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RESULTS OF A WALKOVER SURVEY & ARCHAEOLOGICAL EVALUATION AT PONESK REMAINDER SURFACE MINE, EAST AYRSHIRE

Ross Murray
MA(Hons) AIfA

PROJECT SUMMARY SHEET

<i>Client</i>	SCOTTISH COAL
<i>National Grid Reference</i>	NS 72400 29500
<i>Parish</i>	MUIRKIRK
<i>Council</i>	EAST AYRSHIRE
<i>Oasis No</i>	HEADLAND1-76738
<i>Project Manager</i>	DR. CHRISTOPHER LOWE
<i>Text</i>	ROSS MURRAY
<i>Illustrations</i>	ROSS MURRAY CAROLINE NORRMAN
<i>Typesetting</i>	CAROLINE NORRMAN
<i>Fieldwork</i>	NUALA MARSHALL ROSS MURRAY DON WILSON
<i>Specialists</i>	JULIE LOCHRIE, FINDS SPECIALIST
<i>Schedule</i>	
<i>Fieldwork</i>	APRIL 2010
<i>Report</i>	MAY 2010

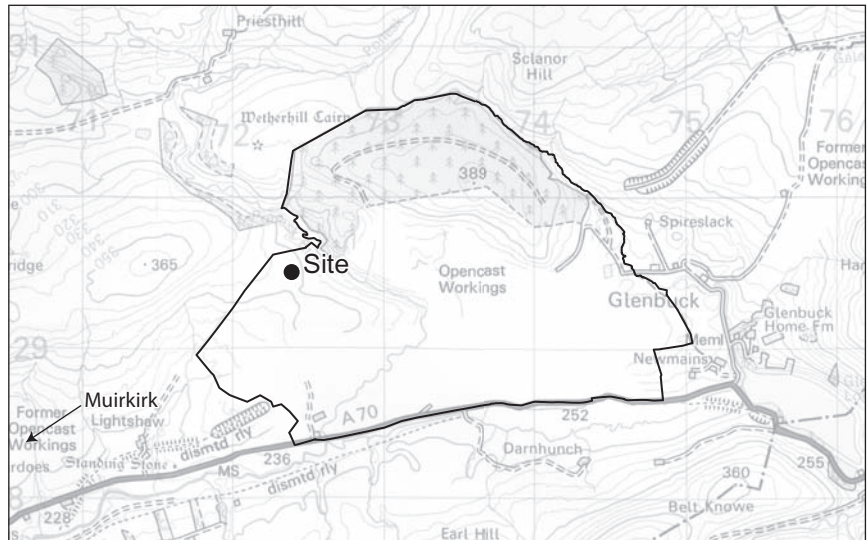
Signed off by:

C. E. Lowe
Dr. Christopher Lowe BA(Hons) MA PhD FSA Scot MjFA, Project Manager

Date: 17th May 2010

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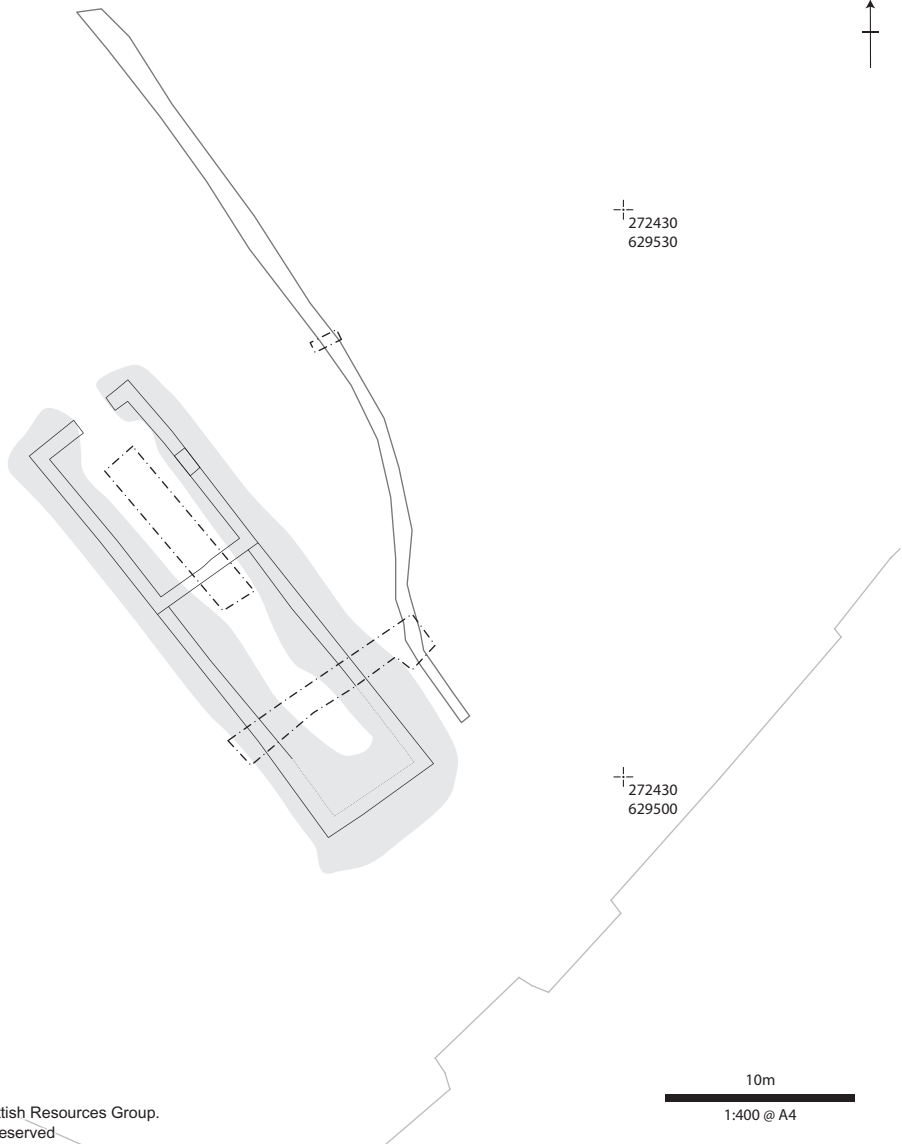
- Key**
- wall head
 - rubble line
 - trench outline
 - enclosure

272390
629530

272430
629530

272390
629500

272430
629500



10m
1:400 @ A4

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Illus 1
Site location

RESULTS OF A WALKOVER SURVEY & ARCHAEOLOGICAL EVALUATION AT PONESK REMAINDER SURFACE MINE, EAST AYRSHIRE

by Ross Murray

Headland Archaeology was commissioned by Scottish Coal to carry out a series of archaeological works at Ponesk Remainder Site, East Ayrshire in advance of coal extraction.

The work focussed on the abandoned 'Cairniebottom' settlement, which comprising a single long building and an attached enclosure.

Historic maps consulted prior to an archaeological survey suggested that Cairniebottom was constructed after 1832 and was abandoned some time prior to 1895. The survey of Cairniebottom revealed the remains of a low NW-SE aligned turf-covered building representing a small dwelling and attached enclosure. The building was formed by a low random rubble wall that presumably formed a base for a turf superstructure. To the northeast of the building was a low, spread bank roughly 42m long and up to 1.1m wide which could be traced further to the north as a well-faced wall.

An evaluation demonstrated that the small single-phase dwelling was constructed first with the byre being a later addition and that the walls of both buildings were constructed with turf lain over low stone walls. Although rubble was present around the wall-base, there were not sufficient quantities to suggest that the walls were built wholly of stone.

1. INTRODUCTION

Headland Archaeology was commissioned by Scottish Coal to carry out a series of archaeological works at Ponesk Remainder Site, East Ayrshire in advance of coal extraction. This was to comply with a negative suspensive planning condition relating to archaeology present in the planning permission.

The works followed a Written Scheme of Investigation describing the programme of archaeological survey and evaluation; this had been submitted following discussion with Paul Robins of the West of Scotland Archaeology Service (WoSAS), archaeological advisors to East Ayrshire Council.

The site lies at 305m OD on a plateau to the southwest of the Ponesk Burn on land that is currently used for rough grazing (Illus 1).

2. METHOD

2.1 Archaeological survey of 'Cairniebottom'

The 'Cairniebottom' settlement, comprising a single long building and an attached enclosure, was surveyed. The survey was carried out using a Trimble R6 Differential Global Positioning System (DGPS) with VRS-Now technology. This system produced measurements to within centimetre accuracy.

The results of the survey were displayed on a portable handset as the survey was carried out, allowing instant

quality control and editing in the field. The survey was supplemented by a series of record photographs of the remains and a brief written field description.

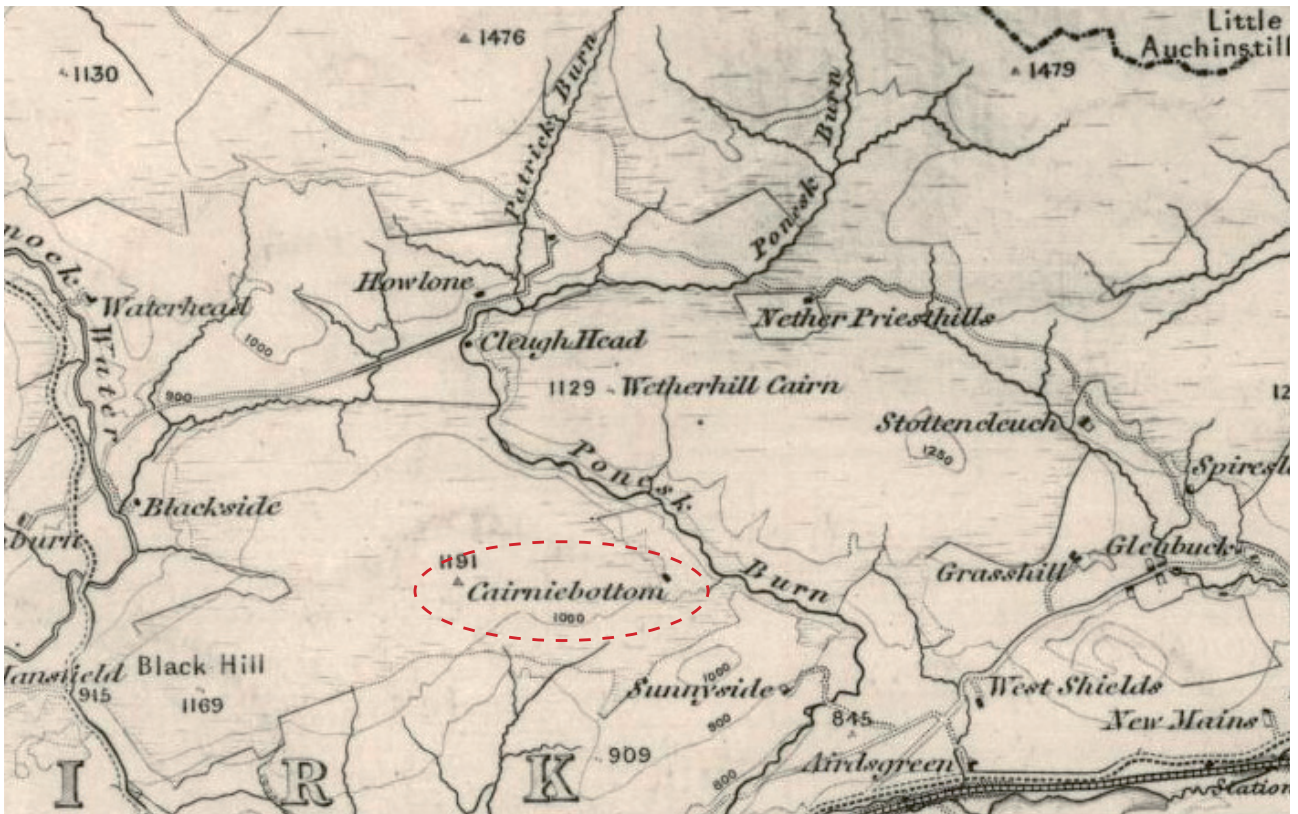
2.2 Archaeological walkover of wider area around 'Cairniebottom'

A walkover of the area around the site, bounded by the former open-cast area to the south and the application boundary to the north, was undertaken to determine if a visible field system or other remains formerly related to the settlement survive in the surrounding area.

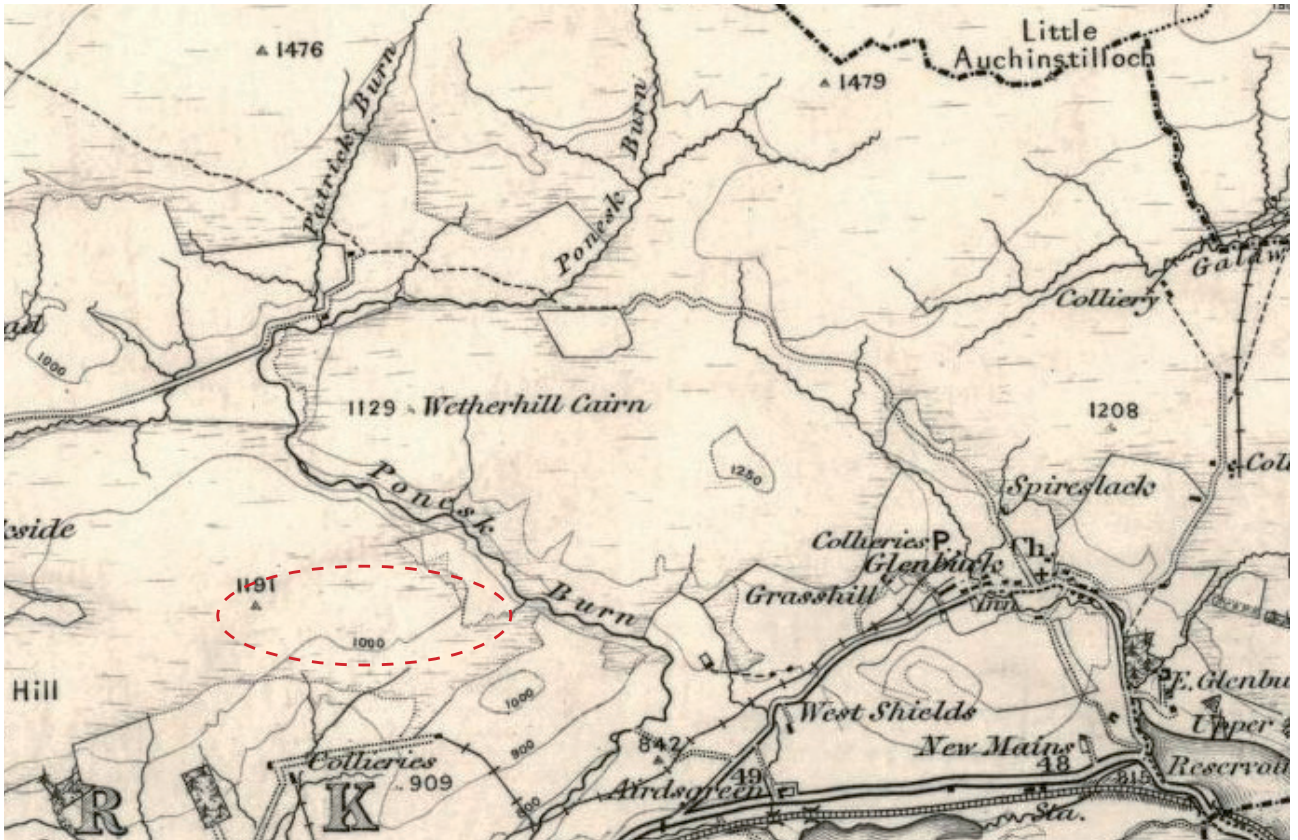
2.3 Evaluation of 'Cairniebottom'

The survey of the building's ground-plan was used to inform the evaluation trench plan with the key objectives being:

- (A) clarification of the phasing of the structure (whether single- or multiple-phase construction and/or occupation);
- (B) clarification / confirmation of its function (longhouse, conjoined dwelling and byre);
- (C) clarification of its chronology and date of construction / occupation;
- (D) clarification of the relationship between the building and the enclosure.



Illus 2
Ordnance Survey 1st Edition 1852-59



Illus 3
Ordnance Survey 2nd Edition 1895



Illus 4
'Cairniebottom' looking south-east

3. RESULTS

3.1 Archaeological survey and walkover of 'Cairniebottom' and the surrounding area

Historic maps were consulted prior to the archaeological survey of Cairniebottom in order to determine an approximate construction date. Although there are farmsteads nearby, it is not present on Roy's *Military Survey* (1747-55) or Thomson's *Atlas of Scotland* (1832). The earliest cartographic evidence for Cairniebottom comes from the 1st Edition Ordnance Survey map, surveyed 1852-59 (Illus 2), where it is depicted as a single building. The building is not present on the OS 2nd Edition map (Illus 3), surveyed in 1895. The map evidence suggests, therefore, that Cairniebottom was constructed after 1832 and was abandoned some time prior to 1895.

The survey of Cairniebottom revealed the remains of a low turf-covered building that measured 22.5 x 6.8m externally, with walls roughly 0.7m wide and up to 1m high in places (Illus 4-6). The building was aligned NW-SE, falling to the SE. Around it was a spread of collapsed stone



Illus 5
'Cairniebottom' looking south-west

and turf superstructure. There was an entrance towards the NW end of the more northerly long wall and there was a marked change in level in the SE half of the building, representing a step down. There were also traces here of a central drain. Initial field observations suggested this was present in a possible byre, with the higher part of the building being a small dwelling.

The building was formed by a low random rubble wall that presumably formed a base for a turf superstructure. The construction of the northern part of the building differed slightly with the wall containing large orthostats, while the southwest facing external wall of the byre had been built with more formal squared rubble (Illus 7 and 8).

To the northeast of the building was a low, spread bank roughly 42m long and up to 1.1m wide which could be traced further to the north as a well-faced wall. It petered out to the north and its full course could not be identified.



Illus 6
'Cairniebottom' looking south

The walkover of the area around the site, bounded by the former open-cast area to the south and the application boundary to the north, was undertaken to determine if a visible field system or other remains formerly related to the settlement survived in the surrounding area. A fragment of an enclosure bank or wall was identified in proximity to the building but no other features were identified.

3.2 Evaluation of 'Cairniebottom'

Three hand-excavated trenches were placed in areas within the building and associated enclosure (Illus 9). A fourth 1m by 1m trench on the south corner of the building, proposed in the Written Scheme of Investigation, was deemed to be redundant. Full descriptions of the structures and deposits encountered in the evaluation can be found in Appendix 1, the results are summarised here.

Trench 1 measured 11.5m by 2m and was placed across the southern end of the building. The trench exposed both walls of the building showing them to be built of random rubble bonded with rough lime mortar. The south wall (004)



Illus 7
Byre end-wall looking northwest

stood to a height of 0.8m and was 0.7m wide. The lower 0.3m projected from the wall face and was partially built over a stone-lined drain (006) that ran down the outside of the building and had been capped with tightly packed random rubble (Illus 10). The north wall (005) shared the same construction but stood to a height of 1m in order to compensate for a drop in ground level. It was also narrower, with a width of 0.6m (Illus 11). A stone-capped drain was present next to the interior face of this wall.

The drain noted in the initial survey was also exposed in Trench 1. It was located centrally within the building and was constructed with two parallel lines of large rectangular stones flanked on the outside by a 0.4m wide cobbled strip. This formed a channel 0.9m across and 0.1m deep. The base of the channel was also lined with cobbles (Illus 12).

The eastern end of Trench 1 exposed the enclosure bank (018) associated with the farmstead, showing it to be constructed of unbonded stone. It was 0.8m wide. A deposit of stone (019) abutting this to the north is likely to be tumble from the enclosure bank (Illus 13). The enclosure was also exposed in Trench 3 where it was formed by a well-constructed drystone wall (031) that was 0.56m wide and 0.43m high (Illus 14).

Trench 2, measuring 10m by 2m, was placed in the centre of the dwelling in order to locate the hearth (if present) and to investigate the drop in level within the building (Illus 15). The northwest end of the trench revealed a floor surface constructed with a mixture of large flagstones (021), lime mortar and cement mortar (022). This was present to the

north of a narrow internal wall, 0.15m wide, constructed from random rubble and bonded with lime mortar (023) (Illus 16). To the southeast of this was a spread of stone rubble (024) likely to be collapse from the adjacent wall.

Beyond the rubble spread was a cobble surface (025), roughly 2.2m by 1m in extent. This was rectangular in shape and ran parallel with the building (Illus 17). It abutted a large rectangular flagstone (027), measuring 1.25m by 0.65m, which had been placed up against the end wall of the dwelling (029). This wall was 0.7m wide and was constructed of squared rubble bonded with coarse lime mortar and stood to a height of 0.4m. Several of the larger stones had tool marks on the surface. Within this wall was a brick- and stone-built fireplace, 0.6m wide and 0.5m deep (Illus 18). The bricks were unfrogged and displayed no maker's mark. The discovery of the end wall of the original dwelling showed it to be

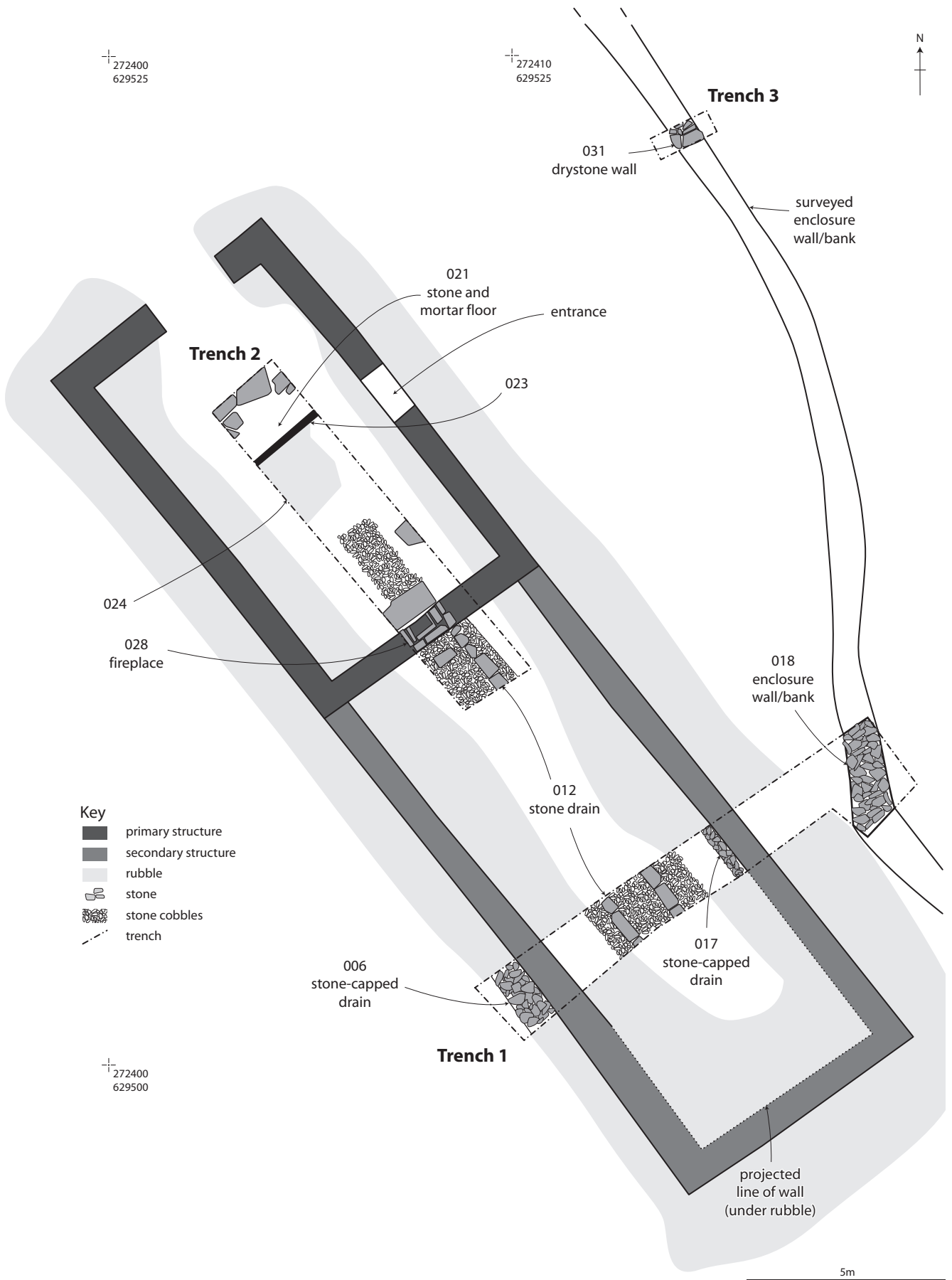
10m long and 6.5m wide.

The drop in elevation noted in the initial survey, and present at the end of Trench 2, was shown to be where the byre abutted the end wall of the original dwelling (Illus 19). On the south side of the dwelling wall was the continuation of the stone built channel (012) that had been encountered in Trench 1.

The majority of artefacts recovered from the evaluation trenches were located within the topsoil. They comprised various sherds of modern (18th/19th century) ceramics, glass (bottle and window) and corroded iron objects. Full details can be found in Appendix 2.



Illus 8
Byre end-wall looking west



Illus 9

Plan of 'Cairniebottom' showing evaluation trenches



Illus 10 (left)
Wall 004 and drain 006



Illus 11 (right)
Wall 005



Illus 12 (left)
Stone drain 012 in Trench 1



Illus 13 (right)
Enclosure wall/bank 018



Illus 14 (left)
Wall 031 in Trench 3

Illus 15 (below)
View of Trench 2



4. DISCUSSION

The building at Cairniebottom was shown to have been constructed at some point between 1832 and 1859 based on the cartographic evidence; the fact that it is not marked on the 2nd Edition Ordnance Survey map of 1895 indicates its use was fairly short-lived.

The evaluation demonstrated that the small single-phase dwelling was constructed with the byre being a later addition and that the walls of both buildings were constructed with turf lain over low stone walls. Although rubble was present around the wall-base, there were not sufficient quantities to suggest that the walls were built wholly of stone.



Illus 16 (left)
Stone and mortar floor in Trench 2



Illus 17 (right)
Cobbled surface 025



Illus 18 (left)
Fireplace 028



Illus 19 (right)
Stone drain 012 in Trench 2

APPENDICES

Appendix 1 – Site registers

Context register

Context	Area	Type	Description
001	Tr.1	Deposit	Topsoil layer comprising up to 0.2m of mid-brown soft silty sand with occasional small angular stone inclusions. Recorded over much of the site
002	Tr.1	Deposit	Layer of stone tumble fallen from the walls of the dwelling. Stones vary in size up to 0.3m ³ . Located both to the inner and outer sides of stone walls (004) and (005).
003	Tr.1	Deposit	A layer of crumbled course white lime-mortar and buried silty sand. Mainly recorded on the internal side of stone wall (005) although small lenses seen on the inner and outer sides of both walls. Possible remains of a wall render although probably from the wall bonding.
004	Tr.1	Structure	An NW-SE aligned stone wall forming the south side of the dwelling byre of the building. Constructed of poorly sorted rubble stone and bonded with a course white lime-mortar. Wall stood to a maximum height of 0.8m and was 0.7m wide. The lower 0.3m projected from the wall face and formed the foundation layer. Wall was set over the natural geology with no visible cut.
005	Tr.1	Structure	An NW-SE aligned stone wall forming the north side of the byre. With the same construction as (004) the wall stood to a maximum height of 1m. Again it had larger stones to the lower half of the construction.
006	Tr.1	Cut	A linear cut aligned NW-SE located to the south side of stone wall (004). Cuts the natural geology and is lined with large stones (007). The cut was 0.4m wide and 0.2m deep forming a drainage channel on the outer side of the dwelling byre.
007	Tr.1	Structure	Two parallel lines of large sub-angular stones forming the lining of a drainage channel (Cut (006)). No bonding was visible and the stones were up to 0.4m x 0.25m x 0.20m.
008	Tr.1	Fill	A soft orange/brown silty loam fill of drainage channel (006). This deposit filled the whole area of the drain suggesting the drain had completely silted up.
009	Tr.1	Deposit	A layer of rubble stone purposely placed over the stone-lined drain (006) to the south side of wall (004). The layer was 0.7m wide and 0.4m high comprising of poorly sorted angular stones.
010	Tr.1	Deposit	A compact dark brown fine sand and stone layer forming a rough floor surface to the south side of cobble surface (011). The surface was 0.6m wide and possibly ran under the cobbles (011).
011	Tr.1	Deposit	A layer of evenly sorted sub-rounded cobbles forming a floor surface to the south side of stone channel (012). The cobbles were in a sand matrix and measured up to 0.15m ³ in size. Same as cobbles (013) and (014). Also recorded in Tr.2 abutting the east facing side of stone wall (029).
012	Tr.1	Structure	Two parallel lines of large rectangular stones forming an NW-SE aligned channel down the centre of the dwelling byre. The channel was 0.93m wide and the stone projected 0.10m above the cobble surface (013) they enclose. The stones had no visible bonding and measured up to 0.7m x 0.33m x 0.20m. Also had cobble surfaces (011) and (014) to both outer sides of the channel. Also recorded in Tr.2 abutting the east facing side of stone wall (029).
013	Tr.1	Deposit	Cobbled surface bounded by the parallel stone channel (012). Comprising evenly sorted rounded stones in a dark brown sand matrix. Also recorded in Tr.2 abutting the east facing side of stone wall (029)
014	Tr.1	Deposit	A layer of evenly sorted cobbles located to the north side of the stone lined channel (012). Same as (011) being 0.4m wide and forming a rough floor surface. Also recorded in Tr.2 abutting the east facing side of stone wall (029).
015	Tr.1	Deposit	A surface layer comprising angular stones and a light-brown sandy clay. This was possibly the natural geology forming a rough floor surface and probably ran under the cobbles surface (014) to the south.
016	Tr.1	Deposit	A layer of rubble stones in a dark brown fine sand matrix with occasional lumps of lime mortar inclusions. Probably the back fill to drain cut (017)
017	Tr.1	Cut	This was possibly an NW-SE aligned cut for a drain running along the inner (south) side of stone wall (005). It seemed to cut layer (016) and abutted stone wall (005) and was filled with compact angular stone and sand (016).
018	Tr.1	Structure	A series of large sub-rounded stones seemed to form an edge to the small enclosure to the north side of the byre wall (005). The stones formed two sides of an area that may have been cleared of stone. No bonding was visible and no clear delineation could be discerned between the wall edge and the layer of stones (019) behind it.
019	Tr.1	Deposit	A layer of angular rubble stones forming a raised bank to the north side of the dwelling byre. This may have formed an area of hard standing outside the byre or the result of clearance from the enclosure formed by (018).
020	Tr.1	Natural	Firm yellow clayey sand with frequent rounded stone inclusions forms the natural geology.
021	Tr.2	Structure	A surface of large flagstones located to the NW end of Tr.2. Floor relating to the domestic area of the dwelling

Context	Area	Type	Description
022	Tr.2	Deposit	A layer of greyish yellow compact lime-mortar forming a bonding for a floor surface which had subsequently been removed.
023	Tr.2	Structure	A collapsed single course deep rubble stone wall bonded with a course lime mortar. The collapsed wall formed an internal divide between the two domestic areas of the dwelling. The wall was only 0.15m high and 0.15m wide running along the entire width of the house (1.7m).
024	Tr.2	Deposit	A layer of rubble located to the east side of stone wall (023). Probably the demolition debris of this wall.
025	Tr.2	Deposit	A layer of rough stone cobbles approximately 2.2m long and 1m wide located along the centre of the dwelling. Abuts the flagstone floor (027) to the east.
026	Tr.2	Deposit	A layer of friable mid-brown sandy clay with occasional small stone inclusions. Located between walls (023) and (029) under surface (024) and (025). Possibly natural geology.
027	Tr.2	Structure	A large flagstone 1.25m x 0.65m abutting fireplace (028) and wall (029).
028	Tr.2	Structure	A brick and stone lined fire place that cuts into stone wall (029). The red un-frogged bricks were bonded with lime mortar and only stood one course high. The fire place measured 0.6m x 0.5m and was only 0.1m high.
029	Tr.2	Structure	An NE-SW aligned rubble stone wall forming the western gable end to the domestic house and dividing this from the attached byre. The wall was 0.7m wide and 0.39m high and bonded with a course lime mortar.
030	Tr.2	Deposit	Loose mid-brown sandy clay with occasional charcoal fleck inclusions. Fill of fire surround (028).
031	Tr.3	Structure	An NW-SE aligned drystone wall forming part of an enclosure wall associated with the dwelling to the south. The wall was approximately 0.56m wide and 0.43m high comprising of poorly sorted angular and sub-angular stones.

Photographic register

Shot No	CS	Facing	Description
001	–	N	Stone wall 031 in Trench 3
002	–	W	Stone wall 031 in Trench 3
003	–	N	Flagstone floor 021
004	–	W	West end of Trench 2 showing flagstone floor 021
005	–	N	Cobble surface 025 in Trench 2
006	–	E	Flagstone floor 027 and fireplace 028 in Trench 2
007	–	E	Detail of fireplace 028
008	–	SW	General view of wall 029 and fireplace 028
009	–	W	View of west end of byre showing stone channel 012
010	–	E	Detail of drainage channel 006
011	–	N	South facing elevation of wall 004
012	–	S	North facing elevation of wall 004
013	–	N	View of stone wall 018 and layer 019
014	–	SW	View of stone wall 018 and layer 019
015	–	S	View of north end of Trench 1
016	–	S	Detail of stone channel 012 and cobble surfaces
017	–	W	Detail of stone channel 012 and cobble surfaces
018	–	W	Detail of possible drain cut 017
019	–	NE	Working shot
020	–	E	Working shot
021	–	E	Working shot
022	–	E	Working shot
023	–	E	Working shot showing Trench 2
024	–	NE	Working shot showing Trench 2
025	–	SW	View of west end of Trench 2
026	–	SW	View of wall 029 between the dwelling and byre
027	–	SW	North facing elevation of wall 005
028	–	E	Working shot
029	–	W	Working shot showing NE corner of byre
030	–	W	Working shot

Appendix 2 – Finds Assessment

Finds Summary

The finds were retrieved during evaluation of a 19th century dwelling. The finds include modern pottery, iron, glass and a brick that was sampled from a fireplace. All finds are modern in date and, other than the brick, were found in the topsoil.

Finds retrieved from Trench 1 included 36 sherds of modern pottery, 12 sherds of bottle glass and one small lump of glass waste. Finds retrieved from Trench 2 consisted of 13 sherds of modern pottery, eight iron objects, one brick, three sherds of bottle glass and two sherds of window glass. The iron finds included two bolts, four nails, a hook and a fragmentary section of chain link.

Trench	Context	Material	Qty	Weight (g)	Object	Description	Spot Date	Period
1	001	Pottery	25	–	Modern	Various whitewares and two sherds of redware	–	Mod
1	001	Pottery	11	–	Modern	Blackware, yellow ware and brown trans print? Whiteware	–	Mod
1	001	Glass	1	10	Waste	Small lump of glass waste	–	
1	001	Glass	10	–	Bottle	Ten sherds of clear bottle glass	–	Mod
1	001	Glass	2	–	Bottle	Two sherds of green bottle glass	–	Mod
2	028	CBM	1	–	Brick	Large fragment of rectangular section brick, ?stop moulded, 107mmx 69mm x 130mm	18th/19th	Mod
2	001	Pottery	13	–	Modern	Redwares and whitewares	–	Mod
2	001	Fe	1	–	Bolt	Very large bolt with square cross section	–	Mod
2	001	Glass	2	–	Bottle	Two sherds of green bottle glass	–	Mod
2	001	Glass	1	–	Bottle	Base sherd of green glass bottle	–	Mod
2	001	Glass	3	–	Window	Three sherds of clear window glass	–	Mod
2	001	Fe	1	–	Hook	large hook with circular section, small length of flat oval section at straight end	–	Mod
2	001	Fe	1	–	Chain	Heavily corroded oval chain links, in three pieces, one part has to nails attached by corrosion	–	Mod
2	001	Fe	4	–	Nails	–	–	Mod
2	001	Fe	1	–	Bolt	Large bolt, possibly nail	–	Mod

Table A2.1
Finds Catalogue

Appendix 3 – DES Entry

LOCAL AUTHORITY:	East Ayrshire
PROJECT TITLE/SITE NAME:	Ponesk Remainder Surface Mine
PROJECT CODE:	PRSS10
PARISH:	Muirkirk
NAME OF CONTRIBUTOR(S):	Ross Murray
NAME OF ORGANISATION:	Headland Archaeology Ltd
TYPE(S) OF PROJECT:	Walkover Survey, Evaluation
NMRS NO(S):	N\A
SITE/MONUMENT TYPE(S):	Farmstead
SIGNIFICANT FINDS:	None
NGR:	NS 72400 29500
START DATE (this season)	19/4/2010
END DATE (this season)	21/4/2010
PREVIOUS WORK (incl. DES ref.)	None
MAIN (NARRATIVE) DESCRIPTION: (May include information from other fields)	<p>A series of archaeological works were undertaken at Ponesk Remainder Site, East Ayrshire in advance of coal extraction. The work focussed on the abandoned 'Cairniebottom' settlement, which comprised a single long building and an attached enclosure.</p> <p>Historic maps consulted prior to an archaeological survey suggested that Cairniebottom was constructed after 1832 and was abandoned some time prior to 1895. The survey of Cairniebottom revealed the remains of a low NW-SE aligned turf-covered building representing a small dwelling and attached enclosure. The building was formed by a low random rubble wall that presumably formed a base for a turf superstructure. To the northeast of the building was a low, spread bank roughly 42m long and up to 1.1m wide which could be traced further to the north as a well-faced wall.</p> <p>An evaluation demonstrated that the small single-phase dwelling was constructed first with the byre being a later addition and that the walls of both buildings were constructed with turf lain over low stone walls. Although rubble was present around the wall-base, there were not sufficient quantities to suggest that the walls were built wholly of stone.</p>
PROPOSED FUTURE WORK:	No
ARCHIVE LOCATION (intended/ deposited)	Archive to be deposited in NMRS.
SPONSOR OR FUNDING BODY:	Scottish Coal
CAPTION(S) FOR ILLUSTRS:	
ADDRESS OF MAIN CONTRIBUTOR:	Headland Archaeology Ltd, 13 Jane St, Edinburgh. EH6 5HE
EMAIL ADDRESS:	ross.murray@headlandarchaeology.com