PROJECT SUMMARY SHEET (SEA05)

South East Ayr, Corton, Ayr: Results of Archaeological Site Investigations

Client	Lynch Developments
National Grid Reference	NS 352 182
Address	Corton Road Ayr
Parish	Ayr
Council	South Ayrshire
OASIS Ref	headland1-94112
Project Manager	Sorina Spanou
Text	Dave McNicol
Illustrations	Anna Sztromwasser
Fieldwork	Dave McNicol, David Swan, Rosalind Murphy and Stephen Digney
Fieldwork	18th October – 16th November 2010
Report	March 2011

CONTENTS

(Insert 3in1 illustration)

Introduction [heading level 2]

This report presents the results of a programme of archaeological investigation by means of trial trenching carried out as part of a planning condition (REF 07/01795/OUT) for a mixed use development on land adjacent to Corton Road, Corton, Ayr. The investigations sought to identify any archaeological remains on the site that may be impacted upon by the proposed development. This was carried out in accordance with a Written Scheme of Investigation (Headland 2010), previously agreed with the West of Scotland Archaeological Service (WoSAS), archaeological advisors to South Ayrshire Council.

The preliminary (pre-excavation) results of further, targeted investigations by means of strip, map and sample excavation are also presented pending full excavation of the archaeological features within the strip, map and sample area (*hereafter* SMS).

Topography [heading level 2]

The site lay on the southeast edge of Ayr, and was characterised by grazing farmland. The site was located within five fields and was bounded by the A77 to the west, the Glasgow – Stranraer railway line to the east, by Laigh Corton farmland to the south and High Glengall farm to the north. The development site covered an area of approximately 144000m^2.

The topography of the site is gently undulation; characteristic of the Ayrshire lowlands. Two burns flow east to west through the site – a tributary of the Slaphouse Burn and Corton Burn. Along part of their route, these burns flow through natural channels, but within Corton these channels have been canalized to assist drainage.

The site is underlain by glacial till (boulder clay), typically comprising of sandy silty clay with variable amounts of gravel, cobbles and boulders and granular lenses. Alluvial deposits are present, associated with the burn within the site.

Background [heading level 2]
The application site covers in total some 180 hectares of greenfield land on the south east edge of Ayr. The development comprises a mix of residential, commercial, retail, leisure and business uses. South East Ayr will develop as three main inter-related phases with the initial phase at Corton, reported here, followed by Alton and Glenparks/ Cockhill phases. In order to inform a programme of archaeological mitigation, a desk-based assessment of the overall proposed development area (all phases) has been carried out as a part of an Environmental Impact Assessment (Headland Archaeology Ltd 2004). The assessment identified few known cultural heritage sites lying within the wider proposed development mainly comprising Early Modern farmsteads, a section of Early Modern road/ track and a short section of a possible Roman road.

Prehistoric & Roman [heading level 3]

There is no evidence of activity in the area during the prehistoric period. A short section of a putative Roman Road, running northwest-southeast, traverses Glenparks and Cockhill Wood to the east of the development area. Later prehistoric remains associated with this road may survive further to the west within the site. It has to be noted however, that this road was recorded by the Ordnance Survey in 1857 but no recent published account of the Roman occupation of Scotland has accepted this attribution.

Medieval [heading level 3]

There are today no known surviving structures dating to the medieval period within the development area. However, the presence of post-medieval farmsteads and settlements in the area associated with High Glengall, Laigh Corton and High Corton could indicate the existence of earlier sites; given that strong locational continuity of tradition with pre-Improvement/ pre-Clearance settlement and particularly medieval settlement.

Post-medieval [heading level 3]

The more recent history of the development area can be traced in a series of maps from the late 16th century onwards. Early maps lack sufficient detail to identify specific sites of interest, although they confirm the existence of settlements that evolved into the present day farmsteads at Glengall and Corton.

The Military Survey of Scotland (1747-55) provides the first detailed map of the study area and this confirms the existence of early settlements on the approximate sites of the farmsteads of High Glengall, Laigh, and High Corton. The precise location and extent of these settlements, and the nature of any surviving archaeological deposits is unknown. One other farmstead in the vicinity is noted on Roy's map, that of Whitestanes, which is not recorded on any of the later maps. However there is a reference to a White Stones Field on the Roselle estate maps of 1774 in connection with the farmlands of Kincaidston to the north of the present development area and it is possible that the settlement had been abandoned and its lands incorporated into the Kincaidston holdings.

Glengall [heading level 3]

The name Glengall appears on Blaeu's 1654 map as two separate entities of W. Glenga and Eaſter Glenga. The next appearance of this name is on Roy's map of 1747-55 where one entry is recorded as Glengaw. This entry is repeated on Armstrong's map of 1775 but is not recorded on Ainslies' map of 1821. On Thomson's map of 1828 two entries are recorded as Laigh Glengall and High Glengall. The 1st Edition Ordnance Survey map of 1860 details two entries, Laigh Glengall and Glengall. There are detailed estate plans of the farmlands of Laigh Glengall, from 1774, and High Glengall, from 1804, both of which conform to the farmsteads detailed on the Ordnance Survey map of 1860.

Method [heading level 2]

Objectives [heading level 3]

The objectives of the trial trenching were:

- to evaluate the archaeological potential of the development site and determine the location, character, extent and quality of any archaeological remains identified within it

- to propose arrangements for the safeguarding, where possible, and recording where necessary of any archaeological features or finds identified; to be agreed with the West of Scotland Archaeological Service (WoSAS).

The objectives of the Strip, Map and Sample were:

- to evaluate the extent of the archaeological remains found during the trial trenching and determine the character and quality of those remains

- To establish the date and duration of any settlement; to obtain a plan of any features; to obtain environmental as well as artefactual evidence.

Methodology [heading level 3]

Trial Trenching [heading level 4]

An approximate 5% sample of the development area, representing 3398 linear metres of 2m wide trenches, was examined. Trench location was designed so as to provide as wide a coverage as possible across the proposed development area taking into account health & safety and other restrictions. An indicative trench plan was agreed with WoSAS prior to work commencing on the site. Due to the buffering restrictions besides the burns, sewer, overhead power lines, and gas pipeline, as well as the otter exclusions zone, the full 5% sample of the whole development site was not carried out.

A 16 ton 360° tracked mechanical excavator was used fitted with a toothless ditching bucket for the stripping of all topsoil. All trenches were excavated by machine under direct archaeological supervision to remove topsoil and deposits of modern make-up. Machine excavation terminated at the top of the natural geology or the first significant archaeological horizon, whichever was encountered first. Any further excavation required to satisfy the objectives of the evaluation continued by hand. On completion of machine excavation, all faces of the trench that required examination or recording were cleaned using appropriate hand tools.

All identified features were investigated and recorded. All features exposed were sample excavated. This involved excavation of 50% of discrete features and at 10% of linear features.

Evaluation trenches were tied into National Grid by means of a Total Station EDM.

Strip, Map and Sample [heading level 4]

Following the evaluation, an area of approximately 54m x 43m was targeted for further investigation, initially by means of strip, map and sample excavation. The area was excavated using a 16 ton, 360° tracked mechanical excavator equipped with a 2m wide flat ditching bucket, working under the direct guidance of an archaeologist. All exposed features were to be 100% excavated and sampled for environmental and artefactual evidence appropriately.

Excavation of the SMS area was halted prior to completion and the area was covered in Terram so as to protect the unexcavated archaeological features present. The Terram was nailed down and covered, as far as possible, with the machine excavated topsoil and subsoil. This was carried out by a 16 ton, 360° tracked mechanical excavator equipped with a 2m wide flat ditching bucket, working under the direct guidance of an archaeologist.

Recording [heading level 3]

All recording followed Headland Archaeology 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 a digital photographic 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.

Results [heading level 2]

Trial Trenching [heading level 3]

Seventy-three trenches were excavated within the area to be tested (Illus 1). Full descriptions of each trench can be found in Appendix 1. Results are summarised below.

The majority of trenches were 50m in length, and had on average between 0.1 and 0.2m of topsoil, overlying between 0.1 and 0.3m of subsoil, consisting of a dark greyish brown clayey silt. The underlying natural geology was very mixed across the site and consisted of light brownish grey silty clay, mottled grey and brown stony silty clay and patches of

yellowish brown sandy clay. There appeared to be no distinct boundaries to the natural geology.

Out of the 73 trenches excavated, 51 contained no archaeological features (1-12, 14, 16-27, 31-4, 36-8, 41, 43-4, 47, 49-53, 55-6, 58, 61, 67-71, and 73) except for modern field drains, and twelve (15, 35, 40, 42, 45-6, 48, 59-60, 62-3, and 72) only had modern pits or linear features, containing 19th or 20th century pottery or visibly cutting the subsoil, within them.

A large, possibly circular pit [005] was partially revealed within Trench 13 (Illus 2 and 5). It had steep, near vertical sides with a slightly concave base and measured > 5.8m by > 0.38m, with a depth of 1.25m. The basal fill of the pit was a 0.15m thick, light brownish grey sand deposit with occasional stone inclusions [006]. This was overlain by a light orangey brown sandy clay deposit [004], 0.13m thick, which was in turn overlain by a 0.15m thick black silty clay deposit with a high concentration of charcoal [003]. A modern pit [008] was located adjacent to this feature within Trench 13.

Two linear ditches [047] and [138] (Illus 4 and 6), were revealed within Trenches 28, 29, 30, and within the SMS area. Ditch [138] was aligned roughly ESE-WNW and was truncated in Trench 28 by ditch [047], which was aligned roughly east-west. Ditch [047] was approximately 1m wide and filled with a greyish brown sandy gravel deposit [046], 0.43m thick, which was overlain by a 0.23m thick layer of brown sandy silt [045]. The northern side of ditch [047] truncated linear ditch [138], which was 0.38m deep, and > 1m wide, and filled with a brown sandy clay deposit [139].

Seven postholes [011]/[108], [013]/[110], [015], [017], [019], [021], and [023], were located within Trench 29. They were all roughly circular in shape, with fairly steep sides and concave bases, and measured between 0.05 and 0.29m in depth. Postholes [011]/[108], [019], [021], and [023], were all approximately 0.2m in diameter, while Postholes [013]/[110], [015], and [017], measured between 0.3 and 0.55m in diameter. All the postholes were filled with a brownish grey silty sand deposit, containing occasional charcoal flecks.

A single sub-circular posthole [025] was located within Trench 30, measuring 0.46m by 0.27m, and with a depth of 0.17m. It was filled with brownish grey silty clay [026], and there was evidence of post-packing within the fill.

Two linear features [032]/[153] and [053]/[155]) (Illus 3 and 7), aligned roughly northeast-southwest were revealed within Trenches 39, 64, and 66. Both linear features appeared to terminate within Trench 66 to the northeast and at some point between Trenches 64 and 65 to the southeast. Linear [053]/[155] was 0.6m wide, with a depth of 0.33m, and was filled with a greyish brown silty clay deposit [052]. It had steep, near vertical sides with a slightly rounded base and truncated linear [032]/[153] to the southeast. Linear [032] measured approximately 0.74m wide, and had a maximum depth of 0.18m. It had a fairly flat base and was filled with a dark brownish grey silty clay deposit [031].

To the southeast of these linear features, two roughly circular postholes [034] and [035] were uncovered. Both measured approximately 0.3m in diameter. Posthole [034] was 0.1m deep, with a flat base while posthole [035] had steep sloping sides with a v-shaped base, and was

0.17m deep. Both postholes were filled with a single grey silty clay deposit, [033] and [036] respectively.

To the northwest of linear ditch [155] and within Trench 66, a small posthole [055] was partially revealed, measuring 0.4m in width, with a depth of 0.1m and filled with a single greyish brown clay deposit [054].

Posthole [051] was located adjacent to the terminus of linear [153] at the eastern end of Trench 66. It measured approximately 0.2m in diameter, with a depth of 0.1m and had a concave base. It was filled with greyish brown clay containing occasional charcoal flecks [050].

A possible pit or linear terminus [048] was partially uncovered within Trench 65, measuring 1.0m wide and with a maximum depth of 0.2m. It had gently sloping sides with a concave base and was filled with a light brownish orange silty clay deposit [049].

A possibly heavily truncated posthole [038] was revealed within Trench 54, measuring 0.28m in diameter and with a depth of 0.08m. It was filled with a greyish black and brown clay deposit with occasional charcoal flecks [037].

Two small pits [039] and [041] were uncovered adjacent to each other within Trench 57. Pit [039] was only partially uncovered and measured 0.5m by > 0.26m, and had a depth of 0.19m. It was filled with a brownish grey silty clay deposit [040]. Pit [041] was oval in shape and measured 0.52m by 0.36m, with a depth of 0.06m, and was filled with a single yellowish brown clayey silt deposit [042].

Strip, Map, and Sample [heading level 3]

A number of discrete features uncovered within the SMS area (Illus 4) which at this stage were only partially excavated. Further work involving full excavation of the remainder of features is planned. Therefore, only a general description of the features is provided here as a way of an interim report.

Towards the southern edge of the SMS area a group of six possible postholes, in an approximate circle with a diameter of 5m, with a possible curvilinear enclosure ditch further southwest was uncovered. These features were not excavated, and no context numbers were assigned.

To the north of these features, ditch [047] continued across the site, and ditch [138] appeared to terminate. Postholes [140], [142], and [145] were located adjacent to ditch [138], while postholes [092] and [094] were located between these two ditches. Postholes [092], [094], and [145] were sub-circular in shape and measured approximately 0.35m by 0.3m and had depths of between 0.08 and 0.2m. Postholes [140] and [142] were both circular in shape and had a diameter of 0.2m and depths of 0.1m. All the postholes were filled with a brownish grey silty clay deposit [091], [093], [141], and [143], except posthole [145] which was filled

with a blackish grey sandy clay deposit [144] and showed evidence of post-packing within the fill.

Two concentric curvilinear ditches [118], [130] and [132] (Illus 4 and 8), were uncovered to the northeast of Ditch [138]. They were 0.4m wide, with a depth of between 0.15 and 0.2m and formed a semi-circle with an interior diameter of approximately 13m. These ditches enclosed a large group of postholes [011]/[108], [013]/[110], [015], [017], [019], [021], [073], [074], [076], [078], [080], [082], [084], [096], [098], [100], [102], [104], [106], [112], [126], [128], [160], [162], [164], [175], stakeholes [086], [088], [089], [090], [173], and pits [114] and [166].

The postholes were all roughly circular in shape with depths of between 0.08 and 0.35m, and measured between 0.15 and 0.45m in diameter. The stakeholes were approximately 0.1m in diameter; only one was excavated revealing a depth of 0.07m. Pits [114] and [166] were rectangular in shape, with pit [114] measuring 2.08m by 0.65m and truncated pit [166] (not excavated). Pit [114] was filled with a blackish brown clay deposit containing large amounts of fire cracked stone and frequent charcoal and burnt bone fragments [113].

Three circular postholes [167], [169], [171], and a circular pit [115] were located outside of these enclosure ditches to the northeast. The postholes measured between 0.14 and 0.3m in diameter, and between 0.05 and 0.1m in depth. Pit [115] measured 0.9m in diameter, with a depth of 0.08m. All of these features were filled with greyish brown clayey sand containing occasional charcoal flecks [116], [168], [170], and [172].

Another concentration of postholes [057], [059], [063], [065], [067], [069], [071], [157] and possible pits [056], [061], [136], were located enclosed by at least two ditches [121], [123], and [133], however, the full extent and shape of these ditches could not be determined due to adverse conditions on site. The postholes were all roughly circular in shape and measured between 0.15 and 0.5m in diameter, and between 0.06 and 0.4m in depth. They were all filled with a single brownish grey sandy clay deposit.

Probable pit [056] was unexcavated but appeared to be very similar in shape and fill to pit [114]. Pit [061] was roughly rectangular in plan and measured 0.9m by 0.5m, with a depth of 0.15m and was filled with a brownish grey sandy clay deposit [062]. The full extent of possible pit [136] was not able to be determined.

Three possible rectangular pits were located to the southwest of these ditches, but were not further investigated. A further three postholes [147], [149], and [151] were located outwith the enclosure ditches to the northwest. Postholes [147] and [149] were approximately 0.16m in diameter and had a depth of 0.05m, while posthole [151] measured 0.38m in diameter, with a depth of 0.1m and showed evidence of post-packing. All were filled with a greyish brown clayey sand deposit containing occasional charcoal flecks [148], [150], and [152].

Environmental Assessment [heading level 2]

Davie Masson

Introduction [Heading Level 3]

Thirty four samples were taken during the trial trenching and SMS evaluation at South East Ayrshire of which six from the trial trenching phase were processed for palaeoenvironmental assessment. No samples from the SMS evaluation were processed at this stage. The samples were taken from a ditch, pits and postholes. The assessment aims to assess the palaeoenvironmental potential of the material that the samples contained, and what evidence this material is showing us for the activities which once took place at the site.

Method [Heading Level 3]

Samples were processed in laboratory conditions using a standard floatation method (cf. Kenward et al, 1980). All plant macrofossil samples were analysed using a stereo-microscope at magnifications of x10 and up to x100 where necessary to aid identification. Identifications were confirmed using modern reference material and seed atlases including Cappers et al (2006).

Results [Heading Level 3]

The results of the sample processing are provided in Tables 1 (Retent finds) and 2 (Flotation finds). Suitable material for AMS dating is also identified within each table. All plant remains were preserved through charring.

Plant remains [Heading Level 4]

Charred cereal grain was found in only one sample (16). A single degraded cereal grain was identified as hulled barley (Hordeum vulgare) along with a single degraded cereal grain, which could not be identified to species or family level and is recorded as indeterminate cereal (Cereal indet.) (See Table 2). The only other charred plant remains recovered were fragments of wood charcoal which were present in all of the processed samples of which five samples contained fragments of a size and condition suitable for identification and/or Accelerated Mass Spectrometry (AMS) dating (see Tables 1 and 2). The maximum size of charcoal recovered in the samples was 2cm²; however, most of the charcoal recovered was very small (<1cm) and may have been transported across the site by mechanisms such as windblow and surface run-off.

Other finds [Heading Level 4]

Other finds recovered from the processed samples included a possible fragment of mortar in Sample 6 (Table 1). Coal and cinders were recovered from Samples 14 and 16 in roughly equal amounts. The coal and cinders probably originated from hearth sweepings, which were incorporated into rubbish pits.

Discussion [Heading Level 3]

The majority of pit and ditch deposits consisted of a mixture of domestic material characteristic of hearth sweepings and kitchen waste that was accidentally or deliberately incorporated into the sampled deposits.

The large quantities of wood charcoal fragments present in a range of sizes are suggestive of *in-situ* or deliberately dumped debris. The smaller sized fragments (e.g. less than 1.0cm) may have been transported across the site by mechanisms such as windblow and surface run-off and may originally have been part of the deposits containing the larger fragments. Coal and cinders were also recovered from a number of the samples from South East Ayr, indicating that at least small amounts of coal were being utilised in the area.

Conclusion [Heading Level 2]

Further detailed analysis of the charred plant remains would add little to that gained above. **Therefore no further work is recommended on the charred cereal grain or charcoal fragments.**

The size and abundance of charcoal does mean that there is material to obtain radiocarbon dating evidence. If wood charcoal were selected, identification of the wood species would be required to be carried out prior to dating and this would inform us of fuel sources used. **Therefore it is recommended that some material be made available for radiocarbon dating to assign an age for the activities at the site.**

Finds Assessment [heading level 2]

Julie Lochrie

Assemblage Summary [Heading Level 3]

This small assemblage consisted of 10 finds, including four sherds of prehistoric coarseware, and a pitchstone bladelet. Other finds were modern, including three sherds of pottery, a piece of brick and a possible mortar fragment.

The medial bladelet and sherds of coarseware were discovered in the same context [144]. The coarseware sherds are undiagnostic but small blade technology and the exploitation of pitchstone typically indicate an earlier Neolithic date (Ballin 2008, 15; 2009 2). Pitchstone sources in Scotland can be found on Arran, not far from southeast Ayr, (Ballin 2008, 6-9; Ballin 2009) although examples of pitchstone artefacts have been discovered across most of Scotland.

The modern whiteware sherds and brick fragment were both from context [043], confirming a probable modern date for this feature. The possible mortar fragment may be post medieval to modern in date but it is very small and identification is tentative. It came from an undated linear feature [032].

DISCUSSION [heading level 2]

Trial Trenching [heading level 3]

There was a distinct lack of dating evidence from the majority of the features excavated during the trial trenching, and the only dating evidence that was recovered, was of a post-medieval date.

The large pit [005] located within Trench 13 (Illus 2 and 5) showed evidence of *in-situ* burning within it, and suggests that there was at least localised activity in the area at some point in the past. Due to its location adjacent to an active sewer, it was impossible to extend the trench to investigate the extent, date, and form of this activity and further excavation in this area is needed so as to determine this.

Ditch [047] (Illus 4 and 6) located within trenches 28, 29, 30, and within the SMS area may represent a boundary ditch. However, the gravel fill of the ditch suggests that it may be a drainage ditch, and may be fairly modern, although no dating evidence was recovered from its fills. Ditch [138] (Illus 4 and 6) which was also located within trenches 28, 29, 30, and the SMS area, and was truncated by ditch [047], is most likely a boundary ditch due to its length and linear shape, and may be contemporary with the features revealed within the SMS area. Further excavation within the SMS area may provide evidence as to its date and function.

The postholes [011]/[108], [013]/[110], [015], [017], [019], [021], and [023] located with Trench 29 are part of a larger group of postholes uncovered within the SMS area, and are therefore discussed below.

Posthole [025], located within Trench 30 is likely to be contemporary with the postholes revealed within Trench 29 and the SMS area. However, no features were located nearby, either within the trench or within the SMS area, and it is impossible to determine the function of this isolated posthole.

The two linear ditches [032] and [053] (Illus 3 and 7) located within Trenches 39, 64, and 66, are most likely enclosure ditches, due to their relatively small size and the fact that they do not appear to extend much beyond these trenches. It is possible that any continuation has been ploughed away; however, the depth of linear [053] would suggest that this was not the case. A possible piece of mortar was recovered from ditch [032], which may be post-medieval to modern in date, however the size of the fragment is so small that it is impossible to definitely identify it, and therefore the ditch must remain undated.

The postholes [034], [035], [051], [055] and pit [048] within Trenches 39, 64, and 66 do not seem to form any pattern and their function is unknown. They are likely to be contemporary with one of the linear features, however no dating evidence was recovered from the pits or postholes.

The remaining two pits [039], [041], and posthole [038] revealed during the trial trenching were isolated features, and their date and function is unknown.

Strip, Map, and Sample [heading level 3]

Excavation of the SMS area revealed fairly extensive settlement evidence in the area, with three distinct concentrations of features (Illus 4). However due to adverse weather conditions and constraints on site, a number of features were not excavated, and there is the possibility that some features were not visible and remain to be discovered.

The unexcavated small posthole circle with a possible curvilinear enclosure ditch, to the south most likely represents a single structure.

A larger structure or possibly multiple structures are represented by the second posthole concentration to the east of the site. The inner curvilinear ditch is most likely structural with the outer ditch representing a drip gully for the drainage of the area (Illus 4 and 8). Pit [114], located fairly centrally within this area, is most likely a hearth, due to a large concentration of burnt stones and charcoal within its fill. However, whether it was used for heating, cooking or both is unknown at this time. No distinct patterns to the postholes could be seen, although further work on the area may reveal more features.

The third concentration of features does not appear to follow any pattern, however further work here may also reveal more unexcavated features. Unexcavated pit [056] is most likely a hearth due to its similarity to pit [114]. The enclosure ditches surrounding this concentration appear to be of a different shape to those enclosing the concentration to the east of the site. This may be because they are of a different date, or it may be because they were used for different functions. Further work is needed to determine this.

The features located away from these concentrations may suggest the settlement area continues outwith the SMS area. However, this expansion is most likely to be to the northwest, west, southwest and west, towards the burns and overhead powerlines which edge the site, where excavation is prohibited.

Only one feature excavated within the SMS area contained any dating evidence. Four prehistoric pottery sherds and a pitchstone bladelet were recovered from posthole [145]. The bladelet is diagnostically Neolithic in date, however without further dating evidence it would be unwise to assign this date to other features on the site, even though they appear to be contemporary.

References

Ballin, TB, 2009 ‘Gazetteer of Arran Pitchstone Sources.: Presentation of exposed pitchstone dykes and sills across the Isle of Arran, and discussion of the archaeological relevance of these outcrops’, *SAIR*, 38

Ballin, TB, 2008 '*General characterisation of the Biggar pitchstone artefacts and discussion of Biggar's role in the distribution of pitchstone across Neolithic northern Britain*', Online report, http://www.biggararchaeology.org.uk/pdf_reports/SR_PITCHSTONE_REP_08.pdf

Cappers, RTJ, Bekker, RM and Jans, JEA, 2006 *Digital seed atlas of the Netherlands* (Barkhuis Publishing and Groningen University Library, Groningen).

Clapham, AR, Tutin, TG and Warburg, EF, 1962 *Flora of the British Isles (2nd Edition)* (Cambridge University Press, Cambridge).

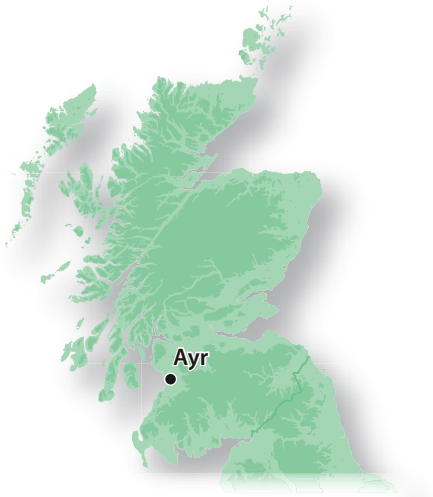
Greig, JRA, 1988 Practical ecology: experiments in growing traditional cornfield weeds and a comment on their archaeological records in Britain, in Robinson D.E. (ed.) *Experimentation and Reconstruction in Environmental Archaeology Symposia of the Association for Environmental Archaeology No.9 Roskilde, Denmark 1988* (Oxbow Books, Oxford) 41-62

Headland Archaeology, 2010 *A Strategic Plan for Archaeological Site Investigations*

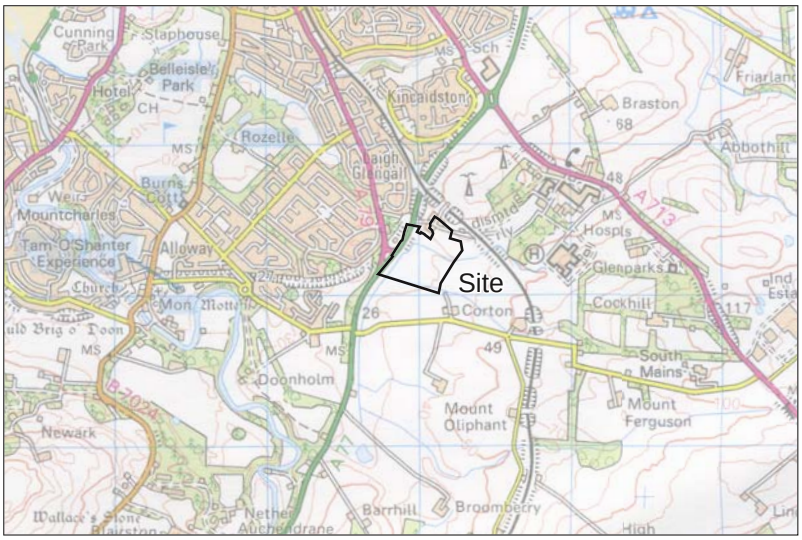
Headland Archaeology, 2010 *Soth East Ayr. Phase 1: Corton; Areas A/A+/Haul Road: A Written Scheme of Archaeological Investigation*

Kenward, HK, Hall, AR and Jones, AKG, 1980 A tested set of techniques for the extraction of plant and animal macrofossils from waterlogged archaeological deposits. *Science and Archaeology* 22, 3-15.

Stace, C, 1997 *New Flora of the British Isles* (2nd edition). (Cambridge University Press, Cambridge).



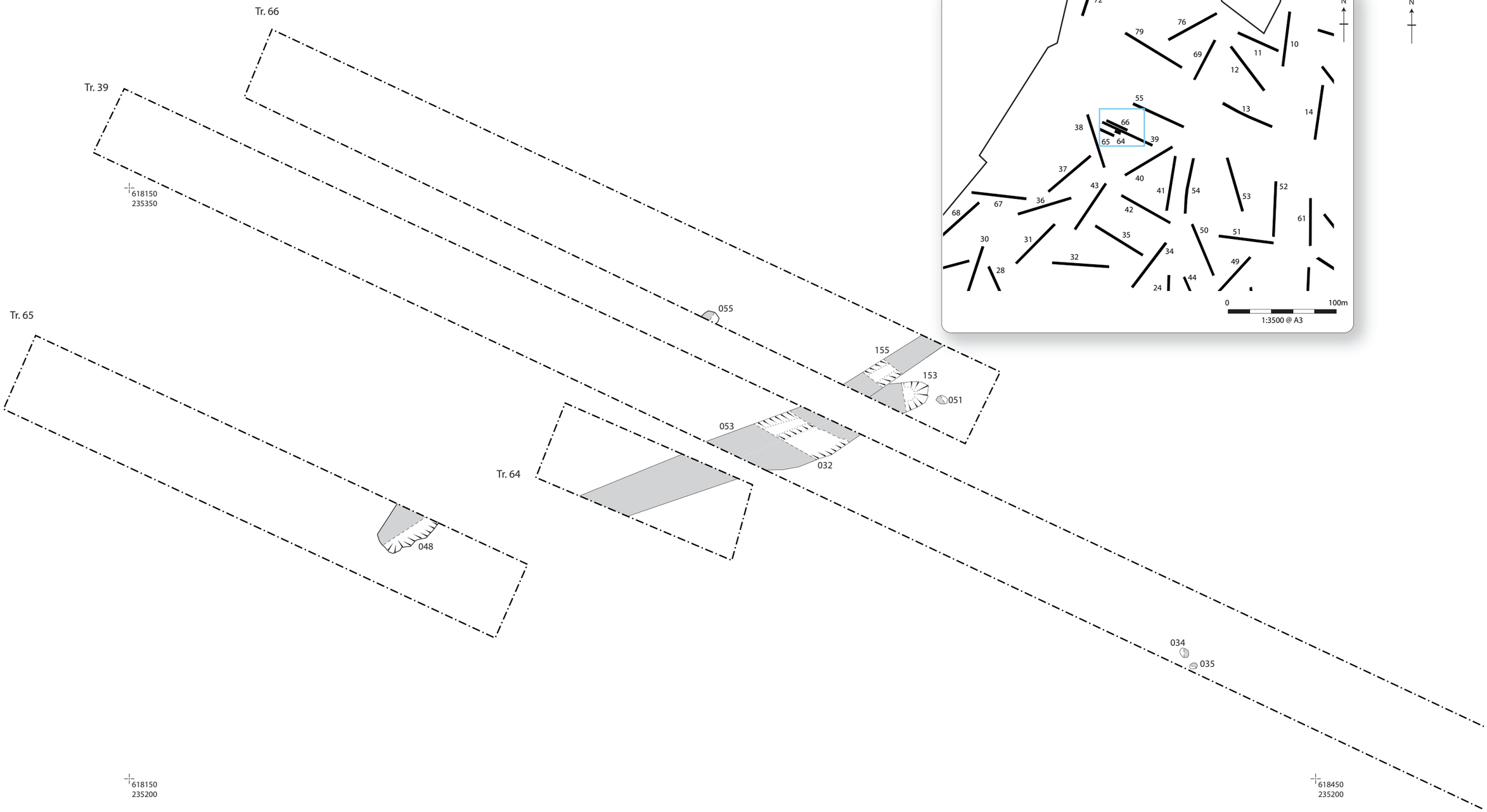
HEADLAND
ARCHAEOLOGY (UK) Ltd



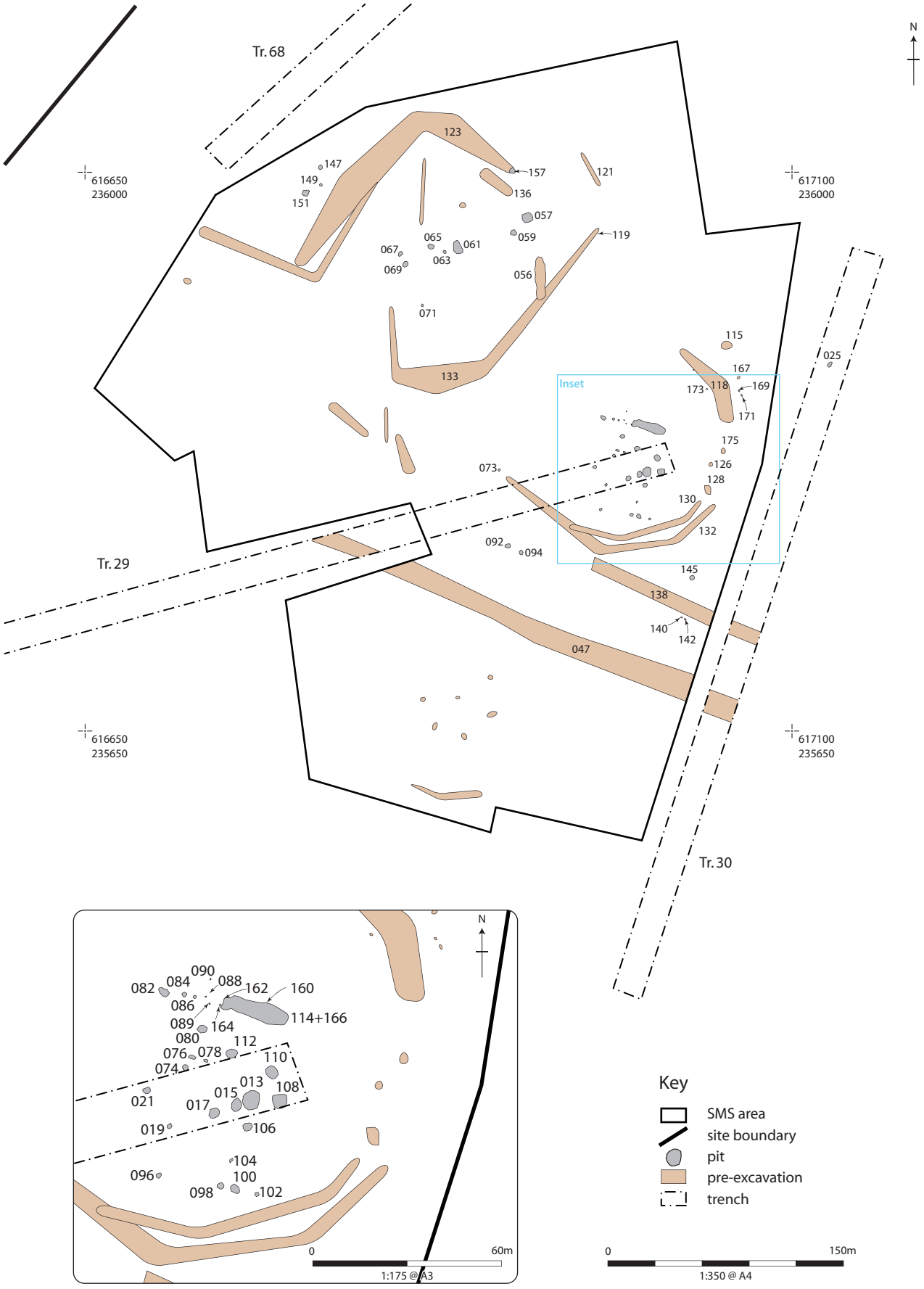
Reproduced using 2007 OS 1:50,000 Landranger No. 70.
Ordnance Survey © Crown copyright 2010 All rights reserved. Licence No. AL 100013329

Reproduced using digital 1:6515 data supplied by Lynch Developments .
Ordnance Survey © Crown copyright 2010. All rights reserved

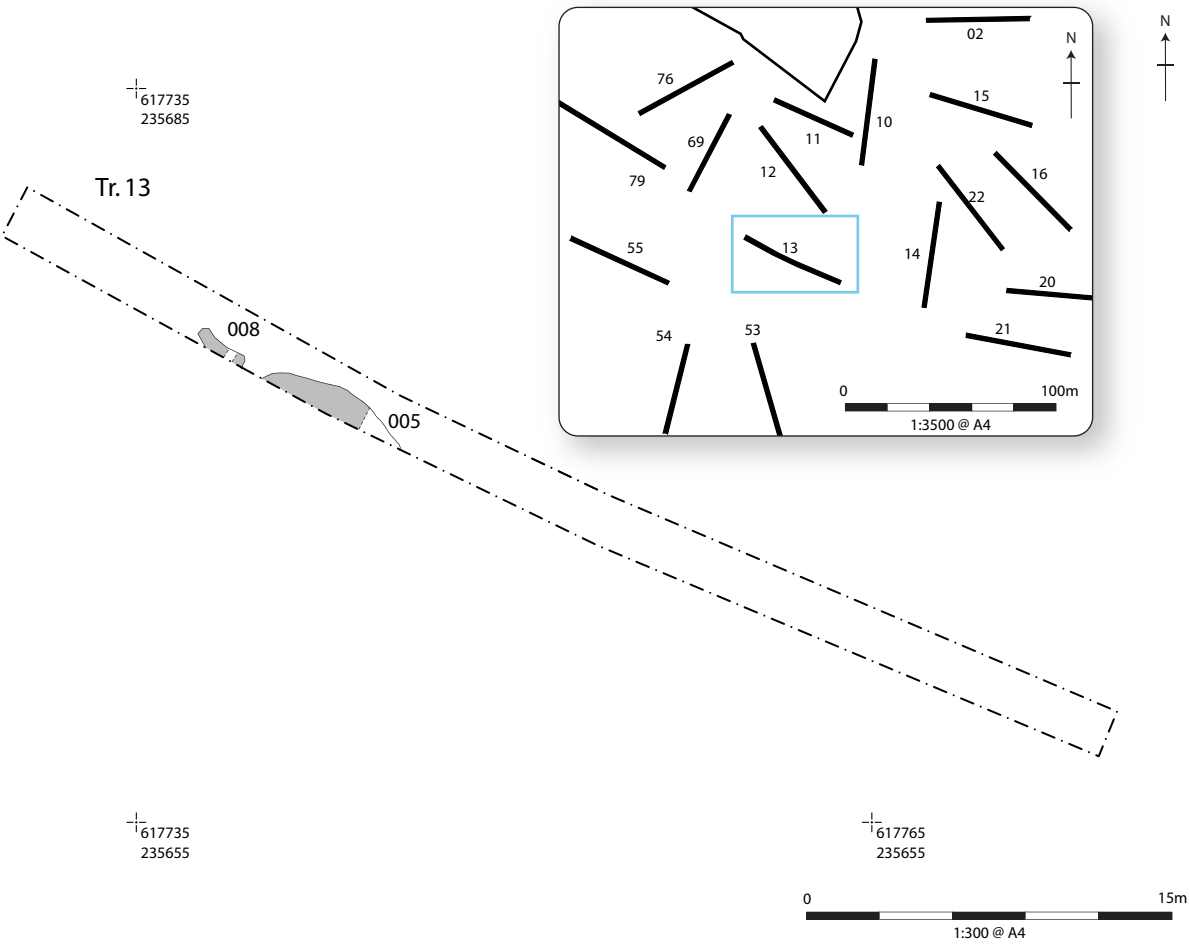
N
72
76
79
69
10
11
12
55
13
14
66
38
65
64
39
37
40
43
41
54
53
52
67
36
42
68
61
30
31
35
50
51
34
32
28
49
24
44
0
100m
1:3500 @ A3


Tr. 66
Tr. 39
618150
235350
Tr. 65
055
155
153
051
053
032
Tr. 64
048
034
035
618150
235200
618450
235200
0
50m
1:100 @ A3

Illus 2



Illus 4
SMS area


617735
235685
Tr. 13
008
005
617735
235655
617765
235655
0
15m
1:300 @ A4
02
76
15
10
69
11
79
12
16
22
55
13
14
20
54
53
21
0
100m
1:3500 @ A4
N
N

Illus 5
Pit [005], facing WSW

Illus 6
ESE facing section of ditches [047] & [138]

Illus 7
SSW facing sections of ditch [053] and linear [032]

Illus 8
Curvilinears [130] & [132], looking east