal debris layer 003 under the topsoil

Fig. 3 Tr. 6 post-ex from the east

Fig. 4 General shot from the west of Area 9 after backfilling of trenches

1. INTRODUCTION

1.1 General

This report presents the results of an archaeological evaluation undertaken by CFA Archaeology Ltd (CFA) in December 2011 in advance of the construction of the Borders Railway Project. Site numbers relate to the study specific numbers from the Environmental Statement. The evaluation was undertaken on Site 9, a cropmark feature (NMRS No NT36NW193).

The Written Scheme of Investigation was based on mitigation measures approved by the East Lothian Council Archaeology Service which are identified in Table A4 in the *Cultural Heritage Management Plan* (Jones & Neighbour 2010). The area for evaluation is identified in the *Borders Railway Project Environmental Management System Manual* (McLuckie 2011).

1.2 Objectives

The objectives of the project were:

- to establish the presence/absence, extent, condition, character, quality and date of Site 9 (NMRS No NT36NW193), or any other features within the proposed evaluation area;
- to establish their vulnerability 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 Institute for Archaeologists' (IfA) *Standard and Guidance for an Archaeological Evaluation and Code of Conduct*.

The evaluation covered Site 9, trench numbering starts at Tr.1 and carried on to Tr.7.

2.2 Evaluation Strategy

The total site evaluation for Site 9 was 2000m²: seven trial trenches were opened which examined 181.5m², slightly over 9% of the total area.

The trenches were excavated by machine under direct archaeological supervision to remove topsoil and other soil deposits down to 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 digital photography and by completing standard CFA record forms.

Trench locations were recorded using industry standard surveying equipment and the trenches were backfilled on completion of recording.

3. ARCHAEOLOGICAL RESULTS

3.1 General

Numbers in square brackets are context numbers described in Appendix 3. Only trenches where features or deposits of note were identified are described below. The other trenches are described in Appendix 1.

The trenches were placed in order to target the area of cropmark NT36NW193. The trenches were also distributed to avoid the buffer zone of a sewer pipe. The sewer runs parallel to the road on the north-west of the site then turns at an angle across the field and runs south-west across the site eventually exiting the southern edge of the field. The rest of the trenches were spread evenly across the site.

3.2 Evaluation – Site 9

Seven trenches (Fig. 1, Appendix 1) were excavated within Area 9.

Tr.1

Tr. 1 was placed over the location of the cropmark. Under the topsoil the whole of the trench was covered in a 0.25m-0.35m thick layer of fine coal debris, [003], (Fig. 2). This layer was also found in Tr.2 and is likely to be the cause of the cropmark feature.

Tr.2

Tr. 2 was also placed over the location of the cropmark. Under the topsoil a continuation of layer [003] was found. At the southern end of the trench layer [003] was 0.25m to 0.35m in depth however the layer got progressively thinner, 0.05m, towards the northern end of the trench.

No ceramic field drains were encountered in any of the trenches.

4. CONCLUSIONS AND RECOMMENDATIONS

Overall, seven trial trenches were excavated which covered 181.5m² or 9% of the total evaluation area. Trenches 1 and 2 were placed over the cropmark to investigate its origins. The cropmark had been previously identified by the Royal Commission for Historic and Ancient Monuments as a possible enclosure (NMRS No NT36NW193) but Trenches 1 and 2 revealed the feature to be a curving 0.25- 0.35m deep spread of crushed coal debris.

Based on the results of the evaluation CFA recommend that no further work is required; however, the responsibility for deciding the scope of any further work lies solely with East Lothian Council Archaeology Service.

The project archive, comprising all CFA record sheets, maps and reports will be deposited with the National Monuments Record of Scotland (NMRS) and copies of reports will be lodged with East Lothian Archaeology Service who provide archaeological support for Midlothian Council.

A summary statement of the results of this evaluation will be submitted for publication in *Discovery and Excavation in Scotland 2012*.

5. BIBLIOGRAPHY

Jones C and Neighbour T 2010 'Borders Railway Project: Cultural Heritage Management Plan' Version 5 Rev A

McLukie A 2011 'Borders Railway Project Environmental Management System Manual, Version 5 Rev A

APPENDIX 1: SUMMARY OF EVALUATION TRENCHES

Trench	Trench Information
1	<p>Trench size: 5mx5m Trench orientation: NNE-SSW Trench depth: 0.50m-0.70m Topsoil depth: 0.25m-0.40m No visible subsoil Topsoil sits on a 0.30m deep layer of coal debris, 003, which covered the whole trench Geology is an orange/brown sandy/clay The coal layer 003 is probably the reason for the crop-mark in this area</p> <p>Contexts in Trench Topsoil - 001 Natural - 002 Coal debris-003</p>
2	<p>Trench size: 1.5mx9.20m Trench orientation: NE-SW Trench depth: 0.60m-0.70m Topsoil depth: 0.30m-0.35m No visible subsoil Topsoil sits on a 0.30m deep layer of coal debris, 003, which covered the whole trench Geology is a orange and grey clay The coal layer 003 is probably the reason for the crop-mark in this area</p> <p>Contexts in Trench Topsoil - 001 Natural - 002 Coal Debirs-003</p>
3	<p>Trench size: 1.5mx12m Trench orientation: NW-SE Trench depth: 0.40m-0.45m Topsoil depth: 0.40m-0.45m No visible subsoil Topsoil sits on natural Geology is a orange/brown and sandy clay No archaeology</p> <p>Contexts in Trench Topsoil - 001</p>

	Natural - 002
4	<p>Trench size: 1.5mx7.10m Trench orientation: ENE-WSW Trench depth: 1m-1.10m Topsoil depth: 1m-1.10m No visible subsoil Topsoil sits on natural Geology is a orange/brown sandy clay Linear feature cut into the base of the trench filled with a backfilled natural and topsoil mix probably from a modern service</p> <p>Contexts in Trench Topsoil - 001 Natural - 002</p>
5	<p>Trench size: 1.5mx10.90m Trench orientation: NNW-SSE Trench depth: 0.50m-0.60m Topsoil depth: 0.50m-0.60m No visible subsoil Topsoil sits on natural Geology is a brown and sandy clay A modern borehole was uncovered in the centre of the trench</p> <p>Contexts in Trench Topsoil - 001 Natural - 002</p>
6	<p>Trench size: 1.5mx11.20m Trench orientation: E-W Trench depth: 0.30m-0.40m Topsoil depth: 0.30m-0.40m No visible subsoil Topsoil sits on a 0.30m deep layer of coal debris, 003, which covered the whole trench Geology is a orange/brown sandy clay No archaeology</p> <p>Contexts in Trench Topsoil - 001 Natural - 002</p>
7	<p>Trench size: 1.5mx11.90m Trench orientation: NE-SW</p>

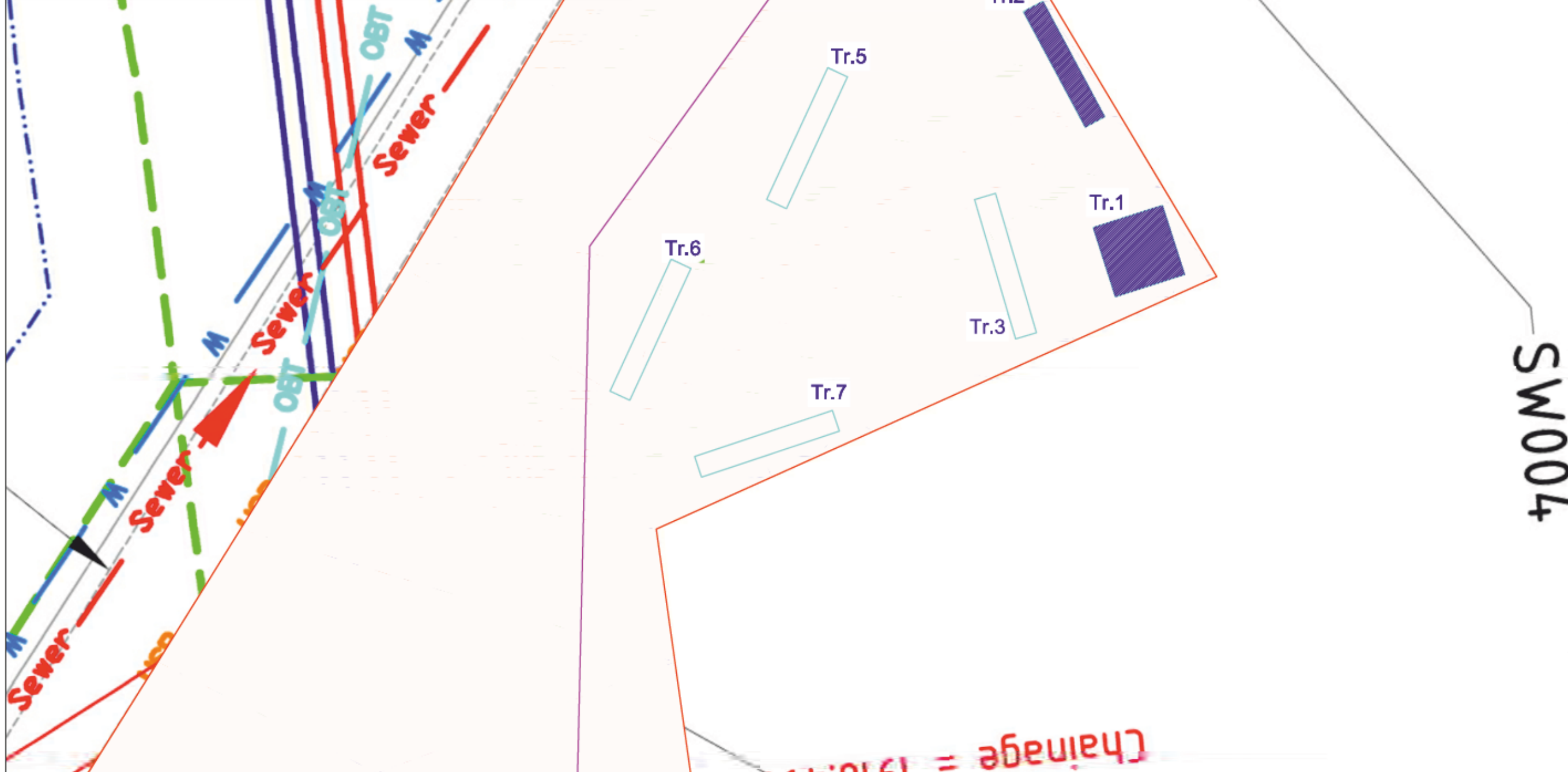
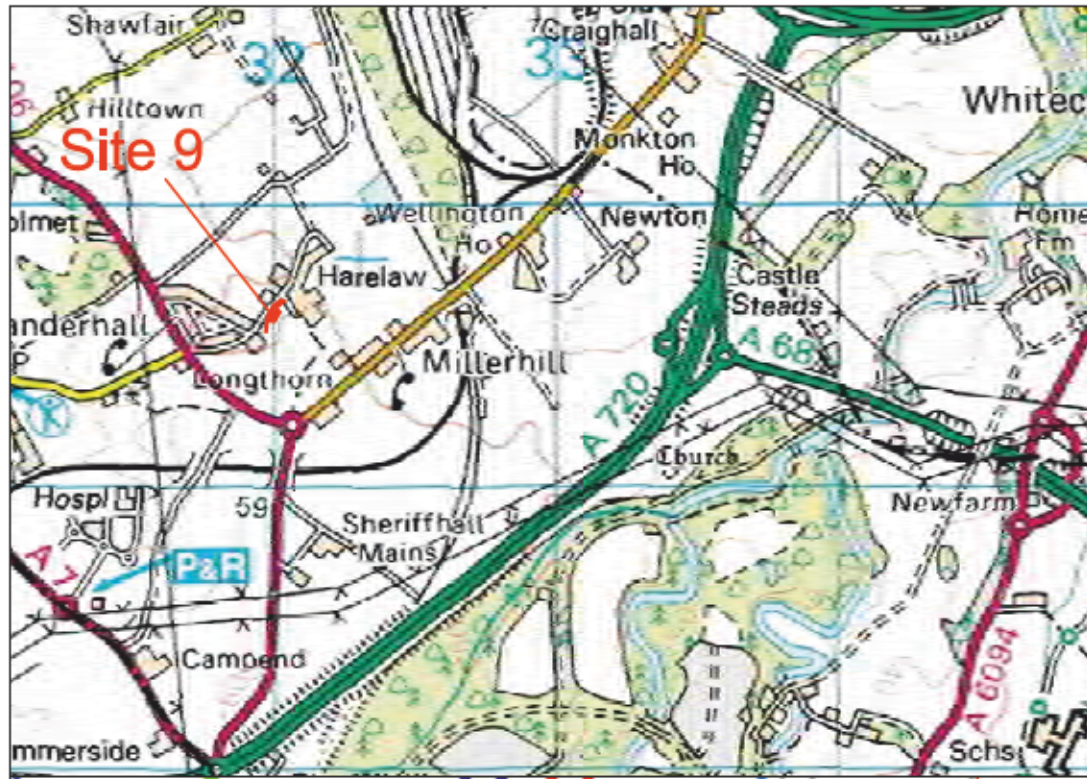
	<p>Trench depth: 0.45m-0.50m Topsoil depth: 0.45m-0.50m No visible subsoil Topsoil sits natural Geology is a orange/brown sandy clay No archaeology</p> <p>Contexts in Trench Topsoil - 001 Natural - 002</p>
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APPENDIX 2: PHOTOGRAPHIC REGISTER





Digital Shot	Description	From	Conditions
1	Tr.1 post-ex	S	sunny
2	Tr.1 detail of south facing section showing 003	S	sunny
3	Tr.2 post-ex	W	sunny
4	Tr. 2 west facing section showing 003	W	sunny
5	Tr.3 post-ex	S	sunny
6	Tr.4 post-ex	SW	sunny
7	Tr.4 west facing section showing topsoil depth	N	sunny
8	Tr.5 post-ex	NE	sunny
9	Tr.6 post-ex	E	sunny
10	Tr.7 post-ex	NNW	sunny
11	general shot of back filled trenches	W	Cloudy
12	general shot of back filled trenches	W	Cloudy

APPENDIX 3: CONTEXT REGISTER

Context	Fill of	Location	Description	Drawing #
001			Topsoil	
002			Natural	
003		Tr.1-2	Coal debris layer	



Key:

-  evaluation trench
-  layer of coal debris 003
-  evaluation area
-  sewer

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Fig. No:	1	Revision:	A
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Title:
Site Location and location of
evaluation trenches

Project:
Borders Railway Project, Site
9 Evaluation

Client:
EDM Ltd per Transport
Scotland

Scale at A3:
1:300

Drawn by:	GC	Checked:	LW	Report No:	1997
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Fig. 2 Tr.1 south-facing section showing coal debris layer 003 under topsoil



Fig. 3 Tr.6 post ex from the east



Fig. 4 General shot from the west of Area 9 after back filling of trenches

Key:	Fig. No:	2-4	Revision:	A	Client:	ERM Ltd per Transport Scotland	 CFA ARCHAEOLOGY LTD The Old Engine House Eskmills Park Musselburgh East Lothian, EH21 7PQ t 0131 273 4360 f 0131 273 4361 e: info@cfa-archaeology.co.uk w: www.cfa-archaeology.co.uk
	Title:						
Scale at A4:	Project:						
	Borders Railway Project, Area 9 Evaluation						
Drawn by:			Checked:		Report No:		
GC					1996		