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Advice on Archaeology & Planning

Environmental Impact Assessment

Interpretation, Design & Display

Finds/ Environmental Analysis

Field Evaluation & Excavation


Historic Building Recording


Site & Landscape Survey

Geophysical Survey

**Site 5A (Shiel)
Greenburn OCCS
Braehead Farm Extension
New Cumnock, East Ayrshire**

**Archaeological Evaluation
Report No. 2040**

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This document has been prepared in accordance with CFA Archaeology Ltd standard operating procedures.

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1 INTRODUCTION

1.1 General

This report presents the results of an archaeological evaluation undertaken by CFA Archaeology Ltd (CFA) in April 2012 at Site 5A (Shiel), Greenburn Opencast Coal Extraction Site (Braehead Farm Extension), near New Cumnock, East Ayrshire (NGR: NS 5649 1241) (Fig. 1). The work was commissioned by KIER Mining Group.

1.2 Background

Planning consent (Ref No. 10/0491/PP) has been granted for the recovery of coal using surface mining techniques at Braehead Farm, near New Cumnock. The planning consent was subject to a condition requiring a programme of archaeological mitigation. Phase 1 of this programme of works involved a phased trial trench evaluation and a watching brief during the excavation of watercourse realignment and flood plain creation works on the River Nith.

The cultural heritage study undertaken by CFA for the Environmental Statement (ES) identified twenty cultural heritage sites within the proposed development area. The majority of these relate to post-medieval agricultural activity. Three of these sites were scheduled for evaluation during the Phase 1 works. Two of these sites (Site 6 and Site 12) (Fig. 1) were identified and evaluated but Site 5 was not located at the given location. The remains of a small building fitting the description of Site 5 were located further to the west of the given location and this was given the descriptor of Site 5A.

This report describes the archaeological evaluation of Site 5A (Shiel) which took place shortly after the main evaluation (Kirby 2012). This site is depicted on the First Edition Ordnance Survey map (1860) where it is annotated 'Shiel' (Fig. 3).

Previous work relating to the Stage 1 programme of works include a targeted evaluation of various areas across the proposed development area (Kirby 2012), the evaluation of the Haul Road and Detention Ponds BD2 and BD3 (Kirby 2011) (Fig. 1), and the watching brief during the realignment of the River Nith (Mitchell 2011a) (Fig. 1). A separate standing building survey of Riggfoot Farm was carried out in December 2011 prior to demolition (Mitchell 2011b).

1.3 Objectives

The objectives the programme of works reported herein were to enable infrastructure development in advance of developing the rest of the site by:

- Carrying out the archaeological evaluation of Site 5A;
- Establishing its vulnerability to the proposed development;
- Producing report(s) outlining the results of the work and any further work that is required to mitigate the effects of the development.

2. WORKING METHODS

2.1 General

CFA Archaeology Ltd follows the Institute for Archaeologists' Code of Conduct, Standards and Guidance.

2.2 Evaluation

A T-shaped trench measuring c. 11m by 2m and 8.5m by 6m was excavated across the footprint of Site 5A.

Topsoil and modern overburden were removed by a tracked 360° mechanical excavators equipped with 2m wide smooth-bladed ditching buckets. All groundbreaking work was carried out under constant archaeological supervision. Any further excavation required to fulfil the objectives of the evaluation was carried out by hand.

All 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.

The stratification of all excavated areas was recorded whether or not significant archaeological deposits were identified.

Trench positions were surveyed using industry standard electronic surveying equipment.

3. ARCHAEOLOGICAL RESULTS

3.1 General

Numbers in bold refer to contexts, a full list of which are contained in Appendix 2.

3.2 Site 5A

Trial trenching established that Site 5A (Fig. 2, Fig. 4 and Fig. 5) consisted of a rectilinear, stone-built, two-compartment building measuring 15m west to east by 6.75m north to south. The building had been constructed against a field boundary wall (**011**) on the periphery of an area of improved agricultural land which sloped downwards from south to north. A further field boundary wall between two areas of improved land ran perpendicular with field boundary **011**, heading downhill south to north past the western end of the building. This boundary was tree-lined. A track running alongside the field boundary would have given access to the building. The topsoil (**001**) overlying both compartments contained numerous sherds of glass, pottery and metal artefacts of probable 19th-century date. These finds were retained for analysis (see Section 3.3).

The external walls (**003**) of the building measured c.0.75m in width and were upstanding to a maximum height of 0.5m above the natural subsoil (**002**). Where they were exposed at the eastern end of the building, they consisted of large rounded boulders and were of drystone construction (Fig. 7), but at the western end they consisted of angular fragments of sandstone with traces of lime mortar between them (Fig. 8). The internal wall (**008**) dividing the two compartments was of similar sandstone and mortar construction to the western part of **003**, but was considerably less substantial, measuring 0.4m in width and standing to a height of 0.2m to 0.3m. Slight traces of a foundation cut (**010**) measuring up to a maximum of 0.1m deep were identified cut into the underlying natural subsoil.

Trial trenching established that the two compartments forming the building were of equal size, each measuring 6.5m west to east by 5.5m north to south. The easternmost of the two compartments had an entranceway in the centre measuring 1.2m in width, with a 1.2m wide cobbled surface (**004**) (Fig. 6) leading from the entranceway and terminating at the dividing wall (**008**) between the two compartments. On either side of the cobbled surface, the possible footings of two further internal walls (**005** and **006**) were identified. These measured c.0.4m wide and survived as a single course of rounded stones which were upstanding to a height of c. 0.2m. Walls **005** and **006**, and cobbles **004** all sat directly on top of the natural subsoil (**002**). Within the south-eastern corner of the compartment, a Y-shaped field drain (**007**) (Fig. 9) consisting of several ceramic cylinder drain sections was identified. The purpose of this field drain is unknown as it did not appear to serve any obvious drainage function. The artefacts recovered from this compartment are indicative of agricultural activity, and the cobbled surface suggests that it may have been used for housing livestock.

The westernmost compartment had a lime mortar floor (**009**) which was c. 0.1m thick and sat directly on top of the natural subsoil (**002**). An area of burning consisting of ash deposits was identified against internal wall **008**, but there was no definite evidence of a fireplace. No internal walls were identified within this compartment and

there was no evidence of a doorway. This would suggest that the doorway was situated within the northern wall of the building. The quantity of pottery recovered from this end of the building suggests that it may have served as a domestic dwelling.

3.3 The Finds, by Sue Anderson

Table 1 shows the quantities of finds recovered from the site. A brief catalogue by context is included as Appendix 4. All finds were recovered from topsoil **001** or were unstratified.

Find type	No.	Wt (g)
Pot	13	618
CBM	2	1818
Mortar	2	1402
Glass	4	293
Fe	14	3441
Clay pipe	1	1

Table 1. Finds summary

Pottery

Sherds of domestic pottery included pieces of country pottery redwares (late slipped redwares (LSRW) and blackware (LBW)), refined factory-made whitewares (REFW) and yellow ware (YELW) were recovered. The fragments represented pieces of kitchenware (bowls) and tablewares (decorated plate, bowl, etc.). All can be given a broad date range within the late 18th to 20th centuries.

Ceramic building material and mortar

A complete section of clay field drainpipe (**007**) was recovered. This was a D-section extruded pipe of probable 19th-century date. A fragment of another extruded or moulded pipe was also collected.

A large chunk of floor surface **009** was recovered for analysis. This consisted of lime mortar with coal and coarse chalk aggregates. An abraded piece of similar coarse mortar came from topsoil.

Glass

A bottle base and two flakes from the same vessel were of 19th-century date. The thick kick base was moulded with the phrase: '6 to the Gallon'. A small fragment of blue-green window glass of similar date was also recovered.

Clay pipe

A fragment of a mouthpiece in a pale buff fabric was from a clay tobacco pipe of probable 18th/19th-century date.

Metalwork

Most of the finds recovered from topsoil were wrought iron objects of recent date. A full list is included in Appendix 4 but they included a double-loop swivel, a fragment of a sickle or scythe blade, a door hook, two nails, two fragments of horse bits, and some large fittings which may be machinery parts.

4. CONCLUSIONS

The evaluation of Site 5A identified a rectilinear two-compartment stone-built structure with a combination of mortar and cobbled floor surfaces. It is thought that one end of the building was used to house livestock, while the other end may have been a domestic dwelling. This building is depicted on the First Edition Ordnance Survey map (1860) where it is annotated 'Shiel'. A 19th century date is supported by the pottery, glass and metal artefacts recovered during the evaluation. It is considered that this building represents the true position of Site 5 as recorded in the ES.

CFA does not recommend any further mitigation in relation to Site 5A. However, it is recognised that the final decision on what mitigation will be required lies with the planning authority as advised by WoSAS.

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 the WoSAS Sites and Monuments Record.

On completion of the mitigation works a summary statement will be submitted for publication in *Discovery and Excavation in Scotland* and will also be reported on through *OASIS Scotland*.

5. REFERENCES

Bibliographic

Kirby, M, 2011 *Greenburn OCCS Braehead Farm Extension New Cumnock, East Ayrshire Archaeological Evaluation*, Unpublished CFA Technical Report 1927

Kirby, M, 2012 *Greenburn OCCS Braehead Farm Extension New Cumnock, East Ayrshire Archaeological Evaluation*, Unpublished CFA Technical Report 2019

Mitchell, S, 2011a *Greenburn OCCS, River Nith Diversionary Works, Dalrieket, New Cumnock, East Ayrshire, Archaeological Watching Brief and Evaluation*, Unpublished CFA Technical Report 1931

Mitchell, S, 2011b *Riggfoot Farm, Dalrieket, New Cumnock, East Ayrshire, Desk-Based Assessment and Standing Building Survey*. Unpublished CFA Technical Report 1933

Cartographic

Ordnance Survey First Edition 25" map (1860), *Ayrshire Sheet XLI.11* (New Cumnock)

APPENDIX 1: Photographic Register

Digital

Shot	Description	From	Conditions
1	Site 5A pre-excavation	East	Sun
2	Site 5A pre-excavation	NE	Sun
3	Site 5A pre-excavation	NW	Sun
4	Site 5A post-excavation	East	Overcast
5-6	Site 5A, cobbles 004	East	Overcast
7-8	Site 5A, cobbles 004	West	Overcast
9-10	Site 5A, field drain 007	West	Overcast
11	Site 5A, cobbles 004	South	Overcast
12	Site 5A, wall 003, SE end of structure	North	Overcast
13-16	Site 5A, wall 003, NE corner	NE	Overcast
17-18	Site 5A, wall 003, NW end of structure	West	Overcast
19-20	Site 5A, wall 003, NW end of structure	North	Overcast
21-22	Site 5A, interior wall 008	North	Overcast
23	Mortar surface 009 directly overlying natural subsoil 002	West	Overcast
24	Site 5A post-excavation	SW	Overcast
25-26	Site 5A post-excavation	SE	Overcast

APPENDIX 2: Context Register

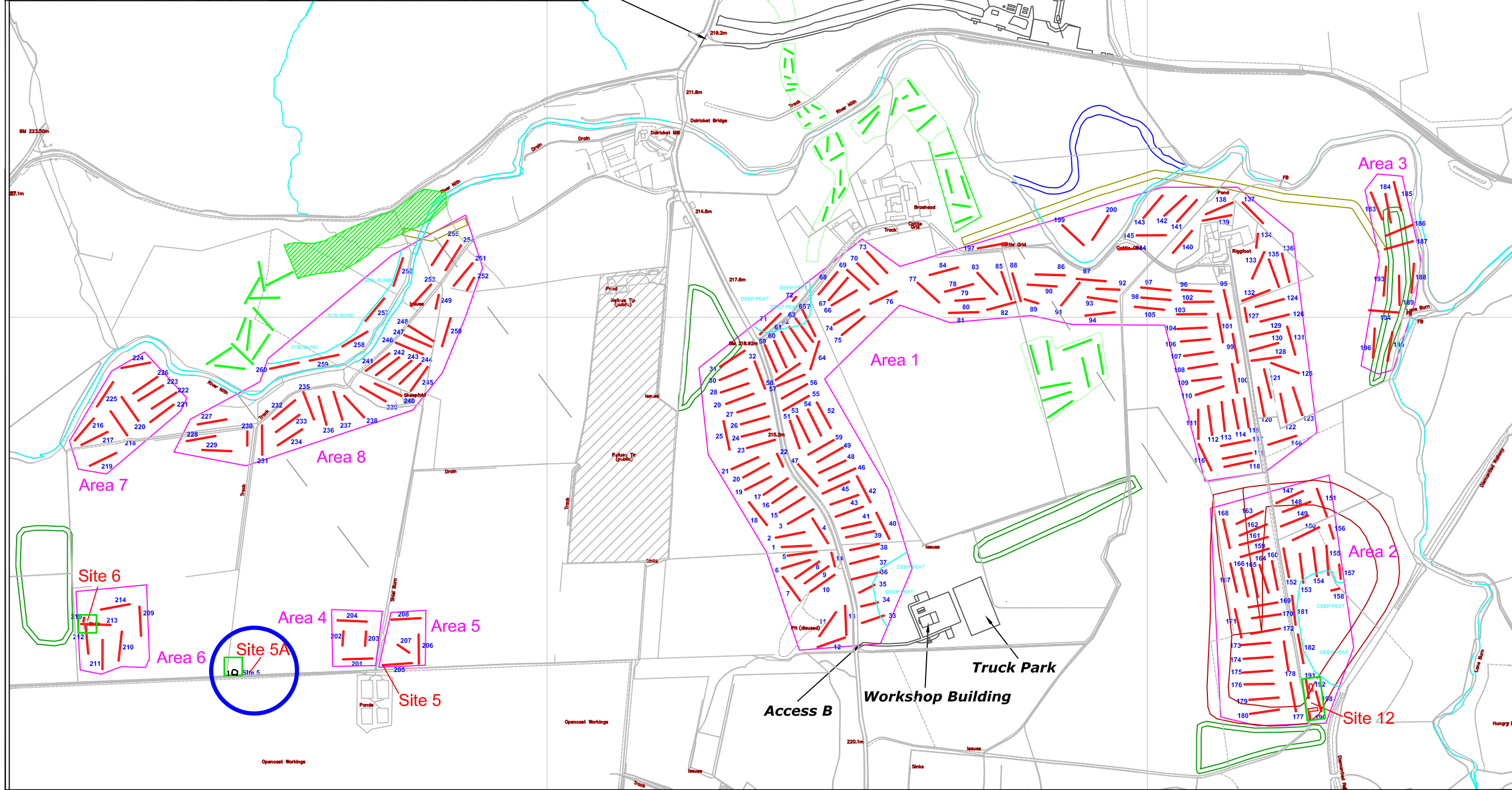
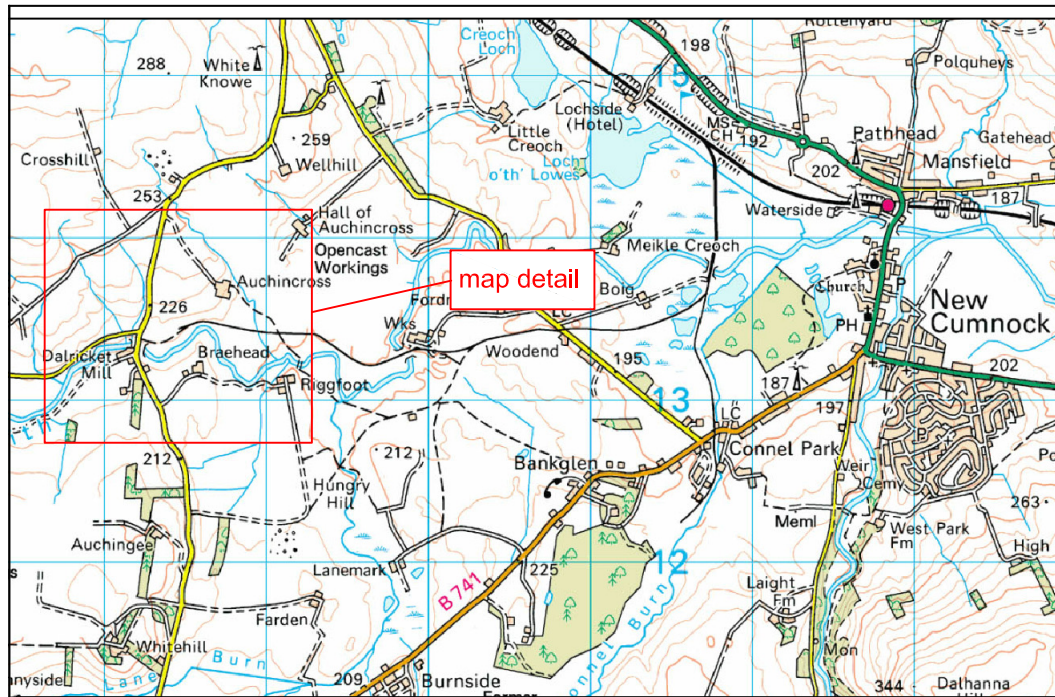
Context No.	Area	Trench	Description
001	Site 5A	N/A	Topsoil (mid grey-brown silt mixed with demolition debris)
002	Site 5A	N/A	Natural subsoil (orange-brown sandy clay)
003	Site 5A	N/A	External walls of building
004	Site 5A	N/A	Cobbled surface
005	Site 5A	N/A	Stones lining the edge of cobbles 004. Possibly wall footings
006	Site 5A	N/A	Stones lining the edge of cobbles 004. Possibly wall footings
007	Site 5A	N/A	Ceramic cylinder drain laid out in Y-shaped arrangement
008	Site 5A	N/A	Internal wall dividing two compartments
009	Site 5A	N/A	Mortar floor surface
010	Site 5A	N/A	Foundation cut
011	Site 5A	N/A	Field boundary wall


APPENDIX 3: Field Drawings Register

Sheet No	Drawing No	Scale	Section/Plan	Description
1A	1	1:50	P	Plan of Site 5A (part 1)
1B	1	1:50	P	Plan of Site 5A (part 1)
1B	2	1:50	Profile	Profile across Site 5A

APPENDIX 4: Finds quantification

Context	Find type	No.	Wt (g)	Notes	Spotdate
001	Pot	1	241	LSRW base	L.18th-19th c.
001	Pot	7	134	REFW transfer-printed plate, spongeware bowl etc	19th/20th c.
001	Pot	2	24	YELW	19th/20th c.
001	Pot	2	90	LSRW rim & body of bowl	L.18th-19th c.
001	Pot	1	129	LBW base	L.18th-19th c.
001	Glass	3	292	Thick base of dark green bottle with kick containing moulded lettering: '6 to the Gallon'	19th c.
001	Glass	1	1	Thin fragment of pale blue-grey window glass	Modern
001	Clay pipe	1	1	Mouthpiece in pale buff fabric	18th/19th c.
001	Mortar	1	1	Small abraded frag with coarse aggregates	Pmed/modern
001	CBM	1	29	Moulded or extruded fragment ?field drain	19th/20th c.
001	Fe	1	156	Double-looped swivel	Pmed/modern
001	Fe	1	124	Large door hook	Pmed/modern
001	Fe	2	12	Nails, handmade	Pmed/modern
001	Fe	1	12	Curved fragment - buckle frame or bit ring?	Pmed/modern
001	Fe	1	17	Frag of bit mouthpiece?	Pmed/modern
001	Fe	1	46	Curving fragment, circular section, tapering at one end	Pmed/modern
001	Fe	1	100	Sickle/scythe blade fragment	Pmed/modern
001	Fe	1	46	Curved strap fragment from wooden bucket?	Pmed/modern
001	Fe	1	1220	Large Y-shaped fitting with screw terminal	Pmed/modern
001	Fe	1	542	Curving fitting, concave section to strap, loops at each end	Pmed/modern
001	Fe	1	513	Square-section rod with thick ring at one end	Pmed/modern
001	Fe	1	55	Triangular sheet fragment with curved corner	Pmed/modern
001	Fe	1	598	Rectangular strip or blade fragment (sword??)	Pmed/modern
007	CBM	1	1789	Complete D-section field drain pipe	19th/20th c.
009	Mortar	1	1401	Thick lime mortar frag with coal/chalk aggregates	Modern






REGISTERED ORGANISATION

Key:

- Previous evaluation areas and trenches
- Previous watching brief area
- Previous Evaluation areas and trenches
- Archaeology Avoidance Areas

○ Site 5A



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Fig. No: 1	Revision: A
Title: Location map showing the location of Site 5A	
Project: Greenburn OCCS, Braehead Farm	
Client: Kier Mining Group	
Scale at A3: 1:7000	
Drawn by: GC	Checked: LW
Report No: 2040	

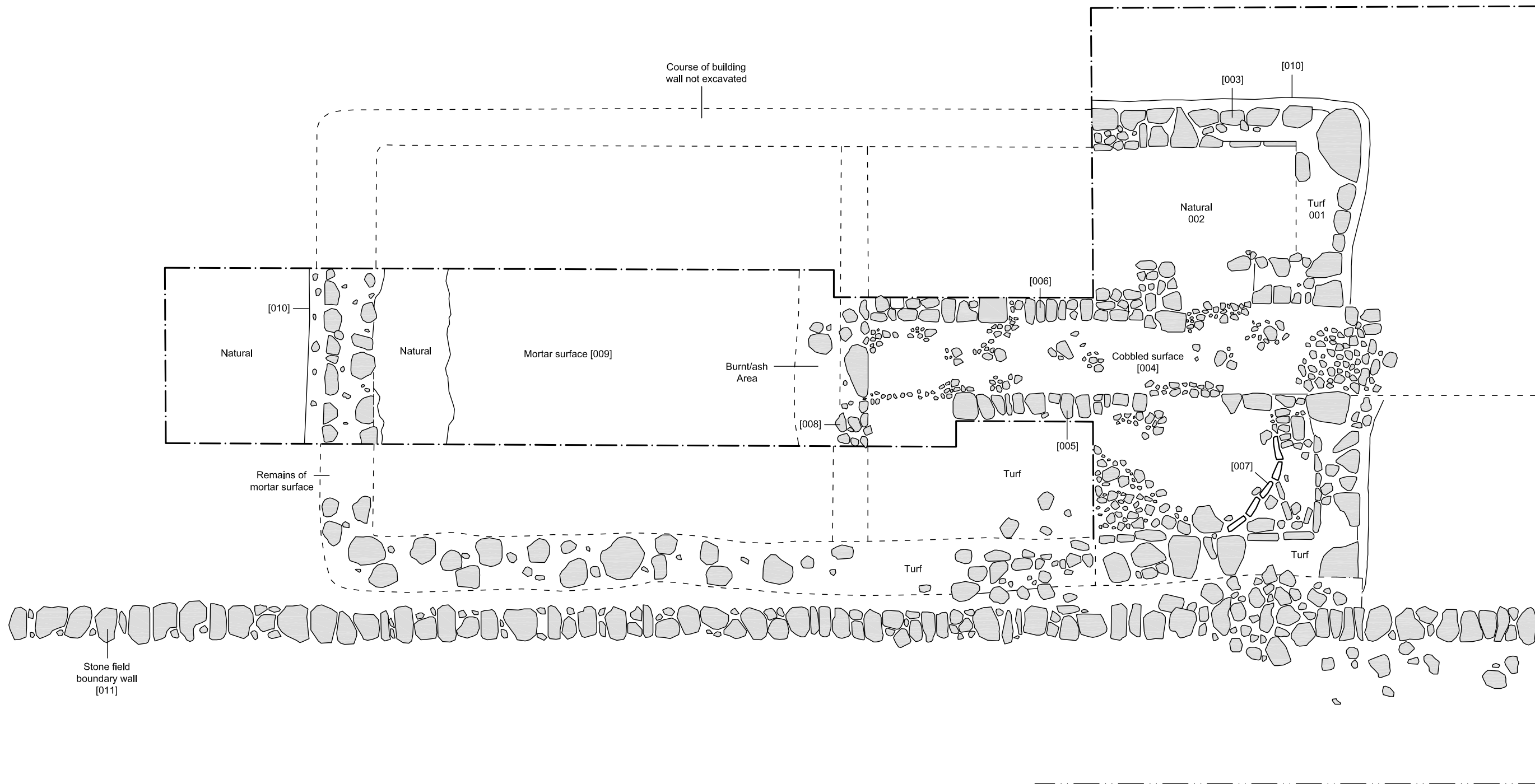


Fig. No:	2	Revision:	A	Checked:	LW	Report No:	2040	Drawn by:	LW	Scale at A3:	1:60
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Title:	Plan of Site 5A	Project:	Greenburn OCCS, Braehead Farm	Client:	Kier Mining
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Key:



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Key:



Site 5A

Fig. No:	3	Revision:	A	Client:	Kier Mining Group
Title:	Extract from 1st Edition Ordnance Survey map, 1860				
Project:	Site 5A, Greenburn OCCS				



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Drawn by: LW Checked: LW Report No: 2040



Fig. 4 - Site 5A pre-excitation



Fig. 5 - Site 5A post-excitation

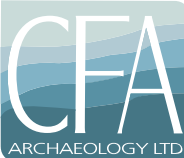
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Fig. 6 - Site 5A, close up of cobbles 004



Fig. 7 - Site 5A, north-eastern corner of building



Key:	Fig. No:	6-7	Revision:	A	Client:	Kier Mining Group	
	Title:						
	Project:	Site 5A, Greenburn OCCS					
						CFA ARCHAEOLOGY LTD The Old Engine House Eskmills Park Musselburgh East Lothian, EH21 7PQ t: 0131 273 4380 f: 0131 273 4381 e: info@cfa-archaeology.co.uk w: www.cfa-archaeology.co.uk	
Drawn by:		LW	Checked:		LW	Report No:	2040



Fig. 8 - Site 5A, western wall of building



Fig. 9 - Field drains within southeast corner

Key:	Fig. No:	8-9	Revision:	A	Client:	Kier Mining Group					
	Title:										
	Project:	Site 5A, Greenburn OCCS									
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