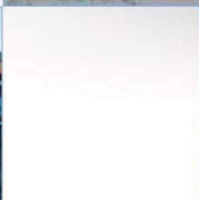
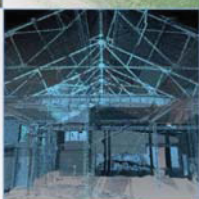
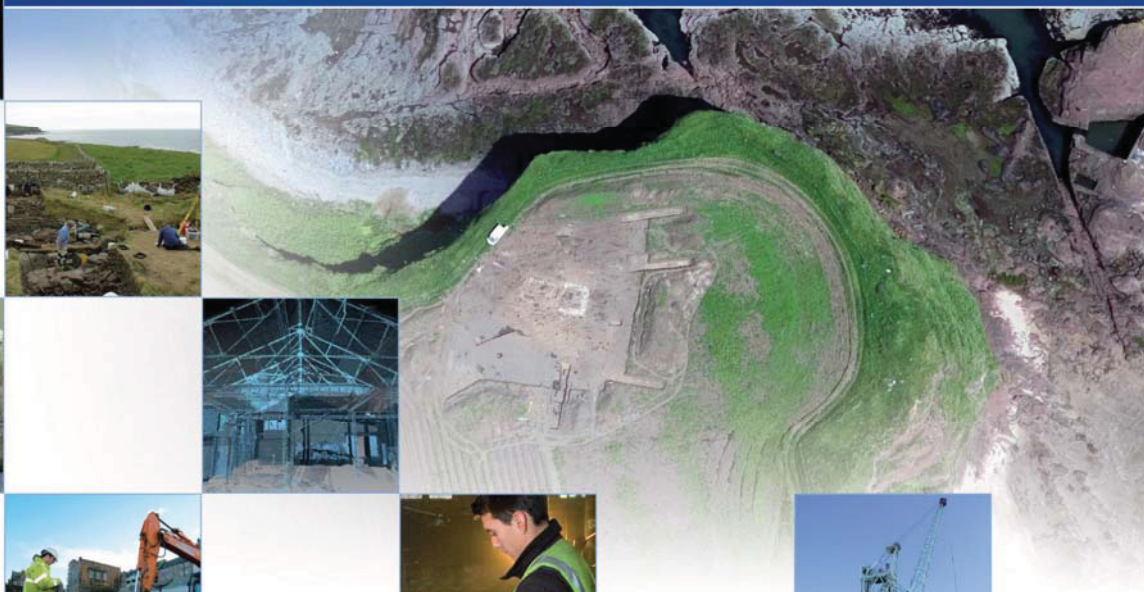


# Newbridge Fire Training Centre Evaluation, Edinburgh: Data Structure Report

AOC 21466  
November 2009



# Newbridge Fire Training Centre Evaluation, Edinburgh

## Data Structure Report

---

<b>On Behalf of:</b>	<b>Smith Scott Mullan Associates</b> 378 Leith Walk, Edinburgh EH7 4PF
<b>National Grid Reference (NGR):</b>	<b>NT 1220 7200</b>
<b>AOC Project No:</b>	<b>21466</b>
<b>Prepared by:</b>	<b>Lindsay Dunbar</b>
<b>Illustration by:</b>	<b>Gemma Hudson</b>
<b>Date of Fieldwork:</b>	<b>10<sup>th</sup> to 12<sup>th</sup> November 2009</b>
<b>Date of Report:</b>	<b>26<sup>th</sup> November 2009</b>

This document has been prepared in accordance with AOC standard operating procedures.

**Author:** Lindsay Dunbar

**Date:** 26<sup>th</sup> November 2009

**Approved by:** John Gooder

**Date:** 26<sup>th</sup> November 2009

**Draft Report Stage:**

**Date:** 26<sup>th</sup> November 2009

**Enquiries to:** AOC Archaeology Group  
Edgefield Industrial Estate  
Edgefield Road  
Loanhead  
EH20 9SY

Tel. 0131 440 3593  
Fax. 0131 440 3422  
e-mail. [admin@aocarchaeology.com](mailto:admin@aocarchaeology.com)



[www.aocarchaeology.com](http://www.aocarchaeology.com)

---

## Contents

	Page
List of illustrations .....	1
List of plates .....	1
Abstract.....	2
<b>1 INTRODUCTION .....</b>	<b>3</b>
1.1 Background .....	3
1.2 Location .....	3
1.3 Archaeological and Historical Background.....	3
<b>2 OBJECTIVES .....</b>	<b>3</b>
<b>3 METHOD .....</b>	<b>4</b>
<b>4 RESULTS .....</b>	<b>4</b>
4.1 Introduction .....	4
4.2 Overview .....	5
<b>5 DISCUSSION .....</b>	<b>6</b>
<b>6 CONCLUSION.....</b>	<b>6</b>
<b>7 REFERENCES .....</b>	<b>6</b>
7.1 Bibliographic References .....	6
<b>Appendix 1 .....</b>	<b>9</b>
Trench Register .....	9
<b>Appendix 2.....</b>	<b>12</b>
Photographic Register .....	12
<b>Appendix 2.....</b>	<b>13</b>
' <i>Discovery and Excavation in Scotland</i> ' Report.....	13

## List of illustrations

Figure 1: Site Location showing trench locations, utility services and areas of standing water

## List of plates

Plate 1: Trench 11 showing cut of made ground

## Abstract

---

An archaeological evaluation was required by Smith Scott Mullan Associates to address the potential archaeological impact of a proposed Fire Training Centre development at Newbridge, Edinburgh. The archaeological works were required with regard to the planning application (Planning Ref 07/02875/OUT) and are all in accordance with SPP23 (2008) and PAN 42 (SOEnD 1994). The Written Scheme of Investigation (Dunbar 2009) proposed the excavation of trenches equating to a 5% sample of the development area, with a further 3% contingency to be invoked if requested by Mr. John Lawson, City of Edinburgh Council Archaeology Service (CECAS). The site covered approximately 2.34 ha resulting in evaluation trenching with a total basal area of 1170 m<sup>2</sup> (Figure 2).

The presence of a number of large services, coupled with very extensive areas of standing water reduced significantly the area that could be feasibly evaluated, resulting in a total evaluation area of 700 m<sup>2</sup>. An on-site meeting with Mr. Lawson, to discuss the evaluation findings, concluded that the contingency trenching was not required and that the evaluation had fully assessed the archaeological potential of the site.

The site at Newbridge has been substantially altered and disturbed by later 20<sup>th</sup> century development of the surrounding land and as such the archaeological potential of the site has been severely comprised. No archaeological features or unstratified artefacts were uncovered by the evaluation.

# 1 INTRODUCTION

## 1.1 Background

- 1.1.1 An archaeological evaluation was required by Smith Scott Mullan Associates to address the potential archaeological impact of a proposed Fire Training Centre development at Newbridge, Edinburgh (Figure 1). The area lies within the administrative jurisdiction of the City of Edinburgh Council (CEC), who are advised on archaeological matters by Mr. John Lawson of the City of Edinburgh Council Archaeology Service (CECAS). The archaeological works were required with regard to the planning application (Planning Ref 07/02875/OUT) and are all in accordance with SPP23 (2008) and PAN 42 (SOEnD 1994).

## 1.2 Location

- 1.2.1 The proposed development area occupies an area of approximately 2.34 ha and is centred at NGR: NT 1220 7200 (Figure 1). The site has until the recent past been in use as arable land. It is bounded to the north by a railway line and to the south by Claylands Road. The eastern extent is marked by a recently constructed building, and the western extent by a pond.

## 1.3 Archaeological and Historical Background

- 1.3.1 The development area itself contains no known sites of archaeological significance. The nearest sites noted with the Royal Commission on Ancient and Historical Monuments of Scotland (RCAHMS) are the findspots of a prehistoric polished stone axehead (*NMRS* NT17SW 100) and some chain mail recovered from Liston Farm (*NMRS* NT17SW 83). Both of these sites lie within 500 m of the development area. However looking slightly further beyond the site boundaries, within a kilometre or two of the site, recent commercial archaeological works have unearthed a wide ranging and impressive array of prehistoric archaeological sites on similarly sited greenfield sites. However, a recent watching brief (*NMRS* NT17SW 249) during construction works within Claylands Industrial Unit, to the east of the development area, produced negative findings.
- 1.3.2 The 1<sup>st</sup> through to 3<sup>rd</sup> Edition Ordnance survey maps (1855 through to 1912) show the site as arable fields belonging to 'Claylands' farm with a few stands of trees, but no landscaping or structures present.

# 2 OBJECTIVES

- 2.1 The objectives of the archaeological evaluation works were:
- i) to determine the character, extent, condition, quality, date and significance of any buried archaeological remains within the proposed development area;

- ii) to advise and implement an appropriate form of archaeological mitigation, such as excavation, post-excavation analyses and publication, should significant archaeological remains be encountered that cannot be preserved *in situ*.

### 3 METHOD

- 3.1 The Written Scheme of Investigation (Dunbar 2009) proposed the excavation of trenches equating to a 5% sample of the development area, with a further 3% contingency to be invoked if requested by Mr. Lawson, if archaeology was uncovered during the initial 5% sample evaluation. The site covered approximately 2.34 ha resulting in evaluation trenching with a total basal area of 1170 m<sup>2</sup> (Figure 2).
- 3.2 The presence of a number of utility services, coupled with very extensive areas of standing water, reduced significantly the area that could be feasibly evaluated, resulting in total evaluation trenching of 700 m<sup>2</sup>. An on-site meeting with Mr. Lawson on 12<sup>th</sup> November, to discuss the evaluation findings, concluded that the contingency trenching was not required and that the evaluation, though less intensive than stated in the WSI, had fully assessed the archaeological potential of the site.
- 3.3 All trenches were excavated with a 13 tonne tracked excavator using a 2.2 m wide ditching bucket. The trench details are summarised in Appendix 1. Machine excavation was conducted in shallow units/spits through topsoil/overburden to the upper surface of the underlying geological deposits. The evaluation trial trenching was undertaken according to AOC Archaeology Group's standard operating procedures as detailed with the Written Scheme of Investigation (Dunbar 2009).

### 4 RESULTS

#### 4.1 Introduction

- 4.1.1 The evaluation was undertaken between 10<sup>th</sup> and 12<sup>th</sup> November 2009 in generally fair weather conditions which rendered good archaeological visibility. As noted above large tracts of the development area were covered by long established standing water and in general the soils were saturated. The various data gathered from the evaluation is presented as a series of appendices
  - i) Appendix 1 contains Trench Summaries;
  - ii) Appendix 2 contains the Photographic Register;
  - iii) Appendix 3 reproduces the *Discovery and Excavation in Scotland* entry.



## 4.2 Overview

- 4.2.1 The trenching did not uncover any features of archaeological significance. Careful study of the topsoil removed during trenching did not yield any unstratified artefacts of archaeological significance.
- 4.2.2 The majority of the trenches opened on site showed evidence for the presence of a large amount of dumped material existing across the vast majority of the site. This averaged at least a metre in depth with in excess of two metres present in Trenches 7, 9 and 10. This material comprised a consistent mix of redeposited natural clay subsoil mixed with redeposited topsoil. The most common artefact visible within this material was the fractured remains of redeposited field drains indicating that this material was removed from previously improved greenfield sites. It is liable that this land parcel, one of few undeveloped units within this large industrial site, has been utilised as a convenient dumping ground for spoil generated from road and construction works. It is possible that material from the pond lying to the west of the site was dumped on this site. At least some of the large drains that cross the site feed directly into this pond taking run-off from the road drains.



**Plate 1: Trench 11 showing cut of made ground**

- 4.2.3 Given the general topography of the site rising slowly from the south to the north, before falling away slightly towards the railway, it is difficult to reconcile this with the depth of made ground present across the southern half of the site, which is in excess of 2.0 m. However, Trenches 5, 6, 8 and 11 suggest that the site may have been subjected to a degree of



excavation with infill then dumped into the resulting excavations. In these trenches the edge is sharp and steep between the *in situ* natural geology of orange clays and the dumped, mixed infill material. Where it survives, on the highest point of the site, the natural geology of orange clay is crossed by agricultural ceramic field drains and is covered with 0.30 m of quality topsoil giving a glimpse of the soil profile at the beginning of the 20<sup>th</sup> century.

- 4.2.4 Trench 4 is interesting in that it is aligned perpendicular to the roughly east to west ridge that crosses the site, where Trench 6, 8 and 11 lie and where the *in situ* natural geology of orange clay survives. Trench 4 shows that greater depths of dumped material increasingly overlie the natural clay to the north and south as the natural topography falls away. This dumped material has levelled out the site, and as it moves south it comes to a sharp cut visible in Trench 5, 6, 8 and 11 at which point the infill material is no longer overlying a ground surface, but the original ground surface has been excavated and removed. The only trench in the southern side of the site which shows a buried turf and topsoil horizon is in Trench 9, which demonstrates that any excavations in this southern part of the site were somewhat piecemeal.

## **5 DISCUSSION**

- 5.1 The evaluation has shown this site to be much disturbed, with large quantities of dumped soils lying across more than three-quarters of the development area with only a narrow band of the former agricultural land surface remaining. The dumped material appears to have occurred following a period of extraction at the site with only a single trench (Trench 9) showing the presence of a buried topsoil.
- 5.2 In the small area that appears to have survived undamaged, a roughly east to west aligned ridge towards the northern side of the site, a concentration of trenching across this plateau did not yield either surviving features or unstratified artefacts.

## **6 CONCLUSION**

- 6.1 The site at Newbridge has been substantially altered and disturbed by later 20<sup>th</sup> century development of the surrounding land and as such the archaeological potential of the site has been much compromised. No archaeological features or unstratified artefacts were uncovered by the evaluation. No further archaeological works are considered necessary. This recommendation will require confirmation by Mr Lawson (CECAS) acting on behalf of the planning authority.

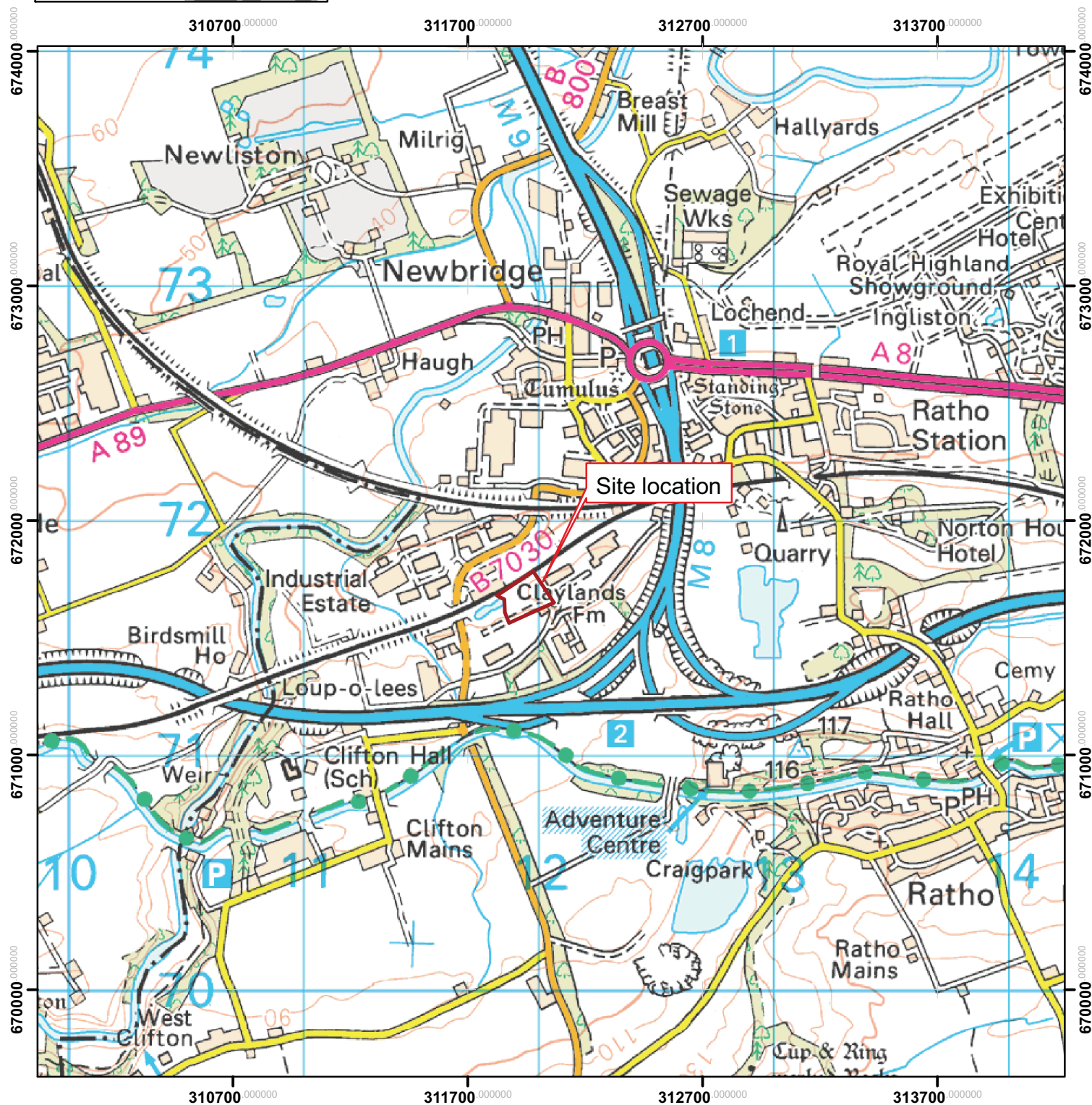
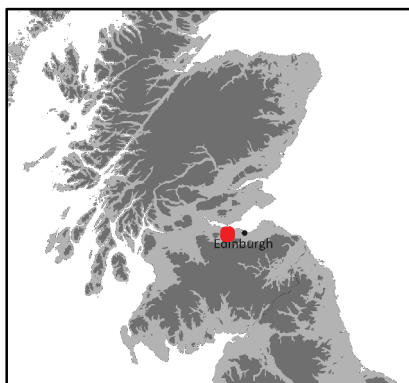
## **7 REFERENCES**

### **7.1 Bibliographic References**

Dunbar L, 2009 *Newbridge Fire Training Centre Evaluation, Edinburgh; Written Scheme of Investigation*, AOC Archaeology Unpublished Client report

SOEnd 1994 *Planning Advice Note 42. Archaeology – the Planning Process and Scheduled Ancient Monument Procedures*. January 1994. The Scottish Office Environment Department.

SPP 23 2008. *Scottish Planning Policy Archaeology and Planning*. Scottish Government Nov.2008.






0 10 20 30 40 50  
metres

Figure 1: Site Location



Figure 2: Site Plan and Trench Locations

KEY

-  Marshy Ground
-  Services Buffer Zones
-  Evaluation Trenches



© AOC Archaeology 2009

Reproduced from map data supplied by client

# **Newbridge Fire Training Centre Evaluation, Edinburgh: Data Structure Report**

## **Appendices**



## Appendix 1

### Trench Summaries

#### Trench 1

Dimensions	42 m by 2.2 m
Orientation	NE - SW
Depth of Topsoil	0.22 m to 0.31 m
Depth of excavation	0.9 m to 1.4 m
Features	Subsoil covered by up to 1.2 m of made ground which consisted of a mix of topsoil and redeposited subsoil. No buried topsoil noted – therefore stripped prior to dumping of made ground.
Subsoil	Orange clay rich matrix
Finds	Unstratified 20 <sup>th</sup> century glazed pottery noted within topsoil with variety of ceramic field drain fragments common in made ground. Some plastic, glass and metal also noted in made ground.

#### Trench 2

Dimensions	22 m by 2.2 m
Orientation	NE - SW
Depth of Topsoil	0.23 m to 0.33 m
Depth of excavation	1.0 m to 1.4 m
Features	Subsoil covered by up to 1.2 m of made ground which consisted of a mix of topsoil and redeposited subsoil. No buried topsoil noted – therefore stripped prior to dumping of made ground.
Subsoil	Orange clay rich matrix
Finds	Unstratified 20 <sup>th</sup> century glazed pottery noted within topsoil with variety of ceramic field drain fragments common in made ground. Some plastic, glass and metal also noted in made ground.

#### Trench 3

Dimensions	27 m by 2.2 m
Orientation	E - W
Depth of Topsoil	0.20 m to 0.32 m
Depth of excavation	0.8 m to 1.4 m
Features	Subsoil covered by up to 1.2 m of made ground which consisted of a mix of topsoil and redeposited subsoil. No buried topsoil noted – therefore stripped prior to dumping of made ground.
Subsoil	Orange clay rich matrix
Finds	Unstratified 20 <sup>th</sup> century glazed pottery noted within topsoil with variety of ceramic field drain fragments common in made ground. Some plastic, glass and metal also noted in made ground.

#### Trench 4

Dimensions	32 m by 2.2 m
Orientation	N - S
Depth of Topsoil	0.32 m to 0.36 m
Depth of excavation	0.4 m to 0.9 m
Features	Typical <i>in situ</i> agricultural stratigraphy of topsoil over subsoil across the middle portion of the trench however at both the N & S ends there was made ground which consisted of a mix of topsoil and redeposited subsoil over the subsoil which was increasing quickly in depth. At least 0.5 m deep. No buried topsoil was noted suggesting the original surface was cut away prior to dumping.
Subsoil	Orange clay rich matrix
Finds	Unstratified 20 <sup>th</sup> century glazed pottery noted within topsoil with variety of ceramic field drain fragments common



**Trench 5**

Dimensions	43 m by 2.2 m
Orientation	E-W
Depth of Topsoil	0.15 m to 0.29 m
Depth of excavation	0.4 m to 0.8 m
Features	Subsoil covered by up to 0.5 m of made ground which consisted of a mix of topsoil and redeposited subsoil. At least 0.5 m deep. No buried topsoil was noted suggesting the original surface was cut away prior to dumping. At W end there was a N-S rubble filled drain.
Subsoil	Orange clay rich matrix
Finds	Unstratified 20 <sup>th</sup> century glazed pottery noted within topsoil with variety of ceramic field drain fragments common within made ground.

**Trench 6**

Dimensions	34 m by 2.2 m
Orientation	N - S
Depth of Topsoil	0.36 m to 0.42 m
Depth of excavation	0.5 m to 2.5 m
Features	Typical <i>in situ</i> agricultural stratigraphy of topsoil over subsoil across the northern portion of the trench however at both the S end there was an abrupt steep cut filled with made ground which consisted of a mix of topsoil and redeposited subsoil over the subsoil. At least 2.5 m deep. No buried topsoil was noted suggesting the original surface was cut away prior to dumping.
Subsoil	Orange clay rich matrix
Finds	Unstratified 20 <sup>th</sup> century glazed pottery noted within topsoil with variety of ceramic field drain fragments common within made ground.

**Trench 7**

Dimensions	19 m by 2.2 m
Orientation	NE - SW
Depth of Topsoil	0.27 m to 0.38 m
Depth of excavation	Up to 2.5 m
Features	Subsoil covered by up to 2.2 m of made ground which consisted of a mix of topsoil and redeposited subsoil. No buried topsoil was noted suggesting the original surface was cut away prior to dumping.
Subsoil	Orange clay rich matrix
Finds	Unstratified 20 <sup>th</sup> century glazed pottery noted within topsoil with variety of ceramic field drain fragments common

**Trench 8**

Dimensions	45 m by 2.2 m
Orientation	NW - SE
Depth of Topsoil	0.30 m to 0.41 m
Depth of excavation	0.35 m to 1.0 m
Features	Typical <i>in situ</i> agricultural stratigraphy of topsoil over subsoil for most of trench (with N-S aligned ceramic field drains present at c.5 m intervals), however at SE end there was a straight, steep cut filled with made ground which consisted of a mix of topsoil and redeposited subsoil and was at least 0.5 m deep.
Subsoil	Orange clay rich matrix
Finds	Unstratified 20 <sup>th</sup> century glazed pottery noted within topsoil with variety of ceramic field drain fragments common within made ground.

**Trench 9**

Dimensions	13 m by 2.2 m
Orientation	E - W

Depth of Topsoil	0.12 m to 0.21 m
Depth of excavation	Up to 2.5 m
Features	Subsoil covered by up to 2 m of made ground which consisted of a mix of topsoil and redeposited subsoil. At c.2.2 to 2.3 m there was a buried topsoil layer with turf uncovered directly over natural clay.
Subsoil	Orange clay rich matrix
Finds	Unstratified 20 <sup>th</sup> century glazed pottery noted within topsoil with variety of ceramic field drain fragments common within made ground.

#### Trench 10

Dimensions	16 m by 2.2 m
Orientation	N - S
Depth of Topsoil	0.12 m to 0.18 m
Depth of excavation	Up to 1.4 m
Features	Subsoil covered by at least 1.2 m of made ground which consisted of a mix of topsoil and redeposited subsoil. Very compacted, opposite entrance so liable to have been used as haul road for lorries dumping material onto the site.
Subsoil	Not reached by excavations – presumed to be orange clay rich matrix
Finds	Unstratified 20 <sup>th</sup> century glazed pottery noted within topsoil with variety of ceramic field drain fragments common within made ground.

#### Trench 11

Dimensions	25 m by 2.2 m
Orientation	NW - SE
Depth of Topsoil	0.26 m to 0.37 m
Depth of excavation	0.3 m to 0.4 m
Features	Typical <i>in situ</i> agricultural stratigraphy of topsoil over subsoil across all of the trench (with N-S aligned ceramic field drains present at c.5 m intervals)
Subsoil	Orange clay rich matrix
Finds	Unstratified 20 <sup>th</sup> century glazed pottery noted within topsoil with variety of ceramic field drain fragments common within made ground.

## Appendix 2

### Photographic Register

#### Black & White Print Film No.1

Number	Area	Description	From
1-2	-	Registration	-
3-4	Tr.4	General post-excavation view along Trench 4	NW
5-6	-	General view across site from NW corner	W
7-8	Tr.5	General post-excavation view along Trench 5	W
9-11	-	View of site from E, SE & W showing areas of marshy ground and standing water	E, SE & W
12-13	Tr.8	General post-excavation view along Trench 8	NW
14-15	-	General view of backfilled Trenches (Tr.3 in foreground, then Tr.2 Then Tr.1)	SW
16-17	Tr.9	View of Trench 9 after backfilling	W
18-19	Tr.7	General post-excavation view along Trench 7	E
20-21	Tr.6	General post-excavation view along Trench 6	SE
22-23	Tr.10	View of Trench 10 after backfilling	NW
24-25	-	View of containers and area of hard standing	SE
26-27	-	General view across site from SE corner	SE
28-29	-	View of large excavation with drain cover	S
30-34	-	Views of site from southern bund along site boundary	Various
35	-	View of southern perimeter bund and ditch	E
36	-	View of electrical substation and area of dumped & banded material in SW corner of site	E

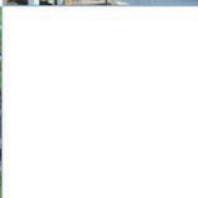
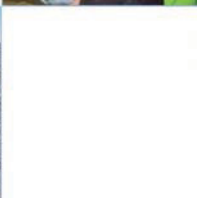
#### Digital Film No.1

Number	Area	Description	From
1-2	-	Registration	-
3-4	Tr.4	General post-excavation view along Trench 4	NW
5-6	-	General view across site from NW corner	W
7-8	Tr.5	General post-excavation view along Trench 5	W
9-11	-	View of site from E, SE & W showing areas of marshy ground and standing water	E, SE & W
12-13	Tr.8	General post-excavation view along Trench 8	NW
14-15	-	General view of backfilled Trenches (Tr.3 in foreground, then Tr.2 Then Tr.1)	SW
16-17	Tr.9	View of Trench 9 after backfilling	W
18-19	Tr.7	General post-excavation view along Trench 7	E
20-21	Tr.6	General post-excavation view along Trench 6	SE
22-23	Tr.10	View of Trench 10 after backfilling	NW
24-25	-	View of containers and area of hard standing	SE
26-27	-	General view across site from SE corner	SE
28-29	-	View of large excavation with drain cover	S
30-34	-	Views of site from southern bund along site boundary	Various
35	-	View of southern perimeter bund and ditch	E
36	-	View of electrical substation and area of dumped & banded material in SW corner of site	E
37-38	Tr.11	General post-excavation view along Trench 11	NW

## Appendix 3

### *'Discovery and Excavation in Scotland' Report*

LOCAL AUTHORITY:	Edinburgh City Council
PROJECT TITLE/SITE NAME:	Newbridge Fire Training Centre Evaluation
PROJECT CODE:	AOC 21466
PARISH:	Kirkliston
NAME OF CONTRIBUTOR:	Lindsay Dunbar
NAME OF ORGANISATION:	AOC Archaeology Group
TYPE(S) OF PROJECT:	Archaeological Evaluation
NMRS NO(S):	None
SITE/MONUMENT TYPE(S):	None
SIGNIFICANT FINDS:	None
NGR:	NT 1220 7200
START DATE (this season)	10 <sup>th</sup> November 2009
END DATE (this season)	12 <sup>th</sup> November 2009
PREVIOUS WORK (incl. DES ref.)	None
MAIN DESCRIPTION: (May include information from other fields)	<p>An archaeological evaluation was required to address the potential negative archaeological impact of a proposed Fire Training Centre at Newbridge, Edinburgh.</p> <p>The presence of several services coupled with very extensive areas of standing water reduced significantly the area that could be feasibly evaluated. Trenching amounting to approximately 700 m<sup>2</sup> found the site had been substantially altered and disturbed by later 20<sup>th</sup> century development of the surrounding land. No archaeological features or unstratified artefacts were uncovered.</p>
PROPOSED FUTURE WORK:	None
CAPTION(S) FOR ILLUSTRS:	n/a
SPONSOR OR FUNDING BODY:	Smith Scott Mullan Associates
ADDRESS OF MAIN CONTRIBUTOR:	AOC Archaeology Group, Edgefield Road Industrial Estate, Edgefield Road, Loanhead, Midlothian, EH20 9SY
EMAIL ADDRESS:	edinburgh@aocarchaeology.com
ARCHIVE LOCATION (Intended/deposited)	Archive to be deposited in NMRS



**AOC Archaeology Group**, Edgefield Industrial Estate, Edgefield Road, Loanhead EH20 9SY

tel: 0131 440 3593 | fax: 0131 440 3422 | e-mail: [admin@aocarchaeology.com](mailto:admin@aocarchaeology.com)

[www.aocarchaeology.com](http://www.aocarchaeology.com)