

DSCM11/004



# DALFAD SURFACE MINE, MUIRKIRK, SOUTH AYRSHIRE

*Archaeological Evaluation*

*for Scottish Resources Group*

*10/0842/PP*

*June 2011*



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Project Manager

Mark Roberts

Author

Dave McNicol

Fieldwork

Callum Henderson, Dave McNicol,  
Fraser McFarlane, Peta Glew,  
Sandra Mulligan & Stephen Digney

Graphics

Anna Sztromwasser & Thomas Small

Approved by

Mark Roberts, Project Manager



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10 Payne Street, Glasgow G4 0LF  
T 0141 354 8100 • F 0141 332 9388 • E [glasgowoffice@headlandarchaeology.com](mailto:glasgowoffice@headlandarchaeology.com)  
[www.headlandarchaeology.com](http://www.headlandarchaeology.com)



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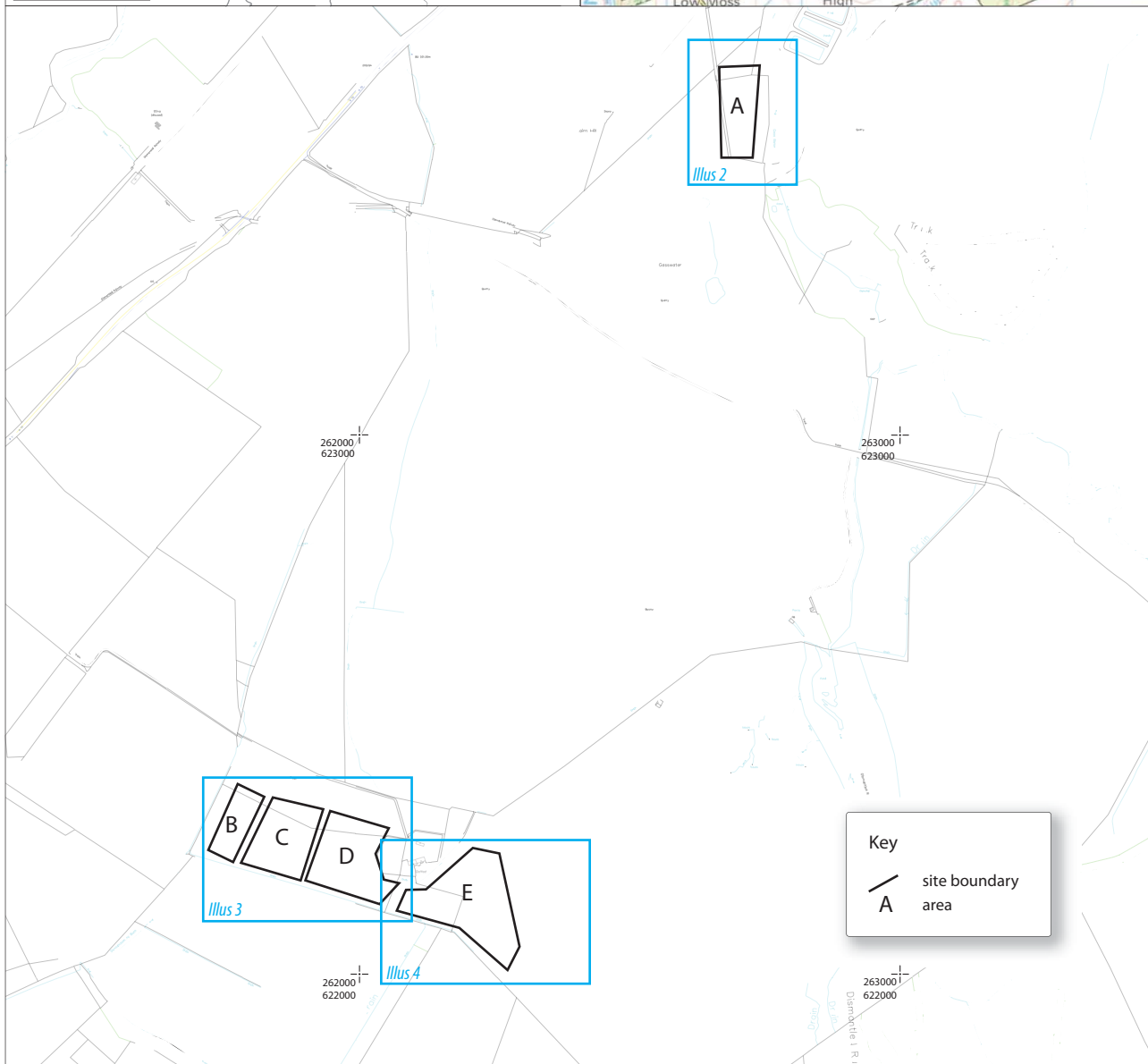
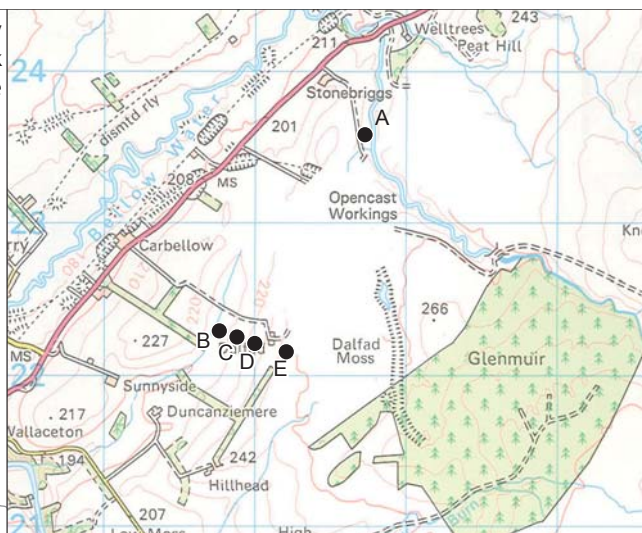
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Dalfad Quarry  
Muirkirk  
Ayrshire

0 100km



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Scale 1:12,500 @ A4



0 500m

**Illus 1**  
Site location



# DALFAD SURFACE MINE, MUIRKIRK, SOUTH AYRSHIRE

## Archaeological Evaluation

### 1. INTRODUCTION

This report presents the results of a programme of archaeological trial trenching evaluation, carried out in advance of works at Dalfad Surface Mine, Muirkirk, East Ayrshire undertaken on behalf of Scottish Resources Group as part of a broader scheme of investigation. The evaluation sought to identify any archaeological remains on the site. This was carried out in accordance with a Written Scheme of Investigation prepared by Headland Archaeology (UK) Ltd based on a brief by WoSAS (West of Scotland Archaeological Service). The WSI was agreed with WoSAS in advance of the works commencing and was carried out as a condition for planning consent.

Previous work includes a survey in 1996 (Cressey & Finlayson) and recent survey and archaeological geo-augering survey (Headland Archaeology).

### 2. BACKGROUND

The site lies 800m to the southeast of the A70 and approximately 8km east of Cumnock. Two zones (Illus 1), one c.3km to the northeast of Dalfad farmhouse (Area A) and the other immediately adjacent to Dalfad farmhouse (Areas B–E), were identified as being undisturbed by the previous opencast mining works in the area. Area A was located on an area of rough pasture adjacent to the Gasswater River. Areas B–E were characterised by a mix of moorland and fields set out for pasture and were located to the northwest and southeast of Dalfad farmhouse.

### 3. METHOD

#### 3.1 Objectives

The objectives of the evaluation were:

- to test by excavation the archaeological potential of the ground in the vicinity of Dalfad farm,

- to establish if archaeological remains are present and, if so, to assess their nature and condition.

#### 3.2 Methodology

The total area available for evaluation was approximately 7.4 hectares and 8% of this was sampled by trial trenching. This equated to 3,000m of linear trenching 2m wide. The majority of trenches were 50m long, with a small amount 25m or 75m in length.

All excavation was undertaken by a 16 ton tracked excavator equipped with a 2m wide flat ditching bucket, working under the direct guidance of an archaeologist.

#### 3.3 Recording

All recording followed Headland Archaeology (UK) Ltd standard procedures and was in accordance with the codes of practice of the Institute for Archaeologists (IfA). All trenches and contexts were given unique numbers and all recording was undertaken on pro forma record cards that conform to accepted archaeological norms. All stratigraphic relationships were recorded.

A full photographic record using colour slide and colour print film, supplemented by digital photographs was taken to record archaeological contexts and to illustrate the progress of the trial trenching. A graduated metric scale was clearly visible in record photographs of contexts. All photographs were recorded by individual print number and included information on the context and direction taken.

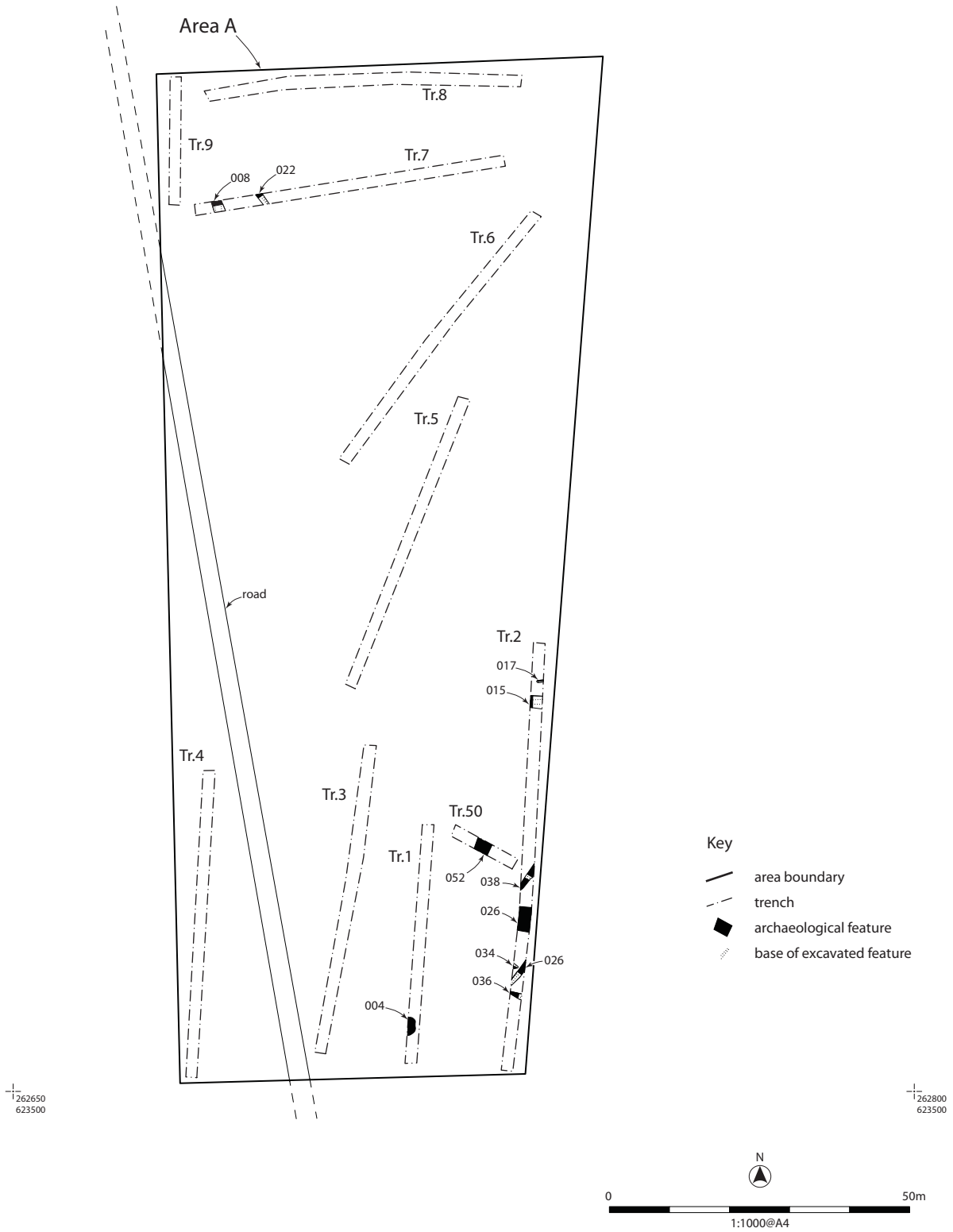
An overall site plan at an appropriate scale and relative to the National Grid was recorded by digital survey using a total station linked to an onsite PC equipped with CAD software. Hand-drawn sections of individual excavated features were drawn at a scale of 1:10, where appropriate.



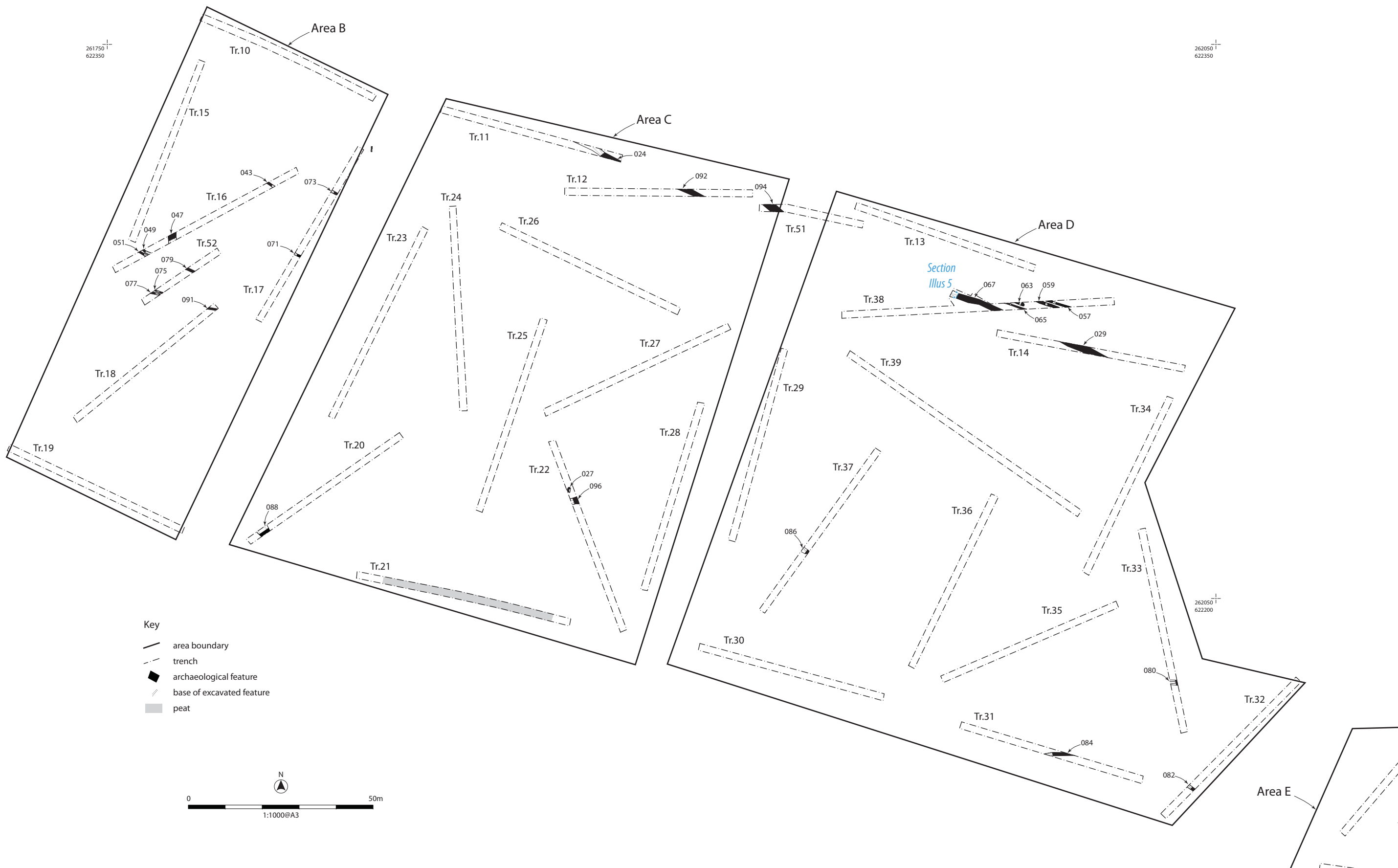
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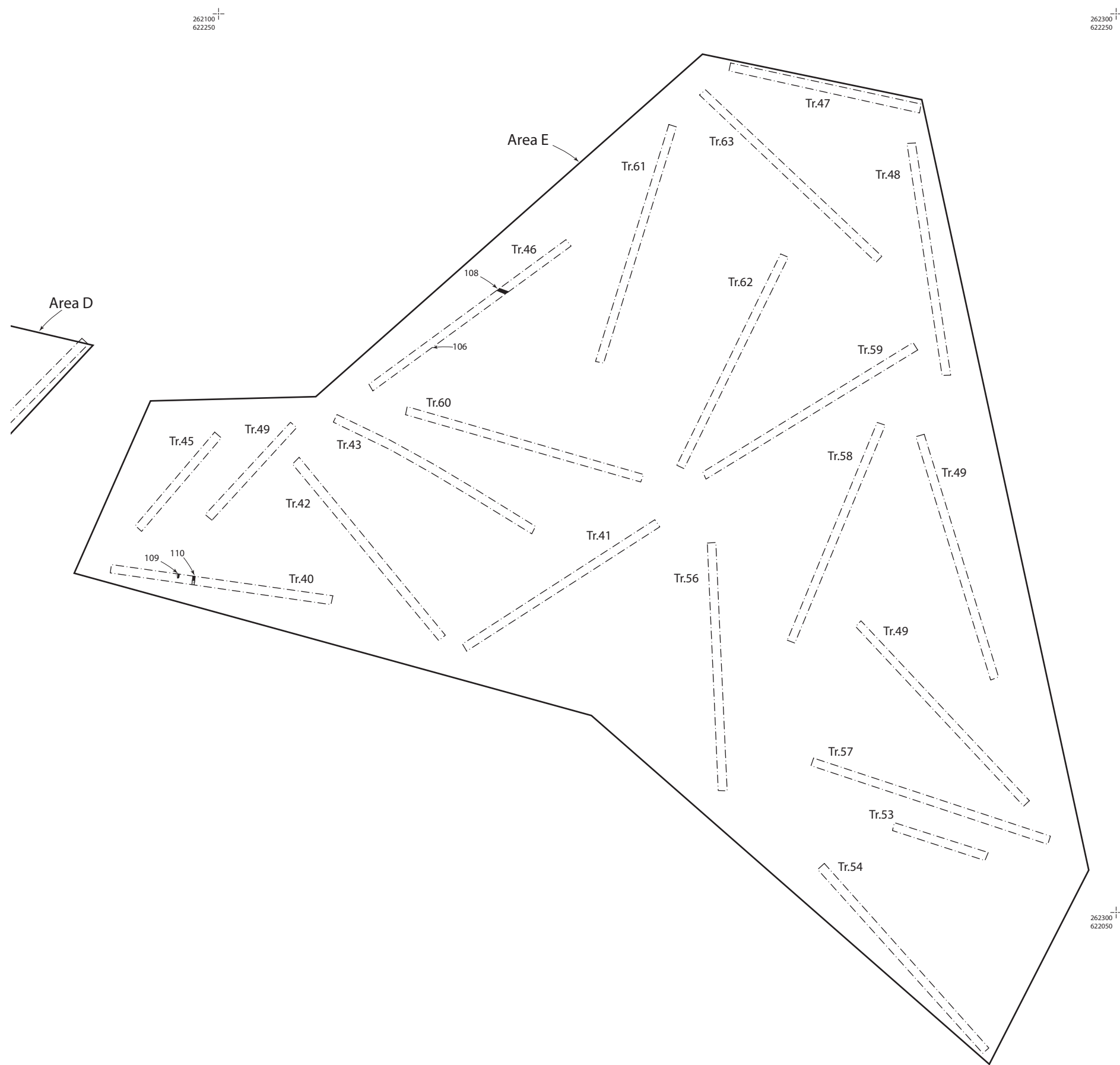
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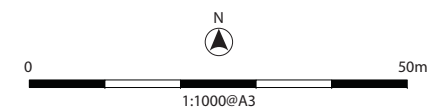
**Illus 2**  
Detail of Area A



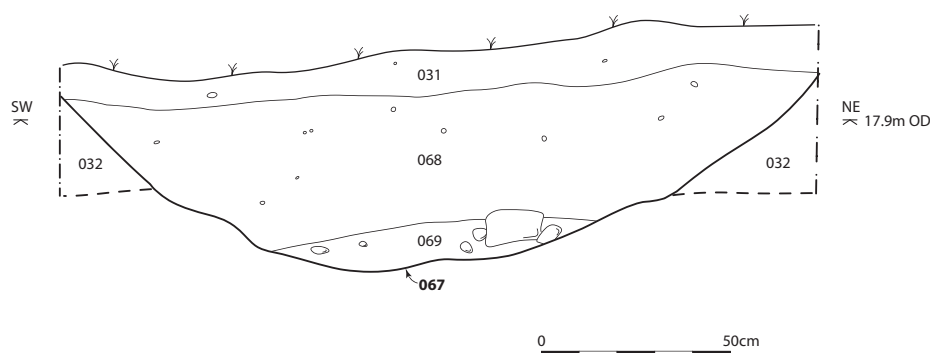
**Illus 3**  
Area B-D showing archaeological features



- Key
- area boundary
  - trench
  - archaeological feature
  - base of excavated feature



**Illus 4**  
Area E showing archaeological features

**Illus 5**

Section of ditch [067] from Trench 38

## 4. RESULTS

A total of 63 trenches, equalling approximately 3,165m were excavated within the areas to be tested. Full descriptions of each trench can be found in Appendix 1. Results are summarised below.

The trenches ranged in length from 10m to 75m in length and had on average 0.3–0.4m of topsoil overlying the natural geology which was very mixed across the site. It consisted of a light reddish brown clayey gravel to a light grey and brown clay and there appeared to be no distinct patterning to it.

Out of the 63 trenches excavated, 41 were void of archaeological deposits or features (3–6, 8–10, 13, 15, 19, 21, 23–30, 34–36, 39, 42–45, 47–49 and 53–63) except for modern field drains and one trench (46) only contained clearly modern features.

### 4.1 Area A (Illus 2)

A number of features relating to a post-medieval farmstead visible on the 1st edition OS map were uncovered within Trench 2. These included two possible stone drains [036] and [038], a cobbled surface [026] (Illus 6) and two possible linear features which may relate to foundation ditches [015] and [034].

A linear ditch aligned northwest-southeast within Trench 2 [015] and its return [052] within Trench 53 was also uncovered and corresponded with visible earthworks on the surface, as well as the boundary of the post-medieval settlement on the 1st edition OS map. A possible linear feature [017] was located directly adjacent to ditch [015] within Trench 2 and may be contemporary with this ditch.

Two linear features [008] and [022] were uncovered within Trench 7, both aligned approximately north-south and appear to be fairly modern due to their shape and fills. No artefacts were recovered from either of their fills.

A circular pit [004], 3m in diameter was partially revealed within Trench 1. It had steep sloping sides and was filled with two dark greyish brown clayey silt deposits [005] and [006]. No artefacts were recovered from either of its fills.

### 4.2 Areas B–E (Illus 3 & 4)

A large number of shallow, linear features were uncovered within Areas B–E. The majority of these were aligned WNW-ESE ([024], [043], [049], [051], [057], [059], [063], [065], [071], [073], [075], [077], [080], [082], [086], [091] and [092]) with the remaining ones aligned either ENE-WSW ([084] and [096]) or northwest-southeast ([086] and [088]). These linear features measured on average 0.6m in width with a depth of between 0.03 and 0.2m and most likely represent agricultural use, such as ridge and furrow or plough scars.

A large linear ditch [029]/[067]/[094] (Illus 4, 5 & 7), aligned roughly WNW-ESE was uncovered within Trenches 14, 38 and 51. It was approximately 1.4m wide, with a maximum depth of 0.44m, with steep sloping sides and a concave base. Two greyish brown sandy clay deposits [068] and [069] containing a large proportion of stone pebbles filled this ditch.

Three possible pits [027], [109] and [110] were uncovered within Trenches 22 and 40. However, the uneven nature of their sides and bases, along with their shallow nature would suggest that these are natural hollows rather than manmade features.

An area of peat was exposed within Trench 21, with a maximum depth of 1.6m and a visible width of approximately 38m. It was not visible within any of the surrounding trenches and is likely to be confined to a small area around Trench 21. No evidence of any archaeological activity was visible underneath the peat.





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***Illus 6***

Cobbled Area [026] in Trench 2, looking south-west



***Illus 7***

Ditch [067] in Trench 38, looking north

A small pit [106] containing a large number of sealed glass bottles was uncovered within Trench 46. Due to the unknown substance within these bottles this pit was left untouched. However many of the bottles had plastic lids on them indicating a modern date. A linear ditch [108] was also uncovered within Trench 46 which also contained modern bottles and pottery and as such was not excavated. Both these features are likely to be associated with Dalfad Farmhouse, directly to the west.

## 5. DISCUSSION

The majority of features uncovered within Area A are related to the post-medieval farmstead which is shown on the 1st Edition OS map. The cobbled surface [026] is in the same location as the corner of the farm building and the large ditch [015]/[052] is on the alignment of the boundary around the farmstead. This ditch was backfilled and used as a rubbish dump, which can be seen as an mound to the west of the farm building. Although no dating was recovered from pit [004] it is likely to be associated with the post-medieval farmstead, although its exact function is unknown. There was no evidence of any earlier activity earlier than to the post-medieval farmstead.

The ditch [029]/[067]/[094], uncovered in three trenches within Areas C & D and appears to run WNW from Dalfad Farm towards the A70. The line of the ditch is not straight and appears to be on slightly differing alignments within each of the trenches. The 2nd Edition OS map shows a trackway running NW from Dalfad Farm towards the A70 and it is possible that this ditch represents part of an earlier trackway from the farm. However no dating was recovered from this feature and its exact date is unknown.

The remaining linear features uncovered within Areas B–E are likely to be associated with the agricultural use of the fields and represent ridge and furrow, plough scarring, or drainage ditches. This agricultural activity would have been associated with Dalfad Farm and there is no evidence of any earlier activity in this area prior to the construction of Dalfad Farm.

## 6. REFERENCES

Headland Archaeology Ltd, 2011, *Dalfad Surface Mine, Muirkirk, East Ayrshire: Written Scheme of Investigation for Archaeological Evaluation*.



## 7. APPENDICES

### 7.1 Appendix 1 – Site registers

#### Context register

Context no.	Area	Description
001	A	Topsoil
002	A	Subsoil
003	A	Natural
004	A/T1	Cut of pit (Trench 1)
005	A/T1	Upper layer of pit [004]
006	A/T1	Lower layer of pit [004]
007	A/T3	Natural
008	A/T7	Cut of ditch
009	A/T7	Fill of ditch [008]
010	A/T7	Natural
011	A/T7	Natural
012	A/T2	Fill of structure [026]
013	A/T2	Cut of possible foundation
014	A/T2	Fill of [013]
015	A/T2	Cut of linear ditch feature
016	A/T2	Fill of linear [015]
017	A/T2	Cut of linear ditch feature
018	A/T2	Fill of linear ditch [017]
019	A/T2	Natural
020	A/T2	Subsoil
021	A/T2	Topsoil
022	A/T7	Cut of ditch
023	A/T7	Fill of [022]
024	C/T11	Cut of ditch
025	C/T11	Fill of [024]
026	A/T2	Cobbled surface
027	C/T22	Cut of shallow pit/ditch terminus
028	C/T22	Fill of shallow pit/ditch terminus [028]
029	D/T14	Cut of linear ditch feature
030	D/T14	Fill of linear ditch [029]
031	D/T14	Topsoil
032	D/T14	Subsoil
033	D/T14	Natural
034	A/T2	Cut of linear ditch feature

Context no.	Area	Description
035	A/T2	Fill of linear ditch feature [034]
036	A/T2	Cut of stone linear
037	A/T2	Fill of stone linear [036]
038	A/T2	Cut of linear ditch feature
039	A/T2	Fill of linear ditch feature [038]
040	B	Topsoil
041	B	Subsoil
042	B	Fill of linear [043]
043	B	Cut of linear
044	B	Fill of ditch [047]
045	B	Fill of ditch [047]
046	B	Fill of ditch [047]
047	B	Cut of ditch
048	B	Fill of linear [049]
049	B	Cut of linear
050	B	Fill of linear [051]
051	B	Cut of linear
052	A/T50	Cut of large ditch
053	A/T50	Upper midden layer of ditch [052]
054	A/T50	Layer of ditch [052]
055	A/T50	Layer of ditch [052]
056	A/T50	Layer of ditch [052]
057	D/T38	Cut of ditch
058	D/T38	Fill of ditch [057]
059	D/T38	Cut of linear
060	D/T38	Fill of linear [059]
061	D/T38	Cut of linear
062	D/T38	Fill of linear [061]
063	D/T38	Cut of linear
064	D/T38	Fill of linear [063]
065	D/T38	Cut of linear
066	D/T38	Fill of [065]
067	D/T38	Cut of linear
068	D/T38	Fill of linear [067]



<b>Context no.</b>	<b>Area</b>	<b>Description</b>
069	D/T38	Fill of linear [067]
070	B/T17	Fill of gully [071]
071	B/T17	Cut of gully
072	B/T17	Fill of gully [073]
073	B/T17	Cut of gully
074	B/T52	Backfill of [075]
075	B/T52	Cut of plough/furrow
076	B/T52	Backfill of [077]
077	B/T52	Cut of plough/furrow
078	B/T52	Backfill of [079]
079	B/T52	Cut of drainage gully
080	D/T33	Cut of ditch
081	D/T33	Fill of ditch [080]
082	D/T32	Cut of ditch

<b>Context no.</b>	<b>Area</b>	<b>Description</b>
083	D/T32	Fill of ditch [082]
084	D/T31	Cut of ditch
085	D/T31	Fill of ditch [084]
086	D/T37	Cut of ditch
087	D/T37	Fill of ditch [086]
088	D/T20	Cut of ditch
089	D/T20	Fill of ditch [088]
090	B/T18	Fill of gully
091	B/T18	Cut of gully
092	C/T12	Cut of ditch
093	C/T12	Fill of ditch cut [092]
094	B&C/T51	Cut of ditch
095	B&C/T51	Fill of ditch cut [094]

*Photographic register*

<b>Photo no.</b>	<b>Direction facing</b>	<b>Description</b>
001	NONE	ID shot
002	NW	Shot of Trench 1
003	SE	Shot of pit [004]
004	SW	Shot of pit [004]
005	S	Shot of Trench 3
006	NW	Shot of Trench 4
007	N	Shot of Trench 5
008	SW	Shot of structure [026]
009	S	General shot of Trench 2
010	N	Shot of Trench 6
011	NE	Shot of Trench 7
012	SW	Shot of Trench 7
013	None	Trench 8
014	None	Trench 9
015	SE	Shot of ditch [008]
016	W	Shot of ditch [022]
017	NE	Shot of linear/terminus [017]
018	SW	East facing section of linear [015]
019	NE	West facing section of linear [024]
020	NW	Shot of [027]
021	NW	Shot of section of ditch [029]
022	SW	Post ex of linear

<b>Photo no.</b>	<b>Direction facing</b>	<b>Description</b>
023	S	Post-ex of section of linear
024	SW	Post ex of linear
025	NW	Section of linear
026	–	Shot of Trench 37
027	–	Shot of Trench 38
028	–	Shot of Trench 39
029	–	Shot of Trench 40
030	–	Shot of Trench 41
031	–	Shot of Trench 42
032	–	Bottles [106]
033	–	Shot of Trench 44
034	–	Shot of Trench 45
035	–	Shot of Trench 46
036	–	Shot of Trench 47
037	–	Shot of Trench 48
038	–	Shot of Trench 49
039	–	Ditch cut [038]
040	–	Ditch cut [036]
041	N	Ditch cut [013]
042	N	Ditch cut [052]
043	W	Shot of Trench 50
044	NW	SE Facing section of ditch [057]



<i>Photo no.</i>	<i>Direction facing</i>	<i>Description</i>
045	E	West facing section of ditches [059] and [061]
046	NW	Shot of ditch [065]
047	E	Gully [070] and [071]
048	E	Gully [072] and [073]
049	NW	Shot of section of ditch [029]
050	–	ID shot
051	NW	SE facing section of ditch [086]
052	SSW	NNE facing section of ditch [084]
053	SSE	NNW facing section of ditch [088]
054	SSW	NNE facing section of ditch [080]
055	NW	Shot of linear [063]
056	NE	SW facing section of stone hole [109]
057	E	W section of hollow [110]
058	NW	SE facing section of water channel [088]
059	–	Shot of Trench 10
060	–	Shot of Trench 11
061	–	Shot of Trench 12
062	–	Shot of Trench 13
063	–	Shot of Trench 14
064	–	Shot of Trench 15
065	–	Shot of Trench 16
066	–	Shot of Trench 17
067	–	Shot of Trench 18
068	–	Shot of Trench 19
069	–	Shot of Trench 20
070	–	Shot of saundage
071	–	Shot of saundage
072	–	Shot of Trench 21
073	–	Shot of Trench 22

<i>Photo no.</i>	<i>Direction facing</i>	<i>Description</i>
074	–	Shot of Trench 23
075	–	Shot of Trench 24
076	–	Shot of Trench 25
077	–	Shot of Trench 26
078	–	Shot of Trench 27
079	–	Shot of Trench 28
080	–	Shot of Trench 29
081	–	Shot of Trench 30
082	–	Shot of Trench 31
083	–	Shot of Trench 32
084	–	Shot of Trench 33
085	–	Shot of Trench 34
086	–	Shot of Trench 35
087	–	Shot of Trench 36
088	–	Shot of Trench 50
089	–	Shot of Trench 51
090	–	Shot of Trench 52
091	–	Shot of Trench 53
092	–	Shot of Trench 54
093	–	Shot of Trench 55
094	–	Shot of Trench 56
095	–	Shot of Trench 57
096	–	Shot of Trench 58
097	–	Shot of Trench 59
098	–	Shot of Trench 60
099	–	Shot of Trench 61
100	–	Shot of Trench 62
101	–	Shot of Trench 63
102	–	Shot of Trench 43
103	–	Post-ex [104]

*Sample register*

<b>Sample no.</b>	<b>Context no.</b>	<b>Description</b>
001	69	Deposit of ditch cut [067]

*Drawing register*

<b>Drawing no.</b>	<b>Section</b>	<b>Description</b>
001	01:10	Section of pit [004]
002	01:10	Sketch section of Trench 5
003	01:10	Section of [065]



## 7.2 Appendix 2 – DES entry

LOCAL AUTHORITY	East Ayrshire Council
PROJECT TITLE/SITE NAME	Dalfad Surface Mine, Muirkirk, South Ayrshire
PROJECT CODE	DSCM11
PARISH	Auchinleck
NAME OF CONTRIBUTOR	Dave McNicol
NAME OF ORGANISATION	Headland Archaeology Ltd
TYPE(S) OF PROJEC	Evaluation
SITE/MONUMENT TYPE(S)	Post-medieval house Post-medieval field system
SIGNIFICANT FINDS	None
NGR (2 letters, 8 or 10 figures)	NS 62585 22385
START DATE (this season)	June 2011
END DATE (this season)	June 2011
PREVIOUS WORK (incl. DES ref.)	Cressey, M & Finlayson, WM, 1996, <i>Gasswater prospective Opencast Coal Site, Cronberry, Lugar, Ayrshire: Environmental Assessment Archaeological Baseline Report</i> , Unpublished CFA report, Edinburgh.
MAIN (NARRATIVE) DESCRIPTION (may include information from other fields)	Headland Archaeology Ltd undertook an evaluation for a new surface coal mine and environmental works. The remains of a house visible on the first edition OS at 'Guildhall' and post-medieval agriculture around the standing Dalfad House were located.
PROPOSED FUTURE WORK	None
SPONSOR OR FUNDING BODY	Scottish Resource Group
ADDRESS OF MAIN CONTRIBUTOR	10 Payne Street Glasgow G4 0LF Scotland
EMAIL ADDRESS	dave.mcnicol@headlandarchaeology.com
ARCHIVE LOCATION (intended/deposited)	NMRS





**Headland Archaeology (UK) Ltd**  
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**North East (HQ)**

13 Jane Street, Edinburgh EH6 5HE

**T** 0131 467 7705 • **F** 0131 467 7706 • **E** office@headlandarchaeology.com

**North West**

10 Payne Street, Glasgow G4 0LF

**T** 0141 354 8100 • **F** 0141 332 9388 • **E** glasgowoffice@headlandarchaeology.com

**Midlands & West**

Unit 1, Premier Business Park, Faraday Road, Hereford HR4 9NZ

**T** 0143 236 4901 • **F** 0143 236 4900 • **E** hereford@headlandarchaeology.com

**South & East**

Technology Centre, Stanbridge Road, Leighton Buzzard, Bedfordshire LU7 4QH

**T** 01525 850 878 • **E** leighton.buzzard@headlandarchaeology.com

**[www.headlandarchaeology.com](http://www.headlandarchaeology.com)**