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**Greenburn Surface Coal Mine
Wellhill Extension
New Cumnock, East Ayrshire**

Archaeological Evaluation

Report No. 2143

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CONTENTS

1.	Introduction	3
2.	Working Methods	4
3.	Archaeological Results	5
4.	Conclusions	6
5.	References	6

Appendices

1.	Photographic Register	7
2.	Context Register	8
3.	Summary of Evaluation Areas	8
4.	Summary of Excavation Results	8

Illustrations (bound at rear)

Fig. 1 Location map and trench plan

Fig. 2 Trench 2 from the north-west

Fig. 3 Trench 9 from the west

Fig. 4 Trench 38 from the north-west

Fig. 5 Trench 53 from the west

Fig. 6 Topography of Area 2 showing steeply sloping bank in background

1 INTRODUCTION

1.1 General

This report presents the results of an archaeological evaluation undertaken by CFA Archaeology Ltd (CFA) in October and November 2012 at Greenburn Surface Coal Mine (Wellhill Extension), near New Cumnock, East Ayrshire (NGR: NS 58200 14300 centred) (Fig. 1). The work was commissioned by KIER Infrastructure and Overseas Ltd (KIER)

A Written Scheme of Investigation (WSI) covering this programme of works was produced by CFA on behalf of KIER. The WSI was designed to meet the requirements of the West of Scotland Archaeology Service (WoSAS).

1.2 Background

KIER has submitted a planning application (Ref. No. 11/0004/EIASCP) for the extension of the Greenburn Surface Mine into the area to the east of the existing site. This area lies within the vicinity of Wellhill Farm and Hall of Auchincross Farm and has been named the Wellhill Extension. The planning application was subject to a condition requiring a programme of archaeological mitigation including a desk-based assessment, standing building surveys of Wellhill Farm and Hall of Auchincross Farm, and a programme of archaeological trial trenching.

This report covers the trial trenching undertaken within the immediate vicinity of Wellhill Farm and Hall of Auchincross Farm. The desk-based assessment and the standing building surveys of Wellhill Farm and Hall of Auchincross Farm are contained within CFA Data Structure Report No. 2124 (Cressey 2012). Further archaeological trial trenching is programmed to take place within the footprint of the aforementioned farms following the demolition of the upstanding farm buildings.

Information obtained from cartographic sources suggests that there has been a farm at Wellhill since at least the late 18th century, while at Auchincross a house on Pont's map of 1595 annotated 'Achincrofs' suggests at least late-medieval origins. Other records suggest that Auchincross may have been a former medieval laird's house thought to have been occupied in the early to mid 17th century. This house is annotated 'Old Hall' on the 1857 First Edition Ordnance Survey map (Sheet XLI.8) and has subsequently been subsumed by the farm complex. More detailed information relating to these farms is contained within the desk-based assessment (Cressey 2012).

The area in which the trial trenching was undertaken consisted of improved farmland situated at an altitude of c. 215–255m AOD. The topography was largely undulating, but there was a steeply sloping bank (Fig. 6) within the vicinity of Hall of Auchincross to the north of the watercourse that bisected the area. Due to health and safety considerations, no trial trenching was undertaken on the aforementioned bank where it sloped down steeply towards a field boundary. A number of areas within close proximity to the watercourse were also considered unsuitable for trenching due to the risk of pollution.

No invasive fieldwork is known to have taken place within the Wellhill Extension area prior to this evaluation.

1.3 Objectives

The objectives the programme of works reported herein were:

- To undertake an evaluation around Hall of Auchincross Farm and Wellhill Farm;
- To establish the presence/ absence, extent, condition, character, quality and date of any archaeological features or deposits within the evaluation areas;
- To establish their vulnerability to the proposed development;
- To produce 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

The terms of the WSI required the 5% evaluation of a 5.7ha area around Wellhill Farm (Area 1) and a 3ha area around Hall of Auchincross Farm (Area 2), amounting to a minimum of 2850m² and 1500m² respectively. Thirty-six trenches were excavated around Wellhill Farm amounting to 3350m² (5.88%) and eighteen trenches were excavated around Hall of Auchincross Farm amounting to 1550m² (5.17%).

Topsoil and modern overburden were removed by two tracked 360° mechanical excavators, both 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 and all trenches were backfilled.

3. ARCHAEOLOGICAL RESULTS

3.1 General

Numbers in bold refer to contexts, a full list of which are contained in Appendix 2. A summary of the trenches excavated is contained in Appendix 4.

Area 1 - Wellhill Farm

Within the Wellhill Farm area (Area 1), the trenches to the north and east of the farm (Trenches 1–8, 22–25 and 27–36) predominantly consisted of 0.2–0.3m of mid-brown silt topsoil (**001**) overlying mottled orange-brown clay and sandy clay natural (**002**) (Fig. 2).

This natural effected very poor drainage leading to the overlying topsoil deposits being considerably waterlogged. Trenches 9–24 and 26 to the south and west of the farm appeared to be better drained, generally consisting of 0.2–0.3m of mid-brown silt topsoil overlying orangey-brown sand and sandy-clay natural (Fig. 3).

Subsoil deposits (**003**) of up to 0.5m in depth consisting of orange-brown sandy-silt were identified sandwiched between the topsoil and the natural within Trenches 3 and 16–19.

Deeper topsoil deposits of up to 0.5m were identified within Trench 26 immediately to the south of the farm and probably represent material resulting from mucking out the byre.

Area 2 - Hall of Auchincross

Within the Hall of Auchincross area (Area 2), the most northerly trenches (Trenches 37–42) predominantly consisted of 0.2–0.4m of mid-brown silt topsoil (**001**) and up to 0.4m of orangey-brown sandy-silt subsoil (**003**) overlying orange-brown sand and sandy-clay natural (**002**) (Fig. 4). These trenches were situated at the top of a steeply sloping bank and generally appeared fairly free draining in nature.

The trenches (Trenches 43–54) further downslope generally appeared rather less free draining, with the underlying natural predominantly consisting of much stonier orange-brown clay and sandy clay (Fig. 5). Within these trenches the deposits consisted of 0.2–0.5m of mid-brown silt topsoil and up to 0.6m of slightly orange-brown sandy-silt subsoil. The deepest deposits totalling up to 0.8m were encountered within Trench 46 where material getting washed down the steeply sloping bank had accumulated against a field boundary.

Subsoil consisting of dark-brown humic peat (**004**) was identified within Trench 52 overlying natural and underlying the topsoil.

Field drains of the rubble type and of the ceramic cylinder and horseshoe types were identified, indicating land improvement during the 19th and 20th centuries. These occurred throughout the evaluation areas, but predominantly within the poorly draining areas of clay/sandy-clay natural.

There were no features, deposits or artefacts of archaeological significance identified within the evaluation areas.

4. CONCLUSIONS

An archaeological evaluation was carried out at Greenburn Surface Coal Mine (Wellhill Extension) within the area immediately around Wellhill Farm (Area 1) and within the area immediately around Hall of Auchincross Farm (Area 2). A large number of field drains were uncovered indicating 19th and 20th century agricultural improvements, but there were no features deposits or artefacts of archaeological significance identified.

No further works are recommended in relation to this part of the evaluation. The evaluation under the footprint of Wellhill Farm and Hall of Auchincross Farm is required and will be undertaken in due course. 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

Cressey, M, 2012 *Greenburn Surface Mine Extension, New Cumnock, East Ayrshire, Wellhill Farm & Hall of Auchincross Farm: Desk-Based Assessment and Standing Building Surveys* CFA Data Structure Report No 2124

APPENDIX 1: Digital Photographic Register

Shot	Description	From	Conditions
1	Trench 1, general shot	W	Overcast
2	Trench 2, general shot	N	Overcast
3	Trench 3, general shot	N	Overcast
4	Trench 4, general shot	N	Overcast
5	Trench 5, general shot	N	Overcast
6	Trench 6, general shot	NE	Overcast
7	Trench 7, general shot	N	Overcast
8	Trench 8, general shot	N	Overcast
9	Trench 9, general shot	W	Overcast
10	Trench 10, general shot	N	Overcast
11	Trench 11, general shot	W	Overcast
12	Trench 12, general shot	NW	Overcast
13	Trench 13, general shot	E	Overcast
14	Trench 14, general shot	E	Overcast
15	Trench 15, general shot	E	Overcast
16	Trench 16, general shot	N	Rain
17	Trench 17, general shot	E	Rain
18	Trench 18, general shot	N	Rain
19	Trench 19, general shot	E	Rain
20	Trench 20, general shot	N	Rain
21	Trench 21, general shot	N	Rain
22	Trench 22, general shot	NW	Rain
23	Trench 23, general shot	W	Rain
24	Trench 24, general shot	E	Rain
25	Trench 25, general shot	W	Rain
26	Trench 26, general shot	W	Rain
27	Trench 27, general shot	NW	Rain
28	Trench 28, general shot	SW	Rain
29	Trench 29, general shot	NW	Rain
30	Trench 30, general shot	NW	Rain
31	Trench 31, general shot	SW	Rain
32	Trench 32, general shot	SE	Rain
33	Trench 33, general shot	SW	Rain
34	Trench 34, general shot	SE	Rain
35	Trench 35, general shot	SW	Rain
36	Trench 36, general shot	W	Rain
37	Trench 37, general shot	N	Rain
38	Trench 38, general shot	NW	Rain
39	Trench 39, general shot	NW	Rain
40	Trench 40, general shot	NW	Rain
41	Trench 41, general shot	NW	Rain
42	Trench 42, general shot	NW	Rain
43	Trench 43, general shot	NW	Overcast
44	Trench 44, general shot	NE	Overcast
45	Trench 45, general shot	NW	Overcast
46	Trench 46, general shot	NE	Sun
47	Trench 47, general shot	NW	Sun
48	Trench 48, general shot	NW	Sun
49	Trench 49, general shot	SW	Sun
50	Trench 50, general shot	SW	Sun
51	Trench 51, general shot	SW	Sun
52	Trench 52, general shot	SW	Sun
53	Trench 53, general shot	W	Sun
54	Trench 54, general shot	NW	Sun

Shot	Description	From	Conditions
55-58	General shots of area around Hall of Auchincross showing steeply sloping nature of bank.	S	Sun
59	Trench 20, area boxed out	W	Sun

APPENDIX 2: Context Register

Context No.	Area	Trench	Description
001	1 and 2	All	Topsoil (mid brown silt)
002	1 and 2	All	Natural subsoil (orange-brown clay, sandy clay and sand/degraded bedrock)
003	1 and 2	3, 16 – 19, 38 – 40, 46 and 49 - 50	Orangey-brown sandy silt
004	2	52	Dark-brown humic peat

APPENDIX 3: Summary of Evaluation Areas

Area No	Area Size (m ²)	Area of trial trenching (m ²)	% Evaluated
1	57000	3350	5.88
2	30000	1550	5.17

APPENDIX 4: Summary of Excavation Results

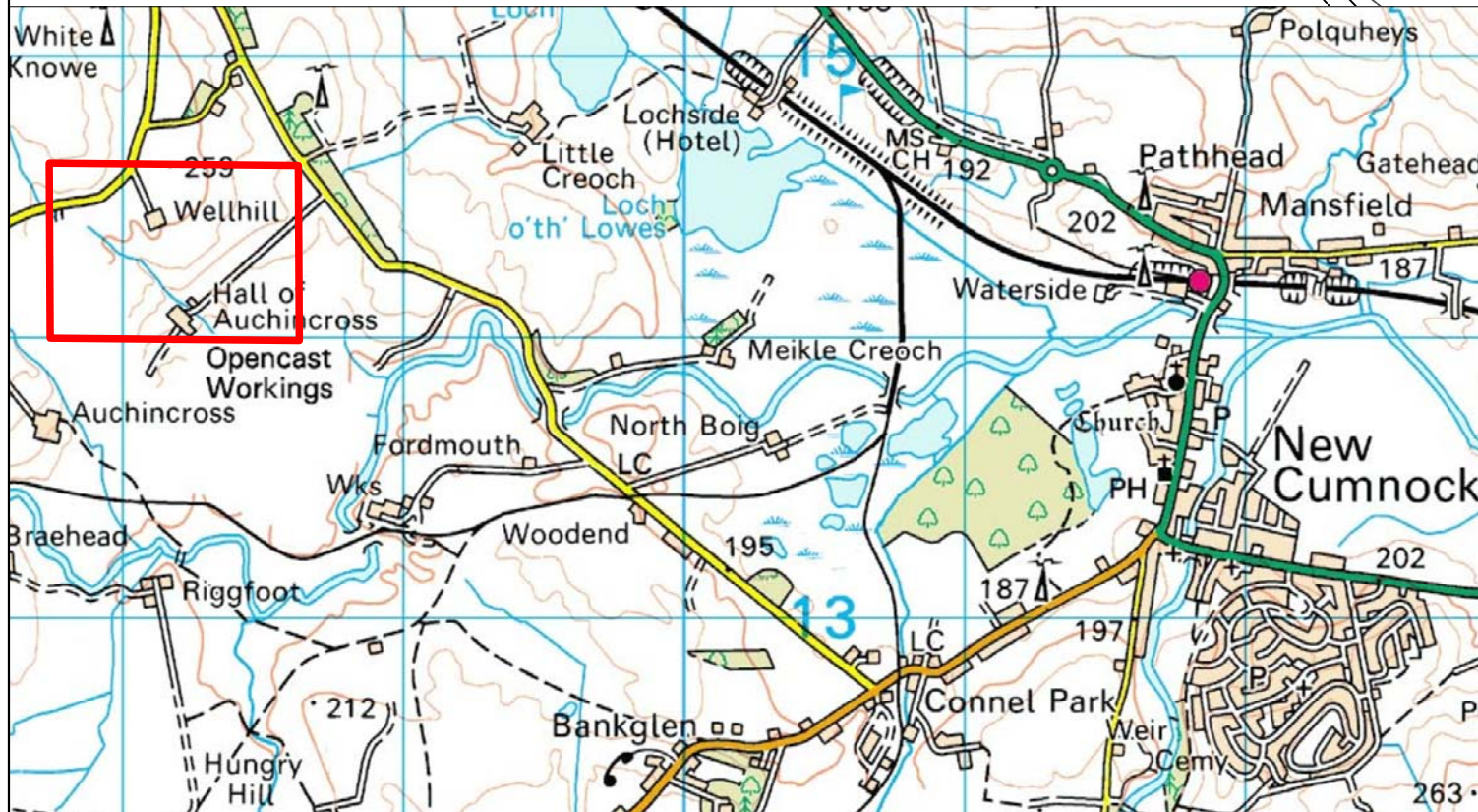
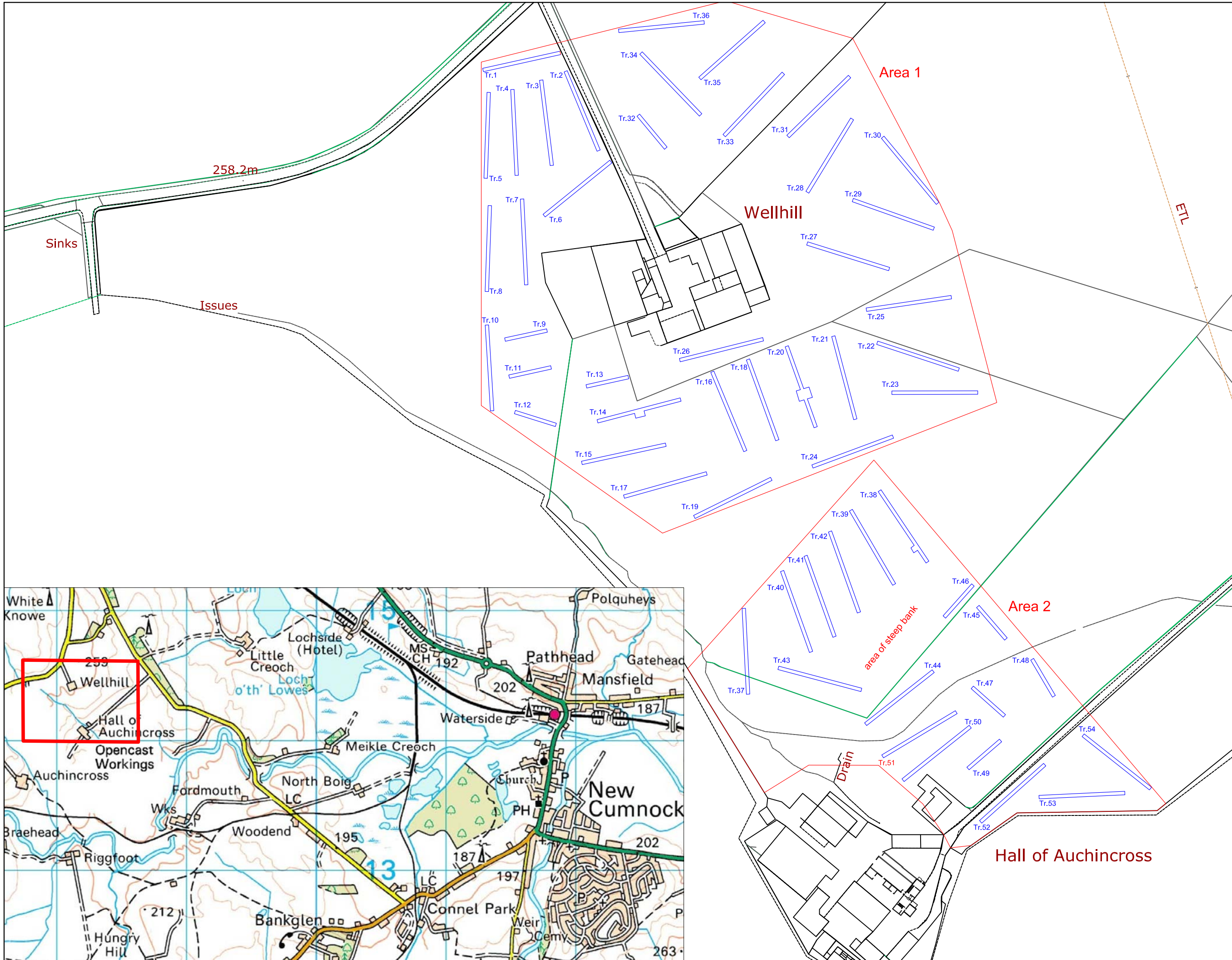
Trench No.	Area No.	Size (m)	Depth of Deposits (m)	Features
1	1	50 x 2	0.2	7 rubble drains
2	1	50 x 2	0.2	1 rubble drain and plough scores
3	1	50 x 2	0.2 – 0.5	1 rubble drain
4	1	50 x 2	0.2	1 rubble drain and 1 ceramic cylinder drain
5	1	50 x 2	0.2	1 rubble drain
6	1	50 x 2	0.2	N/A
7	1	50 x 2	0.2	3 rubble drains and 2 ceramic horseshoe drains
8	1	50 x 2	0.3	1 rubble drain and 2 ceramic horseshoe drains
9	1	50 x 2	0.3	N/A
10	1	50 x 2	0.3	N/A
11	1	50 x 2	0.3	N/A
12	1	50 x 2	0.3	N/A
13	1	50 x 2	0.2	N/A
14	1	50 x 2 +4x4 extension	0.2	1 open drain
15	1	50 x 2	0.3	N/A
16	1	50 x 2	0.2 – 0.7	N/A
17	1	50 x 2	0.2 – 0.5	N/A
18	1	50 x 2	0.8	2 ceramic cylinder drains
19	1	50 x 2	0.2 – 0.7	N/A
20	1	50 x 2 +7x7 extension	0.2	N/A
21	1	50 x 2	0.2	N/A

Trench No.	Area No.	Size (m)	Depth of Deposits (m)	Features
22	1	50 x 2	0.2	1 rubble drain
23	1	50 x 2	0.2	1 rubble drain and 1 ceramic drain
24	1	50 x 2	0.3	N/A
25	1	50 x 2	0.2	1 open drain and 2 ceramic cylinder drains
26	1	50 x 2	0.3 – 0.5	2 ceramic drains
27	1	50 x 2	0.3	N/A
28	1	50 x 2	0.2	2 ceramic drains
29	1	50 x 2	0.2	2 ceramic drains
30	1	50 x 2	0.2	N/A
31	1	50 x 2	0.2	1 metal water pipe and 7 ceramic drains
32	1	50 x 2	0.2	N/A
33	1	50 x 2	0.2	N/A
34	1	50 x 2	0.2	1 rubble drain and 1 ceramic horseshoe drain
35	1	50 x 2	0.2	N/A
36	1	50 x 2	0.2	4 ceramic cylinder drains
37	2	50 x 2	0.2	1 open drain
38	2	50 x 2 +4x4 extension	0.4	N/A
39	2	50 x 2	0.4	N/A
40	2	50 x 2	0.4 – 0.8	N/A
41	2	50 x 2	0.3 – 0.4	N/A
42	2	50 x 2	0.3	N/A
43	2	50 x 2	0.3 – 0.4	N/A
44	2	50 x 2	0.5	2 ceramic drains and 1 rubble drain
45	2	50 x 2	0.3	1 ceramic drain
46	2	50 x 2	0.8	N/A
47	2	50 x 2	0.3 – 0.4	1 ceramic horseshoe drain
48	2	50 x 2	0.4	N/A
49	2	50 x 2	0.4	2 rubble drains
50	2	50 x 2	0.2 – 0.7	2 rubble drains and 1 ceramic drain
51	2	50 x 2	0.3	2 rubble drains
52	2	50 x 2	0.1 – 0.7	2 rubble drains, 1 ceramic cylinder drain and 1 ceramic horseshoe drain
53	2	50 x 2	0.4 – 0.6	2 rubble drains and 3 ceramic drains
54	2	50 x 2	0.3	3 ceramic horseshoe drains



Key:

- Areas of evaluation
- Evaluation trenches



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Fig. No: 1 Revision: A

Title:
 Location map and trench plan

Project:
 Greenburn Surface Coal Mine,
 Wellhill Extension

Client:
 Kier Infrastructure and
 Overseas Ltd

Scale at A3:
 1:2000

Drawn by: GC Checked: LW Report No: 2143



Fig.2 : Trench 2 from the north north west



Fig.3 : Trench 9 from the west

Fig. No: 2-3		Revision: A	Project: Greenburn Surface Coal Mine, Wellhill			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
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Fig.4 : Trench 38 from the north west



Fig.5 : Trench 53 from the west





Fig. No: 4-5		Revision: A	Project: Greenburn Surface Coal Mine, Wellhill		
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Fig.6 : Topography of Area 2 showing steeply sloping bank in background

Fig. No: 6		Revision: A	Project: Greenburn Surface Coal Mine, Wellhill			CFA ARCHAEOLOGY LTD The Old Engine House Eskmills Park, Musselburgh East Lothian, Eh21 7PQ
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