

LBFE12/001

LAND ADJACENT TO LOCHRIN BASIN,
19 WEST TOLLCROSS, EDINBURGH
Archaeological Excavation

For Watkin Jones Group

Planning Reference: 11/03094/FUL

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HA Job no.:	LBFE12/001
HAS no.:	-
NGR:	NT 24667276
Parish:	Tollcross
Council:	City of Edinburgh
OASIS ref.:	Headland1-144811
SMR no.:	-
Archive will be deposited with:	NMRS

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LAND ADJACENT TO LOCHRIN BASIN, 19 WEST TOLLCROSS, EDINBURGH

Archaeological Excavation

Headland Archaeology (UK) Ltd undertook a programme of archaeological works on a site near Lochrin Place, 19 West Tollcross, Edinburgh. The work was required to meet a planning condition (Planning Ref 11/03094/FUL) placed on a proposed student accommodation development. Historical map evidence shows that the development area lies to the north of the former Lochrin basin and overlies industrial buildings dating from the mid 19th century which included structures associated with a distillery, brewery and iron foundry. Excavation revealed that some wall foundations, floor surfaces and machine bases of the various phases of buildings survive, although the site had been heavily truncated in the central area.

A considerable depth of garden soil was encountered at a depth of c. 3.7m beneath the existing ground surface. The gardens shown on early 19th century maps of the site could have given rise to these conditions. Two deposits of buried horticultural soil were visible; the upper deposit contained pottery dating to the 17th to early 18th century. The underlying deposit was lighter in colour and contained pottery dating from the 12th to 15th century. A large ditch, pits and postholes were cut through the earlier garden soil.

1 INTRODUCTION

Headland Archaeology Ltd was commissioned by Watkin Jones Group to undertake a programme of archaeological works in connection with the proposed student accommodation development of land at 19 West Tollcross, Edinburgh (Phase 1).

Planning permission for the development was granted by Edinburgh City Council (Planning Ref. 11/03094/FUL). Subsequently, an application was submitted for material alterations to Planning Approval which included the substitution of part of the residential development for student housing and minor variations to the building footprint (06/01007/FUL). As a condition of the planning consent, Watkin Jones Group (the client) was required to undertake a programme of archaeological investigation prior to construction.

In order to fulfil this condition a Written Scheme of Investigation (WSI) was prepared by Headland Archaeology (October 2012) setting out the proposed strategy for archaeological mitigation.

This included controlled topsoil stripping followed by set-piece investigation within the footprint of the proposed development area. The WSI was submitted to and agreed with City of Edinburgh Council Archaeology Service (CECAS) who advise the Local Planning Authority on archaeological matters. This report details the results of the work.

1.1 Site Location and Description

The development is located in West Tollcross Edinburgh (NGR: NT 2466 7276; Illus 1). It fronts the western side of West Tollcross opposite its junction with Lochrin Place. The Union Canal lies to north-west of the site. The entire site covers an area of c. 7844 m². However, only the northern part, an area measuring c. 3317.09 m², will be developed during this phase (Phase 1) (the site reported here).

2 HISTORICAL AND ARCHAEOLOGICAL BACKGROUND

2.1 Historical Background

The earliest historical references to Tollcross date to the 15th century, although its origins can be traced to the mid 12th century in the reign of David I, when the area was probably occupied by orchards or used for cultivation (Bradley-Lovekin 2011). Kincaid's 1784 map, although somewhat schematic, shows that at this time, the site was open ground bordered to the north by the 'Common Sewer' (the Dalry Burn).

During the 18th and 19th centuries this area was heavily dominated by breweries and distilleries. Following the severance of the 'Auld Alliance' with France in 1707, beer became more popular than brandy and wine, and as a result the city's brewing industry rapidly expanded. Brewers were attracted to the Fountainbridge/Tollcross area by the plentiful water supply, caused by the large quantities of pure water trapped within a geological fault underlying the district (Bradley-Lovekin 2011). The first brewery in the area was established by Robert Gray in 1731.

Gray's brewery was taken over by Haig's Whisky distillery in 1798 and renamed Lochrin Distillery. Lochrin Distillery first appears on Ainslie's 1804 map (*not illustrated here*, see Bradley-Lovekin 2011 for historic maps of the area) and was located in the area to the east of the site. It was expanded to incorporate various new buildings and three artificial rectangular or sub-rectangular ponds were created, two located to the south of the buildings and one to the west. These are depicted on Kirkwood's 1817 map (Bradley-Lovekin 2011).

The Union Canal was the last of Scotland's major canals and is the only contour canal, a continuous lock free watercourse, to survive in Scotland. It was constructed between 1818 and 1822 by the engineer Hugh Baird. The watercourse, its banks, towpath, sluices, kicking stones and other associated features are a Scheduled Ancient Monument.

The owners of Lochrin Distillery excavated their own private basin, the Lochrin Basin, in the southern part of site (to be developed at a later stage as Phase 2). Woods' map of 1823 records the

basin as a large rectangular body of water connected to the canal via a channel cut from its northwest corner. The distillery is recorded in detail on a 'Plan of Lochrin Distillery, the property of James Haig and Son Esq., 1838' (*not illustrated*, see Bradley-Lovekin 2011 for historic maps of the area) which depicts the basin to the south-west of the site with associated distillery buildings, courts and yards to the east. An octagonal structure, labelled 'pigeon house' is shown to the north of the basin. An enclosure, attached to the east of the structure is labelled 'pig shade and court'.

The distillery was short lived, its buildings shown intact but disused on the 1st Edition Ordnance Survey map (1853) (Illus 10 and *ibid*). The octagonal 'pigeon house' and pig shade are still present on the 1853 Ordnance Survey Map (Illus 10).

Several buildings are present in the north-eastern area of site on the 1877 Ordnance Survey map (Illus 16). The former pigeon house is still apparent, and a structure connects it to the basin. The pig shade is no longer extant.

The shape of Lochrin basin has changed on the 1895 Ordnance Survey map (Illus 21) suggesting that it had been partially infilled by this time. Although the building formerly utilised as a 'pigeon house' remains, it is set within a large complex of buildings, suggesting that the area to the north and east of the basin was extensively developed between 1877 and 1895.

Lochrin Basin is no longer visible on the 1908 Ordnance Survey map, suggesting that it was infilled sometime between 1895 and 1908. Several large buildings are located in the area to the north. Neither the pigeon house nor the pig shade is recorded on this map, suggesting that the former buildings may have been demolished and replaced by larger structures.

Latterly the site was redeveloped for different purposes including Lochrin Ice Pond, which was opened between 1908 and 1912 (Illus 27). The buildings to the south of the Ice Pond remained as depicted on the 1908 Ordnance Survey map. The Ice Pond remained in use until 1920 when the area was taken over by Ross' car dealers (Baird 1999). The site was occupied by the garage and a cold storage depot was located in the area to the south. The garage was extended on the south-eastern side between 1961 and 1974.

2.2 Archaeological Background

Previous archaeological research which included two desk-based assessments (Barber *et al* 2002; Bradley-Lovekin 2012) and an environmental impact assessment (cultural heritage chapter by Trickett & Toolis 2005) highlighted the archaeological potential of the site. Several phases of fieldwork confirmed the archaeological significance of the site (both Phases 1 and 2 site boundaries).

An evaluation was undertaken in 2005 (Wilson 2005). Three of the evaluation trenches were located within the present development area (Phase 1 site boundary). Two in the central area, aligned north to south and one aligned north-east to south-west in the eastern area. The stone walls of what is described as a 'subsidiary building first depicted on the 1853 map were located in the eastern trench. No archaeology was uncovered within the central trenches. Remains of the basin and octagonal pigeon house were also identified at this time (located within the Phase 2 site boundary).

Archaeological excavation undertaken in 2009 in the area beyond the southern edge of the application site revealed 19th century structural features, including the remains of a boundary wall and part of the southern wall of Lochrin basin (Hunter Blair 2009).

Two further archaeological investigations were undertaken in the vicinity, to the west and east of the site respectively. The profile of the canal was recorded in the western area (Douglas 1999) and evidence of structures pre-dating the late 19th century and possibly relating to Gray's brewery were also uncovered in the eastern area (Heawood 2006).

3 AIMS & OBJECTIVES

In line with the WSI the main objectives of archaeological works were:

- To record any archaeological remains threatened by the proposed development works.
- To undertake an appropriate level of analysis and reporting to meet the requirements of the Planning Authority.

4 METHODOLOGY

4.1 Fieldwork

The work was undertaken as specified in the WSI (Headland Archaeology 2012).

An open area excavation, covering the footprint of the proposed development, was undertaken. Overburden was removed using a 360° mechanical excavator fitted with a 2m wide flat bladed bucket under direct archaeological control. Mechanical excavation stopped either at the first significant archaeological horizon or when clean geological sediments were reached. As the depth of excavation exceeded 1m below the present ground surface, the edges of the excavation were stepped to allow safe access as necessary.

In the event that archaeological structures visibly extended beneath the stepped sides of the excavation, meetings were held between the client, Headland and CECAS, to discuss alternatives to the above method to allow full, safe excavation of archaeological remains.

Once stripped of overburden the areas were fully hand cleaned to allow the detailed planning and recording of structures and deposits. All archaeologically significant structures and deposits identified were characterised and an appropriate sampling and recording strategy was implemented.

Discrete cut features were planned and half sectioned, or in special cases excavated in quadrants. All stratigraphic relationships were ascertained.

Linear features were planned and sample excavated, to a minimum of 10% of overall length. All stratigraphic relationships were recorded.

Once fully exposed and recorded, most features were then removed by mechanical excavator under archaeological supervision, in order to expose any further underlying remains.

4.2 Recording

All aspects of the work were undertaken in accordance with the IfA Standards and Guidance for conducting archaeological excavations.

All contexts, small finds and environmental samples were given unique numbers and all recording was undertaken on *pro forma* record cards that conform to accepted archaeological norms.

The photographic record comprises high resolution digital images (JPEG at 10mp) supplemented by black-and-white prints and colour slide. A graduated metric scale was clearly visible in record photographs. All photographs were recorded by individual print number alongside information on the context and direction of view.

An overall site plan was recorded using Total Station survey linked to a PC running AutoCAD/TheoLT and related to the National Grid and Ordnance Datum. Hand-drawn plans, sections and elevations of individual features at a scale of 1:20 were drawn where appropriate.

All artefacts retrieved during the excavation have been catalogued and will be subject to standard Treasure Trove procedures. Bulk finds were collected by context. Finds were stored in appropriate conditions as advised by Headland's Finds Manager.

Archaeological deposits were sampled systematically in accordance with Headland Archaeology Ltd standard environmental sampling practice. Bulk samples, a minimum of 10 litres and maximum of 30 litres, were taken for wet sieving and flotation.

4.3 Reporting and Archives

The results of the works are presented below. A summary report has been prepared for submission to *Discovery & Excavation in Scotland* (Appendix 2) and the OASIS database (headland1-144811).

The complete project archive will be deposited with the National Monuments Record of Scotland (NMRS) within six months of the completion of the project. The records (paper and digital) will be archived according to best practice guidelines set out by the Archaeological Archiving Forum.

5 RESULTS

5.1 General Stratigraphy

The phasing is based on stratigraphic relationships and map evidence. However, some areas were heavily truncated by later features which severed stratigraphic links between contemporary features. Therefore, similarities in construction technique and materials were used to identify contemporary horizons within the site and finds evidence was used to support this where possible.

The site was vacant at the time of fieldwork, having been levelled following the demolition of the garage buildings. The overburden consisted variously of crushed concrete, stone, brick, rubble and clinker material and redeposited gravely clay to depths of between 0.80m and 2m below the current, post-demolition, ground level (73.05m aOD). The exception to this was in the north-western area of site, where sloping bands of ash, mudstone and crushed brick were encountered to a depth of 69.5m aOD, some 3.55m beneath present ground level.

Due to the deep stratigraphy and volume of made ground in the north-western area of the site, it was agreed with CECAS that a series of test trenches would be excavated in this area in order to establish whether any archaeology was present beneath this (Illus 2). A deposit of dark brown loam, interpreted as garden soil was encountered in this area at a depth of (77.27m OD). Natural sands (geological subsoil) were encountered beneath the garden soil at a depth of 69.96 m aOD.

A deposit of loam (143/146) containing pottery dating to the 17th/18th (see Finds Assessment, Section 8 below) and charcoal fragments interpreted as garden soil existed at a depth of 70.3m aOD, (c. 3.7m beneath the present ground level). The garden soil on the southern side of the site was heavily contaminated with petro-chemical seepage from overlying fuel tanks, and was thus assigned a separate context number (192). A fragment of jug rim and sherd dating to the 16th century was recovered from it. The darker garden soil sealed a lighter, yellowish brown deposit (177/146), from which animal bone and various fragments of pottery dating from the 12th to 15th century were recovered.

5.2 Phase 1: Medieval features, 12th-15th century (Illus 2)

Several features including a ditch [173], postholes [178] and [189], pits [180], [185] containing pottery dating to the medieval period were cut through the garden soil (177) into the geological subsoil (Illus 2). Some of the features were only visible in section following the removal of the garden soil.

Ditch [173]

A substantial ditch [173] measuring 8m long, 3m wide and 0.40m deep was located at a depth of 70.14m aOD. The ditch had steep sides and a flat base. It was aligned east-west and filled with a compact, dark-grey, clayey sand (174) containing occasional burnt bone fragments and pottery dating to the 14th century. However, pottery dating to the 17th/18th century and window glass were also recovered from the fill [Illus 3a]. The lower fill (182) was devoid of finds and comprised light grey, slightly stony, compact, clayey sand (Illus 3b). It had been heavily truncated on the western, northern and southern sides by later buildings, which explains the presence of the 17th/18th century finds. The ditch petered out on the eastern side.

Postholes [178 and 189]

A sub-circular posthole [178] (Illus 4) , measuring 0.44m long, 0.35m wide and 0.22m deep was located in the central area of site at a depth of 70.30m aOD. It was filled with a greyish-brown silty sand (179) containing occasional charcoal and burnt bone fragments. A fragment of pottery dating from the 12th-13th century was also recovered from the fill.

Posthole 189 was located to the east of Posthole [178]. It measured 0.19m in diameter and was 0.19m deep. It was filled with mid-brown sandy silt (190) and contained a fragment of pottery broadly dated from the 12th- 15th century and a fragment of slag.

Pits [180 and 185]

A large, sub-circular pit [180], measuring 1.50m x 0.90m and 0.50m deep was located to the north-west of Posthole [178]. It was filled with greyish-brown sandy silt (181) containing occasional charcoal flecks (Illus 5). Several finds were recovered from the fill, including pottery dating from the 12th to 14th century, a black polished stone bead of uncertain date, possible slag and 20th century bottle glass. The recovery of 20th century bottle glass suggests that the feature was disturbed during later activity in the area.

A large amorphous pit [185] was located to the south of Pit [180]. It was filled with mottled greyish yellow silty-sand (186), and truncated on the eastern side by a field drain. Although slag and magnetic residue were the only finds recovered from the feature, it has been tentatively dated to the medieval period as it was cut from the same level as the other medieval features in the area (Illus 6).

5.3 Phase 2: *Post-medieval pits (Illus 8)*

Pit [199]

Pit 199 (Illus 7) was cut into garden soil (177) and backfilled with redeposited garden soil (200). It was only visible in the eastern section. The pit was 1.40m long and 0.90m wide. It was truncated on the northern side by Pit [196], thus confirming that it postdates it.

Pit [196]

A large pit [196] was located in the north-east part of site (Illus 7). The upper fill (198) comprised a rich organic deposit containing fragments of wood and rubble. The basal fill (197) consisted of sandy clay containing a small fragment of U-shaped wire and slag. The pit was truncated by Building [195]; the latter aligns with the building depicted on the 1853 Ordnance Survey map (Illus 10).

Drainage features

Several drainage features were located in the area (Illus 8). These included rubble drains [183, 206 and 207] and wood-lined drains [154, 156 and 157] (Illus 9). The drains were all concentrated within the eastern area of site and cut through a deposit of garden soil (143) that containing pottery dating from the 17th to 18th century and sealed garden soil 177/146. Drain 206 truncated pits 180 and 185 on the eastern side. Drains 183 and 207 truncated Ditch 173 in the central area and on the northern side respectively. Two large cast iron (162 and 163) objects, possible iron lids or man-hole covers directly overlay the wooden drains.

5.4 Phase 3: *Lochrin Distillery Post 1804-1838 (Illus 10)*

Phase 3 groups together deposits and buildings that relate to the 'Lochrin Distillery'. Ainslie's 1804 map shows Haig's distillery to the east of site. The only building on site at this time was a structure labelled 'Steam Engine'. However, no remains of this were encountered during the excavation.

Lochrin Distillery first appears on Kirkwood's map of 1817, though not in any detail. A detailed plan of the Distillery was produced in 1838 (*not illustrated here*). The deposits relating to the distillery directly overlie garden soil 143, which contained pottery dating from the 17th to 18th century.

Wall [142] and Wooden Floor [165]

Wall 142 was located in the eastern area of the site (Illus 10). It was truncated by later (Phase 5) Wall 126. Wall 142 was constructed from large sandstone blocks bonded with lime mortar and measured 6m long, 0.60m wide and 1.20m high. There was a possible return at the northern end, heading east; however, it had been heavily truncated by later activity.

An opening within the wall [142] had been blocked up with sandstone and a drain-pipe had been inserted. It is likely that the opening was the south-western entrance depicted on the 1838 plan. An L-shaped, 0.50m thick, lime mortar floor layer (141) also appeared to relate to the modifications. The deposit overlay wooden floor 140 and aligned with the blocked-in doorway apparent in Wall [142].

A deposit of sandy clay silt (165) abutted the wall on the eastern side, directly overlying the garden soil (143). The fragmentary remains of a wooden floor [140/164] sat upon it (Illus 11), suggesting that this was levelling material, deposited prior to the construction of the wooden floor. The floor was located at a depth of 70.54m aOD. It consisted of six timber planks aligned north to south and nailed to an underlying joist on the northern edge. Patchy remains of the degraded wooden floor [164] also remained on the eastern side of the site.

5.5 Phase 4: 1836-1838 Construction of 'pig-shade'

The corner [101] of a structure first depicted on the 1838 plan of Lochrin Distillery though not on Kay's 1836 map was encountered. The structure is labelled 'Pig shade and court' (*not illustrated*, see Bradley-Lovekin 2011 for historic maps of the area). The wall also appears on the 1851 Ordnance Survey map (Illus 10).

Building [101]

Remains of the north and eastern wall were encountered at a depth of 72.99m aOD above made

ground. It comprised several large stone wall foundation blocks, up to 0.90m wide and 0.45m deep [101], overlain by a course of smaller stone blocks, up to 0.50m wide (Illus12) and bonded with lime mortar. No court or original ground surface remained, the interior being filled with crushed stone and rubble.

Structure [109]

A square structure [109] measuring 2.25m long, 1.96m wide and 0.73m high, was located directly to the east of Building 101 and hence tentatively relates to activity during this phase. It was constructed from handmade red bricks, triple bonded with yellowish grey lime mortar. The structure was sealed with clay externally, possibly in order to make it water-tight. A partially vitrified brick covered in industrial waste was recovered from the wall of the structure. The floor (124) of the structure was located 1.24m below the wall top and was constructed from 0.05m thick sandstone slabs. The structure had been truncated on the western side. Finds recovered from the fill (108) included a creamware transfer printed handle sherd dating from the late 18th to mid 19th century and a metal strip.

5.6 Phase 5: Post - 1838-1853

Many of the walls ([195], [151], [126] and [136]) uncovered in the area align well with buildings depicted on the 1st Edition Ordnance survey map (1853) [Illus 10].

The north-eastern group of buildings [151 and 197] also survived, to heights of 1.65m (71.45m aOD) in places, although the upper portions of the buildings had been modified during later phases of activity, the lower portions largely remained intact.

Building [195]

Building 195 (Illus 10, 13) was 8.5m long and 2.9m wide. It was constructed from large, faced sandstone blocks bonded with lime mortar (Illus 13). Two rooms were present. The westernmost room measured 3.7m long and 2.9m wide. Remains of a wooden floor were observed at a depth of 1.65m from the southern wall head. The easternmost room was 3.20m long and 2.45m wide. No floor surfaces survived in this room. The rooms had been backfilled with clay and clinker material and capped with a 0.30m thick concrete floor.

Building [151]

Building 151 was located to the west of Building 195. Like Building 195, it was constructed from large, faced sandstone blocks, and stood to a height of 1.60m [Illus 14]. The spring base of a vaulted roof was apparent on the eastern and western walls of the structure at a height of 70.97m aOD. A flagstone floor surface was reached at a depth of 69.02m aOD, 1.95m from the wall head. This building was subject to at least three phases of modification. The cellar was backfilled with clay (171) and a deposit of ash and clinker-rich material (170), prior to the construction of a stone sett floor surface (167); presumably sometime in the 19th to early 20th century, as a fragment of clay pipe stem was recovered from the floor surface. The entire structure was backfilled with clay and capped with a 0.30m thick concrete floor, prior to the construction of Structure [161], which is discussed below (Phase 11).

External Boundary Walls (Illus 15)

Remains of the western and southern walls [136, 126 and 169], located in the eastern area of site and depicted on the 1853 OS map also remained. The walls were 9.70m long, 0.60m wide and 1.15m high (Illus 15). They were constructed from stone blocks bonded with lime mortar.

A large culvert [135], 1.15m wide, constructed from sandstone stone and containing a large ceramic pipe, ran along the western side of Wall [126].

5.7 Phase 6: 1853-1877- Industrial activity (Illus 16)

Map evidence shows that the site was extensively developed between 1853 and 1877. During this time a large building was constructed in the centre of site. Buildings were also constructed in the eastern area (Illus 16). Many of the walls uncovered during the excavation ([055], [037], [088] and [099]) correspond with those first depicted on the 1877 OS map. Several structures ([080, [068], [122], [005] and [006]) and a floor surface (125) also relate to this phase.

Wall [088], [037] and [055]

Fragmentary foundations of the northern wall of the central building, first recorded on the 1877 OS map, survived at a height of 71.88m OD, and was recorded as [088], [037] and [055] (Illus 16). However, no other parts of the structure remained.

Floor Surface (125)

A lime washed floor surface (125) was located in the eastern area of site at a height of 71.17m aOD. The floor surface was truncated by service pipe (130). The floor surface overlay a 0.60m thick deposit of loam and rubble (139) which overlay the floor surfaces (141) associated with the Distillery (Phase 3). The deposit (139) had been truncated by geotechnical test pits and therefore contained finds dating from the 17th to 20th century. Finds included clay pipe stems broadly dating from the 17th to early 20th century, a copper alloy strip, nails and bolts, slag, window glass, creamwear sherds and stonewear bottle sherds dating to the 19th century (See Finds Assessment, Section 8 below).

Machine bases and flues [080], [068], [122] were set into the floor surface (discussed below) (Illus 16).

Structure [080]

Structure [080] comprised a key-hole shaped feature with a possible flue and a rounded terminus (Illus 17 and 18). It was filled with a loose silt, ash and slag (073) deposit, containing occasional charcoal fragments. Its base was constructed from stone and walls from red brick-two courses high. The interior was lined with clay and lime. The structure was truncated on the northern side.

Culvert/ Flue [068]

The fragmentary remains of a stone structure [068] of two parallel sandstone walls with a flagstone base and curved terminus were located to the east of Structure [080] (Illus 18). One course of bricks was present at the western end of the feature. The feature was filled with three deposits (069, 070 and 054). The primary fill (069) comprised a loose silty clay. The secondary deposit (070) consisted of a light brown-grey, silty clay containing mortar and brick fragments. The tertiary fill (054) was contained within the terminus and contained frequent charcoal and slag fragments.

Machine base [122]

Remains of a possible machine base consisting of a series of four sandstone slabs set in a row were located to the east of Feature [068] (Illus 19). The eastern and western stones were set at a distance of 1.40m apart; each had two square sockets 0.05m deep, set 0.12m apart.

Machine bases [005] and [006] and Structures [102] and [104] tentatively date to the period between 1853 and 1877. However, it is entirely possible that some of the structures may be later in date.

Machine bases 005 and 006

Two machine bases, which may, tentatively, relate to this phase, were set in to Wall [126]. Both bases were constructed from concrete, measuring 1.14m long, 1.10m wide and 0.30m thick. A square indentation was located in the centre of each base and two iron bars protruded from holes of 0.05m in diameter, in the south-eastern and north-western corners.

Structures 102 and 104

Structure [102]

A brick structure [102] was located in the northwest corner of the site (Illus 20), respecting the line of the southern wall of the building first depicted on the 1877 OS map. It was constructed from red handmade bricks and bonded with coarse greenish-yellow lime mortar. A 0.38m wide cast iron cap overlay a brick surface at the western side of the structure. A 0.48m deep cavity containing two lead pipes lay to the east of the surface. It is possible that this structure may have been a machine base. The structure was truncated on the eastern side by a later brick manhole [104].

6.7 Phase 7: *Industrial activity Post 1877-1895*

Several new structures are apparent on the 1895 OS map (Illus 21). However, very few building remains encountered during excavation appear to relate to this period. Structure 120 tentatively dates to this period as it is of similar construction to the Phase 6 features. It is assumed that this is an internal feature and would therefore be located within the building on the 1895 OS map.

Structure 120

Remains of a possible flue/culvert [120] were located on the eastern side of site (Illus 21). It was constructed from machine made bricks (Illus 22). The southern wall was triple bonded and constructed from a mixture of header and stretchers. The feature was truncated at the northern end by a later pipe cut, so the full extent of the feature is unknown. The feature would be outwith the northern building depicted on the 1877

OS map but lies within the building depicted on the 1895 OS map suggesting either that it was constructed between 1877 and 1895 or that it was an external, underground or unmapped feature.

6.8 Phase 8: *Infilling of area and construction of Structure 11- 1895-1908*

Phase 8 relates to the partial infilling of the southern side of site and construction of Structure 011, first shown on the 1908 map [Illus 23].

Deposit 013

In the period between 1895 and 1908, the area between Walls 099 and 100 was in-filled with a rubble deposit (013) containing frequent bottle fragments, including 22 green bottle bases, 5 marked '6 to the gallon' and one marked 'J&C Cockburn, Edinburgh'. The bottles date from 1820 to the early 20th century. Fragments from stoneware and whitewear jars dating from the 19th to early 20th century were also recovered from the deposit. Several fragments of slag and a few fragments of glass waste were also recovered. It is possible that this material was dumped in order to raise the ground level prior to the construction of and modification to the buildings depicted on the 1908 map.

Structure 011

Several tip lines were visible in the eastern area of site. They were particularly apparent in the south-facing section beneath Structure 011 [Illus 24], thus suggesting that the ground level was raised in the period between 1877 and 1908, prior to the construction of Structure 011. Structure 011 (Illus 25) was keyed into a possible drainage feature related to Culvert 135, and overlay the northern portion of Wall 126. The structure was composed from frogged bricks stamped 'Dougal Winchburgh'. It consisted of a central room, measuring 2.60m long and 2.13m wide with three narrow cells on the northern, eastern and western sides, each measuring 0.80m wide. The walls stood to a height of 1m (72.83m aOD). A concrete threshold was located at the eastern end of the central room, suggesting that the doorway was located in this area. The northern, southern and western walls of the central cell were all whitewashed in the interior. However, the internal, eastern wall [003] was not whitewashed, suggesting that it was a later modification to the

structure. The only surviving floor surface was a compact clay surface (090) in the western chamber, truncated by a pipe cut on the northern side.

The building was backfilled with a deposit of compact greyish brown loamy material (012) containing several finds including various sherds of moulded bottle glass dating from the late 19th to early 20th century, 2 pottery sherds, including a stoneware bottle rim and willow pattern plate sherd, iron nails, 2 leather straps, fragments of coke and slag, metal strips and bricks frogged 'Niddrie'.

The tip lines present in the western area of site (Illus 26) may also relate to the period prior to 1908.

6.9 Phase 9: Lochrin Ice Pond -1909-1913

In the years between 1908 and 1913, a large building was constructed in the area to encompass Lochrin Ice Pond (Illus 27). Floor surface 056 may relate to this period.

Floor surface 056

Remains of a floor surface were encountered in the centre of site. It was constructed from compact lime with red brick inclusions, overlying a lime mortar and rubble deposit (057). It was truncated in the central area by a service pipe.

6.10 Phase 10: 1913-1917

Further modifications were apparent on the 1917 Ordnance Survey map (Illus 28). It is possible that the open area shown to the west of the building may have been the remains of a courtyard or cobbled area.

Cobbled surface (082)

A rough cobbled surface (082) was located on the western part of site (Illus 29) at a depth of 73.43m aOD. It lay above a series of levelling deposits and a thick deposit of clay (147) which overlay wall 101.

The cobbled surface respected a series of associated features, which included a machine base (087), brick walls (085 and 086) and cement surface.

Machine base [087]

A square concrete feature, with iron bars (087) protruding from the northeast and south-western corners was set into a concrete foundation

measuring 5.5m long, 0.35m wide and 0.27m deep. A red brick wall partially overlay the machine base on the southern side (085) and a second redbrick (086) wall ran parallel to it on the northern side.

Deposit (091)

A mixed deposit of sand, clay and gravel (091) containing several finds including washers, various glass bottle sherds dating from the late 18th to early 20th century, a possible glass funnel or alembic dating to the 19th to 20th century, slag, nails, wall hooks, iron strips and rod, leather, textile, metal plate and a fragment of stoneware pottery dating to the 19th century overlay the features.

6.11 Phase 11: 1920-1974- Structures relating to the garage

The site was occupied by a garage from 1920 to 1974. No upstanding features relate to the garage building depicted on the 1933 Ordnance Survey map [Illus 30].

Structures ([152], [161], [033]), which relate to the garage were uncovered [Illus 31]. Although they were not depicted on the 1933, 1951 or 1974 Ordnance Survey maps, it is likely that some were unmapped underground fuel storage tanks.

Structure [161]

Structure 161 was located in the north-eastern corner of site at a depth of 71.85m aOD. It directly overlay Building 151 and comprised a red brick structure [Illus 32], with curved internal walls, probable housing to support a tank. It was filled with yellow building sand (160) soaked with petrochemicals. It is likely that the sand was bedding for a fuel tank.

Structure [152]

Structure 152 directly abutted the northern boundary wall and overlay Structure 151 at a depth of 71.48m aOD. It comprised a red brick structure with two small rooms, indicated by protruding wall stubs, measuring 1.65m and 1.30m wide respectively [Illus 33]. The floor was constructed from a 0.12m thick deposit of concrete and was heavily truncated on the southern side.

Walls 18/19 and floor surfaces 008/021

Foundations of an L-shaped brick wall [018], associated walls, 017 and 052, and floor surface

(008/021) were located on the southern side of site [Illus 34] at a depth of 71.64m aOD.

Wall 018 was constructed from a mixture of double bonded headers and stretchers sitting upon a stone foundation [019] and was of similar construction to associated walls 017 and 052.

Although brick structure 033 relates to the garage, it truncates, and therefore post-dates Walls [018] and [052].

Brick Structure 033

Walls 018 and 052 were truncated by brick structure 033 [Illus 34]. The structure was 4.65m long and 2.38m wide and stood to a height of 1m [Illus 35]. It was constructed from bricks stamped 'Niddrie', bonded with course grey cement and filled with sand (032) saturated with petrochemicals. It is likely that the structure was the remains of a fuel tank surround and that the sand fill was bedding for a fuel tank.

Various dumped deposits overlay the structures including a 0.15m thick deposit of clinker (031) (Illus 36).

7 ASSESSMENT OF ENVIRONMENTAL SAMPLES

T Holden

7.1 Introduction

This report presents the results of an assessment of palaeoenvironmental samples taken during the course of excavation at 19 West Tollcross, Edinburgh. A total of 18 bulk samples, with volume ranging from 10 to 30 litres, were taken from a series of deposits; 7 of these samples were processed for assessment. Hand collected bone, recovered from four contexts, was also assessed.

7.2 Method

The samples were subjected to flotation and wet sieving in a Siraf-style flotation machine. The floating debris (the flots) was collected in a 250 µm sieve and, once dry, scanned using a binocular microscope. Any material remaining in the flotation tank (retent) was wet-sieved through a 1mm mesh

and air-dried. This was then sorted and any material of archaeological significance removed.

7.3 Results

The results of the sample processing are provided in Appendix 2 (Tables 1, 2 and 3). Suitable material for AMS dating is also identified in the tables.

7.3.1 Flots (Table 2)

Apart from a small amount of wood charcoal the only significant item from the flots was a single charred barley grain. This is from a 'garden soil' (143/ 146) i.e. poorly provenanced, and on its own this offers no scope for further analysis.

7.3.2 Retents (Table 1)

The most significant remains from an environmental point of view are the fragments of burnt bone, although the majority of these are unlikely to be identifiable. It is likely that the bone derives from domestic activity.

7.3.4 Hand collected Bone (Table 3)

Four contexts provided un-charred animal bone with most coming from 117 & 177, a redeposited sediment and 'garden soil' respectively. These were primarily large mammal bones but context 108 (a backfill deposit) also contained what are thought to be bird bones (probably chicken). While most of the bone from these contexts would be identifiable to species if required, the uncertainty of date and provenance of the samples would limit any meaningful analysis.

7.4 Discussion

The samples contain animal bone, charcoal and a single cereal grain so is 'domestic' in character. The charred remains do not warrant any further attention beyond that provided by this report. It is, however, probable that much of the animal bone could potentially be identified to species and could therefore add a little to the understanding of the site. However, given the volume and the nature of the features from which they were recovered they will not be able to address any more ambitious questions regarding the animal husbandry or the local economy.

8 FINDS ASSESSMENT

J Franklin

8.1 Medieval and Post-Medieval Finds

There were 24 finds of medieval and post-medieval pottery, spread between 11 contexts (143, 146, 174, 176, 177, 179, 181, 190, 192, 201 and 204) (Appendix 3). Context assemblages are small (the largest being 6 sherds from 174) and the sherds are clearly small and residual, therefore they do not provide firm dating evidence for the deposits in which they were found. Sherds are all of locally produced types, including medieval white gritty wares (12th-15th centuries) and post-medieval reduced and oxidised wares (16th to early 18th century), all are locally made and none can be finely dated. A few sooted white gritty sherds derive from cooking pots which disappear from the ceramic record during the 14th century suggesting there was activity in the area from at least this date.

Other finds associated with this pottery were predominantly fragments of ironworking waste, in the form of magnetic residue or small fragments of slag recovered from sample retents. This is common on medieval sites. There is no particular concentration of this material and as the whole assemblage amounts to 23g it does not imply a blacksmith working on site, but somewhere in the general vicinity. Fragments of associated glass (174, 181) are probably intrusive. A black bead (181) is of uncertain date. It is made from some kind of black polished stone, possibly jet or cannel coal. It is associated with both medieval and modern finds and could date to either period, possibly a piece of 19th century mourning jewellery or part of a medieval rosary.

8.2 Modern Finds

Modern finds were recovered from 20 contexts. Finds included 32 sherds of pottery, 68 sherds of bottle glass, pan tiles and other ceramic building materials, a large collection of metalwork, particularly large iron fittings, leather straps, clay pipe fragments and large pieces of industrial waste. The earliest of these include pottery and glass bottle sherds of the late 18th or early 19th century, however the majority are later than this. Most of the bottles are mould made and therefore post-date

c 1820. The pottery shows the typical variety of 19th century wares.

Some of these finds may be related to industrial processes undertaken on site. The industrial waste is the residue of some high temperature process, though it is not immediately clear if this is ironworking or some other industry. Some pieces may be related to glassworking, but again this is uncertain at present. The bottle glass includes a number of complete bottle bases and may well relate to on-site whisky production. Only one of the bottle bases is marked with a name 'J & C Cockburn, Edinburgh', likely to be the glass manufacture rather than related to the bottle's contents. Several of the bottles are marked '6 to the gallon', a measure equivalent to 75cl, about the size of a modern wine or whisky bottle. However further historical research into the nature of production at the site would be needed in order to tie these bottles to it. An unusual glass stem may be part of a funnel or possibly an alembic (Illus 37), the upper part of a distillation unit. Again this may well have been used for on-site whisky production.

8.3 Recommendations

There is nothing inherent in this assemblage worthy of further study. The medieval assemblage is too small and generic to be of further interest. The modern pottery and glass assemblages are useful for dating the later remains but again are lacking in distinctive detail. If the glass bottles and possible alembic stem could be tied to on-site production then a brief note and illustration in any further report would be worthwhile.

9 DISCUSSION

Multiple layers of archaeology relating to several hundred years of activity, from the 14th to 20th century, were recorded in the eastern area of site, whereas the central and western area of site, were in parts, heavily truncated by modern construction often resulting in partial or complete destruction of the underlying deposits. Although many of the features recorded could not be precisely dated, general phasing of the site resulted in 12 phases being attributed to the site.

Phase 1- Medieval activity

The earliest activity was located on the eastern area of site and was evidenced by remains of a ditch, pits and post-holes. Postholes 178 and 189 can firmly be dated to the medieval period as pottery dating from the 12th-13th and 12th-15th century respectively was recovered from their fills. Although 14th century pottery was retrieved from Ditch 173, intrusive 17th and 18th pottery was also recovered, suggesting that the ditch was disturbed during a later phase of activity.

Similarly, both medieval pottery and 20th century bottle glass were recovered from the fill (181) of Pit 180, suggesting that this feature was also disturbed. The recovery of a black, polished stone bead from this deposit is interesting. However, due to the mixed nature of the deposit, it is not possible to say, without further analysis, whether the bead is from 19th century mourning jewellery or part of a medieval rosary.

The features were cut into garden soil and sealed with garden soil. Subtle changes to the colour of the soil together with the presence of pottery, animal bone and charcoal fragments indicate manuring activity. Pottery recovered from the lower deposits of garden soil dated from the 12th to 15th centuries and pottery dating to the 16th and 17th – 18th centuries was recovered from overlying garden soil. The presence of garden soil corresponds with cartographic evidence as Kincaid's map of 1876 depicts gardens in the area.

Phase 2- Post Medieval activity

Two post-medieval pits of unknown function were observed in section. Several rubble drains and wood-lined drains were located in the eastern area of site, cut through the garden soil, suggesting that the area may have been particularly wet. This is perhaps due to the proximity of the site to the Dalry burn.

Phase 3- Lochrin Distillery

A wall and wooden floor relating to the distillery were encountered in the eastern area of site, located directly above the garden soil. Following the abandonment of the distillery, the ground level was raised by approximately 0.50m prior to the construction of industrial buildings in the area (Phase 5).

Phase 4- Construction of Pig shade

Structures relating to land associated with the distillery were uncovered during the excavation. The foundations of the wall [101] of a pig shade first depicted on the 1838 Lochrin Distillery plan, though not on Kay's 1836 plan, were uncovered. However, no floor surfaces or internal features remained. The pig shade overlay several deposits of made ground, which directly overlay garden soil, indicating that the ground level had been raised substantially prior to its construction. It is likely that the made ground in this area relates to the construction of the Union Canal in the period between 1818 and 1922, when the surrounding ground level would presumably have been raised in order to prevent flooding.

Phase 5-1838 to Phase 11-1974

The construction phases were primarily dated using Ordnance Survey maps, supplemented and verified by stratigraphic relationships and finds evidence. No other documentary evidence was found in a search of readily accessible records.

Many of the structures depicted on the 1853 OS map were uncovered during the works with the lower portions of the north-easterly buildings remaining largely intact.

The site underwent a considerable amount of re-development between 1853 and 1877, when a new complex of buildings were constructed. Excavation revealed evidence of the industrial use of the site. The features were heavily truncated and fragmentary, therefore in many cases, their function remains unclear and it is not clear at present, to what industrial processes the structures relate. However, the form of the structures together with the presence of industrial waste, slag and clinker, suggest that some high temperature process was taking place on site. It is not immediately clear if this is ironworking or some other industry. Some pieces may be related to glassworking, but again this is uncertain at present.

The buildings changed considerably on the 1913 OS map. However, the only feature that can be firmly dated to this period with any certainty is Wall 126. Floor surface 056 was tentatively dated to 1913, as prior to 1913 it would have been located out-with building footprints. However, it is entirely possible that this may have been external surfaces or un-mapped alterations, and pre-date 1913.

Similarly, although cobbled Surface 082 and Machine Base 087 and associated structures have been dated to the period between 1913 and 1917, based on map evidence it is possible that the features may predate this period.

Features relating to the garage building, which occupied the site from 1920 onwards included fuel tanks and unmapped walls.

10 CONCLUSION

Excavation of the site of the proposed development at 19 West Tollcross, Edinburgh revealed archaeological remains dating from the 14th to 20th centuries.

A number of medieval features were recorded during the excavation. This is the only known (from archaeological work in the area) medieval activity in the Fountainbridge area, indicating that the focus of activity in medieval Edinburgh extends further south than previously established. However, the function of the ditch and pits remains unclear as little environmental evidence was recovered. Although medieval pottery was recovered, the assemblage is too small and generic to be of further interest.

Fragmentary remains of Lochrin Distillery were encountered during the excavation. Following the abandonment of the distillery the ground was raised by half a meter prior to the construction of industrial buildings.

The depth of made ground on the western area of site probably relates to the construction of the Union Canal in 1818 and 1822, when the ground level had to be substantially raised to accommodate the canal and Lochrin basin.

Industrial remains including machine bases and possible flues remained largely intact. However, their function is unclear at present, although the presence of industrial waste such as slag suggests high temperature activity. Further work may clarify the nature and function of the industrial features.

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12 APPENDICES

Appendix 1 – Site registers

Photographic register

Frame no.	C/P and B/W	Direction	Description
1-9	-	Various	Pre –excavation shots, NE area of site
10	36/1	-	ID shot
11	35/1	N	Deposit (004) Area A
12	34/1	W	Deposit (004)
13	33/1	N	Pre-Excavation shots of [003] and [011]
14	32/1	E	Pre-Excavation shots of [003] and [011]
15	31/1	S	Pre-Excavation shots of [003] and [011]
16	30/1	W	Pre-Excavation shots of [003] and [011]
17	29/1	E	Mortar washed floor surface (008)
18	28/1	S	Pre-ex shot of rubble in SE structure [017]
19	27/1	W	Pre-ex shot of rubble in SE structure [017]
20	26/1	N	Geotechnical pit mid-ex, next to [005]
21	25/1	N	General shot of Area A
22	24/1	S	Pre-ex of paving [015]
23	23/1	W	Pre-ex of paving [015]
24	22/1	S	General Shot of [017] and (021)
25	21/1	S	General shot of (008), [018] and (020)
26	20/1	S	General shot of shale surface
27	19/1	E	General site shot
28	18/1	S	Pre-ex of SE of Area A
29	17/1	S	General shot of wall [033]
30	16/1	W	General shot of wall [033]
31	15/1	E	General shot of wall [033]
32	14/1	N	General shot of wall [033]
33	13/1	W	Wall [017]
34	12/1	S	Walls [017] and [021]

Frame no.	C/P and B/W	Direction	Description
35	11/1	E	Wall [017] and [018]
36	10/1	N	Floor deposit (016)
37	9/1	SW	Wall (037) E-W orientated Area B
38	8/1	N	Wall (037) E-W orientated Area B
39	7/1	E	Wall (037) E-W orientated Area B
40	6/1	S	View of SE corner of site
41	5/1	E	View of SE corner of site
42	4/1	E	View of SE corner of site
43		E	View of SE corner of site
44	3/1	N	View of SE corner of site
45	2/1	N	Detail of Wall [018] and found [019]
46	1/1	W	View of south corner of site
47	36/2		Film 2 Record shot
48	35/2	S	Detail of intersection of walls [018] and [017]
49	34/2	E	General view of walls [018] and [017]
50	33/2	S	View of wall [018] and found [019]
51	32/2	N	General view of [039]
52	31/2	N	Working shot Area A
53	30/2	S	Working shot Area A
54	29/2	S	Post excavation shot of brick wall [011]
55	28/2	E	Post excavation shot of brick wall [011]
56	27/2	N	Section showing [011] and [024] post ex
57	26/2	N	Close up of culvert [024]
58	25/2	W	Post ex of brick wall [005]
59	24/2	S	Interior of [003] corridor in [027]
60	23/2	W	Interior of [011] Northern Corridor in [027]
61	22/2	W	Interior central room of [011]/[027]
62	21/2	N	View of 033 fully exposed

Frame no.	C/P and B/W	Direction	Description
63	20/2	W	View of 033 fully exposed
64	19/2	N	Detail of wall [052]
65	18/2	S	N end of (007) showing linears pre-ex
66	17/2	E	Cut through made ground showing floor [008] and wall [052]
67	16/2	S	View of floor [020], [039] and [061] layers
68	15/2	W	View of floor [020], [039] and [061] layers
69	14/2		Working shots of cleaning of wall [055]
70			Working shots of cleaning of wall [055]
71			Working shots of cleaning of wall [055]
72			Working shots of cleaning of wall [055]
73			Working shots of cleaning of wall [055]
74			Working shots of cleaning of wall [055]
75			Working shots of cleaning of wall [055]
76	13/2	W	Walls [055] and [058] with associated floors
77	12/2	N	Wall [055] elevation shot post ex
78	11/2	E	Wall [055] post ex
79	10/2		[051] brick drain
80	9/2	N	Rubble [062] and wall [019]
81	8/2	E	Rubble [062] and floor (016) and (021)
82	7/2	S	Rubble [062] and wall [022]
83	6/2	E	West facing section through slot showing (008) and (020)
84	5/2	E	West facing section through slot showing (008), (059) and (060)
85	4/2	SE	General shot of slot section oblique
86	3/2	W	Shot of section through [068]
87	2/2	N	Shot of linear [050] and brick feature
88	1/2	E	Section through slot showing (008), (059) and (060)
89	36/3	E	Section through slot showing (008) and (020)
90	35/3		ID shot film 3

Frame no.	C/P and B/W	Direction	Description
91	34/3	S	View of possible cobbles at north end of (007)
92	33/3	W	Culvert [068] post excavation
93	32/3	Vertical	Culvert [068] post excavation
	32-28/3		Voided numbers
94	27/3	N	General shot of Area A
95	26/3	W	Machine base [005] detail
96	25/3	S	Machine base [005] detail
97		N	Working shot
98		N	Working shot
99		N	Working shot
100		N	Working shot
101		N	Working shot
102		N	Working shot
103		N	Working shot
104		N	Working shot
105	24/3	S	Structures [003] and [011] (Structure [027])
106	23/3	SE	General shot Area A
107	22/3	SE	General shot Area A
108	20/3	S	Structure [003], [011] and wall
109	19/3	W	Structures [055] and [058]
110	18/3	W	Structures [055] and [058]
111	17/3	E	Working shot Area A
112	16/3	S	General site shot
113	15/3	E	External elevation W wall [011]
114	14/3	E	Culvert general shot
115	13/3	S	Internal wall [011] S elevation
116	12/3	W	Internal wall [011] W elevation
117	11/3	N	Internal wall [011] N elevation

Frame no.	C/P and B/W	Direction	Description
118	10/3	E	Internal wall [011] E elevation
119	9/3	W	Threshold detail [011]
120	8/3	W	Corridor 011 N area, W wall elevation
121	7/3	N	Corridor 011 N area, N wall elevation
122	6/3	W	Structure 71, flue or culvert, post ex
123	5/3	S	Structure 71, flue or culvert, post ex
124	4/3	N	Structure 71, flue or culvert, post ex
125	3/3	E	Structure 71, flue or culvert, post ex
126	2/3	E	W facing section through [078]
127	1/3	E	W facing section through [076]
128		S	Edge of stone floor [081] seen in cut of [050]
129	36/4		Registration
130	35/4		Pre-ex shot of eastern corridor 027/011
131	34/4	NW	Shot of limestone blocks (084)
132	33/4	S	View of sandstone wall collapse in W room of [027]
151		W	Shot of brick wall under cobbled surface
152		W	Shot of brick wall under cobbled surface
153		W	Shot of east facing section under bore hole (sector B)
154		W	Shot of east facing section under bore hole (sector B)
155		W	Shot of sounding to foundations of sandstone wall in Sector B
156		W	Shot of sounding to foundations of sandstone wall in Sector B
157		S	Shots of sandstone wall cut by ceramic pipes (Sector B)
158		S	Shots of sandstone wall cut by ceramic pipes (Sector B)
159		N	Brick feature in sector B
160		SW	Shots of broken west end of sandstone wall
161		SW	Shots of broken west end of sandstone wall
162		SW	Shots of broken west end of sandstone wall
163		SW	Shots of broken west end of sandstone wall

Frame no.	C/P and B/W	Direction	Description
164	32/4	NW	Cobbled surface
165	31/4	N	Brick structure [095]
166	30/4	S	Downpipe [094] cut through wall [088]
167	29/4	S	Downpipe [094] cut through wall [088]
168	28/4	E	Features [085] and [086]
169	27/4	SE	General shot of cobbles
170	26/4	NE	General shot of cobbles
171	25/4	N	Machine base in NW corner of site
172	24/4		Detail of machine base
173	23/4	SE	General view of NW corner of site
174	22/4	E	Wall [088]
175	21/4	N	Brick feature [093]
176	20/4	W	Floor surface to the north of [088]
177	19/4	W	East facing section to north of borehole in NW corner
178	18/4	W	Wall [088] central section to west
179	17/4	E	Wall [088] central section to east
180	16/4	E	General shot of Area A from Area B
181	15/4	W	Section through fill of brick feature [095]
182	14/4	E	Structure 095 fully excavated
183	13/4	S	Detail of cap of pipe in 095
184	12/4	S	Wall 099 showing truncation by 002
185	11/4	SE	Wall 099 general shot post-excavation
186	10/4	SE	Wall 099 general shot post-excavation
187	9/4	SE	Wall 099 general shot post-excavation
188	8/4	SW	Wall 100 general shot post-excavation
189	7/4	SW	Wall 100 general shot post-excavation
190	6/4	SE	Wall 099 and 100 general shot post-excavation
191	5/4	W	Machine base 006

Frame no.	C/P and B/W	Direction	Description
192	4/4	W	Wall 002 east face showing white wash
193	3/4	W	Wall 002 east face showing gap for 005
194	2/4	E	Wall 002 west face
195	1/4	-	Wall 002 west face
196	36/5	N	Id shot film 5
197	35/5	N	Pre-ex of brick structure
198	34/5	N	Detail of brick structure 102
199	33/5	S	Detail of brick structure 102
200	32/5	E	Detail of brick structure 102
201	31/5	W	Detail of 102 showing lead pipes
202	30/5	N	Detail of Manhole 104
203	29/5	NW	General shot of 104 with 102 in background
204	28/5	NE	General shot of 104 with 102 in background
205	27/5	N	View of concrete floor/ base to E side of 085/087
206	26/5	N	View of concrete floor/ base to E side of 085/087
207	25/5		
208	24/5	E	General shot of wall 101
209	23/5	SE	General shot of wall 101
210	22/5	S	Pre ex shot of brick structure 109
211	21/5	W	Pre ex shot of brick structure 109
212	20/5	N	Pre ex shot of brick structure 109
213	19/5	E	Pre ex shot of brick structure 109
214	18/5	N	Post ex shot of wall 101
215	17/5	E	Post ex shot of wall 101
216	16/5	W	Post ex shot of wall 101
217	15/5	S	Post ex shot of wall 109
218	14/5	S	Post ex shot of wall 101 showing curved corner stone
219	13/5	NE	Mid-ex shot of 109 within 109

Frame no.	C/P and B/W	Direction	Description
220	12/5	N	Post ex shot of Manhole 106
221	11/5	E	Post ex shot of interior of 106
222	10/5	S	Working shot area B
223	9/5	W	Mid ex shot of 116
224	8/5	E	General shot Area B
225	7/5	W	General shot Area B
226	6/5	E	General shot of structure 102
227	4/5	E	General shot of structure 104
228	3/5	S	102 detail
229	2/5	S	102 detail
230	1/5	S	Area B general shot
231	-	N	S facing section 102 and 104
232	-	W	Structures 102 and 104
233	36/6	S	Wall 101
234	35/6	N	Wall 101
235	34/6	E	Working shot 109
236	33/6	E	Manhole 106
237	32/6	N	Manhole 106
238	31/6	W	Manhole 106
239	30/6	E	Manhole 106
240	29/6	N	Manhole 106 and 104
241	28/6	N	General site shot
242		E	Mid ex shot of fill (108) of structure 109
243	27/6	S	Shot of N facing section across flue
244	26/6	S	Flue 120 post ex
245	25/6	E	Flue 120 post ex
246	24/6	E	Flue 120 post ex
247	23/6	N	Flue 120 post ex

Frame no.	C/P and B/W	Direction	Description
248	22/6	N	Machine base 122 post ex
249	21/6	N	Machine base 122 post ex
250	20/6	S	Machine base 122 post ex
251	19/6	E	Structure 109 with geotechnical pit
252	18/6	N	Structure 109 mid ex
253	17/6	N	Working shot
254	16/6	W	Structure 109
255		N	Structure 109
256	15/6	E	General shot of structure 109
257	14/6	E	Shot of paved surface at base of structure 109
258	13/6	E	Structure 109 and floor 124
259	-	W	Structure 102
260	11/6	NW	General shot of structure 109 and Area B
261	10/6	N	General shot of structure 109 and area B
262	9/6	NW	General shot of structure 106 and borehole
263	8/6	W	General shot of structure 106
264	7/6	W	Pipe 130 and deposit 125
265	6/6	W	Pipe 130 and deposit 125
266	5/6	S	Structure 71 general shot
267	3/6	E	W facing section showing 130 cutting 126
268	2/6	E	Culvert 135
269	1/6	S	Culvert135 running under 024
270	36/7	-	Id shot film 7
271	35/7	S	Wall 136 working shots
272	34/7	E	Wall 136 working shots
273	33/7	W	Wall 136 working shots
274	32/7	N	Wall 136 working shots
275	31/7	E	Wall 002/126 truncating 99/100

Frame no.	C/P and B/W	Direction	Description
276	30/7	S	Wall 002/126 truncating 99/100
277	29/7	W	Wall 136 junction with 126
278	28/7	S	Section across wall 002
279	27/7	S	Possible doorway 136
280	26/7	N	General shot 136
281	25/7	N	Aperture 136
282	24/7	W	Elevation 136
283	23/7	W	Machine base 5 and wall 136
284	-	W	Detail shot of machine base 5 and wall 136
285	-	S	Working shot Area A
286	-	S	Working shot Area A
287	21/7	N	Deposit 62
288-297	20-19/7	Various	Trench Area B, various shots
298	18/7	W	Floor surface 141 post ex from above
299	17/7	W	Floor surface 141 post ex
300	16/7	S	Floor surface 141 post ex
301	15/7	N	Floor surface 141 post ex
302	-	S	Trench 1 Area B- N facing section
303	-	S	Trench 1 Area B- N facing section
304	14/7	S	W end of 140 wooden floor post ex
305	13/7	S	W end of 140 wooden floor
306	12/7	M	W end of 140 wooden floor
307	11/7	W	Wooden floor 140 post ex
308	10/7	W	Wooden floor 140 post ex
309	9/7	W	E facing section through 141 and 149
310	8/7	S	Buried soil Tr 1 Area B
311	7/7	W	Wall [150] in W facing section- S side, Area A
312	6/7	E	Wall 150 W facing section

Frame no.	C/P and B/W	Direction	Description
313	5/7	SE	Working shot Area A
314	4/7	E	Working shot Area A
315	3/7	W	Working shot Area A
316	2/7	W	Mid ex shot of rubble layer and wall
317	1/7	E	Buried soil (140) Area A
318	37/8		Registration
319	36/8	S	Working shot
320	35/8	W	Working shot
321	34/8	NW	SE facing section of Test Pit 2
322	33/8	N	Pre ex shot of N wall Area A
323	32/8	N	Detail of rubble infill in wall on N side Area A
324	31/8	N	S facing section Trench 3 Area B
325	30/8	Various	Trenches area B
326	29/8	Various	Trenches area B
327	28/8	Various	Trenches area B
328	27/8	Various	Trenches area B
329	26/8	Various	Trenches area B
330	25/8	Various	Trenches area B
331	24/8	Various	Trenches area B
332	23/8	Various	Trenches area B
333		Various	Trenches area B
334	22/8	E	Drains 154 and 156
335	21/8	W	Close up of drain lid 154
336	20/8	W	Floor 159
337	19/8	W	159 Floor and wall
338	18/8	S	Drain 154 base close up- post ex
339	17/8	N	Drain 154 running N-S and corner post ex
340	16/8	E	Drain 154 lid close up

Frame no.	C/P and B/W	Direction	Description
341	15/8	E	Round iron object over drain 154
342	14/8	E	Square iron object over drain 154
343	13/8	S	Drain 154 showing metal object and truncation
344	12/8	N	Junction of 154 and 156, close up
345	11/8	E	Drain 156
346	10/8	S	Drain 156
347	9/8	W	Drain 156
348	8/8	W	Post ex shot of 151 and 152
349	7/8	W	Cobbled floor in structure NE side
350	6/8	W	Cobbled floor in structure NE side
351	5/8	SW	Working shot
352	-	SW	Post ex shot of structure and wall 151
353	4/8	SW	Detail shot of structure NE area
354	3/8	E	Cobbled floor in structure NE area
355	2/8	N	Cobbled floor in structure NE area
356	1/8	E	161 and 151
357	36/9		Registration shot
358	35/9	W	Area A General shot from S
359	34/9	N	Area A General shot from S
360	33/9	NW	Area A general shot from SE
361	32/ 31/9	W	Area A general shot from E
362	30/9	W	Location shot of structure in NE corner
363	29/9	N	Detail S wall at E end Area A
364	28/9	E	Detail of South wall W end
365	27/9	E	View of vault formed by wall 151
366	26/9	E	Wall 151 detail showing corbelling
367	25/9	W	Wall 151 detail showing corbelling
368	24/9	S	Detail of rubble core of wall 151

Frame no.	C/P and B/W	Direction	Description
369	23/9	N	Detail of rubble core of wall 151
370	22/9	S	Detail of rubble core of wall 151
371	-	E	General shot Area A
372	-	W	Pre excavation shot of ditch
373	-		Void
374	21/9	W	E facing elevation wall 169 post ex
375	20/9	W	Cobbled floor
376	19/9	W	E facing elevation wall 142 post ex
377	18/9	N	Wall 142 post ex
378	17/9	W	Wall 142 detail of rebuilt section
379	16/9	S	Structure 024 N facing elevation
380	15/9	E	Structure 024 W facing elevation
381	14/9	W	Structure 024 S facing elevation
382	13/9	Vertical	Structure 024 post ex from above
383	12/9	S	Working shot E wall
384	-	S	Working shot E wall
385	11/9	S	Wall 126 and 142
386	10/9	E	Wall 126 and 142- N end W facing section
387	9/9	E	Wall 126 and 142 central W facing section
388	8/9	E	Close up of machine base cut into wall 126
389	7/9	E	E facing section wall 126 S end
390	6/9	W	Possible lintel in wall 126
391	5/9	Vertical	Exterior 151 post ex
392	4/9	N	Interior 151 Post ex
393	3/9	SW	Interior 151 Post ex
394	2/9	NW	Interior 151 Post ex
395	1/9	W	Exterior 151 Post ex
396	-	NW	Working shot- excavating ditch

Frame no.	C/P and B/W	Direction	Description
397	-	W	Working shot– excavating ditch
398	-	N	Working shot– excavating ditch
399	37/10	-	Registration shot
400	36/10	N	General site shot Area A
401	35/10	E	General site shot Area A
402	34/10	S	General site shot Area A General site shot Area A
403	33/10	W	General site shot Area A
404	32/10	W	Slot through 176
405	31/10	N	Slot through 176
406	30/10	W	Slot through 176
407	29/10	W	Slot through 176
408	28-26/10	Various	N side of E facing section South end area A
409	25/10	NW	Southern side Area A
410	24/10	E	Pre ex shot of pit Area A
411	23/10	E	Section through ditch 173
412	22/10	W	E facing section through ditch 173
413	21/10	W	E facing section through ditch 173
414	20/10	SW	Slot through ditch 173
415	19/10	N	Slot through ditch 173
416	18/10	E	W facing section through ditch 173
417	17/10	W	E facing section of ditch 185 Mid ex
418	16/10	S	N facing section gully 187, cutting 185
419	15/10	N	South facing section of posthole 189
420	14/10	N	Working shot Area A
421	13/10	NW	Post ex shot E side Area A
422	12/10	W	Working shot Area A
423	11/10	N	Post ex shot of posthole 189
424	10/10	S	Pre ex shot of posthole 178

Frame no.	C/P and B/W	Direction	Description
425	9/10	N	S facing section of 185
426	34/11	S	Post ex shot of posthole 178
427	33/11	S	Post esc hot of slot 180
428	32/11	Various	Post excavation general site shot
429	31/11	Various	Post excavation general site shot
430		Various	Post excavation general site shot
431		Various	Post excavation general site shot
432		Various	Post excavation general site shot
433		Various	Post excavation general site shot

Context register

Context Number	Area	Description
1	A	Mid brownish grey, gritty stony silt deposit. Overburden in NE part of Area A. Contains stone, broken brick, glass, coal fragments, pan tile and mortar. Levelling material above demolished buildings.
2	A	Same as 126- Stands to height of 1.7m .
3	A	Two modern red brick walls running parallel to one another and forming the eastern cell/ chamber of Structure [027]. The walls are 12 courses high at the south end and 8 courses high at the north end. They are constructed from bricks frogged 'Hailes' and bonded with light yellowish brown sandy mortar. The walls appear to sit upon the foundation for wall 002/ 126.
4	A	Relatively compact deposit of black, gritty silt containing coal, clinker and ash covering the west side of Area A, similar to deposit 031.
5	A	Concrete machine base. Square in plan, measuring 1.14m x 1.10m x 0.20m. It abuts wall 002 on the south side and probably truncates it. A square indentation measuring 0.62m x 0.62m, surrounded by a concrete lip was located in the centre of the feature. Two iron bars protrude from circular holes in the north-western and south-eastern corners respectively, measuring 2mm in diameter. The machine base is possibly related to brick wall [017] which runs E-W to the E.
6	A	Concrete machine base measuring 1.20m x 1.20m. Located 5-6m north of machine base 005. Two circular holes are located in the NW and SE corners, measuring 10mm in diameter, with iron bars projecting from each.
7	A	Compact yellowish white, lime washed stone floor located in the centre of Area A. Drain cuts, machine bases and flues set into it. Lies beneath sand layer 009. Several indentations are present on the surface- possibly the remains of cobbles set into it. The indentations are aligned N-S and measure 0.07m long x 0.05m wide and 0.02m deep.
8	A	Compact light yellow lime floor surface abutting red brick wall 018 and wall 052 on the northern side. It overlies floor deposit 020. This is likely to be the original floor surface for building 018.
9	A	Thin greenish yellow loosely compact deposit of sand. It is concentrated in Area A and overlies floor surface 004, machine base 005 and deposit 007. Possible levelling deposit.
10	A	Context voided
11	A	Brick and sandstone structure [027] consisting of a central room and 2 narrow cells to the north and west (walls 003 form the eastern cell). Occasional sandstone blocks are present in southern wall. The walls are double bonded on the eastern edge and triple bonded on the north wall, central and southern walls. The west wall is heavily disturbed (possibly occurred during the partial demolition and infilling of the western cell). A floor surface (090) survives in the western cell, but has been truncated at the southern end by a pipe cut. The N, E and S walls of the central cell are white-washed in the interior.
12	A	Deposit of compact greyish brown loamy material filling structures 003 and 011. It contains occasional bricks frogged 'Hailes' and bottle glass fragments. It is likely that the deposit was used to back fill the structures and raise the ground level.

13	A	Dark brown loamy deposit containing frequent rubble fragments and several broken bottles dating from 1840- 1910, located on the southern edge of Area A between earliest sandstone walls, up to 1.10m deep.
14	A	Same as 013.
15	A	Sub rectangular/sub-square, flat stones measuring 0.3 x 0.5 x 0.1m. The stones may have been part of a flagstone floor surface as two of the stones have tongue and groove, but were disturbed by wall collapse. The stones sit directly on top of lime washed floor 016.
16	A	Small area of lime washed floor to the south of [017], probably contemporary with [017] and [018]. Very disturbed by wall collapse.
17	A	Brick wall constructed from unfrogged red bricks bonded with lime mortar, runs E-W across south side of Area A and abuts wall [002] on the eastern side, probably associated with wall [018].
18	A	Red brick wall constructed from handmade, unfrogged red bricks, measuring 0.23m x 0.11 x 0.08m. Comprises a mix of header and stretchers double bonded with a course, pale yellow, lime mortar. The brick wall is 'L' Shaped and runs approximately 6m N-S, Turning to the E for 4m. It sits within cut (025) and upon stone foundation (019). It is truncated at the northern end by brick structure (033). It is associated with walls 017 and 052, floor 008 and cuts floor 020.
19	A	Stone foundation for wall 018. Formed from square cut stone bonded with pale yellow lime mortar. Measures approximately 0.5m x 0.73m.
20	A	Mid yellowish brown clayey sand containing small stones and brick and tile fragments. The material abuts wall remains (039) on the northern side (Interior) suggesting that it is a floor surface associated with this layer.
21	A	Deposit abutting sandstone walls [002], [022] and [023]. It underlies deposit 016 which appears to be a later floor contemporary with brick wall [017]. Brick wall 017 cuts through deposit 021. This deposit is probably contemporary with 020 which is located directly to the east.
22	A	Context voided
23	A	Context voided
24	A	Sandstone structure located on w side of Area A. 1.70m long, 1.15m wide and 0.90m deep. Constructed from large limestone blocks and has central sandstone beam. The sandstone beam is aligned E-W on top of the structure and supports a corrugated/ moulded concrete sheet. The structure overlies a culvert and may be a manhole/ inspection chamber or perhaps some type of flue?
25	A	Cut for wall [018]
26	A	Red brick wall, L-shaped, aligned E-W and dog-legs to run N-S at E end. It is composed of frogged red bricks bonded with mortar. It is located to the north of [027] and truncated on the northern side by a Geo-technical bore-hole, therefore its northern extent is unknown.
27	A	Brick and sandstone structure [027] consisting of a central room and 2 narrow cells to the north, east and west (walls 003 form the eastern cell and [011] central and N cells). Occasional sandstone blocks are present in southern wall. The cells are each 0.80m wide. The central room is 2.65m long and 2.12m wide. Walls stand to a height of up to 1m. Two phases of construction are apparent.
28	A	Cut for wall [003]. Only visible where it cuts [011].

29	A	Linear cut for structure [011] Seen only as location of concrete footings for walls of [011].
30	A	Cut for wall [030] - Not visible!
31	B	Deposit of black, loose, crushed shale, lying beneath topsoil on the western area of site, contains occasional slag fragments and clinker. Probably used to build up ground surface.
32	A	Yellow sand- Fill of building 033. In some areas this had been disturbed and was full of demolition material but around the edges of the internal faces of wall 033 it was clean sand.
33	A	Red brick walls of a fuel tank surround constructed from red bricks frogged 'Niddrie'. The walls are double bonded and coursing comprises one row of header bricks, 4 stretchers and 1 header. The building was aligned N-S and located in the SE corner of site. It measured 1.9m wide internally, 1 m high and was filled with sand (032). Walls were 0.23m wide.
34	A	Construction cut for brick wall structure [033]. 0.25m wide and 0.33m deep cutting floor surface (008) and filled with (035). 20thC
35	A	Fill of brick wall [033] cut [034]
36	A	Concrete wall foundation to brick wall [033]. Projects 0.30m beyond the wall edge.
37	B	E-W aligned sandstone wall of roughly quarried blocks up to 0.6m x 0.2m x 0.2m in size. Lime mortared and poorly preserved, surviving up to 2 courses in total. Sits partially on a pad of crushed lime mortar. Same as [055] and [088].
38	B	Compact redeposited levelling of gravel clinker and mortar beneath wall [037].
39	A	A layer of angular stone and lime mortar forming the foundation remains of a stone wall. The wall is still standing further to the west [022]. Aligned E-W. The deposit is probably the remains of a grubbed up wall that was levelled to form part of a floor surface (008).
40	A	Upper most deposit seen in section filling cut [048]. Contains two flat sand stone slabs lying horizontally that could potentially be structural. Contains frequent demolition rubble. Cut from above by foundation cut [029] for structure [011].
41	A	Tip deposit seen in section beneath structure [011]. Fill of [048] consists of frequent demolition material in a silty sand matrix.
42	A	Silty sand soil deposit backfilling [048].
43	A	Tip deposit filling cut [048] consisting of a mid grey brown silty sand.
44	A	Burnt deposit filling cut [048]
45	A	Primary fill of [048]. Consists of a loose sand matrix and sand stone fragments
46	A	Made ground deposit situated under [011]. Seen in section only.
47	A	Concrete footing for structure [011]. Projects 0.10m from edge of walls.
48	A	Cut underneath structure [011]. Seen in section only. Filled by numerous tipped deposits, (040), (041), (042), (043), (044) and (045).
49	A	Fill of linear pipe cut. 0.50m wide and 0.20m deep. 4m long.
50	A	Cut of linear pipe cut filled by (049). 0.50m wide and 0.20m deep. 4m long. Outline of metal pipe visible on base of cut.
51	B	Modern square brick drain surround measuring 0.46m x 0.46m. 0.13m high.

52	A	Remains of a brick wall probably associated with 018 and 017 to the north and west. Truncated to the west by wall [033] and to the east by [053]. Floor (008) abuts the N side of the wall with loose made ground to the S. side.
53	A	N-S aligned modern brick boundary wall along E limit of excavation. Same as [150]
54	A	Loose dark brownish black silt with frequent charcoal (90%) mortar fragments and slag lumps. Found within brick surround [068].
55	A	Sandstone wall aligned E-W, 8.90m long by 1.0m wide. Single course high and bonded with lime mortar. Same as [037] and [088] and appears on 1853 edition OS Map.
56	A	Very compact dark brownish black clay silt with occasional charcoal flecks and frequent mortar flecks. Compacted floor surface that abuts wall [055]. Truncated to the E by modern services and also by cut [064] for wall [058].
57	A	Loose/ friable light brown silty sand with very frequent limestone and sandstone fragments. 3.0m long by 1.30m wide by 0.20m deep. Made ground for floor surface.
58	A	Brick wall aligned E-W to the north of wall [055]. Made of frogged red brick and concrete, 4.0m long by 0.40m wide by 0.10m high. Brick size is 0.23x 0.11x 0.07m.
59	A	Friable black cinder deposit below floor [008] and to south of wall [039]. 0.04m thick and overlies layer (060).
60	A	Layer of mixed stone, tile, brick and clay to the south of wall [039] and below (008) and (059).
61	A	Fill of foundation cut [025] for wall [018].
62	A	Loose rubble with mortar fragments present 4.0m wide by 1.20m deep. Overlain by floor surface [125] and also possibly associated with wall [136].
63	A	Firm mid orange brown silty sand with occasional charcoal and mortar fragments. Compacted floor surface to north and west of wall [058] and cut by foundation [064]. 2m long by 0.80m wide.
64	A	Linear cut for wall [058], it cuts through layers (056) and (063). Cut is 4.0m long by 0.40m wide by 0.15m deep.
65	A	Layer of dark brown silt below (060) to the north of wall [039].
66	A	Layer of dark brown silt below floor surface [020] to the north of wall [039].
67	A	Possible square cut with gentle sloping sides. It is 2.75m by 2.75m and appears to cut layer (057).
68	A	Flue/ Culvert 1.90m long by 0.80m wide by 0.38m high. Stone flag base and sides with a brick surround at north side. Base stones are 0.27m by 0.25m by 0.80m. Sides are 0.60m x 0.25m x 0.17m. Bricks are hand made 0.25m by 0.12m by 0.07m. Bonded with a Lime mortar. Filled by (070) (069) (054).
69	A	Soft dark brownish grey clay silt with occasional complete bricks, slag, and mortar present. Primary fill of [068] 1.70m long by 0.25m wide by 0.10m deep.
70	A	Firm light brown grey silty clay with moderate brick and mortar frags, 1.70m long by 0.25m wide by 0.20m deep. Secondary fill of [068].
71	A	Keyhole shaped flue/ culvert set into floor [007]. Made up of brick sides [080] and stone floor [081]. 2.40m long x 1.0m wide x 0.20m high.
72	A	Compact light yellow grey silty sand and lime mortar floor surface. 2.40m long by 0.45- 0.80m wide by 0.07m deep. Upper fill of flue [071].
73	A	Loose dark purple brown mixture of silt ash and slag. 2.40m long by 0.45m- 0.80m wide by 0.15m deep. Primary fill of flue [071].

74	A	Linear cut aligned EW through floor surface [007] to south of [076]. Pipe cut 4.50m long by 0.40m wide by 0.20m deep.
75	A	Fill of [074] Firm mid brown grey silty sand with frequent demolition material.
76	A	Cut aligned E-W cutting through [007]. 4.50m long by 0.45m wide by 0.25m deep filled by (077).
77	A	Firm mid brown grey silty sand with frequent charcoal mortar and brick fragments. Single fill of [076]
78	A	N-S linear cut along western limit and cuts floor [007]. 4m long by 0.40m wide by 0.20m deep and filled by (079). Pipe trench cut.
79	A	Firm grey brown silty sand with charcoal clinker slag mortar and brick frags present. Single fill of [078].
80	A	Part of structure [071]. Hand made unfrogged bricks 0.25m x 0.24m x 0.18m in size, bonded with lime mortar.
81	A	Floor of structure [071]. Stone base/ floor slabs 0.23m x 0.18m x 0.80m in size. Bonded with lime mortar and bricks [080] are built on top of this.
82	B	Stone spread of very angular quarried limestone with patches of yellow sandstone within. Block sizes vary 0.1x 0.1 x 0.1m to 0.3x 0.3 x 0.2m. Very rough cobbled surface.
83	B	Deposit of red sand 2-3m wide and 0.05m thick. Overlies (082) and orientated NW- SE.
84	B	Sandstone wall structure 0.80mx 0.60mx 0.20m in size. Part of wall [088] and bonded with a lime mortar.
85	B	Red brick wall 5.5m long by 0.35m wide by 0.27m high running parallel to [086]. Probably associated with machine base [087] and is 1.40m south of wall [085].
86	B	Remains of wall associated with floor surface [082] and machine base [087]. Brick wall on rubble foundation bonded with lime mortar. Bricks are frogged and stamped "Hailes". Wall is 2.1m long by 0.35m wide by 0.30m high.
87	B	Rectangular concrete machine base 1.1m long by 0.90m wide. Abutted by wall [086].
88	B	NW-SE limestone wall bonded with limestone mortar. 0.66m wide by 0.20m high, same as [037] and [055].
89	B	Floor surface of cement between walls [085] and [086] c.4m long by 1.35m wide by c.1m high.
90	A	Floor surface of firm mid grey brown silty clay found in W chamber of building [027]/ [011]. 1.10m long by 0.80m wide by 0.10m deep.
91	B	Made ground of brownish grey mixed sand gravel and clay 0.80m thick.
92	B	Compact surface of dark brownish black clay silt north of wall [088]. 7m long by 4m wide by 0.10m thick. Similar to (089).
93	B	Rectangular brick structure- possibly a machine base 1.20m long by 0.80m wide by 0.14m thick. A metal plate 0.40m by 0.60m and 0.05m thick is in its centre. Truncates floor [092].
94	B	Cut for 3 down pipes truncating wall [088].
95	B	Small rectangular brick 19thC manhole bonded with greenish brown sandy lime mortar. Bricks are 0.23m x 0.11m x 0.75m in size.
96	B	Sealing layer over manhole [095] of light yellow lime mortar with occasional stone and brick fragments. Layer is 0.18m thick overlying fill (097).

97	B	Fill of structure [095]. Deposit is 0.50m thick onto base of the structure and comprises of brick and stone fragments in a soft/loose ash and sand layer.
98	B	Cut for wall [088], only visible of the north side.
99	A	NE-SW aligned roughly hewn sandstone wall 6.0m long by 0.50m wide by 1.40m high. Wall is at 90 degrees to [100], may be part of wall [100]. Bonded with lime mortar.
100	A	Sandstone wall aligned SE-NW bonded with lime mortar. Abuts wall [099] and is 7.0m long by 0.50m wide and 1.75m high. Truncated at NW end.
101	B	Large sandstone wall foundation below cobbles in Area B. Wall is 6.0m long x 0.90m wide x 0.45 m high and bonded with a lime mortar.
102	B	Rectangular red brick man hole filled by (103) and truncated by later manhole [104]. Probably 19thC in date.
103	B	Demolition backfill of [102]. Compact grey brown rubble and silty clay.
104	B	Modern brick manhole made of machine made bricks stamped with "Hailes". Truncates [102] on west side and runs into northern section of LOE.
105	B	Loose light yellow grey silty sand rubble and mortar backfill of [106]. Deposit is 1.0m long by 0.74m wide by 0.90m deep.
106	B	Modern 20thC brick manhole 1.46m long by 1.20m wide by 1.0m high.
107	B	Foundation cut for manhole [106]. Same dimensions as [106].
108	B	Mixed dark brown loam material/ rubble backfill of structure [109]. 1.90m long by 1.55m wide by 0.94m deep in size. Tip lines contain angular limestone fragments.
109	B	Very crude structure constructed from handmade red brick bonded with greyish yellow limestone mortar. 2.25m long x 1.96m wide x 0.73m high. Surrounded by layer (110) and is heavily truncated. Relationship with wall [101] is unclear to the NW.
110	B	Layer of compact mid brown clay with red brick fragments present. Probably re-deposited geological subsoil. It surrounds structure [109]. 0.20m wide and 0.75m thick.
111	B	Cut for structure [109] 3.10m long by 3.0m wide by 0.80m deep. Truncated by [116] and backfilled by (110).
112	B	L shaped cut for wall [101] cutting through shale deposit (113). 3m-6m long x 1.52m wide X0.60m deep.
113	B	Possibly re-deposited shale/ mudstone layer cut by [101]. Overlies clay deposit (114) and is 0.10m thick.
114	B	Compact reddish brown clay layer recorded at depth of 2.5m below modern ground surface. Re-deposited clay.
115		Context voided
116	B	Cut for Geotechnical test Pit
117	B	Fill of Geotechnical test pit [116]. Contains modern glass and red brick fragments.
118	A	Heavily truncated stone wall, aligned N-S between [120] and [122]. 2.0m long x 0.50m wide x 0.30m high. Truncated to north by [050].
119	A	Fill of flue [120] consists of light pinkish-grey silty sand with frequent charcoal and moderate slag lumps. Deposit measures 1.50m long x 0.50m wide x 0.30m deep.
120	A	Flue/ culvert. 2.30m x 0.88m x 0.40m. Consists of machine made brick base.

		Walls on E, S and W sides, truncated on N. Walls and floor all appear to be heat affected.
121	A	Rectangular cut measuring 2.30m x 0.90m x 0.50m, for flue 120, with vertical sides and flat base.
122	A	Machine base – 1.90m x 0.80m x 0.14m. Constructed from 5 sandstone slabs set in a row. The stones at east and west ends have 2 square socket holes 0.05m deep set into them.
123	A	Heat affected sand deposit 1.80m x 0.30m x 0.07m, associated with flue [120].
124	B	Flagstone floor within brick structure 109. 1.75m long, 1.75m wide and 0.05m deep. Located 1.24m below wall top.
125	A	Greenish yellow, silty sand deposit 5m x 4m x 0.2m, abuts wall [126] on E face.
126	A	Sandstone wall- faced and bonded with lime mortar, 9 courses high. 1m wide and 1.55m high. The wall has been truncated by a pipe cut which runs E-W through the interior of the building.
127		Context voided
128		Context voided
129	A	Dark brownish-grey silty sand, 11m long, 0.8m wide and 1m deep. Fill of pipe cut 130.
130	A	Cut for modern waste water pipe running E-W and cutting through floor surfaces (125) (007) and walls [126] and [002].
131	A	Fill of cut [132] comprising of dark brownish grey clay sandy silt. 2.10x 0.50x 0.20m.
132	A	Cut of pipe trench, 2.10m long x 0.50m wide x 0.20m deep. Filled by (131).
133	A	Cut for flue [071]. Only visible when later truncations were removed. Only southern edge is clear.
134		Context voided
135	A	Stone culvert with ceramic pipe within. Aligned N-S along face of wall [126] and is 1.15m wide. 1.44m below top of [126]. Made of roughly hewn stone bonded with a lime mortar.
136	A	Limestone wall 9.70m long by 0.50m wide by 1.15m high. Keyed into wall [002]. Material size is 0.35x 0.18x 0.20m, faced on both N and S sides and bonded with a lime mortar. Small square aperture 0.20m by 0.20m on south face.
137	A	Large ceramic pipe 0.40m wide within culvert [135].
138	A	Light yellowish grey limestone floor bonded with lime mortar. 3.20m long by 1.90m wide by 0.40m deep within floor surface (007) to the south of flue [086].
139	A	Made ground deposit below floor surfaces (007) and (125), 0.50m deep. Overlies floor surfaces (140) and (141).
140	A	Wooden floor surface 2.40m long x 1.20m wide x 0.03m thick and made of wooden planking. Abuts east face of wall [142] and south face of floor (141).
141	A	L-shaped floor surface of compacted lime mortar. 2.90m long by 1.40m wide by 0.05m deep. Abuts wall [142] to the west and overlies floor (140).
142	A	Sandstone wall 6.0m+ x 0.60m wide x 1.20m high. Roughly faced and bonded by a lime mortar. Truncated slightly to NW by wall [126].
143	A	Compact mid-dark brown loam covering entire site and 0.50m deep. Buried soil horizon c.3.50m below modern ground surface. Same as (146).
144	B	Made ground of demolition material up to 2.0m deep below cobbled surface. Same as (091) (113) (114).

145	B	Made ground of levelling material consisting of tip lines of mudstone, shale and re-deposited yellow clay along west side of Area B.
146	B	Buried soil found 4.5m below present surface. Compact dark brown loam same as (143).
147	B	Geological subsoil: greyish brown clay at a depth of 5m below present ground surface.
148	A	Soft dark reddish brown silt 3.0m long x 0.20m wide x 0.15m deep. Fill of drain [154]
149	A	Shallow ditch cut to accommodate wooden box drains [154] and [156]. T-shaped junction 7.5m on E-W axis by 3.0m on N-S axis, 0.30m wide by 0.25m deep. Cuts through (165).
150	A	Brick structure located in E section at S end of area A. Same as [053] and is possibly footing for a modern diesel tank.
151	A	N wall of building in Area A aligned E-W and is overlain by wall [152]. 6.0m+ long x 0.46m wide x 1.0m high. Constructed from faced sandstone blocks 0.15x 0.25x 0.12m in size.
152	A	Red brick wall on NE side of Area A overlying [151]. Overall 3.70m long x 4.30m wide x 1.50m high. Made up of unfrogged red brick 0.23x 0.12x 0.06m in size and coursing mixture of Headers and Stretcher bricks.
153	A	Rubble infill located to W of [151]. 1.06m long by 1.20m wide by 0.80m deep. Made up of loose white mortar and rubble.
154	A	Wooden box drain within cut [149] on same alignment as (141). 3.0m long on EW and NS axis, 0.20m wide and 0.15m deep.
155	A	Soft mid blue grey clay silt 2.0m long by 0.20m wide by 0.10m deep. Fill of drain [156] at E end of cut [149].
156	A	Section of wooden box drain within cut [149]'s eastern extension. Less well preserved than [154]. 2.0m long by 0.20m wide by 0.10m deep. Same as [154].
157	A	Small linear cut aligned NE- SW across (165). Similar to cut [149] but no traces of wooden drain present. 2.50m long by 0.20m wide by 0.15m deep.
158	A	Very compact dark grey floor surface 1.30m long by 0.75m wide by 0.10m deep. Associated with [152] at a depth of 1.55m below present ground surface. Heavily truncated on E side.
159		Void
160	A	Yellowish brown sand fill of brick structure [161] on NE side of area A. 2.0m long by 1.70m wide by 0.80m deep.
161	A	Square brick structure in NE section of area A. Comprises of unfrogged red bricks 0.24x 0.12x 0.08m with coursing a mixture of headers and stretchers. Structure is 2.70m long by 1.80m wide by 0.90m high. Has two internal walls spaced 1.10m apart 0.35m high. Bonded by cement.
162	A	Corroded Fe object in N end of drain [154].
163	A	Corroded Fe object within drain [154] towards (162)
164	A	Wooden floor surface overlying (165). Possibly same as [140]. Poorly preserved.
165	A	Dump layer of firm yellow brown sandy clay silt with frequent charcoal, mortar and CBM fragments 0.30m deep spread across area A. Cut by drains [149], [157] and overlain by floors (140) (141) and (164). Overlies garden soil (143).
166	A	Brick wall 1.2m long by 0.22m wide by 0.45m high. Comprises orange unfrogged bricks 0.22x 0.12x 0.10m in size. Possibly associated with [161].

167	A	Stone Sett floor surface for [151] 3.10m long by 1.50m wide by 0.07m thick. Floor comprises stone setts 0.23x 0.10x 0.11m in size aligned E-W along S side of wall [166] and N-S in central area.
168	A	Soft mid blue grey clay silt 2.50m long by 0.20m wide by 0.15m deep. Fill of cut [157]
169	A	Small sandstone wall 1.10m long by 1m wide by 1.40m high. Made up of large irregular roughly hewn blocks bonded by a lime mortar in N section of area A.
170	A	Dark grey clinker deposit underlying cobbled floor [167]. 3.5m long by 1.3m wide by 0.05m thick.
171	A	Built up layer of compact yellowish brown re-deposited clay with red brick fragments below (170) and (172). 3.50m long by 1.5m wide by 1.5m deep. Heavily contaminated with Petro- Chemicals.
172		Void
173	A	E-W aligned ditch in central part of area A. 8.0m+ long by 0.85m wide by 0.42m deep.
174	A	Upper fill of ditch [173]. Compact dark grey clay sand with infrequent burnt bone fragments and white gritty pottery. 0.25m thick.
175		Context voided
176		Context voided
177	A	Yellowish brown compact deposit containing occasional small charcoal fragments. 0.30m deep
178	A	Cut of small posthole 0.40m long x 0.35m wide x 0.22m deep. Sub- circular in plan. Possibly associated with [189].
179	A	Compact greyish brown silty sand with occasional charcoal and burnt bone fragments. Fill of [178]
180	A	Large sub circular pit 1.50m long x 0.90m wide x 0.50m deep.
181	A	Single fill of pit [180] of compact greyish brown sandy silt with occasional small charcoal fragments.
182	A	Light grey, compact clayey sand with occasional stone inclusions.
183	A	Cut of rubble drain
184	A	Stony fill of rubble drain.
185	A	Amorphous pit. Filled with (186)
186	A	Mottled greyish yellow silty-sand
187	A	Fill of shallow ditch/ gully 188.
188	A	Amorphous cut, tear drop shaped in plan. Filled by (187)
189	A	Round posthole at S edge of site. Possibly associated with [178]. 0.19m in diameter and 0.19m deep. Filled by (190).
190	A	Loose mid brown clayey sandy silt single fill of posthole [189]. Pottery found within fill.
191		Context voided
192	A	Firm mixed yellow grey deposit- Garden soil heavily contaminated with diesel.
193	A	Contaminated former garden soil. Cut by ditch [191]. Contaminated by diesel/ other Petro- chemicals.
194		Context voided
195	A	Large sandstone wall on N side of site 8.5m long by 2.90m wide by 1.65m high. Wall comprises of large faced Ashlar blocks 0.50x 0.40x 0.12m size blocks. Floor surface at W end may have been wooden.
196	A	Linear ditch aligned E-W, fronting structure [195]. Approx 1.7m long x 2.10m wide. May be a ditch terminus but truncated on N side.

197	A	Compact mottled greyish orange sandy clay 1.70m long by 2.10m wide by 0.60m deep. Basal fill of ditch [196] containing charcoal and wood fragments.
198	A	Dark brown organic deposit overlying (197) 1.70m long by 2.10m wide by 0.20m deep. Contains frequent wood fragments and is upper fill of ditch [196].
199	A	Pit cut 1.40m wide by 0.90m deep. Not visible in plan but cut by ditch [196]. Filled by (200).
200	A	Compact mid yellowish brown clay with occasional charcoal fragments 1.40m wide by 0.90m deep. Single fill of pit [199]. Possibly re-deposited garden soil.
201	A	Compact greyish brown sandy clay 3.80m long by 8m+ wide by 0.40m deep. Contains frequent charcoal fragments. Garden soil layer cut by rubble drain and pit [199].
202	A	Linear ditch aligned EW with vertical sides and rounded base. 5.0m long by 1.80m wide by 0.90m deep and filled by (203) and (204). Medieval ditch containing Green Glaze pot fragments and 1 White Gritty Ware fragments.
203	A	Compact orangey brown sandy clay with occasional charcoal fragments. 0.60m wide by 0.30m deep. Re-deposited garden soil of ditch [202].
204	A	Compact greyish brown sandy clay with occasional charcoal fragments, 5.0m+ long by 1.0m wide by 0.60m deep. 1 Green Glaze and 1 White Gritty Ware fragment found. Deliberate backfill of ditch [202]
205	A	Concrete platform. 3.8m long, 3.5m wide and 1.25m thick. Contains fragments of red brick. Possibly remains of tank associated with garage.
206	A	Rubble filled linear drain, cut through garden soil.
207	A	Rubble filled linear drain, cut through garden soil.

Drawing register

Drawing no.	Plan	Section	Description
001	-	1:20	Plan showing walls 011, 002, Culvert [024] and tip deposits 040-046
002	-	1:20	W facing section through Layers 008, 059, 060, 066 and 020
003	-	1:20	E facing section fronting Borehole, Area B
004	-	1:20	N facing section showing Culvert 136 and Wall 126
005	-	1:20	W facing section through floor 141 and cut 149
006	1:20	-	Plan of wooden floor 140
007		1:20	Section of 151 and 161

Sample register

Sample no.	Context no.	Description
001	004	Floor surface- Area A
002	054	Black Ashy Fill of [068]
003	069	Secondary fill of culvert [068]
004	070	Primary fill of culvert [068]
005	073	Primary fill of Flue [071]
006	119	Fill of Flue [120]
007	148	Fill of drain or beam slot [149]
008	109	Red brick from structure [109]
009	146	Buried soil
010	154	Wood sample from drain 154
011	156	Wood samples from drain 156
012	140	Wood sample from floor 140
013	141	Mortar floor abutting 140
014	176	Fill of Pit 175
015	174	Upper fill of Ditch 173
016	190	Fill of Posthole 179
017	186	Fill of Ditch 185
018	192	Fill of Ditch 191
019	181	Fill of Pit 180

Appendix 2 – Environmental Assessment Tables

Table 1: LBFE12 Retent Sample Results

Context No.	Sample No.	Feature	Sample Vol (l)	Ceramic		Stone	Glass	Metal	Industrial Waste		Burnt bone	Unburnt bone	Charcoal		Material available for AMS Dating	Cinders	Coal	Comments		
				Pottery	CBM				Fe slag	Mag res			Mammal	Mammal					Quantity	Max Size (cm)
				Medi-PM	Brick															
146	9	Buried soil	20	+						+++	+++	++						Burnt bone-35 fragments, 2g, Unburnt bone 7 fragments, 3g		
174	15	Upper fill of ditch 173	30	+	+		+		+	+++	+++	+						Burnt bone-15 fragments, 2g		
190	16	Fill of posthole 189	10						+	++	+		+	<0.5			++	Burnt Bone and charcoal not retained.		
186	17	Fill of pit 185	30							++	+					+	++	Burnt bone-1 fragment, 1g		
181	19	Fill of Pit 180	20			+	+	+		+++	++						++	Burnt bone c 23 frags-3g. Stone bead present.		
201	20	Garden soil	20	+					+	++	+++	++						Burnt bone c 30g, very fragmentary, 3g. Unburnt		

197	21	Fill of ditch 196	10					+	+										bone- 10 fragments, 9g
<p>Key: + = rare (0-5), ++ = occasional (6-15), +++ = common (15-50) and ++++ = abundant (>50) NB charcoal over 1cm is suitable for identification and AMS dating</p>																			

Table 2: LBFE12 Flotation Sample Results

Context Number	Sample Number	Feature	Total flot Vol (ml)	Cereal grain:				Other plant remains	Charcoal Quantity	Charcoal Max size (cm)	Material available for AMS	Comments
				<i>Avenasp.</i>	<i>Hordeum vulgare</i>	<i>Triticumsp.</i>	<i>Cerealia indet.</i>					
146	9	Buried soil	20					+++	<1	No		
174	15	Upper fill of ditch 173	10					++	<1	No		
181	19	Fill of pit 180	10					+	<1	No		
186	17	Fill of ditch 186	5					+	<1	No		
190	16	Fill of posthole 189	1					+	<1	No		
197	21	Fill of ditch 196	1					+	<1	No		
201	20	Garden soil	10		+			+	<1	Yes	The cereal grain is very abraded	

Key: + = rare (1-5), ++ = occasional (6-15), +++ = common (16-50) and ++++ = abundant (>50)
NB charcoal over 1cm is suitable for identification and AMS dating

Table 3 - LBFE12 - Hand collected bone assessment

Context Number	Descriptive interpretation	No of Bags	Condition	Weight	Large mammal frag no	Medium mammal frag no	Small animal	Comments
117	Fill of Geotechnical pit- redeposited	1	Good but fragmented	226g	1			Cow scapula? With butchery marks
108	Backfill within brick Structure 109	3	Good	48g		9	11	5 small mammal ribs, 5 small mammal bones bird? 4 fish vertebrae, 2 fish bones
177	Garden soil	2	Good but fragmented	1710g	7			Scapula, 3 longbones, 1 rib (possibly all from same large mammal)
91	Made ground	1	Good very fragmentary	1g				Very small fragment of burnt bone

Appendix 3 – Finds Catalogue

Context	Sample	Quantity	Weight (g)	Material	Object	Description	Spot Date	Period
U/S		2		Clay Pipe	Bowl & Stem	plain bowl in two sherds, stem stamped 'Christie / Leith'	19th/e.20th	Mod
4		1		Copper Alloy	Washer	small		
4		4		Glass	Bottle	green sherds	19th	Mod
4		1		Glass	Window	small rim sherd		
4		5	23	Industrial Waste	Glass Waste	various molten fragments, pale blue to green		
4		4	38	Industrial Waste	Slag?	slaggy lumps		
4		1		Leather	Strap			
4		1		Pottery (Mod)	Whiteware	blue trans printed	19th	Mod
8		1		CBM	Wall tile	heavy white glazed rectangular tile		
8		1		CBM	Brick	corner sherd of frogged brick		
8		2		CBM	Drain Pipe	large stoneware pie sherds		
8		1		Iron	Object	large rectangular plate with offset flange at one edge		
12		3	11	Coke	Coke	lumps		
12		1		Copper Alloy	Strip	thick strip, wedge shaped section,		
12		12		Glass	Bottle	Various sherds, blue, natural, green, moulded bottles	L.19th/e.20th	Mod
12		18	1973	Industrial Waste	Slag?	light slaggy lumps, some quite large		
12		4		Iron	Nails			
12		1		Iron	Bracket	U-shaped		

Context	Sample	Quantity	Weight (g)	Material	Object	Description	Spot Date	Period
						bracket for holding piping		
12		2		Leather	Straps			
12		1		Metal	Strip	thin strip		
12		2		Pottery (Mod)	Various	stoneware bottle rim, willow pattern plate sherd	19th/e.20th	Mod
13		31		Glass	Bottle	including 22 green bottle bases, 5 marked '6 to the gallon', one marked 'J & C Cockburn, Edinburgh, two smaller (half bottle?) bases, all moulded. Also one egg bottle, another natural bottle base and one with embossed lettering '(?Coc?)hrane ?ast & ...'	c.1820/e.20th	Mod
13		19	398	Industrial Waste	Slag?	light slaggy lumps		
13		2	3	Industrial Waste	Glass Waste	small blue lumps		
13		2		Pottery (Mod)	Various	stoneware sherd from large jar/flagon, whiteware jar sherd	19th/e.20th	Mod
14		4		CBM	Pan Tile	large sherds		
14		1		Glass	Bottle	rim, hand applied string rim	19th?	Mod
14		6		Iron	Strips	large wide strip pieces		
14		2		Iron	Bolts	large bolts		
14		2		Pottery (Mod)	SLRE	two large sherds from same slip lined dairy bowl, glazed brown on exterior, pale yellow on	19th/e.20th	Mod

Context	Sample	Quantity	Weight (g)	Material	Object	Description	Spot Date	Period
						interior		
20		1		Pottery (Mod)	Stoneware	base and body of stoneware blacking bottle, stamped '10 J.B.D.'	19th/e.20th	Mod
21		1		Stone	Disc	Slate disc, roughly pecked into circle. Pot lid?		
35		1		Copper Alloy	Coin	Corroded coin, detail not clear, diam 26mm. Probably Victorian halfpenny		
36		7		CBM	Pan Tile	large sherds		
36		5		Glass	Bottle	green bottle bases and rim, all moulded	L.19th/e.20th	Mod
36		1		Iron	Bracket	L-shape bracket with looped corner		
36		7		Pottery (Mod)	Various	SLRE bowl rim; BGR jar base, stoneware two-tone bottle sherd; whiteware heavy rim, chamber pot trim, saucer; trans printed plate sherd	19th/e.20th	Mod
49		1		Copper Alloy	Washer	small		
60		4		CBM	Pan Tile	large sherds		
60		2		Pottery (Mod)	Whiteware	moulded vessel	19th/20th	Mod
65		8		CBM	Pan Tile	small sherds		
65		1		Glass	Bottle	green sherd	19th/20th	Mod
91		1		Clay Pipe	Stem	narrow bore	19th/e.20th	Mod
91		2		Copper Alloy	Wire	twisted wire, with remains of coating, small loop of wire		
91		1		Copper	Washer	wide ring		

Context	Sample	Quantity	Weight (g)	Material	Object	Description	Spot Date	Period
				Alloy				
91		1		Copper Alloy	Collar			
91		7		Glass	Bottle	various bottles, sherds from hand finished green bottles, natural and clear bottles, blob top.	L.18th- L.19th/e.20th	Mod
91		1		Glass	Funnel/Alembic	bowl narrowing to hollow stem, stem ground down at one end, so possibly used as instrument of some kind	19th/20th	Mod
91		20	1727	Industrial Waste	Slag?	light slaggy lumps, some quite large		
91		7		Iron	Nails			
91		2		Iron	Washer			
91		1		Iron	Ring	wide thin ring in three pieces		
91		1		Iron	Wall Hook			
91		5		Iron	Strips			
91		1		Iron	Rod			
91		11		Leather	Straps			
91		2		Leather	Objects	cut out perforated shapes of uncertain function		
91				Leather & Textile	Object	lump of tangled leather and textile		
91		1		Metal	Plate	Rectangular plate of lightweight white metal		
91		1		Pottery (Mod)	Stoneware	yellow glazed bottle rim	19th	Mod
108		2		CBM	Pan Tile	small sherds		
108		1		Clay Pipe	Stem	narrow bore	19th/e.20th	Mod
108		1		Glass	Window	clear sherd		
108		4		Glass	Bottle	green wine bottles, 2	c.1820/e.20th	Mod

Context	Sample	Quantity	Weight (g)	Material	Object	Description	Spot Date	Period
						bases, 1 rim, moulded, unusual string rim		
108		4	405	Industrial Waste	Slag?	glassy slaggy lumps		
108		1		Iron	Object	T-shaped object		
108		1		Iron	Horseshoe	half of very large horseshoe with calkined heel, covered in thick corrosion products		
108		2		Iron	Nails			
108		1		Metal	Strip	twisted strip in white metal		
108		2		Pottery (Mod)	Various	creamware rim; transfer printed handle sherd	L.18th/m.19th	Mod
109	8	2		CBM	Brick	two half bricks, one extruded, the other vitrified on one side and covered in industrial waste		
117		1		CBM	Pan Tile	small sherd		
139		2		Clay Pipe	Stems	one narrow bore, one wide with partial stamped heel	17th-e.20th	PM-Mod
139		1		Copper Alloy	Strip	tapering		
139		1		Copper Alloy	Nail			
139		20		Glass	Window	various sherds including bulls eye from piece of crown glass	18th/19th	Mod
139		1		Glass	Vessel	heavy base from colourless tumbler	20th	Mod
139		2		Glass	Bottle	green sherds	19th/20th	Mod
139		3	456	Industrial Waste	Slag?	light slaggy lumps		

Context	Sample	Quantity	Weight (g)	Material	Object	Description	Spot Date	Period
139		6		Iron	Bolts	various large bolts		
139		1		Iron	Spike			
139		1		Iron	Collar	large		
139		1		Iron	Bracket	L-shaped		
139		1		Iron	Bar	large bar with flanges at either end, poss bracket?		
139		2		Iron	Plates	rectangular and irregular		
139		36		Iron	Nails			
139		10		Pottery (Mod)	Various	Creamware sherds; stoneware bottle sherd, blue glazed sherd with white handle, unglazed moulded white stoneware (int glaze only); BGRS sherd; large red earthenware rim sherds from large flower pot?	19th	Mod
143		2		Pottery (PM)	PMO	jar sherds	17th/e.18th	PM
146	9		1	Industrial Waste	Mag Res			
146	9		2	Industrial Waste	Slag?	fragments		
146	9	1		Pottery (Medi)	WG	small abraded sherd	12th/15th	Medi
148		1		Pottery (Mod)	Hand Painted Pearlware	Earth colours, floral design	1790-1830	Mod
163		1	34	Coal	Coal			
163		1		Glass	Window	small clear sherd, laminating		
163				Iron	Bar	thick square sectioned bar		
163				Iron	Lid	large cast iron lid or man hole cover, four large sherds found,		

Context	Sample	Quantity	Weight (g)	Material	Object	Description	Spot Date	Period
						most covered in voluminous corrosion products. Cover at least 400mm wide, 12mm thick possibly square. Sample only of smallest best preserved sherd kept. Surface featureless		
163		1		Pottery (Mod)	Stoneware	large heavy lid rim sherd		
167		1		Clay Pipe	Stem	narrow bore, ground down to form secondary mouthpiece	19th/e.20th	Mod
174	15	1		Glass	Window	fragment		
174	15		7	Industrial Waste	Slag?	fragments		
174	15		1	Industrial Waste	Mag Res			
174		4		Pottery (Medi)	WG	jug & CP sherds, one reduced grey sherd	c.14th?	Medi
174	15	2		Pottery (PM)	PMR/PMO	small fragments	17th/m.18th	PM
176		1		Pottery (PM)	PMR	jug sherd	15th/16th	Medi/PM
177		4		Pottery (Medi-PM)	WG/RW	various small sherds, redware glazed red-brown	12th/15th	Medi
179		3		Pottery (Medi)	WG	two joining sherds from int yellow glazed CP	12th/13th	Medi
181	19	1		Glass	Vessel	rim		
181		1		Glass	Bottle	thin colourless sherd	20th	Mod
181	19		2	Industrial Waste	Slag?	fragments		
181	19		1	Industrial Waste	Mag Res			

Context	Sample	Quantity	Weight (g)	Material	Object	Description	Spot Date	Period
181	19	1		Stone	Bead	black ovoid bead, polished black stone		
181		1		Pottery (Medi)	WG	CP sherd?	12th/14th	Medi
186	17		2	Industrial Waste	Slag?	fragments		
186	17		1	Industrial Waste	Mag Res			
190	16		0	Industrial Waste	Mag Res			
190	16		2	Industrial Waste	Slag?	fragments		
190		1		Pottery (Medi)	WG	part reduced sherd	12th/15th	Medi
192		2		Pottery (PM)	PMO	jug rim and sherd	16th	PM
197	21		1	Industrial Waste	Slag?	fragments		
197	21	1		Metal	Wire?	small U-shaped wire		
201	20		0	Industrial Waste	Mag Res			
201	20		3	Industrial Waste	Slag?	fragments		
201	20	1		Pottery (PM)	PMR	small jug sherd	16th	PM
204		2		Pottery (Medi)	WG/RW	small jug sherds	13th/15th	Medi

Appendix 4 – Discovery and Excavation in Scotland entry

LOCAL AUTHORITY:	Edinburgh
PROJECT TITLE/SITE NAME:	Excavation at 19 West Tollcross Edinburgh
PROJECT CODE:	LBFE12
PARISH:	City of Edinburgh
NAME OF CONTRIBUTOR:	Laura Bailey
NAME OF ORGANISATION:	Headland Archaeology UK Ltd
TYPE(S) OF PROJECT:	Excavation
NMRS NO(S):	None
SITE/MONUMENT TYPE(S):	None
SIGNIFICANT FINDS:	Medieval pottery
NGR (2 letters, 8 or 10 figures)	NT 2466 7276
START DATE (this season)	November 2012
END DATE (this season)	January 2013
PREVIOUS WORK (incl. DES ref.)	Barber, J, Thompson, L & Rankin, D (2002), Trickett, P & Toolis R (2005), Wilson (2005).
MAIN (NARRATIVE) DESCRIPTION: (May include information from other fields)	<p><i>Headland Archaeology (UK) Ltd undertook a programme of archaeological works on a site at Lochrin Place, 19 West Tollcross, Edinburgh. The work was required to meet a planning condition placed on a proposed student accommodation development. Historical map evidence shows that the development area lies to the north of the site of the former Lochrin basin and overlies buildings dating from the mid 19th century which included structures associated with the Distillery, Brewery and Iron Foundry. Excavation revealed that wall foundations, floor surfaces and machine bases of the various phases of buildings survive intact although the site had been heavily truncated in the central area.</i></p> <p><i>A considerable depth of garden soil was encountered at a depth of 3.7m beneath the existing ground surface. The gardens shown on early 19th century maps of the site could give rise to these conditions. Two deposits of buried horticultural soil were visible; the upper deposit contained pottery dating to the 17th to early 18th century. The underlying deposit was lighter and contained pottery dating from the 12th to 15th Century. A large ditch pits and postholes were cut through the earlier garden soil.</i></p>
PROPOSED FUTURE WORK:	
CAPTION(S) FOR ILLUSTRS:	

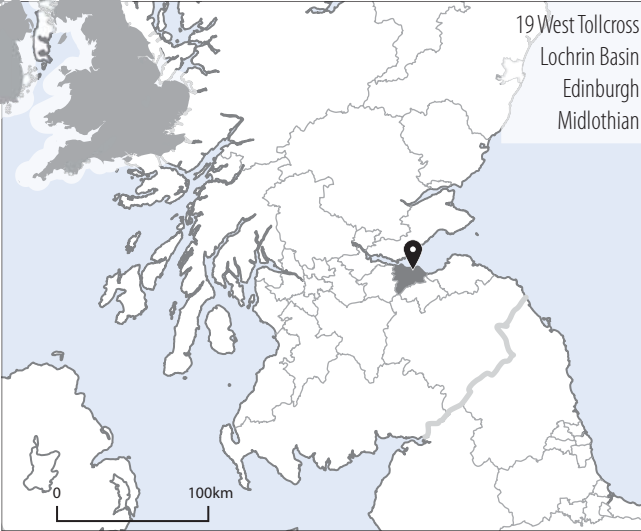
SPONSOR OR FUNDING BODY: Watkin Jones Group Ltd

ADDRESS OF MAIN CONTRIBUTOR: 13 Jane Street, Edinburgh EH6 5HE Scotland

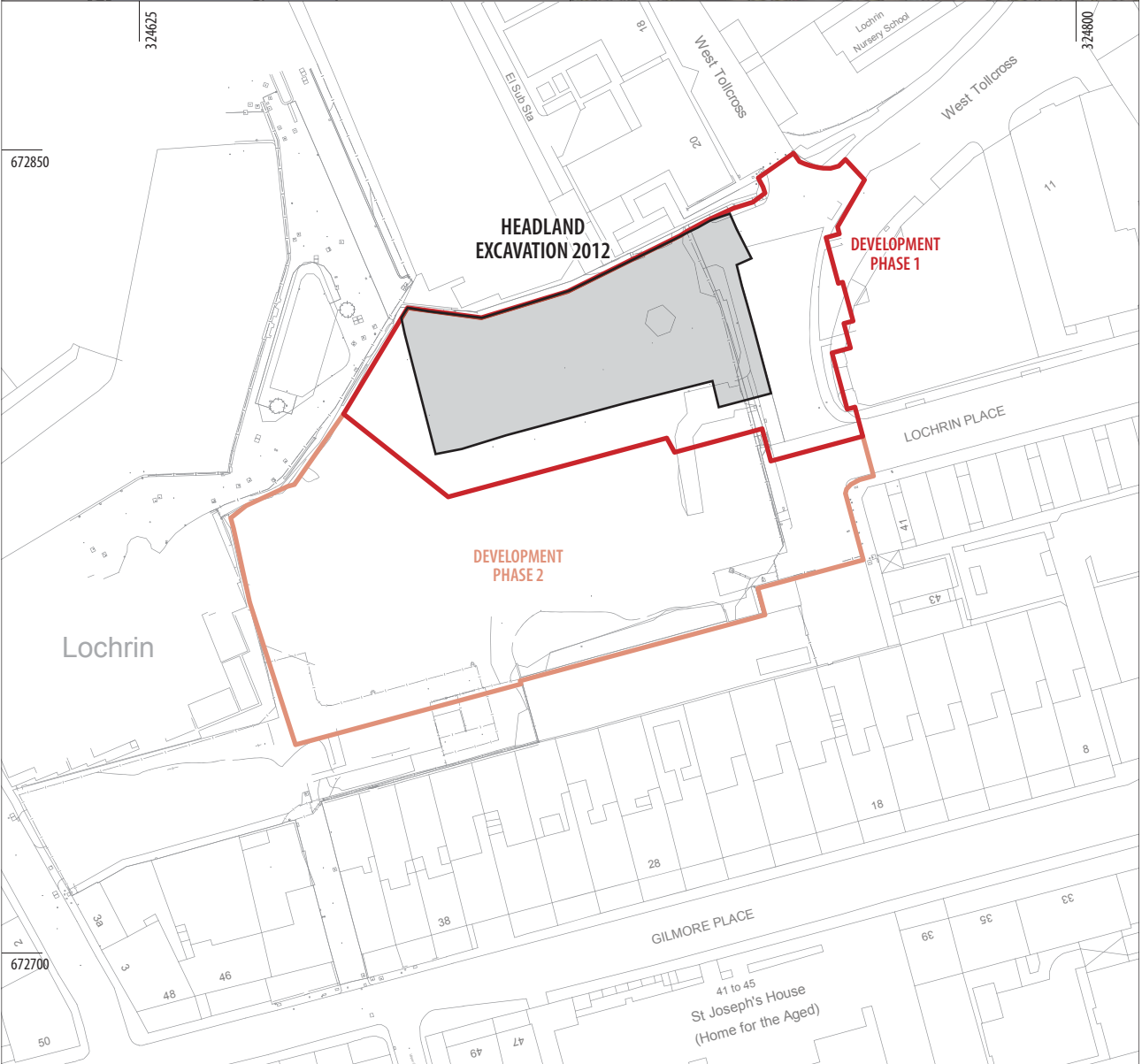
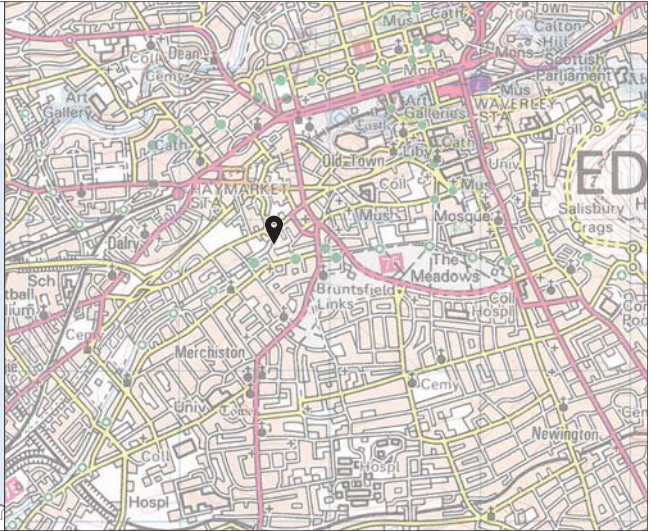
EMAIL ADDRESS: laura.bailey@headlandarchaeology.com

ARCHIVE LOCATION (intended/deposited) NMRS

Appendix 5: Illustrations



19 West Tollcross
Lochrin Basin
Edinburgh
Midlothian

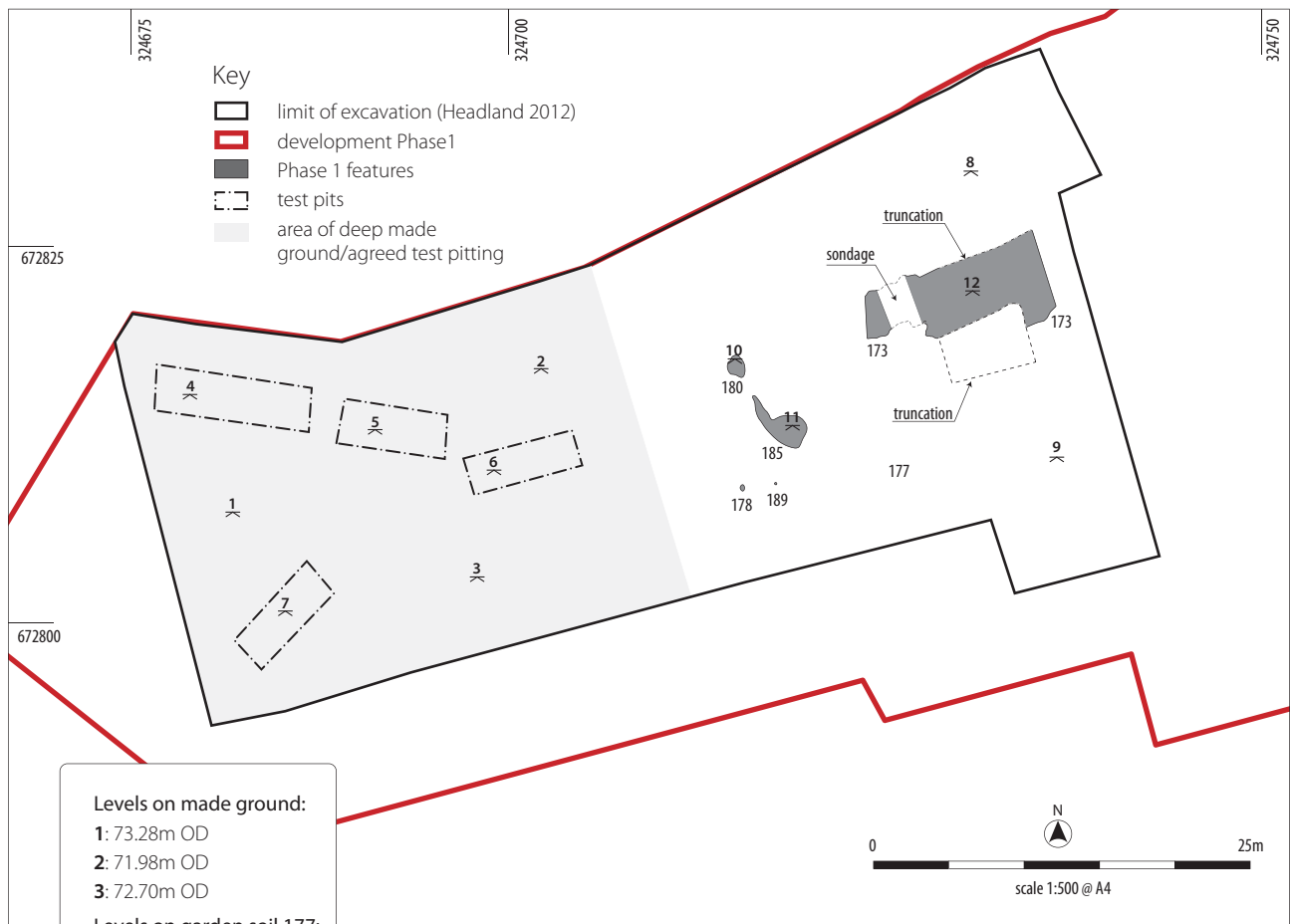


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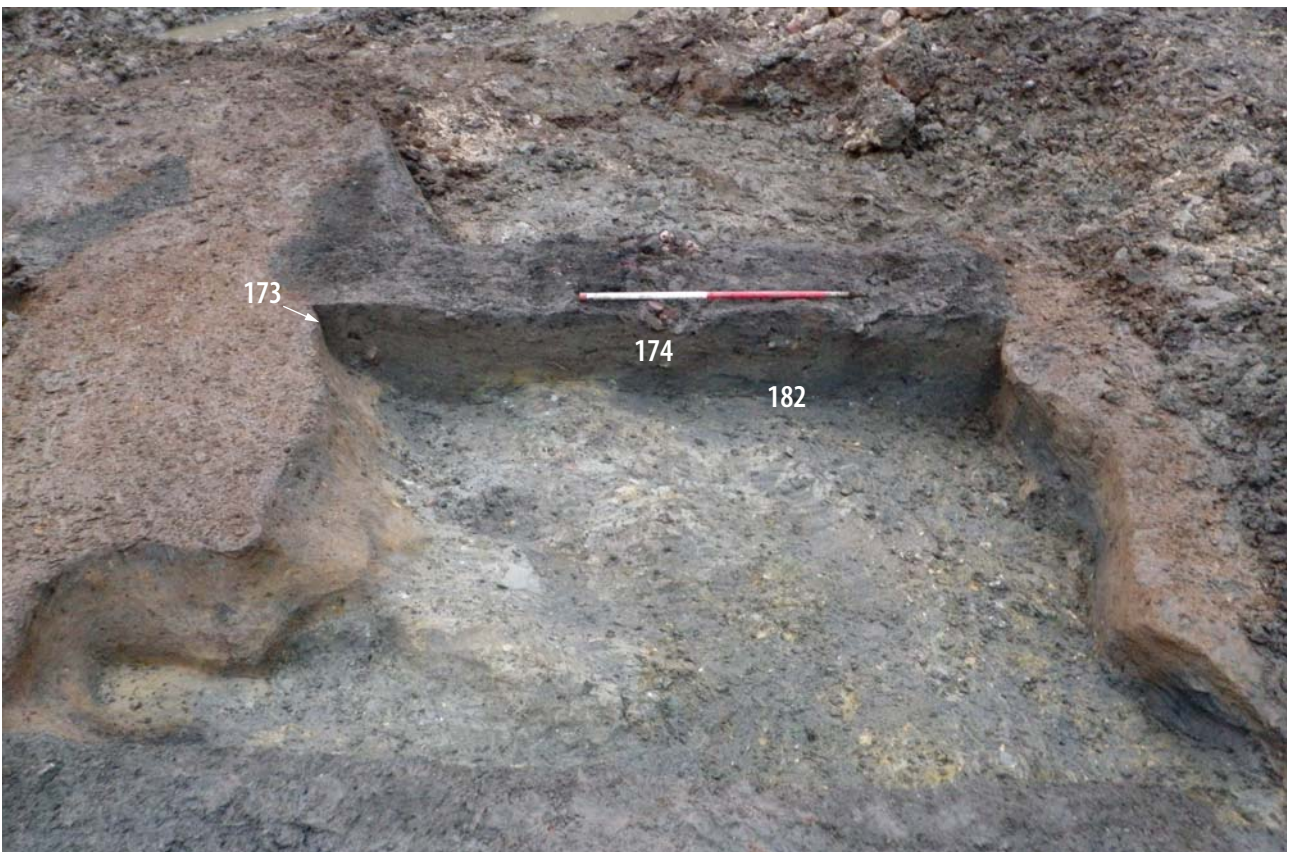
Illus 1
Site location plan



Illus 2
Phase 1 - features



Illus 3a
Ditch [173], from east



Illus 3b
Ditch [173] - east facing section, from east



Illus 4

Posthole [178], from east



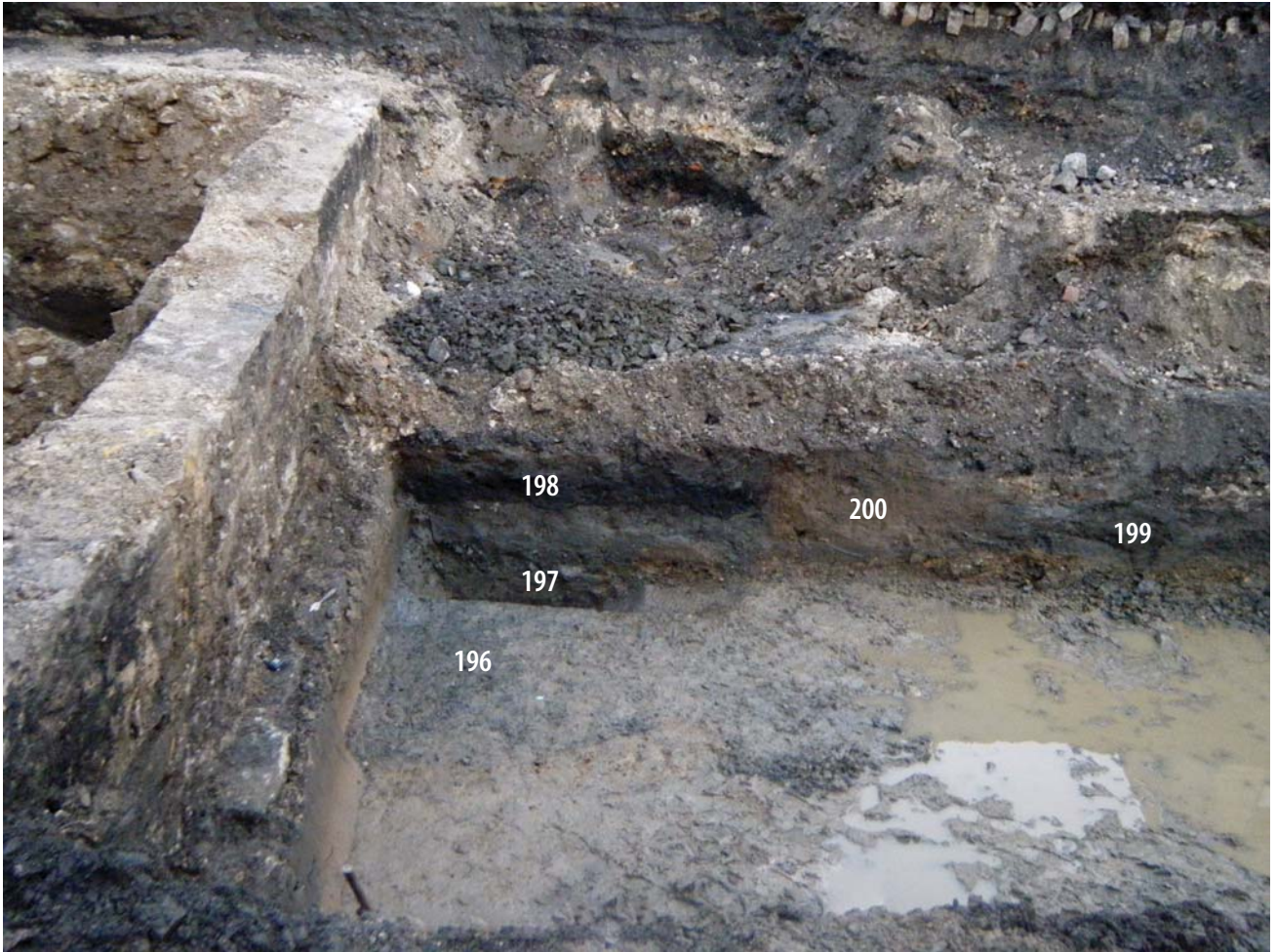
Illus 5

Pit [180], from north



Illus 6

Pit [185], from south



Illus 7
Pits 199 & 196, from south-west

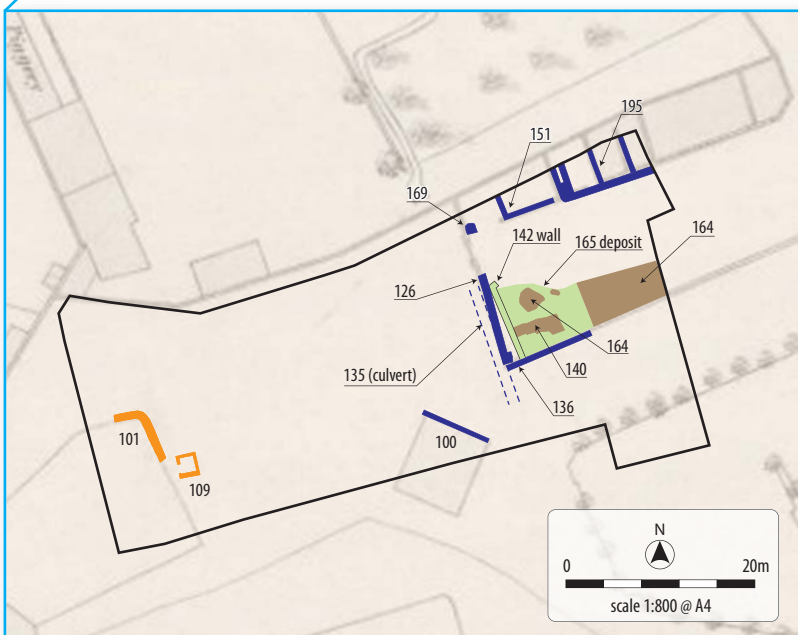
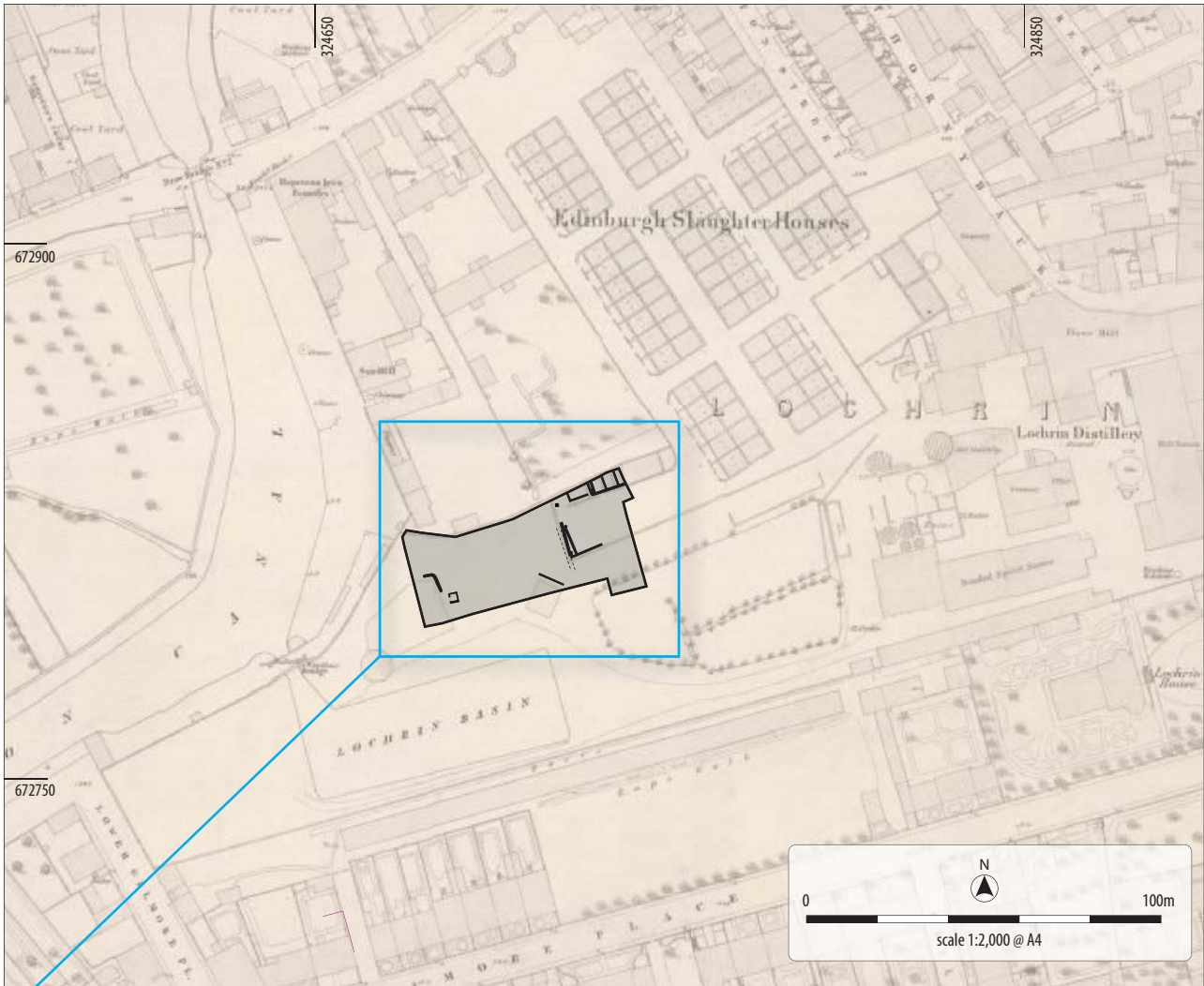


Illus 8
 Phase 2








Illus 9

Wood-lined drains [154], from north



Key

-  limit of excavation (Headland 2012)
-  Phase 3
-  wooden floor remains - Phase 3
-  Phase 4 walls
-  Phase 5 walls

Illus 10

Phase 3 – 5, features overlain on 1853 Ordnance Survey 1st Edition map



Illus 11

Wooden floor (140) remains & wall [142], from east



Illus 12

Building [101] & structure [109], from north



Illus 13

Building [195], from east



Illus 14

Building [151], floor [167] and structure [161], from west



Illus 15

Walls [126] & [136], from south-east



Illus 16

Phase 6 features overlain on 1877 Ordnance Survey map



Illus 17

Structure [080] detail, from west



Illus 18

Features [005] [080], [068], [122] and floor surface (125), from north-west



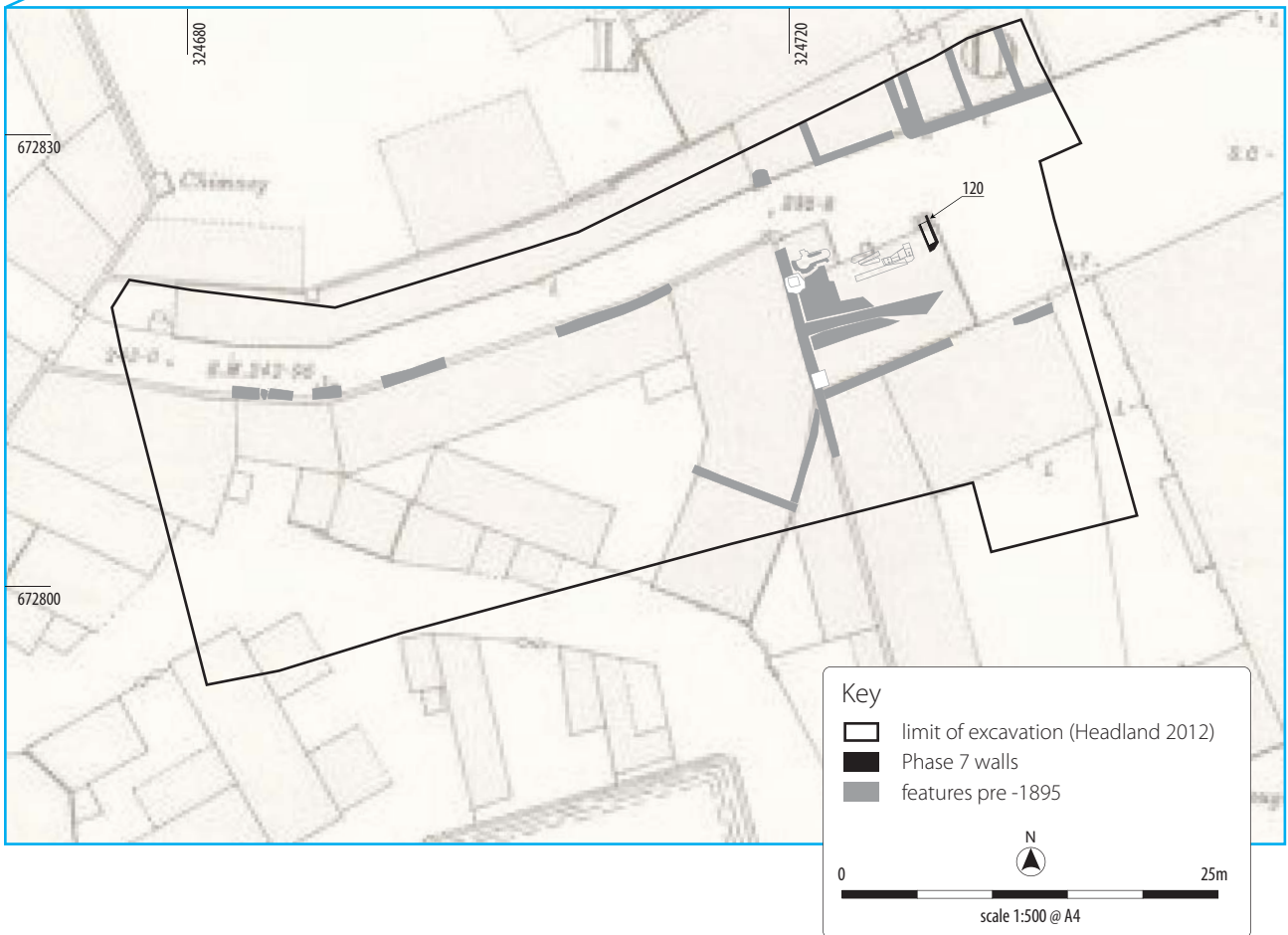
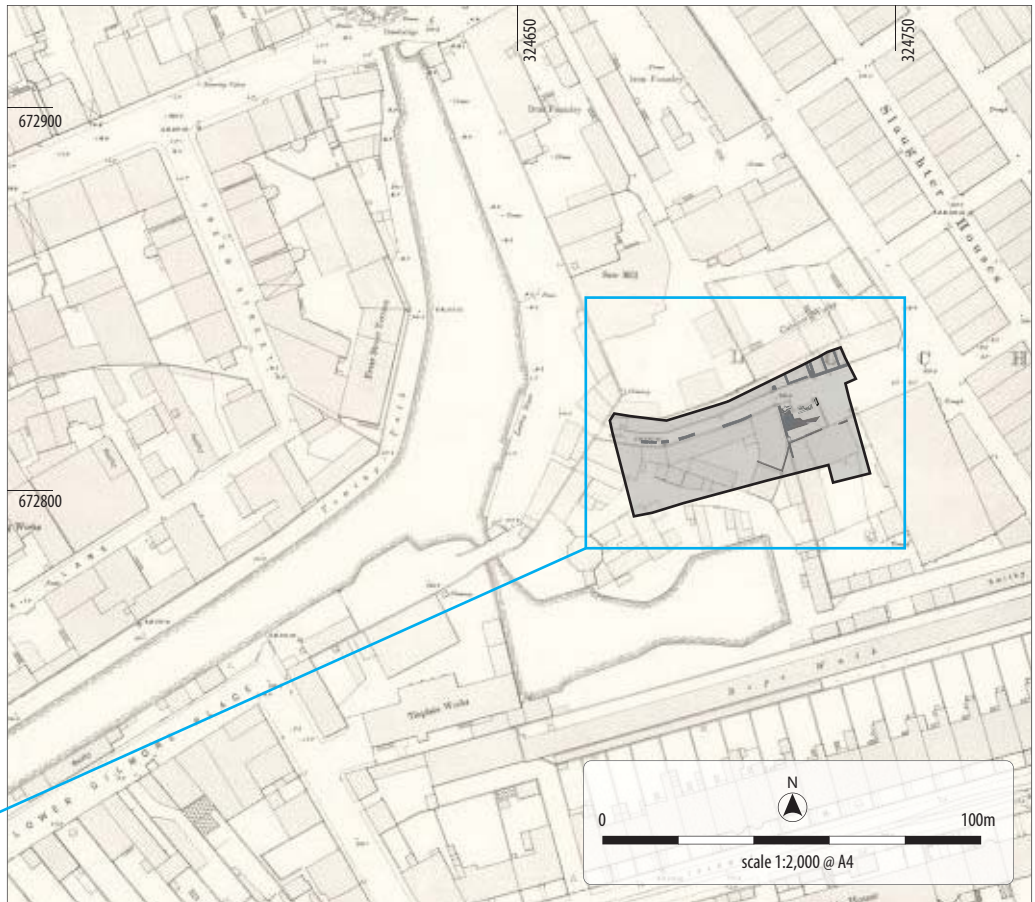
Illus 19

Machine base [122], from north



Illus 20

Structures [102] & [104], from east



Illus 21

Phase 7, features overlain on 1895 Ordnance Survey map



Illus 22

Flue [120], from south



Illus 23

Phase 8, features overlain on 1908 Ordnance Survey map



Illus 24

Structure [011] and tip lines, from south



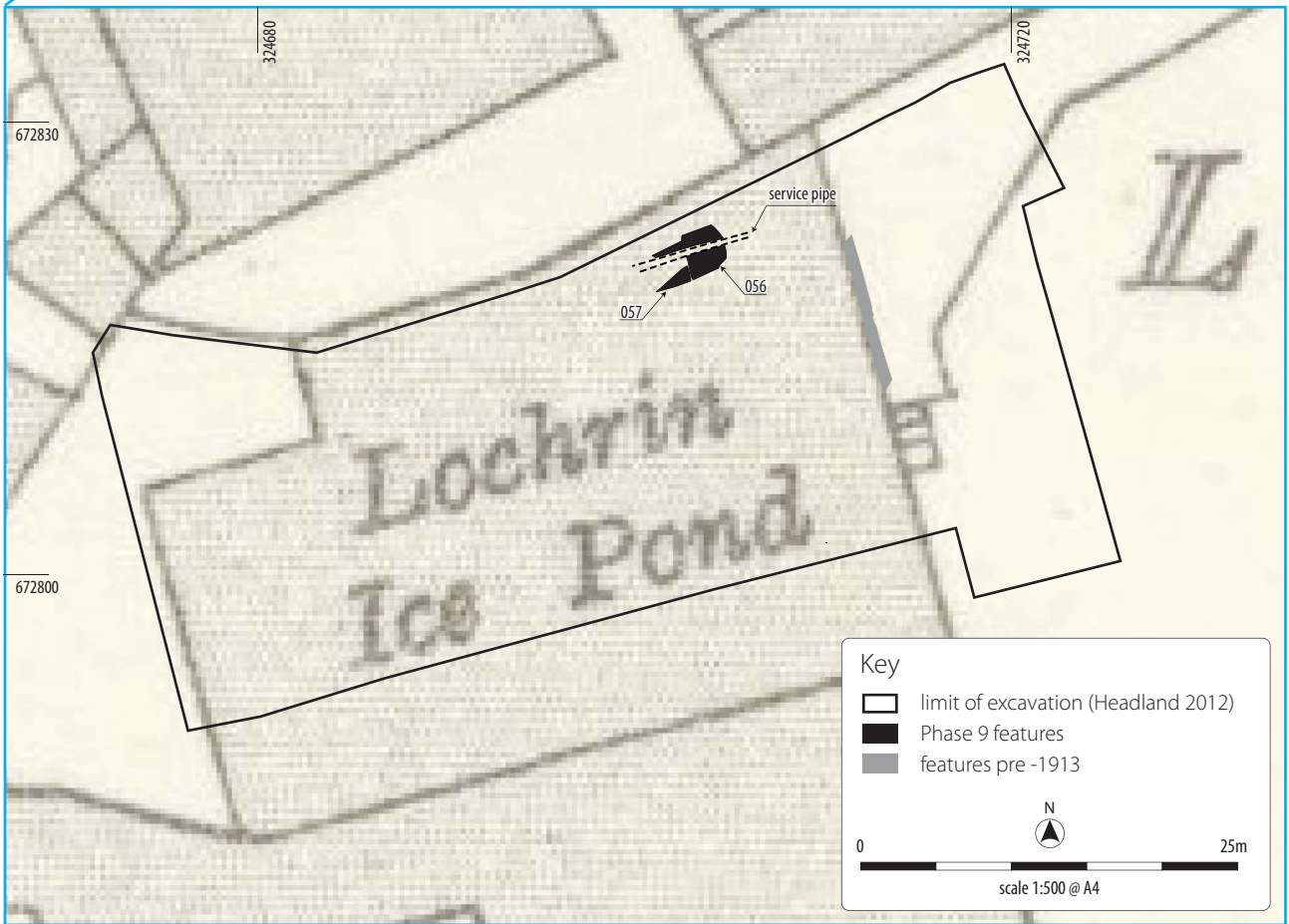
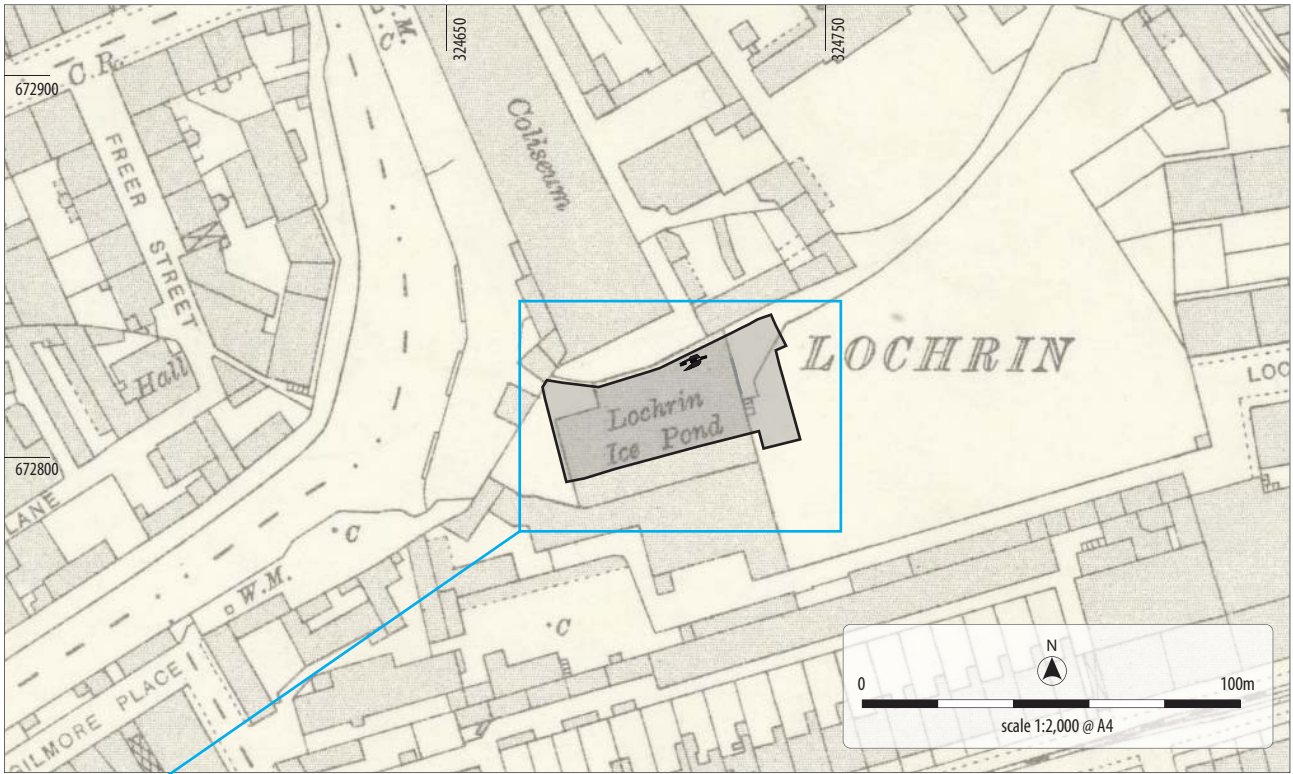
Illus 25

Mid excavation, looking south, western cell is unexcavated, from north

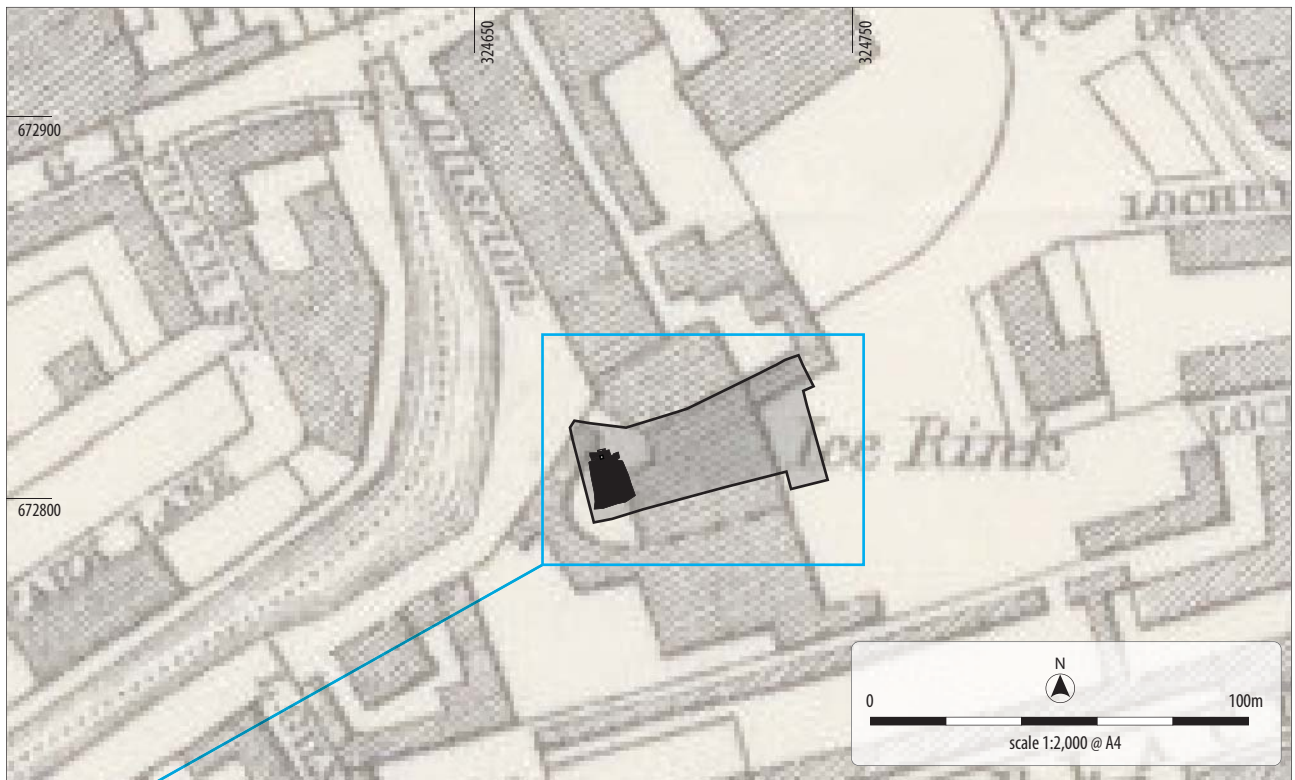


Illus 26

Tip lines visible in western area of site, from north



Illus 27
Phase 9, features overlain on 1913 Ordnance Survey map



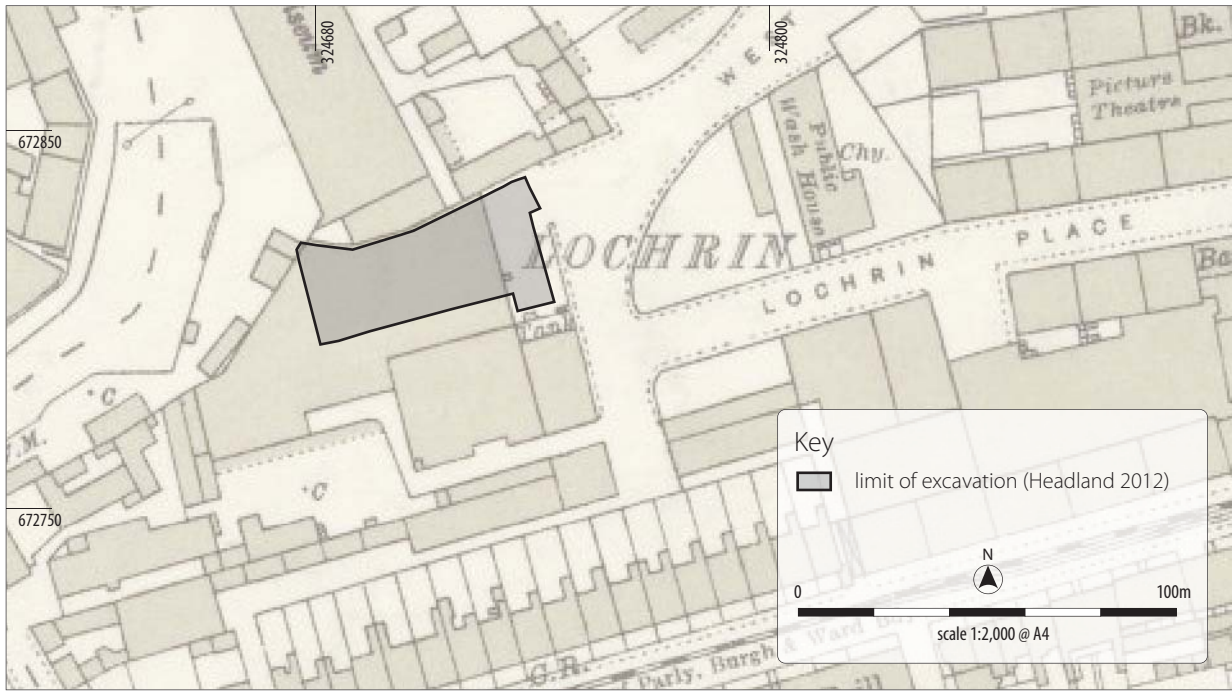
Illus 28

Phase 10, features overlain on Batholomew's 1917 map

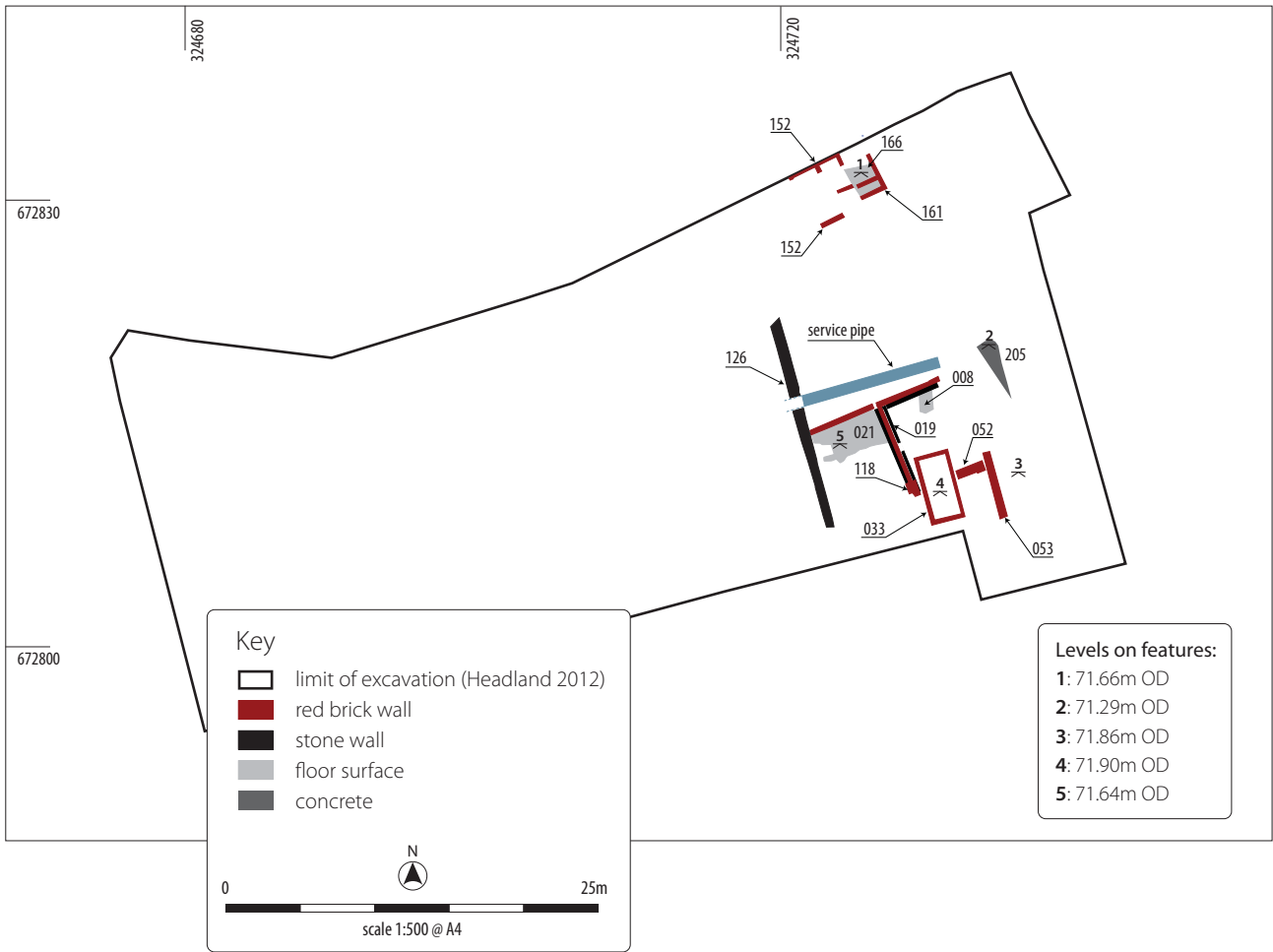


Illus 29

Cobbled area (082), from north-west



Illus 30
1933 Ordnance Survey map



Illus 31

Phase 11, Structures relating to garage



Illus 32

Structure [161], from north-east



Illus 33

Wall [152], from south



Illus 34

Walls [018] and brick tank [033] detail, from north



Illus 35

Brick structure [033] and wall [052] detail, from east



Illus 36

Deposit (031)- western side of site, from north



Illus 37
Possible alembic stem